

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	....	....	....	....	12,400	....	12,700	....	....	....	....	....	....	....	....	....	....
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
Esso SA Petrolera Argentina—																		
Campana.....	84,500	48,000	² 24,000	....	¹ 26,500	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	64,500	² 34,700	....	¹ 59,800	¹ 10,200	....	¹ 10,200	....	....	....	³ 6,800	4,900	¹ 1,400	....	1,380	54	7,500
								² 6,500										
								⁵ 14,900										
								¹¹ 4,900										
Lujan de Cuyo.....	105,500	65,000	² 36,100	....	¹ 21,500	¹ 9,300	^c 18,700	¹ 10,300	² 2,300	....	....	³ 3,200	....	¹ 1,400	¹ 19.0	1,430	54	....
								² 3,300										
								⁵ 16,400										
								¹ 3,000										
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.....	624,575	246,275	101,300	38,320	140,910	56,800	18,700	154,620	4,000	500	0	12,700	7,300	2,800	19.0	3,810	108	12,300
ARUBA																		
Valero Aruba Refinery—San Nicolas*	270,750	142,500	² 65,700	² 31,500	....	....	....	⁴ 54,000	....	....	....	....	....	....	² 93.0	4,500	850	....
								⁵ 43,200										
								⁷ 123,300										
Total.....	270,750	142,500	65,700	31,500	0	0	0	220,500	0	0	0	0	0	0	93.0	4,500	850	0
AUSTRALIA																		
BP PLC—Bulwer Island*.....	85,500	34,200	....	....	¹ 20,700	¹ 12,600	15,300	¹ 11,700	² 2,700	....	....	....	1,800	....	26.0	....	35	1,980
								³² 400										
Kwinana*.....	132,050	20,900	....	....	¹ 31,500	³ 21,600	....	¹ 39,600	² 3,600	¹ 2,100	....	¹ 13,500	3,650	....	....	....	70	2,000
								⁵ 21,600										
Caltex Refineries (NSW) Ltd.—																		
Kurnell.....	105,500	....	....	....	¹ 36,157	³ 26,000	....	¹ 2,600	² 3,300	¹ 1,600	....	8,200	....	....	....	....	....	....
								⁵ 9,600										
Lytton.....	105,500	....	....	....	¹ 36,157	³ 26,000	....	¹ 26,000	² 3,300	¹ 1,600	....	³ 8,200	....	....	⁵ 37.3	....	....	....
								⁵ 9,600										

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
ExxonMobil Refining Supply Co.— Altona	78,000	83,500	....	....	¹ 28,500	¹ 27,500	....	¹ 33,000 ⁵ 20,500	¹ 3,000	....	....	....	....	....	....	....	10	3,000
Shell Refining (Australia) Pty. Ltd.— Clyde.....	85,000	21,000	....	....	¹ 35,000	³ 20,000	....	³ 7,000 37,000	² 3,000	¹ 2,100	....	....	....	....	....	....	....	3,000
Geelong	110,000	10,000	....	....	¹ 40,000	¹ 11,000 ³ 20,000	....	⁵ 4,000 54,000 ¹³ 4,000 3,000	² 4,500	¹ 2,700	....	³ 8,000	2,800	....	....	....	....	3,000
Total	701,550	169,600	0	0	228,014	164,700	15,300	325,600	23,400	10,100	0	37,900	8,250	0	63.3	0	115	12,980

AUSTRIA

OMV AG—Schwechat	208,600	65,000	....	² 16,875	¹ 26,250	¹ 32,725	....	¹ 46,400 ² 4,800 37,300 38,300 12,600	....	....	....	³ 14,400	....	¹ 1,600	....	....	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	² 38,529	....	¹ 57,750	³ 24,466	....	¹ 25,300 ⁶ 42,192	¹ 930	....	....	....	....	....	....	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*	254,600	189,810	....	² 19,800	¹ 37,800	¹ 10,800	^m 148,600	¹ 10,800 ⁶ 23,400	....	¹ 3,330	....	....	....	....	¹ 34.0	....	230	13,050
Total	254,600	189,810	0	19,800	37,800	10,800	48,600	34,200	0	3,330	0	0	0	0	34.0	0	230	13,050

BANGLADESH

Eastern Refinery Ltd.—Chittagong	33,000	4,000	....	² 10,000	....	¹ 1,800	^m 1,200	¹ 2,000	....	....	....	....	....	....	¹ 1.0 ⁴ 1.0	....	....	....
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	....	² 36,000	....	¹ 44,000	....	¹ 34,500 115,000	....	....	¹ 2,785	³ 4,500	3,760	....	¹ 7.6 ⁵ 7.6	....	....	....
Slavneft—Mozyr	323,323	55,800	....	² 24,000	¹ 44,000	¹ 24,000 ³ 24,000	¹ 30,000	¹ 50,600 62,000	....	....	....	....	....	....	⁴ 7.6	....	85	9,630
Total	493,323	105,800	0	60,000	44,000	92,000	30,000	262,100	0	0	2,785	4,500	3,760	0	22.8	0	85	9,630

BELGIUM

AB Nynas Petroleum NV—Antwerp	21,000	21,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	14,000
Belgian Refining Corp. NV—Antwerp	115,000	56,000	....	....	....	² 11,000	....	² 28,000 ⁵ 36,000	....	....	....	³ 3,500	....	....	....	....	55	....
ExxonMobil Refining Supply Co.— Antwerp	275,000	128,000	....	....	¹ 35,000	² 37,000	....	¹ 67,000 ⁴ 44,000 ⁵ 57,000 ⁸ 91,000	¹ 7,500	....	....	....	....	....	¹ 44.0	....	375	12,500
Fina Raffinaderij Antwerpen— Antwerp	356,629	92,630	....	² 30,016	¹ 97,146	³ 54,681	....	¹ 134,608 ⁴ 25,784 ⁵ 86,074 ¹⁰ 83,268 22,000 11,000	² 10,586	....	....	....	....	¹ 4,727	....	....	650	....
Petroplus—Antwerp	90,000	....	....	....	....	¹ 1,400	....	....	....	....	....	....	....	....	....	....	30	....
Total	857,629	297,630	0	30,016	132,146	104,081	0	685,734	18,086	0	0	3,500	0	4,727	44.0	0	1,110	26,500

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								
BOLIVIA																						
Empresa Boliviana de Refinacion— Cochabamba	27,250	2,210	....	....	....	¹ 8,160	....	¹ 8,160 ¹³ 499	....	....	....	....	2,210	....	....	....	....	232
Santa Cruz de la Sierra	20,000	....	....	....	....	¹ 6,400	....	¹ 6,400	....	....	....	....	....	....	....	....	....	....
Total	47,250	2,210	0	0	0	14,560	0	15,059	0	0	0	0	2,210	0	0.0	0	0	232				
BRAZIL																						
Petroleo Brasileiro SA— Araucaria, Parana	193,008	89,869	....	....	¹ 53,904	....	....	⁵ 29,249	....	....	....	....	....	....	¹ 10.0	....	70	5,000
Betim, Minas Gerais.....	144,756	77,203	² 22,265	....	¹ 40,269	....	....	⁴ 10,547 ⁵ 35,679 ¹² 10,547	....	....	....	....	....	....	20.0	1,062	73	6,000
Canoas, Rio Grande do Sul	180,945	33,173	....	....	¹ 18,163	....	....	....	....	....	....	....	....	....	....	....	22	2,600
Capuava, Maua, Sao Paulo.....	47,045	....	....	....	¹ 17,578	....	....	....	....	....	....	....	....	....	....	....	9	....			
Cubatao, Sao Paulo	162,851	77,806	² 31,054	....	¹ 55,662	¹ 10,254	....	⁸ 29,249 ¹ 10,528	² 3,145	....	....	....	....	¹ 1,580	30.0	1,481	70	....			
Duque de Caxias, Rio de Janeiro	232,213	112,186	....	....	¹ 49,717	¹ 11,132	....	⁵ 33,340 ⁸ 11,698	3,145	....	....	....	13,712	¹ 1,580	18.0	1,481	70	....			
Fortaleza, Ceara	6,032	6,032	....	....	....	....	....	....	....	....	....	....	1,076	....	1.0	....	....	3,500
Manaus, Amazonas	44,030	6,635	....	....	¹ 2,930	....	....	....	....	....	....	....	....	....	....	....	....	1,100
Mataripe, Bahia.....	269,003	126,058	....	....	¹ 87,888	....	....	....	....	....	....	....	5,221	....	2.0	....	72	2,300
Paulinia, Sao Paulo.....	355,859	155,010	² 62,000	....	¹ 93,747	....	....	⁵ 66,679	....	....	....	....	....	¹ 1,900	35.0	2,950	212	4,000
Sao Jose dos Campos, Sao Paulo	241,536	120,768	....	....	¹ 82,029	....	....	⁴ 17,578 ⁵ 35,094 ¹² 20,507	....	....	....	....	....	¹ 1,400	10.0	....	173	2,600
Refinaria de Petroleo Ipiranga SA— Rio Grande do Sul.....	17,000	5,400	....	....	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	1,908,278	810,140	115,319	9,800	505,287	24,386	0	313,695	6,290	0	0	0	20,009	6,460	126.0	6,974	771	27,100				
BRUNEI																						
Brunei Shell Petroleum Co. Sdn. Bhd.—Seria	8,600	....	....	....	....	¹ 5,700	....	....	....	....	....	....	....	....	....	....	....	....
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	....	¹ 20,600	¹ 23,300	¹ 4,060	....	¹ 7,600 ³ 2,600 30,700 ⁸ 23,300	¹ 2,600	....	¹ 2,000	....	....	¹ 790	¹ 8.4 ⁵ 1.9	....	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	....	....	....	....	⁴ 7,000	....	¹ 9,500 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	7,500	....	....	....	....	....	....	....	....	....	....	....	....	685	....	12,000
Imperial Oil—Edmonton	187,200	66,100	....	....	¹ 55,100	¹ 20,900	....	² 50,400 ⁷ 22,800 ¹² 29,450	² 15,700	....	....	¹ 6,600	2,600	....	⁶ 20.0	....	43	10,400
Petro-Canada Products Ltd.— Edmonton.....	125,200	27,000	² 7,500	....	¹ 34,300	¹ 15,300	⁴ 18,700	⁷ 8,000	² 12,600	....	....	¹ 3,100 ² 12,000	....	....	¹ 30.8	371	56	....			

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
Shell Canada Ltd.—Scotford	110,000	....	....	....	....	³ 21,500	¹ 40,500	² 28,350 ⁴ 28,350	....	....	¹ 5,300 ³ 270	....	....	....	....	....	11	....
Total	447,400	108,100	15,000	0	89,400	57,700	59,200	167,350	28,300	0	5,570	21,700	2,600	0	50.8	1,056	110	22,400
British Columbia																		
Chevron Corp.—Burnaby	55,000	11,800	....	....	¹ 18,000	¹ 9,000 ⁵ 15,200	....	¹ 14,800	¹ 2,900	¹ 850	....	³ 10,000	....	....	⁵ 10.3	....	28	2,000
Husky Oil Operations Ltd.— Prince George	10,250	....	....	....	¹ 3,300	¹ 1,600	....	¹² 14,000	....	....	....	³ 900	....	....	....	....	7	....
Total	65,250	11,800	0	0	21,300	10,600	0	44,000	2,900	850	0	10,900	0	0	10.3	0	35	2,000
New Brunswick																		
Irving Oil Ltd.—St. John	250,000	100,000	....	² 20,000	¹ 95,000	¹ 35,000	^c 134,000	¹ 48,000 ³ 14,000 ⁴ 30,000	¹ 16,000	....	....	¹ 10,000	....	....	¹ 47.0	....	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	....	² 16,200	....	¹ 23,400	^c 31,500	² 18,900 16,200	....	....	....	....	....	....	¹ 66.0	....	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
Nova Scotia																		
Imperial Oil—Dartmouth.....	82,200	41,500	....	....	¹ 28,500	¹ 10,300	....	¹ 10,600 ² 17,200 ⁴ 14,700 ⁷ 20,600	....	¹ 4,200	....	....	....	....	....	....	90	1,600
Total	82,200	41,500	0	0	28,500	10,300	0	63,100	0	4,200	0	0	0	0	0.0	0	90	1,600
Ontario																		
Imperial Oil—Nanticoke.....	112,000	47,500	....	....	¹ 47,500	³ 31,400	....	¹ 25,500 ⁵ 28,500 ⁷ 12,700 ¹² 42,800	¹ 11,900	....	....	....	....	....	....	....	100	6,800
Sarnia	120,800	30,800	¹ 23,300	....	¹ 26,030	¹ 17,100 ² 16,800	^c 317,480	⁵ 12,200 ⁷ 20,700 ¹¹ 5,900 ¹³ 53,000	....	....	¹ 5,550	....	5,000	....	¹ 27.4 ⁵ 27.4 ⁶ 25.1	850	170	....
Nova Chemicals (Canada) Ltd.— Corunna.....	80,000	33,000	....	¹ 67,000	....	....	....	....	....	....	¹ 10,200	....	....	....	....	....	....	....
Petro-Canada Products Ltd.— Mississauga .....	....	....	....	....	....	³ 9,000	³ 10,300	¹ 10,300	....	....	....	....	11,700	....	¹ 13.3	....	41	....
Oakville	83,000	38,100	....	....	¹ 25,400	¹ 11,600	....	¹ 13,300 ⁵ 6,500	¹ 3,300	....	....	³ 7,100	....	....	....	....	44	15,100
Shell Canada Ltd.—Sarnia.....	71,400	24,700	....	² 4,050	¹ 14,400	¹ 21,000	¹ 6,750	¹ 15,000 ⁶ 6,300	....	¹ 1,600	¹ 2,700	....	....	....	....	....	55	....
Suncor Energy Products—Sarnia.	70,000	18,500	....	² 6,700	² 16,700	¹ 26,200	^c 124,800	¹ 25,000 ⁴ 5,800 ¹² 10,200	² 5,500	....	¹ 10,200	....	....	....	^a 141.0	....	52	5,500
Total	537,200	192,600	23,300	77,750	130,030	133,100	59,330	293,700	20,700	1,600	28,650	7,100	16,700	0	134.2	850	462	27,400
Quebec																		
Petro-Canada Products Ltd.— Montreal.....	105,000	42,300	....	¹ 12,600	¹ 27,100	¹ 30,200	^c 23,600 ⁴ 17,100	¹ 25,700 ⁵ 10,500 ² 34,200 ⁴ 27,000	¹ 2,700	¹ 800	¹ 9,800 ² 4,100	....	....	....	¹ 43.7	....	....	24,800
Shell Canada Ltd.—Montreal.....	129,900	49,500	....	² 12,000	¹ 24,000	¹ 20,700	¹ 11,700	¹ 11,700	² 2,500	....	....	³ 6,800	3,060	....	....	....	....	7,200
Valero Energy Corp.—Levis.....	215,000	45,000	....	....	¹ 60,000	¹ 19,000 ³ 31,000	....	¹ 36,000 ² 20,750 ⁵ 26,400 ¹² 46,000	....	¹ 5,200	....	³ 20,200	....	....	....	....	50	....
Total	449,900	136,800	0	24,600	111,100	100,900	32,400	226,550	5,200	6,000	13,900	27,000	3,060	0	43.7	0	50	32,000
Saskatchewan																		
Consumers' Cooperative Refineries Ltd.—Regina.....	80,000	35,000	² 9,000	....	¹ 20,000	¹ 10,000	^c 15,000 ^c 230,000	¹ 10,000 ² 4,000	....	¹ 5,000	....	....	....	....	^{1a} 80.0 ⁴ 30.0	400	350	....

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
Total	80,000	35,000	9,000	0	20,000	10,000	45,000	58,000	0	5,000	0	0	0	0	110.0	400	350	0

CHILE

Empresa Nacional de Petroleo—

Aconcagua	97,650	37,800	....	¹ 7,560	¹ 28,490	¹ 13,860	^{m1} 26,460	....	¹ 910	....	....	¹ 4,730	....	¹ 1,580	....	....	45	....
Gregorio	15,750	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
BioBio	113,400	47,250	¹ 13,860	¹ 6,300	¹ 22,050	¹ 12,600	^{c1} 23,940	....	....	....	....	¹ 3,780	....	....	....	656	45	....
Total	226,800	85,050	13,860	13,860	50,540	26,460	50,400	0	910	0	0	8,510	0	1,580	0.0	656	90	0

CHINA

China National Petroleum Corp.—

Dalian	210,000	....	....	....	70,000	3,000	....	6,000	² 2,000	....	....	....	6,000	....	....	....	....	....
Fushun	200,000	....	² 35,000	....	66,000	23,000	8,000	5,000	¹ 3,000	....	....	....	1,000	....	....	825	....	....
Harbin	100,000	....	³ 1,000	....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Heilongjiang	160,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jilin	120,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
140,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
26,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jinxi	120,000	....	³ 1,000	....	24,000	3,000	....	5,000	....	....	....	....	4,000	....	....	....	....	....
Jinzhou	100,000	....	² 20,000	....	16,000	6,000	....	8,000	....	....	....	....	....	....	....	500	....	....
Lanzhou	250,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Liaoning	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Liaoyang	150,000	....	....	....	....	3,000	....	1,000	....	....	....	....	....	....	....	....	....	....
Panjin	90,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qinghai	20,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qingyang	24,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Renqui	60,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tianjin	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Urumqi	100,000	....	² 8,000	....	16,000	3,000	....	....	....	....	....	....	....	....	....	200	....	....
Xianyang	120,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
60,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Xinjiang	70,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
45,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yumen	50,000	....	....	....	....	6,000	....	3,000	....	....	....	....	....	....	....	....	....	....
Sinopec—Anqing	110,000	....	² 8,000	....	24,000	....	....	4,000	² 1,000	....	....	....	....	....	....	225	....	....
Beihai	12,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Beijing	170,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Canzhou	70,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Guangzhou	154,000	....	³ 20,000	....	44,000	8,000	....	20,000	² 1,000	....	....	....	....	....	....	....	....	....
Huaian	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jinan	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jinmen	70,000	....	² 8,000	....	20,000	3,000	8,000	14,000	....	....	....	....	2,000	....	....	270	....	....
Jiujiang	80,000	....	³ 8,000	....	24,000	3,000	....	8,000	....	....	....	....	....	....	....	....	....	....
Luoyang	100,000	....	....	....	40,000	14,000	....	16,000	² 2,000	....	....	....	....	....	....	....	....	....
Maoming	270,000	....	² 12,000	....	32,000	3,000	16,000	² 16,000	² 1,000	....	....	....	5,000	....	....	400	....	....
Nanjing	270,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
160,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ningbo	320,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qingdao	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Quanzhou	80,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shanghai	176,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
226,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shijiazhuang	100,000	....	....	....	24,000	....	....	....	² 1,000	....	....	....	....	....	....	....	....	....
Tianjin	100,000	....	....	....	35,000	4,000	....	....	² 1,000	....	....	....	....	....	....	....	....	....
Xian	50,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Wuhan	80,000	....	³ 8,000	....	20,000	....	....	....	² 1,000	....	....	....	....	....	....	....	....	....
Yueyang	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Zhanjiang	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

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
Zhenhai.....	403,000	200,000	² 27,000	....	90,000	60,000	20,000	250,000	....	....	21,000	....	....	....	....	1,600	460	....
Zibo.....	210,000																	
West Pacific Petrochemical Corp.— Dalian.....	160,000	40,000	....	....	37,000	¹ 4,000	....	¹ 7,000 ² 4,000 ³ 19,000 ¹⁰ 35,000	¹ 2,500	....	....	....	....	¹ 900	....	....	300	....
Yanan Refinery—Luochuan.....	60,000																	
Total	6,246,000	240,000	156,000	0	588,000	156,000	52,000	441,000	15,500	0	21,000	0	18,000	900	0.0	4,020	760	0

CHINA, TAIWAN

Chinese Petroleum Corp.— Kaohsiung	270,000	75,500	² 15,000	....	¹ 25,000	² 15,000	....	² 20,000 ⁸ 25,000 ¹⁰ 30,000	....	....	¹ 4,000	³ 10,000	....	³ 3,616	....	2,722	900	12,120
Ta-Lin	300,000	....	....	....	¹ 25,000	³ 55,000	....	¹⁰ 60,000	....	....	....	³ 10,000	5,300	....	....	....	250	....
Tao-Yuan.....	200,000	36,000	....	....	....	² 20,000 ³ 25,000	....	¹⁰ 45,000	....	....	....	³ 6,000	....	....	⁴ 52.0	....	595	....
Formosa Petrochemical Co.— Mailiao.....	450,000	80,000	² 36,000	....	¹ 46,000	....	....	⁵ 126,000 ⁸ 52,000 ¹⁰ 140,000	14,200	....	....	....	....	¹ 4,500	² 270.0 ⁴ 19.0	1,500	1,500	5,500
Total	1,220,000	191,500	51,000	0	196,000	115,000	0	498,000	14,200	0	14,000	26,000	5,300	8,116	341.0	4,222	3,245	17,620

COLOMBIA

Empresa Colombiana de Petroleos— Apiay.....	2,250	....	....	....	....	....	....	⁸ 19,800	¹ 2,100	....	¹ 6,000 ³ 600	....	1,400	....	¹ 18.0	....	....	....
Barrancabermeja-Santander.....	205,000	101,000	....	² 33,000	¹ 64,000	....	....	....	....	....	....	....	....	....	....	....	....	....
Cartagena, Bolivar.....	75,000	40,000	....	² 19,000	¹ 26,000	....	....	....	....	¹ 2,100	....	....	....	....	....	....	....	....
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	....	....	....	¹ 2,000	¹ 2,000	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.....	24,000	600	....	¹ 6,500	....	¹ 1,200	....	2,000	....	....	....	....	....	....	....	....	....	....
Total	24,000	600	0	6,500	0	1,200	0	2,000	0	0	0	0	0	0	0.0	0	0	0

CROATIA

Ina-Industrija Naft e d.d. — Rijeka	89,980	33,996	....	² 12,001	¹ 20,002	¹ 14,454	^m 212,264	⁵ 22,776	....	....	....	³ 5,431	....	....	....	....	60	....
Sisak	80,000	16,000	² 5,000	....	¹ 10,000	¹ 15,000	....	¹ 15,000	....	....	....	....	....	....	....	200	....	....
Zagreb	80,337	37,044	....	² 11,525	¹ 21,000	¹ 19,914	....	⁵ 24,780	....	....	¹ 9,438	....	470	....	....	....	63	....
Total	250,317	87,040	5,000	23,526	51,002	49,368	12,264	68,256	0	0	9,438	5,431	470	0	0.0	200	123	0

CUBA

Cuba Petroleos—Cienfuegos	76,000	....	....	....	....	¹ 7,500	....	¹ 7,700	....	....	....	....	....	....	....	....	....	....
Ermonos Dias, Santiago	101,500	37,500	....	....	....	¹ 7,500	....	¹ 7,700	....	....	....	....	....	....	5.0	....	....	540
Niko Lopes, Habana	121,800	38,200	....	....	¹ 4,700	¹ 5,000	....	22,000 ¹ 5,250 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

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								
CZECH REPUBLIC																						
Czech Refining Co.—Kralupy	68,000	13,500	....	....	¹ 26,000 ¹ 27,740	¹ 9,440	....	¹ 17,400 46,700 ⁵ 16,500 ¹ 24,500	....	....	....	² 4,300	....	¹ 2,300	^a 28.5	....	24	....			
Litvinov	110,000	50,200	....	² 15,700	....	¹ 9,400 ³ 9,300	^c 125,000 ^c 37,300	¹ 22,100 46,800 ⁵ 26,600	....	....	¹ 670	³ 2,300	....	....	^a 23.0	....	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				
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 ⁷ 11,400	....	....	....	....	....	....	....	....	....	8,000
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 ³ 10,000	....	⁹ 24,500	....	....	....	....	....	....	....	....	....	....
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 ¹³ 21,000	....	....	¹ 603 ² 281	....	1,436	....	¹ 1.0	1	....	2,010
Ameriya Petroleum Refining Co.— Alexandria	78,000	15,000	....	....	....	¹ 12,000	....	² 14,000 4,000 7,000 10,000 ¹³ 700 ¹ 1,800	² 9,000	....	¹ 700	....	2,000	....	² 4.0	....	....	....	
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	....	....	....	....	....	....	¹³ 32,000	....	....	....	....	....	....	....	....	....	2,613
Wadi-Feran	8,550	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Middle East Oil Refinery— Alexandria	100,000	48,200	² 22,800	....	....	³ 21,700 ⁵ 28,600	¹ 33,500	¹ 32,400	....	....	....	³ 10,700	....	....	¹ 54.0	1,060	290	....			
Suez Petroleum Processing Co.— El-Suez	66,400	9,500	² 16,470	....	....	¹ 12,540	....	¹ 16,660 10,800 ¹ 1,306	....	....	....	....	1,005	....	⁷ 3.5	540	....	....		
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									
	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
EL SALVADOR																		
Esso Caribbean and Central America—Acajutla.....	22,000	2,000	....	....	....	¹ 3,200	....	^{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	....	....	....	¹ 4,465	....	^{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																		
Neste Oil—Naantali ^D	51,800	28,100	....	² 7,380	² 12,900	³ 6,930	....	^{18,100} ^{44,320} ^{516,200} ^{86,030} ^{124,500}	....	¹ 540	....	....	....	....	....	....	60	5,700
Porvoo ^D	200,000	70,100	....	¹ 23,400	¹ 38,100	³ 37,500	¹ 19,400	¹ 60,400 ⁵ 62,900 ⁸ 40,500	² 6,980	....	....	....	4,000	¹ 2,560 ³ 2,590	¹ 20.0	....	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	....	² 21,600	¹ 27,900	¹ 10,800	¹ 16,200	² 25,200 ^{48,600}	....	....	....	³ 15,300	....	....	¹ 30.0	....	....	13,500
Cie. Rhenane de Raffinage— Reichstett-Vendenheim*	79,800	30,600	....	² 15,300	¹ 12,600	¹ 11,700	....	² 18,900 ^{18,900}	....	....	....	....	....	....	....	....	....	7,200
ExxonMobil Refining Supply Co.— Dunkirk .....	....	21,000	....	....	....	....	....	¹ 48,000 ¹ 34,000 ⁴ 22,000 ⁵ 54,000 ¹ 27,500	....	....	....	....	6,400	....	....	....	....	....
Fos sur Mer	119,000	38,000	....	....	¹ 29,000	¹ 21,000	....	¹ 34,000 ² 25,000 ⁴ 34,000 ⁵ 61,000 ⁸ 46,000 ¹ 16,500	....	....	....	³ 8,500	17,400	....	⁶ 7.5	....	285	6,900
Ste. des Petroles Shell— Berre l'Etaing	82,000	52,000	....	....	¹ 34,000	¹ 19,000	....	² 37,000 ¹ 38,600 ⁴ 14,400 ⁵ 31,800	....	....	....	....	....	....	....	....	....	6,000
Petit Couronne	164,000	149,000	....	....	¹ 20,500	¹ 21,000	....	¹ 38,600 ⁴ 14,400 ⁵ 31,800	....	....	....	....	....	....	¹ 10.0	....	34	....
Total SA—Donges.....	229,307	114,389	....	² 31,294	¹ 51,198	¹ 11,447 ³ 22,955	....	¹ 51,819 ⁵ 77,974	² 5,235	....	....	³ 4,206	....	....	....	....	210	....
Dunkirk	159,386	39,112	....	....	¹ 43,421	¹ 26,008	....	¹ 53,482 ⁵ 43,173	....	....	....	³ 26,928	....	² 1,608	....	....	105	....
Feyzin.....	118,028	41,307	....	² 14,772	¹ 28,486	¹ 9,678	....	¹ 10,303 ² 2,349 ⁸ 43,871	¹ 4,452	....	....	....	....	² 2,331	....	....	110	....
Gonfreville l'Orcher	331,058	89,910	....	² 19,893	¹ 44,617	¹ 51,632	....	¹ 106,794 ⁴ 43,387 ⁵ 87,162 ¹ 13,072	....	¹ 3,010	¹ 4,101	³ 21,853	9,690	² 1,367	....	....	215	....
Grandpuits	98,896	47,846	....	² 13,017	¹ 29,446	¹ 13,450	....	¹ 30,010 ⁸ 33,806 ¹ 37,568 ⁵ 71,455	² 4,205	....	....	....	....	....	....	....	144	....
La Mede.....	157,913	66,328	....	² 18,380	¹ 35,951	¹ 26,951	....	¹ 37,568 ⁵ 71,455	² 4,076	....	....	³ 23,191	....	....	....	....	205	....
Total	1,979,488	862,692	0	134,256	391,119	276,621	16,200	1,311,625	24,968	3,010	4,101	99,978	33,490	5,306	475	0	1,418	33,600

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
GABON																		
Ste. Gabonaise de Raffinage— Port Gentil	17,300	....	....	17,200	....	1,400	....	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
GERMANY																		
Bayernoil Raffineriegesellschaft GMBH— Vohburg/Ingolstadt/Neustadt ...	262,300	87,800	....	19,900 238,900	161,000	138,000 217,800	....	193,600 48,600 575,000 720,500 1225,200	....	....	....	314,200	....	11,170	584.0	....	194	12,000
BP PLC—Gelsenkirchen*	271,900	163,100	219,870	232,640	130,220	331,200	147,440	278,000 413,040 555,690 535,970	....	....	14,107 33,600 410,540	....	....	....	123.7 334.7 4148.3	1,250	596	16,450
Deutsche BP AG Erdöl Raffinerie GMBH—Lingen	91,000	41,000	223,400	....	....	16,300 25,100	226,500	116,000 28,000 48,000 531,200	....	....	17,100 22,200 36,500	39,300	....	....	144.0 444.0 550.0	550	112	....
Deutsche Shell AG—Rheinland	345,861	178,353	....	15,432 249,154	....	117,708 348,309	185,598	182,292 26,717 260,068 474,653 5101,872	....	11,301	125,000	213,644	....	11,642	139.7 377.3 472.8	....	526	....
Harburg	101,835	50,005	....	215,987	117,958	315,184	....	129,930 412,410 529,930 716,060 1216,425	....	....	....	33,285	11,534	....	....	....	80	....
ExxonMobil Refining Supply Co.— Ingolstadt	106,000	39,000	....	....	128,000	120,000	....	135,000 418,000 542,000	....	....	....	37,000	....	....	111.0	....	66	3,800
HR Chemisch-Pharmazeutische Spezialitaeten GMBH—Salzbergen	....	6,800	....	....	....	....	....	113,700 131,100	....	....	....	....	3,800	....	....	....	....	....
HR Oelwerke Schindler GMBH— Hamburg .....	....	15,000	....	....	....	....	3800	11,620	....	....	....	....	4,800	....	....	....	....	....
Holborn Europa Raffinerie GMBH— Harburg	78,000	15,000	....	....	118,750	114,700	....	131,700 33,500 38,400	....	....	....	....	....	....	....	....	....	....
Mineraloelraffinerie Oberrhein GMBH—Karlsruhe*	302,000	130,000	26,000	....	187,000	131,000 222,000	....	153,000 293,000 43,000 561,000 767,000 874,000 865,000	212,000	....	....	316,000	....	14,000	....	1,200	360	14,000
OMV AG—Burghausen	72,000	....	227,500	....	....	....	....	865,000	....	....	22,300	....	....	....	790.0	690	34	....
PCK Raffinerie GMBH— Schwedt*	220,000	140,000	....	120,000 227,000	157,500	116,000 318,000	118,000	135,000 215,000 420,000 580,000 860,000	28,200	....	15,000	315,000	....	22,250	140.0	....	480	8,000
Total Raffinerie Mitteldeutschland GMBH—Leuna, Spergau	225,296	119,645	....	224,242	159,307	223,118	....	144,911 592,971	18,883	....	....	....	....	....	138.0 448.0	....	504	....

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
Karlsruhe								⁸ 67,829							⁷ 90.0			
Wilhelmshavener Raffinerie Gesellschaft GMBH—Wilhelmshaven	268,000	103,000	....	....	....	¹ 44,000	....	¹ 90,000 ⁵ 79,000 ⁹ 16,000 ¹² 22,000	....	....	....	³ 9,000	....	....	....	....	100	....
Total	2,428,192	1,123,703	96,770	235,255	359,735	409,419	194,338	2,165,888	29,083	1,301	72,447	93,429	20,134	9,312	1,063.5	3,690	3,107	56,750
GHANA																		
Tema Oil Refinery Co. Ltd.—Tema	45,000	....	....	....	14,000	¹ 65,000	....	....	....	....	....	....	....	....	....	....	....	....
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	146,500	68,000	....	² 23,000	¹ 44,700	³ 24,900	....	¹ 40,200 ² 27,150 ² 20,385 ⁴ 15,000 ⁵ 35,000 ⁸ 43,800	....	....	....	³ 10,000	....	¹ 1,340 ³ 1,500	¹ 8.6	....	240	7,500
Elefsis	100,000	....	....	....	....	....	....	....	....	....	....	....	....	....	^a 74.2	....	26	....
Thessaloniki*	66,500	12,000	....	....	....	¹ 10,000	....	² 16,500 ⁴ 10,000 ⁵ 20,000	....	....	....	³ 8,300	....	....	^a 15.2	....	40	4,150
Motor Oil (Hellas) Corinth Refineries SA—Aghii Theodori	100,000	65,000	....	² 26,000	¹ 30,500	³ 13,900	¹ 37,400	¹ 20,800 ⁵ 64,000 ¹¹ 4,500 ¹² 18,000 ¹³ 19,200	² 2,400	² 1,500	³ 9,100	³ 5,350	3,500	¹ 1,100	¹ 5.5	....	144	5,300
Total	413,000	145,000	0	49,000	75,200	48,800	37,400	354,535	2,400	1,500	9,100	23,650	3,500	3,940	23.5	0	450	16,950
HUNGARY																		
MOL Hungarian Oil Gas Co.—Szazhalombatta	161,000	77,500	² 16,900	² 14,000	¹ 24,000	¹ 16,000 ³ 13,600	....	¹ 30,000 ² 700 ⁴ 9,000 ⁵ 41,000 ⁸ 35,000 ¹¹ 3,800 ¹³ 1,200 ⁵ 14,000	² 3,300	....	¹ 12,000	³ 3,500	6,100	¹ 1,200	¹ 25.4 ⁴ 50.8	600	226	6,300
Tiszaújváros .....	....	....	....	....	....	....	....	⁵ 14,000	....	....	....	....	....	¹ 700	....	....	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 ⁷ 5,110	....	....	....	....	5,110	....	¹ 10.0	....	17	3,877
Hindustan Petroleum Corp. Ltd.—Mahul, Mumbai	131,085	63,420	....	....	¹ 14,000	....	....	⁵ 34,275	....	....	....	....	7,490	....	^a 217.5	....	138	....
Vishakapatnam	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	....	....

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
Digboi, Assam.....	11,700	....	² 850	....	....	....	....	....	....	....	....	....	30	....	....	26	....	400
Gawahati, Assam.....	19,920	....	² 6,000	....	....	....	....	....	....	....	....	....	....	....	....	145	....	....
Haldia, West Bengal.....	61,000	27,000	....	² 9,600	....	¹ 5,300	....	¹ 5,300 13,400 ¹¹ 3,100	....	....	....	....	3,100	....	....	....	....	7,500
Koyali, Gujarat.....	185,100	98,000	....	² 19,500	¹ 20,000	¹ 8,300	....	¹ 8,300	....	....	¹ 1,450	....	....	....	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	660,000	....	124,700	....	¹ 130,000	....	....	....	....	....	....	....	....	....	....	5,495	....	....
Total	2,254,625	506,986	169,625	93,180	297,305	41,673	54,600	228,017	0	0	9,742	0	15,730	1,396	133.4	6,480	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	....	¹¹ 12,000	....	....	....	....	....	....	....	....	....	....
Dumai, Central Sumatra.....	114,000	87,970	² 32,580	....	....	³ 12,870	¹ 50,220	11,430	....	....	....	....	....	....	....	....	....	....
Musi, South Sumatra.....	109,155	51,300	....	¹ 8,820	¹ 18,450	³ 30,690	....	....	¹ 16,200	....	....	....	....	....	....	....	....	....
Pangakalan 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	350,000	55,000	....	² 80,000	¹ 35,000	¹ 24,000	....	¹ 26,000	....	....	....	....	1,500	....	....	....	....	1,000
Arak.....	170,000	71,000	....	¹ 27,300	....	² 21,600	^{c1} 24,500	¹ 21,600	....	....	....	....	....	....	² 50.0	....	60	5,500
Bandar Abbas	232,000	126,000	....	² 31,000	....	³ 36,000	^{c1} 28,000	¹ 36,000 ⁴ 25,000	....	....	....	....	....	....	¹ 50.0	....	130	5,000
Isfahan.....	284,000	119,000	....	² 92,000	....	¹ 29,600	^{c1} 30,000	¹ 3,000	....	....	....	....	10,400	....	¹ 70.0	....	70	9,700
Kermanshah.....	25,000	....	....	....	....	¹ 2,600	....	¹ 3,000 ⁴ 3,100	....	....	....	....	....	....	....	....	....	....
Lavan Island.....	30,000	....	....	....	....	¹ 6,200	....	¹ 7,000	....	....	....	....	....	....	....	....	....	....
Shiraz.....	40,000	18,400	....	² 9,000	....	¹ 6,200	^{c1} 9,000	¹ 3,100 ⁴ 3,800	....	....	....	....	....	....	¹ 17.0	....	30	1,500
Tabriz	100,000	50,000	....	¹ 16,500	....	¹ 11,200	^{c1} 15,000	¹ 11,100 ⁴ 13,200	....	....	....	....	....	....	¹ 34.0	....	80	5,000
Tehran.....	220,000	120,000	....	² 35,000	....	¹ 27,300	^{c1} 30,000	¹ 27,260	....	....	....	....	7,700	....	¹ 65.0	....	100	8,800
Total	1,451,000	559,400	0	290,800	35,000	164,700	136,500	183,160	0	0	0	0	19,600	0	286.0	0	470	36,500

IRAQ

Iraqi Co. for Oil Operations—Kirkuk	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Midland Refineries Co.— Daura, Bagdad	110,000	20,000	....	....	....	¹ 15,000 ² 5,000	¹ 18,000 ² 5,000 ⁴ 13,241	31,000	....	....	....	....	2,420	....	....	....	....	838
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	....	....	....	....	2,000	....	....	....	....	7,000
K3-Haditha.....	7,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Khanaqin.....	12,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Muthia.....	4,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Qaiyarah Mosul	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4,900
Total	597,500	145,000	0	0	0	82,000	74,241	283,000	0	0	0	0	9,420	0	64.0	0	0	38,738

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								
IRELAND																						
ConocoPhillips—Whitegate	71,000	....	....	....	....	¹ 10,800	....	¹ 10,800 ² 6,660 ³ 34,600	....	....	....	³ 13,320	....	....	⁶ 10.3	....	4	....			
Total	71,000	0	0	0	0	10,800	0	52,060	0	0	0	13,320	0	0	10.3	0	4	0				
ISRAEL																						
Oil Refineries Ltd.—Ashdod	90,000	45,000	....	² 25,000	¹ 27,500	¹ 11,500	....	² 20,000 ³ 30,000	....	....	....	....	....	¹ 750	....	....	....	....
Haifa.....	130,000	73,000	....	² 41,000	¹ 22,000	¹ 15,000	....	² 16,000 ³ 30,000	....	² 2,200	....	....	....	....	....	....	....	2,700
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....	105,000	52,500	² 45,000	....	¹ 35,000	² 13,850	....	¹ 16,500 ² 42,500 ³ 35,000	² 10,000	....	¹ 6,700 ² 700	¹ 8,050	....	¹ 1,100 ³ 1,200 ⁵ 8.0	³ 17.0 ⁵ 8.0	2,000	....	....		
Livorno	84,000	36,000	....	....	....	³ 14,000	....	² 22,000 ³ 1,700	....	....	....	³ 6,000	10,000	....	....	....	....	3,500
Porto Marghera.....	80,000	38,000	....	¹ 13,500 ² 27,000	....	³ 15,000	....	² 16,000 ³ 27,000	....	....	....	³ 6,000	....	....	....	....	....	3,500
Sannazzaro, Pavia.....	200,000	84,500	....	² 32,000	¹ 34,000	² 12,000 ³ 16,700	¹ 30,000	¹ 12,000 ² 27,000 ⁴ 1,000	² 3,200	....	....	² 12,000	....	¹ 920	² 35.0	....	....	2,500
Taranto.....	84,000	60,590	....	¹ 27,000 ² 37,250	....	² 17,000	¹ 15,500	² 24,000 ⁴ 3,000	....	....	....	³ 6,000	....	....	² 39.5	....	....	2,500
Api Raffineria di Ancona SPA— Falconara, Marittima*	82,900	37,500	....	¹ 36,500 ² 24,500	....	¹ 14,000	....	¹ 25,000 ⁵ 44,100	....	....	....	³ 15,000	....	....	¹ 7.2	....	120	....			
Arcola Petroli SPA—La Spezia ERG Raffinerie Mediterranee	33,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
North—Priolo, Sicily.....	225,000	48,000	....	² 24,000	¹ 33,000	¹ 9,000	....	¹ 9,000 ⁵ 21,000	4,000	....	⁴ 6,000	...	....	¹ 1,000	....	46	....	....		
Melilli, Sicily.....	238,000	106,000	....	¹ 32,000 ² 43,000	....	² 36,000	^m 162,000	¹ 63,000 ⁴ 34,000 ⁵ 70,000	....	....	....	³ 9,000	....	....	² 16.0	....	360	3,000
ExxonMobil Refining Supply Co.— Augusta, Siracusa.....	198,000	93,000	....	....	¹ 46,000	¹ 22,000	....	¹ 24,000 ⁴ 20,000 ⁵ 31,000 ⁸ 21,000 ¹¹ 24,000	² 8,700	....	....	¹ 5,000	17,800	....	....	....	200	....			
S. Martino Di Trecate	174,000	28,000	....	....	¹ 32,000	¹ 18,000 ² 9,000	....	¹ 67,000 ⁴ 21,000 ⁵ 44,000	....	¹ 1,600	....	³ 12,000	....	....	⁴ 13.0	....	95	....			
Iplom SPA—Busalla.....	39,500	19,500	....	....	....	....	....	¹² 11,000 ⁹ 9,500	....	....	....	....	....	....	^a 6.8	....	37	....			
Italiana Energia E Servizi SPA— Mantova	56,600	20,100	....	¹ 9,400 ² 24,200	....	¹ 8,200	....	² 14,800 ¹ 9,000 ⁷ 8,000	....	....	....	³ 3,300	....	....	....	....	60	....			
Raffineria di Milazzo SPA— Milazzo, Messina	241,300	68,700	....	....	¹ 44,500	¹ 12,900	^c 133,900 ¹² 23,400	² 21,000 ¹² 28,000	¹ 5,130	....	....	....	....	¹ 1,500	¹ 33.7 ² 49.0	....	412	....			
Raffineria di Roma SPA—Rome ...	89,109	11,027	....	² 31,734	....	¹ 14,219	....	¹ 22,845 ⁵ 28,438	....	....	....	³ 18,651	....	....	....	....	41	706
Saras SPA—Sarroch	300,000	108,000	....	² 41,000	¹ 85,000	³ 27,000	^m 100,000	¹ 27,000 ⁴ 26,000 ⁵ 50,000	² 7,200	....	....	....	....	³ 5,800	^a 32.2 ⁴ 25.8	....	440	....			
Tamoil Raffinazione SPA —Cremona	94,000	....	....	² 36,000	....	¹ 9,000 ³ 15,000	⁴ 65,000	¹ 24,000 ² 9,000 ⁴ 7,500	....	....	....	³ 11,000	....	....	⁴ 5.2	....	42	....			

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
Total	2,324,409	811,417	45,000	439,084	309,500	282,869	329,800	1,193,883	38,230	1,600	13,400	112,001	27,800	11,520	288.4	2,046	1,807	15,706
IVORY COAST																		
Societe Ivoirienne de Raffinage — Abidjan	65,200	26,490	....	....	....	¹ 12,827	^{c1} 14,934	¹ 14,184 ⁴ 19,409	....	....	....	....	....	....	^{1a} 49.0 ⁴ 30.0 ⁶ 10.0	....	....	....
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
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	....	....	....	....	....	....	^{a1} 88.0	....	600	....
Sakai*	76,000	36,100	....	....	¹ 20,700	¹ 7,200	....	¹ 9,900 ⁴ 26,100 ⁵ 22,500 ⁹ 18,000	¹ 7,200	....	....	....	....	¹ 1,278	^{a1} 11.0	....	140	....
Sakaide*	114,000	39,425	....	....	¹ 17,100	¹ 12,600	....	¹ 12,600 ⁴ 21,600 ⁵ 36,000 ⁹ 15,480 ¹⁰ 27,000	....	....	....	....	....	....	^{a1} 34.0	....	265	....
Yokkaichi*	147,250	70,300	....	....	¹ 22,500	¹ 5,400 ³ 12,150	....	¹ 7,550 ⁴ 31,500 ⁵ 27,000 ⁹ 37,350	....	....	....	....	....	....	^{a1} 12.0	....	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 18,000	....	¹ 23,400 ⁴ 44,100 ⁵ 30,600 ¹⁰ 54,000	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	....	^{a2} 46.3	....	540	....
Shunan, Yamaguchi	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	^{c1} 14,850	¹ 24,300 ⁴ 29,970 ⁵ 22,500 ¹⁰ 34,200	....	....	....	....	....	....	^{a2} 53.7	....	356	....
Japan Energy Co.— Mizushima, Okayama*	190,190	103,550	² 23,400	....	¹ 46,800	¹ 18,000 ² 21,600	^{c2} 27,900	¹ 37,800 ⁴ 44,010 ⁵ 55,800	¹ 4,590	....	¹ 11,700 ² 2,000	....	5,513	....	¹ 27.0 ² 55.9 ⁵ 40.2	....	640	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*.....	180,500	39,900	....	....	¹ 31,050	³ 19,800	....	⁸ 63,000 ¹¹ 5,850 ¹² 31,500 ¹³ 3,150	....	....	¹ 5,123	....	....	....	^{a1} 30.4	....	300	....
Kyokuto Petroleum Industries Ltd.— Ichihara, Chiba	175,000	83,000	....	....	¹ 34,000	¹ 27,000	^{m1} 38,500	¹ 20,700 ⁴ 41,400 ⁵ 39,600 ⁸ 22,500 ¹⁰ 27,000 ¹² 23,400	....	....	¹ 6,500	....	....	....	^{a4} 25.0 ⁶ 8.5	....	220	....
Kyushu Oil Co. Ltd.—Oita	130,000	66,000	....	....	¹ 6,500	¹ 8,000	....	¹ 9,000 ² 7,000 ³ 3,000	....	....	....	....	....	....	⁷ 14.9	....	....	....
Nansei Sekiyu KK—Okinawa	90,000	....	....	....	....	¹ 12,000	....	¹ 21,500 ⁴ 17,000	....	....	....	....	....	....	⁶ 4.5	....	....	....
Nihonkai Oil Co. Ltd.—Toyama* ..	57,000	10,450	....	....	....	¹ 5,400	....	....	....	....	....	....	....	....	....	....	40	....
Nippon Oil Co. Ltd.—Mizushima..	250,000	77,000	....	....	¹ 46,000	¹ 20,000 ³ 20,000	^{c1} 13,000	¹ 45,000 ³ 45,000 ⁴ 4,300 ⁵ 40,000 ⁹ 40,000 ¹⁰ 37,000 ¹¹ 45,000	¹ 4,400	¹ 2,100	¹ 4,000	....	3,600	....	² 53.9 ⁶ 4.0	....	540	6,000
Muroran.....	180,000	65,000	....	....	¹ 30,000	³ 36,000	^{c1} 27,000	¹ 4,100 ⁴ 59,000 ⁵ 40,000 ⁹ 22,000 ¹⁰ 45,000	....	....	¹ 74,000	....	....	....	^{a2} 58.6	....	350	36,000
Negishi	340,000	130,000	....	....	¹ 83,000	¹ 20,000 ³ 30,000	....	¹ 16,000 ⁴ 69,500 ⁵ 75,000 ⁹ 62,500 ¹⁰ 81,000 ¹¹ 35,000	¹ 5,700	....	¹ 7,600	....	2,600	¹ 1,800	^{a1} 22.9 ^{a2} 28.2	....	660	9,000
Sendai.....	145,000	60,000	....	....	¹ 43,000	¹ 18,000	....	¹ 18,000 ⁴ 18,000 ⁹ 29,000 ¹⁰ 35,000	¹ 4,600	....	¹ 1,700	....	....	....	² 62.2	....	510	4,600
Takaishi, Osaka	115,000	60,000	....	....	¹ 27,000	¹ 14,000	....	¹ 52,000 ⁴ 22,000 ⁵ 25,000 ⁹ 21,000	¹ 3,600	....	¹ 2,050	....	....	....	12.0	....	280	....
Marifu, Yamguchi	127,000	64,000	² 22,000	....	¹ 28,000	³ 24,000	....	¹ 21,000 ⁴ 32,000 ⁵ 22,000 ⁹ 22,000	....	....	¹ 5,800	....	....	....	² 10.2	690	265	1,500
Okinawa Sekiyu Seisei— Yonashiro, Okinawa.....	100,000	....	....	....	....	³ 15,000	....	¹ 48,000 ²³ ,000 ²⁰ ,000 ¹⁰ 38,000	....	....	....	....	....	....	² 22.0	....	300	....
Seibu Oil Co. Ltd.—Yamaguchi	110,000	40,000	....	....	¹ 22,000	¹ 17,000	....	¹ 26,000 ³⁶ ,000 ³⁰ ,000 ¹⁰ 50,000	....	² 3,000	....	² 5,700	....	....	² 42.4 ⁶ 17.7	....	340	30,000
Showa Yokkaichi Sekiyu Co. Ltd.— Yokkaichi.....	222,000	96,300	....	....	¹ 22,600	¹ 40,600	....	² 61,500 ³⁹ ,200	....	....	¹ 5,500	³ 9,200	5,500	....	¹ 28.3	....	....	6,300

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						
Taiyo Oil Co. Ltd.—Kikuma, Ehime	120,000	27,000	....	....	....	³ 33,000	^{c1} 19,000	^{35,600} ^{36,900} 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
Tonen/General Sekiyu Seisei KK— Kawasaki.....	296,000	94,500	....	....	¹ 87,500	¹ 18,500 ³ 27,000	^{c2} 22,500	¹ 45,500 ² 16,500 ⁴ 72,500 ⁵ 82,000 ⁸ 79,000	¹ 8,000	....	....	....	....	....	² 45.0 ⁶ 14.0	....	525	....	
Sakai	139,500	53,000	....	....	¹ 38,000	¹ 28,000	....	¹ 43,500 ⁴ 30,500 ⁵ 47,500 ⁸ 39,000	....	....	¹ 23,500	....	....	....	¹ 20.5 ⁶ 38.5	....	340	....	
Wakayama.....	154,500	54,500	....	....	¹ 36,500	¹ 3,900	....	¹ 39,000 ⁴ 41,500 ⁵ 42,000 ⁸ 29,000 ¹¹ 9,000	¹ 3,000	....	....	....	7,000	....	¹ 19.5 ⁵ 7.0 ⁶ 10.0	....	165	....	
Wakayama Petroleum Refining Co. Ltd.—Kainan City, Wakayama	....	30,000	....	....	....	....	....	^{20,000} ¹¹ 9,000	....	....	....	....	8,500	....	² 135.0	....	....	....
Total	4,671,940	1,651,975	93,400	0	880,000	672,000	173,190	4,381,210	48,810	7,140	242,273	20,900	42,163	3,078	1,352.6	1,913	8,952	119,400		
JORDAN																				
Jordan Petroleum Refinery—Zerka	90,400	21,500	....	....	¹ 4,000	¹ 10,900	^{c1} 4,350	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																				
Kazakoiil—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 ^{49,863} ⁸ 46,027	....	....	....	....	....	....	¹ 21.5	500	64	8,550
PetroKazakhstan—Shymkent.....	78,000	....	....	² 22,000	....	¹ 16,600	....	¹ 16,600 ⁴ 9,100 ⁵ 19,900	....	....	....	....	....	....	....	....	60	....	
Total	345,093	121,037	24,997	52,071	38,356	51,586	0	177,890	0	0	0	0	0	0	21.5	1,000	124	8,550		
KENYA																				
Kenya Petroleum Refineries Ltd.— Mombasa*	85,500	....	....	....	....	¹ 8,100	....	^{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	² 72,000	....	....	....	^{c1} 38,250	² 9,000	....	....	....	....	....	....	^{a1} 196.0	2,800	1,200	....	

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
								⁴ 36,000							⁴ 36.6			
Mina Al-Ahmadi*	442,700	80,750	....	....	¹ 36,000	⁵ 36,000 ¹⁰ 107,100 ³ 32,400	^c 136,900	¹ 51,300 ⁴ 18,720 ⁵ 118,440 ¹⁰ 130,320	¹ 5,616	....	....	....	....	¹ 6,561	¹ 198.0 ⁴ 89.0	....	1,600	....
Shuaiba*	190,000	104,500	....	....	....	¹ 14,220	¹ 40,500	¹ 23,400 ⁴ 31,500 ⁵ 27,000	....	....	....	....	....	....	¹ 222.0	....	1,400	....
Total	889,200	327,750	72,000	0	36,000	46,620	115,650	588,780	5,616	0	0	0	0	6,561	741.6	2,800	4,200	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
LIBERIA																		
Liberia Petroleum Refining— Monrovia	15,000	1,000	....	....	....	¹ 2,000	....	¹ 2,300 ¹ 0,000	....	....	....	....	....	....	....	....	....	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	120,000	3,775	....	....	....	¹ 15,750	....	¹ 16,604 ⁶ 19,926	....	....	....	....	635	....	....	....	....	3,432
Ras Lanuf Oil Gas Processing Co.— Ras Lanuf	220,000	....	....	....	....	¹ 3,300	....	² 5,600	....	....	....	....	....	....	....	....	....	....
Sarir Refining—Sarir	10,000	....	....	....	....	¹ 2,200	....	² 1,200	....	....	....	....	....	....	....	....	....	....
Sirte Oil Co.—Brega	10,000	....	....	....	....	¹ 2,200	....	² 1,200	....	....	....	....	....	....	....	....	....	....
Tobruk Refining—Tobruk	20,000	....	....	....	....	¹ 2,200	....	² 1,200	....	....	....	....	....	....	....	....	....	....
Total	380,000	3,775	0	0	0	20,250	0	43,330	0	0	0	0	635	0	0.0	0	0	3,432
LITHUANIA																		
AB Mazeikiu Nafta—Mazeikiai*	190,000	89,300	....	² 28,800	¹ 43,200	¹ 45,900	....	⁴ 18,900 ⁵ 81,000 ⁶ 54,000	....	¹ 7,200	....	³ 18,900	....	¹ 2,700	¹ 25.0	....	320	....
Total	190,000	89,300	0	28,800	43,200	45,900	0	153,900	0	7,200	0	18,900	0	2,700	25.0	0	320	0
MACEDONIA																		
Hellenic Petroleum SA—Skopje ...	50,000	....	....	....	....	¹ 10,860	....	¹ 15,930 ⁵ 6,120	....	....	....	³ 4,390	....	....	....	....	....	....
Total	50,000	0	0	0	0	10,860	0	22,050	0	0	0	4,390	0	0	0.0	0	0	0
MALAYSIA																		
Esso Malaysia Bhd.—Port Dickson	86,000	....	....	....	....	¹ 19,000	....	¹ 25,500 ⁴ 11,000	....	....	....	....	....	....	....	....	....	....
Petronas—Kertih, Terengganu	40,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Melaka I	92,832	....	....	....	....	³ 23,500	....	² 23,357 ⁴ 19,016	....	....	....	....	....	....	^a 12.0 ⁴ 61.6	975	200	....
Melaka II	126,000	68,000	² 24,000	....	....	³ 27,500	² 36,000	² 39,227 ⁴ 18,000 ⁵ 40,500	....	....	....	³ 10,800	....	....	¹ 12.0 ⁴ 61.6	1,270	260	4,000
Sarawak Shell Bhd.—Lutong	45,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Shell Refining Co. Bhd.— Port Dickson	155,000	7,000	....	....	....	¹ 4,000 ³ 13,000	....	² 32,000 ⁵ 5,000	....	....	....	....	....	....	....	....	....	4,000
Total	544,832	75,000	24,000	0	0	87,000	36,000	213,600	0	0	0	10,800	0	0	147.2	2,245	460	8,000

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						
MARTINIQUE																				
Societe Anonyme de la Raffinerie des Antilles—Fort-de-France.....	17,000	....	....	....	....	⁴ 3,019	....	¹⁵ 1,176 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	54,000	....	¹ 90,000	¹ 46,000	....	186,000	22,900	....	....	....	....	¹² 2,200	60.0	2,515	....	5,000
Cd. Madero.....	320,000	156,000	10,000	....	¹ 61,000	¹ 45,000	....	147,700	² 12,700	....	....	....	....	2,000	42.0	420	....	18,000
Minatitlan	194,000	81,000	....	....	¹ 24,000	¹ 31,000	....	100,000	15,000	....	¹ 17,000	....	....	....	....	....	....	....
Salamanca.....	245,000	147,000	....	....	¹ 40,000	¹ 47,300	² 18,000	121,000	15,434	....	....	....	17,000	880	60.0	....	....	15,000
Salina Cruz	330,000	165,000	50,000	....	¹ 80,000	³ 50,000	....	161,000	29,400	....	....	....	....	1,800	....	....	....	....
Tula Hidalgo	320,000	159,000	¹ 41,000	....	¹ 80,000	¹ 65,000	....	268,400	22,677	....	....	....	....	3,600	....	....	....	....
Total	1,684,000	845,000	155,000	0	375,000	284,300	18,000	984,100	118,111	0	17,000	0	17,000	10,480	162.0	2,935	0	38,000		
MOROCCO																				
Societe Anonyme Marocaine de L'Industrie du Raffinage— Mohammedia.....	125,230	17,465	....	....	....	¹ 21,830	....	¹ 21,830 ⁷ 8,670 ¹¹ 2,510	....	....	....	....	2,460	....	....	....	....	5,630
Sidi Kacem*	29,671	7,456	....	....	²⁵ 0,040	¹² 529	....	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		
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.....	188,000	80,000	³ 39,000	....	....	² 31,000	^{c1} 50,000	¹ 32,000 ² 12,000 ⁴ 35,000 ⁵ 40,000 ⁹ 20,000	....	....	¹ 31,000 ³ 6,000	....	....	....	¹ 22.0	....	485	....	
Kuwait Petroleum Europoort BV— Rotterdam.....	75,500	37,600	....	¹⁹ 2,200 ² 6,800	....	³ 22,600	....	¹ 41,200 ⁴ 10,000 ⁵ 21,800 ¹¹ 5,900	....	....	....	³ 6,500	4,500	....	⁴ 2.0	....	72	3,320
Netherlands Refining Co.— Europoort*	380,000	83,600	....	² 33,300	¹ 55,800	¹ 27,900	....	⁴ 149,400 ⁵ 81,900 ¹³ 24,200	² 8,100	....	....	....	....	¹ 1,800	⁶ 15.0	....	217	....	
Shell Nederland Raffinaderij BV— Pernis.....	416,000	148,000	....	² 46,000	¹ 50,000	³ 42,000	^{c1} 56,600 ^{c2} 24,300	¹ 108,500 ⁴ 33,000 ⁵ 50,000 ⁷ 35,000 ¹¹ 252	² 7,300	....	....	....	7,100	....	¹ 36.9 ³ 77.8	....	700	5,500
Smid Hollander Raffinaderij BV— Amsterdam	10,000	8,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5,800
Total Raffinery Netherlands— Vlissingen.....	152,373	61,518	....	....	....	³ 26,542	^{c1} 52,331	¹ 19,319 ⁵ 35,775	....	....	¹ 30,468	....	....	....	¹ 70.0	....	225	....	
Total	1,221,873	418,718	39,000	95,300	105,800	150,042	183,231	755,246	15,400	0	67,468	6,500	11,600	1,800	223.7	0	1,699	14,620		

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
NETHERLANDS ANTILLES																		
Refineria Isla Curacao SA—Emmastad	320,000	195,000	....	¹ 80,000	¹ 50,000	¹ 20,000	....	¹ 53,000 ⁵ 37,000 ⁶ 26,000 ¹¹ 3,500	² 9,000	¹ 2,000	....	....	12,000	....	² 20.8 ⁴ 33.8	....	300	26,000
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 ⁴ 6,300 ⁵ 6,600	....	....	....	....	....	....	¹ 58.0	....	159	4,850
Marsden Point, Northland																		
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
NICARAGUA																		
Esso Caribbean and Central America— Managua	20,000	1,500	....	....	....	¹ 2,900	....	¹ 5,500 ⁴ 4,000 ⁷ 5,500	....	....	....	....	....	....	....	....	....	....
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	....	....	¹ 18,000	¹ 15,300	....	¹ 21,600 ¹⁵ 750 ¹³ 536	....	....	² 291	....	3,878	....	....	....	....	14,850
Port Harcourt Refining Co. (NNPC)— Port Harcourt, Alesa Eleme.....	60,000 150,000	.... 54,000	.... ....	.... ....	.... ¹ 40,000	¹ 6,000 ⁴ 33,000	.... ....	.... ¹ 33,000 ⁷ 14,500	.... ² 7,020	.... ² 2,274	.... ....	.... ¹ 3,610	........	........	........	........	........	........
Warri Refinery Petrochemical Co. (NNPC)—Warri	118,750	34,200	....	....	¹ 24,700	¹ 15,770	....	² 15,770 ⁶ 8,075	² 2,850	....	....	....	....	....	....	....	....	....
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	.... ....	.... ....	.... ....	.... ....	.... ¹ 7,300	.... ....	.... ¹ 7,400	.... ....	.... ....	.... ¹ 1,000	.... ....	.... ....	.... ¹ 1,000	........	........	........	........
Total	71,000	0	0	0	0	7,300	0	7,400	0	0	1,000	0	0	1,000	0	0	0	0
NORWAY																		
ExxonMobil Refining Supply Co.— Slagen.....	110,000	....	....	² 32,000	....	¹ 12,000	....	¹ 22,000 ⁵ 38,000 ⁷ 12,000	....	....	....	....	....	....	....	....	23	....
Statoil Mongstad—Mongstad	200,000	....	² 25,000	....	² 54,000	¹ 9,800 ³ 15,800	....	¹ 26,000 ⁷ 10,000 ¹⁶ 900 ¹⁷ 100	....	¹ 11,500	....	³ 4,000	....	....	....	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	....	....	....	....	³ 16,000	....	² 21,000	....	....	....	....	....	....	....	....	....	....
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	....	....	....	¹ 4,500	....	¹ 5,850	....	....	....	....	....	....	....	....	....	....
Bosicor Refinery Ltd.—Karachi	30,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
National Refinery Ltd.—																		

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
Korangi, Karachi	62,050	14,400	....	....	....	¹ 3,800	....	¹ 3,900 ⁴ 10,000 18,100	....	....	¹ 1,400	....	3,800	....	....	....	....	4,200
Pakistan Refinery Ltd.—Karachi....	46,300	....	....	....	....	² 2,700	....	....	....	....	....	....	....	....	....	....	....	....
Pak-Arab Refinery Co.—Mahmood Kot, Punjab	95,000	40,660	....	14,004	....	14,715	20,205	23,085	....	....	....	....	....	....	....	....	115	....
Total	268,975	60,475	0	14,004	0	25,715	20,205	60,935	0	0	1,400	0	3,800	0	0.0	0	115	4,200

PAPUA NEW GUINEA

Interoil—Port Moresby	32,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	32,500	0	0	0	0	0	0	0	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 SA—La Pampilla Lima	102,000	25,500	....	....	¹ 13,500	¹ 2,100	....	¹ 2,800	....	....	....	....	....	....	....	....	....	3,800
Total	192,950	59,500	0	0	31,500	2,100	0	2,800	0	0	0	0	0	0	0.0	0	0	3,800

PHILIPPINES

Petron Corp.—Limay, Bataan	180,000	32,000	....	....	¹ 15,000	¹ 17,000	....	¹ 36,000 ² 19,000 ³ 22,000 ⁴ 18,000 ⁵ 18,000	....	....	....	³ 10,000	....	....	....	....	70	....
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	52,900	0	191,400	0	0	0	10,000	3,700	0	0.0	0	70	1,200

POLAND

Nafta Polska SA—Czechowice .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Gorlice .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Jaslo .....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
PKN Orlen SA—Plock/Trezebina ^E	376,500	173,500	....	....	¹ 31,100	¹ 23,000 ³ 40,500	¹ 70,500 ² 33,500	¹ 63,500 ³ 15,100 ⁵ 94,000 ¹¹ 8,300	² 3,860	....	¹ 11,900	³ 15100	8,300	² 8,400	¹ 94.2 ⁴ 84.2	....	430	17,600
Grupa Lotos SA—Gdansk/Jedlicze	90,000	42,000	....	....	....	¹ 10,000 ³ 12,500	¹ 30,000 ³ 3,800	¹ 25,800 ⁵ 21,000 ¹¹ 5,000	....	....	....	³ 10,000	3,800	....	....	....	....	4,300
Total	466,500	215,500	0	0	31,100	86,000	137,800	232,700	3,860	0	11,900	25,100	12,100	8,400	178	0	430	21,900

PORTUGAL

Galp Energia—Leca da Palmeira, Porto*	91,277	11,357	....	....	....	¹ 14,831 ³ 10,601	....	¹ 46,912 ⁵ 32,026 ¹¹ 3,992	....	....	¹ 17,276	....	....	....	⁴ 30.5	....	45	....
Sines*	212,895	71,393	....	² 23,400	¹ 40,500	³ 24,750	^m 49,180	¹ 27,500 ⁵ 69,000 ⁸ 15,000 ¹² 27,000	² 5,400	....	....	....	....	....	² 30.0 ⁴ 24.8	....	207	....
Total	304,172	82,750	0	23,400	40,500	50,182	9,180	221,430	5,400	0	17,276	0	0	0	85.3	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	34,000	....	....	....	¹ 21,000	^{c4} 20,000	¹ 21,000	....	....	....	....	....	....	¹ 20.0	....	34	....
Total	73,000	34,000	0	0	0	21,000	20,000	21,000	0	0	0	0	0	0	20.0	0	34	0
QATAR																		
National Oil Distribution Co.— Umm Said	200,000	....	....	....	¹ 60,000	¹ 20,000 ³ 9,400	20,000	² 19,500 ⁷ 19,850	....	....	....	³ 25,000	....	....	....	....	....	....
Total	200,000	0	0	0	60,000	29,400	20,000	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
Petrobraz 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	70,000	70,000	¹ 6,000	² 12,000	¹ 24,000	³ 10,000	....	¹ 16,000 46,800 ⁵ 14,000 ⁷ 6,800 ⁸ 24,000	....	....	....	³ 2,851	....	....	¹ 4.0	215	34	....
Rompetrol SA Vega Refinery— Ploiesti	8,717	3,485	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,291
Steaua Romania SA—Cimpina	9,272	6,341	....	....	....	....	....	....	....	....	....	....	424	....	....	....	....	1,110
Total	516,557	273,225	68,240	37,577	109,478	61,763	1,534	237,625	2,300	0	7,801	3,846	10,366	1,330	18.0	2,555	143	13,761
RUSSIA																		
Alliance Oil 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 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	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Krasnodareconeft—Krasno	34,140	14,472	....	¹ 10,149	....	....	....	⁵ 25,000	....	....	....	....	....	....	....	....	....	5,645
Lukoil—Kogalym	10,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Kstovo, Nizhny Novgorod	359,200	74,600	....	....	....	¹ 45,506	....	¹ 46,800 107,500 ¹¹ 6,904	....	....	¹ 1,790 ²¹ 8,900	....	7,020	....	....	....	....	15,607
Perm	279,142	126,000	² 8,230	² 9,115	¹ 15,726	¹ 35,496	....	¹ 36,000 ⁵ 84,200	¹ 1,003	....	¹ 1,840	² 5,000	8,833	....	....	490	....	5,645
Ukhta	126,518	13,156	....	¹ 7,518	....	¹ 9,297	⁴ 18,700	¹ 9,500	....	....	....	....	....	....	....	....	....	4,981
Volgograd	200,000	79,501	¹ 8,230	² 9,115	....	¹ 18,839	....	¹ 19,100	....	....	¹ 1,830	....	13,065	....	⁷ 10.8	1,020	....	3,985

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							
			³ 3,101					⁵ 40,500 ¹¹ 6,904 ⁵ 26,000													
Mari El Refinery—Mari Republic..	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Norilsk Refinery—Norilsk.....	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Rosneft—Afipsky	28,115	....	....	....	....	¹ 16,147	....	¹ 12,658	....	....	¹ 3,680	....	....	....	....	....	....	....
Komsomolsk	108,000	33,266	³ 9,679	² 11,300	....	8,100	....	19,000	....	....	....	2,700	....	....	....	....	....	....
Tarasovskoye	2,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuapse	46,189	....	....	....	....	¹ 7,829	....	¹ 8,100	....	....	....	....	....	....	....	....	....	....
Afipsky											² 2,387 ¹ 1,591	....								
Salavatnefteorgsintez—Salavat....	168,300	73,299	....	² 9,397	² 10,225	¹ 30,160	....	² 30,400 42,000	¹ 1,174	....	¹ 1,591	....	....	² 3,000	....	....	290	....		
Sibneft—Omsk	286,160	195,000	¹ 12,100	² 26,500 30,071	¹ 65,589	¹ 42,400 ² 24,710	19,178	¹ 67,100 43,000 ⁸ 42,192 ¹¹ 6,904	¹ 1,272	....	¹ 11,139	....	3,800	¹ 1,750	....	510	....	17,433
Sidanco—Cracking-Saratov	134,387	65,780	....	....	....	² 23,487	....	¹ 33,562	....	....	....	....	....	....	....	....	30	3,868
Slavneft—Yanos.....	290,000	270,305	....	² 12,404	¹ 30,000	¹ 25,689	....	¹ 26,100 56,959 ¹¹ 12,274	¹ 1,786	....	¹ 1,551	³ 3,542	5,460	¹ 800	....	....	....	10,460
Yaroslavl/Mendeleyev	8,700	....	....	....	....	....	....	....	....	....	....	....	5,300	....	....	....	....	....
Surgutneftegaz—Kirishi	335,900	85,327	....	....	....	¹ 56,840	....	¹ 67,900 104,800	....	....	¹ 5,172	³ 7,085	....	....	....	....	45	16,603
Tatneft—Kichuyi	8,000	3,600	....	....	....	¹ 1,750	....	¹ 850	....	....	....	....	....	....	....	....	....	1,200
Nizhnekamsk, Tartarstan	120,493	....	....	² 36,000	....	....	....	⁵ 46,000	....	....	....	....	....	¹ 625	¹ 18.0	....	50	18,000
TNK-BP—Krasnoleninsk.....	6,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nizhnevartovsk.....	84,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orsk, Orenburg	130,000	53,752	....	....	....	¹ 17,860	....	¹ 18,400 54,200	¹ 1,125	....	....	....	7,706	....	....	....	....	10,128
Ryazan	340,000	83,636	....	¹ 21,990	¹ 18,219	¹ 53,335	....	¹ 54,000 76,137 ¹¹ 6,900	....	....	¹ 4,078 ² 2,228	....	5,400	....	....	....	....	8,799
Saratov	130,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tomskneft—Tomsk	3,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ulyanovskneft—.....	1,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yakutsk Refinery—Yakutsk	2,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Yukos—Achinsk	126,000	40,184	....	....	....	¹ 25,519	....	¹ 25,519 59,679	....	....	....	....	....	....	....	....	21	11,600
Angarsk	440,700	195,463	¹ 11,217	² 25,748	¹ 33,753	¹ 51,040	....	¹ 51,300 30,685 ¹¹ 6,900	....	....	¹ 4,900	....	5,638	....	....	410	....	8,500
Novo-Kuibishev	200,000	73,000	¹ 25,300	....	¹ 17,266	¹ 33,518	....	¹ 34,300 64,000	....	....	¹ 2,188	....	3,705	....	....	1,030	....	12,286
Samara-Kuibishev	125,000	40,700	....	¹ 15,787	² 13,788	¹ 43,794	....	¹ 44,400 57,120	¹ 832	¹ 750	....	....	....	....	....	....	....	....
Strezhevoy	4,400	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Syzran	151,460	48,800	....	¹ 16,915	² 17,068	¹ 38,550	....	¹ 37,900 78,822	....	....	¹ 1,760	....	....	....	....	....	....	7,637
Total	5,340,961	1,924,675	84,999	382,593	330,817	745,735	57,056	2,170,966	10,006	1,729	56,724	21,869	82,842	7,175	93.3	3,720	726	210,545			

SAUDI ARABIA

Petromin-Shell—Al-Jubail.....	305,000	84,000	....	² 32,000	....	³ 19,000	¹ 44,000	¹ 19,000 ² 61,000 53,000 49,000	....	....	¹ 5,800 ² 7,000	....	....	....	¹ 97.0	....	....	....
Saudi Arabian Oil Co. (Saudi Aramco)—Rabigh	400,000	....	....	....	....	....	....	47,000	....	....	....	....	....	....	¹ 12.0	....	....	....
Ras Tanura	550,000	135,000	....	² 60,000	....	¹ 54,000	44,000	¹ 54,000	....	....	....	....	....	....	....	....	....	....
Jeddah	85,000	34,000	....	....	¹ 13,000	¹ 3,000	³ 10,000	¹ 3,000	....	....	....	....	....	....	....	....	....	....
Riyadh.....	120,000	52,350	....	....	....	¹ 35,660	¹ 33,820	¹ 35,660 ⁷ 14,500	....	....	....	....	....	....	¹ 80.7	....	....	....
Yanbu.....	235,000	....	....	....	....	¹ 35,000	....	¹ 35,000 ⁷ 15,000	....	....	....	....	....	....	....	....	....	....

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
Saudi Aramco-Mobil—Yanbu	400,000	142,400	....	² 46,100	¹ 90,600	² 46,700	....	¹ 73,500 ⁷ 93,400	² 23,500	....	....	¹ 12,600 ³ 20,400	....	¹ 2,200	....	....	....	....
Total	2,095,000	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	....	....	....	¹ 2,000	....	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	116,826	10,483	....	....	....	¹ 10,902	....	¹ 14,300 ⁵ 5,200 ¹¹ 4,900 ¹¹ 4,600	....	....	....	....	300	....	¹ 0.5	....	....	2,400
NIS-Rafinerija Nafta Pancevo— Pancevo	98,000	40,100	....	² 20,340	¹ 18,950	¹ 7,920	....	¹ 8,070 ⁴ 4,620 ⁵ 9,220	¹ 3,070	....	¹ 200	....	....	....	....	....	59	....
Total	214,826	50,583	0	20,340	18,950	18,822	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	605,000	163,500	....	² 115,500	....	¹ 35,000 ³ 57,000	^m 133,500	¹ 145,000 ⁴ 43,000 ⁵ 111,000	....	....	¹ 45,000	....	33,000	....	¹ 26.0 ⁴ 68.0	....	437	13,500
Shell Eastern Petroleum (Pte.) Ltd.— Pulau Bukom	458,000	74,800	....	¹ 266,000	¹ 233,000	¹ 6,900 ³ 30,100	¹ 34,000	² 119,300 ⁷ 7600	² 3,000	....	....	....	6,500	....	¹ 40.8	....	....	8,400
Singapore Petroleum Co. Ltd.— Pulau Merlimau*	273,600	76,000	....	² 28,800	² 36,000	² 13,500	^c 13,300 ^m 417,000	¹ 13,500 ⁷ 6,500	¹ 4,500	² 4,100	....	....	....	¹ 1,400	² 35.0 ⁴ 7.0 ⁵ 14.0 ⁶ 5.0	....	....	10,400
Total	1,336,600	314,300	0	210,300	69,000	142,500	97,800	585,900	7,500	4,100	45,000	0	39,500	1,400	195.8	0	437	32,300

SLOVAKIA

Slovnaft Joint Stock Co.— Bratislava	115,000	55,000	....	....	¹ 18,000	³ 21,000	^c 19,000 ^c 23,000	¹ 16,000 ² 6,000 ³ 3,400 ⁴ 9,300 ⁵ 29,000 ⁸ 22,000 ¹³ 2,100	¹ 4,500	....	¹ 8,000 ⁴ 1,250	³ 6,000	2,000	¹ 1,500	¹ 57.1 ⁴ 24.3 ⁵ 8.2	....	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

SOUTH AFRICA

Caltex Oil SA—Cape Town	110,000	51,200	² 11,000	¹ 22,300	¹ 28,500	² 24,000	¹ 4,000	² 5,500	82
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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
Engen Petroleum Ltd.—Durban ...	135,000	48,000	....	23,000	26,000	21,000	....	26,000 18,000 29,000 17,000 28,000	2,500	2,000	9,434	3,500	11,320	....	21.0	....	123	3,900
National Petroleum Refiners of South Africa Pty Ltd.—Sasolburg	87,547	34,475	....	....	25,660	14,642	11,774	12,830 11,562	2,295	....	....	3,623	....	....	29.1 6.1	....	120	....
Shell and BP PLC Petroleum Refineries Pty. Ltd.—Durban	172,000	71,000	....	27,000	35,000	29,000	....	46,000 70,000 12,000 1370	2,100	....	....	....	3,200	....	....	240	140	....
Total	504,547	204,675	0	61,000	108,960	93,142	11,774	294,762	8,895	6,000	9,434	14,123	14,520	0	56.2	240	465	3,900

SOUTH KOREA

Hyundai Lube Oil—Busan.....	9,500	6,650	....	....	....	....	....	² 1,800 ¹¹ 1,080	....	....	....	....	1,800	....	² 0.4	....	....	3,600
Hyundai Oil Refinery Co.—Daesan	310,000	41,000	² 19,000	....	....	³ 20,000	¹ 22,000	² 27,000 ¹² 000	....	....	....	....	1,000	....	² 54.0	1,200	180	3,727
Inchon.....	270,000	18,000	....	....	....	¹ 5,400	....	² 27,900 ⁸ 6,850	....	....	¹ 13,000	....	....	....	....	....	126	....
LG-Caltex—Yosu	650,000	11,000	....	....	¹ 82,000	¹ 7,000 ³ 58,400	....	¹ 64,400 ² 27,000 ⁴ 36,000 ⁵ 180,000 ¹² 30,000	....	....	¹ 40,000	....	3,000	³ 2,500	....	....	....	5,400
S-Oil Corp.—Onsan	520,000	160,000	....	....	¹ 60,000	³ 43,000	² 60,000 ³ 11,000	¹ 44,000 ² 12,000 ⁴ 21,000 ⁵ 85,000 ⁸ 40,000 ¹⁰ 50,000 ¹² 6,000	....	....	¹ 20,000	....	9,000	¹ 1,600	² 198.0 ¹ 57.0	....	900	8,500
SK Corp.—Ulsan	817,000	78,850	....	....	² 45,000	¹ 20,070 ³ 49,500	² 27,000	¹ 71,280 ² 4,500 ¹ 59,300 ⁵ 4,000 ¹⁰ 27,000	¹ 5,400	....	¹ 27,900 ² 8,055 ³ 3,600	....	3,500	¹ 4,770	¹ 80.0 ² 65.0 ⁴ 199.0	....	1,195	2,970
Total	2,576,500	315,500	19,000	0	187,000	235,870	120,000	1,068,110	5,400	0	112,555	0	18,300	8,870	653.4	1,200	2,401	24,197

SPAIN

BP PLC—Castellon de la Plana* ...	104,500	44,650	....	....	¹ 27,000	¹ 15,300	....	² 50,400 ² 9,700 ² 8,800	¹ 2,700	....	....	³ 17,100	....	....	....	....	....	....
Cia. Espanola de Petroles SA—Cadiz	240,000	40,000	....	² 38,000	¹ 40,000	¹ 36,000	....	¹ 35,000 ⁵ 4,000 ⁸ 30,000	² 5,600	....	¹ 11,500	² 5,500	2,300	² 1,300	⁴ 4.8	....	246	....
Huelva.....	100,000	38,000	....	² 9,000	¹ 19,000	¹ 17,000	17,000	⁵ 30,000 ⁸ 15,000	....	....	¹ 6,100 ² 4,400 ³ 3,800	....	2,600	² 900	¹ 23.7 ⁴ 9.8	....	115	5,500
Tenerife.....	87,000	8,000	....	² 35,000	....	¹ 16,000	....	¹ 16,000 ⁴ 15,000 ⁵ 14,000	....	....	....	....	....	....	....	....	45	4,500
Petronor SA—Somorrostro Vizcaya	220,000	89,500	....	² 39,600	¹ 43,100	¹ 28,900	^m 43,100	¹ 40,500 ⁵ 66,600	² 4,800	....	....	² 2,600	....	² 1,300	¹ 38.7	....	346	4,500
Repsol YPF SA—Cartagena Murcia	100,000	14,500	....	....	....	¹ 26,000	....	¹ 26,000 ⁵ 31,800	....	....	....	¹ 800	2,600	....	⁶ 1.4	....	70	5,200
La Coruna	120,000	52,000	² 19,000	....	¹ 31,600	¹ 19,700	....	¹ 19,700 ⁵ 43,400 ⁸ 26,800	....	....	....	¹ 1,200	....	² 1,200	^a 140.3	1,050	251	1,700
Puertollano, Ciudad Real	140,000	55,500	² 24,100	....	¹ 30,600	¹ 16,300	^m 134,500	¹ 16,300	² 3,400	....	....	¹ 1,900	2,100	² 1,400	^a 157.1	1,340	381	5,200

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
Tarragona	160,000	72,000	....	² 27,600	....	³ 22,000	^c 143,100	^{23,000} ⁵ 83,100 ¹ 22,000 ⁵ 67,900	....	....	....	¹ 3,400	....	² 3,500	^{a1} 65.7 ⁵ 14.1	....	243	....
Total	1,271,500	414,150	43,100	149,200	191,300	197,200	127,700	765,000	16,500	0	25,800	32,500	9,600	9,600	255.6	2,390	1,697	26,600
SRI LANKA																		
Ceylon Petroleum Corp.— Sapugaskanda*	50,000	24,000	....	² 12,500	....	¹ 5,300	....	¹ 9,885 ⁵ 9,410	....	....	....	....	....	....	....	....	....	1,000
Total	50,000	24,000	0	12,500	0	5,300	0	19,295	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	....	....	....	....	¹ 1,900	....	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	....	² 2,800	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	7,000	7,000	0	2,800	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0
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
Preeem Raffinaderi AB— Brofjorden-Lysekil.....	210,000	64,600	....	² 37,800	¹ 29,700	³ 32,400	^{m4} 48,600	² 48,600 ³ 45,900 ¹ 46,000 ³ 14,000 ^{37,000} ^{6,500}	....	¹ 3,420	....	³ 14,400	....	....	⁶ 9.7	....	200	....
Gothenburg	106,000	....	....	....	....	¹ 20,500	....	² 28,000 ^{5,000} ^{28,000}	....	....	....	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} ^{28,000}	....	....	....	³ 4,000	....	....	....	....	....	....
Total	434,000	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} ^{27,000}	....	....	....	³ 3,600	....	....	....	....	....	5,200
Tamoil SA—Collombey	72,000	....	....	....	20,400	¹ 12,000	....	¹ 18,900 ⁹ 7,600 ¹² 6,700	....	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	11,493	0	0	27.0	500	150	2,223	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
TANZANIA																		
Tanzanian Italian Petroleum Refining Co. Ltd.— Kigamboni Dar es Salaam	14,900	....	....	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																		
Alliance Refining Co. Ltd.— Map Ta Phut, Rayong.....	275,000	46,835	....	....	¹ 33,300	³ 13,500	....	¹ 13,500 50,580 ² 25,200 67,000	....	....	....	....	....	....	....	....	....	....
Esso Standard Thailand Ltd.— Sriracha	173,500	46,000	....	....	¹ 41,500	³ 26,500	....	¹ 45,500 ⁴ 25,000 ⁵ 73,500	....	....	¹ 9,500	....	....	....	....	....	160	2,500
PTT PLC—Bangchak Bangkok.....	61,750	....	....	....	....	¹ 9,450	....	¹ 4,950 ² 5,850 ¹³ 16,200	....	....	....	....	....	....	¹ 4.7	....	....	....
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	84,030	93,410	43,073	461,040	0	0	9,500	19,596	0	0	33.5	0	160	2,500
TRINIDAD AND TOBAGO																		
Petroleum Co. of Trinidad and Tobago Ltd.—Pointe-a-Pierre.....	175,000	120,000	....	² 32,000	¹ 26,000	¹ 20,500	^m 150,000	¹ 21,000 ⁴ 20,000	¹ 1,200	¹ 1,580	....	....	....	¹ 1,000	¹ 30.0	....	100	....
Total	175,000	120,000	0	32,000	26,000	20,500	50,000	41,000	1,200	1,580	0	0	0	1,000	30.0	0	100	0
TUNISIA																		
Ste. Tunisienne Industries des Raffinage—Bizerte	34,000	....	....	....	....	3,300	....	....	....	....	....	....	....	....	....	0	....	....
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	....	....	....	....	¹ 13,500	....	¹ 21,600 10,800	....	....	....	....	....	....	....	....	....	....
Ersan Petrol Sanayii AS— Narlı, Kahramanmaraş.....	6,000	4,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3,000
Turkish Petroleum Refineries Corp.— Aliaga-Izmir	226,440	75,490	....	² 18,870	¹ 15,095	¹ 9,810	^c 16,360	¹ 11,320 ² 11,320 ³ 9,055 ⁴ 11,320 ⁷ 6,790 ¹¹ 7,250	....	....	....	....	5,870	....	² 34.4 ⁴ 88.5	....	98	472
Batman, Siirt	22,015	2,140	....	¹ 4,720	....	¹ 1,302	....	¹ 1,302	....	....	....	....	....	....	....	....	....	2,139
Izmit	251,600	89,947	....	....	¹ 13,840	¹ 6,920 ³ 14,000	¹ 22,960	¹ 20,760 ² 10,065 ³ 3,150 ⁴ 27,050 ⁷ 6,290 ⁸ 39,000 ¹¹ 27,675 ¹³ 5,032	....	....	....	³ 5,030	....	....	¹ 50.7	180	137	9,435
Kirik kale	113,220	30,190	....	....	....	¹ 20,130	^c 14,500	¹ 20,130 ⁵ 15,096	....	....	....	³ 9,025	....	....	² 22.1 ⁴ 21.8	....	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

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
TURKMENISTAN																		
Ministry of Oil Gas—Chardzou.....	120,493	50,745	.....	.....	.....	¹ 24,466	.....	¹ 24,900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Turkmenneftgas—Turkmenbashi..	116,477	40,900	² 28,568	.....	¹ 15,151	¹ 8,074	.....	¹ 38,600	¹ 0,028	¹ 1,223	.....	.....	2,000	.....	.....	1,040	.....	415
						² 20,000												
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	² 12,000	.....	.....	¹ 16,637	.....	¹ 13,041	.....	.....	.....	.....	.....	.....	.....	340	.....	5,811
Lukoil—Odessa	78,321	18,795	.....	.....	.....	¹ 10,276	.....	¹ 11,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,155
								28,767										
TNK-Ukraina—Lisichansk.....	175,000	115,600	.....	.....	¹ 40,500	¹ 56,761	.....	¹ 57,500	.....	.....	² 1,870	.....	.....	¹ 125	¹ 21.5	.....	90	.....
								79,014										
								⁸ 42,192										
Ukraine Oil Co.—Drogobich.....	78,321	25,185	³ 3,195	¹ 7,330	.....	¹ 8,074	.....	¹ 8,200	.....	.....	.....	.....	.....	.....	.....	115	.....	3,819
Ukratnafta—Kremenchug	360,000	119,997	.....	.....	¹ 29,600	² 44,400	³ 7,200	⁵ 65,999	.....	.....	¹ 1,594	.....	500	.....	.....	.....	86	.....
Nadvornaja.....	50,487	13,720	² 6,954	¹ 9,961	.....	¹ 8,563	.....	¹ 8,800	.....	.....	.....	.....	.....	.....	.....	250	.....	.....
Total	879,759	336,297	22,149	17,291	70,100	144,711	7,200	315,013	0	0	3,464	0	500	125	21.5	705	176	12,785
UNITED ARAB EMIRATES																		
Abu Dhabi																		
Abu Dhabi National Oil Co.— Ruwais	350,000	56,680	.....	.....	¹ 19,150	.....	^c 131,050	21,889	.....	.....	.....	.....	.....	.....	¹ 53.0	.....	.....	.....
								39,248										
								21,850										
Umm Al-Nar	150,000	.....	.....	.....	.....	³ 14,000	.....	² 23,500	.....	.....	.....	.....	.....	.....	.....	.....	35	.....
								22,500										
Total	500,000	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	² 1,140	¹ 1,900	.....	.....	.....	.....	⁷ 5.8	.....	16	700
								⁴ 2,470										
								⁶ 11,590										
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	² 18,900	.....	.....	³ 31,500	9,900	.....	.....	.....	.....	2,430
								49,500										
ConocoPhillips—South Killingholme*	221,000	157,000	³ 64,600	¹ 55,100	¹ 49,600	¹ 52,100	.....	⁵ 48,400	² 11,500	.....	¹⁴ 0,000	³ 13,000	.....	.....	⁴ 17.5	2,400	140	.....
								⁷ 128,800			² 1,800							
								⁹ 21,900										
								¹² 26,800										
								¹³ 25,600										
AB Nynas Petroleum—Eastham...	27,000	27,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,000
ExxonMobil Refining Supply Co.— Fawley	326,000	142,500	.....	.....	¹ 74,500	¹ 40,000	.....	¹ 98,000	.....	¹ 9,500	.....	³ 22,000	11,200	.....	⁶ 48.0	.....	275	5,500
						² 23,000		⁴ 58,000										
								⁵ 77,500										
								¹⁰ 28,000										
								¹¹ 11,500										
								¹² 17,500										
Petroplus International NV— Teesside.....	100,000	.....	.....	.....	.....	.....	.....	⁵ 24,000	.....	.....	.....	.....	.....	.....	.....	.....	4	.....

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
Shell U.K. Ltd.—Stanlow.....	296,400	158,800	....	....	75,783	³ 34,850	....	¹ 34,850 ² 14,980 ⁴ 19,000 ⁵ 58,648 ¹³ 27,298	² 11,900	....	¹ 21,000	¹ 5738	8,713	....	....	....	3	....
Total SA Lindsey Oil Refinery Ltd.— Killingholme South Humberside	221,286	96,524	....	² 25,858	¹ 49,076	¹ 33,416	....	¹ 55,316 ⁴ 5,437 ⁵ 53,664	² 7,848	¹ 2,102	....	....	....	¹ 2,641 ³ 1,254	....	....	130	6,703
Total	1,355,086	675,874	64,600	80,958	310,159	217,566	0	941,393	50,148	11,602	26,800	72,238	29,813	3,895	65.5	2,400	552	32,633
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
Wales																		
Chevron Corp. —Pembroke, Dyfed	210,000	105,000	....	² 26,000	¹ 90,000	³ 39,000	....	¹ 39,000 ² 49,500 ⁵ 60,000 ¹ 29,185 ⁵ 73,734 ⁷ 1,000 ¹³ 6,800	² 32,500	....	....	¹ 19,900 ³ 12,000	....	....	....	....	160	....
Total SA—Milford Haven	104,153	52,740	....	....	¹ 35,793	¹ 18,455	....	....	² 5,955	¹ 1,994	....	³ 15,285	....	....	....	....	22	....
Total	314,153	157,740	0	26,000	125,793	57,455	0	329,219	38,455	1,994	0	47,185	0	0	0.0	0	182	0

UNITED STATES

ALABAMA

Hunt Refining Co.—Tuscaloosa*..	43,225	14,250	² 12,600	....	....	¹ 6,480	....	¹ 9,000 ⁴ 1,800 ⁵ 10,800 ⁸ 9,900 ¹ 25,000 ⁹ 18,000	....	....	....	....	....	....	^a 16.1 ⁴ 7.0	500	80	10,800
Shell Chemical Co.—Saraland.....	85,000	28,000	....	....	....	¹ 22,500	⁴ 30,000	¹ 25,000 ⁹ 18,000	....	....	....	³ 7,500	....	....	⁶ 6.0	....	20	....
Trigeant Petroleum—Mobile Bay .	20,000	15,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	148,225	57,250	12,600	0	0	28,980	30,000	74,500	0	0	0	7,500	0	0	19.1	500	100	10,800
ALASKA																		
BP PLC—Kuparuk	14,500	....	³ 14,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Prudhoe Bay.....	15,000	....	³ 15,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Flint Hills Resources —North Pole*	215,175	5,225	....	....	....	....	....	....	....	....	¹ 2,250	....	....	....	....	....	....	1,800
Petro Star Inc.—North Pole.....	17,500	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Valdez	48,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tesoro Corp.—Kenai.....	72,000	19,000	....	....	....	¹ 12,000	^c 12,500	¹ 12,500	....	....	....	³ 4,000	....	....	^a 13.0	....	19	1,000
Total	382,175	24,225	29,500	0	0	12,000	12,500	12,500	0	0	2,250	4,000	0	0	13.0	0	19	2,800

ARKANSAS

Cross Oil Refining Co. Inc.— Smackover.....	7,000	3,000	....	....	....	....	....	¹ 4,500 ¹ 8,000 ² 6,120 ⁵ 25,200 ⁸ 18,900 ¹² 5,850	....	....	....	....	4,500	....	¹ 2.5	....	....	1,500
Lion Oil Co.—El Dorado	70,000	27,075	....	....	¹ 19,500	³ 13,320	....	....	¹ 4,500	....	....	³ 5,940	....	....	....	....	157	10,800
Total	77,000	30,075	0	0	19,500	13,320	0	78,570	4,500	0	0	5,940	4,500	0	2.5	0	157	12,300

CALIFORNIA

Big West Oil LLC— Bakersfield ⁶	65,000	39,000	² 22,000	....	....	¹ 14,700	^c 123,500	¹ 12,500 ¹³ 9,400 ⁸ 1,000 ⁹ 0,000 ¹ 57,000 ⁴ 15,000 ⁵ 34,000	....	....	....	....	....	....	¹ 24.7 ⁶ 5.0 ¹ 105.0	1,200	103	....
BP PLC—Carson*.....	247,000	123,500	² 58,500	....	¹ 86,400	¹ 46,800	^c 138,700	....	¹ 15,000	¹ 2,800	....	¹ 21,600 ³ 20,000 ¹ 3,800 ³ 19,000	....	¹ 2,700	¹ 105.0	2,400	350	....
Chevron Corp.—El Segundo.....	260,000	120,000	² 64,000	....	¹ 62,000	³ 40,000	^c 145,000	....	¹ 21,000	....	....	....	....	....	¹ 68.0 ² 71.0	3,447	406	....

WORLDWIDE REFINING Company and refinery location	Charge capacity, b/cd								Production capacity, b/cd									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	Hydrogen (MMcfd)					
Richmond	225,000	110,000	....	....	¹ 65,000	¹ 45,000	^{c1} 41,000 ^{c3} 28,000 ^{c4} 40,000	⁷ 6,000 ⁸ 68,000 ¹² 18,000 ¹ 50,000 ⁴ 50,000 ⁵ 25,000 ¹¹ 9,000	¹ 20,000	¹ 1,800	....	¹ 3,900 ² 25,000	14,000	....	¹ 145.0 ⁴ 10.0	....	350	....	
ConocoPhillips—Los Angeles (Carson and Wilmington).....	138,700	78,000	² 48,000	....	¹ 45,000	¹ 35,200	^{c1} 24,750	¹ 50,850 ⁷ 35,000 ⁸ 50,000	¹ 14,200	....	....	¹ 5,300 ² 12,200	....	....	¹ 100.8	2,000	340	....	
Rodeo and Santa Maria	120,000	78,300	² 47,500	....	....	¹ 30,600	^{c1} 36,900	¹ 29,200 ⁶ 14,900 ⁷ 28,800	....	....	....	³ 9,000	....	....	¹ 86.3 ⁴ 2.6	2,400	480	....	
ExxonMobil Refining Supply Co.— Torrance.....	149,500	98,500	² 52,500	....	¹ 96,000	¹ 19,000	^{c1} 20,500	¹ 23,500 ⁷ 17,500 ⁸ 102,000	² 23,500	....	....	....	....	....	¹ 145.0 ⁶ 14.0	3,050	400	....	
Kern Oil Refining Co.—Bakersfield	25,000	....	....	....	....	¹ 3,000	....	⁴ 5,000 ³ 2,000 ⁵ 6,500	....	....	....	....	....	....	....	....	5	....	
Paramount Petroleum Corp.— Long Beach.....	52,000	30,000	....	....	....	¹ 10,000	....	² 11,000 ⁵ 7,000 ⁸ 11,000	....	....	....	³ 3,750	....	....	....	....	40	16,500
San Joaquin Refining Co. Inc.— Bakersfield	24,300	14,300	....	² 10,000	....	....	....	⁶ 3,000	....	....	....	....	4,000	....	^{a1} 3.5 ⁴ 3.5	....	3	6,500
Shell Oil Products US—Martinez .	157,600	95,100	² 26,800 ² 21,600	....	¹ 69,700 ² 1,000	² 29,400	^{c1} 39,700	¹ 27,100 ⁶ 20,200 ⁷ 25,200 ⁸ 75,300 ¹³ 41,800	¹ 11,500	² 2,900	....	³ 14,500	....	....	¹ 101.3	1,181	402	15,000
Wilmington	100,000	62,000	² 40,000	....	¹ 36,000	¹ 32,500	^{c1} 32,000	¹ 35,750 ³ 12,500 ⁴ 15,000 ⁸ 38,000	¹ 12,000	....	....	¹ 8,000	....	....	^{a1} 55.0 ⁴ 55.0	1,615	265	....	
Tesoro Corp.—Golden Eagle	161,000	144,000	¹ 42,000	....	¹ 66,500	¹ 20,000 ³ 22,000	^{c1} 32,000	¹ 23,000 ³ 9,000 ⁵ 32,000 ⁶ 14,000 ⁸ 62,000 ¹² 27,000 ¹³ 5,500	¹ 14,000	....	....	....	....	....	¹ 74.0 ^{a1} 31.0	1,500	140	....	
Valero Energy Corp.—Benicia	139,500	78,500	¹ 28,000	....	¹ 69,000	² 36,000	^{c1} 36,000	¹ 29,000 ³ 11,000 ⁴ 13,500 ⁵ 11,500 ⁸ 37,000 ¹² 44,000	¹ 17,100	² 2,900	....	....	....	....	¹ 131.5	1,080	275	5,000
Wilmington	80,000	46,000	¹ 28,000	....	¹ 54,000	³ 17,500	....	¹ 32,000 ⁵ 30,000 ⁸ 62,500 ¹² 15,000	² 14,500	....	....	¹ 10,200	....	....	^{a1} 50.0	17,000	250	....	
Total	1,944,600	1,117,200	478,900	10,000	650,600	401,700	438,050	1,680,500	162,800	10,400	0	156,250	18,000	2,700	1,282.2	36,873	3,808	43,000		
COLORADO																				
Suncor Energy Products— Commerce City	92,000	34,500	....	....	¹ 27,000	¹ 18,100	....	¹ 18,600 ⁵ 12,500 ⁸ 12,000	....	¹ 3,500	....	....	....	....	....	....	94	10,500
Valero Energy Corp.—Denver.....	28,000	9,500	....	....	¹ 8,000	¹ 9,000	....	¹ 9,000	....	¹ 900	....	....	....	....	....	....	4	....	
Total	120,000	44,000	0	0	35,000	27,100	0	52,100	0	4,400	0	0	0	0	0.0	0	98	10,500		

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
DELAWARE																		
Valero Energy Corp.— Delaware City ^A	190,000	102,000	147,000	....	¹ 82,000	³ 43,000	^{c2} 18,000	¹ 45,000 ⁴ 15,000 ⁵ 34,000 ¹² 36,000	¹ 11,000	¹ 5,040	¹ 1,260	¹ 6,000	....	....	¹ 40.0 ⁴ 22.0	2,200	532	....
Total	190,000	102,000	47,000	0	82,000	43,000	18,000	130,000	11,000	5,040	1,260	6,000	0	0	62.0	2,200	532	0
HAWAII																		
Chevron Corp.—Kapolei	54,000	30,000	....	....	¹ 21,000	....	....	¹³ 3,000	¹ 4,000	² 1,000	....	¹ 1,200	....	....	¹ 2.0	....	....	1,300
Tesoro Hawaii Corp.—Kapolei	93,700	39,500	....	² 11,500	....	¹ 12,800	^{c1} 17,600	¹ 12,800	....	....	....	....	....	....	^{a2} 18.0	....	34	1,000
Total	147,700	69,500	0	11,500	21,000	12,800	17,600	15,800	4,000	1,000	0	1,200	0	0	20.0	0	34	2,300
ILLINOIS																		
Citgo Petroleum Corp.—Lemont*	158,650	71,250	² 36,000	....	¹ 60,300	¹ 28,080	....	¹ 44,100 ³ 3,960 ⁵ 31,950 ⁷ 13,500 ¹² 9,900	² 18,900	....	¹ 6,030	....	....	....	¹ 4.5	2,102	344	....
ConocoPhillips—Wood River.....	306,000	117,800	¹ 16,200	....	¹ 90,000	¹ 15,000 ² 70,000	^{c1} 32,800	¹ 63,000 ² 18,000 ⁸ 25,500 ¹² 25,200 ¹³ 77,000	¹ 20,500	....	¹ 3,500	....	....	....	¹ 51.5	1,250	440	40,000
ExxonMobil Refining Supply Co.— Joliet	238,000	114,000	² 56,000	....	¹ 93,000	³ 49,500	....	¹ 88,000 ² 19,500 ⁷ 84,500 ¹² 55,000	² 27,000	....	....	....	....	....	....	3,330	660	12,000
Marathon Ashland Petroleum LLC— Robinson	192,000	61,900	² 28,400	....	¹ 51,300	² 36,100	¹ 25,700	¹ 58,900 ⁵ 70,300 ¹² 33,300	² 10,900	....	....	³ 14,300	....	....	....	1,544	179	....
Total	894,650	364,950	136,600	0	294,600	235,280	58,500	721,610	77,300	0	9,530	14,300	0	0	56.0	8,226	1,623	52,000
INDIANA																		
BP PLC—Whiting*	399,000	242,250	² 31,500	....	¹ 148,500	² 79,200	....	¹ 106,200 ⁷ 161,100 ¹³ 24,700 ^{92,200}	¹ 30,600	....	¹ 16,200	³ 32,400	....	¹ 3,800	¹ 29.5	1,690	449	60,000
Countrymark Cooperative Inc.— Mount Vernon	23,500	8,000	....	....	¹ 7,850	³ 6,500	....	² 10,000	² 2,000	....	....	³ 2,200	....	....	....	....	....	....
Total	422,500	250,250	31,500	0	156,350	85,700	0	394,200	32,600	0	16,200	34,600	0	3,800	29.5	1,690	449	60,000
KANSAS																		
Coffeyville Resources R M LLC— Coffeyville	100,000	50,000	² 19,000	....	¹ 29,100	¹ 17,000	....	² 29,000 ⁴ 7,000 ⁷ 25,000	² 9,200	....	....	³ 8,500	....	....	....	890	....	....
Frontier Oil Corp.—El Dorado.....	110,000	39,000	² 18,500	....	¹ 37,200	¹ 29,500	....	¹ 24,000 ² 18,000 ⁴ 12,400 ⁵ 23,500 ⁸ 45,000	² 13,000	....	¹ 2,200	³ 12,500	....	....	¹ 6.0 ³ 12.0	860	250	....
National Cooperative Refining Assoc.— McPherson	82,200	34,200	² 21,000	....	¹ 22,900	³ 22,900	⁴ 33,400	¹ 22,900 ² 11,500 ⁵ 39,200	² 6,500	....	....	¹ 2,700 ³ 10,500	....	....	28.7	633	124	....
Total	292,200	123,200	58,500	0	89,200	69,400	33,400	257,500	28,700	0	2,200	34,200	0	0	46.7	2,383	374	0
KENTUCKY																		
Marathon Ashland Petroleum LLC— Catlettsburg.....	222,000	114,500	....	....	¹ 94,100	³ 47,500	....	¹ 48,500 ² 6,400 ³ 7,000 ⁵ 73,200 ⁸ 96,000 ¹¹ 8,400 ¹³ 3,300	² 19,000	....	¹ 1,900 ⁴ 7,600	³ 13,300	8,400	....	....	....	516	12,000

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
Somerset Refinery Inc.—Somerset	5,500	....	....	....	....	² 1,500	....	¹ 500 ⁴ 500	....	....	....	....	....	....	....	....	....	....
Total	227,500	114,500	0	0	94,100	49,000	0	244,800	19,000	0	9,500	13,300	8,400	0	0.0	0	516	12,000
LOUISIANA																		
Calcasieu Refining Co.—Lake Charles	15,680	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calumet Lubricants Co.—Cotton Valley	9,500	....	....	....	....	....	....	¹³ 5,000	....	....	....	....	....	....	^a 12.5 ⁴ 2.5	....	....	....
Princeton	9,500	8,500	....	....	....	....	⁴ 8,000	....	....	....	....	....	7,500	....	^a 14.5 ⁴ 4.5	....	3	....
Shreveport	35,000	15,000	....	....	....	¹ 0,000	^c 4,500	¹ 2,000 ⁵ 7,000 ¹³ 5,000	....	....	....	....	8,000	....	^a 16.1 ⁴ 6.1	....	15	....
Cit-Con Oil Corp.—Lake Charles ..	....	36,100	....	....	....	....	....	....	....	....	....	....	8,550	....	....	....	....	....
Citgo Petroleum Corp.— Lake Charles*	440,000	79,800	² 88,200	....	¹ 26,000	¹ 42,300 ⁵ 2,200	^c 13,800	¹ 03,500 ² 6,300 ⁴ 26,100 ⁵ 32,400 ⁸ 64,800	¹ 20,700	....	¹ 3,500	² 28,800	9,900	¹ 3,150	^a 147.7 ⁶ 10.8	3,870	567	....
ConocoPhillips—Belle Chasse	247,000	92,000	² 25,200	....	¹ 04,000	¹ 42,000	....	¹ 47,000 ⁷ 65,000 ¹³ 32,400	² 38,000	....	¹ 24,600 ² 7,200	....	....	....	⁷ 10.4	800	70	....
Westlake	239,000	106,200	² 57,800	....	¹ 44,800	³ 33,000	^c 3,29,000	¹ 35,600 ⁴ 21,800 ⁵ 49,100 ⁶ 4,000 ¹² 34,500 ⁷ 35,900	¹ 7,500	¹ 1,000	....	....	....	....	⁴ 90.5	3,600	350	....
ExxonMobil Refining Supply Co.— Baton Rouge	501,000	227,000	² 112,500	....	¹ 229,000	² 75,500	^c 124,000	¹ 75,500 ² 104,000 ⁷ 95,000 ¹¹ 22,000 ¹² 95,000 ¹³ 46,000	¹ 36,000	¹ 9,500	....	....	16,000	¹ 7,000	⁴ 12.0 ⁶ 12.0	5,250	690	....
Chalmette	188,000	112,000	² 33,000	....	¹ 68,000	¹ 28,000 ³ 19,000	^c 18,500	¹ 39,500 ⁷ 27,000 ⁸ 62,000 ¹² 44,000	² 12,500	....	¹ 10,000	³ 10,000	....	....	....	2,050	920	....
Marathon Ashland Petroleum LLC— Garyville	245,000	127,300	² 37,100	....	¹ 123,500	³ 46,100	....	¹ 47,500 ⁵ 77,000 ⁸ 100,700 ¹² 82,700	² 26,800	....	....	¹ 22,800 ² 20,000	....	....	....	3,263	1,039	25,700
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 48,000	¹ 13,050	² 3,600	....	³ 11,250	....	¹ 2,250 ² 2,500	^a 158.0	....	700	....
Norco	220,000	78,000	² 21,300	....	¹ 05,000	¹ 19,100 ² 38,200	^c 13,500	¹ 38,000 ⁵ 35,300 ¹² 49,500	¹ 4,800	....	....	....	....	¹ 7,500	¹ 49.4	900	140	....
Murphy Oil USA Inc.—Meraux	125,000	50,000	....	....	¹ 37,000	....	....	² 35,000 ⁷ 52,000 ⁹ 12,000 ¹³ 24,750	² 8,500	....	....	....	....	....	....	....	1,800	....
Placid Refining Co. LLC—Port Allen	55,000	22,000	....	....	¹ 20,000	¹ 0,000	....	² 14,000 ⁷ 17,000	² 3,800	....	....	....	....	....	....	....	28	....
Shell Chemical Co.—St. Rose	55,000	28,000	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Valero Energy Corp.—Krotz Springs	83,100	36,200	....	....	¹ 34,100	¹ 12,000	....	¹ 4,600 ² 4,100	....	¹ 2,100	....	³ 4,100	....	¹ 800	....	....	20	....

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
Norco	186,000	200,000	² 70,400	....	¹ 100,000	³ 25,000	....	² 36,000 ⁵ 48,000 ⁸ 35,100 ¹² 12,000	¹ 19,000	....	....	....	....	....	....	4,500	450	....
Total	2,888,780	1,318,100	445,500	0	1,076,400	488,400	202,300	2,142,650	200,650	16,200	55,300	96,950	49,950	24,200	317.0	24,233	6,792	25,700
MICHIGAN																		
Marathon Ashland Petroleum LLC— Detroit.....	100,000	50,800	....	....	¹ 28,500	³ 19,000	....	¹ 24,700 ⁴ 6,700 ⁵ 29,500 ⁸ 31,400	¹ 4,800	....	....	....	....	....	....	....	206	19,000
Total	100,000	50,800	0	0	28,500	19,000	0	92,300	4,800	0	0	0	0	0	0.0	0	206	19,000
MINNESOTA																		
Flint Hills Resources—Rosemount*	279,300	185,250	² 63,720	....	¹ 77,850	² 12,420 ³ 33,750	....	¹ 47,250 ² 47,250 ⁴ 30,600 ⁶ 63,090 ⁶ 6,300 ⁸ 91,350	¹ 11,250	¹ 900 ² 3,240	....	² 16,200	....	....	¹ 115.0 ⁵ 10.0	3,690	801	40,500
Marathon Ashland Petroleum LLC— St. Paul Park.....	70,000	30,400	....	....	¹ 25,700	¹ 20,000	....	¹ 20,000 ⁴ 7,100 ⁵ 20,900 ⁸ 27,600	² 5,200	....	....	¹ 1,900 ³ 6,700	....	....	¹ 9.5	....	101	11,400
Total	349,300	215,650	63,720	0	103,550	66,170	0	361,440	16,450	4,140	0	24,800	0	0	134.5	3,690	902	51,900
MISSISSIPPI																		
Chevron Corp.—Pascagoula.....	325,000	240,000	² 92,000	....	¹ 63,000	¹ 71,000	¹ 58,000	¹ 47,000 ⁴ 28,000 ⁵ 32,000 ⁸ 87,500 ¹³ 44,000 ⁹ 12,000	¹ 14,800	² 2,100	¹ 19,000	....	....	....	¹ 205.0	6,440	1,067	....
Ergon Refining Inc.—Vicksburg....	23,000	10,200	....	....	....	....	....	⁹ 12,000	....	....	....	....	11,300	....	¹ 7.7	....	....	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.....	57,500	28,500	....	....	¹ 14,000	¹ 12,500	....	¹ 15,100 ⁵ 16,800 ⁸ 15,700	² 4,300	....	....	¹ 2,500	....	....	¹ 21.0 ⁴ 21.0	...	90	19,000
ConocoPhillips—Billings.....	58,000	32,700	² 18,000	....	¹ 18,500	¹ 12,200	....	⁷ 35,800 ⁸ 22,900	² 6,500	....	....	¹ 3,550	....	....	¹ 17.5 ⁴ 25.8 ⁶ 10.4	850	220	....
ExxonMobil Refining Supply Co.— Billings.....	60,000	27,500	¹ 9,500	....	¹ 22,500	¹ 12,000	¹ 5,500	² 32,000 ⁵ 12,000 ⁷ 13,500 ¹³ 7,500	¹ 4,500	....	....	....	....	....	¹ 22.0 ⁶ 4.5	440	13,000	....
Montana Refining Co.—Great Falls	8,200	5,000	....	....	¹ 2,500	¹ 900	....	¹ 1,100 ⁴ 1,000 ⁵ 2,000 ⁸ 3,000	² 1,000	¹ 400	....	600	....	....	¹ 2.1	....	....	3,000
Total	183,700	93,700	27,500	0	57,500	37,600	5,500	178,400	16,300	400	0	6,650	0	0	124.3	1,290	13,310	22,000
NEW JERSEY																		
ConocoPhillips—Linden.....	238,000	71,300	....	....	¹ 130,500	² 28,800	....	¹ 28,800 ⁷ 83,700 ⁸ 48,600 ¹² 36,000	¹ 15,800	....	....	¹ 24,500	....	....	⁶ 56.5	....	340	....
Sunoco Inc.—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	....
Valero Energy Corp.—Paulsboro..	166,000	90,000	² 27,000	....	¹ 55,000	³ 30,000	....	¹ 32,000 ⁴ 28,500 ⁵ 46,000 ¹¹ 750 ¹² 35,000	² 11,200	....	....	....	11,500	....	^a 13.5 ⁴ 9.0	1,470	230	16,000
Total	554,000	208,800	27,000	0	240,500	86,800	0	368,350	31,000	3,300	17,000	34,500	11,500	0	79.0	1,470	590	16,000

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 MEXICO																		
Giant Refining Co.—Bloomfield ...	18,600	....	....	....	¹ 6,000	¹ 4,800	....	¹ 4,800 ⁵ 3,000	....	¹ 2,000	....	....	....	....	....	....	1	....
Gallup	26,000	....	....	....	¹ 8,500	¹ 7,300	....	¹ 7,500 ⁷ 4,000	² 1,800	....	....	³ 4,000	....	....	....	....	2	....
Navajo Refining Co.—Artesia	60,000	20,000	....	....	¹ 18,500	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	....	....	....	¹ 25,700	² 11,500	....	¹ 12,000 ³ 11,600	² 4,200	¹ 1,100	....	³ 4,800	....	....	....	....	15	....
Total	58,000	0	0	0	25,700	11,500	0	23,600	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	36,000 49,500 ⁸ 38,000	¹ 10,800	....	....	....	....	....	¹ 33.0 ⁴ 24.0 ⁶ 8.0	1,736	314	8,600
Marathon Ashland Petroleum LLC— Canton	73,000	28,500	....	....	¹ 23,800	² 17,100	....	¹ 23,800 ⁵ 9,500 ⁶ 24,700	² 6,700	¹ 800	....	....	....	....	....	....	108	11,400
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	....	....	....
Valero Energy Corp.—Lima* ^A	161,500	49,400	² 20,700	....	¹ 36,000	² 49,500	⁴ 23,400	¹ 56,700 ¹² 31,500	....	....	¹ 6,300	³ 16,200	....	....	⁵ 10.4	800	100	....
Total	521,750	173,450	52,200	0	173,800	150,900	78,600	317,700	26,500	800	15,300	16,200	0	0	127.4	2,536	522	20,000
OKLAHOMA																		
ConocoPhillips—Ponca City.....	187,000	75,000	² 24,000	....	¹ 61,000	¹ 48,000	....	¹ 45,000 ⁴ 14,000 ⁵ 33,000 ⁸ 21,000 ¹² 44,000 ¹³ 12,000	² 14,000	¹ 2,000	....	¹ 7,000 ³ 12,000	....	....	¹ 10.0 ⁶ 15.0	1,100	150	....
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....	87,877	32,000	....	....	¹ 27,648	³ 21,350	....	¹ 25,760 ⁵ 33,176 ⁸ 31,200	² 7,012	....	....	³ 7,000	....	....	¹ 26.0 ⁴ 26.0	....	243	11,000
Wynnewood Refining Co.— Wynnewood ^F	52,500	15,500	....	....	¹ 18,500	³ 13,000	¹ 5,500	¹ 12,000	² 4,000	....	....	³ 3,500	....	....	¹ 9.0	....	....	5,000
Total	462,377	177,675	32,500	0	123,348	110,650	5,500	331,936	27,712	2,000	0	34,900	8,500	0	86.0	1,450	412	18,250
PENNSYLVANIA																		
American Refining Group—Bradford	10,000	....	....	....	....	¹ 1,800	....	¹ 3,500	....	....	....	³ 600	2,600	....	....	....	....	....
ConocoPhillips—Trainer.....	185,000	75,400	....	....	¹ 48,400	³ 48,800	^m 419,900	¹ 51,900 ⁴ 20,300 ⁵ 21,000 ⁸ 38,300	² 11,800	....	....	....	....	....	....	....	160	....
Sunoco Inc.—Marcus Hook	175,000	26,400	....	....	¹ 93,000	¹ 15,600	....	¹ 36,000 ¹² 12,000	¹ 10,000	....	¹ 19,200 ³ 2,400	....	....	¹ 2,600	¹ 6.0	....	....	....
Philadelphia	330,000	157,400	....	....	¹ 113,500	¹ 68,000	....	¹ 85,600 ⁵ 78,000	² 16,700	....	¹ 3,700 ⁴ 10,000	¹ 7,300	....	....	....	....	....	....
United Refining Co.—Warren	66,700	27,000	....	....	¹ 23,000	² 16,000	....	² 20,000 ⁶ 000 ⁷ 14,000	¹ 3,500	¹ 1,000	....	³ 6,800	....	....	....	....	....	12,000
Total	766,700	286,200	0	0	277,900	150,200	19,900	386,600	42,000	1,000	35,300	14,700	2,600	2,600	6.0	0	160	12,000
TENNESSEE																		
Valero Energy Corp.—Memphis ^A .	190,000	....	....	....	¹ 68,000	³ 36,000	....	¹ 52,000 ⁵ 1,000 ¹² 39,000 ¹³ 12,000	² 12,000	....	....	³ 4,000	....	....	....	....	106	....
Total	190,000	0	0	0	68,000	36,000	0	154,000	12,000	0	0	4,000	0	0	0.0	0	106	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
TEXAS																		
AGE Refining Manufacturing— San Antonio	12,000	....	....	....	....	....	....	....	....	....	¹ 1,200	....	....	....	....	....	....	....
Alon USA—Big Spring	70,000	24,000	....	....	¹ 24,000	¹ 21,000	....	¹ 25,500 ⁴ 4,200 ⁵ 22,750 ⁸ 6,500 ¹² 9,000	² 5,000	....	¹ 2,000	....	....	....	....	....	135	8,000
BP PLC —Texas City*	446,500	225,150	² 38,700	....	¹ 183,600	² 124,200	^{c1} 57,000 ^{c2} 57,000	¹ 104,500 ⁷ 133,000 ¹³ 126,400	¹ 20,900 ² 38,000	....	¹ 43,700	³ 24,300	....	....	¹ 180.0 ⁵ 22.8	2,585	1,123	....
Citgo Petroleum Corp.— Corpus Christi*	156,750	73,625	² 37,800	....	¹ 72,450	³ 45,450	....	¹ 47,250 ⁵ 44,100 ⁸ 56,880	² 18,090	....	¹ 12,600 ² 2,835 ³ 3,600 ⁴ 11,070	....	....	¹ 3,600	....	2,123	282	....
ConocoPhillips—Borger	146,000	....	....	....	¹ 58,300	¹ 28,600	....	¹ 34,200 ² 13,500 ⁴ 26,600 ⁷ 12,600 ¹⁰ 71,100 ¹² 5,900	² 17,000	....	....	¹ 17,100 ² 20,300 ³ 7,100	....	....	¹ 90.0 ⁴ 6.0	....	400	....
Sweeny	247,000	125,000	² 66,700	....	¹ 96,600	³ 33,800	....	¹ 50,100 ³ 11,200 ⁷ 49,200 ⁸ 99,200 ¹³ 16,000	² 19,600	....	¹ 10,440 ³ 7,300	² 9,100	....	....	⁵ 95.0 ⁷ 70.0	4,000	550	....
ExxonMobil Refining Supply Co.— Baytown	563,000	270,000	² 44,000 ³ 38,500	....	¹ 202,500	² 122,000	^{c1} 26,000	¹ 154,000 ² 113,000 ⁴ 33,500 ⁷ 194,000 ⁸ 105,500 ¹¹ 49,000 ¹² 78,000	¹ 34,500	....	....	....	21,500	¹ 6,500	¹ 83.5 ⁶ 56.5	3,550	1,630	....
Beaumont	348,500	143,000	² 48,000	....	¹ 112,000	³ 147,000	^{c1} 61,500	¹ 117,000 ² 65,000 ⁴ 51,500 ⁵ 29,500 ¹¹ 6,000 ¹³ 25,500	¹ 15,500	....	....	² 24,500	12,500	¹ 4,500	⁵ 54.5	2,900	580	....
Flint Hills Resources— Corpus Christi*	279,300	83,125	² 12,600	....	¹ 96,030	¹ 16,200 ³ 47,610	¹ 12,600	¹ 72,270 ⁴ 14,400 ⁵ 48,150 ⁸ 47,250 ¹² 40,500	² 12,600	....	¹ 32,760 ⁴ 13,590	....	....	....	....	627	222	....
LaGloria Oil Gas Co. —Tyler	60,000	15,000	² 6,500	....	¹ 20,200	³ 17,500	....	¹ 20,000 ⁵ 12,000	¹ 4,750	....	....	³ 5,000	....	....	....	250	18	....
Lyondell-Citgo Refining LP—Houston	282,600	191,100	² 98,500	....	¹ 97,000	¹ 33,700	....	¹ 65,900 ² 23,400 ⁴ 24,600 ⁵ 96,000 ⁸ 98,000	¹ 11,250	....	¹ 8,350	....	4,050	¹ 4,000	....	5,000	1,042	....
Marathon Ashland Petroleum LLC— Texas City	72,000	....	....	....	¹ 52,300	¹ 10,500	....	....	² 12,400	....	¹ 9,100	....	....	....	....	....	....	....
Motiva Enterprises LLC—Port Arthur	285,000	134,000	² 49,500	....	¹ 86,000	³ 45,000	^c	¹ 45,000 ² 14,400 ⁴ 41,000 ⁵ 50,000 ⁸ 23,000 ¹² 50,000	¹ 8,000	....	....	....	40,400	....	....	2,450	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
Pasadena Refining Sysrtem— Pasadena ⁸	100,000	41,000	² 12,000	....	¹ 50,000	³ 20,000	....	¹ 32,000 ⁵ 12,000	² 11,000	....	....	....	....	....	....	500	24	....
Shell Deer Park Refining Co.— Deer Park	333,700	171,500	² 81,100	....	¹ 67,500	¹ 24,000 ² 45,400	^c 161,600	¹ 77,200 ⁴ 35,600 ⁵ 43,200 ⁸ 46,600 ⁹ 39,900 ¹² 41,200	¹ 18,100	....	....	....	....	¹ 6,100	^{a1} 65.8 ⁴ 36.5	5,235	1,150	4,600
Total SA—Port Arthur	231,252	49,863	....	....	¹ 68,844	³ 37,539	....	¹ 73,466 ⁵ 29,386 ⁸ 49,957	¹ 5,199	....	....	³ 13,501	....	....	....	....	270	....
Valero Energy Corp.— Corpus Christi	205,000	95,000	² 17,500	....	¹ 20,000 ² 92,000	¹ 10,000 ³ 57,000	^{c4} 49,000	¹ 67,000 ⁴ 12,000 ⁵ 13,700 ⁸ 28,000 ¹⁰ 74,000	² 18,500	....	¹ 23,000	¹ 12,000	....	¹ 21,500 ³ 2,200	^{a1} 94.0 ⁴ 74.0	998	790	38,000
Houston	90,000	39,000	....	....	¹ 65,000	¹ 10,000	....	¹ 13,000 ⁵ 18,000 ¹² 18,000	¹ 9,000	² 1,500	....	....	....	....	....	....	100	4,500
Port Arthur ^A	250,000	145,000	² 100,000	....	¹ 80,000	³ 53,000	^{c4} 45,000	¹ 52,000 ² 30,000 ⁴ 30,000 ⁵ 55,000 ⁸ 65,000 ¹² 50,000	² 20,000	....	....	....	....	....	¹ 105.0 ⁴ 6.0	6,200	1,050	....
Sunray	166,660	53,200	....	....	¹ 54,465	¹ 18,500 ² 28,900	^{c2} 29,500	¹ 39,844 ² 22,000 ⁵ 32,368 ¹² 3,400	¹ 9,500	....	....	³ 7,000	....	¹ 2,200 ³ 2,700	....	....	60	....
Texas City	225,000	130,000	¹ 50,000	....	² 80,000	³ 14,500	....	¹ 15,000 ⁴ 36,000 ⁵ 52,000 ¹⁰ 110,000 ¹² 50,000	² 12,000	....	....	³ 6,500	....	¹ 2,500	^{a4} 60.0	3,000	890	....
Three Rivers	96,000	35,000	....	....	¹ 24,500	¹ 11,000 ² 23,000	^{c2} 30,000	¹ 23,000 ⁴ 11,000 ⁵ 22,000 ⁶ 22,000 ⁸ 20,000 ¹¹ 2,800	² 6,500	....	¹ 18,000	....	3,200	....	¹ 4.0 ⁴ 10.0 ⁵ 3.0	130	50	....
Western Refining Inc.—El Paso	90,000	34,700	....	....	¹ 28,000	¹ 17,700	....	¹ 18,300 ⁴ 8,200 ⁵ 11,300	¹ 8,200	....	....	¹ 2,500	....	....	....	....	20	4,800
Total	4,756,262	2,078,263	701,400	0	1,731,289	1,063,099	429,200	4,282,471	345,589	1,500	199,545	148,901	81,650	55,800	1,116.6	39,548	10,986	59,900
UTAH																		
Big West Oil LLC— Salt Lake City	25,000	5,500	....	....	¹ 10,000	¹ 6,000	....	¹ 7,000 ⁵ 7,000	² 2,000	....	....	¹ 1,500 ³ 1,700	....	....	....	....	4	....
Chevron Corp.—Salt Lake City	45,000	25,600	² 7,200	....	¹ 13,000	¹ 7,000	....	¹ 7,300 ⁵ 10,200 ⁷ 6,500	² 4,500	....	....	¹ 1,000	....	....	....	281	18	....
Holly Corp.—Woods Cross	25,000	5,500	....	....	¹ 7,680	¹ 7,200	....	² 12,000 ⁷ 1,700	² 2,400	....	....	³ 2,600	....	....	....	....	4	800
Silver Eagle Refining Inc.— Woods Cross	12,500	6,000	....	....	....	¹ 2,200	....	¹ 2,200 ⁴ 0,000	....	....	....	....	....	....	....	....	....	1,200
Tesoro West Coast Co.— Salt Lake City	60,000	....	....	....	¹ 23,000	² 12,000	....	¹ 12,000 ⁵ 11,000	¹ 6,000	....	....	....	....	....	....	....	15	....
Total	167,500	42,600	7,200	0	53,680	34,400	0	80,900	14,900	0	0	6,800	0	0	0.0	281	41	2,000

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
VIRGINIA																		
Giant Refining—Yorktown	58,900	33,000	² 17,100	....	¹ 26,700	² 10,800	....	¹ 11,300 ⁷ 18,000	....	¹ 4,000	....	....	....	¹ 660	....	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	² 56,700	....	....	¹ 56,700	^c 151,300	¹ 51,300 ⁶ 23,400	....	....	....	....	....	....	¹ 92.0 ⁶ 33.0	2,700	211	....
ConocoPhillips—Ferndale.....	96,000	46,400	....	....	¹ 28,400	² 15,700	....	¹ 16,400 ⁴ 13,300 ⁷ 26,900 ¹² 18,000	² 8,600	....	....	¹ 4,000	....	....	....	....	50	....
Shell Oil Products US—Anacortes	148,600	62,300	² 25,700	....	¹ 57,900	¹ 31,800	....	¹ 31,200 ⁴ 15,800 ⁵ 45,900 ¹² 37,400	¹ 11,900	¹ 4,300	....	....	....	....	¹ 7.0	1,400	350	....
Tesoro West Coast Co.—Anacortes	113,300	47,200	....	....	¹ 44,800	² 26,500	....	¹ 36,000 ⁵ 18,500 ⁸ 7,100	¹ 11,000	....	....	¹ 3,400	....	....	....	....	48	1,000
US Oil Refining Co.—Tacoma.....	35,800	17,700	....	....	....	¹ 5,500	....	¹ 7,400 ⁵ 5,500	....	....	....	³ 2,700	....	....	....	....	....	10,000
Total	614,100	269,550	82,400	0	131,100	136,200	51,300	354,100	31,500	4,300	0	10,100	0	0	132.0	4,100	659	11,000
WEST VIRGINIA																		
Ergon-West Virginia Inc.—Newell	19,400	8,400	....	....	....	¹ 3,600	....	¹ 4,600 ⁹ 6,000	....	....	....	....	4,800	....	^a 1.1	....	1	....
Total	19,400	8,400	0	0	0	3,600	0	10,600	0	0	0	0	4,800	0	1.1	0	1	0
WISCONSIN																		
Murphy Oil USA Inc.—Superior ...	33,250	19,500	....	....	¹ 9,900	¹ 7,200	....	¹ 8,100 ⁷ 020 ¹¹ 5,500	² 1,350	....	....	³ 1,800	....	....	....	....	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
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	22,000	6,500	....	....	¹ 10,000	¹ 5,700	....	¹ 7,500 ⁵ 8,000	....	¹ 300	....	....	....	....	....	....	20	1,750
Wyoming Refining Co.—Newcastle	12,500	1,500	....	....	¹ 5,500	¹ 2,750	....	¹ 3,500 ⁵ 4,000	² 1,300	....	....	....	....	....	....	....	4	....
Total	103,000	40,000	10,000	0	37,500	21,550	0	64,400	5,500	1,300	0	1,600	0	0	11.0	560	128	1,750
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 ¹¹ 6,904	....	....	....	....	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 ¹¹ 139,500 ¹² 2,700	¹ 22,500 ² 18,900	....	....	¹ 20,700	12,020	¹ 1,530 ³ 8,500	¹ 141.0	5,200	1,454	36,000

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
Maracaibo, Zulia.....	15,000	8,835	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Petroleos de Venezuela SA— El Palito, Puerto Cabello.....	126,900	71,200	....	....	¹ 51,700	¹ 9,000	....	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	....	....	....	....	....	....	....	17	....
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

Hovensa LLC—St. Croix.....	495,000	215,000	² 58,000	² 80,000	¹ 130,000	¹ 125,000	....	² 125,000 165,000 130,000	¹ 14,000	² 6,000	¹ 30,000	² 15,000	....	¹ 4,000 ³ 4,000	....	3,562	....	....
St. Croix.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	495,000	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	3,562	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