



Refinery Capacity Report

June 2023

With data for January 1, 2023

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Table 1. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2023

PAD District and State	Number of Operable Refineries			Atmospheric Crude Oil Distillation Capacity					
				Barrels per Calendar Day			Barrels per Stream Day		
	Total	Operating	Idle ^a	Total	Operating	Idle ^b	Total	Operating	Idle ^b
PAD District I	7	7	0	877,800	877,800	0	930,900	930,900	0
Delaware.....	1	1	0	171,000	171,000	0	180,000	180,000	0
New Jersey.....	2	2	0	418,500	418,500	0	438,100	438,100	0
Pennsylvania.....	3	3	0	266,000	266,000	0	289,800	289,800	0
West Virginia.....	1	1	0	22,300	22,300	0	23,000	23,000	0
PAD District II	25	22	3	4,206,105	3,948,885	257,220	4,464,787	4,179,287	285,500
Illinois.....	4	4	0	1,043,485	1,043,485	0	1,100,800	1,100,800	0
Indiana.....	2	2	0	469,500	469,500	0	475,700	475,700	0
Kansas.....	3	3	0	404,600	404,600	0	416,767	416,767	0
Kentucky.....	1	1	0	291,000	291,000	0	306,000	306,000	0
Michigan.....	1	1	0	140,000	140,000	0	152,000	152,000	0
Minnesota.....	2	2	0	440,000	440,000	0	485,000	485,000	0
North Dakota.....	1	1	0	71,000	71,000	0	74,000	74,000	0
Ohio.....	4	3	1	604,720	455,800	148,920	630,000	470,000	160,000
Oklahoma.....	5	4	1	523,800	453,500	70,300	569,520	494,020	75,500
Tennessee.....	1	1	0	180,000	180,000	0	205,000	205,000	0
Wisconsin.....	1	0	1	38,000	0	38,000	50,000	0	50,000
PAD District III	56	56	0	9,676,729	9,676,729	0	10,276,994	10,276,994	0
Alabama.....	3	3	0	142,100	142,100	0	148,700	148,700	0
Arkansas.....	2	2	0	90,500	90,500	0	92,700	92,700	0
Louisiana.....	15	15	0	2,964,220	2,964,220	0	3,116,355	3,116,355	0
Mississippi.....	3	3	0	393,940	393,940	0	415,000	415,000	0
New Mexico.....	1	1	0	110,000	110,000	0	124,000	124,000	0
Texas.....	32	32	0	5,975,969	5,975,969	0	6,380,239	6,380,239	0
PAD District IV	15	13	2	650,164	537,564	112,600	696,200	574,500	121,700
Colorado.....	2	0	2	103,000	0	103,000	111,700	0	111,700
Montana.....	4	4	0	214,600	205,000	9,600	223,400	213,400	10,000
Utah.....	5	5	0	206,714	206,714	0	217,200	217,200	0
Wyoming.....	4	4	0	125,850	125,850	0	143,900	143,900	0
PAD District V	26	26	0	2,649,571	2,643,571	6,000	2,787,900	2,779,900	8,000
Alaska.....	5	5	0	165,500	165,500	0	180,000	180,000	0
California.....	14	14	0	1,740,371	1,734,371	6,000	1,835,400	1,827,400	8,000
Hawaii.....	1	1	0	93,500	93,500	0	95,000	95,000	0
Nevada.....	1	1	0	2,000	2,000	0	5,000	5,000	0
Washington.....	5	5	0	648,200	648,200	0	672,500	672,500	0
U.S. Total	129	124	5	18,060,369	17,684,549	375,820	19,156,781	18,741,581	415,200

Table 1. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2023

PAD District and State	Downstream Charge Capacity (Barrels per Stream Day)							
	Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Hydro- Cracking	Catalytic Reforming	Hydrotreating/ Desulfurization	Fuels Solvent Deasphalting
			Fresh	Recycled				
PAD District I	391,200	54,500	305,000	5,000	48,000	182,900	754,800	22,000
Delaware	104,600	54,500	82,000	4,000	25,000	43,000	180,300	0
New Jersey	165,000	0	145,000	0	0	69,000	298,100	22,000
Pennsylvania	113,000	0	78,000	1,000	23,000	66,200	252,300	0
West Virginia	8,600	0	0	0	0	4,700	24,100	0
PAD District II	1,855,542	607,805	1,362,435	8,800	361,500	903,658	4,196,664	18,500
Illinois	491,800	213,420	324,300	0	101,200	250,100	976,610	0
Indiana	290,700	102,000	185,800	200	0	73,500	619,100	0
Kansas	162,500	75,000	104,800	500	43,000	84,500	406,400	0
Kentucky	134,000	0	104,000	0	0	58,000	280,000	14,000
Michigan	90,500	38,000	44,000	0	0	21,500	135,000	0
Minnesota	284,000	82,000	127,000	2,500	67,000	72,500	454,500	4,500
North Dakota	0	0	28,000	3,600	0	12,500	60,400	0
Ohio	164,500	59,000	206,300	0	109,800	172,300	523,400	0
Oklahoma	214,042	38,385	156,912	2,000	14,000	113,458	571,754	0
Tennessee	0	0	70,000	0	26,500	36,000	129,000	0
Wisconsin	23,500	0	11,323	0	0	9,300	40,500	0
PAD District III	4,696,325	1,661,207	2,829,567	16,500	1,387,300	1,844,480	9,162,858	258,500
Alabama	55,000	38,000	0	0	23,000	40,000	120,700	0
Arkansas	48,850	0	21,000	0	0	15,300	98,750	0
Louisiana	1,539,100	577,000	946,000	3,500	456,900	569,400	2,681,200	72,000
Mississippi	354,875	104,000	88,000	0	119,000	101,600	307,300	0
New Mexico	34,300	0	30,000	0	18,000	24,000	118,000	18,000
Texas	2,664,200	942,207	1,744,567	13,000	770,400	1,094,180	5,836,908	168,500
PAD District IV	239,000	76,000	209,860	1,990	37,200	120,550	561,750	6,000
Colorado	33,500	0	30,000	500	0	21,900	87,430	0
Montana	119,600	46,000	67,160	990	6,200	35,500	213,820	0
Utah	34,900	10,000	72,700	0	15,000	38,250	146,700	6,000
Wyoming	51,000	20,000	40,000	500	16,000	24,900	113,800	0
PAD District V	1,422,106	562,400	758,900	16,600	557,600	554,000	2,422,900	80,000
Alaska	26,000	0	0	0	13,000	13,500	24,500	0
California	1,033,256	464,600	611,500	13,600	459,600	385,500	1,857,500	56,000
Hawaii	40,000	11,000	0	0	20,000	13,500	13,000	0
Nevada	2,750	0	0	0	0	0	0	0
Washington	320,100	86,800	147,400	3,000	65,000	141,500	527,900	24,000
U.S. Total	8,604,173	2,961,912	5,465,762	48,890	2,391,600	3,605,588	17,098,972	385,000

^a Refineries where distillation units were completely idle but not permanently shutdown on January 1, 2023.

^b Includes capacity from refineries that are either completely or partially idle.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 2. Production Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

PAD District and State	Production Capacity							
	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons/day)
PAD District I	47,800	5,191	45,260	19,280	20,945	13,620	109	1,074
Delaware	12,500	5,191	0	6,000	0	13,620	65	596
New Jersey	18,800	0	21,000	4,000	12,000	0	31	320
Pennsylvania	16,500	0	23,560	9,280	2,945	0	10	157
West Virginia	0	0	700	0	6,000	0	3	1
PAD District II	305,736	112,600	275,400	168,000	9,900	194,354	623	8,732
Illinois	96,600	17,200	45,100	16,000	0	74,690	202	2,380
Indiana	34,400	16,800	33,200	31,400	0	30,000	0	1,913
Kansas	34,000	0	4,000	31,000	0	23,064	120	831
Kentucky	22,500	2,500	35,400	19,000	0	0	0	448
Michigan	8,000	0	32,000	0	0	12,850	0	460
Minnesota	21,000	0	62,000	33,500	0	28,400	209	1,339
North Dakota	5,000	0	0	0	0	0	0	15
Ohio	29,950	20,000	26,000	23,200	0	16,300	0	922
Oklahoma	35,586	21,000	21,700	13,900	9,900	9,050	62	275
Tennessee	17,000	29,000	0	0	0	0	30	116
Wisconsin	1,700	6,100	16,000	0	0	0	0	33
PAD District III	667,393	171,665	227,625	335,770	192,900	490,393	747	24,125
Alabama	0	0	26,000	5,650	0	7,500	45	228
Arkansas	5,000	0	21,300	8,000	6,000	0	13	90
Louisiana	214,500	34,400	103,000	115,720	66,000	164,436	118	6,053
Mississippi	22,000	15,600	16,125	0	48,000	35,500	242	1,264
New Mexico	9,500	0	7,000	0	0	0	38	224
Texas	416,393	121,665	54,200	206,400	72,900	282,957	291	16,266
PAD District IV	45,050	0	62,000	16,068	0	23,780	208	910
Colorado	0	0	13,200	0	0	0	22	116
Montana	17,150	0	39,000	6,750	0	15,480	134	489
Utah	21,600	0	1,800	9,318	0	2,500	0	92
Wyoming	6,300	0	8,000	0	0	5,800	52	213
PAD District V	235,562	1,500	49,050	228,400	39,800	161,173	1,188	5,596
Alaska	0	0	12,500	5,000	0	0	13	25
California	193,362	1,500	25,950	180,800	39,800	137,523	971	4,728
Hawaii	0	0	0	0	0	0	18	38
Nevada	0	0	1,600	0	0	0	0	0
Washington	42,200	0	9,000	42,600	0	23,650	186	805
U.S. Total	1,301,541	290,956	659,335	767,518	263,545	883,320	2,875	40,437

^a Includes hydrogen production capacity of hydrogen plants on refinery grounds and operated by the refinery operator.

MMcfd = Million cubic feet per day.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Directory of Operable Petroleum Refineries on Tables 3 and 4

Refiner	State(s)	Refiner	State(s)
Alon Refining Krotz Springs Inc.....	LA	Lazarus Energy LLC.....	TX
Alon USA Energy Inc.....	TX	Lima Refining Company.....	OH
American Refining Group Inc.....	PA	Lion Oil Co.....	AR
BP Products North America Inc.....	IN, WA	Lunday Thagard Co.....	CA
BP-Husky Refining LLC.....	OH	Magellan Processing LP.....	TX
Big West Oil Co.....	UT	Marathon Petroleum Co LP.....	IL, KY, LA, MI, OH, TX
Buckeye Texas Processing LLC.....	TX	Martinez Refining Co LLC.....	CA
CHS McPherson Refinery Inc.....	KS	Monroe Energy LLC.....	PA
Calcasieu Refining Co.....	LA	Motiva Enterprises LLC.....	TX
Calumet Cotton Valley Refining LLC.....	LA	PDV Midwest Refining LLC.....	IL
Calumet Montana Refining LLC.....	MT	Par Hawaii Refining LLC.....	HI
Calumet Princeton Refining LLC.....	LA	Pasadena Refining Systems Inc.....	TX
Calumet Shreveport Refining LLC.....	LA	Paulsboro Refining Co LLC.....	NJ
Cenex Harvest States Coop.....	MT	Petro Star Inc.....	AK
Chalmette Refining LLC.....	LA	Petromax Refining Co LLC.....	TX
Chevron USA Inc.....	CA, MS, UT	Phillips 66 Company.....	CA, LA, MT, NJ, OK, TX, WA
Citgo Petroleum Corp.....	LA	Placid Refining Co.....	LA
Citgo Refining & Chemical Inc.....	TX	Premcor Refining Group Inc.....	TX
Coffeyville Resources Rfg & Mktg.....	KS	San Joaquin Refining Co Inc.....	CA
ConocoPhillips Alaska Inc.....	AK	Shell Oil Products US.....	LA
Countrymark Refining & Logistics LLC.....	IN	Silver Eagle Refining.....	UT, WY
Cross Oil Refining & Marketing Inc.....	AR	South Hampton Resources Inc.....	TX
Deer Park Refining LP.....	TX	St Paul Park Refining Co LLC.....	MN
Delaware City Refining Co LLC.....	DE	Suncor Energy (USA) Inc.....	CO
Delek Refining LTD.....	TX	Superior Refining Company LLC.....	WI
Diamond Shamrock Refining Co LP.....	TX	Talley Asphalt Products Inc.....	CA
Equistar Chemicals LP.....	TX	Tesoro Alaska Company LLC.....	AK
Ergon Refining Inc.....	MS	Tesoro Refining & Marketing Co.....	CA, ND, UT, WA
Ergon West Virginia Inc.....	WV	Texas International Terminals.....	TX
Excel Paralubes.....	LA	The San Antonio Refinery LLC.....	TX
ExxonMobil Refining & Supply Co.....	IL, LA, MT, TX	Toledo Refining Co LLC.....	OH
Flint Hills Resources LP.....	MN, TX	Torrance Refining Co LLC.....	CA
Foreland Refining Corp.....	NV	TotalEnergies Petrochem & Refg USA.....	TX
Goodway Refining LLC.....	AL	US Oil & Refining Co.....	WA
HF Sinclair Casper Refining Company.....	WY	Ultramar Inc.....	CA
HF Sinclair El Dorado Refining LLC.....	KS	United Refining Co.....	PA
HF Sinclair Navajo Refining LLC.....	NM	Valero Ref Company Tennessee LLC.....	TN
HF Sinclair Puget Sound Refg LLC.....	WA	Valero Refining - Meraux LLC.....	LA
HF Sinclair Tulsa Refining LLC.....	OK	Valero Refining Co California.....	CA
HF Sinclair Woods Cross Refining LLC.....	UT	Valero Refining Co Oklahoma.....	OK
HF Sinclair Wyoming Refining Co.....	WY	Valero Refining Co Texas LP.....	TX
Hartree Channelview LLC.....	TX	Valero Refining New Orleans LLC.....	LA
Hilcorp North Slope LLC.....	AK	Vertex Refining Alabama LLC.....	AL
Houston Refining LP.....	TX	WRB Refining LP.....	IL, TX
Hunt Refining Co.....	AL	Western Refining Company LP.....	TX
Hunt Southland Refining Co.....	MS	Wynnewood Refining Co.....	OK
Kern Oil & Refining Co.....	CA	Wyoming Refining Co.....	WY
Kinder Morgan Crude & Condensate.....	TX		

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/Gas Oil
Alabama	142,100	0	148,700	0	55,000	38,000	0	0	0
Goodway Refining LLC									
Atmore	4,100	0	5,000	0	0	0	0	0	0
Hunt Refining Co									
Tuscaloosa	50,000	0	52,500	0	26,000	38,000	0	0	0
Vertex Refining Alabama LLC									
Saraland (Formerly Shell Chemical LP)	88,000	0	91,200	0	29,000	0	0	0	0
Alaska	165,500	0	180,000	0	26,000	0	0	0	0
ConocoPhillips Alaska Inc									
Prudhoe Bay	15,000	0	16,000	0	0	0	0	0	0
Hilcorp North Slope LLC									
Prudhoe Bay	6,500	0	8,000	0	0	0	0	0	0
Petro Star Inc									
North Pole	21,000	0	24,000	0	0	0	0	0	0
Valdez	55,000	0	60,000	0	0	0	0	0	0
Tesoro Alaska Company LLC									
Kenai	68,000	0	72,000	0	26,000	0	0	0	0
Arkansas	90,500	0	92,700	0	48,850	0	0	0	0
Cross Oil Refining & Marketing Inc									
Smackover	7,500	0	7,700	0	3,850	0	0	0	0
Lion Oil Co									
El Dorado	83,000	0	85,000	0	45,000	0	0	0	0
California	1,734,371	6,000	1,827,400	8,000	1,033,256	407,600	52,000	5,000	0
Chevron USA Inc									
El Segundo	269,000	0	290,500	0	169,100	76,700	0	0	0
Richmond	245,271	0	257,200	0	123,456	0	0	0	0
Kern Oil & Refining Co									
Bakersfield	26,000	0	27,000	0	0	0	0	0	0
Lunday Thagard Co									
South Gate	8,500	0	10,000	0	5,000	0	0	0	0
Martinez Refining Co LLC									
Martinez	156,400	0	157,000	0	101,000	26,800	22,500	0	0
Phillips 66 Company									
Rodeo	114,200	6,000	120,000	8,000	93,200	51,000	0	0	0
Wilmington	139,000	0	147,000	0	83,400	53,200	0	0	0
San Joaquin Refining Co Inc									
Bakersfield	15,000	0	25,000	0	14,300	0	0	5,000	0
Talley Asphalt Products Inc									
Kern	1,700	0	2,000	0	0	0	0	0	0
Tesoro Refining & Marketing Co									
Carson	363,000	0	382,000	0	205,000	109,100	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
Alabama	0	0	0	23,000	0	18,000	22,000	0
Goodway Refining LLC								
Atmore	0	0	0	0	0	0	0	0
Hunt Refining Co								
Tuscaloosa	0	0	0	23,000	0	18,000	0	0
Vertex Refining Alabama LLC								
Saraland	0	0	0	0	0	0	22,000	0
(Formerly Shell Chemical LP)								
Alaska	0	0	0	13,000	0	13,500	0	0
ConocoPhillips Alaska Inc								
Prudhoe Bay	0	0	0	0	0	0	0	0
Hilcorp North Slope LLC								
Prudhoe Bay	0	0	0	0	0	0	0	0
Petro Star Inc								
North Pole	0	0	0	0	0	0	0	0
Valdez	0	0	0	0	0	0	0	0
Tesoro Alaska Company LLC								
Kenai	0	0	0	13,000	0	13,500	0	0
Arkansas	21,000	0	0	0	0	15,300	0	0
Cross Oil Refining & Marketing Inc								
Smackover	0	0	0	0	0	0	0	0
Lion Oil Co								
El Dorado	21,000	0	0	0	0	15,300	0	0
California	611,500	13,600	232,200	227,400	0	171,800	213,700	56,000
Chevron USA Inc								
El Segundo	73,800	0	0	55,000	0	49,000	0	0
Richmond	90,000	0	0	103,400	0	71,300	0	56,000
Kern Oil & Refining Co								
Bakersfield	0	0	0	0	0	2,500	3,300	0
Lunday Thagard Co								
South Gate	0	0	0	0	0	0	0	0
Martinez Refining Co LLC								
Martinez	72,000	0	42,900	0	0	31,000	0	0
Phillips 66 Company								
Rodeo	0	0	0	69,000	0	0	34,000	0
Wilmington	51,600	0	27,500	0	0	0	36,200	0
San Joaquin Refining Co Inc								
Bakersfield	0	0	0	0	0	0	0	0
Talley Asphalt Products Inc								
Kern	0	0	0	0	0	0	0	0
Tesoro Refining & Marketing Co								
Carson	102,500	0	99,500	0	0	0	83,000	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Alabama	44,200	0	21,500	17,000	27,500	0	10,500	0
Goodway Refining LLC								
Atmore	0	0	0	0	0	0	0	0
Hunt Refining Co								
Tuscaloosa	17,500	0	3,500	0	27,500	0	10,500	0
Vertex Refining Alabama LLC								
Saraland	26,700	0	18,000	17,000	0	0	0	0
(Formerly Shell Chemical LP)								
Alaska	13,000	0	0	11,500	0	0	0	0
ConocoPhillips Alaska Inc								
Prudhoe Bay	0	0	0	0	0	0	0	0
Hilcorp North Slope LLC								
Prudhoe Bay	0	0	0	0	0	0	0	0
Petro Star Inc								
North Pole	0	0	0	0	0	0	0	0
Valdez	0	0	0	0	0	0	0	0
Tesoro Alaska Company LLC								
Kenai	13,000	0	0	11,500	0	0	0	0
Arkansas	20,000	8,750	0	35,000	0	0	21,000	14,000
Cross Oil Refining & Marketing Inc								
Smackover	0	0	0	0	0	0	0	6,000
Lion Oil Co								
El Dorado	20,000	8,750	0	35,000	0	0	21,000	8,000
California	397,700	215,000	203,800	252,100	81,100	0	637,600	70,200
Chevron USA Inc								
El Segundo	62,500	0	41,500	51,500	14,000	0	74,000	0
Richmond	57,600	64,800	96,000	64,800	0	0	65,000	34,000
Kern Oil & Refining Co								
Bakersfield	5,000	0	0	0	9,000	0	0	0
Lunday Thagard Co								
South Gate	0	0	0	0	0	0	0	0
Martinez Refining Co LLC								
Martinez	28,000	90,000	0	0	49,500	0	80,500	14,500
Phillips 66 Company								
Rodeo	27,500	0	0	0	0	0	0	0
Wilmington	50,800	0	12,900	32,000	0	0	55,000	0
San Joaquin Refining Co Inc								
Bakersfield	0	0	0	0	3,600	0	1,800	0
Talley Asphalt Products Inc								
Kern	0	0	0	0	0	0	0	0
Tesoro Refining & Marketing Co								
Carson	79,000	17,000	38,000	24,000	0	0	147,000	0

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(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/Gas Oil
California	1,734,371	6,000	1,827,400	8,000	1,033,256	407,600	52,000	5,000	0
Torrance Refining Co LLC									
Torrance	160,000	0	166,200	0	102,300	62,000	0	0	0
Ultramar Inc									
Wilmington	85,000	0	87,000	0	46,000	28,800	0	0	0
Valero Refining Co California									
Benicia	145,000	0	150,000	0	85,500	0	29,500	0	0
Wilmington	6,300	0	6,500	0	5,000	0	0	0	0
Colorado	0	103,000	0	111,700	33,500	0	0	0	0
Suncor Energy (USA) Inc									
Commerce City East	0	36,000	0	38,700	8,500	0	0	0	0
Commerce City West	0	67,000	0	73,000	25,000	0	0	0	0
Delaware	171,000	0	180,000	0	104,600	0	54,500	0	0
Delaware City Refining Co LLC									
Delaware City	171,000	0	180,000	0	104,600	0	54,500	0	0
Hawaii	93,500	0	95,000	0	40,000	0	0	11,000	0
Par Hawaii Refining LLC									
Kapolei	93,500	0	95,000	0	40,000	0	0	11,000	0
Illinois	1,043,485	0	1,100,800	0	491,800	213,420	0	0	0
ExxonMobil Refining & Supply Co									
Joliet	251,800	0	275,000	0	142,100	57,500	0	0	0
Marathon Petroleum Co LP									
Robinson	253,000	0	266,000	0	76,000	31,000	0	0	0
PDV Midwest Refining LLC									
Lemont	182,685	0	192,300	0	77,200	41,220	0	0	0
WRB Refining LP									
Wood River	356,000	0	367,500	0	196,500	83,700	0	0	0
Indiana	469,500	0	475,700	0	290,700	102,000	0	0	0
BP Products North America Inc									
Whiting	435,000	0	440,000	0	276,200	102,000	0	0	0
Countrymark Refining & Logistics LLC									
Mount Vernon	34,500	0	35,700	0	14,500	0	0	0	0
Kansas	404,600	0	416,767	0	162,500	75,000	0	0	0
CHS McPherson Refinery Inc									
McPherson	110,600	0	115,767	0	51,500	27,500	0	0	0
Coffeyville Resources Rfg & Mktg									
Coffeyville	132,000	0	136,000	0	46,000	25,000	0	0	0
HF Sinclair El Dorado Refining LLC									
El Dorado (Formerly HollyFrontier El Dorado Refining LLC)	162,000	0	165,000	0	65,000	22,500	0	0	0
Kentucky	291,000	0	306,000	0	134,000	0	0	0	0
Marathon Petroleum Co LP									
Catlettsburg	291,000	0	306,000	0	134,000	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
California	611,500	13,600	232,200	227,400	0	171,800	213,700	56,000
Torrance Refining Co LLC								
Torrance	90,000	13,600	28,300	0	0	0	20,000	0
Ultramar Inc								
Wilmington	56,300	0	0	0	0	18,000	0	0
Valero Refining Co California								
Benicia	75,300	0	34,000	0	0	0	37,200	0
Wilmington	0	0	0	0	0	0	0	0
Colorado	30,000	500	0	0	0	21,900	0	0
Suncor Energy (USA) Inc								
Commerce City East	9,000	500	0	0	0	11,000	0	0
Commerce City West	21,000	0	0	0	0	10,900	0	0
Delaware	82,000	4,000	0	25,000	0	43,000	0	0
Delaware City Refining Co LLC								
Delaware City	82,000	4,000	0	25,000	0	43,000	0	0
Hawaii	0	0	2,000	18,000	0	13,500	0	0
Par Hawaii Refining LLC								
Kapolei	0	0	2,000	18,000	0	13,500	0	0
Illinois	324,300	0	0	101,200	0	214,300	35,800	0
ExxonMobil Refining & Supply Co								
Joliet	99,300	0	0	0	0	52,600	0	0
Marathon Petroleum Co LP								
Robinson	54,500	0	0	44,000	0	82,000	0	0
PDV Midwest Refining LLC								
Lemont	69,500	0	0	0	0	0	35,800	0
WRB Refining LP								
Wood River	101,000	0	0	57,200	0	79,700	0	0
Indiana	185,800	200	0	0	0	6,500	67,000	0
BP Products North America Inc								
Whiting	177,000	0	0	0	0	0	67,000	0
Countrymark Refining & Logistics LLC								
Mount Vernon	8,800	200	0	0	0	6,500	0	0
Kansas	104,800	500	0	43,000	0	61,000	23,500	0
CHS McPherson Refinery Inc								
McPherson	24,800	500	0	43,000	0	27,500	0	0
Coffeyville Resources Rfg & Mktg								
Coffeyville	36,000	0	0	0	0	26,000	0	0
HF Sinclair El Dorado Refining LLC								
El Dorado (Formerly HollyFrontier El Dorado Refining LLC)	44,000	0	0	0	0	7,500	23,500	0
Kentucky	104,000	0	0	0	0	24,500	33,500	14,000
Marathon Petroleum Co LP								
Catlettsburg	104,000	0	0	0	0	24,500	33,500	14,000

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
California	397,700	215,000	203,800	252,100	81,100	0	637,600	70,200
Torrance Refining Co LLC								
Torrance	25,300	0	0	19,800	0	0	108,300	0
Ultramar Inc								
Wilmington	32,000	0	0	45,000	0	0	67,000	0
Valero Refining Co California								
Benicia	30,000	43,200	15,400	15,000	5,000	0	39,000	21,700
Wilmington	0	0	0	0	0	0	0	0
Colorado	22,000	0	12,100	23,330	0	0	30,000	0
Suncor Energy (USA) Inc								
Commerce City East	11,000	0	0	0	0	0	0	0
Commerce City West	11,000	0	12,100	23,330	0	0	30,000	0
Delaware	58,800	33,000	16,500	52,000	0	0	0	20,000
Delaware City Refining Co LLC								
Delaware City	58,800	33,000	16,500	52,000	0	0	0	20,000
Hawaii	13,000	0	0	0	0	0	0	0
Par Hawaii Refining LLC								
Kapolei	13,000	0	0	0	0	0	0	0
Illinois	444,400	120,000	66,950	328,960	0	0	0	16,300
ExxonMobil Refining & Supply Co								
Joliet	177,800	0	0	88,000	0	0	0	0
Marathon Petroleum Co LP								
Robinson	71,000	46,000	0	83,500	0	0	0	0
PDV Midwest Refining LLC								
Lemont	111,300	0	13,700	97,160	0	0	0	6,800
WRB Refining LP								
Wood River	84,300	74,000	53,250	60,300	0	0	0	9,500
Indiana	134,200	103,700	51,400	137,800	0	0	192,000	0
BP Products North America Inc								
Whiting	122,700	97,000	51,400	121,500	0	0	192,000	0
Countrymark Refining & Logistics LLC								
Mount Vernon	11,500	6,700	0	16,300	0	0	0	0
Kansas	128,400	49,000	21,000	131,000	27,000	0	50,000	0
CHS McPherson Refinery Inc								
McPherson	42,400	0	0	47,000	0	0	0	0
Coffeyville Resources Rfg & Mktg								
Coffeyville	36,000	22,000	9,000	30,000	27,000	0	0	0
HF Sinclair El Dorado Refining LLC								
El Dorado (Formerly HollyFrontier El Dorado Refining LLC)	50,000	27,000	12,000	54,000	0	0	50,000	0
Kentucky	59,500	0	32,000	81,500	0	0	107,000	0
Marathon Petroleum Co LP								
Catlettsburg	59,500	0	32,000	81,500	0	0	107,000	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/Gas Oil
Louisiana	2,964,220	0	3,116,355	0	1,539,100	565,200	0	0	11,800
Alon Refining Krotz Springs Inc Krotz Springs	80,000	0	83,000	0	36,200	0	0	0	0
Calcasieu Refining Co Lake Charles	135,500	0	137,000	0	36,000	0	0	0	0
Calumet Cotton Valley Refining LLC Cotton Valley	13,020	0	14,000	0	0	0	0	0	0
Calumet Princeton Refining LLC Princeton	8,300	0	8,655	0	7,000	0	0	0	0
Calumet Shreveport Refining LLC Shreveport	57,000	0	60,000	0	28,000	0	0	0	0
Chalmette Refining LLC Chalmette	190,000	0	197,000	0	169,000	42,000	0	0	0
Citgo Petroleum Corp Lake Charles	455,000	0	479,000	0	230,000	110,000	0	0	0
Excel Paralubes Westlake	0	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baton Rouge	522,500	0	544,600	0	254,000	123,500	0	0	0
Marathon Petroleum Co LP Garyville	596,000	0	627,000	0	299,000	110,000	0	0	0
Phillips 66 Company Westlake	264,000	0	273,000	0	125,000	65,200	0	0	11,800
Placid Refining Co Port Allen	75,000	0	82,500	0	27,000	0	0	0	0
Shell Oil Products US Norco	227,900	0	250,000	0	91,300	28,500	0	0	0
Valero Refining - Meraux LLC Meraux	125,000	0	125,600	0	56,600	0	0	0	0
Valero Refining New Orleans LLC Norco	215,000	0	235,000	0	180,000	86,000	0	0	0
Michigan	140,000	0	152,000	0	90,500	38,000	0	0	0
Marathon Petroleum Co LP Detroit	140,000	0	152,000	0	90,500	38,000	0	0	0
Minnesota	440,000	0	485,000	0	284,000	82,000	0	0	0
Flint Hills Resources LP Saint Paul	335,000	0	375,000	0	234,000	82,000	0	0	0
St Paul Park Refining Co LLC Saint Paul	105,000	0	110,000	0	50,000	0	0	0	0
Mississippi	393,940	0	415,000	0	354,875	104,000	0	0	0
Chevron USA Inc Pascagoula	356,440	0	375,200	0	330,000	104,000	0	0	0
Ergon Refining Inc Vicksburg	26,500	0	27,300	0	18,000	0	0	0	0
Hunt Southland Refining Co Sandersville	11,000	0	12,500	0	6,875	0	0	0	0
Montana	205,000	9,600	213,400	10,000	119,600	36,000	10,000	0	0
Calumet Montana Refining LLC Great Falls	15,000	9,600	17,000	10,000	10,000	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
Louisiana	946,000	3,500	55,000	401,900	0	473,200	96,200	72,000
Alon Refining Krotz Springs Inc Krotz Springs	34,000	0	0	0	0	0	13,000	0
Calcasieu Refining Co Lake Charles	0	0	0	0	0	0	0	0
Calumet Cotton Valley Refining LLC Cotton Valley	0	0	0	0	0	0	0	0
Calumet Princeton Refining LLC Princeton	0	0	0	0	0	0	0	0
Calumet Shreveport Refining LLC Shreveport	0	0	0	0	0	12,000	0	0
Chalmette Refining LLC Chalmette	75,600	0	0	0	0	22,700	30,000	0
Citgo Petroleum Corp Lake Charles	148,000	3,000	0	51,200	0	65,000	53,200	0
Excel Paralubes Westlake	0	0	0	43,000	0	0	0	0
ExxonMobil Refining & Supply Co Baton Rouge	243,000	0	27,000	0	0	80,000	0	0
Marathon Petroleum Co LP Garyville	150,000	0	0	130,000	0	137,000	0	38,000
Phillips 66 Company Westlake	51,600	0	0	0	0	48,000	0	0
Placid Refining Co Port Allen	25,000	500	0	0	0	11,500	0	12,000
Shell Oil Products US Norco	118,800	0	0	44,000	0	40,000	0	0
Valero Refining - Meraux LLC Meraux	0	0	0	48,700	0	32,000	0	22,000
Valero Refining New Orleans LLC Norco	100,000	0	28,000	85,000	0	25,000	0	0
Michigan	44,000	0	0	0	0	21,500	0	0
Marathon Petroleum Co LP Detroit	44,000	0	0	0	0	21,500	0	0
Minnesota	127,000	2,500	67,000	0	0	36,000	36,500	4,500
Flint Hills Resources LP Saint Paul	96,000	0	67,000	0	0	36,000	13,000	0
St Paul Park Refining Co LLC Saint Paul	31,000	2,500	0	0	0	0	23,500	4,500
Mississippi	88,000	0	0	119,000	0	61,600	40,000	0
Chevron USA Inc Pascagoula	88,000	0	0	119,000	0	61,600	40,000	0
Ergon Refining Inc Vicksburg	0	0	0	0	0	0	0	0
Hunt Southland Refining Co Sandersville	0	0	0	0	0	0	0	0
Montana	67,160	990	6,200	0	0	12,500	23,000	0
Calumet Montana Refining LLC Great Falls	3,000	0	0	0	0	0	1,300	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Louisiana	602,200	756,900	208,100	808,800	0	13,500	266,700	25,000
Alon Refining Krotz Springs Inc Krotz Springs	14,000	18,000	0	0	0	0	0	0
Calcasieu Refining Co Lake Charles	0	0	0	0	0	0	0	0
Calumet Cotton Valley Refining LLC Cotton Valley	6,500	0	0	0	0	0	0	0
Calumet Princeton Refining LLC Princeton	0	0	0	0	0	0	0	0
Calumet Shreveport Refining LLC Shreveport	16,000	0	0	14,000	0	0	21,100	1,200
Chalmette Refining LLC Chalmette	42,000	46,000	0	35,000	0	0	65,600	0
Citgo Petroleum Corp Lake Charles	131,200	85,400	70,100	100,000	0	0	0	23,800
Excel Paralubes Westlake	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baton Rouge	79,000	261,000	0	215,800	0	0	0	0
Marathon Petroleum Co LP Garyville	124,500	126,000	85,000	181,000	0	0	106,000	0
Phillips 66 Company Westlake	50,000	63,500	38,000	62,000	0	13,500	50,000	0
Placid Refining Co Port Allen	12,000	20,000	0	25,000	0	0	0	0
Shell Oil Products US Norco	42,000	77,000	0	70,000	0	0	0	0
Valero Refining - Meraux LLC Meraux	40,000	0	15,000	40,000	0	0	0	0
Valero Refining New Orleans LLC Norco	45,000	60,000	0	66,000	0	0	24,000	0
Michigan	35,500	0	7,000	48,000	0	0	44,500	0
Marathon Petroleum Co LP Detroit	35,500	0	7,000	48,000	0	0	44,500	0
Minnesota	89,500	57,000	53,500	95,500	0	0	159,000	0
Flint Hills Resources LP Saint Paul	49,000	57,000	43,500	63,500	0	0	128,000	0
St Paul Park Refining Co LLC Saint Paul	40,500	0	10,000	32,000	0	0	31,000	0
Mississippi	60,800	0	34,000	38,000	0	0	104,000	70,500
Chevron USA Inc Pascagoula	60,800	0	34,000	35,500	0	0	104,000	50,000
Ergon Refining Inc Vicksburg	0	0	0	2,500	0	0	0	20,500
Hunt Southland Refining Co Sandersville	0	0	0	0	0	0	0	0
Montana	45,900	27,800	13,400	47,750	25,000	0	46,070	7,900
Calumet Montana Refining LLC Great Falls	2,750	0	0	7,000	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			Other/Gas Oil
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	
Montana	205,000	9,600	213,400	10,000	119,600	36,000	10,000	0	0
Cenex Harvest States Coop Laurel	62,500	0	64,000	0	32,200	16,000	0	0	0
ExxonMobil Refining & Supply Co Billings	61,500	0	62,900	0	32,300	0	10,000	0	0
Phillips 66 Company Billings	66,000	0	69,500	0	45,100	20,000	0	0	0
Nevada	2,000	0	5,000	0	2,750	0	0	0	0
Foreland Refining Corp Ely	2,000	0	5,000	0	2,750	0	0	0	0
New Jersey	418,500	0	438,100	0	165,000	0	0	0	0
Paulsboro Refining Co LLC Paulsboro	160,000	0	166,000	0	90,000	0	0	0	0
Phillips 66 Company Linden	258,500	0	272,100	0	75,000	0	0	0	0
New Mexico	110,000	0	124,000	0	34,300	0	0	0	0
HF Sinclair Navajo Refining LLC Artesia	110,000	0	124,000	0	34,300	0	0	0	0
(Formerly HollyFrontier Navajo Refining LLC)									
North Dakota	71,000	0	74,000	0	0	0	0	0	0
Tesoro Refining & Marketing Co Mandan	71,000	0	74,000	0	0	0	0	0	0
Ohio	455,800	148,920	470,000	160,000	164,500	59,000	0	0	0
BP-Husky Refining LLC Toledo	0	148,920	0	160,000	72,500	36,000	0	0	0
Lima Refining Company Lima	183,000	0	185,000	0	57,000	23,000	0	0	0
Marathon Petroleum Co LP Canton	100,000	0	105,000	0	35,000	0	0	0	0
Toledo Refining Co LLC Toledo	172,800	0	180,000	0	0	0	0	0	0
Oklahoma	453,500	70,300	494,020	75,500	214,042	38,385	0	0	0
HF Sinclair Tulsa Refining LLC Tulsa East	0	70,300	0	75,500	27,000	0	0	0	0
(Formerly HollyFrontier Tulsa Refining LLC)									
Tulsa West	85,000	0	91,020	0	32,000	11,000	0	0	0
(Formerly HollyFrontier Tulsa Refining LLC)									
Phillips 66 Company Ponca City	208,000	0	235,000	0	89,042	27,385	0	0	0
Valero Refining Co Oklahoma Ardmore	86,000	0	90,000	0	32,000	0	0	0	0
Wynnewood Refining Co Wynnewood	74,500	0	78,000	0	34,000	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
Montana	67,160	990	6,200	0	0	12,500	23,000	0
Cenex Harvest States Coop Laurel	16,500	0	0	0	0	12,500	0	0
ExxonMobil Refining & Supply Co Billings	23,660	0	6,200	0	0	0	12,500	0
Phillips 66 Company Billings	24,000	990	0	0	0	0	9,200	0
Nevada	0	0	0	0	0	0	0	0
Foreland Refining Corp Ely	0	0	0	0	0	0	0	0
New Jersey	145,000	0	0	0	0	69,000	0	22,000
Paulsboro Refining Co LLC Paulsboro	0	0	0	0	0	32,000	0	0
Phillips 66 Company Linden	145,000	0	0	0	0	37,000	0	22,000
New Mexico	30,000	0	0	18,000	0	24,000	0	18,000
HF Sinclair Navajo Refining LLC Artesia	30,000	0	0	18,000	0	24,000	0	18,000
(Formerly HollyFrontier Navajo Refining LLC)								
North Dakota	28,000	3,600	0	0	0	0	12,500	0
Tesoro Refining & Marketing Co Mandan	28,000	3,600	0	0	0	0	12,500	0
Ohio	206,300	0	52,000	57,800	0	65,500	106,800	0
BP-Husky Refining LLC Toledo	55,000	0	0	31,800	0	42,000	0	0
Lima Refining Company Lima	45,300	0	0	26,000	0	0	55,000	0
Marathon Petroleum Co LP Canton	24,000	0	0	0	0	23,500	0	0
Toledo Refining Co LLC Toledo	82,000	0	52,000	0	0	0	51,800	0
Oklahoma	156,912	2,000	14,000	0	0	64,200	49,258	0
HF Sinclair Tulsa Refining LLC Tulsa East	28,000	2,000	0	0	0	25,000	0	0
(Formerly HollyFrontier Tulsa Refining LLC)								
Tulsa West	0	0	0	0	0	0	0	0
(Formerly HollyFrontier Tulsa Refining LLC)								
Phillips 66 Company Ponca City	76,912	0	0	0	0	0	49,258	0
Valero Refining Co Oklahoma Ardmore	30,000	0	14,000	0	0	20,500	0	0
Wynnewood Refining Co Wynnewood	22,000	0	0	0	0	18,700	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Montana	45,900	27,800	13,400	47,750	25,000	0	46,070	7,900
Cenex Harvest States Coop Laurel	17,000	0	0	0	25,000	0	20,000	0
ExxonMobil Refining & Supply Co Billings	13,900	20,500	7,600	11,000	0	0	0	7,900
Phillips 66 Company Billings	12,250	7,300	5,800	29,750	0	0	26,070	0
Nevada	0	0	0	0	0	0	0	0
Foreland Refining Corp Ely	0	0	0	0	0	0	0	0
New Jersey	97,500	0	29,100	154,000	17,500	0	0	0
Paulsboro Refining Co LLC Paulsboro	32,000	0	29,100	46,000	0	0	0	0
Phillips 66 Company Linden	65,500	0	0	108,000	17,500	0	0	0
New Mexico	42,000	0	15,000	43,000	0	0	18,000	0
HF Sinclair Navajo Refining LLC Artesia	42,000	0	15,000	43,000	0	0	18,000	0
(Formerly HollyFrontier Navajo Refining LLC)								
North Dakota	29,600	0	7,000	23,800	0	0	0	0
Tesoro Refining & Marketing Co Mandan	29,600	0	7,000	23,800	0	0	0	0
Ohio	187,400	107,000	69,500	84,000	0	0	75,500	0
BP-Husky Refining LLC Toledo	42,000	0	0	22,500	0	0	53,000	0
Lima Refining Company Lima	65,000	35,000	24,000	36,000	0	0	0	0
Marathon Petroleum Co LP Canton	34,500	0	13,500	25,500	0	0	22,500	0
Toledo Refining Co LLC Toledo	45,900	72,000	32,000	0	0	0	0	0
Oklahoma	158,411	119,487	18,678	139,600	39,161	0	58,338	38,079
HF Sinclair Tulsa Refining LLC Tulsa East	25,000	29,000	0	45,000	0	0	0	0
(Formerly HollyFrontier Tulsa Refining LLC)								
Tulsa West	28,000	0	0	0	0	0	0	21,600
(Formerly HollyFrontier Tulsa Refining LLC)								
Phillips 66 Company Ponca City	51,511	58,987	18,678	34,000	39,161	0	23,888	16,479
Valero Refining Co Oklahoma Ardmore	27,000	16,500	0	35,000	0	0	34,450	0
Wynnewood Refining Co Wynnewood	26,900	15,000	0	25,600	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/Gas Oil
Pennsylvania	266,000	0	289,800	0	113,000	0	0	0	0
American Refining Group Inc Bradford	11,000	0	11,800	0	0	0	0	0	0
Monroe Energy LLC Trainer	190,000	0	208,000	0	73,000	0	0	0	0
United Refining Co Warren	65,000	0	70,000	0	40,000	0	0	0	0
Tennessee	180,000	0	205,000	0	0	0	0	0	0
Valero Ref Company Tennessee LLC Memphis	180,000	0	205,000	0	0	0	0	0	0
Texas	5,975,969	0	6,380,239	0	2,664,200	900,207	42,000	0	0
Alon USA Energy Inc Big Spring	73,000	0	74,000	0	28,000	0	0	0	0
Buckeye Texas Processing LLC Corpus Christi	60,000	0	65,000	0	0	0	0	0	0
Citgo Refining & Chemical Inc Corpus Christi	167,500	0	177,839	0	85,300	45,127	0	0	0
Deer Park Refining LP Deer Park	312,500	0	340,000	0	180,000	96,000	0	0	0
Delek Refining LTD Tyler	71,000	0	76,000	0	28,000	7,500	0	0	0
Diamond Shamrock Refining Co LP Sunray	195,000	0	204,000	0	50,000	0	0	0	0
Three Rivers	89,000	0	100,000	0	33,500	0	0	0	0
Equistar Chemicals LP Channelview	0	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baytown	564,440	0	588,000	0	297,000	54,000	42,000	0	0
Beaumont	369,024	0	384,400	0	180,000	46,500	0	0	0
Flint Hills Resources LP Corpus Christi East	74,500	0	75,000	0	0	0	0	0	0
Corpus Christi West	268,500	0	275,000	0	87,500	0	0	0	0
Hartree Channelview LLC Channelview	45,000	0	50,000	0	0	0	0	0	0
Houston Refining LP Houston	263,776	0	289,000	0	196,500	100,500	0	0	0
Kinder Morgan Crude & Condensate Galena Park	105,000	0	121,000	0	0	0	0	0	0
Lazarus Energy LLC Nixon	14,000	0	15,000	0	0	0	0	0	0
Magellan Processing LP Corpus Christi	42,500	0	50,000	0	0	0	0	0	0
Marathon Petroleum Co LP Galveston Bay	593,000	0	625,000	0	259,500	30,000	0	0	0
Motiva Enterprises LLC Port Arthur	626,000	0	659,700	0	331,800	178,000	0	0	0
Pasadena Refining Systems Inc Pasadena	112,229	0	115,700	0	38,000	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
Pennsylvania	78,000	1,000	23,000	0	0	50,000	16,200	0
American Refining Group Inc Bradford	0	0	0	0	0	0	2,200	0
Monroe Energy LLC Trainer	53,000	0	23,000	0	0	50,000	0	0
United Refining Co Warren	25,000	1,000	0	0	0	0	14,000	0
Tennessee	70,000	0	26,500	0	0	36,000	0	0
Valero Ref Company Tennessee LLC Memphis	70,000	0	26,500	0	0	36,000	0	0
Texas	1,744,567	13,000	252,100	433,800	84,500	988,900	105,280	168,500
Alon USA Energy Inc Big Spring	23,500	0	0	0	0	21,500	0	10,000
Buckeye Texas Processing LLC Corpus Christi	0	0	0	0	0	0	0	0
Citgo Refining & Chemical Inc Corpus Christi	71,377	0	0	0	0	51,500	0	0
Deer Park Refining LP Deer Park	75,100	5,000	0	60,000	0	44,000	24,500	0
Delek Refining LTD Tyler	20,250	0	0	0	0	13,000	4,500	0
Diamond Shamrock Refining Co LP Sunray	56,000	0	0	29,000	0	29,000	18,000	14,500
Three Rivers	23,840	0	0	28,000	0	23,500	10,000	10,500
Equistar Chemicals LP Channelview	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baytown	220,000	8,000	30,600	0	0	126,500	0	47,000
Beaumont	115,000	0	70,000	0	0	146,000	0	0
Flint Hills Resources LP Corpus Christi East	49,100	0	0	0	0	0	0	0
Corpus Christi West	58,100	0	0	15,500	0	0	0	0
Hartree Channelview LLC Channelview	0	0	0	0	0	0	0	0
Houston Refining LP Houston	110,000	0	0	0	0	0	0	0
Kinder Morgan Crude & Condensate Galena Park	0	0	0	0	0	0	0	0
Lazarus Energy LLC Nixon	0	0	0	0	0	0	0	0
Magellan Processing LP Corpus Christi	0	0	0	0	0	0	0	0
Marathon Petroleum Co LP Galveston Bay	218,000	0	79,500	0	84,500	146,500	0	19,500
Motiva Enterprises LLC Port Arthur	92,600	0	0	115,500	0	129,500	0	0
Pasadena Refining Systems Inc Pasadena	0	0	0	0	0	23,000	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Pennsylvania	109,900	39,000	28,300	75,100	0	0	0	0
American Refining Group Inc								
Bradford	3,900	0	0	4,800	0	0	0	0
Monroe Energy LLC								
Trainer	80,000	34,000	23,300	53,300	0	0	0	0
United Refining Co								
Warren	26,000	5,000	5,000	17,000	0	0	0	0
Tennessee	52,000	39,000	0	38,000	0	0	0	0
Valero Ref Company Tennessee LLC								
Memphis	52,000	39,000	0	38,000	0	0	0	0
Texas	1,470,900	1,093,648	599,100	1,422,860	16,000	75,000	991,300	168,100
Alon USA Energy Inc								
Big Spring	25,500	0	5,000	24,000	0	0	6,300	0
Buckeye Texas Processing LLC								
Corpus Christi	0	0	0	0	0	0	0	0
Citgo Refining & Chemical Inc								
Corpus Christi	52,800	48,121	0	101,660	0	0	70,900	0
Deer Park Refining LP								
Deer Park	80,000	46,600	40,000	50,000	0	0	49,000	63,000
Delek Refining LTD								
Tyler	28,000	13,000	0	36,000	0	0	0	0
Diamond Shamrock Refining Co LP								
Sunray	44,400	39,600	0	47,500	0	0	0	0
Three Rivers	35,000	0	0	28,000	0	0	20,000	0
Equistar Chemicals LP								
Channelview	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co								
Baytown	157,000	203,800	132,700	158,300	0	0	117,000	50,300
Beaumont	166,300	69,700	51,000	42,000	0	0	0	23,300
Flint Hills Resources LP								
Corpus Christi East	33,000	0	0	0	0	0	0	0
Corpus Christi West	60,000	72,000	32,000	85,000	0	0	0	0
Hartree Channelview LLC								
Channelview	0	0	0	0	0	0	0	0
Houston Refining LP								
Houston	61,000	89,000	41,000	92,600	0	0	117,000	0
Kinder Morgan Crude & Condensate								
Galena Park	0	0	0	0	0	0	0	0
Lazarus Energy LLC								
Nixon	0	0	0	0	0	0	0	0
Magellan Processing LP								
Corpus Christi	0	0	0	0	0	0	0	0
Marathon Petroleum Co LP								
Galveston Bay	128,500	57,000	76,000	60,000	0	0	108,500	0
Motiva Enterprises LLC								
Port Arthur	184,500	55,000	79,000	174,300	0	0	65,000	21,000
Pasadena Refining Systems Inc								
Pasadena	23,000	0	0	0	16,000	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	Other/Gas Oil
Texas	5,975,969	0	6,380,239	0	2,664,200	900,207	42,000	0	0
Petromax Refining Co LLC									
Houston	25,000	0	27,500	0	0	0	0	0	0
Phillips 66 Company									
Sweeny	265,000	0	286,000	0	132,100	78,700	0	0	0
Premcor Refining Group Inc									
Port Arthur	335,000	0	424,000	0	220,000	103,000	0	0	0
South Hampton Resources Inc									
Silsbee	0	0	0	0	0	0	0	0	0
Texas International Terminals									
Galveston	45,000	0	50,000	0	0	0	0	0	0
The San Antonio Refinery LLC									
San Antonio	20,000	0	21,000	0	0	0	0	0	0
TotalEnergies Petrochem & Refg USA									
Port Arthur	238,000	0	245,000	0	117,000	60,000	0	0	0
Valero Refining Co Texas LP									
Corpus Christi	290,000	0	301,000	0	91,000	19,000	0	0	0
Houston	205,000	0	218,700	0	38,000	0	0	0	0
Texas City	225,000	0	227,400	0	133,500	53,500	0	0	0
Western Refining Company LP									
El Paso	133,000	0	140,000	0	55,500	0	0	0	0
WRB Refining LP									
Borger	149,000	0	155,000	0	82,000	28,380	0	0	0
Utah	206,714	0	217,200	0	34,900	10,000	0	0	0
Big West Oil Co									
North Salt Lake	31,664	0	33,000	0	0	0	0	0	0
Chevron USA Inc									
Salt Lake City	54,720	0	57,600	0	27,900	10,000	0	0	0
HF Sinclair Woods Cross Refining LLC									
Woods Cross (Formerly HollyFrontier Woods Cross Refg Co)	39,330	0	41,400	0	0	0	0	0	0
Silver Eagle Refining									
Woods Cross	15,000	0	15,700	0	7,000	0	0	0	0
Tesoro Refining & Marketing Co									
Salt Lake City	66,000	0	69,500	0	0	0	0	0	0
Washington	648,200	0	672,500	0	320,100	86,800	0	0	0
BP Products North America Inc									
Ferndale	238,500	0	251,000	0	139,000	61,500	0	0	0
HF Sinclair Puget Sound Refg LLC									
Anacortes (Formerly HollyFrontier Puget Sound Refg LLC)	145,000	0	149,000	0	65,800	25,300	0	0	0
Phillips 66 Company									
Ferndale	105,000	0	110,500	0	48,100	0	0	0	0
Tesoro Refining & Marketing Co									
Anacortes	119,000	0	120,000	0	48,000	0	0	0	0
US Oil & Refining Co									
Tacoma	40,700	0	42,000	0	19,200	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
Texas	1,744,567	13,000	252,100	433,800	84,500	988,900	105,280	168,500
Petromax Refining Co LLC Houston	0	0	0	0	0	0	0	0
Phillips 66 Company Sweeny	111,000	0	0	0	0	42,100	0	0
Premcor Refining Group Inc Port Arthur	75,000	0	0	134,800	0	58,000	0	0
South Hampton Resources Inc Silsbee	0	0	0	0	0	5,200	0	0
Texas International Terminals Galveston	0	0	0	0	0	0	0	0
The San Antonio Refinery LLC San Antonio	0	0	0	0	0	0	6,000	0
TotalEnergies Petrochem & Refg USA Port Arthur	80,000	0	0	0	0	43,000	0	15,500
Valero Refining Co Texas LP Corpus Christi	95,500	0	0	51,000	0	39,000	11,000	0
Houston	75,200	0	72,000	0	0	0	0	18,000
Texas City	86,000	0	0	0	0	18,100	0	33,500
Western Refining Company LP El Paso	35,000	0	0	0	0	29,500	0	0
WRB Refining LP Borger	54,000	0	0	0	0	0	31,280	0
Utah	72,700	0	0	15,000	0	0	38,250	6,000
Big West Oil Co North Salt Lake	12,500	0	0	0	0	0	8,750	0
Chevron USA Inc Salt Lake City	15,500	0	0	0	0	0	9,100	0
HF Sinclair Woods Cross Refining LLC Woods Cross (Formerly HollyFrontier Woods Cross Refg Co)	18,200	0	0	15,000	0	0	8,400	6,000
Silver Eagle Refining Woods Cross	0	0	0	0	0	0	0	0
Tesoro Refining & Marketing Co Salt Lake City	26,500	0	0	0	0	0	12,000	0
Washington	147,400	3,000	0	65,000	0	113,000	28,500	24,000
BP Products North America Inc Ferndale	0	0	0	65,000	0	65,000	0	0
HF Sinclair Puget Sound Refg LLC Anacortes (Formerly HollyFrontier Puget Sound Refg LLC)	57,900	0	0	0	0	0	21,700	0
Phillips 66 Company Ferndale	38,000	0	0	0	0	18,500	0	0
Tesoro Refining & Marketing Co Anacortes	51,500	3,000	0	0	0	29,500	0	24,000
US Oil & Refining Co Tacoma	0	0	0	0	0	0	6,800	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Texas	1,470,900	1,093,648	599,100	1,422,860	16,000	75,000	991,300	168,100
Petromax Refining Co LLC Houston	0	0	0	0	0	0	0	0
Phillips 66 Company Sweeny	73,400	68,700	0	126,300	0	0	110,200	0
Premcor Refining Group Inc Port Arthur	51,500	90,000	33,000	104,600	0	0	60,000	0
South Hampton Resources Inc Silsbee	11,000	0	0	0	0	0	0	4,000
Texas International Terminals Galveston	0	0	0	0	0	0	0	0
The San Antonio Refinery LLC San Antonio	7,000	0	0	8,000	0	0	0	0
TotalEnergies Petrochem & Refg USA Port Arthur	57,500	51,600	31,000	80,000	0	0	54,400	0
Valero Refining Co Texas LP Corpus Christi	57,000	54,500	10,000	72,000	0	75,000	25,000	0
Houston	9,000	38,027	15,900	0	0	0	0	0
Texas City	25,000	61,500	28,000	55,000	0	0	110,000	6,500
Western Refining Company LP El Paso	33,000	35,500	9,500	49,000	0	0	0	0
WRB Refining LP Borger	67,500	0	15,000	28,600	0	0	78,000	0
Utah	45,900	8,000	2,900	51,200	31,500	0	0	7,200
Big West Oil Co North Salt Lake	11,800	0	0	12,400	0	0	0	0
Chevron USA Inc Salt Lake City	9,100	0	0	13,300	20,700	0	0	7,200
HF Sinclair Woods Cross Refining LLC Woods Cross	12,500	0	2,900	0	10,800	0	0	0
(Formerly HollyFrontier Woods Cross Refg Co)								
Silver Eagle Refining Woods Cross	1,000	0	0	3,000	0	0	0	0
Tesoro Refining & Marketing Co Salt Lake City	11,500	8,000	0	22,500	0	0	0	0
Washington	204,200	104,500	45,000	174,200	0	0	0	0
BP Products North America Inc Ferndale	101,800	0	20,000	59,400	0	0	0	0
HF Sinclair Puget Sound Refg LLC Anacortes	21,700	43,900	25,000	39,900	0	0	0	0
(Formerly HollyFrontier Puget Sound Refg LLC)								
Phillips 66 Company Ferndale	19,400	34,100	0	37,800	0	0	0	0
Tesoro Refining & Marketing Co Anacortes	50,500	26,500	0	28,500	0	0	0	0
US Oil & Refining Co Tacoma	10,800	0	0	8,600	0	0	0	0

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Atmospheric Crude Oil Distillation Capacity				Downstream Charge Capacity				
	Barrels per Calendar Day		Barrels per Stream Day		Vacuum Distillation	Thermal Cracking			Other/Gas Oil
	Operating	Idle	Operating	Idle		Delayed Coking	Fluid Coking	Visbreaking	
West Virginia	22,300	0	23,000	0	8,600	0	0	0	0
Ergon West Virginia Inc Newell	22,300	0	23,000	0	8,600	0	0	0	0
Wisconsin	0	38,000	0	50,000	23,500	0	0	0	0
Superior Refining Company LLC Superior	0	38,000	0	50,000	23,500	0	0	0	0
Wyoming	125,850	0	143,900	0	51,000	20,000	0	0	0
HF Sinclair Casper Refining Company Evansville	29,850	0	30,000	0	0	0	0	0	0
(Formerly Sinclair Casper Refining Company)									
HF Sinclair Wyoming Refining Co Sinclair	75,000	0	92,000	0	51,000	20,000	0	0	0
(Formerly Sinclair Wyoming Refining Co)									
Silver Eagle Refining Evanston	3,000	0	3,400	0	0	0	0	0	0
Wyoming Refining Co Newcastle	18,000	0	18,500	0	0	0	0	0	0
U.S. Total	17,684,549	375,820	18,741,581	415,200	8,604,173	2,775,612	158,500	16,000	11,800

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
West Virginia	0	0	0	0	0	4,700	0	0
Ergon West Virginia Inc Newell	0	0	0	0	0	4,700	0	0
Wisconsin	11,323	0	0	0	0	9,300	0	0
Superior Refining Company LLC Superior	11,323	0	0	0	0	9,300	0	0
Wyoming	40,000	500	16,000	0	0	5,000	19,900	0
HF Sinclair Casper Refining Company Evansville	10,500	500	0	0	0	5,000	0	0
(Formerly Sinclair Casper Refining Company)								
HF Sinclair Wyoming Refining Co Sinclair	22,000	0	16,000	0	0	0	13,000	0
(Formerly Sinclair Wyoming Refining Co)								
Silver Eagle Refining Evanston	0	0	0	0	0	0	2,900	0
Wyoming Refining Co Newcastle	7,500	0	0	0	0	0	4,000	0
U.S. Total	5,465,762	48,890	746,000	1,561,100	84,500	2,637,700	967,888	385,000

Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2023
(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Downstream Charge Capacity							
	Desulfurization (incl. Catalytic Hydrotreating)							
	Naphtha/ Reformer Feed	Gasoline	Kerosene/ Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
West Virginia	7,700	0	0	9,500	0	0	6,900	0
Ergon West Virginia Inc Newell	7,700	0	0	9,500	0	0	6,900	0
Wisconsin	12,500	12,500	8,000	7,500	0	0	0	0
Superior Refining Company LLC Superior	12,500	12,500	8,000	7,500	0	0	0	0
Wyoming	37,600	6,500	14,000	35,700	0	0	20,000	0
HF Sinclair Casper Refining Company Evansville	8,200	6,500	0	11,200	0	0	0	0
(Formerly Sinclair Casper Refining Company)								
HF Sinclair Wyoming Refining Co Sinclair	21,500	0	14,000	18,500	0	0	20,000	0
(Formerly Sinclair Wyoming Refining Co)								
Silver Eagle Refining Evanston	3,900	0	0	0	0	0	0	0
Wyoming Refining Co Newcastle	4,000	0	0	6,000	0	0	0	0
U.S. Total	4,624,711	2,900,785	1,577,828	4,366,700	264,761	88,500	2,838,408	437,279

Note: Refer to Table 5 for corporate ownership information. Some names of previously independent companies have been preserved by acquiring companies.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Directory of Operable Petroleum Refineries on Tables 3 and 4

Refiner	State(s)	Refiner	State(s)
Alon Refining Krotz Springs Inc.....	LA	Lazarus Energy LLC.....	TX
Alon USA Energy Inc.....	TX	Lima Refining Company.....	OH
American Refining Group Inc.....	PA	Lion Oil Co.....	AR
BP Products North America Inc.....	IN, WA	Lunday Thagard Co.....	CA
BP-Husky Refining LLC.....	OH	Magellan Processing LP.....	TX
Big West Oil Co.....	UT	Marathon Petroleum Co LP.....	IL, KY, LA, MI, OH, TX
Buckeye Texas Processing LLC.....	TX	Martinez Refining Co LLC.....	CA
CHS McPherson Refinery Inc.....	KS	Monroe Energy LLC.....	PA
Calcasieu Refining Co.....	LA	Motiva Enterprises LLC.....	TX
Calumet Cotton Valley Refining LLC.....	LA	PDV Midwest Refining LLC.....	IL
Calumet Montana Refining LLC.....	MT	Par Hawaii Refining LLC.....	HI
Calumet Princeton Refining LLC.....	LA	Pasadena Refining Systems Inc.....	TX
Calumet Shreveport Refining LLC.....	LA	Paulsboro Refining Co LLC.....	NJ
Cenex Harvest States Coop.....	MT	Petro Star Inc.....	AK
Chalmette Refining LLC.....	LA	Petromax Refining Co LLC.....	TX
Chevron USA Inc.....	CA, MS, UT	Phillips 66 Company.....	CA, LA, MT, NJ, OK, TX, WA
Citgo Petroleum Corp.....	LA	Placid Refining Co.....	LA
Citgo Refining & Chemical Inc.....	TX	Premcor Refining Group Inc.....	TX
Coffeyville Resources Rfg & Mktg.....	KS	San Joaquin Refining Co Inc.....	CA
ConocoPhillips Alaska Inc.....	AK	Shell Oil Products US.....	LA
Countrymark Refining & Logistics LLC.....	IN	Silver Eagle Refining.....	UT, WY
Cross Oil Refining & Marketing Inc.....	AR	South Hampton Resources Inc.....	TX
Deer Park Refining LP.....	TX	St Paul Park Refining Co LLC.....	MN
Delaware City Refining Co LLC.....	DE	Suncor Energy (USA) Inc.....	CO
Delek Refining LTD.....	TX	Superior Refining Company LLC.....	WI
Diamond Shamrock Refining Co LP.....	TX	Talley Asphalt Products Inc.....	CA
Equistar Chemicals LP.....	TX	Tesoro Alaska Company LLC.....	AK
Ergon Refining Inc.....	MS	Tesoro Refining & Marketing Co.....	CA, ND, UT, WA
Ergon West Virginia Inc.....	WV	Texas International Terminals.....	TX
Excel Paralubes.....	LA	The San Antonio Refinery LLC.....	TX
ExxonMobil Refining & Supply Co.....	IL, LA, MT, TX	Toledo Refining Co LLC.....	OH
Flint Hills Resources LP.....	MN, TX	Torrance Refining Co LLC.....	CA
Foreland Refining Corp.....	NV	TotalEnergies Petrochem & Refg USA.....	TX
Goodway Refining LLC.....	AL	US Oil & Refining Co.....	WA
HF Sinclair Casper Refining Company.....	WY	Ultramar Inc.....	CA
HF Sinclair El Dorado Refining LLC.....	KS	United Refining Co.....	PA
HF Sinclair Navajo Refining LLC.....	NM	Valero Ref Company Tennessee LLC.....	TN
HF Sinclair Puget Sound Refg LLC.....	WA	Valero Refining - Meraux LLC.....	LA
HF Sinclair Tulsa Refining LLC.....	OK	Valero Refining Co California.....	CA
HF Sinclair Woods Cross Refining LLC.....	UT	Valero Refining Co Oklahoma.....	OK
HF Sinclair Wyoming Refining Co.....	WY	Valero Refining Co Texas LP.....	TX
Hartree Channelview LLC.....	TX	Valero Refining New Orleans LLC.....	LA
Hilcorp North Slope LLC.....	AK	Vertex Refining Alabama LLC.....	AL
Houston Refining LP.....	TX	WRB Refining LP.....	IL, TX
Hunt Refining Co.....	AL	Western Refining Company LP.....	TX
Hunt Southland Refining Co.....	MS	Wynnewood Refining Co.....	OK
Kern Oil & Refining Co.....	CA	Wyoming Refining Co.....	WY
Kinder Morgan Crude & Condensate.....	TX		

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Alabama	0	0	26,000	1,150	4,500	0	0	7,500	45	228
Hunt Refining Co										
Tuscaloosa	0	0	26,000	0	4,500	0	0	7,500	45	195
Vertex Refining Alabama LLC										
Saraland	0	0	0	1,150	0	0	0	0	0	33
(Formerly Shell Chemical LP)										
Alaska	0	0	12,500	0	5,000	0	0	0	13	25
Petro Star Inc										
North Pole	0	0	3,000	0	0	0	0	0	0	0
Tesoro Alaska Company LLC										
Kenai	0	0	9,500	0	5,000	0	0	0	13	25
Arkansas	5,000	0	21,300	0	8,000	0	6,000	0	13	90
Cross Oil Refining & Marketing Inc										
Smackover	0	0	800	0	0	0	6,000	0	3	0
Lion Oil Co										
El Dorado	5,000	0	20,500	0	8,000	0	0	0	10	90
California	193,362	1,500	25,950	49,200	131,600	0	39,800	137,523	971	4,728
Chevron USA Inc										
El Segundo	33,300	0	0	10,500	22,300	0	0	30,000	74	628
Richmond	32,662	0	0	7,200	46,000	0	34,000	0	330	1,008
Kern Oil & Refining Co										
Bakersfield	0	0	0	0	0	0	0	0	0	11
Lunday Thagard Co										
South Gate	0	0	3,750	0	0	0	0	0	0	0
Martinez Refining Co LLC										
Martinez	12,800	0	0	0	15,000	0	0	9,000	179	413

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Phillips 66 Company										
Rodeo	0	0	0	3,800	10,000	0	0	14,500	22	560
Wilmington	16,000	0	0	7,000	12,800	0	0	16,800	105	370
San Joaquin Refining Co Inc										
Bakersfield	0	1,500	8,000	0	0	0	5,800	0	4	6
Talley Asphalt Products Inc										
Kern	0	0	1,700	0	0	0	0	0	0	0
Tesoro Refining & Marketing Co										
Carson	29,500	0	0	16,500	25,500	0	0	31,243	122	749
Torrance Refining Co LLC										
Torrance	30,000	0	0	0	0	0	0	19,180	0	400
Ultramar Inc										
Wilmington	22,000	0	0	0	0	0	0	10,000	0	280
Valero Refining Co California										
Benicia	17,100	0	9,000	4,200	0	0	0	6,800	135	303
Wilmington	0	0	3,500	0	0	0	0	0	0	0
Colorado	0	0	13,200	0	0	0	0	0	22	116
Suncor Energy (USA) Inc										
Commerce City East	0	0	0	0	0	0	0	0	0	2
Commerce City West	0	0	13,200	0	0	0	0	0	22	114
Delaware	12,500	5,191	0	6,000	0	0	0	13,620	65	596
Delaware City Refining Co LLC										
Delaware City	12,500	5,191	0	6,000	0	0	0	13,620	65	596
Hawaii	0	0	0	0	0	0	0	0	18	38
Par Hawaii Refining LLC										
Kapolei	0	0	0	0	0	0	0	0	18	38

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Illinois	96,600	17,200	45,100	0	16,000	0	0	74,690	202	2,380
ExxonMobil Refining & Supply Co										
Joliet	31,500	0	17,100	0	0	0	0	26,000	0	683
Marathon Petroleum Co LP										
Robinson	19,000	3,300	0	0	16,000	0	0	7,890	0	202
PDV Midwest Refining LLC										
Lemont	24,300	9,400	0	0	0	0	0	12,900	12	487
WRB Refining LP										
Wood River	21,800	4,500	28,000	0	0	0	0	27,900	190	1,008
Indiana	34,400	16,800	33,200	0	31,400	0	0	30,000	0	1,913
BP Products North America Inc										
Whiting	32,000	16,800	29,500	0	27,900	0	0	30,000	0	1,904
Countrymark Refining & Logistics LLC										
Mount Vernon	2,400	0	3,700	0	3,500	0	0	0	0	9
Kansas	34,000	0	4,000	4,000	27,000	0	0	23,064	120	831
CHS McPherson Refinery Inc										
McPherson	10,000	0	0	2,500	12,000	0	0	7,364	42	287
Coffeyville Resources Rfg & Mktg										
Coffeyville	10,000	0	0	0	0	0	0	8,700	22	229
HF Sinclair El Dorado Refining LLC										
El Dorado	14,000	0	4,000	1,500	15,000	0	0	7,000	56	315
(Formerly HollyFrontier El Dorado Refining LLC)										
Kentucky	22,500	2,500	35,400	0	19,000	0	0	0	0	448
Marathon Petroleum Co LP										
Catlettsburg	22,500	2,500	35,400	0	19,000	0	0	0	0	448

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Louisiana	214,500	34,400	103,000	23,000	92,720	0	66,000	164,436	118	6,053
Alon Refining Krotz Springs Inc										
Krotz Springs	6,000	0	0	0	6,220	0	0	0	0	0
Calumet Cotton Valley Refining LLC										
Cotton Valley	0	0	0	0	500	0	0	0	2	0
Calumet Princeton Refining LLC										
Princeton	0	0	2,000	0	0	0	7,000	0	4	3
Calumet Shreveport Refining LLC										
Shreveport	0	0	6,500	0	0	0	12,500	0	12	40
Chalmette Refining LLC										
Chalmette	16,800	10,500	15,000	0	0	0	0	13,000	0	920
Citgo Petroleum Corp										
Lake Charles	28,100	20,900	0	0	28,000	0	0	32,820	0	717
Excel Paralubes										
Westlake	0	0	0	0	0	0	30,000	0	0	185
ExxonMobil Refining & Supply Co										
Baton Rouge	41,000	0	40,000	0	0	0	16,500	31,525	0	944
Marathon Petroleum Co LP										
Garyville	40,000	0	33,000	23,000	33,000	0	0	33,275	0	1,476
Phillips 66 Company										
Westlake	9,000	0	6,500	0	25,000	0	0	22,500	0	440
Placid Refining Co										
Port Allen	7,500	0	0	0	0	0	0	0	0	55
Shell Oil Products US										
Norco	18,100	0	0	0	0	0	0	7,316	0	209
Valero Refining - Meraux LLC										
Meraux	0	0	0	0	0	0	0	0	0	224
Valero Refining New Orleans LLC										
Norco	48,000	3,000	0	0	0	0	0	24,000	100	840

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Michigan	8,000	0	32,000	0	0	0	0	12,850	0	460
Marathon Petroleum Co LP										
Detroit	8,000	0	32,000	0	0	0	0	12,850	0	460
Minnesota	21,000	0	62,000	0	33,500	0	0	28,400	209	1,339
Flint Hills Resources LP										
Saint Paul	14,000	0	45,000	0	18,000	0	0	28,400	199	1,229
St Paul Park Refining Co LLC										
Saint Paul	7,000	0	17,000	0	15,500	0	0	0	10	110
Mississippi	22,000	15,600	16,125	0	0	0	48,000	35,500	242	1,264
Chevron USA Inc										
Pascagoula	22,000	15,600	0	0	0	0	25,000	35,500	229	1,264
Ergon Refining Inc										
Vicksburg	0	0	10,000	0	0	0	23,000	0	13	0
Hunt Southland Refining Co										
Sandersville	0	0	6,125	0	0	0	0	0	0	0
Montana	17,150	0	39,000	5,250	1,500	0	0	15,480	134	489
Calumet Montana Refining LLC										
Great Falls	750	0	4,700	0	1,500	0	0	0	5	0
Cenex Harvest States Coop										
Laurel	4,000	0	19,800	1,250	0	0	0	4,800	70	243
ExxonMobil Refining & Supply Co										
Billings	5,100	0	14,500	0	0	0	0	4,000	23	0
Phillips 66 Company										
Billings	7,300	0	0	4,000	0	0	0	6,680	36	246
Nevada	0	0	1,600	0	0	0	0	0	0	0

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Foreland Refining Corp										
Ely	0	0	1,600	0	0	0	0	0	0	0
New Jersey	18,800	0	21,000	4,000	0	0	12,000	0	31	320
Paulsboro Refining Co LLC										
Paulsboro	0	0	21,000	0	0	0	12,000	0	9	320
Phillips 66 Company										
Linden	18,800	0	0	4,000	0	0	0	0	22	0
New Mexico	9,500	0	7,000	0	0	0	0	0	38	224
HF Sinclair Navajo Refining LLC										
Artesia	9,500	0	7,000	0	0	0	0	0	38	224
(Formerly HollyFrontier Navajo Refining LLC)										
North Dakota	5,000	0	0	0	0	0	0	0	0	15
Tesoro Refining & Marketing Co										
Mandan	5,000	0	0	0	0	0	0	0	0	15
Ohio	29,950	20,000	26,000	4,500	18,700	0	0	16,300	0	922
BP-Husky Refining LLC										
Toledo	11,500	0	9,000	0	0	0	0	10,000	0	462
Lima Refining Company										
Lima	0	9,200	0	4,500	18,700	0	0	6,300	0	240
Marathon Petroleum Co LP										
Canton	8,500	0	17,000	0	0	0	0	0	0	104
Toledo Refining Co LLC										
Toledo	9,950	10,800	0	0	0	0	0	0	0	116
Oklahoma	35,586	21,000	21,700	900	13,000	0	9,900	9,050	62	275

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
HF Sinclair Tulsa Refining LLC										
Tulsa East	5,500	0	15,200	0	13,000	0	0	0	0	75
(Formerly HollyFrontier Tulsa Refining LLC)										
Tulsa West	0	0	6,500	900	0	0	9,900	2,750	0	0
(Formerly HollyFrontier Tulsa Refining LLC)										
Phillips 66 Company										
Ponca City	17,574	0	0	0	0	0	0	6,300	35	0
Valero Refining Co Oklahoma										
Ardmore	7,012	0	0	0	0	0	0	0	27	200
Wynnewood Refining Co										
Wynnewood	5,500	21,000	0	0	0	0	0	0	0	0
Pennsylvania	16,500	0	23,560	0	9,280	0	2,945	0	10	157
American Refining Group Inc										
Bradford	0	0	560	0	780	0	2,945	0	0	0
Monroe Energy LLC										
Trainer	12,000	0	0	0	0	0	0	0	0	90
United Refining Co										
Warren	4,500	0	23,000	0	8,500	0	0	0	10	67
Tennessee	17,000	29,000	0	0	0	0	0	0	30	116
Valero Ref Company Tennessee LLC										
Memphis	17,000	29,000	0	0	0	0	0	0	30	116
Texas	416,393	121,665	54,200	54,300	152,100	0	72,900	282,957	291	16,266
Alon USA Energy Inc										
Big Spring	5,000	1,000	7,600	0	0	0	0	0	0	100
Citgo Refining & Chemical Inc										
Corpus Christi	25,198	16,270	0	0	0	0	0	17,374	0	370

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Deer Park Refining LP										
Deer Park	21,000	0	0	0	0	0	0	26,100	0	1,220
Delek Refining LTD										
Tyler	4,700	0	0	0	0	0	0	1,500	0	39
Diamond Shamrock Refining Co LP										
Sunray	9,800	0	12,000	3,000	0	0	0	0	30	75
Three Rivers	7,000	10,800	0	3,000	0	0	1,900	0	0	224
Equistar Chemicals LP										
Channelview	22,370	0	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co										
Baytown	44,500	0	0	0	0	0	32,000	22,750	0	1,828
Beaumont	16,300	0	0	13,300	33,800	0	0	15,039	0	661
Flint Hills Resources LP										
Corpus Christi East	0	0	0	0	0	0	0	0	0	102
Corpus Christi West	15,500	0	0	0	0	0	0	0	0	160
Houston Refining LP										
Houston	11,250	0	0	0	0	0	0	30,150	0	1,123
Marathon Petroleum Co LP										
Galveston Bay	65,500	39,400	0	0	0	0	0	11,910	0	1,452
Motiva Enterprises LLC										
Port Arthur	20,500	0	0	0	58,500	0	39,000	50,975	0	3,203
Phillips 66 Company										
Sweeny	26,200	20,500	0	0	10,100	0	0	22,800	0	915
Premcor Refining Group Inc										
Port Arthur	19,500	0	0	0	0	0	0	32,240	0	1,490
South Hampton Resources Inc										
Silsbee	0	3,640	0	0	4,400	0	0	0	0	0
TotalEnergies Petrochem & Refg USA										
Port Arthur	7,500	13,600	0	0	7,800	0	0	19,200	0	806

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Valero Refining Co Texas LP										
Corpus Christi	24,500	16,455	30,600	16,000	0	0	0	5,919	160	1,142
Houston	28,875	0	0	0	0	0	0	0	0	336
Texas City	14,700	0	0	0	6,500	0	0	19,000	0	680
Western Refining Company LP										
El Paso	12,500	0	4,000	4,000	0	0	0	0	10	0
WRB Refining LP										
Borger	14,000	0	0	15,000	31,000	0	0	8,000	91	340
Utah	21,600	0	1,800	3,318	6,000	0	0	2,500	0	92
Big West Oil Co										
North Salt Lake	3,100	0	0	1,900	3,000	0	0	0	0	3
Chevron USA Inc										
Salt Lake City	5,200	0	0	1,418	0	0	0	2,500	0	63
HF Sinclair Woods Cross Refining LLC										
Woods Cross	5,300	0	1,800	0	3,000	0	0	0	0	10
(Formerly HollyFrontier Woods Cross Refg Co)										
Tesoro Refining & Marketing Co										
Salt Lake City	8,000	0	0	0	0	0	0	0	0	16
Washington	42,200	0	9,000	11,600	31,000	0	0	23,650	186	805
BP Products North America Inc										
Ferndale	0	0	0	0	26,000	0	0	15,250	186	284
HF Sinclair Puget Sound Refg LLC										
Anacortes	12,500	0	0	0	0	0	0	8,400	0	350
(Formerly HollyFrontier Puget Sound Refg LLC)										
Phillips 66 Company										
Ferndale	12,700	0	0	2,900	0	0	0	0	0	112
Tesoro Refining & Marketing Co										
Anacortes	17,000	0	0	8,700	0	0	0	0	0	48

Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2023

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
US Oil & Refining Co										
Tacoma	0	0	9,000	0	5,000	0	0	0	0	11
West Virginia	0	0	700	0	0	0	6,000	0	3	1
Ergon West Virginia Inc										
Newell	0	0	700	0	0	0	6,000	0	3	1
Wisconsin	1,700	6,100	16,000	0	0	0	0	0	0	33
Superior Refining Company LLC										
Superior	1,700	6,100	16,000	0	0	0	0	0	0	33
Wyoming	6,300	0	8,000	0	0	0	0	5,800	52	213
HF Sinclair Casper Refining Company										
Evansville	0	0	0	0	0	0	0	0	0	10
(Formerly Sinclair Casper Refining Company)										
HF Sinclair Wyoming Refining Co										
Sinclair	5,000	0	8,000	0	0	0	0	5,800	52	203
(Formerly Sinclair Wyoming Refining Co)										
Wyoming Refining Co										
Newcastle	1,300	0	0	0	0	0	0	0	0	0
U.S. Total	1,301,541	290,956	659,335	167,218	600,300	0	263,545	883,320	2,875	40,437

^a Includes hydrogen production capacity of hydrogen plants on refinery grounds and operated by the refinery operator.

Note: Refer to Table 5 for corporate ownership information. Some names of previously independent companies have been preserved by acquiring companies.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
Companies with Capacity Over 100,000 bbl/cd		Valero Ref Company Tennessee LLC	
MARATHON PETROLEUM CORP	2,898,000	Memphis, Tennessee	180,000
Marathon Petroleum Co LP		Valero Refining Co California	
Garyville, Louisiana	596,000	Benicia, California	145,000
Galveston Bay, Texas	593,000	Wilmington, California	6,300
Catlettsburg, Kentucky	291,000	Valero Refining - Meraux LLC	
Robinson, Illinois	253,000	Meraux, Louisiana	125,000
Detroit, Michigan	140,000	Valero Refining Co Oklahoma	
Canton, Ohio	100,000	Ardmore, Oklahoma	86,000
Tesoro Refining & Marketing Co		Ultramar Inc	
Carson, California	363,000	Wilmington, California	85,000
Anacortes, Washington	119,000	EXXONMOBIL CORP	1,769,264
Mandan, North Dakota	71,000	ExxonMobil Refining & Supply Co	
Salt Lake City, Utah	66,000	Baytown, Texas	564,440
Western Refining Company LP		Baton Rouge, Louisiana	522,500
El Paso, Texas	133,000	Beaumont, Texas	369,024
St Paul Park Refining Co LLC		Joliet, Illinois	251,800
Saint Paul, Minnesota	105,000	Billings, Montana	61,500
Tesoro Alaska Company LLC		PHILLIPS 66 COMPANY	1,425,700
Kenai, Alaska	68,000	Phillips 66 Company	
VALERO ENERGY CORP	2,181,300	Sweeny, Texas	265,000
Valero Refining Co Texas LP		Westlake, Louisiana	264,000
Corpus Christi, Texas	290,000	Linden, New Jersey	258,500
Texas City, Texas	225,000	Ponca City, Oklahoma	208,000
Houston, Texas	205,000	Wilmington, California	139,000
Premcor Refining Group Inc		Rodeo, California	120,200
Port Arthur, Texas	335,000	Ferndale, Washington	105,000
Diamond Shamrock Refining Co LP		Billings, Montana	66,000
Sunray, Texas	195,000		
Three Rivers, Texas	89,000		
Valero Refining New Orleans LLC			
Norco, Louisiana	215,000		

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
CHEVRON CORP	1,037,660	Tulsa West, Oklahoma	85,000
Chevron USA Inc		Tulsa East, Oklahoma	70,300
Pascagoula, Mississippi	356,440	^a	
El Segundo, California	269,000	HF Sinclair Puget Sound Refg LLC	
Richmond, California	245,271	Anacortes, Washington	145,000
Salt Lake City, Utah	54,720	^a	
Pasadena Refining Systems Inc		HF Sinclair Navajo Refining LLC	
Pasadena, Texas	112,229	Artesia, New Mexico	110,000
PBF ENERGY CO LLC	1,010,200	^b	
Chalmette Refining LLC		HF Sinclair Wyoming Refining Co	
Chalmette, Louisiana	190,000	Sinclair, Wyoming	75,000
Toledo Refining Co LLC		^a	
Toledo, Ohio	172,800	HF Sinclair Woods Cross Refining LLC	
Delaware City Refining Co LLC		Woods Cross, Utah	39,330
Delaware City, Delaware	171,000	^b	
Paulsboro Refining Co LLC		HF Sinclair Casper Refining Company	
Paulsboro, New Jersey	160,000	Evansville, Wyoming	29,850
Torrance Refining Co LLC		KOCH INDUSTRIES INC	678,000
Torrance, California	160,000	Flint Hills Resources LP	
Martinez Refining Co LLC		Saint Paul, Minnesota	335,000
Martinez, California	156,400	Corpus Christi West, Texas	268,500
PDV AMERICA INC	805,185	Corpus Christi East, Texas	74,500
Citgo Petroleum Corp		BP PLC	673,500
Lake Charles, Louisiana	455,000	BP Products North America Inc	
PDV Midwest Refining LLC		Whiting, Indiana	435,000
Lemont, Illinois	182,685	Ferndale, Washington	238,500
Citgo Refining & Chemical Inc		SAUDI ARAMCO	
Corpus Christi, Texas	167,500	Motiva Enterprises LLC	
HF SINCLAIR CORP	716,480	Port Arthur, Texas	626,000
^a		WRB REFINING LP	505,000
HF Sinclair El Dorado Refining LLC		WRB Refining LP	
El Dorado, Kansas	162,000	Wood River, Illinois	356,000
^a		(50% Phillips 66, 50% Cenovus)	
HF Sinclair Tulsa Refining LLC		Borger, Texas	149,000
		(50% Phillips 66, 50% Cenovus)	
		PEMEX	
		^c	
		Deer Park Refining LP	
		Deer Park, Texas	312,500

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
DELEK GROUP LTD	307,000	CHS McPherson Refinery Inc	
Lion Oil Co		McPherson, Kansas	110,600
El Dorado, Arkansas	83,000	Cenex Harvest States Coop	
Alon Refining Krotz Springs Inc		Laurel, Montana	62,500
Krotz Springs, Louisiana	80,000	PAR PACIFIC HOLDINGS	152,200
Alon USA Energy Inc		Par Hawaii Refining LLC	
Big Spring, Texas	73,000	Kapolei, Hawaii	93,500
Delek Refining LTD		US Oil & Refining Co	
Tyler, Texas	71,000	Tacoma, Washington	40,700
ACCESS INDUSTRIES		Wyoming Refining Co	
Houston Refining LP		Newcastle, Wyoming	18,000
Houston, Texas	263,776	BP-HUSKY REFINING LLC (50% BP, 50% Husky)	
TOTALENERGIES SE		BP-Husky Refining LLC	
TotalEnergies Petrochem & Refg USA		Toledo, Ohio	148,920
Port Arthur, Texas	238,000	TRANSWORLD OIL USA INC	
SHELL PLC		Calcasieu Refining Co	
Shell Oil Products US		Lake Charles, Louisiana	135,500
Norco, Louisiana	227,900	KINDER MORGAN ENERGY PTNRS LP	
CENOVUS ENERGY INC	221,000	Kinder Morgan Crude & Condensate	
Lima Refining Company		Galena Park, Texas	105,000
Lima, Ohio	183,000	SUNCOR ENERGY INC	103,000
Superior Refining Company LLC		Suncor Energy (USA) Inc	
Superior, Wisconsin	38,000	Commerce City West, Colorado	67,000
CVR ENERGY	206,500	Commerce City East, Colorado	36,000
Coffeyville Resources Rfg & Mktg			
Coffeyville, Kansas	132,000		
Wynnewood Refining Co			
Wynnewood, Oklahoma	74,500		
DELTA AIR LINES INC			
Monroe Energy LLC			
Trainer, Pennsylvania	190,000		
CHS INC	173,100		

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
CALUMET SPECIALTY PRODUCTS PARTNERS, L.P.	102,920	Corpus Christi, Texas	60,000
Calumet Shreveport Refining LLC		ERGON INC	48,800
Shreveport, Louisiana	57,000	Ergon Refining Inc	
Calumet Montana Refining LLC		Vicksburg, Mississippi	26,500
Great Falls, Montana	24,600	Ergon West Virginia Inc	
Calumet Cotton Valley Refining LLC		Newell, West Virginia	22,300
Cotton Valley, Louisiana	13,020	HARTREE PARTNERS LP	
Calumet Princeton Refining LLC		Hartree Channelview LLC	
Princeton, Louisiana	8,300	Channelview, Texas	45,000
Total	17,213,605	TEXAS INTL TERMINALS	
		Texas International Terminals	
		Galveston, Texas	45,000
		MAGELLAN MIDSTREAM PARTNERS LP	
		Magellan Processing LP	
		Corpus Christi, Texas	42,500
		COUNTRYMARK COOP INC	
		Countrymark Refining & Logistics LLC	
		Mount Vernon, Indiana	34,500
		FJ MANAGEMENT INC	
		Big West Oil Co	
		North Salt Lake, Utah	31,664
		Total	672,464
		Companies with Capacity 10,001 to 30,000 bbl/cd	
		KERN OIL & REFINING CO	
		Kern Oil & Refining Co	
		Bakersfield, California	26,000
		PETROMAX REFINING CO LLC	
		Petromax Refining Co LLC	
		Houston, Texas	25,000
VERTEX ENERGY LP			
Vertex Refining Alabama LLC			
Saraland, Alabama	88,000		
ARCTIC SLOPE REGIONAL CORP	76,000		
Petro Star Inc			
Valdez, Alaska	55,000		
North Pole, Alaska	21,000		
PLACID OIL CO			
Placid Refining Co			
Port Allen, Louisiana	75,000		
RED APPLE GROUP INC			
United Refining Co			
Warren, Pennsylvania	65,000		
HUNT CONSLD INC	61,000		
Hunt Refining Co			
Tuscaloosa, Alabama	50,000		
Hunt Southland Refining Co			
Sandersville, Mississippi	11,000		
BUCKEYE PARTNERS LP			
Buckeye Texas Processing LLC			

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
STARLIGHT RELATIVITY ACQUISITION CO		Goodway Refining LLC	
The San Antonio Refinery LLC		Atmore, Alabama	4,100
San Antonio, Texas	20,000	FORELAND REFINING CORP	
SILVER EAGLE REFINING INC		Foreland Refining Corp	
Silver Eagle Refining	18,000	Ely, Nevada	2,000
Woods Cross, Utah	15,000	TALLEY ASPHALT PRODUCTS INC	
Evanston, Wyoming	3,000	Talley Asphalt Products Inc	
CONOCOPHILLIPS CO		Kern, California	1,700
ConocoPhillips Alaska Inc		Total.....	30,300
Prudhoe Bay, Alaska	15,000	U.S. Total.....	18,060,369
SAN JOAQUIN REFINING CO INC			
San Joaquin Refining Co Inc			
Bakersfield, California	15,000		
BLUE DOLPHIN ENERGY CO			
Lazarus Energy LLC			
Nixon, Texas	14,000		
AMERICAN REFINING GROUP INC			
American Refining Group Inc			
Bradford, Pennsylvania	11,000		
Total.....	144,000		
Companies with Capacity 10,000 bbl/cd or Less			
WORLD OIL CO			
Lunday Thagard Co			
South Gate, California	8,500		
MARTIN RESOURCE MGMT CORP			
Cross Oil Refining & Marketing Inc			
Smackover, Arkansas	7,500		
HILCORP ENERGY CO			
Hilcorp North Slope LLC			
Prudhoe Bay, Alaska	6,500		
GOODWAY REFINING LLC			

Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2023

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day

a Formerly owned by HollyFrontier Corporation

b Formerly owned by Sinclair Oil Corporation

c Formerly 50% Shell PLC and 50% Pemex

d Formerly owned by Shell Chemical LP

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 6. Operable Crude Oil and Downstream Charge Capacity of Petroleum Refineries

(Thousand Barrels per Stream Day, Except Where Noted)

Year/PAD District	Atmospheric Crude Oil Distillation	Downstream Charge Capacity							
		Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Hydro- Cracking	Catalytic Reforming	Hydrotreating/ Desulfurization	Fuels Solvent Deasphalting
				Fresh	Recycled				
JAN 1, 1994	15,904	6,892	2,107	5,586	191	1,376	3,875	10,616	261
JAN 1, 1995	16,326	7,248	2,123	5,583	169	1,386	3,867	10,916	251
JAN 1, 1997	16,287	7,349	2,050	5,595	155	1,388	3,727	11,041	275
JAN 1, 1999	17,155	7,538	2,046	5,920	153	1,552	3,779	11,461	319
JAN 1, 2000	17,393	7,617	2,163	5,949	99	1,576	3,770	11,440	351
JAN 1, 2001	17,511	7,798	2,277	5,983	86	1,615	3,797	11,673	350
JAN 1, 2002	17,676	7,779	2,329	5,989	80	1,633	3,753	11,845	362
JAN 1, 2003	17,675	7,788	2,377	6,052	79	1,644	3,777	11,987	350
JAN 1, 2004	17,815	7,964	2,435	6,098	87	1,602	3,812	13,501	366
JAN 1, 2005	18,031	8,120	2,491	6,151	87	1,624	3,836	14,087	384
JAN 1, 2006	18,308	8,398	2,540	6,188	87	1,637	3,859	14,808	386
JAN 1, 2007	18,425	8,251	2,564	6,219	82	1,791	3,908	15,447	379
JAN 1, 2008	18,558	8,421	2,606	6,266	79	1,770	3,892	15,807	378
JAN 1, 2009	18,681	8,542	2,639	6,292	79	1,743	3,829	16,131	381
JAN 1, 2010	18,581	8,543	2,632	6,140	92	1,820	3,700	16,023	383
JAN 1, 2011	18,953	8,650	2,672	6,220	96	1,856	3,721	16,683	383
JAN 1, 2012	18,560	8,680	2,763	6,033	85	1,880	3,642	16,565	375
JAN 1, 2013	18,972	8,938	2,877	6,089	84	2,081	3,758	16,860	368
JAN 1, 2014	19,064	8,987	2,959	6,032	76	2,208	3,759	17,095	370
JAN 1, 2015	19,134	8,979	2,975	6,012	76	2,305	3,741	17,324	370
JAN 1, 2016	19,508	9,073	2,983	6,052	76	2,318	3,743	17,483	371
JAN 1, 2017	19,800	9,126	2,994	6,007	76	2,421	3,750	17,621	393
JAN 1, 2018	19,794	9,076	3,023	6,031	77	2,462	3,801	17,697	393
JAN 1, 2019	19,961	9,121	3,046	5,986	62	2,490	3,810	17,795	395
JAN 1, 2020	20,092	9,171	3,069	5,988	62	2,505	3,809	17,926	396
JAN 1, 2021	19,160	8,710	2,994	5,600	58	2,417	3,606	17,191	396
JAN 1, 2022	18,949	8,583	2,960	5,502	49	2,427	3,571	16,996	397
JAN 1, 2023	19,157	8,604	2,962	5,466	49	2,392	3,606	17,099	385
PADD I	931	391	55	305	5	48	183	755	22
PADD II	4,465	1,856	608	1,362	9	362	904	4,197	19
PADD III	10,277	4,696	1,661	2,830	17	1,387	1,844	9,163	259
PADD IV	696	239	76	210	2	37	121	562	6
PADD V	2,788	1,422	562	759	17	558	554	2,423	80
JAN 1, 2024^a	19,447	8,604	3,014	5,466	49	2,409	3,608	17,232	385
PADD I	931	391	55	305	5	48	183	755	22
PADD II	4,465	1,856	608	1,362	9	362	904	4,200	19
PADD III	10,567	4,696	1,713	2,830	17	1,404	1,847	9,293	259
PADD IV	696	239	76	210	2	37	121	562	6
PADD V	2,788	1,422	562	759	17	558	554	2,423	80
2023-2024^a	290	0	52	0	0	17	2	133	0
PADD I	0	0	0	0	0	0	0	0	0
PADD II	0	0	0	0	0	0	0	3	0
PADD III	290	0	52	0	0	17	3	130	0
PADD IV	0	0	0	0	0	0	0	0	0
PADD V	0	0	0	0	0	0	0	0	0

^a Projected data from refiners.

Notes:

NA = Not available.

Totals may not equal sum of components due to independent rounding.

The EIA-820 refinery capacity survey was not conducted for January 1, 1996 or January 1, 1998.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 7. Operable Production Capacity of Petroleum Refineries
(Thousand Barrels per Stream Day, Except Where Noted)

Year/PAD District	Production Capacity							
	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen ^a (MMcfd)	Sulfur (short tons/day)
JAN 1, 1994	1,086	278	793	499	213	410	2,940	24,554
JAN 1, 1995	1,105	285	846	502	217	427	3,139	24,885
JAN 1, 1997	1,120	288	872	577	244	458	3,052	26,466
JAN 1, 1999	1,172	302	846	667	233	441	3,104	26,423
JAN 1, 2000	1,185	315	886	643	218	464	3,143	26,645
JAN 1, 2001	1,191	318	900	654	214	538	3,230	27,446
JAN 1, 2002	1,181	313	917	658	218	548	3,244	29,107
JAN 1, 2003	1,191	316	873	679	216	646	3,265	29,766
JAN 1, 2004	1,205	322	887	688	210	672	3,258	30,606
JAN 1, 2005	1,229	318	881	703	217	696	2,965	31,004
JAN 1, 2006	1,238	319	893	708	220	709	2,823	32,421
JAN 1, 2007	1,227	306	877	739	234	722	3,100	33,021
JAN 1, 2008	1,261	285	858	727	249	735	3,109	33,487
JAN 1, 2009	1,261	299	847	736	230	762	2,914	33,500
JAN 1, 2010	1,249	271	844	715	240	760	2,985	34,058
JAN 1, 2011	1,262	297	828	703	243	778	3,082	35,483
JAN 1, 2012	1,247	297	796	688	242	823	3,215	36,663
JAN 1, 2013	1,269	318	741	737	241	867	3,047	39,478
JAN 1, 2014	1,266	297	744	739	240	883	3,094	41,375
JAN 1, 2015	1,267	316	710	757	265	887	3,102	41,266
JAN 1, 2016	1,286	323	733	755	273	889	2,997	41,343
JAN 1, 2017	1,300	324	726	749	261	898	3,009	41,766
JAN 1, 2018	1,316	324	659	743	262	896	3,037	41,419
JAN 1, 2019	1,337	332	645	740	263	903	3,073	41,639
JAN 1, 2020	1,349	332	651	772	261	909	3,126	41,917
JAN 1, 2021	1,314	327	642	744	264	894	2,893	40,578
JAN 1, 2022	1,294	312	690	758	264	883	2,893	40,453
JAN 1, 2023	1,302	291	659	768	264	883	2,875	40,437
PADD I	48	5	45	19	21	14	109	1,074
PADD II	306	113	275	168	10	194	623	8,732
PADD III	667	172	228	336	193	490	747	24,125
PADD IV	45	0	62	16	0	24	208	910
PADD V	236	2	49	228	40	161	1,188	5,596
JAN 1, 2024^b	1,302	291	659	791	264	897	2,875	40,892
PADD I	48	5	45	19	21	14	109	1,074
PADD II	306	113	275	168	10	194	623	8,732
PADD III	667	172	228	359	193	505	747	24,580
PADD IV	45	0	62	16	0	24	208	910
PADD V	236	2	49	228	40	161	1,188	5,596
2023-2024^b	0	0	0	23	0	14	0	455
PADD I	0	0	0	0	0	0	0	0
PADD II	0	0	0	0	0	0	0	0
PADD III	0	0	0	23	0	15	0	455
PADD IV	0	0	0	0	0	0	0	0
PADD V	0	0	0	0	0	0	0	0

^a Includes hydrogen production capacity of hydrogen plants on refinery grounds and operated by the refinery operator.

^b Projected data from refiners.

Notes:

NA = Not available. MMcfd = Million cubic feet per day.

Totals may not equal sum of components due to independent rounding.

The EIA-820 refinery capacity survey was not conducted for January 1, 1996 or January 1, 1998.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 8. Capacity and Fresh Feed Input to Selected Downstream Units at U.S. Refineries, 2021 - 2023
(Barrels per Calendar Day)

Year/PAD District	Cokers		Catalytic Crackers		Hydrocrackers		Reformers	
	Capacity	Inputs	Capacity	Inputs	Capacity	Inputs	Capacity	Inputs
2021	2,702,906	2,138,433	5,189,568	4,328,104	2,219,689	1,818,767	3,320,353	2,592,342
PADD I	49,100	33,838	277,300	252,899	43,100	40,663	135,550	113,729
PADD II	547,335	464,592	1,252,514	1,083,173	345,320	295,729	834,820	664,995
PADD III	1,534,221	1,198,468	2,756,954	2,251,573	1,280,677	1,017,751	1,734,645	1,343,422
PADD IV	68,550	54,603	194,800	153,142	53,092	27,173	111,500	92,425
PADD V	503,700	386,932	708,000	587,318	497,500	437,452	503,838	377,773
2022	2,673,997	2,262,575	5,089,089	4,365,696	2,237,826	1,846,526	3,285,715	2,724,740
PADD I	49,100	37,430	277,300	249,384	43,100	39,836	135,550	119,671
PADD II	551,924	476,515	1,250,820	1,056,071	342,020	286,545	832,719	675,310
PADD III	1,512,723	1,306,296	2,657,004	2,302,981	1,293,154	1,056,351	1,704,105	1,464,992
PADD IV	68,550	47,038	195,965	158,277	53,092	21,882	111,750	92,885
PADD V	491,700	395,296	708,000	598,984	506,460	441,912	501,591	371,882
2023	2,675,408	NA	5,063,828	NA	2,211,475	NA	3,323,502	NA
PADD I	49,100	NA	277,300	NA	44,100	NA	164,050	NA
PADD II	552,714	NA	1,257,319	NA	332,195	NA	833,344	NA
PADD III	1,503,074	NA	2,623,764	NA	1,295,488	NA	1,706,300	NA
PADD IV	70,270	NA	197,445	NA	35,092	NA	111,700	NA
PADD V	500,250	NA	708,000	NA	504,600	NA	508,108	NA

NA = Not Available.

Note: Capacities are as of January 1 of the indicated year.

Sources: Capacities are from the Energy Information Administration (EIA) Form EIA-820, "Annual Refinery Report."

Inputs are from the form EIA-810, "Monthly Refinery Report." Year 2021 data are final, 2022 data are preliminary.

Table 9. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 2022^a

(Thousand Barrels)

Method	PAD Districts					United States
	I	II	III	IV	V	
Pipeline	22,982	1,385,701	2,679,632	178,112	250,053	4,516,480
Domestic	2,179	743,576	2,250,954	88,733	142,032	3,227,474
Foreign	20,803	642,125	428,678	89,379	108,021	1,289,006
Tanker	231,077	0	387,887	0	473,778	1,092,742
Domestic	31,816	0	22,668	0	168,535	223,019
Foreign	199,261	0	365,219	0	305,243	869,723
Barge	3,824	10,623	134,588	0	34,373	183,408
Domestic	3,824	10,623	112,778	0	1,109	128,334
Foreign	0	0	21,810	0	33,264	55,074
Tank Cars (Rail)	11,790	0	12,216	0	32,632	56,638
Domestic	2,376	0	1,491	0	24,580	28,447
Foreign	9,414	0	10,725	0	8,052	28,191
Trucks	2,476	2,286	51,582	33,340	7,298	96,982
Domestic	2,354	2,286	51,582	33,340	7,258	96,820
Foreign	122	0	0	0	40	162
Total	272,149	1,398,610	3,265,905	211,452	798,134	5,946,250
Domestic	42,549	756,485	2,439,473	122,073	343,514	3,704,094
Foreign	229,600	642,125	826,432	89,379	454,620	2,242,156

^a

Receipts are reported by the last method of transportation used if the distance traveled is greater than 100 miles. If several methods are used and none are greater than 100 miles, the method which represents the greatest distance traveled is reported. For example, if crude oil traveled by rail for 1,500 miles and then by barge for 120 miles, then the reported mode of transportation would be barge rather than rail.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 10a. Fuel Consumed at Refineries by PAD District, 2022
(Thousand Barrels, Except Where Noted)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Crude Oil	0	0	0	0	0	0
Hydrocarbon Gas Liquids	0	494	329	0	918	1,741
Distillate Fuel Oil	0	33	126	4	94	257
Residual Fuel Oil	5	36	1	0	0	42
Still Gas	10,701	52,155	109,969	8,339	43,129	224,293
Marketable Petroleum Coke	0	0	0	205	0	205
Catalyst Petroleum Coke	5,152	17,129	36,910	2,517	10,666	72,374
Natural Gas (million cubic feet)	51,793	176,104	587,274	27,807	200,651	1,043,629
Coal (thousand short tons)	0	0	0	0	0	0
Purchased Electricity (million kWh)	1,828	12,900	22,470	2,337	3,695	43,230
Purchased Steam (million pounds)	6,512	13,260	72,034	1,085	3,766	96,657
Other Products ^a	0	12	539	324	552	1,427

Note: Includes volumes used as fuel at refineries and all nonprocessing losses of crude oil and petroleum products (e.g., spills, fire losses, contamination, etc.)

^a Includes other hydrocarbons, hydrogen, unfinished oils, gasoline, special naphthas, jet fuel, lubricants, asphalt and road oil, and miscellaneous products.

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report," and Form EIA-810, "Monthly Refinery Report."

Table 10b. Natural Gas Used as Feedstock for Hydrogen Production at Refineries by PAD District, 2022
(Million Cubic Feet)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Natural Gas Used As Feedstock For Hydrogen Production	6,202	50,913	53,291	17,032	43,634	171,072

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report".

Table 11. New, Shutdown and Reactivated Refineries During 2022

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd) ^a	Total Downstream Charge Capacity (bbl/sd) ^b	Date Operable	Date of Last Operation	Date Shutdown
SHUTDOWN						
PAD District V		9,500				
California Asphalt Production Inc	Santa Maria, CA	9,500			04/21	01/22
PAD District VI		176,400	480,000			
Port Hamilton Refg & Transp Llp	Kingshill, VI	176,400	480,000		05/21	08/22

^a bbl/cd=Barrels per calendar day.

^b bbl/sd=Barrels per stream day.

Table 12. Refinery Sales from January 2, 2022 to January 1, 2023

Former Corporation/Refiner	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	New Corporation/Refiner	Date of Sale
Limetree Bay Ventures LLC/Limetree Bay Refining Kingshill, VI	176,400	Port Hamilton Refining and Transportation LLLP/Port Hamilton Refining and Transportation LLLP	1/22
Deer Park Refining LP/Deer Park Refining LP Deer Park, TX	312,500	PEMEX/Deer Park Refining LP	2/22
Shell PLC/Shell Chemical LP Saraland, AL	87,500	Vertex Energy/Vertex Refining Alabama LLC	2/22
HollyFrontier Corp/HollyFrontier El Dorado Refining LLC El Dorado, KS	162,000	HF Sinclair Corp/El Dorado Refining LLC	3/22
HollyFrontier Corp/HollyFrontier Navajo Refining LLC Artesia, NM	110,000	HF Sinclair Corp/Navajo Refining LLC	3/22
HollyFrontier Corp/HollyFrontier Puget Sound Refining LLC Anacortes, WA	145,000	HF Sinclair Corp/Puget Sound Refining LLC	3/22
HollyFrontier Corp/HollyFrontier Tulsa Refining LLC Tulsa (East), OK Tulsa (West), OK	85,000 70,300	HF Sinclair Corp/Tulsa Refining LLC	3/22
HollyFrontier Corp/HollyFrontier Woods Cross Refining LLC Woods Cross, UT	39,330	HF Sinclair Corp/Woods Cross Refining LLC	3/22
Sinclair Oil Corp/Sinclair Casper Refining CO Evansville, WY	29,850	HF Sinclair Corp/Sinclair Casper Refining CO	3/22
Sinclair Oil Corp/Sinclair Wyoming Refining CO Sinclair, WY	75,000	HF Sinclair Corp/Sinclair Wyoming Refining CO	3/22

bbl/cd= Barrels per calendar day

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and Form EIA-820, "Annual Refinery Report."

Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2023

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
PAD District I		979,450	1,662,600		
Primary Energy Corp	Richmond, VA	6,100	0	a	
GNC Energy Corp	Greensboro, NC	3,000	0	a	
Saint Mary's Refining Co	Saint Mary's, WV	4,000	4,480	02/93	03/93
Cibro Refining	Albany, NY	41,850	27,000	07/93	09/93
Calumet Lubricants Co LP	Rouseville, PA	12,800	26,820	03/00	06/00
Young Refining Corp.	Douglasville, GA	5,400	0	07/04	07/04
Sunoco Inc	Westville, NJ	145,000	263,000	11/09	02/10
Western Refining Yorktown Inc	Yorktown, VA	66,300	182,600	09/11	12/11
Sunoco Inc	Marcus Hook, PA	178,000	278,000	12/11	12/11
Chevron USA Inc	Perth Amboy, NJ	80,000	47,000	03/08	07/12
Hess Corporation	Port Reading, NJ	0	115,000	02/13	03/13
Axon Specialty Products LLC	Savannah, GA	28,000	0	09/12	12/14
Axon Specialty Products LLC	Paulsboro, NJ	74,000	32,000	04/17	06/17
Philadelphia Energy Solutions	Philadelphia, PA	335,000	686,700	a	
PAD District II		496,815	670,790		
Coastal Refining & Mktg	El Dorado, KS	0	20,000	b	
Intercoastal Energy Svcs Corp	Troy, IN	1,250	2,250	11/90	03/91
Farmland Industries	Philipsburg, KS	26,400	22,800	12/91	07/92
Coastal Refining & Mktg	Wichita, KS	28,800	41,300	05/93	06/93
Coastal Refining & Mktg	Augusta, KS	0	21,000	06/93	06/93
Crystal Refining	Carson City, MI	3,000	0	10/92	09/93
Marathon	Indianapolis, IN	50,000	68,000	09/93	10/93
Indian Refining	Lawrenceville, IL	80,750	103,000	09/95	10/95
Cyril Petrochemical Corp	Cyril, OK	7,500	0	09/95	12/95
Laketon Refining	Laketon, IN	11,100	0	06/95	01/96
Total Petroleum, Inc.	Arkansas City, KS	56,000	74,840	08/96	09/96
TPI Petro Inc.	Alma, MI	51,000	63,300	11/99	12/99
Premcor Refining Group	Blue Island, IL	80,515	124,500	01/01	04/01
Premcor Refining Group	Hartford, IL	64,000	116,700	09/02	10/02
Ventura Refining & Transmission LLC	Thomas, OK	12,000	0	10/10	11/14
Continental Refining Company LLC	Somerset, KY	5,500	3,600	02/18	12/19
Dakota Prairie Refining LLC	Dickinson, ND	19,000	9,500	d	

Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2023

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
PAD District III		838,226	1,447,640		
Imron Refining, Inc.	San Leon, TX	7,000	0	c	
Eagle Refining	Jackson, TX	1,800	1,800	01/90	10/90
Vulcan Refining	Cordova, AL	9,500	5,000	09/90	12/90
Sabine Resources	Stonewall, LA	12,000	0	c	
Rattlesnake Refining	Wickett, TX	8,000	10,400	02/92	03/92
Longview Refining Assoc	Longview, TX	13,300	13,800	08/92	09/92
Thriftway Co	Bloomfield, NM	4,000	3,250	01/92	10/92
El Paso Refining	El Paso, TX	50,000	76,000	10/92	12/92
Dubach Gas	Dubach, LA	8,500	3,000	12/93	12/93
Amerada Hess	Purvis, MS	30,000	50,500	01/94	02/94
Barrett Refg Corp	Vicksburg, MS	8,000	0	06/95	01/96
Arcadia Refining & Mktg	Lisbon, LA	7,350	6,700	01/96	02/96
Canal Refg Co.	Chuch Point, LA	9,500	2,100	07/95	09/97
Gold Line Refining LTD	Jennings, LA	12,000	0	07/97	01/98
Petrolite Corp	Kilgore, TX	600	750	12/97	02/98
Pride Refining Inc.	Abilene, TX	42,750	40,500	05/98	04/98
Shell Oil Co	Odessa, TX	28,300	33,500	10/98	11/98
Berry Petroleum Co.	Stephens, AR	6,700	3,700	07/99	02/00
Dow Haltermann Products	Channelview, TX	880	0	09/04	12/05
Hunt Southland Refining Co	Lumberton, MS	5,800	0	03/05	12/06
Gulf Atlantic Operations LLC	Mobile, AL	16,700	15,400	03/06	09/07
Western Refining Southwest Inc	Bloomfield, NM	16,800	19,500	12/09	11/12
Trigeant LTD	Corpus Christi, TX	0	29,000	12/13	12/14
Pelican Refining Company LLC	Lake Charles, LA	0	12,000	12/14	01/15
Shell Oil Products US	Saint Rose, LA	45,000	25,000	01/18	01/18
Western Refining Southwest Inc	Gallup, NM	27,000	37,500	04/20	09/20
Shell Oil Products US	Convent, LA	211,146	574,900	12/20	01/21
Phillips 66 Company	Belle Chasse, LA	255,600	483,340	a	

Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2023

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
PAD District IV		109,800	188,100		
Amoco Oil Co.	Casper, WY	40,000	44,900	12/91	12/91
Landmark Refining	Fruita, CO	10,000	25,900	01/92	11/93
Pennzoil Producing Co.	Roosevelt, UT	8,000	12,900	09/94	10/94
Antelope Refining LLC	Douglas, WY	3,800	0	02/15	12/16
HollyFrontier Cheyenne Refining LLC	Cheyenne, WY	48,000	104,400	d	
PAD District V		665,360	1,037,750		
Gibson Oil & Refining	Bakersfield, CA	9,600	0	07/87	12/90
Chevron USA Inc	Kenai, AK	22,000	0	06/91	07/91
Anchor Refining Co.	McKittrick, CA	10,000	6,000	06/91	08/91
Golden West	Santa Fe Springs, CA	47,000	94,300	02/92	03/92
Eco Asphalt Inc.	Long Beach, CA	10,550	7,000	c	
Fletcher Oil & Refining	Carson, CA	29,675	48,100	09/92	10/92
Sunbelt Refining	Coolidge, AZ	10,000	7,000	08/93	09/93
Chemoil Refining Corp	Long Beach, CA	18,000	0	02/94	04/94
Powerine Oil Co.	Santa Fe Springs, CA	46,500	100,300	06/95	09/95
Sunland Refining Corp.	Bakersfield, CA	12,000	2,650	03/95	12/95
Intermountain Refining Co.	Fredonia, AZ	3,800	2,000	01/94	05/96
Pacific Refining Co.	Hercules, CA	50,000	62,400	07/95	09/97
Sound Refining Inc	Tacoma, WA	11,900	6,000	10/98	12/98
Chevron USA Inc.	Richmond Beach, WA	0	6,200	05/00	06/00
Foreland Refining Corp.	Tonopah, NV	0	3,000	02/01	01/02
Tricor Refining LLC	Bakersfield, CA	0	14,400	07/01	01/02
Paramount Petroleum Corporation	Portland, OR	0	10,000	11/06	12/08
Tenby Inc	Oxnard, CA	2,800	0	12/11	12/11
Flint Hills Resources LP	North Pole, AK	126,535	5,500	a	
Alon Bakersfield Operating Inc	Bakersfield, CA	0	52,000	12/08	09/17
Paramount Petroleum Corporation	Paramount, CA	84,500	78,500	d	
Tesoro Refining & Marketing Co	Martinez, CA	161,000	532,400	d	
California Asphalt Production Inc	Santa Maria, CA	9,500		04/21	01/22
U.S. Total		3,089,651	5,006,880		

Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2023

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
PAD District VI		380,700	807,200		
Arochem International	Ponce, PR	75,600	37,000	12/91	12/92
Peerless Oil & Chemical	Ponce, PR	8,800	45,200	09/94	12/94
Chevron Phillips Chem	Guayama, PR	0	93,200	03/01	01/02
Caribbean Petroleum Corp	San Juan, PR	42,000	60,500	12/00	01/05
Shell Chem Yabucoa Inc	Yabucoa, PR	77,900	91,300	10/08	12/09
Port Hamilton Refg & Transp Lllp	Kingshill, VI	176,400	480,000	05/21	08/22

a. Facility in operation as other than a refinery since it no longer processes crude oil or unfinished oils.

b. Facility maintained asphalt production capacity until September, 2004.

c. Never Operated

d. Converted to a renewable diesel plant

bbl/cd=Barrels per calendar day

bbl/sd=Barrels per stream day.

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and Form EIA-820, "Annual Refinery Report."

Explanatory Notes

Survey Methodology

Description of Survey Form

The Form EIA-820, “Annual Refinery Report,” is the primary source of data in the “Refinery Capacity Report” tables. The form collects data on the consumption of purchased steam, electricity, coal, and natural gas; refinery receipts of crude oil by method of transportation; operable capacity for atmospheric crude oil distillation units and downstream units; and production capacity for selected petroleum products.

Frame

The respondent frame consists of all operating and idle petroleum refineries, located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. As of January 1, 2023 there were 129 refineries.

The respondent frame is maintained by monitoring the monthly Form EIA-810, “Monthly Refinery Report,” and industry publications for changes and developments in the petroleum industry such as refinery sales, mergers and new operations.

Collection

The Form EIA-820 is sent to respondents in January. Survey forms can be submitted by secure file transfer. Completed forms are required to be submitted by the 15th day of February of the current report year. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to secure responses from those companies failing to report by February 15th.

Processing and Micro Editing

Upon receipt, all reported data are transformed into a standard format and sent through a log-in and prescreening process to validate respondent control information and resolve any discrepancies. The data are then processed using generalized edit and imputation procedures. Automated editing procedures check current data for consistency with past data and for internal consistency (e.g., totals equal to the sums of the parts).

After the edit failures are resolved and imputation performed for nonrespondents, preliminary tables are produced and used to identify anomalies. Anomalies result in further review of respondent data which in turn may result in additional flagged data and imputation.

Imputation and Estimation

Imputation is performed for companies that fail to file prior to the publication deadline. When nonresponse occurs, values for these companies are imputed from data reported on the most recent year’s Form EIA-820 and/or from data reported on Form EIA-810, “Monthly Refinery Report,” for that company. For most surveyed items, the value imputed for nonrespondents is the value that the company reported on the Form EIA-820 for the most recent year. For two categories of information however, the imputed value is also based on their data from the Form EIA-810 as follows:

Part 4: Refinery Receipts of Crude Oil by Method of Transportation

The imputation methodology for this section is based on data reported on both the monthly Form EIA-810 and the annual Form EIA-820. Annual refinery receipts of domestic and foreign crude oil for a nonrespondent are imputed by aggregating the values for the refinery on the monthly survey. These values are allocated to the method of transportation by using the percentages reported for the refinery in the previous year.

Part 5: Atmospheric Crude Oil Distillation Capacity

Operable atmospheric crude oil distillation capacity in barrels per calendar day is collected on the monthly Form EIA-810 as of the first day of each month and on the annual Form EIA-820 as of January 1. As part of the editing process for the Form EIA-820, these two values are compared. Companies are contacted and any discrepancies are resolved by the time of publication. Imputed values for operable atmospheric crude oil distillation capacity in barrels per calendar day are taken directly from the January Form EIA-810. A barrel per stream day capacity is then derived by dividing the reported barrels per calendar day capacity by .95.

Parts 6 and 7: Downstream Charge Capacity and Production Capacity

Current year and projected year data for downstream charge capacity and production capacity are taken directly from the previous year's annual report.

Macro Editing

A comparison of the data collected on the EIA-820 with other similar data series and industry trade journals is performed each year.

Dissemination

Prior to 2006, the data collected on Form EIA-820, "Annual Refinery Report," was published in the *Petroleum Supply Annual, Volume 1*. Beginning with data for 2006, the Form EIA-820 data are published as a standalone product in the EIA publication "Refinery Capacity Report." This report contains statistics on consumption of purchased steam, electricity, coal, and natural gas; refinery receipts of crude oil by method of transportation; current and projected capacities for atmospheric crude oil distillation, downstream charge and production capacities. The data are also published in the *Annual Energy Review*. The "Refinery Capacity Report" can be found at:

<https://www.eia.gov/petroleum/refinerycapacity/>

Additional Sources of Data

The Form EIA-820, "Annual Refinery Report," is the primary source of data in the "Refinery Capacity Report" tables. In addition, some data collected on the Form EIA-810, "Monthly Refinery Report," are included.

Quality

Response Rates

The response rate for the Form EIA-820 is normally 100 percent.

Non-sampling Errors

There are two types of errors usually associated with data produced from a survey -sampling errors and nonsampling errors. Because estimates from the Form

EIA-820 survey are based on a complete census of the frame of petroleum refineries, there is no sampling error in the data presented in this report. The data, however, are subject to nonsampling errors. Nonsampling errors are those which can arise from: (1) the inability to obtain data from all companies in the frame or sample (nonresponse) and the method used to account for nonresponses; (2) definitional difficulties and/or improperly worded questions which lead to different interpretations; (3) mistakes in recording or coding the data obtained from respondents; and (4) other errors of collection, response, coverage, and estimation. Quality control procedures are employed in the collection and editing operations to minimize misrepresentation and misreporting. Nonresponse follow-up procedures are employed to reduce the number of nonrespondents, and procedures employed to impute missing data, introduce a minimal amount of error, given the relatively small volume of imputed data.

Resubmissions

EIA-820 resubmissions are required whenever an error greater than 5 percent of the true value is discovered. In the event of a reporting error, company reports are updated after contact with the company and are followed up by corrected report resubmissions.

Revision Policy

The "Refinery Capacity Report" reflects EIA's final data on refinery capacity and will be revised only if, in EIA's judgment, a revision is expected to substantively affect understanding of the U.S. refinery capacity.

Confidentiality

Information on operable atmospheric crude oil distillation capacity, downstream charge capacity, and production capacity reported on Parts 5, 6, and 7 of Form EIA-820 are not considered confidential and are published in the "Refinery Capacity Report." All other information reported on Form EIA-820 (i.e. Parts 3 and 4 and respondent information) will be protected and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the General Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Company specific data are also provided to other DOE offices for the purpose of examining specific petroleum operations in the context of emergency response planning and actual emergencies.

Disclosure limitation procedures are not applied to the statistical data published from this survey's information. Thus, there may be some statistics that are based on data from fewer than three respondents, or that are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable person to estimate the information reported by a specific respondent.

Refinery Capacity History

Refinery capacity data collection was begun in 1918 by the Bureau of Mines, then in the Department of Commerce, and was operated on a voluntary basis until 1980. In 1980, the mandatory Energy Information Administration (EIA) Form EIA-177, "Capacity of Petroleum Refineries," was implemented. Information on refining capacity was expanded to include not only current year operations, but two-year projections, and refinery input/production data. Working storage capacity data was also added to the form and product categories were added for total coverage. Information on refinery downstream facilities was expanded to include a breakdown of thermal operations and to add vacuum distillation, catalytic hydrorefining and hydrotreating. Production capacity was also added to include information on isomerization, alkylation, aromatics, asphalt/road oil, coking, lubricants and hydrogen.

In 1983, the form was revised to improve the consistency and quality of the data collected by the EIA and redesignated as Form EIA-820, "Annual Refinery

Report." Two sections for data previously reported monthly were added: (1) refinery receipts of crude oil by method of transportation, and (2) fuels consumed for all purposes at refineries. Also, the second year projections on refining capacity were eliminated. As a result of a study conducted by the EIA evaluating motor gasoline data collected by the Federal Highway Administration (FHWA) and by the EIA, motor gasoline blending plants were included for the first time in the respondent frame in order to produce more accurate statistics on the production of motor gasoline.

In 1987, the form was revised to reduce respondent burden and to better reflect current refinery operations through updated terminology. Information on projected input/production of refinery processing facilities was deleted. Several categories under catalytic hydrotreating were combined: naphtha and reformer feeds were combined into a single category as well as residual fuel oil and "other." Thermal cracking types, gas oil and "other" were also combined into a single category. Catalytic reforming types, conventional and bi-metallic were replaced with low and high pressure processing units. Two new categories were added: fuels solvent deasphalting was added to downstream charge capacity and sulfur recovery was added to production capacity.

In 1994, the form was revised to enable EIA to calculate utilization rates for certain downstream processing units and to reflect storage capacity of fuels mandated by the Clean Air Act Amendments of 1990. Additions to the form included calendar day downstream charge capacity for fluid and delayed coking, catalytic cracking, and catalytic hydrocracking. Also storage capacity categories for reformulated, oxygenated, and other finished motor gasoline were added, as well as oxygenate storage capacity and separate categories for high and low sulfur distillate fuel oil.

In 1995, motor gasoline blending plants were dropped from the survey frame, since by this time, the only section of the form that applied to them was working and shell storage capacity. Also in 1995, a decision was made to no longer collect storage capacity from shutdown refineries; therefore, these refineries were also eliminated from the survey frame.

In 1996, the survey was moved to a biennial schedule (every other year) and was renamed "Biennial Refinery Report." The survey was not conducted for January 1, 1996 or January 1, 1998. Respondents were not required

to submit data for crude oil and petroleum products consumed at refineries during 1995 and 1997. These data are available from the Form EIA-810, "Monthly Refinery Report." The requirement to submit data for refinery consumption of natural gas, coal, and purchased steam and electricity on the Form EIA-820 remained.

In 2000, the survey was moved to an annual schedule.

In 2004, the survey form was amended to reflect the increasing emphasis on the removal of sulfur from transportation fuels.

In 2009, natural gas used as feedstock for hydrogen plant production was added to the form. Also, isooctane production capacity was added.

In 2010, the survey form was amended to reflect the increasing use of bio-fuels. Storage capacities of biomass-based diesel fuel, other renewable diesel fuel and other renewable fuels were added to the form. Also, barrels per calendar day capacity of the catalytic reformer was added; previously this was only collected on a stream day basis.

In 2011, storage capacity data was removed from the form. Storage capacity is now being collected as of March 31 on the Form EIA-810, "Monthly Refinery Report."