

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
ALBANIA																		
Albpetrol—Ballshi.....	17,800	4,500	² 12,000	....	....	3,500	....	17,400	....	....	600	....	700	....	6.5	700	60	....
Fieri.....	8,500	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	26,300	10,500	12,000	0	0	3,500	0	17,400	0	0	600	0	700	0	6.5	700	60	0
ALGERIA																		
Naftec SPA—Algiers.....	60,000	....	....	....	....	¹ 15,000	....	¹ 14,400	....	....	....	....	....	....	....	....	....	....
Arzew.....	60,000	5,447	....	....	....	¹ 11,500	....	¹ 7,380	....	....	....	....	....	....	....	....	....	....
								¹ 3,470										
Hassi-Messaoud.....	30,000	....	....	....	....	¹ 2,400	....	¹ 2,700	....	....	....	....	....	....	....	....	....	....
Skikda.....	300,000	5,447	....	....	....	¹ 60,000	....	¹ 54,000	....	....	....	....	....	....	....	....	....	....
Total	450,000	10,894	0	0	0	88,900	0	81,950	0	0	0	0	0	0	0.0	0	0	0
ANGOLA																		
Fina Petroleos de Angola—Luanda.....	39,000	2,500	....	....	....	¹ 1,900	....	¹ 3,800	....	....	....	....	....	....	....	....	....	950
								2,800										
Total	39,000	2,500	0	0	0	1,900	0	6,600	0	0	0	0	0	0	0.0	0	0	950
ARGENTINA																		
Destileria Argentina de Petroleo SA—Dock Sud.....	4,000	1,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lomas de Zamora.....	8,000	1,300	....	....	....	....	....	....	....	....	....	....	900	....	....	....	....	600
Eso SA Petrolera Argentina—Campana.....	84,500	48,000	² 24,000	....	¹ 26,000	¹ 11,000	....	¹ 10,000	....	....	....	....	....	....	....	1,000	....	....
								³ 7,500										
								⁷ 14,000										
Petroleo Brasileiro SA— Bahia Blanca.....	28,975	11,875	....	² 3,420	¹ 7,110	¹ 5,400	....	² 7,920	....	....	....	³ 2,700	....	....	....	....	....	....
Refineria San Lorenzo SA—San Lorenzo.....	37,600	16,100	....	¹ 3,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....
				² 12,500														
Refinor SA— Campo Duran.....	32,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Repsol YPF SA— La Plata.....	189,000	67,000	¹ 40,000	....	¹ 68,000	¹ 12,000	....	¹ 12,000	....	....	....	³ 9,000	5,500	....	....	1,500	30	8,300
								² 20,400										
								⁵ 18,900										
								¹ 15,400										
Lujan de Cuyo.....	120,000	65,000	¹ 40,000	....	¹ 41,500	¹ 9,500	^c 121,000	¹ 11,600	23,150	....	....	³ 3,500	....	¹ 1,000	¹ 18.0	1,550	30	....
								⁵ 16,000										
Plaza Huincul.....	25,000	....	....	....	....	¹ 3,000	....	¹ 3,000	....	....	....	....	....	....	....	....	....	....
Shell Cia. Argentina de Petroleo SA— Buenos Aires.....	110,000	38,500	³ 6,500	² 18,900	¹ 26,000	¹ 17,900	....	² 18,200	² 1,700	¹ 500	....	....	1,500	....	....	....	....	4,200
								⁷ 500										
Total	639,075	248,775	110,500	38,320	168,610	58,800	21,000	152,420	4,850	500	0	15,200	7,900	1,000	18.0	4,050	60	13,100
ARUBA																		
Coastal Aruba Refining Co. NV—San Nicolas.....	280,000	160,000	² 64,000	² 48,000	....	....	^m 60,000	⁷ 130,000	....	....	....	....	....	....	² 95.0	4,000	300	1,000
								⁶ 65,000										
Total	280,000	160,000	64,000	48,000	0	0	60,000	195,000	0	0	0	0	0	0	95.0	4,000	300	1,000

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
AUSTRALIA																				
BP PLC— Bulwer Island*	85,500	34,200	....	....	120,700	112,600	15,300	111,700 32,400	22,700	....	....	....	1,800	....	26.0	....	35	1,980
Kwinana*	132,050	20,900	....	....	131,500	321,600	....	139,600 521,600	23,600	12,100	....	113,500	3,650	....	....	....	70	2,000
Caltex Refineries (NSW) Ltd.—Kurnell	105,500	....	....	....	136,157	326,000	....	12,600 59,600	23,300	11,600	....	8,200	....	....	....	....	....	....
Lytton	105,500	....	....	....	136,160	326,000	....	126,000 139,600	23,300	11,600	....	38,200	....	....	550.2 77.0	....	....	....
Inland Oil Refiners (Qld.) Pty. Ltd.—Eromanga	1,425	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
ExxonMobil Refining & Supply Co.—Altona	130,000	83,500	....	....	128,500	136,000	....	151,000 56,500	13,000	....	....	....	....	....	....	....	7	3,000
Shell Refining (Australia) Pty. Ltd.—Clyde	85,000	21,000	....	....	135,000	320,000	....	37,000 7,000	23,000	12,100	....	....	....	....	....	....	....	3,000
Geelong	110,000	10,000	....	....	140,000	111,000 320,000	....	54,000 14,000 134,000 3,000	24,500	12,700	....	38,000	2,800	....	....	....	....	3,000
Total	754,975	169,600	0	0	228,017	173,200	15,300	329,600	23,400	10,100	0	37,900	8,250	0	83.2	0	112	12,980		
AUSTRIA																				
OMV AG—Schwechat	208,600	65,000	....	216,875	126,250	132,725	....	146,400 24,800 37,300 38,300 12,600	....	....	....	314,400	....	11,600	....	....	180	1,470
Total	208,600	65,000	0	16,875	26,250	32,725	0	139,400	0	0	0	14,400	0	1,600	0.0	0	180	1,470		
AZERBAIJAN																				
Azneftiyag—Baku	238,978	66,157	....	....	....	....	....	....	....	....	....	....	16,200	....	....	....	....	5,000
Azneftyanajag— New Baku	160,000	71,043	238,529	....	157,750	324,466	....	125,300 842,192	1930	....	....	....	....	....	....	1,400	....	....
Total	398,978	137,200	38,529	0	57,750	24,466	0	67,492	930	0	0	0	16,200	0	0.0	1,400	0	5,000		
BAHRAIN																				
Bahrain Petroleum Co.— Sitra*	248,900	189,810	....	219,800	141,400	110,800	m148,600	116,200 623,400	....	13,330	....	....	....	....	134.0	....	190	6,570
Total	248,900	189,810	0	19,800	41,400	10,800	48,600	39,600	0	3,330	0	0	0	0	34.0	0	190	6,570		
BANGLADESH																				
Eastern Refinery Ltd.— Chittagong	33,000	4,000	....	210,000	....	11,800	m11,200	12,000	....	....	....	....	....	....	11.0 41.0	....	....	....
Total	33,000	4,000	0	10,000	0	1,800	1,200	2,000	0	0	0	0	0	0	2.0	0	0	0		
BELARUS																				
P.O. Naftan Refinery— Novopolotsk	170,000	50,000	....	230,000	....	144,000	....	134,500 115,000	....	....	12,785	34,500	3,760	....	17.6 57.6	....	....	....
Slavneft—Mozyr	323,323	55,800	....	224,000	....	124,000 324,000	130,000	150,600 62,000	....	....	....	....	....	....	14.0	....	85	9,630
Total	493,323	105,800	0	54,000	0	92,000	30,000	262,100	0	0	2,785	4,500	3,760	0	19.2	0	85	9,630		

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
BELGIUM																		
AB Nynas Petroleum NV—Antwerp	21,000	21,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	14,000
Belgian Refining Corp. NV—Antwerp	109,013	54,625	....	² 20,300	....	² 9,900	....	⁹ 85,540	....	....	....	³ 2,250	....	....	....	....	97	....
ExxonMobil Refining & Supply Co.—Antwerp	265,000	128,000	....	....	¹ 34,000	² 35,000	....	¹ 67,000 ⁴ 44,000 ⁵ 57,000 ⁸ 86,000	¹ 7,500	....	....	....	....	....	¹ 44.0	....	355	3,100
Fina Raffinaderij Antwerpen—Antwerp	308,000	96,000	....	² 43,000	¹ 79,500	³ 52,000	....	² 86,300 ⁷ 5,000 ¹⁰ 70,000	² 6,700	....	....	....	....	¹ 4,500	....	....	650	11,300
Petroplus—Antwerp	90,000	....	....	....	....	¹ 1,400	....	² 22,000 ¹ 1,000	....	....	....	....	....	....	....	....	30	....
Total	793,013	299,625	0	63,300	113,500	98,300	0	603,840	14,200	0	0	2,250	0	4,500	44.0	0	1,132	28,400
BOLIVIA																		
Empresa Boliviana de Refinacion—																		
Cochabamba	40,000	1,800	....	....	....	¹ 8,160	....	¹ 8,160	....	....	....	....	750	....	....	....	....	232
Santa Cruz de la Sierra	20,000	....	....	....	....	¹ 6,400	....	¹ 6,400	....	....	....	....	....	....	....	....	....	....
Repsol-YPF—Sucre	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	63,000	1,800	0	0	0	14,560	0	14,560	0	0	0	0	750	0	0.0	0	0	232
BRAZIL																		
Petroleo Brasileiro SA—																		
Araucaria, Parana	180,945	89,869	....	....	¹ 53,904	....	....	....	....	....	....	....	....	....	....	....	70	5,000
Betim, Minas Gerais	144,756	77,203	² 22,265	....	¹ 40,269	....	....	⁴ 10,547 ⁵ 15,234 ¹² 10,547	....	....	....	....	....	....	8.0	1,062	73	6,000
Canoas, Rio Grande do Sul	180,945	33,173	....	....	¹ 18,163	....	....	....	....	....	....	....	....	....	....	....	22	2,600
Capuava, Maua, Sao Paulo	51,268	....	....	....	¹ 17,578	....	....	....	....	....	....	....	....	....	....	....	9	....
Cubatao, Sao Paulo	162,851	77,806	² 31,054	....	¹ 55,662	¹ 10,254	....	⁸ 29,249	² 3,145	....	....	....	....	¹ 1,580	30.0	1,481	70	....
Duque de Caxias, Rio de Janeiro	232,213	112,186	....	....	¹ 43,944	¹ 11,132	....	⁵ 32,225 ⁸ 29,921	....	....	....	....	13,712	¹ 1,140	10.0	....	62	2,300
Fortaleza, Ceara .....	....	6,032	....	....	....	....	....	....	....	....	....	....	1,076	....	1.0	....	....	3,500
Manaus, Amazonas	44,030	6,635	....	....	¹ 2,930	....	....	....	....	....	....	....	....	....	....	....	103	1,100
Mataripe, Bahia	293,734	126,058	....	....	¹ 87,888	....	....	....	....	....	....	....	5,221	....	1.0	....	72	2,300
Paulinia, Sao Paulo	350,824	155,010	² 32,811	....	¹ 93,747	....	....	⁵ 29,296	....	....	....	....	....	¹ 1,900	28.0	1,565	106	4,000
Sao Jose dos Campos, Sao Paulo	241,536	120,768	....	....	¹ 82,029	....	....	⁴ 38,085 ⁵ 17,578 ¹² 20,507	....	....	....	....	....	¹ 1,400	10.0	....	173	2,600
Refinaria de Petroleo Ipiranga SA—																		
Rio Grande do Sul	17,000	5,000	....	....	¹ 3,400	....	....	....	....	....	....	....	....	....	....	....	....	....
Refinaria de Petroleos de Manguinhos SA—																		
Rio de Janeiro	14,000	....	....	¹ 3,800 ² 6,000	....	¹ 3,000	....	¹ 3,000	....	....	....	....	....	....	....	....	....	....
Total	1,914,102	809,740	86,130	9,800	499,514	24,386	0	236,189	3,145	0	0	0	20,009	6,020	88.0	4,108	760	29,400

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
BRUNEI																		
Brunei Shell Petroleum Co. Sdn. Bhd.—Seria.....	8,600	.....	.....	.....	.....	15,700	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	8,600	0	0	0	0	5,700	0	0	0	0	0	0	0	0	0.0	0	0	0
BULGARIA																		
Neftochim—Burgas.....	115,240	49,900	.....	120,600	123,300	14,060	.....	17,600 32,600 30,700 23,300	12,600	.....	12,000	.....	.....	1790	18.4 51.9	.....	63	1,500
Total	115,240	49,900	0	20,600	23,300	4,060	0	64,200	2,600	0	2,000	0	0	790	10.3	0	63	1,500
CAMEROON																		
Societe Nationale de Raffinage— Cape Limboh Limbe.....	42,000	.....	.....	.....	.....	47,000	.....	19,500 10,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	42,000	0	0	0	0	7,000	0	20,000	0	0	0	0	0	0	0.0	0	0	0
CANADA																		
Alberta																		
Husky Oil Operations Ltd.—Lloydminster.....	25,000	15,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,000
Imperial Oil—Edmonton	187,200	66,100	.....	.....	154,625	120,900	.....	250,400 722,800 129,450	215,700	.....	.....	16,600	2,600	.....	.....	.....	43	10,400
Parkland Refining Ltd.—Bowden	6,000	.....	.....	.....	.....	12,800	.....	12,800 22,800	.....	.....	.....	32,800	.....	.....	.....	.....	.....	.....
Petro-Canada Products Ltd.—Edmonton.....	125,200	27,000	27,500	.....	134,300	115,300	118,700	78,000	212,600	.....	.....	13,100 312,000	.....	.....	130.8	371	56	.....
Shell Canada Ltd.— Scotford.....	97,900	.....	.....	.....	.....	321,500	140,500	221,500 421,000	.....	.....	15,300 3270	.....	.....	.....	.....	.....	11	.....
Total	441,300	108,100	7,500	0	88,925	60,500	59,200	158,750	28,300	0	5,570	24,500	2,600	0	30.8	371	110	22,400
British Columbia																		
ChevronTexaco Corp.— Burnaby	52,000	11,000	.....	.....	118,000	110,000	.....	110,000 25,000	13,000	12,000	.....	310,000	.....	.....	.....	.....	15	2,000
Husky Oil Operations Ltd.—Prince George.....	10,250	.....	.....	.....	13,300	11,600	.....	514,000	.....	.....	.....	3900	.....	.....	.....	.....	7	.....
Total	62,250	11,000	0	0	21,300	11,600	0	29,000	3,000	2,000	0	10,900	0	0	0.0	0	22	2,000
New Brunswick																		
Irving Oil Ltd.— St. John	250,000	100,000	.....	220,000	195,000	135,000	134,000	148,000 314,000 430,000	116,000	.....	.....	110,000	.....	.....	147.0	.....	200	.....
Total	250,000	100,000	0	20,000	95,000	35,000	34,000	92,000	16,000	0	0	10,000	0	0	47.0	0	200	0
Newfoundland																		
North Atlantic Refining Ltd.—Come By Chance	105,000	52,250	.....	216,200	.....	123,400	131,500	218,900 16,200	.....	.....	.....	.....	.....	.....	166.0	.....	200	.....
Total	105,000	52,250	0	16,200	0	23,400	31,500	35,100	0	0	0	0	0	0	66.0	0	200	0

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Nova Scotia																		
Imperial Oil—Dartmouth.....	82,200	42,150	....	....	129,100	110,500	....	110,500 216,725 414,375 720,150	....	14,200	....	....	....	....	....	....	90	1,400
Total.....	82,200	42,150	0	0	29,100	10,500	0	61,750	0	4,200	0	0	0	0	0.0	0	90	1,400
Ontario																		
Imperial Oil—Nanticoke.....	112,000	47,500	....	....	147,500	330,400	....	128,500 528,500 711,800 1242,750	111,875	....	....	....	....	....	....	....	100	4,300
Sarnia	120,800	30,800	123,300	....	126,030	117,100 216,800	117,480	512,200 720,700 115,900 1353,000	....	....	15,550	....	5,000	....	127.4 527.4 625.1	850	170	....
Nova Chemicals (Canada)																		
Ltd.—Corunna.....	80,000	33,000	....	167,000	....	....	....	1317,000	....	....	110,200	....	....	....	....	....	....	....
Petro-Canada Products																		
Ltd.—Mississauga .....	....	....	....	....	....	39,000	310,300	110,300	....	....	....	....	11,700	....	113.3	....	41	....
Oakville.....	83,000	38,100	....	....	125,400	111,600	....	113,300 56,500	13,300	....	....	37,100	....	....	....	....	44	15,100
Shell Canada Ltd.—Sarnia.....	71,400	24,700	....	24,050	114,400	121,000	16,750	115,000 66,300	....	11,600	12,700	....	....	....	....	....	55	....
Suncor Energy																		
Products—Sarnia.....	78,000	17,600	....	26,700	217,000	125,600	124,100	125,000 46,500	25,500	....	110,200	....	....	....	141.0	....	52	3,500
Total.....	545,200	191,700	23,300	77,750	130,330	131,500	58,630	302,250	20,675	1,600	28,650	7,100	16,700	0	134.2	850	462	22,900
Quebec																		
Petro-Canada Products																		
Ltd.—Montreal.....	105,000	42,300	....	112,600	127,100	130,200	123,600 417,100	125,700 510,500	12,700	1800	19,800 24,100	....	....	....	143.7	....	....	24,800
Shell Canada Ltd.—																		
Montreal	129,900	49,500	....	212,000	124,000	120,700	111,700	234,200 427,000	22,500	....	....	36,800	3,060	....	....	....	....	7,200
Valero Energy Corp.—																		
St. Romuald	215,000	45,000	....	....	160,000	119,000	....	121,000 220,200 525,000	....	15,200	....	319,700	....	....	....	....	50	24,000
Total.....	449,900	136,800	0	24,600	111,100	69,900	32,400	163,600	5,200	6,000	13,900	26,500	3,060	0	43.7	0	50	56,000
Saskatchewan																		
Consumers' Cooperative																		
Refineries Ltd.—Regina	52,000	25,000	29,000	....	119,000	19,500	116,000 230,000	110,000 24,300 58,500	....	12,200	....	34,000	....	....	160.0 430.0	385	270	....
Total.....	52,000	25,000	9,000	0	19,000	9,500	46,000	22,800	0	2,200	0	4,000	0	0	90.0	385	270	0
CHILE																		
ENAP—Gregorio-																		
Magallanes.....	9,859	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petrox SA—																		
Talcahuano.....	100,640	46,320	....	1810 210,000	120,757	24,497	129,000	24,497	....	....	....	....	....	....	....	....	....	....
Refineria de Petroleo																		
Concon SA—Concon.....	94,350	47,000	....	210,000	131,500	112,000	110,000	112,000	11,100	....	....	1400 35,000	....	....	....	....	30	10,000
Total.....	204,849	93,320	0	20,810	52,257	16,497	19,000	16,497	1,100	0	0	5,400	0	0	0.0	0	30	10,000

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	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
CHINA																		
China National Petroleum																		
Corp.—Anshan.....	50,200	....	....	....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Dalian.....	142,600	....	....	....	70,000	3,000	....	6,000	22,000	....	....	....	6,000	....	....	....	....	....
Dandong.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Daqing.....	70,300	....	213,000	....	14,000	4,000	8,000	12,000	21,000	....	....	....	10,000	....	....	325	....	....
	120,500	....	313,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dushanzi.....	120,500	....	28,000	....	12,000	6,000	....	8,000	....	....	....	....	2,000	....	....	450	....	....
		....	36,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fushun.....	184,800	....	235,000	....	66,000	23,000	8,000	5,000	13,000	....	....	....	1,000	....	....	825	....	....
Golmud.....	20,000	....	....	....	....	3,000	....	3,000	....	....	....	....	....	....	....	....	....	....
Harbin.....	30,000	....	31,000	....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Heilongjiang.....	7,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	7,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Huhhot.....	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jilin.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	90,400	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jinxi.....	100,400	....	31,000	....	24,000	3,000	....	5,000	....	....	....	....	4,000	....	....	....	....	....
Jinzhou.....	110,500	....	220,000	....	16,000	6,000	....	8,000	....	....	....	....	....	....	....	500	....	....
Karamay.....	66,300	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lanzhou.....	110,500	....	315,000	....	24,000	2,000	....	3,000	11,000	....	....	....	7,000	....	....	....	....	....
	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Liaohu.....	50,200	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Liaoning.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Liaoyang.....	80,300	....	....	....	....	3,000	....	1,000	....	....	....	....	....	....	....	....	....	....
Linyuan.....	50,200	....	....	....	17,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Qianguo.....	50,200	....	....	....	24,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Qinghai.....	27,100	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shaanxi.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sichuan.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Urumqi.....	50,200	....	28,000	....	16,000	3,000	....	....	....	....	....	....	....	....	....	200	....	....
Xianyang.....	50,200	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yanchang.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yumen.....	80,300	....	....	....	....	6,000	....	3,000	....	....	....	....	....	....	....	....	....	....
Zepu.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sinopec—Anqing.....	56,200	....	28,000	....	24,000	....	....	4,000	21,000	....	....	....	....	....	....	225	....	....
Baling.....	100,400	....	212,000	....	50,000	3,000	....	22,000	12,000	....	....	....	....	....	....	300	....	....
Baoding.....	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Beihai.....	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Binzhou.....	8,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Boxing.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cangzhou.....	20,000	....	....	....	9,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Changyi.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dagang.....	60,200	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dongming.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fujian.....	80,300	....	....	....	16,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Gaoqiao.....	150,600	....	310,000	....	38,000	4,000	....	2,000	21,000	....	....	....	6,000	....	....	....	....	....
Guangrao.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Guangzhou.....	104,400	....	320,000	....	44,000	8,000	....	20,000	21,000	....	....	....	....	....	....	....	....	....
Hangzhou.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Henan.....	2,400	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Huabei.....	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Jiangnan.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jianhu.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jinan.....	80,300	....	....	....	22,000	....	....	4,000	....	....	....	....	1,000	....	....	....	....	....
.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jingmen.....	100,400	....	28,000	....	20,000	3,000	8,000	14,000	....	....	....	....	2,000	....	....	270	....	....
Jinling.....	140,600	....	212,000	....	44,000	3,000	16,000	3,000	21,000	....	....	....	....	....	....	490	....	....
.....	.....	.....	316,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jiujiang.....	50,200	....	38,000	....	24,000	3,000	....	8,000	....	....	....	....	....	....	....	....	....	....
Kenli.....	8,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lijin.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Linyo.....	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Luoyang.....	100,400	....	....	....	40,000	14,000	....	16,000	22,000	....	....	....	....	....	....	....	....	....
.....	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Maoming.....	170,700	....	212,000	....	32,000	3,000	16,000	216,000	21,000	....	....	....	5,000	....	....	400	....	....
.....	.....	.....	312,000	.....	.....	.....	.....	422,800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nandagang.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nanyang.....	12,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qilu.....	160,700	....	216,000	....	46,000	3,000	42,000	22,000	13,000	....	....	....	....	....	....	400	....	....
Qingdao.....	50,200	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
.....	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shanghai.....	106,400	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shengli.....	50,200	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shijiazhuang.....	50,200	....	....	....	24,000	....	....	....	21,000	....	....	....	....	....	....	....	....	....
Shouguang.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Taizhou.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tianjin.....	120,500	....	....	....	35,000	4,000	....	....	21,000	....	....	....	....	....	....	....	....	....
Wuhan.....	50,200	....	38,000	....	20,000	....	....	....	21,000	....	....	....	....	....	....	....	....	....
Wuxi.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Xi'an.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yan'an.....	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yancheng.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yangzhou.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yangzi.....	120,500	....	320,000	....	....	21,000	24,000	....	....	....	....	....	....	....	....	....	....	....
Yanshan.....	190,800	....	....	....	48,000	3,000	....	5,000	21,000	....	....	....	5,000	....	....	....	....	....
Yongping.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Zhanjiang.....	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Zhenhai.....	342,000	....	224,000	....	28,000	9,000	....	857,600	21,000	....	....	....	....	....	....	200	....	....
Zhongjie.....	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Zhongyuan.....	26,100	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
West Pacific Petrochemical Corp.— Dalian.....	100,000	40,000	....	....	37,000	114,000	....	17,000 24,000 19,000 1035,000	12,500	....	....	....	....	1900	....	....	300	....
Total.....	4,528,100	40,000	306,000	0	892,000	157,000	122,000	355,400	26,500	0	0	0	49,000	900	0.0	4,585	300	0
CHINA, TAIWAN																		
Chinese Petroleum Corp.—Kaohsiung.....	270,000	75,500	215,000	....	125,000	215,000	....	220,000 825,000 1030,000	....	....	114,000	310,000	....	33,616	....	2,722	900	12,120
Ta-Lin.....	300,000	....	....	....	125,000	355,000	....	1060,000	....	....	....	310,000	5,300	....	....	....	250	....
Tao-Yuan.....	200,000	36,000	....	....	....	220,000	....	1045,000	....	....	....	36,000	....	....	452.0	....	595	....
.....	.....	.....	.....	.....	.....	325,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Formosa Petrochemical Co.—Mailiao.....	150,000	....	....	....	173,000	....	....	763,000 1070,000	....	....	....	....	....	14,500	190.0	....	....	....
Total.....	920,000	111,500	15,000	0	123,000	115,000	0	313,000	0	0	14,000	26,000	5,300	8,116	142.0	2,722	1,745	12,120

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
COLOMBIA																		
Empresa Colombiana de Petroleos—Aplay	2,250	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Barrancabermeja- Santander	205,000	101,000	....	233,000	164,000	....	....	819,800	12,100	....	11,600 3600	....	1,400	....	118.0	....	....	....
Cartagena, Bolivar	75,000	40,000	...	219,000	126,000	....	....	....	....	12,100	....	....	....	....	....	....	....	....
Orito, Putumayo	1,800	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tibu, N. de Santander	1,800	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	285,850	141,000	0	52,000	90,000	0	0	19,800	2,100	2,100	2,200	0	1,400	0	18.0	0	0	0
CONGO, BRAZZAVILLE																		
Coraf—Pointe-Noire	21,000	8,000	....	....	....	12,000	12,000	3,500	....	....	....	....	....	....	....	....	....	....
Total	21,000	8,000	0	0	0	2,000	2,000	3,500	0	0	0	0	0	0	0.0	0	0	0
COSTA RICA																		
Refinadora Costarricense de Petroleo SA—Limon	15,000	600	....	16,500	....	11,200	....	2,000	....	....	....	....	....	....	....	....	....	....
Total	15,000	600	0	6,500	0	1,200	0	2,000	0	0	0	0	0	0	0.0	0	0	0
CROATIA																		
Ina-Industrija Nafta d.d.— Rijeka	90,000	34,000	....	212,000	110,000	115,000	m111,000	115,000 25,000	....	....	....	35,000	....	....	....	....	50	....
Sisak	80,000	16,000	25,000	....	110,000	115,000	....	115,000 55,700	....	....	....	....	....	....	....	200	....	....
Zagreb	80,337	37,044	....	211,525	121,000	119,914	....	524,780	....	....	19,438	....	470	....	....	....	63	....
Total	250,337	87,044	5,000	23,525	41,000	49,914	11,000	85,480	0	0	9,438	5,000	470	0	0.0	200	113	0
CUBA																		
Cuba Petroleos— Cienfuegos	76,000	....	....	....	....	17,500	....	17,700	....	....	....	....	....	....	....	....	....	....
Ermonos Dias, Santiago	101,500	37,500	....	....	....	17,500	....	17,700 22,000	....	....	....	....	....	....	5.0	....	....	540
Niko Lopes, Habana	121,800	38,200	....	....	114,700	15,000	....	15,250 13,200	....	....	....	....	....	....	....	....	....	540
Serhio Soto, Cabaiguan	2,100	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	301,400	75,700	0	0	14,700	20,000	0	55,850	0	0	0	0	0	0	5.0	0	0	1,080
CYPRUS																		
Cyprus Petroleum Refinery Ltd.—Larnaca	27,000	2,600	....	....	....	15,100	....	11,000	....	....	....	....	....	....	....	....	....	1,400
Total	27,000	2,600	0	0	0	5,100	0	11,000	0	0	0	0	0	0	0.0	0	0	1,400
CZECH REPUBLIC																		
Czech Refining Co.— Kralupy	68,000	13,500	....	....	126,000 127,740	19,440	....	117,400 46,700 516,500 124,500	....	....	....	24,300	....	12,300	a28.5	....	24	....
Litvinov	110,000	50,200	....	215,700	....	19,400 39,300	c125,000 c37,300	122,100 46,800 526,600	....	....	1670	32,300	....	....	a23.0	....	185	8,800
Koramo Kolin—Kolin	....	....	....	....	....	....	....	....	....	....	....	....	2,500	....	....	....	....	....
Paramo AS—Pardubice	20,000	7,000	....	....	....	....	....	6,000	....	....	....	....	300	....	....	....	....	3,000
Total	198,000	70,700	0	15,700	53,740	28,140	32,300	106,600	0	0	670	6,600	2,800	2,300	31.5	0	209	11,800

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
DENMARK																		
AS Dansk Shell— Fredericia.....	70,000	....	....	¹ 25,000	....	¹ 12,900	....	² 22,500	....	....	....	³ 6,000	....	....	....	....	....	....
Dansk Statoil AS— Kalundborg	106,400	22,000	....	² 28,000	....	¹ 8,600	....	¹ 8,600	....	....	....	....	....	....	....	....	....	8,000
								⁷ 11,400										
Total	176,400	22,000	0	53,000	0	21,500	0	42,500	0	0	0	6,000	0	0	0.0	0	0	8,000
DOMINICAN REPUBLIC																		
Falconbridge Dominicana C por A—Bonao.....	16,000	....	....	....	....	....	....	² 6,213	....	....	....	....	....	....	² 0.6	....	....	....
Refineria Dominicana de Petroleo SA—Haina.....	32,300	....	....	....	....	¹ 7,560	....	¹ 14,670	....	....	....	....	....	....	....	....	....	....
Total	48,300	0	0	0	0	7,560	0	20,883	0	0	0	0	0	0	0.6	0	0	0
ECUADOR																		
Petroecuador— Esmeraldas.....	110,000	45,300	....	² 31,500	¹ 18,000	¹ 2,800	....	⁹ 24,500	....	....	....	....	....	....	....	....	....	....
						³ 10,000												
La Libertad	46,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shushufindi.....	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	176,000	45,300	0	31,500	18,000	12,800	0	24,500	0	0	0	0	0	0	0.0	0	0	0
EGYPT																		
Alexandria Petroleum Co.—Alexandria (El-Mex)	100,000	22,500	....	....	....	....	....	¹ 1,436	....	....	¹ 603	....	1,436	....	¹ 1.0	1	....	2,010
								¹ 21,000			² 281							
Ameriya Petroleum Refining Co.— Alexandria	78,000	15,000	....	....	....	¹ 12,000	....	² 14,000	² 9,000	....	¹ 700	....	2,000	....	² 4.0	....	....	....
								4,000										
								7,000										
								10,000										
								¹ 3700										
								¹ 11,800										
Assiut Petroleum Refining Co.—Assiut.....	47,000	....	....	....	....	³ 7,000	....	....	....	....	....	....	....	....	....	....	....	....
Cairo Petroleum Refining Co.—Mostorod.....	145,000	....	....	....	....	¹ 9,000	....	¹ 11,700	....	....	....	....	....	....	....	....	....	....
								14,400										
Tanta	35,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El-Nasr Petroleum Co.—El-Suez.....	146,300	....	....	....	....	....	....	¹ 32,000	....	....	....	....	....	....	....	....	....	2,613
Wadi-Feran.....	8,550	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Middle East Oil Refinery—Alexandria	100,000	48,200	² 22,800	....	....	³ 21,700	¹ 33,500	¹ 32,400	....	....	....	³ 10,700	....	....	¹ 54.0	1,060	290	....
								⁵ 28,600										
Suez Petroleum Processing Co.—El-Suez.....	66,400	9,500	² 16,470	....	....	¹ 12,540	....	¹ 16,660	....	....	....	....	1,005	....	⁷ 3.5	540	....	....
								10,800										
								¹ 11,306										
Total	726,250	95,200	39,270	0	0	62,240	33,500	207,802	9,000	0	1,584	10,700	4,441	0	62.5	1,601	290	4,623

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
EL SALVADOR																				
Esso Caribbean and Central America— Acajutla.....	22,000	2,000	....	....	....	13,200	....	15,000 43,000 77,000	....	....	....	....	....	....	....	....	....	....
Total.....	22,000	2,000	0	0	0	3,200	0	15,000	0	0	0	0	0	0	0.0	0	0	0		
ERITREA																				
Petroleum Corp. of Eritrea—Assab.....	14,564	2,219	....	....	....	11,465	....	82,742	....	....	....	....	....	....	....	....	....	....
Total.....	14,564	2,219	0	0	0	1,465	0	2,742	0	0	0	0	0	0	0.0	0	0	0		
FINLAND																				
Fortum Oil and Gas Oy—Naantali.....	51,800	28,100	....	27,380	212,900	36,930	....	18,100 44,320 516,200 86,030 124,500	....	1540	....	....	....	....	....	....	60	5,700
Porvoo.....	200,000	70,100	....	123,400	138,100	337,500	119,400	160,400 562,900 840,500	26,980	....	....	....	4,000	12,560 32,590	120.0	....	360	....	
Total.....	251,800	98,200	0	30,780	51,000	44,430	19,400	202,950	6,980	540	0	0	4,000	5,150	20.0	0	420	5,700		
FRANCE																				
BP PLC—Lavera.....	207,100	72,200	....	221,600	127,900	110,800	116,200	225,200 48,600	....	....	....	315,300	....	....	130.0	....	....	13,500
Cie. Rhenane de Raffinage— Reichstett-Vendenheim*.....	79,800	30,600	....	215,300	112,600	111,700	....	218,900 18,900	....	....	....	....	....	....	....	....	....	7,200
ExxonMobil Refining & Supply Co.— Dunkirk.....	....	21,000	....	....	....	....	....	114,300	....	....	....	....	6,400	....	....	....	....	....
Fos sur Mer.....	119,000	38,000	....	....	128,000	121,000	....	134,000 422,000 551,000	....	....	....	....	....	....	....	....	110	....	
Port Jerome/NDG.....	233,000	101,000	....	....	134,000	131,000	....	131,000 228,000 434,000 573,000 116,500	17,000	....	....	38,500	17,400	....	67.5	....	220	6,900
Ste. des Petroles Shell— Berre l'Etaing.....	82,000	52,000	....	....	134,000	119,000	....	237,000	....	....	....	....	....	....	....	....	....	6,000
Petit Couronne.....	141,000	76,000	....	212,000	120,000	128,000	....	248,000	....	....	....	....	6,200	....	110.0	....	....	11,000
Total SA—Donges.....	213,057	115,753	....	232,730	148,153	111,706	....	148,069 574,587 537,149	25,100	....	....	34,205	....	....	....	....	170	....	
Dunkirk ^N	160,304	39,562	....	....	142,927	126,612	....	147,412	....	....	....	314,401	....	21,562	....	....	105	....	
Feyzin.....	117,313	41,433	....	215,035	127,916	19,877	....	114,190 22,185 840,407	14,427	....	....	....	....	21,915	....	....	110	....	
Gonfreville l'Orcher ^N	342,914	91,660	....	220,448	144,749	157,783	....	1104,787 438,374 580,647 1113,146	....	12,773 23,031	14,101	319,792	8,372	21,355	....	....	227	....	

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Grandpuits	97,037	48,280	....	² 13,695	129,080	113,366	....	129,357 ⁵ 33,635	² 3,884	....	....	....	....	....	....	160	....	....
La Mede ^N	158,823	67,180	....	² 18,938	¹ 34,896	127,577	....	¹ 38,440 ⁵ 80,226	² 4,053	....	¹ 1,558	² 23,325	....	....	....	....	200	3,743
Total	1,951,348	794,668	0	149,746	384,221	291,896	16,200	1,163,011	24,464	5,804	5,659	85,523	38,372	4,832	47.5	160	1,142	48,343
GABON																		
Ste. Gabonaise de Raffinage— Port Gentil	17,300	....	....	17,200	....	11,400	....	5,000	....	....	....	....	....	....	....	....	....	....
Total	17,300	0	0	7,200	0	1,400	0	5,000	0	0	0	0	0	0	0.0	0	0	0
GEORGIA																		
Batumi Oil Refinery— Batumi	106,436	24,809	....	....	....	110,276	....	110,800	....	....	....	....	....	....	....	....	....	3,819
Total	106,436	24,809	0	0	0	10,276	0	10,800	0	0	0	0	0	0	0.0	0	0	3,819
GERMANY																		
Bayernoil Raffineriegesellschaft GMBH—Vohburg/ Ingolstadt/Neustadt	260,000	80,000	....	122,000 ² 13,000	161,000	137,750 ³ 18,200	....	1110,000 ⁵ 121,000 ⁷ 76,200 ⁷ 18,700	....	....	....	³ 12,500	....	1900	⁵ 84.0	....	102	12,000
BP Lubes Services GMBH—Hamburg .....	....	15,000	....	....	....	....	³ 800	111,620	....	....	....	....	4,800	....	^a 1440.0 ⁴ 440.0	....	....	....
DEA Mineraloel AG— Heide/Grasbrook	80,000	37,000	....	² 14,000	....	² 18,000	115,000	125,000	....	² 7,000	15,800	....	....	1280	....	....	55	4,300
Wesseling	140,000	50,000	....	² 26,000	....	² 21,000	¹ 37,000	121,000 ² 6,100	....	¹ 2,000	110,000	....	....	11,500	....	....	240	....
Deutsche BP AG Erdol Raffinerie GMBH— Lingen*	87,000	38,000	² 23,400	....	....	¹ 6,300 ³ 25,100	² 26,500	116,000 ² 8,000 ⁴ 8,000 ⁵ 31,200	5,400	....	17,100 ² 2,200 ³ 6,500	³ 9,300	....	....	144.0 ⁴ 44.0 ⁵ 50.0	550	112	....
Deutsche Shell AG— Godorf	162,000	73,000	....	¹ 18,000 ² 7,000	....	117,000 ³ 21,000	¹ 36,000	² 52,000 ³ 34,000 ³ 2,000 ¹ 2,000	....	....	117,000 ² 3,000	³ 8,000	....	....	....	....	....	12,000
Harburg	97,000	44,000	....	² 14,000	116,000	³ 17,000	....	² 29,000 ³ 2,000 ¹ 6,000	....	....	....	³ 2,800	6,000	....	....	....	....	5,900
ExxonMobil Refining & Supply Co.— Ingolstadt	106,000	39,000	....	....	128,000	120,000	....	135,000 ⁴ 18,000 ⁵ 42,000	....	....	....	³ 7,000	....	....	....	....	66	3,800
H & R Chemisch- Pharmazeutische Spezialaten GMBH— Salzbergen .....	....	6,800	....	....	....	....	....	113,700 ¹ 31,100	....	....	....	....	3,800	....	....	....	....	....
Holborn Europa Raffinerie GMBH— Harburg	78,000	15,000	....	....	118,750	114,700	....	131,700 ³ 3,500 ³ 8,400	....	....	....	....	....	....	....	....	....	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Mineraloelraffinerie Oberrhein GMBH— Karlsruhe*	302,000	130,000	....	....	¹ 87,000	¹ 31,000 ² 22,000	....	¹ 53,000 ² 93,000 ³ 43,000 ⁴ 61,000 ⁵ 67,000 ⁶ 74,000 ⁷ 65,000	² 12,000	....	....	³ 16,000	....	14,000	....	1,200	360	14,000
OMV AG—Burghausen	72,000	....	² 27,500	....	....	....	....	⁸ 65,000	....	....	² 2,300	....	....	....	⁷ 90.0	690	34	....
PCK Raffinerie GMBH—Schwedt*	209,950	106,400	....	¹ 20,000 ² 27,000	¹ 47,700	¹ 16,000 ³ 18,000	¹ 16,000	⁶ 8,400 ¹ 27,800 ² 20,000 ³ 80,000 ⁴ 53,000	² 7,200	....	15,000	³ 14,400	....	12,700	¹ 30.0	....	480	8,000
Total Raffinerie Mitteldeutschland GMBH—Leuna, Spergau	222,800	96,000	....	² 26,400	¹ 58,000	³ 24,000	....	¹ 40,000 ⁵ 90,700 ⁶ 65,000	¹ 8,600	....	....	....	....	....	^a 138.0 ⁴ 48.0 ⁷ 90.0	....	410	....
Karlsruhe ^M								⁸ 65,000										
Veba Oel AG— Gelsenkirchen*	252,700	94,500	² 28,800	² 18,000	¹ 27,000	³ 27,000	^c 141,400	² 72,000 ⁴ 80,100 ⁵ 50,067 ⁶ 29,256	....	....	¹⁴ 023 ³³ 245 ⁴⁹ 482	....	....	....	¹² 3.7 ³⁶ 1	1,250	576	16,450
Wilhelmshavener Raffinerie Gesellschaft GMBH—Wilhelmshaven	220,000	....	....	....	....	¹⁴ 2,500	³ 12,000	¹ 76,000 ⁵ 82,000	....	....	....	³⁹ 000	....	....	....	....	50	....
Total	2,289,450	824,700	79,700	205,400	343,450	396,550	184,700	2,143,543	33,200	9,000	75,650	79,000	14,600	9,380	1,527.8	3,690	2,485	76,450
GHANA																		
Tema Oil Refinery Co. Ltd.—Tema	⁴ 5,000	....	....	....	¹⁴ 000	¹⁶ 5,000	....	....	....	....	....	....	....	....	....	....	....	....
Total	45,000	0	0	0	14,000	65,000	0	0	0	0	0	0	0	0	0.0	0	0	0
GREECE																		
Hellenic Petroleum SA—Aspropyrgos	134,900	64,600	....	² 20,700	¹ 38,700	³ 19,260	^m 438,700	² 32,400 ⁴ 31,500	....	....	....	³⁷ 000	....	¹¹ 300 ³¹ 500	¹⁹ 6	....	240	7,500
Thessaloniki*	66,500	12,000	....	....	....	¹ 10,000	....	² 16,500 ⁴ 10,000 ⁵ 20,000	....	....	....	³⁷ 470	....	....	^a 15.2	....	40	4,150
Motor Oil (Hellas) Corinth Refineries SA—Aghii Theodori	100,000	61,000	....	² 26,000	¹ 30,500	³ 13,750	....	¹ 20,200 ⁵ 30,200 ¹¹ 4,500 ¹² 10,700 ¹³ 19,200	²² 400	²¹ 500	³⁹ 500	³⁵ 350	3,500	11,100	12.7	....	85	4,550
Petrola Hellas—Elefsis	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	^a 74.2	....	²⁶	....
Total	401,400	137,600	0	46,700	69,200	43,010	38,700	195,200	2,400	1,500	9,500	19,820	3,500	3,900	21.7	0	391	16,200
GUATEMALA																		
ChevronTexaco Corp.— Escuintla	16,000	....	....	....	....	¹³ 000	....	¹³ 000 ⁴² 000	....	....	....	....	....	....	....	....	....	....
Total	16,000	0	0	0	0	3,000	0	5,000	0	0	0	0	0	0	0.0	0	0	0

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
HUNGARY																		
MOL Hungarian Oil & Gas Co.— Szazhalombatta	161,000	77,500	216,900	214,000	124,000	116,000 313,600	....	130,000 2700 49,000 541,000 835,000 113,800 131,200	23,300	....	112,000	33,500	6,100	11,200	125.4 450.8	600	226	6,300
Tiszaújvaros .....	....	....	....	....	....	....	....	514,000	....	....	....	....	....	1700	....	....	21	....
Total	161,000	77,500	16,900	14,000	24,000	29,600	0	134,700	3,300	0	12,000	3,500	6,100	1,900	76.2	600	247	6,300

INDIA

Bharat Petroleum Co. Ltd.—Mahul, Bombay	120,000	39,000	....	....	¹ 28,755	¹ 5,503	....	....	....	....	¹ 2,175	....	....	....	....	....	....	10,000
Numaligarh, Assam.....	60,000	....	8,400	....	....	2,000	22,000	29,000	....	....	....	....	....	....	....	71	4	....
Bongaigaon Refinery & Petrochemicals Ltd.—Bongaigaon Assam.....	27,110	....	² 9,675	....	....	¹ 1,833	....	¹ 1,833	....	....	¹ 694	....	....	....	....	203	....	....
Chennai Refinery— Madras.....	130,660	66,866	....	....	¹ 11,250	¹ 2,138	....	¹ 2,138 ⁴ 22,612 ⁵ 5,110	....	....	....	....	5,110	....	¹ 10.0	....	17	3,877
Hindustan Petroleum Corp. Ltd.—Mahul, Bombay	131,085	63,420	....	....	¹ 14,000	....	....	⁵ 34,275	....	....	....	....	7,490	....	^a 17.5	....	138	....
Visakhapatnam	164,250	....	....	² 20,580	¹ 32,900	....	....	⁵ 47,104	....	....	¹ 3,123	....	....	¹ 1,396	¹ 21.2	....	162	4,091
Indian Oil Co. Ltd.— Barauni, Bihar.....	65,800	23,700	² 20,000	....	....	....	....	....	....	....	....	....	....	....	....	540	....	....
Digboi, Assam.....	11,700	....	² 850	....	....	....	....	....	....	....	....	....	30	....	....	26	....	400
Gawahati, Assam.....	19,920	....	² 6,000	....	....	....	....	....	....	....	....	....	....	....	....	145	....	....
Halda, West Bengal	61,000	27,000	....	² 9,600	....	¹ 5,300	....	¹ 5,300 ¹³ 400 ¹¹ 3,100	....	....	¹ 1,450	....	3,100	....	....	....	....	7,500
Koyali, Gujarat	185,100	98,000	....	² 19,500	¹ 20,000	¹ 8,300	....	¹ 8,300	....	....	....	....	....	....	² 42.7	....	....	4,400
Mathura, Uttar Pradesh	156,000	47,000	....	² 18,000	¹ 20,000	....	....	....	....	....	....	....	....	....	....	....	....	7,500
Panipat.....	120,000	62,000	....	² 6,500	¹ 13,400	³ 12,000	32,600	....	....	....	....	....	....	....	....	....	84	....
Kochi Refineries Ltd.— Ambalamugal	152,000	80,000	....	² 19,000	¹ 27,000	¹ 4,599	....	² 5,913 ⁴ 8,541 ⁵ 41,391	....	....	¹ 2,300	....	....	....	¹ 21.0 ⁴ 21.0	....	120	....
Madras Refineries Ltd.— Cauvery Basin.....	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mangalore Refinery & Petrochemicals Ltd.— Mangalore	180,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Reliance Petroleum Ltd.—Jamnagar	540,000	....	....	....	¹ 130,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	2,134,625	506,986	44,925	93,180	297,305	41,673	54,600	228,017	0	0	9,742	0	15,730	1,396	133.4	985	525	37,768

INDONESIA

Pertamina—Balikpapan, Kalimantan.....	240,920	89,110	....	....	....	³ 18,720	¹ 49,500	....	....	....	....	....	....	....	....	....	....	....
Balongan	125,000	....	....	....	¹ 83,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Cepu.....	3,420	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cilacap, Central Java.....	348,000	37,600	....	² 50,040	....	³ 30,690	....	¹ 12,000	....	....	....	....	....	....	....	....	....	....
Dumai, Central Sumatra.....	114,000	87,970	² 32,580	....	....	³ 12,870	¹ 50,220	11,430	....	....	....	....	....	....	....	....	....	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Musi, South Sumatra.....	109,155	51,300	....	18,820	118,450	330,690	....	....	116,200	....	....	....	....	....	....	....	....	....
Pangkalan Brandan, North Sumatra.....	4,750	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sungai Pakning, Central Sumatra	47,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	992,745	265,980	32,580	58,860	101,450	92,970	99,720	23,430	16,200	0	0	0	0	0	0.0	0	0	0

IRAN

National Iranian Oil Co.—

Abadan	400,000	....	....	280,000	130,000	126,000	....	126,000	....	....	....	....	1,500	....	....	....	....	1,000
Arak	150,000	71,000	....	127,300	....	321,600	c124,500	121,600	....	....	....	....	....	....	250.0	....	60	5,500
Bandar Abbas	232,000	126,000	....	....	....	336,000	c128,000	136,000	....	....	....	....	....	....	150.0	....	130	5,000
								425,000										
Isfahan	265,000	119,000	....	238,000	....	129,600	c130,000	129,600	....	....	....	....	26,640	....	170.0	....	70	5,500
Kermanshah	30,000	....	....	....	....	12,775	....	12,775	....	....	....	....	....	....	....	....	....	....
								43,100										
Lavan Island	20,000	....	....	....	....	17,000	....	17,000	....	....	....	....	....	....	....	....	....	....
Shiraz	40,000	18,400	....	29,000	....	16,200	c19,280	16,200	....	....	....	....	....	....	117.0	....	30	1,500
								43,800										
Tabriz	112,000	50,000	....	116,500	....	111,120	c118,000	111,100	....	....	....	....	....	....	134.0	....	80	5,000
								413,200										
Tehran	225,000	120,000	....	235,000	....	127,260	c130,000	127,260	....	....	....	....	3,760	....	165.0	....	100	20,000
Total	1,474,000	504,400	0	236,800	30,000	167,555	139,780	212,635	0	0	0	0	31,900	0	286.0	0	470	43,500

IRAQ

Iraqi Co. for Oil

Operations—Kirkuk	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Oil Refineries																		
Administration—Baiji	310,000	105,000	....	....	....	46,000	38,000	182,000	....	....	....	....	5,000	....	64.0	....	....	26,000
Basra	150,000	20,000	....	....	....	16,000	....	70,000	....	....	....	....	100,000	....	....	....	....	7,000
Daura	100,000	20,000	....	....	....	15,000	....	31,000	....	....	....	....	120,000	....	....	....	....	9,000
K3-Haditha	7,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Khanagiri	12,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Muthia	4,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qaiyarah Mosul	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4,900
Total	587,500	145,000	0	0	0	77,000	38,000	283,000	0	0	0	0	225,000	0	64.0	0	0	46,900

IRELAND

ConocoPhillips—

Whitegate* ^c	71,250	....	....	....	....	110,800	....	110,800	....	....	....	313,320	....	....	....	....	4	....
								28,910										
								712,600										
Total	71,250	0	0	0	0	10,800	0	32,310	0	0	0	13,320	0	0	0.0	0	4	0

ISRAEL

Oil Refineries Ltd.—

Ashdod	90,000	45,000	....	225,000	127,500	111,500	....	220,000	....	....	....	....	....	1750	....	....	....	....
								30,000										
Haifa	130,000	73,000	....	241,000	122,000	115,000	....	216,000	....	22,200	....	....	....	....	....	....	....	2,700
								30,000										
Total	220,000	118,000	0	66,000	49,500	26,500	0	96,000	0	2,200	0	0	0	750	0.0	0	0	2,700

ITALY

AgipPetroli SPA—

Gela, Ragusa ¹	105,000	52,500	245,000	....	135,000	213,850	....	116,500	210,000	....	16,700	18,050	....	11,100	317.0	2,000	....	....
								42,500			2700			31,200	58.0			
								35,000										
Livorno	84,000	36,000	....	....	....	314,000	....	222,000	....	....	....	36,000	10,000	....	....	....	....	3,500
								31,700										

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Porto Marghera.....	80,000	38,000	....	113,500 227,000	....	315,000	....	216,000 27,000	....	....	....	36,000	....	....	....	....	....	3,500
Sannazzaro, Pavia.....	200,000	84,500	....	232,000	134,000	212,000 316,700	130,000	112,000 227,000 41,000	23,200	....	....	212,000	....	1920	235.0	....	....	2,500
Taranto.....	84,000	60,590	....	127,000 237,250	....	217,000	115,500	224,000 43,000	....	....	....	36,000	....	....	239.5	....	....	2,500
Api Raffineria di Ancona SPA— Falconara, Marittima*	82,900	37,500	....	136,500 224,500	....	114,000	....	125,000 544,100	....	....	....	315,000	....	....	17.2	....	120	....
Arcola Petrolifera SPA— La Spezia	33,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
ERG Raffinerie Medditeranee North— Priolo, Sicily ^b	225,000	48,000	....	224,000	133,000	19,000	....	19,000 521,000	4,000	....	46,000	...	....	11,000	....	46	....	....
Melilli, Sicily.....	238,000	106,000	....	132,000 243,000	....	236,000	m162,000	163,000 434,000 570,000	....	....	....	39,000	....	....	216.0	....	360	3,000
ExxonMobil Refining & Supply Co.— Augusta, Siracusa	190,000	93,000	....	....	146,000	122,000	....	124,000 412,000 531,000 819,000 1124,000	28,700	....	....	15,000	17,800	....	....	....	200	....
S. Martino Di Trecate ^f	174,000	28,000	....	....	129,000	118,000 28,000	....	167,000 418,000 540,000	....	11,600	....	312,000	....	....	....	....	84	....
Iplom SPA—Busalla.....	40,000	19,000	....	....	....	....	....	59,800 99,000	....	....	....	....	....	....	a16.8 46.8	....	30	....
Italiana Energia E Servizi SPA—Mantova.....	56,600	20,100	....	19,400 224,200	....	18,200	....	214,800 19,000 78,000	....	....	....	33,300	....	....	....	....	60	....
Raffineria di Milazzo SPA— Milazzo, Messina	241,300	68,700	....	....	146,100	113,500	c133,800 225,400	120,100 562,600	14,100	....	....	....	....	11,200	135.6 244.9 49.7	....	407	....
Raffineria di Roma SPA— Rome	89,615	11,153	....	231,282	....	114,548	....	120,658 529,014	....	....	....	317,021	....	....	....	....	41	....
Saras SPA—Sarroch.....	300,000	108,000	....	241,000	185,000	327,000	m1100,000	127,000 426,000 550,000	27,200	....	....	....	....	35,800	a332.2 425.8	....	440	....
Tamoil Raffinazione SPA — Cremona.....	90,000	....	....	233,000	....	18,600 315,000	46,000	131,600 31,800 426,900	....	....	....	310,500	....	....	45.5	....	....	....
Total.....	2,313,415	811,043	45,000	435,632	308,100	282,398	272,700	1,195,072	37,200	1,600	13,400	109,871	27,800	11,220	290.0	2,046	1,742	15,000
IVORY COAST																		
Societe Ivoirienne de Raffinage —Abidjan	65,200	26,490	....	....	....	112,827	c114,934	114,184 419,409	....	....	....	....	....	....	1a49.0 430.0 610.0	....	....	....
Total.....	65,200	26,490	0	0	0	12,827	14,934	33,593	0	0	0	0	0	0	89.0	0	0	0

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
JAMAICA																		
Petrojam Ltd.—Kingston	36,000	1,800	....	....	....	¹ 3,700	....	¹ 6,800 ⁴ 7,500 ⁵ 9,500	....	....	....	....	....	....	....	....	....	850
Total	36,000	1,800	0	0	0	3,700	0	23,800	0	0	0	0	0	0	0.0	0	0	850
JAPAN																		
Cosmo Oil Co. Ltd.— Chiba*	228,000	57,000	....	....	¹ 33,300	¹ 32,850	....	¹ 34,200 ⁴ 56,700 ⁵ 63,900 ⁹ 31,500 ¹⁰ 64,800	....	....	....	....	....	....	^a 188.0	....	600	....
Sakai*	76,000	36,100	....	....	¹ 20,700	¹ 7,200	....	¹ 9,900 ⁴ 26,100 ⁵ 22,500 ⁹ 18,000 ¹⁰ 12,600	¹ 7,200	....	....	....	....	¹ 1,278	^a 111.0	....	140	....
Sakaide*	114,000	39,425	....	....	¹ 17,100	¹ 12,600	....	⁴ 21,600 ⁵ 36,000 ⁹ 15,480 ¹⁰ 27,000	....	....	....	....	....	....	^a 134.0	....	265	....
Yokkaichi*	147,250	70,300	....	....	¹ 22,500	¹ 5,400 ³ 12,150	....	¹ 17,550 ⁴ 31,500 ⁵ 27,000 ⁹ 37,350	....	....	....	....	....	....	^a 112.0	....	200	....
Fuji Oil Co. Ltd.— Sodegaura	192,000	55,000	³ 24,000	....	¹ 18,000	³ 28,000	....	¹ 43,000 ⁴ 43,500 ⁵ 35,000 ⁹ 47,000	¹ 2,400	....	¹ 21,000 ² 2,100	....	....	....	....	1,223	360	....
Idemitsu Kosan Co. Ltd.—Chita, Aichi	152,000	15,200	....	....	¹ 47,500	³ 16,200	....	¹ 23,400 ⁴ 44,100 ⁵ 27,000 ¹⁰ 51,300	¹ 5,320	....	....	....	....	....	² 60.4	....	360	....
Ichihara, Chiba	209,000	62,700	....	....	¹ 42,750	¹ 15,300	³ 10,440	¹ 22,500 ⁴ 39,600 ⁵ 54,000 ⁸ 35,100 ¹⁰ 36,000	....	....	....	....	9,450	....	^a 246.3	....	540	....
Shunan, Yamaguchi ^G	114,000	52,250	....	....	¹ 24,700	³ 18,000	....	¹ 18,000 ⁴ 31,500 ⁵ 18,000 ⁸ 40,500	....	....	....	....	....	....	² 17.1	....	176	....
Tomakomai, Hokkaido	133,000	22,800	....	....	¹ 28,500	¹ 16,200	^c 14,850	¹ 24,300 ⁴ 27,000 ⁵ 22,500 ¹⁰ 34,200	....	....	....	....	....	....	^a 253.7	....	356	....
Japan Energy Co.— Chita, Aichi* .....	....	....	....	....	....	² 21,150	....	¹ 35,100	....	....	¹ 7,400 ³ 2,400	....	....	....	¹ 26.1 ⁵ 4.6	....	2	....
Mizushima, Okayama*	190,190	103,550	² 23,400	....	¹ 43,200	¹ 18,000 ³ 21,600	^c 27,900	¹ 36,000 ⁴ 42,210 ⁵ 55,800 ⁸ 63,000 ¹¹ 3,290 ¹² 3,150	¹ 4,590	....	¹ 11,700 ² 2,000	....	5,513	....	¹ 27.0 ² 55.9 ⁵ 9.7	....	610	9,000

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Kashima Oil Co. Ltd.— Kashima, Ibaragi..... *	171,000	39,900	....	....	129,700	319,800	....	120,700 441,400 544,100 922,500 1027,000	....	....	15,123	....	....	11,397	a122.5	....	240	....
Kyokuto Petroleum Ltd.— Ichihara, Chiba.....	175,000	83,000	....	....	134,000	127,000	m138,500	127,500 433,500 547,000	....	....	16,500	....	....	....	a230.0 420.0 68.5	....	220	....
Kyushu Oil Co. Ltd.— Oita	130,000	66,000	....	....	16,500	18,000 27,000	....	19,000 33,000	....	....	....	....	....	....	714.9	....	....	....
Nansei Sekiyu KK— Okinawa.....	90,000	....	....	....	....	112,000	....	121,500 417,000	....	....	....	....	....	....	64.5	....	....	....
Nihonkai Oil Co. Ltd.— Toyama*	57,000	10,450	....	....	....	15,400	....	....	....	....	....	....	....	....	....	....	40	....
Nippon Oil Co. Ltd.— Mizushima.....	250,000	77,000	....	....	146,000	120,000 320,000	c113,000	145,000 345,000 44,300 540,000 940,000 1037,000 1145,000	14,400	12,100	114,000	....	3,600	....	a253.9 64.0	....	540	6,000
Muroran.....	180,000	65,000	....	....	130,000	336,000	c127,000	14,100 459,000 540,000 922,000 1045,000	....	....	174,000	....	....	....	a258.6	....	350	36,000
Negishi	340,000	130,000	....	....	183,000	120,000 330,000	....	116,000 469,500 575,000 962,500 1081,000 1135,000	15,700	....	17,600	....	2,600	11,800	a122.9 a228.2	....	660	9,000
Sendai.....	145,000	60,000	....	....	143,000	118,000	....	118,000 418,000 929,000 1035,000	14,600	....	11,700	....	....	....	a262.2	....	510	4,600
Takaishi, Osaka	115,000	60,000	....	....	127,000	114,000	....	152,000 422,000 525,000 921,000	13,600	....	12,050	....	....	....	12.0	....	280	....
Marifu, Yamguchi	127,000	64,000	222,000	....	128,000	324,000	....	121,000 432,000 522,000 922,000	....	....	15,800	....	....	....	a10.2	690	265	1,500
Okinawa Sekiyu Seisei— Yonashiro, Okinawa	100,000	....	....	....	....	315,000	....	148,000 23,000 20,000 1038,000	....	....	....	....	....	....	a22.0	....	300	....
Seibu Oil Co. Ltd.— Yamaguchi	110,000	40,000	....	....	122,000	117,000	....	126,000 36,000 30,000 1050,000	....	a3,000	....	a5,700	....	....	a24.4 617.7	....	340	30,000

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Showa Yokkaichi Sekiyu Co. Ltd.— Yokkaichi	222,000	96,300	....	....	122,600	140,600	....	² 61,500 ³ 39,200 ⁴ 35,600 ⁵ 36,900	....	....	¹ 5,500	³ 9,200	5,500	....	¹ 28.3	....	....	6,300
Taiyo Oil Co. Ltd.— Kikuma, Ehime.....	120,000	27,000	....	....	....	³ 33,000	^c 119,000	¹ 37,000 ⁴ 18,000 ⁵ 30,000	....	....	¹ 24,300 ² 10,200	....	....	....	² 18.0 ⁴ 108.0	....	....	....
Toa Oil Co. Ltd.— Mizue Factory, Kawasaki	65,000	57,000	¹ 24,000	....	¹ 33,000	¹ 8,000	....	¹ 17,000 ² 9,500 ⁴ 13,000 ⁵ 20,000 ⁷ 750 ⁸ 46,000 ¹³ 10,700	....	¹ 2,040	² 10,200	....	....	....	¹ 32.8 ⁶ 13.0	....	380	....
Ohgimachi Factory, Kawasaki	120,000	30,000	....	....	....	³ 21,500	....	¹ 28,000 ⁴ 21,000 ⁵ 27,000 ⁹ 16,000	....	....	¹ 15,000	³ 6,000	....	....	....	....	100	17,000
Toho Oil Co. Ltd.— Owase.....	35,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kawasaki	296,000	94,500	....	....	¹ 87,500	¹ 18,500 ² 28,500	^c 222,500	¹ 60,000 ⁴ 74,500 ⁵ 79,500 ⁸ 77,000	¹ 7,000	....	....	....	....	....	² 46.0 ⁶ 13.5	....	^{....}525	....
Sakai	139,500	47,500	....	....	¹ 37,500	¹ 27,500	....	¹ 39,000 ⁴ 30,500 ⁵ 45,500 ⁸ 35,000	....	....	¹ 22,000	....	....	....	¹ 18.5 ⁶ 9.0	....	330	....
Wakayama.....	160,000	71,000	....	....	¹ 38,000	¹ 42,000	....	¹ 42,000 ⁴ 41,500 ⁵ 40,000 ⁸ 30,000 ¹¹ 11,000	¹ 3,500	....	....	....	7,000	....	¹ 17.0 ⁵ 7.0 ⁶ 10.0	....	175	....
Wakayama Petroleum Refining Co. Ltd.— Kainan City, Wakayama .....	....	30,000	....	....	....	....	....	20,000 ¹ 19,000	....	....	....	....	8,500	....	² 135.0	....	....	....
Total	4,702,940	1,662,975	93,400	0	876,050	730,450	173,190	4,335,980	48,310	7,140	250,573	20,900	42,163	4,475	1,336.4	1,913	8,864	119,400
JORDAN																		
Jordan Petroleum Refinery—Zerka	90,400	21,500	....	....	¹ 4,000	¹ 10,900	^c 14,350	¹ 17,300	....	....	....	....	....	....	² 8.0 ⁴ 8.0	....	....	4,250
Total	90,400	21,500	0	0	4,000	10,900	4,350	17,300	0	0	0	0	0	0	16.0	0	0	4,250
KAZAKHSTAN																		
Kazakoil—Atyrau.....	104,427	27,064	² 13,720	....	....	¹ 8,808	....	¹ 9,200	....	....	....	....	....	....	....	500	....	....
Pavlodar	162,666	93,973	² 11,277	² 30,071	¹ 38,356	¹ 26,178	....	¹ 27,200 ⁴ 9,863 ⁸ 46,027	....	....	....	....	....	....	¹ 21.5	500	64	8,550
PetroKazakhstan— ShymkentL.....	160,000	....	....	....	....	¹ 24,466	....	¹ 25,200 ⁴ 9,863	....	....	....	....	....	....	....	....	60	....
Total	427,093	121,037	24,997	30,071	38,356	59,452	0	207,353	0	0	0	0	0	0	21.5	1,000	124	8,550

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates							
KENYA																					
Kenya Petroleum Refineries Ltd.— Mombasa*	85,500	....	....	....	....	18,100	....	30,000 6,000	....	....	....	....	....	....	....	....	....	1,100
Total.....	85,500	0	0	0	0	8,100	0	36,000	0	0	0	0	0	0	0.0	0	0	1,100			
KUWAIT																					
Kuwait National Petroleum Co.— Mina Abdulla*	256,500	142,500	272,000	....	....	....	c138,250	29,000 436,000 531,500 1090,900	....	....	....	....	....	....	a1182.0	28,000	810	....		
Mina Al-Ahmadi*	442,700	80,750	....	....	136,000	....	c136,900	418,720 5118,440 10118,800	15,616	....	....	....	....	16,561	1198.0 456.5	....	1,334	....		
Shuaiba*	190,000	104,500	....	....	....	113,500	140,500 248,600 527,000	123,400 431,500	....	....	....	....	....	....	1210.0	....	1,000	....		
Total.....	889,200	327,750	72,000	0	36,000	13,500	164,250	505,260	5,616	0	0	0	0	6,561	646.5	28,000	3,144	0			
KYRGYZSTAN																					
Kyrgoil—Dzhalalabad.....	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total.....	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0			
LEBANON																					
Tripoli Oil Installations— Tripoli.....	20,000	12,730	....	....	17,250	14,392	....	7,392	....	....	....	....	....	....	....	....	....	409
Zahrani Oil Installations— Sidon.....	17,500	....	....	....	....	13,050	....	13,050	....	....	....	....	....	....	....	....	....	....
Total.....	37,500	12,730	0	0	7,250	7,442	0	10,442	0	0	0	0	0	0	0.0	0	0	409			
LIBERIA																					
Liberia Petroleum Refining—Monrovia.....	15,000	1,000	....	....	....	12,000	....	12,300 1,000	....	....	....	....	....	....	....	....	....	200
Total.....	15,000	1,000	0	0	0	2,000	0	3,300	0	0	0	0	0	0	0.0	0	0	200			
LIBYA																					
Azzawiya Oil Refining Co.—Azzawiya and Benghazi.....	115,000	3,775	....	....	....	115,750	....	116,604 619,926	....	....	....	....	635	....	....	....	....	3,432
Ras Lanuf Oil & Gas Processing Co.— Ras Lanuf.....	220,000	....	....	....	....	13,300	....	25,600	....	....	....	....	....	....	....	....	....	....
Sirte Oil Co.—Brega.....	8,400	....	....	....	....	11,200	....	21,200	....	....	....	....	....	....	....	....	....	....
Total.....	343,400	3,775	0	0	0	20,250	0	43,330	0	0	0	0	635	0	0.0	0	0	3,432			
LITHUANIA																					
JSC Mazeikiu Nafta— Mazeikiai.....	263,420	83,223	....	29,525	143,692	125,741	....	151,482 11,937 842,511	....	16,800	....	....	....	1125	162.5	....	198	....		
Total.....	263,420	83,223	0	29,525	43,692	25,741	0	105,930	0	6,800	0	0	0	125	62.5	0	198	0			

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
MACEDONIA																				
Okta Crude Oil Refinery—Skopje.....	56,730	....	....	....	....	¹ 10,860	....	¹ 15,930 ^{56,120}	....	....	....	^{34,390}	....	....	....	....	....	....
Total.....	56,730	0	0	0	0	10,860	0	22,050	0	0	0	4,390	0	0	0.0	0	0	0		
MADAGASCAR																				
Galana Raffinerie Terminal—Toamasina	15,000	1,500	....	² 6,000	....	² 2,000	....	^{53,600} ^{74,500}	....	....	....	....	....	....	....	....	....	....
Total.....	15,000	1,500	0	6,000	0	2,000	0	8,100	0	0	0	0	0	0	0.0	0	0	0		
MALAYSIA																				
Esso Malaysia Bhd.— Port Dickson.....	86,000	....	....	....	....	¹ 19,000	....	^{125,500} ^{411,000}	....	....	....	....	....	....	....	....	....	....
Petronas—Kertih, Terengganu	40,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Melaka I.....	95,000	....	....	....	....	² 18,000	....	¹ 18,000	....	....	....	....	....	....	^a 12.0 ^{461.6}	975	200	....	
Melaka II	95,000	58,900	² 18,900	....	....	² 23,400	¹ 28,500	^{123,400} ^{531,500}	....	....	....	^{38,100}	....	....	^{12.0} ^{461.6}	....	....	....
Sarawak Shell Bhd.— Lutong	45,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shell Refining Co. Bhd.—Port Dickson	155,000	7,000	....	....	....	^{14,000} ^{313,000}	....	^{232,000} ^{5,000}	....	....	....	....	....	....	....	....	....	4,000
Total.....	516,000	65,900	18,900	0	0	77,400	28,500	146,400	0	0	0	8,100	0	0	147.2	975	200	4,000		
MARTINIQUE																				
Societe Anonyme de la Raffinerie des Antilles— Fort-de-France.....	17,000	....	....	....	....	⁴ 3,019	....	^{15,176} ^{8,977}	....	....	....	....	....	....	....	....	15	....	
Total.....	17,000	0	0	0	0	3,019	0	14,153	0	0	0	0	0	0	0.0	0	15	0		
MEXICO																				
Petroleos Mexicanos—																				
Cadereyta.....	275,000	137,000	50,000	....	¹ 90,000	^{146,000}	....	186,000	22,900	....	....	....	....	¹ 2,200	60.0	....	....	5,000
Cd. Madero.....	320,000	156,000	....	....	^{161,000}	^{145,000}	....	147,700	^{212,700}	....	....	....	....	2,000	42.0	....	....	18,000
Minatitlan	194,000	81,000	....	....	^{124,000}	^{131,000}	....	100,000	15,000	....	¹ 17,000	....	....	....	....	....	....	....
Salamanca.....	245,000	147,000	....	....	^{140,000}	^{147,300}	² 18,000	121,000	15,434	....	....	....	17,000	880	60.0	....	....	15,000
Salina Cruz.....	330,000	165,000	50,000	....	^{180,000}	^{350,000}	....	161,000	29,400	....	....	....	....	1,800	....	....	....	....
Tula Hidalgo	320,000	159,000	^{141,000}	....	^{180,000}	^{165,000}	....	268,400	22,677	....	....	....	....	3,600	....	....	....	....
Total.....	1,684,000	845,000	141,000	0	375,000	284,300	18,000	984,100	118,111	0	17,000	0	17,000	10,480	162.0	0	0	38,000		
MOROCCO																				
Societe Anonyme Marocaine de L'Industrie du Raffinage— Mohammedia.....	125,230	17,465	....	....	....	¹ 21,830	....	^{121,830} ^{78,670}	....	....	....	....	2,460	....	....	....	....	5,630
Sidi Kacem*	29,671	7,456	....	....	^{25,040}	^{12,529}	....	^{112,510} ^{12,529}	....	....	....	....	....	....	....	....	....	....
Total.....	154,901	24,921	0	0	5,040	24,359	0	35,539	0	0	0	0	2,460	0	0.0	0	0	5,630		

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
MYANMAR																		
Myanma Petrochemical																		
Enterprise—Chauk.....	6,000	2,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thanlyin.....	26,000	2,000	²⁵ 2,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	500	.....	.....	120	.....	.....
Thanbayakan.....	25,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	57,000	4,000	5,200	0	0	0	0	0	0	0	0	0	500	0	0.0	120	0	0

NETHERLANDS

ExxonMobil Refining																		
Supply Co.—																		
Rotterdam	182,000	79,000	³ 39,000	.....	.....	² 29,000	^{c1} 49,000	¹ 29,000	.....	.....	¹ 29,000	.....	.....	.....	¹ 24.0	.....	485	.....
								² 12,000			³⁵ 5,700							
								⁴ 35,000										
								⁵ 40,000										
								⁹ 19,000										
Kuwait Petroleum																		
Europoort BV—																		
Rotterdam	75,500	37,600	.....	¹⁹ 2,200	.....	³ 22,600	.....	¹ 41,200	.....	.....	.....	³⁶ 5,500	4,500	.....	⁴ 2.0	.....	72	3,320
				²⁶ 8,800				⁴ 10,000										
								⁵ 21,800										
								¹¹ 5,900										
Netherlands Refining																		
Co.—Europoort*.....	380,000	83,600	.....	² 33,300	¹ 55,800	¹ 27,900	.....	⁴ 149,400	²⁸ 1,100	.....	.....	.....	.....	¹¹ 8,800	⁶ 15.0	.....	217	.....
								⁵ 81,900										
								¹³ 24,200										
Shell Nederland																		
Raffinaderij BV—Pernis.....	416,000	148,000	.....	² 46,000	¹ 50,000	³ 42,000	² 89,000	² 138,000	²⁶ 8,800	.....	.....	.....	7,100	¹² 550	¹⁵ 9.0	.....	.....	5,500
								³⁸ 0,000										
								¹¹ 300										
								86,000										
Smid & Hollander																		
Raffinaderij BV—																		
Amsterdam	10,000	8,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,800
Total Raffinery																		
Netherlands—																		
Vlissingen.....	158,000	59,500	.....	.....	.....	³ 28,000	^{c1} 55,500	¹ 18,000	.....	.....	¹ 18,800	.....	.....	.....	¹⁷ 0.0	.....	265	.....
								⁵ 37,000										
Total	1,221,500	415,700	39,000	95,300	105,800	149,500	193,500	756,700	14,900	0	53,500	6,500	11,600	4,350	170.0	0	1,039	14,620

NETHERLANDS ANTILLES

Refineria Isla Curazao																		
SA—Emmstad.....	320,000	195,000	.....	¹ 80,000	¹ 50,000	¹ 20,000	.....	¹ 53,000	²⁹ 0,000	¹² 0,000	.....	.....	12,000	.....	² 20.8	.....	300	26,000
								⁵ 37,000							⁴ 33.8			
								⁸ 26,000										
								¹¹ 3,500										
Total	320,000	195,000	0	80,000	50,000	20,000	0	119,500	9,000	2,000	0	0	12,000	0	54.6	0	300	26,000

NEW ZEALAND

New Zealand Refining																		
Co. Ltd.—Marsden																		
Point, Northland*	103,550	39,900	.....	.....	.....	¹ 27,000	^{c1} 26,100	¹ 36,000	.....	.....	.....	.....	.....	.....	¹⁵ 8.0	.....	159	4,850
Marsden Point,																		
Northland								⁴⁶ 300										
								⁵⁶ 600										
Total	103,550	39,900	0	0	0	27,000	26,100	48,900	0	0	0	0	0	0	58.0	0	159	4,850

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
NICARAGUA																				
Esso Caribbean and Central America— Managua	20,000	1,500	....	....	....	12,900	....	15,500 44,000 75,500	....	....	....	....	....	....	....	....	....	....
Total	20,000	1,500	0	0	0	2,900	0	15,000	0	0	0	0	0	0	0.0	0	0	0		
NIGERIA																				
Kaduna Refinery & Petrochemical Co. (NNPC)—Kaduna	110,000	36,290	....	....	118,000	115,300	....	121,600 15,750 13536	....	....	2291	....	3,878	....	....	....	....	14,850
Port Harcourt Refining Co. (NNPC)—Port Harcourt, Alesa Eleme	60,000	....	....	....	....	16,000	....	....	....	....	....	....	....	....	....	....	....	....
	150,000	54,000	....	....	140,000	433,000	....	133,000 714,500	27,020	22,274	....	13,610	....	....	....	....	....	....
Warri Refinery & Petrochemical Co. (NNPC)—Warri	118,750	34,200	....	....	124,700	115,770	....	215,770 68,075	22,850	....	....	....	....	....	....	....	....	....
Total	438,750	124,490	0	0	82,700	70,070	0	109,231	9,870	2,274	291	3,610	3,878	0	0.0	0	0	14,850		
NORTH KOREA																				
Government—Ungi	29,000 42,000	.... ....	.... ....	.... ....	.... ....	.... 17,300	....	.... 17,400	.... ....	....	.... 11,000	.... ....	.... ....	11,000	....	....	....	....
Total	71,000	0	0	0	0	7,300	0	7,400	0	0	1,000	0	0	1,000	0.0	0	0	0		
NORWAY																				
ExxonMobil Refining & Supply Co.—Slagen	110,000	....	....	232,000	....	112,000	....	122,000 538,000 712,000	....	....	....	....	....	....	....	....	23	....	
Statoil Mongstad— Mongstad	200,000	....	225,000	....	254,000	19,800 315,800	....	126,000 710,000 16,900 17,100	....	111,500	....	34,000	....	....	....	610	....	....
Total	310,000	0	25,000	32,000	54,000	37,600	0	142,000	0	11,500	0	4,000	0	0	0.0	610	23	0		
OMAN																				
Oman Refinery Co.— Mina Al Fahal	85,000	....	....	....	....	316,000	....	221,000	....	....	....	....	....	....	....	....	....	....
Total	85,000	0	0	0	0	16,000	0	21,000	0	0	0	0	0	0	0.0	0	0	0		
PAKISTAN																				
Attock Refinery Ltd.— Rawalpindi*	35,625	5,415	....	....	....	14,500	....	15,850	....	....	....	....	....	....	....	....	....	....
Bosicor Refinery Ltd.— Karachi	30,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
National Refinery Ltd.— Korangi, Karachi	62,050	12,600	....	....	....	33,800	....	23,800	....	....	....	....	3,400	....	....	....	....	3,600
Pakistan Refinery Ltd.— Karachi	46,300	....	....	....	....	22,700	....	18,100	....	....	....	....	....	....	....	....	....	....
Pak-Arab Refinery Co.— Mahmood Kot, Punjab	95,000	40,660	....	14,004	....	14,715	20,205	23,085	....	....	....	....	....	....	....	....	115	....	
Total	268,975	58,675	0	14,004	0	25,715	20,205	50,835	0	0	0	0	3,400	0	0.0	0	115	3,600		

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
PANAMA																		
ChevronTexaco Corp.— Las Minas	60,000	6,500	....	² 27,000	....	¹ 11,000	....	¹ 12,500 ⁴ 26,700	....	....	....	....	....	....	....	....	....	....
Total	60,000	6,500	0	27,000	0	11,000	0	39,200	0	0	0	0	0	0	0.0	0	0	0
PARAGUAY																		
Petroleos Paraguayos— Villa Elisa	7,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	7,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0
PERU																		
Maple Gas Corp.— Pucallpa	3,250	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petroperu SA—Conchan, Lima.....	13,500	9,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Iquitos, Loreto.....	10,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
El Milagro, Amazonas	1,700	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Talara, Piura	62,000	24,500	....	....	¹ 18,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Repsol-YPF— La Pampilla Lima	100,000	19,000	....	....	¹ 6,700	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	190,950	53,000	0	0	24,700	0	0	0	0	0	0	0	0	0	0.0	0	0	0
PHILIPPINES																		
Petron Corp.— Limay, Bataan	180,000	32,000	....	....	¹ 15,000	³ 17,000	....	² 54,000	....	....	....	....	....	....	⁴ 10.0	....	71	....
Philippine Petroleum Corp.—Pililla .....	....	21,000	....	....	....	....	....	....	....	....	....	....	3,700	....	....	....	....	1,200
Pilipinas Shell Petroleum Corp.—Tabango	153,000	....	....	22,000	....	³ 18,900	....	² 31,100 47,300	....	....	....	....	....	....	....	....	....	....
Total	333,000	53,000	0	22,000	15,000	35,900	0	132,400	0	0	0	0	3,700	0	10.0	0	71	1,200
POLAND																		
Nafta Polska SA—Czechowice.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gorlice .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jaslo .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petrochemia— Plock/Trezebina	260,000	115,000	....	....	¹ 46,000	¹ 25,000	¹ 49,500	¹ 24,000 ⁷ 38,000 ¹ 13,000	² 3,000	....	¹ 3,500 ² 770	....	....	¹ 1,600	....	....	....	13,000
Rafineria Gdanska SA (Lotos Group)— Gdansk/Jedlicze	90,000	40,000	....	....	....	³ 14,000	....	² 27,500 16,000 ¹ 16,700	....	....	....	....	4,500	....	....	....	24	4,600
Total	350,000	155,000	0	0	46,000	39,000	49,500	115,200	3,000	0	4,270	0	4,500	1,600	0	0	24	17,600
PORTUGAL																		
Petrogal—Leca da Palmeira, Porto*	91,277	11,357	....	....	....	¹ 14,831 ³ 10,601	....	¹ 42,221 ⁵ 28,823 ¹ 13,593	....	....	¹ 17,276	....	....	....	....	....	45	....
Sines*	212,895	66,880	....	² 23,400	¹ 31,500	³ 24,750	^m 49,180	¹ 24,750 ⁵ 62,100 ⁸ 13,500 ¹ 24,300	² 5,400	....	....	....	....	....	² 30.0 ⁴ 24.8	....	207	....
Total	304,172	78,237	0	23,400	31,500	50,182	9,180	199,287	5,400	0	17,276	0	0	0	54.8	0	252	0

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
PUERTO RICO																		
Shell Chemical Yabucoa Inc.—Yabucoa	73,000	35,000	....	....	....	¹ 20,000	^{c4} 18,000	¹ 20,000	....	....	....	....	....	....	¹ 20.0	....	68	....
Total	73,000	35,000	0	0	0	20,000	18,000	20,000	0	0	0	0	0	0	20.0	0	68	0
QATAR																		
National Oil Distribution Co.—Umm Said	200,000	....	....	....	¹ 60,000	¹ 20,000	20,000	² 19,500	....	....	....	³ 25,000	....	....	....	....	....	....
Total	200,000	0	0	0	60,000	39,400 29,400	20,000	19,850 39,350	0	0	0	25,000	0	0	0.0	0	0	0
ROMANIA																		
Arpechim SA—Pitesti	70,288	37,589	....	² 11,277	² 19,178	¹ 12,233	^{c3} 1,534	¹ 11,507 19,178	....	....	¹ 1,591	....	752	....	¹ 1.5	....	22	3,320
Astra SA—Ploiesti	56,000	9,400	² 8,600	....	....	....	....	3,000	....	....	....	....	6,300	....	¹ 2.1	220	....	1,500
Petrobrazi SA—Ploiesti	69,280	39,240	² 12,660	....	¹ 21,400	¹ 13,440	....	¹ 13,920 ⁷ 5,540	....	....	¹ 1,510	³ 995	....	....	....	400	....	....
Petrolsub SA—Bacau	8,000	5,200	....	....	....	....	....	....	....	....	....	....	210	....	....	....	....	2,870
Petromidia SA—Midia	105,000	46,000	² 20,000	....	¹ 24,000	¹ 11,600	....	¹ 28,000 7,500 ⁸ 15,000 ¹³ 22,500	....	....	¹ 4,700	....	....	¹ 820	¹ 6.1	1,150	87	....
Petrotel SA—Ploiesti	104,000	55,970	² 11,480	² 5,500	¹ 20,900	¹ 11,490	....	¹ 20,000 ⁷ 20,680 ¹¹ 3,200	² 2,300	....	....	....	2,680	¹ 510	² 4.3	270	....	3,670
Rafinaria Darmanesti SA—Darmanesti	16,000	....	¹ 9,500	¹ 8,800	....	² 3,000	....	....	....	....	....	....	....	....	....	300	....	....
Rafo SA—Onesti, Bacau	54,625	....	² 4,155	² 6,570	¹ 18,000	³ 11,300	....	¹ 12,800 ⁸ 21,900	....	....	....	....	....	....	....	173	23	....
Rompetrol SA Vega Refinery—Ploiesti	8,717	3,485	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,291
Steaua Romania SA— Cimpina	⁹ 272	⁶ 341	....	....	....	....	....	....	....	....	....	....	⁴ 24	....	....	....	....	¹ 110
Total	501,182	203,225	66,395	32,147	103,478	63,063	1,534	204,725	2,300	0	7,801	995	10,366	1,330	14.0	2,513	132	13,761
RUSSIA																		
Alliance Co.— Khabarovsk	94,000	10,149	....	14,284	....	¹ 9,786	....	¹ 10,556	....	....	....	....	....	....	....	....	....	5,811
Bashneftekhimzavody— Novo-Ufa	285,000	93,800	² 7,142	² 51,700	² 22,247	³ 25,400	....	¹ 52,000 65,205 ¹ 22,300	¹ 2,814	....	....	....	9,585	....	....	260	218	14,278
Ufa	234,962	98,671	....	¹ 30,900	² 38,356	¹ 14,679	....	¹ 15,000 33,300 ⁸ 42,192	....	¹ 979	....	....	....	....	¹ 21.5	....	72	498
Ufaneftkhim	184,200	62,000	....	¹ 23,700	² 17,260	¹ 8,900 ³ 21,775	¹ 19,178	¹ 31,600 48,904	....	....	¹ 8,700	....	7,330	....	¹ 21.5	....	....	4,981
Central Fuel Co.— Moscow	242,995	90,214	....	¹ 20,000	² 31,320	¹ 33,029	....	¹ 34,000 66,548 ⁸ 42,192	....	....	....	³ 3,542	....	¹ 1,000	¹ 21.5	....	....	22,600
Chernogorneft Refinery— Chernogorneft	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dagestan Oil— Makhachkala	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gazprom—Astrakhan	66,000	....	....	....	....	¹ 24,466	....	40,000	....	....	....	....	....	....	....	....	....	....
Surgut	88,000	....	....	....	....	¹ 5,000	....	....	....	....	....	....	....	....	....	....	....	....
Urengoy	9,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Krasnodareconeft— Krasno	34,140	14,472	....	¹ 10,149	....	....	....	....	....	....	....	....	....	....	....	....	....	5,645

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Lukoil—Kogalym.....	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kstovo, Nizhny NovgorodI	359,200	74,600	....	....	....	145,506	....	146,800 107,500 116,904	....	....	11,790 21,890	....	7,020	....	....	....	....	15,607
Perm	279,142	126,000	28,230	29,115	115,726	135,496	....	136,000 84,200	11,003	....	11,840	....	8,833	....	....	490	....	5,645
UkhtaH.....	126,518	13,156	....	17,518	....	19,297	418,700	19,500	....	....	....	....	....	....	....	....	....	4,981
Volgograd.....	200,000	79,501	18,230 33,101	29,115	....	118,839	....	119,100 440,500 116,904	....	....	11,830	....	13,065	....	710.8	1,020	....	3,985
Mari El Refinery— Mari Republic.....	2,000	....	....	....	....	....	....	526,000	....	....	....	....	....	....	....	....	....	....
Norilsk Refinery— Norilsk	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rosneft—Afipsky	28,115	....	....	....	....	116,147	....	112,658	....	....	13,680	....	....	....	....	....	....	....
Komsomolsk	108,000	33,266	39,679	211,300	....	8,100	....	19,000	....	....	....	2,700	....	....	....	....	....	....
Tarasovskoye	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuapse	46,189	....	....	....	....	17,829	....	18,100	....	....	....	....	....	....	....	....	....	....
Afipsky .....	....	....	....	....	....	....	....	....	....	....	22,387	....	....	....	....	....	....	....
Salavatnefteorgsintez— Salavat.....	168,300	73,299	....	29,397	210,225	130,160	....	230,400 42,000	11,174	....	11,591	....	....	23,000	....	....	290	....
Sibneft—Omsk	378,000	195,000	112,100	226,500 30,071	165,589	142,400 324,710	19,178	167,100 43,000 842,192 116,904	11,272	....	111,139	....	3,800	11,750	....	510	....	17,433
Sidanco—Cracking-Saratov	134,387	65,780	....	....	....	223,487	....	133,562	....	....	....	....	....	....	....	....	30	3,868
Slavneft—Yanos.....	290,000	270,305	....	212,404	130,000	125,689	....	126,100 56,959 112,274	11,786	....	11,551	33,542	5,460	1800	....	....	....	10,460
Yaroslavl/Mendeleyev	8,700	....	....	....	....	....	....	....	....	....	....	....	5,300	....	....	....	....	....
Surgutneftegaz—Kirishi	335,900	85,327	....	....	....	156,840	....	167,900 104,800	....	....	15,172	37,085	....	....	....	....	45	16,603
Tatneft—Kichuyi.....	8,000	3,600	....	....	....	11,750	....	11,850	....	....	....	....	....	....	....	....	....	1,200
Nizhnekamsk, TartarstanJ.....	120,493	....	....	236,000	....	....	....	546,000	....	....	....	....	....	1625	118.0	....	50	18,000
Tomskneft—Tomsk	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tyumen Oil Co.— Nizhnevartovsk	40,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orsk, Orenburg	128,200	53,752	....	....	....	117,860	....	118,400 54,200	11,125	....	....	....	7,706	....	....	....	....	10,128
Ryazan	361,479	83,636	....	121,990	118,219	153,335	....	154,000 76,137 116,900	....	....	14,078 22,228	....	5,400	....	....	....	....	8,799
Ulyanovskneft.....	1,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yakutsk Refinery—Yakutsk	2,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yukos—Achinsk.....	126,000	40,184	....	....	....	125,519	....	125,519 59,679	....	....	....	....	....	....	....	....	21	11,600
AngarskK.....	440,700	195,463	111,217	225,748	133,753	151,040	....	151,300 30,685 116,900	....	....	14,900	....	5,638	....	....	410	....	8,500
Novo-Kuibishev	200,000	73,000	125,300	....	117,266	133,518	....	134,300 64,000	....	....	12,188	....	3,705	....	....	1,030	....	12,286
Samara-Kuibishev	125,000	40,700	....	115,787	213,788	143,794	....	144,400 57,120	1832	1750	....	....	....	....	....	....	....	....
Strezhevoy	4,400	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syzran	151,460	48,800	....	116,915	217,068	138,550	....	137,900 78,822	....	....	11,760	....	....	....	....	....	....	7,637
Total	5,435,480	1,924,675	84,999	382,593	330,817	775,201	57,056	2,185,966	10,006	1,729	56,724	16,869	82,842	7,175	93.3	3,720	726	210,545

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
SAUDI ARABIA																				
Arabian Oil Co. Ltd.— Ras Al Khafji.....	30,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petromin-Shell— Al-Jubail	305,000	84,000	....	232,000	....	319,000	144,000	119,000 261,000 53,000 49,000	....	....	15,800 27,000	....	....	....	197.0	....	....	....
Saudi Arabian Oil Co. (Saudi Aramco)— Rabigh	400,000	....	....	....	....	....	....	47,000	....	....	....	....	....	....	112.0	....	....	....
Ras Tanura	300,000	135,000	....	260,000	....	154,000	44,000	154,000	....	....	....	....	....	....	....	....	....	....
Jeddah	60,000	34,000	....	....	113,000	13,000	310,000	13,000	....	....	....	....	....	....	....	....	....	....
Riyadh.....	120,000	52,350	....	....	....	135,660	133,820	135,660 714,500	....	....	....	....	....	....	180.7	....	....	....
Yanbu.....	190,000	....	....	....	....	135,000	....	135,000 715,000	....	....	....	....	....	....	....	....	....	....
Saudi Aramco-Mobil— Yanbu.....	340,000	142,400	....	246,100	190,600	246,700	....	173,500 793,400	223,500	....	....	112,600 320,400	....	12,200	....	....	....	....
Total.....	1,745,000	447,750	0	138,100	103,600	193,360	131,820	553,060	23,500	0	12,800	33,000	0	2,200	189.7	0	0	0		
SENEGAL																				
Ste. Africaine de Raffinage—M'Bao (Dakar)	27,000	8,000	....	....	....	12,000	....	2,000	....	....	....	....	....	....	....	....	....	....
Total.....	27,000	8,000	0	0	0	2,000	0	2,000	0	0	0	0	0	0	0.0	0	0	0		
SERBIA AND MONTENEGRO																				
NIS-Oil Refinery Novi Sad—Novi Sad	60,250	30,000	....	....	....	112,300	....	114,300 55,200 114,900 114,600	....	....	....	....	300	....	10.5	....	....	2,400
NIS-Rafinerija Naft Pancevo—Pancevo	98,000	40,100	....	220,340	118,950	17,920	....	18,070 44,620 59,220	13,070	....	1200	....	....	....	....	....	59	....	
Total.....	158,250	70,100	0	20,340	18,950	20,220	0	50,910	3,070	0	200	0	300	0	0.5	0	59	2,400		
SIERRA LEONE																				
Sierra Leone Petroleum Refining Co. Ltd.— Freetown	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total.....	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0		
SINGAPORE																				
ExxonMobil Refining & Supply Co.— Jurong/Pulau Ayer Chawan.....	587,000	163,500	....	2115,500	....	135,000 359,000	133,500	1132,500 425,500 5136,000	....	....	144,500	....	29,000	....	127.0 468.0	....	437	13,500
Shell Eastern Petroleum (Pte.) Ltd.— Pulau Bukom	458,000	74,800	....	1,266,000	1,233,000	16,900 330,100	134,000	2119,300 77,600	23,000	....	....	....	6,500	....	140.8	....	....	8,400

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd								Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates						
Singapore Petroleum Co. Ltd.— Pulau Merlimau*	273,600	76,000	....	228,800	236,000	213,500	c113,300 m417,000	113,500 76,500	14,500	24,100	....	....	....	11,400	235.0 47.0 514.0 65.0	....	....	10,400
Total	1,318,600	314,300	0	210,300	69,000	144,500	97,800	580,900	7,500	4,100	44,500	0	35,500	1,400	196.8	0	437	32,300		

SLOVAKIA

Slovnaft, Joint Stock Co.—Bratislava	115,000	55,000	....	....	118,000	321,000	^c 119,000 ^c 23,000	116,000 26,000 33,400 49,300 529,000 822,000 132,100	14,500	....	18,000 41,250	36,000	2,000	11,500	157.1 424.3 58.2	....	270	2,600
Total	115,000	55,000	0	0	18,000	21,000	42,000	87,800	4,500	0	9,250	6,000	2,000	1,500	89.60	0	270	2,600

SLOVENIA

Nafta Lendava—Lendava.....	13,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	13,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0

SOUTH AFRICA

Caltex Oil SA—Cape Town	110,000	51,200	....	211,000	122,300	128,500	....	224,000 726,000 518,000	....	14,000	....	25,500	....	....	....	....	82	....
Engen Petroleum Ltd.— Durban	150,000	66,000	....	231,000	135,500	128,500	....	421,600 540,600	235,000	11,000	17,000	38,000	55,000	....	42.4	....	120	7,000
National Petroleum Refiners of South Africa Pty Ltd.— Sasolburg	87,547	34,475	....	....	125,660	114,642	^c 111,774	212,830 711,562	23,295	....	....	13,623	....	....	129.1 66.1	....	120	....
Shell and BP PLC Petroleum Refineries Pty. Ltd.—Durban	172,000	71,000	....	227,000	135,000	129,000	....	246,000 70,000 712,000 11370	23,100	....	....	....	3,200	....	....	240	140	....
Total	519,547	222,675	0	69,000	118,460	100,642	11,774	282,962	41,395	5,000	7,000	17,123	58,200	0	37.6	240	462	7,000

SOUTH KOREA

Hyundai Lube Oil—Busan	9,500	6,650	....	....	....	....	....	21,800 111,080	....	....	....	....	1,800	....	20.4	....	....	3,600
Hyundai Oil Refinery Co.—Daesan	310,000	41,000	219,000	....	....	320,000	122,000	227,000 12,000	....	....	....	....	1,000	....	254.0	1,200	180	3,727
Incheon	270,000	18,000	....	....	....	15,400 322,500	....	227,900 86,850	....	....	113,000	....	....	....	....	....	126	....
LG-Caltex—Yosu*	617,500	10,450	....	....	173,800	115,300 352,560	....	157,960 224,300 454,000 5108,000	....	....	137,200	....	3,000	12,250	....	....	330	5,400
S-Oil Corp.—Onsan	520,000	160,000	....	....	160,000	343,000	^c 260,000 ^c 311,000	144,000 212,000 421,000 585,000 840,000 1050,000 126,000	....	....	120,000	....	9,000	11,600	2198.0 157.0	....	900	8,500

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
SK Corp.—Ulsan	817,000	78,850	....	....	245,000	120,070 349,500	227,000	171,280 24,500 159,300 54,000 1027,000	15,400	....	127,900 28,055 33,600	....	....	14,770	180.0 265.0 4199.0	....	1,195	2,970
Total	2,544,000	314,950	19,000	0	178,800	228,330	120,000	1,001,970	5,400	0	109,755	0	14,800	8,620	653.4	1,200	2,731	24,197

SPAIN

BP PLC— Castellon de la Plana*	104,500	44,650	....	....	127,000	115,300	....	250,400 29,700 28,800	12,700	....	....	317,100	....	....	....	....	....	....
Cia. Espanola de Petros SA—Cadiz	240,000	40,000	....	238,000	138,000	136,000	....	135,000 54,000 830,000	25,600	....	111,500	25,500	2,300	21,300	44.8	....	246	....
Huelva	100,000	38,000	....	29,000	118,000	117,000	17,000	530,000 815,000	....	....	16,100 24,400 33,800	....	2,600	....	123.7 49.8	....	115	5,500
Tenerife	87,000	8,000	....	235,000	....	116,000	....	116,000 415,000 514,000	....	....	....	....	....	....	....	....	45	4,500
Petronor SA— Somorrostro Vizcaya	220,000	89,500	....	239,600	143,100	128,900	243,100	140,500 566,600	24,800	....	....	....	....	21,300	138.7	....	346	....
Repsol YPF SA— Cartagena Murcia	100,000	14,500	....	....	....	126,000	....	126,000 531,800	....	....	....	1800	2,600	....	814.0	....	138	5,200
La Coruna	120,000	52,000	219,000	....	131,600	119,700	....	119,700 543,400	....	....	....	11,200	....	21,200	114.1	1,050	156	1,700
Puertollano, Ciudad Real	140,000	55,500	224,100	....	130,600	116,300	2134,500	119,300 577,900	23,400	....	....	11,900	2,100	21,400	2157.1	1,340	210	5,200
Tarragona	160,000	72,000	....	227,600	....	322,000	2143,100	122,000 567,900	....	....	....	13,400	....	23,500	2165.7 85.0	....	243	....
Total	1,271,500	414,150	43,100	149,200	188,300	197,200	127,700	733,000	16,500	0	25,800	29,900	9,600	8,700	232.9	2,390	1,499	22,100

SRI LANKA

Ceylon Petroleum Corp.— Sapugaskanda*	47,500	22,800	....	211,250	....	14,770	....	18,897 58,550	....	....	....	....	....	....	....	....	....	1,000
Total	47,500	22,800	0	11,250	0	4,770	0	17,447	0	0	0	0	0	0	0.0	0	0	1,000

SUDAN

China National Petroleum Corp.—El-Gily	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Concorp—Khartoum	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Port Sudan Refinery Ltd.—Port Sudan	21,700	....	....	....	....	11,900	....	8,100	....	....	....	....	....	....	....	....	....	....
Total	121,700	0	0	0	0	1,900	0	8,100	0	0	0	0	0	0	0.0	0	0	0

SURINAME

Staatsolie Maatschappij Suriname n.v.— Wanica District	7,000	7,000	....	22,800	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	7,000	7,000	0	2,800	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
SWEDEN																		
AB Nynas Petroleum—																		
Gothenburg.....	13,000	13,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8,700
Nynashamn.....	28,000	28,000	....	....	....	....	....	⁶ 9,400	....	....	....	....	....	....	⁴ 8.1	....	22	18,760
Preem Raffinaderi AB—																		
Gothenburg.....	106,000	....	....	....	....	¹ 20,500	....	¹ 46,000 ³ 14,000 ³ 7,000 ⁶ 500	....	....	....	³ 10,000	....	....	⁵ 36.0	....	112	....
Shell Raffinaderi AB—																		
Gothenburg.....	77,000	30,000	....	¹ 22,000	....	¹ 17,000	....	² 28,000 ⁵ 000 ² 8,000	....	....	....	³ 4,000	....	....	....	....	....	....
Skandinaviska Raffinaderi AB—																		
Brofjorden-Lysekil	199,500	64,600	....	² 37,800	¹ 29,700	³ 32,400	^m 48,600	² 48,600 ³ 45,900	....	¹ 3,420	....	³ 14,400	....	....	⁶ 9.7	....	200	....
Total.....	423,500	135,600	0	59,800	29,700	69,900	48,600	268,400	0	3,420	0	28,400	0	0	53.8	0	334	27,460
SWITZERLAND																		
Petroplus—Cressier.....	60,000	24,000	....	¹ 11,000 ² 9,000	....	¹ 16,000	....	¹ 27,000 ⁸ 000 ² 7,000	....	....	....	³ 3,600	....	....	....	....	....	5,200
Tamoil SA—Collombey.....	72,000	....	....	....	20,400	¹ 12,000	....	¹ 18,900 ⁹ 7,600 ¹ 26,700	....	¹ 3,800	....	³ 6,400	....	....	⁴ 24.0 ⁶ 4.0	....	....	....
Total.....	132,000	24,000	0	20,000	20,400	28,000	0	95,200	0	3,800	0	10,000	0	0	28.0	0	0	5,200
SYRIA																		
Banias Refining Co.—Banias.....	132,725	50,935	....	² 22,689	....	³ 21,430	⁴ 26,410	¹ 21,480 ⁵ 16,070	....	....	....	³ 8,583	....	....	27.0	....	120	2,223
Homs Refinery Co.—Homs.....	107,140	12,200	² 18,200	....	....	³ 9,812	....	¹ 12,665 ⁴ 5,987 ⁵ 21,634 ⁹ 3,050	....	....	....	¹ 2,910	....	....	....	500	30	....
Total.....	239,865	63,135	18,200	22,689	0	31,242	26,410	80,886	0	0	0	11,493	0	0	27.0	500	150	2,223
TANZANIA																		
Tanzanian & Italian Petroleum Refining Co. Ltd.—																		
Kigamboni Dar es Salaam.....	¹ 4,900	....	....	¹ 2,500	....	² 2,500	....	² 4,400	....	....	....	....	....	....	....	....	....	....
Total.....	14,900	0	0	2,500	0	2,500	0	4,400	0	0	0	0	0	0	0.0	0	0	0
THAILAND																		
Esso Standard Thailand Ltd.—Sriracha.....	173,500	46,000	....	....	¹ 35,000	³ 26,500	....	¹ 45,500 ⁴ 25,000 ⁵ 71,000	....	....	¹ 9,000	....	....	....	....	....	160	6,000
PTT PLC—Bangchak Bangkok	61,750	....	....	....	....	¹ 9,450	....	¹ 4,950 ² 5,850 ¹ 316,200	....	....	....	....	....	....	¹ 4.7	....	....	....
Shell Co. of Thailand Ltd.— Map Ta Phut, Rayong.....	275,000	46,835	....	....	¹ 33,300	³ 13,500	....	¹ 13,500 ⁵ 0,580 ⁸ 25,200 ⁶ 7,000	....	....	....	....	....	....	....	....	....	....
Thai Oil Co. Ltd.—Sriracha	192,850	93,100	....	² 16,983	¹ 9,230	¹ 20,464 ² 23,496	^c 18,460 ^c 24,613	¹ 17,213 ² 12,795 ³ 36,360 ⁵ 33,696 ⁶ 33,696	....	....	....	¹ 19,596	....	....	¹ 28.8	....	....	....
Total.....	703,100	185,935	0	16,983	77,530	93,410	43,073	458,540	0	0	9,000	19,596	0	0	33.5	0	160	6,000

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
TRINIDAD & TOBAGO																		
Petroleum Co. of Trinidad & Tobago Ltd.— Pointe-a-Pierre	165,000	130,000	....	232,000	128,000	120,000	155,000	120,000	....	11,200	....	....	....	1650	130.0	....	60	....
							4520,000											
Total	165,000	130,000	0	32,000	28,000	20,000	55,000	40,000	0	1,200	0	0	0	650	30.0	0	60	0
TUNISIA																		
Ste. Tunisienne Industries des Raffinage—Bizerte	34,000	....	....	....	....	3,300	....	....	....	....	....	....	....	....	....	....	....	....
Total	34,000	0	0	0	0	3,300	0	0	0	0	0	0	0	0	0.0	0	0	0
TURKEY																		
Anadolu Tasfiyehanesi AS—Mersin*	95,000	....	....	....	....	113,500	....	121,600 10,800	....	....	....	....	....	....	....	....	....	....
Ersan Petrol Sanayii AS—Narlı, KahramanmaraşE	6,000	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3,000
Turkish Petroleum Refineries Corp.—Aliaga-Izmir	226,440	75,490	....	218,870	115,095	19,810	116,360	111,320 211,320 39,055 411,320 76,790 117,250	....	....	....	....	5,870	....	234.4 488.5	....	98	472
								11,302										
Batman, Siirt	22,015	2,140	....	14,720	....	11,302	....	11,302	....	....	....	....	....	....	....	....	....	2,139
Izmit	251,600	89,947	....	....	113,840	16,920 314,000	122,960	120,760 210,065 33,150 427,050 76,290 839,000	....	....	....	35,030	....	....	150.7	180	137	9,435
								127,675 135,032										
Kirikale	113,220	30,190	....	....	....	120,130	114,500	120,130 515,096	....	....	....	39,025	....	....	222.1 421.8	....	80	5,170
Total	714,275	201,767	0	23,590	28,935	65,662	53,820	265,005	0	0	0	14,055	5,870	0	217.5	180	315	20,216
TURKMENISTAN																		
Ministry of Oil & Gas— Chardzou	120,493	50,745	....	....	....	124,466	....	124,900	....	....	....	....	....	....	....	....	....	....
Turkmenneftgas— Turkmenbashi	116,477	40,900	228,568	....	115,151	18,074 320,000	....	138,600	11,028	11,223	....	....	2,000	....	....	1,040	....	415
Total	236,970	91,645	28,568	0	15,151	52,540	0	63,500	1,028	1,223	0	0	2,000	0	0.0	1,040	0	415
UKRAINE																		
JSC Khersonnefte-Perperabotka— Kherson	137,630	43,000	212,000	....	....	116,637	....	113,041	....	....	....	....	....	....	....	340	....	5,811
Lukoil—Odessa	78,321	18,795	....	....	....	110,276	....	111,500 28,767	....	....	....	....	....	....	....	....	....	3,155
TNK-Ukraina—Lisichansk	320,000	115,600	....	....	140,500	156,761	....	157,500 79,014 842,192	....	....	21,870	....	....	1125	121.5	....	90	....
Ukraine Oil Co.—Drogobich	78,321	25,185	33,195	17,330	....	18,074	....	18,200	....	....	....	....	....	....	....	115	....	3,819
Ukratnafta—Kremenchug	360,000	119,997	....	....	129,600	244,400	37,200	565,999	....	....	11,594	....	....	....	....	....	86	....
Nadvornaja	50,487	13,720	26,954	19,961	....	18,563	....	18,800	....	....	....	....	....	....	....	250	....	....
Total	1,024,759	336,297	22,149	17,291	70,100	144,711	7,200	315,013	0	0	3,464	0	0	125	21.5	705	176	12,785

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
UNITED ARAB EMIRATES																		
Abu Dhabi																		
Abu Dhabi National Oil Co.—Ruwais	145,000	56,680	....	....	¹ 19,150	....	^c 131,050	21,889 39,248 21,850	....	....	....	....	....	....	¹ 53.0	....	....	....
Umm Al-Nar	88,000	....	....	....	....	³ 14,000	....	² 23,500 22,500	....	....	....	....	....	....	....	....	35	....
Total	233,000	56,680	0	0	19,150	14,000	31,050	128,987	0	0	0	0	0	0	53.0	0	35	0
Dubai																		
Emirates National Oil Co.—Jebel Ali	120,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	⁶	....
Total	120,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	6	0
Fujairah																		
Metro Oil Corp.	90,000	17,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	90,000	17,000	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0
Sharjah																		
Sharjah Oil Refining Co. Ltd.—Hamriyah	71,250	19,190	....	....	¹ 15,200	¹ 11,875	....	² 15,580 ⁴ 2,470 ⁶ 11,590	² 1,140	¹ 1,900	....	....	....	....	⁷ 5.8	....	16	700
Total	71,250	19,190	0	0	15,200	11,875	0	29,640	1,140	1,900	0	0	0	0	5.8	0	16	700
UNITED KINGDOM																		
England																		
BP PLC —Coryton Essex*	163,400	94,050	....	....	61,200	³ 34,200	....	¹ 56,700 49,500	² 18,900	....	....	³ 31,500	9,900	....	....	....	....	2,430
ConocoPhillips— South Killingholme*	221,493	178,790	² 64,800	¹ 56,475	149,500	¹ 55,800	....	⁵ 42,300 ⁷ 132,300 ⁹ 27,000 ¹³ 25,920 ¹² 26,550	² 12,600	....	¹ 40,500 23,400	³ 14,400	....	....	⁴ 17.5	2,400	142	....
Eastham Refinery Ltd.—Eastham..	22,500	21,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
ExxonMobil Refining & Supply Co.—Fawley	317,000	139,000	....	....	¹ 72,000	¹ 37,000 23,000	....	¹ 95,000 437,000 565,000 1022,000 111,500	....	¹ 9,500	....	³ 21,000	11,200	....	⁶ 48.0	....	275	5,500
Petroplus International NV—Teesside	100,000	....	....	....	....	....	....	⁵ 24,000	....	....	....	....	....	....	....	....	⁴	....
Shell U.K. Ltd.— Stanlow	245,000	46,000	....	....	66,000	¹ 29,000 30,000	....	¹ 59,000 214,000 57,000	² 11,000	....	¹ 9,000	....	4,500	....	....	....	....	....
Total SA Lindsey Oil Refinery Ltd.—Killingholme South Humberside	225,545	97,626	....	² 26,641	¹ 48,514	¹ 34,187	....	¹ 49,715 ⁴ 3,853 ⁵ 52,882	² 7,803	¹ 1,985	....	....	....	¹² 603 ³¹ 307	....	....	130	6,703
Total	1,294,938	576,966	64,800	83,116	297,214	243,187	0	851,220	50,303	11,485	72,900	66,900	25,600	3,910	65.5	2,400	551	14,633
Scotland																		
AB Nynas Petroleum—Dundee	12,000	12,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8,000
BP PLC —Grangemouth*	195,700	64,600	....	....	....	¹ 39,600	¹ 36,000	² 56,700	² 4,500	....	....	....	....	....	¹ 49.0	....	....	....
Total	207,700	76,600	0	0	0	39,600	36,000	56,700	4,500	0	0	0	0	0	49.0	0	0	8,000

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Wales																		
ChevronTexaco Corp. — Pembroke, Dyfed	210,000	105,000	....	226,000	190,000	339,000	....	139,000 214,000 560,000	232,500	....	....	119,900 312,000	....	....	....	....	160	....
Total SA—Milford Haven ^P	104,745	53,342	....	....	131,192	116,883	....	127,862 571,364 71,000 136,800	25,920	21,994	....	315,372	....	....	....	....	22	....
Total	314,745	158,342	0	26,000	121,192	55,883	0	290,026	38,420	1,994	0	47,272	0	0	0.0	0	182	0

UNITED STATES

ALABAMA

Coastal ExxonMobil Refining Co.— Mobile Bay.....	20,000	15,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hunt Refining Co.—Tuscaloosa * ..	43,225	14,250	212,600	....	....	16,480	....	19,000 41,800 510,800 89,900	....	....	....	....	....	....	a16.1 47.0	500	80	10,800
Shell Chemical Co.—Saraland.....	85,000	28,000	....	....	....	121,000	....	125,000 918,000	....	....	....	37,500	....	....	....	....	20	....
Total	148,225	57,250	12,600	0	0	27,480	0	74,500	0	0	0	7,500	0	0	13.1	500	100	10,800

ALASKA

BP PLC—Prudhoe Bay.....	15,000	....	315,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kuparuk.....	14,500	....	314,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petro Star Inc.—North Pole.....	17,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Valdez.....	48,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tesoro Alaska Co.—Kenai.....	72,000	19,000	....	....	....	112,000	c112,500	112,500	....	....	....	34,000	....	....	a113.0	....	19	1,000
Williams Alaska Petroleum Inc.—North Pole.....	220,000	8,000	....	....	....	....	....	....	....	....	12,800	....	....	....	....	....	....	2,300
Total	386,500	27,000	29,500	0	0	12,000	12,500	12,500	0	0	2,800	4,000	0	0	13.0	0	19	3,300

ARKANSAS

Cross Oil & Refining Co. Inc.—Smackover.....	7,000	3,000	....	....	....	....	....	114,500	....	....	....	....	4,500	....	12.5	....	....	1,500
Lion Oil Co.—El Dorado.....	64,000	26,500	....	....	119,700	314,000	....	120,000 58,500 821,000	14,900	....	....	36,500	....	....	....	....	157	8,400
Total	71,000	29,500	0	0	19,700	14,000	0	54,000	4,900	0	0	6,500	4,500	0	2.5	0	157	9,900

CALIFORNIA

BP PLC—Carson*.....	247,000	123,500	258,500	....	186,400	146,800	c138,700	81,000 90,000	115,000	12,800	....	121,600 320,000	....	12,700	1105.0	2,400	350	....
ChevronTexaco Corp.— El Segundo.....	260,000	120,000	264,000	....	162,000	340,000	c145,000	157,000 415,000 534,000 76,000 868,000 1218,000	121,000	....	....	13,800 319,000	....	....	168.0 271.0	3,447	406	....
Richmond.....	225,000	110,000	....	....	165,000	145,000	c141,000 c328,000 c440,000 1119,000	150,000 450,000 525,000	120,000	11,800	....	13,900 325,000	14,000	....	1145.0 410.0	....	350	....
ConocoPhillips—Los Angeles (Carson and Wilmington).....	130,500	78,000	248,000	....	145,000	135,200	c124,750	150,850 735,000 850,000	114,200	....	....	15,300 212,200	....	....	1100.8	2,000	340	....
Rodeo & Santa Maria*.....	122,458	78,309	247,502	....	....	130,600	c132,553	122,113 614,850 79,000	....	....	....	313,500	....	....	186.3 42.7	2,370	484	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
ExxonMobil Refining & Supply Co.—Torrance	149,000	98,000	252,000	....	190,500	119,000	120,000	123,500 717,500 8100,000	223,500	....	....	....	....	....	1135.5 614.0	3,215	400	....
Kern Oil & Refining Co.— Bakersfield.....	25,000	....	....	....	....	13,000	....	14,500 32,000 56,500	....	....	....	....	....	....	....	....	5	....
Paramount Petroleum Corp.—Long Beach	52,000	30,000	....	....	....	18,500	....	29,500 58,000 78,000 810,000	....	....	....	....	....	....	....	38	....	16,500
San Joaquin Refining Co. Inc.—Bakersfield	24,300	14,300	....	210,000	....	....	....	63,000	....	....	....	....	4,000	....	13.5 43.5	....	3	5,000
Shell Oil Products US— Bakersfield.....	65,000	39,000	222,000	....	....	114,700	123,500	112,500 139,400	....	....	....	....	....	....	124.7 65.0	1,200	103	....
Martinez.....	152,800	101,500	224,300 320,600	....	169,100 21,000	228,400	136,000	125,400 318,600 721,900 872,400 118,600 1339,300	110,700	22,400	....	14,300	3,500	....	1100.9	1,181	432	15,000
Wilmington	98,500	58,000	141,000	....	135,000	131,000	129,000	134,000 38,500 413,500 836,000	111,500	....	....	17,000	....	....	155.0 455.0	1,890	285	....
Tesoro Petroleum—Golden Eagle..	161,000	144,000	142,000	....	166,500	120,000 322,000	132,000	123,000 39,000 532,000 614,000 862,000 1227,000 135,500	114,000	....	....	....	....	....	174.0 131.0	1,500	140	....
Valero Energy Corp.—Benicia	139,500	78,500	127,000	....	169,000	236,000	134,000	129,000 244,000 311,000 413,500 711,500 937,000 1321,000	115,000	22,500	....	....	....	....	1131.5	1,080	275	5,000
Wilmington	84,000	49,700	128,000	....	154,000	17,500	....	132,000 530,000 864,000 1215,000	215,000	....	....	110,000	....	....	157.0	1,700	250	3,500
Total.....	1,936,058	1,122,809	474,902	10,000	643,500	397,700	424,503	1,667,913	159,900	9,500	0	155,600	21,500	2,700	1,279.4	22,021	3,823	45,000
COLORADO																		
Suncor Energy Products— Commerce City ^U	60,000	25,000	....	....	119,000	19,600	....	19,600 512,500 812,000	....	12,600	....	....	....	....	....	....	90	10,500
Valero Energy Corp.— Denver	28,000	9,500	....	....	18,000	19,000	....	19,000	....	1900	....	....	....	....	....	....	4	....
Total.....	88,000	34,500	0	0	27,000	18,600	0	43,100	0	3,500	0	0	0	0	0.0	0	94	10,500

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates							
DELAWARE																					
Motiva Enterprises LLC— Delaware City.....	175,000	91,000	147,000	....	173,000	339,000	c218,000	145,000 215,000 415,000 744,000 1215,000	18,190	15,040	11,260	16,000	....	12,192 32,322	138.0 422.0	1,700	514	....		
Total	175,000	91,000	47,000	0	73,000	39,000	18,000	134,000	8,190	5,040	1,260	6,000	0	4,514	60.0	1,700	514	0			
HAWAII																					
ChevronTexaco Corp.—Kapolei.....	54,000	30,000	....	....	121,000	....	....	133,000	14,000	21,000	....	11,200	....	....	12.0	....	....	1,300
Tesoro Hawaii Corp.—Kapolei.....	93,700	39,500	....	211,500	....	112,800	c117,600	110,800	....	....	....	....	....	....	a218.0	....	34	1,000
Total	147,700	69,500	0	11,500	21,000	12,800	17,600	13,800	4,000	1,000	0	1,200	0	0	20.0	0	34	2,300			
ILLINOIS																					
Citgo Petroleum Corp.—Lemont* ..	158,650	71,250	235,100	....	160,300	128,080	....	144,100 33,960 531,950 713,500 129,900	218,900	....	16,030	....	....	....	14.5	2,101	344	....		
ConocoPhillips— Wood River	286,400	107,000	....	....	190,000	115,000 270,000	c128,500	160,000 210,000 825,500 1237,200 1370,600	120,500	....	13,500	....	....	....	151.5	....	435	40,000
ExxonMobil Refining & Supply Co.—Joliet.....	238,000	114,000	255,500	....	193,000	349,500	....	188,000 219,500 784,500	227,000	....	....	....	....	....	....	3,330	660	10,500
Marathon Ashland Petroleum LLC—Robinson	192,000	61,900	227,600	....	150,400	234,200 337,100	125,700	157,000 566,500	212,400	....	....	313,300	....	11,300 3200	....	1,270	222	....		
Total	875,050	354,150	118,200	0	293,700	233,880	54,200	622,210	78,800	0	9,530	13,300	0	1,500	56.0	6,701	1,661	50,500			
INDIANA																					
BP PLC—Whiting*	399,000	242,250	231,500	....	1148,500	279,200	....	1106,200 7161,100 1324,700 92,200	130,600	....	116,200	332,400	....	13,800	129.5	1,690	449	60,000
Countrymark Cooperative Inc.—Mount Vernon	23,500	7,500	....	....	17,850	35,500	....	22,000	21,800	....	....	32,000	....	....	....	....	....	2,700
Total	422,500	249,750	31,500	0	156,350	84,700	0	386,200	32,400	0	16,200	34,400	0	3,800	29.5	1,690	449	62,700			
KANSAS																					
Farmland Industries— Coffeyville	95,000	50,000	217,000	....	129,000	117,000	....	228,500 47,000 723,800	27,000	....	....	38,500	....	....	....	800	....	....	
Frontier Oil Corp.—El Dorado	110,000	39,000	218,000	....	137,200	129,500	....	124,000 218,000 412,400 523,500 845,000	212,500	....	13,000	312,500	....	....	16.0 312.0	860	250	....		
National Cooperative Refining Assoc.—McPherson	79,000	31,600	220,400	....	120,900	320,900	m411,200	121,800 210,200 525,700 79,600 811,200	26,300	....	....	13,300 310,200	....	....	....	612	81	....		
Total	284,000	120,600	55,400	0	87,100	67,400	11,200	260,700	25,800	0	3,000	34,500	0	0	18.0	2,272	331	0			

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
KENTUCKY																		
Marathon Ashland Petroleum LLC— Catlettsburg.....	222,000	91,200	....	....	¹ 55,100 ² 40,900	³ 45,600	....	¹ 46,600 ² 6,700 ³ 5,700 ⁴ 87,400 ⁵ 38,000 ¹¹ 10,900	² 12,400	....	¹ 3,500 ⁴ 7,600	³ 13,300	8,900	¹ 2,600	....	....	494	21,900
Somerset Refinery Inc.— Somerset.....	5,500	....	....	....	....	² 1,500	....	¹ 1,500 ⁴ 500	....	....	....	....	....	....	....	....	....	....
Total	227,500	91,200	0	0	96,000	47,100	0	197,300	12,400	0	11,100	13,300	8,900	2,600	0.0	0	494	21,900
LOUISIANA																		
Calcasieu Refining Co.— Lake Charles.....	15,680	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calumet Lubricants Co.— Cotton Valley.....	8,500	....	....	....	....	....	....	¹ 34,000	....	....	....	....	....	....	^a 12.5 ⁴ 2.5	....	....	....
Princeton	9,500	8,500	....	....	....	....	⁴ 8,000	....	....	....	....	....	7,000	....	^a 14.5 ⁴ 4.5	....	3	....
Shreveport	15,000	10,000	....	....	....	....	^c 47,200	¹ 31,100	....	....	....	....	7,000	....	^a 16.1 ⁴ 6.1	....	15	....
Cit-Con Oil Corp.—Lake Charles ... Citgo Petroleum Corp.— Lake Charles.....	.... 336,801	36,100 79,800	.... ² 88,200	.... ....	.... ¹ 126,000	.... ¹ 45,900 ³ 57,600	.... ^c 137,800	.... ¹ 103,500 ² 6,300 ⁴ 22,950 ⁵ 32,400 ⁸ 64,800	.... ¹ 20,700	.... ....	.... ¹ 6,480	.... ³ 28,800	8,550 ....	.... ¹ 3,150 ³ 4,140	.... ^a 147.7 ⁶ 10.8	.... 3,870	.... 567	........
ConocoPhillips—Belle Chasse	250,000	92,000	² 25,200	....	¹ 104,000	¹ 42,000	....	¹ 47,000 ⁷ 65,000 ¹³ 29,160	² 38,000	....	¹ 22,140 ² 7,200	....	....	....	⁷ 10.4	800	70	....
Westlake	227,600	106,200	² 57,800	....	¹ 44,800	³ 33,000	^c 329,000	¹ 35,600 ⁴ 21,800 ⁵ 49,100 ⁶ 4,000 ⁷ 35,900	17,500	11,000	....	....	....	....	⁴ 90.5	3,600	349	....
ExxonMobil Refining & Supply Co.—Baton Rouge	493,500	223,000	² 112,500	....	¹ 229,000	² 72,000	^c 124,000	¹ 72,000 ² 104,000 ⁷ 95,000 ¹¹ 23,500 ¹² 9,400 ¹³ 46,000	136,000	19,500	....	....	16,000	17,000	⁴ 12.0 ⁶ 12.0	5,000	675	....
Chalmette	182,500	106,500	² 33,000	....	¹ 68,000	¹ 28,000 ³ 18,000	^c 18,500	¹ 39,500 ⁷ 27,000 ⁸ 57,500	² 12,500	....	¹ 10,000	³ 9,500	....	....	....	2,050	920	....
Marathon Ashland Petroleum LLC— Garyville	232,000	118,800	² 32,800	....	¹ 109,300	³ 46,600	....	¹ 47,500 ⁵ 62,700 ⁸ 98,800	² 29,500	....	....	¹ 22,800 ³ 19,000	....	....	....	2,322	870	39,900
Motiva Enterprises LLC— Convent	235,000	100,000	....	....	¹ 85,000	¹ 36,000	^c 245,000	¹ 40,000 ⁴ 25,000 ⁵ 63,000 ⁸ 34,000 ¹² 53,500	¹ 13,050	² 3,600	....	³ 11,250	....	¹ 2,250 ³ 2,500	^a 158.0	....	700	....
Norco	220,000	78,000	² 21,300	....	¹ 105,000	¹ 19,100 ² 38,200	^c 131,500	¹ 38,000 ⁵ 35,300	114,800	....	....	....	....	17,500	149.4	900	140	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates							
Murphy Oil USA Inc.— Meraux	95,000	47,500	....	....	134,200	....	....	119,800 13,500 1324,750	27,650	....	....	....	....	....	....	....	120	....		
Placid Refining Co. LLC—Port Allen.....	48,000	20,000	....	....	119,000	19,700	....	29,700 712,000	23,800	....	....	....	....	....	....	....	28	....		
Shell Chemical Co.—St. Rose	55,000	28,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Valero Energy Corp.—Krotz Springs	82,000	34,600	....	....	132,500	111,500	....	113,000 23,900	....	12,100	....	33,900	....	11,600	....	....	....	....
Norco ^Q	155,160	88,088	256,000	....	187,813	125,000	....	134,136 411,378 539,333 829,882	110,641	....	....	....	....	....	....	3,596	368	....		
Total.....	2,661,241	1,177,088	426,800	0	1,044,613	482,600	201,000	1,705,689	194,141	16,200	45,820	95,250	38,550	28,140	317.0	22,138	4,825	39,900			
MICHIGAN																					
Marathon Ashland Petroleum LLC— Detroit.....	74,000	36,100	....	....	128,500	120,000	....	113,300 518,400 816,900	13,900	....	....	....	....	11,000	....	....	162	20,900
Total.....	74,000	36,100	0	0	28,500	20,000	0	48,600	3,900	0	0	0	0	1,000	0.0	0	162	20,900			
MINNESOTA																					
Flint Hills Resources— Rosemount*	270,750	171,000	261,200	....	177,400	211,700 332,400	....	145,900 235,100 419,800 572,000 65,400 894,500	110,980	1990 23,240	....	216,200	....	....	199.0 59.0	3,600	810	22,500
Marathon Ashland Petroleum LLC— St. Paul Park.....	70,000	30,400	....	....	124,700	120,000	....	120,900 525,700 824,700	25,200	....	....	11,900 36,700	....	....	19.5	....	114	11,400
Total.....	340,750	201,400	61,200	0	102,100	64,100	0	344,000	16,180	4,230	0	24,800	0	0	117.5	3,600	924	33,900			
MISSISSIPPI																					
ChevronTexaco Corp.— Pascagoula	325,000	240,000	292,000	....	163,000	171,000	158,000	147,000 428,000 532,000 987,500 1344,000 912,000	114,800	22,100	119,000	....	....	....	1205.0	6,440	1,067	....		
Ergon Refining Inc.—Vicksburg.....	23,000	10,200	....	....	....	....	....	12,000	....	....	....	....	11,300	....	127.7	....	....	9,600
Total.....	348,000	250,200	92,000	0	63,000	71,000	58,000	250,500	14,800	2,100	19,000	0	11,300	0	212.7	6,440	1,067	9,600			
MONTANA																					
Cenex Harvest States—Laurel	56,000	28,000	....	....	113,300	111,800	....	114,000 514,600 815,500	24,200	....	....	12,500	....	....	112.0 412.0	...	125	16,500
ConocoPhillips—Billings*	55,755	27,225	217,505	....	118,405	112,195	....	735,730 821,780	26,525	....	....	13,510	....	....	117.5 610.4	825	170	....		
ExxonMobil Refining & Supply Co.—Billings.....	58,000	27,500	18,500	....	120,000	112,000	15,500	229,000 510,500 713,500 137,000	14,000	....	....	....	....	....	122.0 64.5	390	....	12,500
Montana Refining Co.— Great Falls	7,000	3,350	....	....	12,300	11,000	....	....	....	....	....	....	....	....	....	....	....	....
Total.....	176,755	86,075	26,005	0	54,005	36,995	5,500	161,610	14,725	0	0	6,010	0	0	78.4	1,215	295	29,000			

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
NEW JERSEY																		
Coastal Eagle Point Oil Co.— Westville.....	150,000	47,500	....	....	¹ 55,000	¹ 28,000	....	¹ 29,000	¹ 4,000	¹ 3,300	¹ 17,000	³ 10,000	....	....	....	....	20	....
ConocoPhillips—Linden*.....	237,500	71,250	....	....	¹ 130,500	² 28,800	....	⁷ 83,700 ⁸ 48,600 ¹² 36,000	¹ 15,750	....	....	¹ 24,525	....	....	⁵ 56.5	....	340	....
Valero Energy Corp.—Paulsboro	166,000	90,000	² 27,000	....	¹ 55,000	¹ 25,000	....	¹ 25,000 ⁴ 28,500 ⁵ 46,000 ¹ 750 ¹³ 14,000	² 11,200	....	....	....	11,500	....	^a 13.5 ⁴ 9.0	1,470	230	16,000
Total	553,500	208,750	27,000	0	240,500	81,800	0	399,350	30,950	3,300	17,000	34,525	11,500	0	79.0	1,470	590	16,000
NEW MEXICO																		
Giant Refining Co.—Bloomfield....	18,600	....	....	....	16,000	14,800	....	¹ 4,800 ⁵ 3,000	....	12,000	....	....	....	....	....	....	1	....
Gallup.....	26,000	....	....	....	18,500	17,300	....	¹ 7,500 ⁷ 4,000	² 1,800	....	....	³ 4,000	....	....	....	....	2	....
Navajo Refining Co.—Artesia.....	60,000	20,000	....	....	118,500	³ 12,500	....	¹ 25,000 ² 5,500	² 7,800	....	....	³ 10,000	....	....	....	....	30	3,500
Total	104,600	20,000	0	0	33,000	24,600	0	69,800	9,600	2,000	0	14,000	0	0	0.0	0	33	3,500
NORTH DAKOTA																		
Tesoro West Coast Co.—Mandan..	58,000	....	....	....	124,700	² 11,500	....	¹ 12,000 ³ 11,500	² 4,200	¹ 1,100	....	³ 4,800	....	....	....	....	15	....
Total	58,000	0	0	0	24,700	11,500	0	23,500	4,200	1,100	0	4,800	0	0	0.0	0	15	0
OHIO																		
BP PLC —Toledo*.....	147,250	65,550	² 31,500	....	¹ 54,000	² 38,700	^c 127,000	³ 6,000 ⁴ 9,500 ⁸ 38,000	¹ 10,800	....	....	....	....	....	¹ 33.0 ⁴ 24.0 ⁸ 8.0	1,736	314	8,600
Marathon Ashland Petroleum LLC— Canton.....	73,000	30,000	....	....	122,800	³ 18,100	....	¹ 23,800 ⁵ 8,600 ⁸ 24,700	² 6,700	¹ 800	....	³ 3,800	....	....	....	....	121	10,900
Premcor Refining Group— Lima.....	165,000	52,000	² 22,500	....	140,000	² 55,500	⁴ 26,000	¹ 63,000	....	....	¹ 7,000	³ 18,700	....	....	⁵ 10.4	800	52	....
Sunoco Inc.—Toledo.....	140,000	30,000	....	....	¹ 60,000	¹ 45,600	¹ 28,200	¹ 48,000	¹ 9,000	....	¹ 9,000	....	....	....	¹ 52.0	....	....	....
Total	525,250	177,550	54,000	0	176,800	157,900	81,200	291,600	26,500	800	16,000	22,500	0	0	127.4	2,536	487	19,500
OKLAHOMA																		
ConocoPhillips—Ponca City*.....	193,505	72,928	² 24,199	....	¹ 58,812	¹ 46,925	....	¹ 55,979 ⁴ 13,947 ⁶ 11,391 ⁷ 32,760 ⁸ 20,719 ¹² 38,700	² 14,564	¹ 2,417	....	¹ 10,800	....	....	¹ 10.0	1,000	116	....
Gary-Williams Energy Corp.—Wynnewood.....	52,500	15,500	....	....	¹ 18,500	³ 13,000	¹ 5,000	¹ 12,000	² 4,000	....	....	³ 3,500	....	....	¹ 9.0	....	....	5,000
Sinclair Oil Corp.—Tulsa.....	50,000	25,175	....	....	¹ 16,200	¹ 10,800	....	¹ 10,800 ⁷ 15,500	¹ 2,700	....	....	³ 5,400	....	....	....	....	19	2,250
Sunoco Inc.—Tulsa.....	85,000	30,000	² 8,500	....	....	¹ 17,500	....	¹ 24,000 ¹¹ 10,500	....	....	....	....	8,500	....	....	350	....	....
Valero Energy Corp.—Ardmore.....	85,000	32,000	....	....	¹ 25,400	³ 21,000	....	¹ 25,800 ⁵ 33,200 ⁸ 31,200	² 6,400	....	....	³ 7,000	....	....	¹ 26.0	....	100	11,000
Total	466,005	175,603	32,699	0	118,912	109,225	5,000	336,497	27,664	2,417	0	26,700	8,500	0	45.0	1,350	235	18,250

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
PENNSYLVANIA																		
American Refining Group— Bradford	10,000	.....	.....	.....	.....	11,800	.....	23,500	.....	.....	.....	.....	2,600	.....	.....	.....	.....	.....
ConocoPhillips—Trainer*	188,670	75,430	.....	.....	148,420	348,780	119,890	151,930	211,790	.....	.....	.....	.....	.....	.....	.....	160	.....
								20,340										
								20,970										
								38,340										
Sunoco Inc.—Marcus Hook	175,000	26,400	.....	.....	193,000	115,600	.....	136,000	110,000	.....	119,200	.....	.....	12,600	16.0	.....	.....	.....
								121,000			32,400							
Philadelphia	330,000	157,400	.....	.....	1113,500	168,000	.....	185,600	216,700	.....	13,700	17,300	.....	.....	.....	.....	.....	.....
								578,000			410,000							
United Refining Co.—Warren	66,700	27,000	.....	.....	123,000	216,000	.....	220,000	13,500	11,000	.....	36,800	.....	.....	.....	.....	.....	12,000
								6,000										
								714,000										
Total	770,370	286,230	0	0	277,920	150,180	19,890	386,680	41,990	1,000	35,300	14,100	2,600	2,600	6.0	0	160	12,000
TENNESSEE																		
Premcor Refining—Memphis ^S	190,000	.....	.....	.....	168,000	336,000	.....	160,000	212,000	.....	.....	34,000	.....	.....	.....	.....	45	.....
								51,000										
								1312,000										
Total	190,000	0	0	0	68,000	36,000	0	123,000	12,000	0	0	4,000	0	0	0.0	0	45	0
TEXAS																		
AGE Refining & Manufacturing— San Antonio	10,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,200	.....	.....	.....	.....	.....	.....	.....
Alon USA—Big Spring	62,000	24,000	.....	.....	123,000	121,000	.....	125,500	24,500	.....	14,900	.....	.....	.....	.....	.....	131	8,500
								43,700										
								22,000										
								86,200										
Total SA—Port Arthur ^O	174,575	50,433	.....	.....	153,329	336,467	.....	144,129	15,168	.....	.....	313,578	.....	.....	.....	.....	270	.....
								529,726										
								849,090										
BP PLC —Texas City*	446,500	225,150	238,700	.....	1183,600	2124,200	157,000	1104,500	120,900	.....	143,700	324,300	.....	.....	1180.0	2,585	1,123	.....
							257,000	7133,000	238,000						522.8			
								13126,400										
Citgo Petroleum Corp.—Corpus Christi*	156,750	73,625	237,800	.....	172,450	347,250	.....	149,050	218,090	.....	112,600	.....	.....	13,600	.....	2,340	282	.....
								544,100			22,835							
								856,880			33,600							
								1319,350			411,070							
Coastal Refining & Marketing Inc.— Corpus Christi	100,000	56,000	217,500	210,000	120,000	110,000	111,000	131,000	23,000	12,000	114,500	35,200	.....	.....	124.0	1,000	280	12,000
						320,000		412,000			26,000				515.0			
								514,000										
								825,000										
ConocoPhillips—Borger*	137,880	.....	.....	.....	158,320	128,260	.....	132,490	217,010	.....	32,250	117,100	.....	.....	163.0	.....	400	.....
								214,400				220,250			416.0			
								426,568				38,100						
								712,600										
								1071,100										
Sweeny*	220,970	111,150	259,310	.....	195,420	332,400	.....	159,130	214,967	.....	110,440	29,090	.....	12,250	595.0	3,763	480	.....
								37,830			36,750				770.0			
								748,450										
								895,031										
								1315,012										
Crown Central Petroleum Corp.— Pasadena	100,000	42,000	212,500	.....	156,000	.....	.....	126,000	213,000	.....	.....	.....	.....	12,000	.....	480	25	.....
								510,000										
ExxonMobil Refining & Supply Co.— Baytown	557,000	252,500	243,000	.....	1202,500	2122,000	126,000	1150,000	130,000	.....	.....	.....	20,000	16,500	183.5	3,280	1,630	.....
			338,000					433,500							657.5			
								7193,000										
								8105,500										
								1147,000										
								1278,000										

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
Beaumont.....	348,500	143,000	248,000	....	1108,000	3147,000	c160,500	1106,500 265,000 451,500 526,000 116,000 1325,500	115,500	....	....	224,500	12,500	14,500	554.5	2,900	580	....
Flint Hills Resources— Corpus Christi.....	297,000	104,500	113,680	....	1104,500	110,800 346,800	110,530	147,700 254,000 413,500 556,700 916,200	211,700	....	114,400 24,050 31,800 412,600	311,700	....	11,530	....	600	235	....
LaGloria Oil & Gas Co. —Tyler.....	60,000	15,000	26,500	....	120,200	317,500	....	120,000 512,000	14,750	....	....	35,000	....	....	....	250	18	....
Lyondell-Citgo Refining LP—Houston.....	268,850	187,625	287,300	....	189,100	160,300	....	164,800 224,210 419,800 576,500 73,060 892,700	118,810	....	19,630	....	3,700	12,610	....	5,000	1,042	....
Marathon Ashland Petroleum LLC— Texas City.....	72,000	....	....	....	141,800	110,500	....	....	210,500	....	12,400	....	....	....	....	....	....	....
Motiva Enterprises LLC—Port Arthur.....	270,000	119,000	255,000	....	186,000	345,000	c117,820	145,000 214,400 436,000 545,000 822,000 1150,000 1319,200	118,000	....	....	....	21,000	....	....	2,450	544	....
Premcor Refining Group—Port Arthur.....	237,500	130,000	280,000	....	177,000	150,000	c145,000	150,000 570,000 862,000 430,000	217,000	....	....	....	....	....	....	5,000	840	....
Shell Deer Park Refining Co.— Deer Park.....	333,700	181,600	278,400	....	167,500	123,000 245,400	c162,600	177,200 433,700 543,200 846,600 938,100 1111,200	118,100	....	....	....	....	16,100	a165.8 436.5	5,145	1,150	4,600
Valero Energy Corp.— Corpus Christi.....	152,000	85,000	217,500	....	120,000 295,000	110,000 357,000	c449,000	167,000 412,000 513,700 828,000 1074,000	218,500	....	117,000	116,000	....	121,500 32,200	a194.0 463.0	998	790	40,000
Houston.....	90,000	39,000	....	....	165,000	110,500	....	113,000 47,000 518,000 128,500	19,000	....	....	....	....	12,200	....	....	100	18,000
Sunray.....	155,000	47,000	....	....	152,000	118,000 328,000	c230,000	136,000 43,500 526,000	19,000	....	....	....	....	11,800 32,200	....	....	60	....
Texas City.....	210,000	190,000	245,000	....	280,000	314,500	....	121,000 438,000 552,000 10110,000 1250,500	212,000	....	....	37,000	....	125,000	a451.0	2,700	902	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates							
Three Rivers.....	97,000	29,000	....	....	123,000	110,500 320,000	229,000	119,000 410,500 519,000 619,000 811,500 111,750	25,800	....	19,600	....	1,200	....	16.0 49.6	....	50	....		
Western Refining Inc.—El Paso ^A ...	90,000	34,700	....	....	128,000	117,700	....	118,300 48,200 511,300	18,200	....	....	12,500	....	....	....	....	20	4,800
Total.....	4,647,225	2,140,283	678,190	10,000	1,721,719	1,084,077	455,450	3,993,256	341,495	2,000	191,325	164,318	58,400	83,990	1,007.2	38,491	10,952	87,900			
UTAH																					
Big West Oil LLC—Salt Lake City ^B ...	25,000	5,500	....	....	110,000	15,500	....	17,000 57,000	22,000	....	....	12,000 31,750	....	....	....	....	4	....		
ChevronTexaco Corp.— Salt Lake City.....	45,000	25,600	27,200	....	113,000	17,000	....	17,300 510,200 76,500	24,500	....	....	11,000	....	....	....	281	18	....		
Holly Corp.—Woods Cross ^R	25,000	5,500	....	....	17,680	17,200	....	212,000 71,700	22,400	....	....	32,600	....	....	....	....	4	800
Silver Eagle Refining Inc.— Woods Cross.....	12,500	6,000	....	....	....	12,200	....	12,200 4,000	....	....	....	....	....	....	....	....	....	1,200
Tesoro West Coast Co.— Salt Lake City.....	60,000	....	....	....	123,000	212,000	....	112,000	16,000	....	....	....	....	....	....	....	15	....		
Total.....	167,500	42,600	7,200	0	53,680	33,900	0	69,900	14,900	0	0	7,350	0	0	0.0	281	41	2,000			
VIRGINIA																					
Giant Refining—Yorktown.....	58,900	33,000	217,100	....	126,700	210,800	....	111,300 718,000	....	14,000	....	....	....	1660	....	905	36	....		
Total.....	58,900	33,000	17,100	0	26,700	10,800	0	29,300	0	4,000	0	0	0	660	0.0	905	36	0			
WASHINGTON																					
BP PLC—Ferndale*.....	220,400	95,950	256,700	....	....	156,700	151,300	151,300 623,400	....	....	....	....	....	....	192.0 633.0	2,700	211	....		
ConocoPhillips—Ferndale*.....	87,647	43,924	....	....	128,350	215,681	....	116,378 413,325 726,913 1218,000	28,550	....	....	13,960	....	....	....	....	46	....		
Shell Oil Products US— Anacortes.....	148,600	62,300	225,700	....	157,900	131,800	....	130,400 415,800 544,200	111,900	14,300	....	....	....	....	....	1,400	150	....		
Tesoro West Coast Co.— Anacortes.....	114,500	45,000	....	....	142,000	224,300	....	131,800 527,600 87,100	111,500	....	....	13,400	....	....	....	....	48	1,000
US Oil & Refining Co.—Tacoma....	35,800	17,700	....	....	....	15,500	....	17,400 55,500	....	....	....	32,700	....	....	....	....	....	10,000
Total.....	606,947	264,874	82,400	0	128,250	133,981	51,300	319,116	31,950	4,300	0	10,060	0	0	125.0	4,100	455	11,000			
WEST VIRGINIA																					
Ergon-West Virginia Inc.—Newell..	19,400	8,400	....	....	....	14,300	....	14,300 95,700	....	....	....	....	4,700	....	11.2	....	1	....		
Total.....	19,400	8,400	0	0	0	4,300	0	10,000	0	0	0	0	4,700	0	1.2	0	1	0			
WISCONSIN																					
Murphy Oil USA Inc.—Superior....	33,250	19,500	....	....	19,900	17,200	....	18,100 7,020 115,500	21,350	....	....	31,800	....	....	....	....	15	6,750
Total.....	33,250	19,500	0	0	9,900	7,200	0	20,620	1,350	0	0	1,800	0	0	0.0	0	15	6,750			

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									
	Crude	Vacuum distillation	Coking	Thermal operations	Catalytic cracking	Catalytic reforming	Catalytic hydrocracking	Catalytic hydrotreating	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
WYOMING																		
Frontier Refining Inc.— Cheyenne	46,000	26,000	¹ 10,000	....	¹ 12,000	¹ 7,600	....	¹ 8,900 ⁵ 16,500	² 4,200	....	....	¹ 1,600	....	....	^a 15.5 ⁴ 5.5	560	85	....
Sinclair / Little America— Casper	22,500	6,000	....	....	¹ 10,000	¹ 5,500	....	¹ 7,500 ⁵ 8,500	....	¹ 1,000	....	....	....	....	....	....	20	....
Sinclair Oil Corp.— Sinclair	54,000	29,500	....	....	¹ 20,600	¹ 14,200	....	¹ 14,200 ² 10,000 ¹ 22,000	¹ 4,000	¹ 700	....	....	....	....	....	....	....	4,900
Wyoming Refining Co.— Newcastle	12,500	1,500	....	....	¹ 5,500	¹ 2,750	....	¹ 3,200 ⁵ 4,000	² 1,300	....	....	....	....	....	....	....	3	....
URUGUAY																		
ANCAP—La Teja Montevideo	50,000	25,000	....	² 7,000	¹ 12,000	¹ 12,000	....	¹ 12,000 ² 6,000 ⁴ 5,000	....	....	....	³ 6,000	....	....	....	....	....	....
Total	50,000	25,000	0	7,000	12,000	12,000	0	23,000	0	0	0	6,000	0	0	0.0	0	0	0
UZBEKISTAN																		
Uzbekneftegaz—Alty-Arik	66,271	....	....	¹ 9,585	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bukhara	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fergana	106,000	45,671	² 17,667	....	....	¹ 23,487	....	¹ 23,900	....	....	....	....	9,397	....	....	650	....	4,151
Total	222,271	45,671	17,667	9,585	0	23,487	0	30,804	0	0	0	0	9,397	0	0.0	650	0	4,151
VENEZUELA																		
Paraguana Refining Center— Cardon/Judibana, Falcon	940,000	503,975	² 87,300 ³ 57,600	....	¹ 166,500	³ 40,500	....	¹ 54,000 ⁸ 184,500 ¹ 139,500 ¹ 22,700	¹ 22,500 ² 18,900	....	....	¹ 20,700	¹ 2,020	¹ 1,530 ³ 8,500	¹ 141.0	5,200	1,454	36,000
Maracaibo, Zulia	15,000	8,835	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petroleos de Venezuela SA— El Palito, Puerto Cabello	126,900	71,200	....	....	¹ 51,700	¹ 9,000	....	¹ 9,000	² 20,300	....	¹ 2,000	....	....	⁴ 2,800	⁴ 6.8	....	....	....
Puerto de la Cruz	195,000	....	....	....	¹ 13,600	....	....	....	² 4,100	....	....	....	....	....	....	....	¹ 7	....
San Roque, Anzoategui	5,200	1,770	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	1,282,100	585,780	144,900	0	231,800	49,500	0	389,700	65,800	0	2,000	20,700	12,020	12,830	147.8	5,200	1,471	36,000
VIRGIN ISLANDS																		
Hovenssa LLC—St. Croix	525,000	215,000	² 58,000	² 80,000	¹ 130,000	¹ 125,000	....	² 125,000 ¹ 65,000 ¹ 30,000	¹ 14,000	² 6,000	¹ 30,000	² 15,000	....	¹ 4,000 ³ 4,000	....	....	....	....
Total	525,000	215,000	58,000	80,000	130,000	125,000	0	420,000	14,000	6,000	30,000	15,000	0	8,000	0.0	0	0	0
YEMEN																		
Aden Refinery Co.—Little Aden	120,000	10,500	....	....	....	¹ 12,000	....	....	....	....	....	....	....	....	....	....	....	3,000
Yemen Oil Co.—Marib	10,000	....	....	....	....	¹ 2,500	....	....	....	....	....	....	....	....	....	....	....	....
Total	130,000	10,500	0	0	0	14,500	0	0	0	0	0	0	0	0	0.0	0	0	3,000
ZAMBIA																		
Indeni Petroleum Refinery Co. Ltd.— Bwana Nkubwa Area, Ndola	23,750	2,280	....	....	....	¹ 5,320	....	⁷ 8,550	....	....	....	....	....	....	....	....	....	5,527
Total	23,750	2,280	0	0	0	5,320	0	8,550	0	0	0	0	0	0	0.0	0	0	5,527