



*Independent Statistics & Analysis*  
U.S. Energy Information  
Administration

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# Refinery Capacity Report

June 2016

With Data as of January 1, 2016



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**Table 1. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2016**

PAD District and State	Number of Operable Refineries			Atmospheric Crude Oil Distillation Capacity					
				Barrels per Calendar Day			Barrels per Stream Day		
	Total	Operating	Idle <sup>a</sup>	Total	Operating	Idle <sup>b</sup>	Total	Operating	Idle <sup>b</sup>
<b>PAD District I</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>1,277,500</b>	<b>1,245,500</b>	<b>32,000</b>	<b>1,353,000</b>	<b>1,318,000</b>	<b>35,000</b>
Delaware.....	1	1	0	182,200	182,200	0	190,200	190,200	0
New Jersey.....	3	3	0	472,000	440,000	32,000	495,000	460,000	35,000
Pennsylvania.....	4	4	0	601,000	601,000	0	644,800	644,800	0
West Virginia.....	1	1	0	22,300	22,300	0	23,000	23,000	0
<b>PAD District II</b>	<b>27</b>	<b>27</b>	<b>0</b>	<b>3,922,200</b>	<b>3,900,200</b>	<b>22,000</b>	<b>4,220,947</b>	<b>4,197,947</b>	<b>23,000</b>
Illinois.....	4	4	0	962,540	940,540	22,000	1,023,200	1,000,200	23,000
Indiana.....	2	2	0	440,600	440,600	0	458,800	458,800	0
Kansas.....	3	3	0	339,000	339,000	0	355,000	355,000	0
Kentucky.....	2	2	0	278,500	278,500	0	298,300	298,300	0
Michigan.....	1	1	0	132,000	132,000	0	144,000	144,000	0
Minnesota.....	2	2	0	378,900	378,900	0	436,800	436,800	0
North Dakota.....	2	2	0	93,360	93,360	0	94,600	94,600	0
Ohio.....	4	4	0	558,000	558,000	0	618,000	618,000	0
Oklahoma.....	5	5	0	511,300	511,300	0	547,247	547,247	0
Tennessee.....	1	1	0	190,000	190,000	0	195,000	195,000	0
Wisconsin.....	1	1	0	38,000	38,000	0	50,000	50,000	0
<b>PAD District III</b>	<b>57</b>	<b>57</b>	<b>0</b>	<b>9,514,745</b>	<b>9,514,745</b>	<b>0</b>	<b>10,117,755</b>	<b>10,117,755</b>	<b>0</b>
Alabama.....	3	3	0	131,675	131,675	0	140,500	140,500	0
Arkansas.....	2	2	0	90,500	90,500	0	92,700	92,700	0
Louisiana.....	18	18	0	3,348,820	3,348,820	0	3,504,355	3,504,355	0
Mississippi.....	3	3	0	364,000	364,000	0	397,500	397,500	0
New Mexico.....	2	2	0	127,500	127,500	0	141,000	141,000	0
Texas.....	29	29	0	5,452,250	5,452,250	0	5,841,700	5,841,700	0
<b>PAD District IV</b>	<b>17</b>	<b>16</b>	<b>1</b>	<b>678,550</b>	<b>665,150</b>	<b>13,400</b>	<b>719,900</b>	<b>705,400</b>	<b>14,500</b>
Colorado.....	2	2	0	103,000	103,000	0	110,500	110,500	0
Montana.....	4	4	0	213,200	203,600	9,600	222,400	212,400	10,000
Utah.....	5	5	0	181,050	181,050	0	193,100	193,100	0
Wyoming.....	6	5	1	181,300	177,500	3,800	193,900	189,400	4,500
<b>PAD District V</b>	<b>31</b>	<b>30</b>	<b>1</b>	<b>2,924,041</b>	<b>2,839,541</b>	<b>84,500</b>	<b>3,096,000</b>	<b>3,006,000</b>	<b>90,000</b>
Alaska.....	5	5	0	158,700	158,700	0	183,500	183,500	0
California.....	18	17	1	1,982,141	1,897,641	84,500	2,096,000	2,006,000	90,000
Hawaii.....	2	2	0	147,500	147,500	0	152,000	152,000	0
Nevada.....	1	1	0	2,000	2,000	0	5,000	5,000	0
Washington.....	5	5	0	633,700	633,700	0	659,500	659,500	0
<b>U.S. Total</b>	<b>141</b>	<b>139</b>	<b>2</b>	<b>18,317,036</b>	<b>18,165,136</b>	<b>151,900</b>	<b>19,507,602</b>	<b>19,345,102</b>	<b>162,500</b>

**Table 1. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2016**

PAD District and State	Downstream Charge Capacity (Barrels per Stream Day)							Fuels Solvent Deasphalting
	Vacuum Distillation	Thermal Cracking	Catalytic Cracking		Catalytic Hydro- Cracking	Catalytic Reforming	Hydrotreating/ Desulfurization	
			Fresh	Recycled				
<b>PAD District I</b>	<b>586,400</b>	<b>81,500</b>	<b>498,500</b>	<b>5,000</b>	<b>45,300</b>	<b>263,950</b>	<b>1,029,500</b>	<b>22,000</b>
Delaware	104,600	54,500	82,000	4,000	22,300	43,800	150,500	0
New Jersey	197,000	27,000	200,000	0	0	64,000	335,100	22,000
Pennsylvania	276,200	0	216,500	1,000	23,000	152,200	524,300	0
West Virginia	8,600	0	0	0	0	3,950	19,600	0
<b>PAD District II</b>	<b>1,774,854</b>	<b>577,185</b>	<b>1,339,113</b>	<b>15,800</b>	<b>322,200</b>	<b>892,693</b>	<b>3,866,599</b>	<b>17,850</b>
Illinois	471,900	212,800	324,300	0	92,000	247,700	936,650	0
Indiana	277,900	102,000	183,200	7,200	0	71,500	469,000	0
Kansas	148,000	69,000	104,000	500	38,500	81,000	369,700	0
Kentucky	122,000	0	104,000	0	0	53,800	271,150	13,000
Michigan	77,500	30,000	40,000	0	0	21,500	130,000	0
Minnesota	278,000	67,000	115,500	2,500	50,000	75,300	425,100	0
North Dakota	0	0	27,000	3,600	0	12,500	51,100	0
Ohio	159,500	58,000	208,300	0	83,000	170,300	515,400	0
Oklahoma	219,554	38,385	151,813	2,000	32,200	115,093	536,799	4,850
Tennessee	0	0	70,000	0	26,500	36,000	129,000	0
Wisconsin	20,500	0	11,000	0	0	8,000	32,700	0
<b>PAD District III</b>	<b>4,830,325</b>	<b>1,636,180</b>	<b>3,117,850</b>	<b>33,500</b>	<b>1,309,400</b>	<b>1,864,470</b>	<b>9,319,445</b>	<b>244,400</b>
Alabama	47,000	32,000	0	0	18,500	37,300	109,000	0
Arkansas	48,850	0	21,000	0	0	15,300	98,250	7,400
Louisiana	1,761,000	564,100	1,130,900	5,500	477,100	607,490	2,977,940	71,000
Mississippi	338,875	105,000	88,000	0	117,500	95,600	299,300	0
New Mexico	29,600	0	35,500	3,000	0	31,300	152,100	0
Texas	2,605,000	935,080	1,842,450	25,000	696,300	1,077,480	5,682,855	166,000
<b>PAD District IV</b>	<b>255,500</b>	<b>89,800</b>	<b>210,020</b>	<b>4,990</b>	<b>54,800</b>	<b>133,850</b>	<b>592,060</b>	<b>6,000</b>
Colorado	33,500	0	30,000	500	0	21,900	85,000	0
Montana	115,000	47,100	64,660	990	30,200	39,550	217,260	0
Utah	34,500	9,000	61,860	3,000	9,000	36,800	141,400	6,000
Wyoming	72,500	33,700	53,500	500	15,600	35,600	148,400	0
<b>PAD District V</b>	<b>1,626,206</b>	<b>598,600</b>	<b>886,700</b>	<b>16,400</b>	<b>585,900</b>	<b>588,100</b>	<b>2,675,200</b>	<b>80,300</b>
Alaska	26,000	0	0	0	12,500	14,200	24,500	0
California	1,231,756	504,800	716,300	13,400	488,400	422,500	2,166,300	56,000
Hawaii	71,000	11,000	22,000	0	20,000	13,500	16,500	0
Nevada	2,750	0	0	0	0	0	0	0
Washington	294,700	82,800	148,400	3,000	65,000	137,900	467,900	24,300
<b>U.S. Total</b>	<b>9,073,285</b>	<b>2,983,265</b>	<b>6,052,183</b>	<b>75,690</b>	<b>2,317,600</b>	<b>3,743,063</b>	<b>17,482,804</b>	<b>370,550</b>

<sup>a</sup> Refineries where distillation units were completely idle but not permanently shutdown on January 1, 2016.

<sup>b</sup> 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, 2016**

(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 <sup>a</sup> (MMcfd)	Sulfur (short tons/day)
<b>PAD District I</b>	<b>83,429</b>	<b>10,111</b>	<b>92,765</b>	<b>26,500</b>	<b>21,045</b>	<b>21,120</b>	<b>69</b>	<b>1,159</b>
Delaware	11,729	5,191	0	6,000	0	13,620	40	596
New Jersey	29,200	0	70,000	4,000	12,000	7,500	26	280
Pennsylvania	42,500	4,920	22,065	16,500	2,945	0	0	282
West Virginia	0	0	700	0	6,100	0	3	1
<b>PAD District II</b>	<b>280,821</b>	<b>113,200</b>	<b>267,314</b>	<b>167,900</b>	<b>10,000</b>	<b>172,705</b>	<b>582</b>	<b>8,352</b>
Illinois	84,900	17,200	38,100	16,000	0	65,995	202	2,380
Indiana	33,200	16,800	33,700	28,000	0	30,000	0	1,913
Kansas	33,500	0	4,000	32,300	0	20,060	90	712
Kentucky	21,000	3,200	35,400	18,000	0	0	0	448
Michigan	7,000	0	23,000	0	0	10,500	0	459
Minnesota	18,000	0	58,000	28,500	0	22,900	186	1,264
North Dakota	4,830	0	0	0	0	0	2	19
Ohio	28,950	20,000	23,800	31,200	0	14,200	0	683
Oklahoma	35,141	21,000	43,414	13,900	10,000	9,050	72	324
Tennessee	12,700	29,000	0	0	0	0	30	116
Wisconsin	1,600	6,000	7,900	0	0	0	0	34
<b>PAD District III</b>	<b>632,850</b>	<b>198,464</b>	<b>201,225</b>	<b>324,710</b>	<b>202,295</b>	<b>501,241</b>	<b>910</b>	<b>24,820</b>
Alabama	0	0	15,000	5,350	0	7,120	40	228
Arkansas	5,000	0	21,500	7,500	5,500	0	13	157
Louisiana	220,000	49,900	57,000	100,220	66,000	166,057	118	6,773
Mississippi	18,600	21,000	36,125	0	48,000	35,500	243	1,355
New Mexico	10,900	0	7,000	0	0	0	38	202
Texas	378,350	127,564	64,600	211,640	82,795	292,564	458	16,105
<b>PAD District IV</b>	<b>46,250</b>	<b>0</b>	<b>82,350</b>	<b>16,935</b>	<b>0</b>	<b>27,775</b>	<b>177</b>	<b>1,033</b>
Colorado	0	0	12,250	985	0	0	22	116
Montana	17,350	0	44,300	6,750	0	13,575	97	489
Utah	18,900	0	1,800	9,200	0	2,500	0	95
Wyoming	10,000	0	24,000	0	0	11,700	58	333
<b>PAD District V</b>	<b>242,662</b>	<b>1,500</b>	<b>88,933</b>	<b>219,200</b>	<b>39,800</b>	<b>166,650</b>	<b>1,259</b>	<b>5,979</b>
Alaska	0	0	10,000	5,000	0	0	13	27
California	201,562	1,500	48,833	170,200	39,800	143,000	1,088	5,092
Hawaii	5,000	0	15,000	3,200	0	0	21	38
Nevada	0	0	1,600	0	0	0	0	0
Washington	36,100	0	13,500	40,800	0	23,650	137	822
<b>U.S. Total</b>	<b>1,286,012</b>	<b>323,275</b>	<b>732,587</b>	<b>755,245</b>	<b>273,140</b>	<b>889,491</b>	<b>2,997</b>	<b>41,343</b>

<sup>a</sup> Includes hydrogen production capacity of hydrogen plants on refinery grounds.

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 Bakersfield Operating Inc.....		CA Hunt Southland Refining Co.....	MS
Alon Refining Krotz Springs Inc.....		LA Kern Oil & Refining Co.....	CA
Alon USA Energy Inc.....		TX Kinder Morgan Crude & Condensate.....	TX
American Refining Group Inc.....		PA Lazarus Energy LLC.....	TX
Antelope Refining LLC.....		WY Lima Refining Company.....	OH
Axeon Specialty Products LLC.....		NJ Lion Oil Co.....	AR
BP Exploration Alaska Inc.....		AK Little America Refining Co.....	WY
BP Products North America Inc.....		IN Lunday Thagard Co.....	CA
BP West Coast Products LLC.....		WA Marathon Petroleum Co LP.....	IL, KY, LA, MI, OH, TX
BP-Husky Refining LLC.....		OH Monroe Energy LLC.....	PA
Big West Oil Co.....		UT Motiva Enterprises LLC.....	LA, TX
Buckeye Texas Processing LLC.....		TX PDV Midwest Refining LLC.....	IL
CHS McPherson Refinery Inc.....		KS Paramount Petroleum Corporation.....	CA
Calcasieu Refining Co.....		LA Pasadena Refining Systems Inc.....	TX
Calumet Lubricants Co.....		TX Paulsboro Refining Co LLC.....	NJ
Calumet Lubricants Co LP.....		LA, WI Petro Star Inc.....	AK
Calumet Montana Refining LLC.....		MT Petromax Refining Co LLC.....	TX
Calumet Shreveport LLC.....		LA Philadelphia Energy Solutions.....	PA
Cenex Harvest States Coop.....		MT Phillips 66 Company.....	CA, LA, MT, NJ, OK, TX, WA
Chalmette Refining LLC.....		LA Placid Refining Co.....	LA
Chevron USA Inc.....	CA, HI, MS, UT	UT Premcor Refining Group Inc.....	TN, TX
Citgo Petroleum Corp.....		LA San Joaquin Refining Co Inc.....	CA
Citgo Refining & Chemical Inc.....		TX Santa Maria Refining Company.....	CA
Coffeyville Resources Rfg & Mktg.....		KS Shell Chemical LP.....	AL
ConocoPhillips Alaska Inc.....		AK Shell Oil Products US.....	CA, LA, WA
Continental Refining Company LLC.....		KY Silver Eagle Refining.....	UT, WY
Countrymark Cooperative Inc.....		IN Sinclair Wyoming Refining Co.....	WY
Cross Oil Refining & Marketing Inc.....		AR South Hampton Resources Inc.....	TX
Dakota Prairie Refining LLC.....		ND St Paul Park Refining Co LLC.....	MN
Deer Park Refining LTD Partnership.....		TX Suncor Energy (USA) Inc.....	CO
Delaware City Refining Co LLC.....		DE Tesoro Alaska Petroleum Co.....	AK
Delek Refining LTD.....		TX Tesoro Refining & Marketing Co.....	CA
Equistar Chemicals LP.....		TX Tesoro West Coast.....	ND, UT, WA
Ergon Refining Inc.....		MS Toledo Refining Co LLC.....	OH
Ergon West Virginia Inc.....		WV Total Petrochemicals & Refining USA.....	TX
Excel Paralubes.....		LA US Oil & Refining Co.....	WA
ExxonMobil Refining & Supply Co.....	CA, IL, LA, MT, TX	United Refining Co.....	PA
Flint Hills Resources LP.....		MN, TX Valero Energy Corporation.....	LA, TX
Foreland Refining Corp.....		NV Valero Refining Co California.....	CA
Goodway Refining LLC.....		AL Valero Refining Co Oklahoma.....	OK
Hawaii Independent Energy LLC.....		HI Valero Refining Co Texas LP.....	TX
HollyFrontier Cheyenne Refining LLC.....		WY Valero Refining New Orleans LLC.....	LA
HollyFrontier El Dorado Refining LLC.....		KS WRB Refining LP.....	IL, TX
HollyFrontier Navajo Refining LLC.....		NM Western Refining Company LP.....	TX
HollyFrontier Tulsa Refining LLC.....		OK Western Refining Southwest Inc.....	NM
HollyFrontier Woods Cross Refining LLC.....		UT Wynnewood Refining Co.....	OK
Houston Refining LP.....		TX Wyoming Refining Co.....	WY
Hunt Refining Co.....		AL	

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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
<b>Alabama</b> .....	<b>131,675</b>	<b>0</b>	<b>140,500</b>	<b>0</b>	<b>47,000</b>	<b>32,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Goodway Refining LLC									
Atmore .....	4,100	0	5,000	0	0	0	0	0	0
Hunt Refining Co									
Tuscaloosa .....	36,000	0	40,000	0	18,000	32,000	0	0	0
Shell Chemical LP									
Saraland .....	91,575	0	95,500	0	29,000	0	0	0	0
<b>Alaska</b> .....	<b>158,700</b>	<b>0</b>	<b>183,500</b>	<b>0</b>	<b>26,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP Exploration Alaska Inc									
Prudhoe Bay .....	10,500	0	13,000	0	0	0	0	0	0
ConocoPhillips Alaska Inc									
Prudhoe Bay .....	15,000	0	16,000	0	0	0	0	0	0
Petro Star Inc									
North Pole .....	19,700	0	22,500	0	0	0	0	0	0
Valdez .....	55,000	0	60,000	0	0	0	0	0	0
Tesoro Alaska Petroleum Co									
Kenai .....	58,500	0	72,000	0	26,000	0	0	0	0
<b>Arkansas</b> .....	<b>90,500</b>	<b>0</b>	<b>92,700</b>	<b>0</b>	<b>48,850</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
<b>California</b> .....	<b>1,897,641</b>	<b>84,500</b>	<b>2,006,000</b>	<b>90,000</b>	<b>1,231,756</b>	<b>447,800</b>	<b>52,000</b>	<b>5,000</b>	<b>0</b>
Alon Bakersfield Operating Inc									
Bakersfield .....	0	0	0	0	0	0	0	0	0
Chevron USA Inc									
El Segundo .....	269,000	0	290,500	0	169,100	74,700	0	0	0
Richmond .....	245,271	0	257,200	0	123,456	0	0	0	0
ExxonMobil Refining & Supply Co									
Torrance .....	151,300	0	157,800	0	102,300	53,000	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	7,000	0	0	0	0
Paramount Petroleum Corporation									
Paramount .....	0	84,500	0	90,000	30,000	0	0	0	0
Phillips 66 Company									
Rodeo .....	120,200	0	128,000	0	93,200	51,000	0	0	0
Wilmington .....	139,000	0	147,000	0	82,000	53,200	0	0	0
San Joaquin Refining Co Inc									
Bakersfield .....	15,000	0	25,000	0	14,300	0	0	5,000	0
Santa Maria Refining Company									
Santa Maria .....	9,500	0	10,000	0	10,000	0	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Alabama</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,500</b>	<b>0</b>	<b>15,300</b>	<b>22,000</b>	<b>0</b>
Goodway Refining LLC								
Atmore .....	0	0	0	0	0	0	0	0
Hunt Refining Co								
Tuscaloosa .....	0	0	0	18,500	0	15,300	0	0
Shell Chemical LP								
Saraland .....	0	0	0	0	0	0	22,000	0
<b>Alaska</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,500</b>	<b>0</b>	<b>14,200</b>	<b>0</b>	<b>0</b>
BP Exploration Alaska Inc								
Prudhoe Bay .....	0	0	0	0	0	0	0	0
ConocoPhillips Alaska Inc								
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 Petroleum Co								
Kenai .....	0	0	0	12,500	0	14,200	0	0
<b>Arkansas</b> .....	<b>21,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,300</b>	<b>0</b>	<b>7,400</b>
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	7,400
<b>California</b> .....	<b>716,300</b>	<b>13,400</b>	<b>191,800</b>	<b>296,600</b>	<b>0</b>	<b>205,800</b>	<b>216,700</b>	<b>56,000</b>
Alon Bakersfield Operating Inc								
Bakersfield .....	0	0	0	15,000	0	8,000	0	0
Chevron USA Inc								
El Segundo .....	73,800	0	0	53,200	0	49,000	0	0
Richmond .....	90,000	0	0	103,400	0	71,300	0	56,000
ExxonMobil Refining & Supply Co								
Torrance .....	87,800	12,400	23,000	0	0	0	18,000	0
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
Paramount Petroleum Corporation								
Paramount .....	0	0	0	0	0	0	12,000	0
Phillips 66 Company								
Rodeo .....	0	0	0	65,000	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
Santa Maria Refining Company								
Santa Maria .....	0	0	0	0	0	0	0	0



**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Alabama</b> .....	<b>36,500</b>	<b>0</b>	<b>2,500</b>	<b>16,000</b>	<b>24,000</b>	<b>0</b>	<b>30,000</b>	<b>0</b>
Goodway Refining LLC								
Atmore .....	0	0	0	0	0	0	0	0
Hunt Refining Co								
Tuscaloosa .....	12,100	0	2,500	0	24,000	0	0	0
Shell Chemical LP								
Saraland .....	24,400	0	0	16,000	0	0	30,000	0
<b>Alaska</b> .....	<b>13,000</b>	<b>0</b>	<b>0</b>	<b>11,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP Exploration Alaska Inc								
Prudhoe Bay .....	0	0	0	0	0	0	0	0
ConocoPhillips Alaska Inc								
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 Petroleum Co								
Kenai .....	13,000	0	0	11,500	0	0	0	0
<b>Arkansas</b> .....	<b>20,000</b>	<b>8,750</b>	<b>0</b>	<b>35,000</b>	<b>0</b>	<b>0</b>	<b>21,000</b>	<b>13,500</b>
Cross Oil Refining & Marketing Inc								
Smackover .....	0	0	0	0	0	0	0	5,500
Lion Oil Co								
El Dorado .....	20,000	8,750	0	35,000	0	0	21,000	8,000
<b>California</b> .....	<b>443,100</b>	<b>270,500</b>	<b>198,100</b>	<b>339,300</b>	<b>122,100</b>	<b>0</b>	<b>723,000</b>	<b>70,200</b>
Alon Bakersfield Operating Inc								
Bakersfield .....	8,000	0	0	0	0	0	21,000	0
Chevron USA Inc								
El Segundo .....	59,000	0	36,300	45,500	14,000	0	73,700	0
Richmond .....	57,600	64,800	96,000	64,800	0	0	65,000	34,000
ExxonMobil Refining & Supply Co								
Torrance .....	24,700	0	0	18,000	0	0	106,500	0
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
Paramount Petroleum Corporation								
Paramount .....	15,000	0	8,500	13,000	0	0	0	0
Phillips 66 Company								
Rodeo .....	27,500	0	0	35,000	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
Santa Maria Refining Company								
Santa Maria .....	0	0	0	0	0	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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	
<b>California</b>	<b>1,897,641</b>	<b>84,500</b>	<b>2,006,000</b>	<b>90,000</b>	<b>1,231,756</b>	<b>447,800</b>	<b>52,000</b>	<b>5,000</b>	<b>0</b>
Shell Oil Products US									
Martinez	156,400	0	158,000	0	102,000	25,000	22,500	0	0
Tesoro Refining & Marketing Co									
Carson	256,830	0	276,000	0	140,000	67,100	0	0	0
Martinez	166,000	0	170,000	0	156,900	53,000	0	0	0
Wilmington	98,340	0	107,000	0	65,000	42,000	0	0	0
Valero Refining Co California									
Benicia	145,000	0	149,000	0	85,500	0	29,500	0	0
Wilmington Asphalt Plant	6,300	0	6,500	0	5,000	0	0	0	0
Wilmington Refinery	85,000	0	87,000	0	46,000	28,800	0	0	0
<b>Colorado</b>	<b>103,000</b>	<b>0</b>	<b>110,500</b>	<b>0</b>	<b>33,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Suncor Energy (USA) Inc									
Commerce City East	36,000	0	38,000	0	8,500	0	0	0	0
Commerce City West	67,000	0	72,500	0	25,000	0	0	0	0
<b>Delaware</b>	<b>182,200</b>	<b>0</b>	<b>190,200</b>	<b>0</b>	<b>104,600</b>	<b>0</b>	<b>54,500</b>	<b>0</b>	<b>0</b>
Delaware City Refining Co LLC									
Delaware City	182,200	0	190,200	0	104,600	0	54,500	0	0
<b>Hawaii</b>	<b>147,500</b>	<b>0</b>	<b>152,000</b>	<b>0</b>	<b>71,000</b>	<b>0</b>	<b>0</b>	<b>11,000</b>	<b>0</b>
Chevron USA Inc									
Honolulu	54,000	0	57,000	0	31,000	0	0	0	0
Hawaii Independent Energy LLC									
Ewa Beach	93,500	0	95,000	0	40,000	0	0	11,000	0
<b>Illinois</b>	<b>940,540</b>	<b>22,000</b>	<b>1,000,200</b>	<b>23,000</b>	<b>471,900</b>	<b>212,800</b>	<b>0</b>	<b>0</b>	<b>0</b>
ExxonMobil Refining & Supply Co									
Joliet	238,600	0	260,000	0	126,700	59,400	0	0	0
Marathon Petroleum Co LP									
Robinson	212,000	0	225,000	0	71,500	30,000	0	0	0
PDV Midwest Refining LLC									
Lemont	175,940	0	185,200	0	77,200	40,400	0	0	0
WRB Refining LP									
Wood River	314,000	22,000	330,000	23,000	196,500	83,000	0	0	0
<b>Indiana</b>	<b>440,600</b>	<b>0</b>	<b>458,800</b>	<b>0</b>	<b>277,900</b>	<b>102,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP Products North America Inc									
Whiting	413,500	0	430,000	0	263,900	102,000	0	0	0
Countrymark Cooperative Inc									
Mount Vernon	27,100	0	28,800	0	14,000	0	0	0	0
<b>Kansas</b>	<b>339,000</b>	<b>0</b>	<b>355,000</b>	<b>0</b>	<b>148,000</b>	<b>69,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
CHS McPherson Refinery Inc									
McPherson	86,000	0	89,000	0	38,000	25,000	0	0	0
Coffeyville Resources Rfg & Mktg									
Coffeyville	115,000	0	125,000	0	46,000	25,000	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>California</b>	<b>716,300</b>	<b>13,400</b>	<b>191,800</b>	<b>296,600</b>	<b>0</b>	<b>205,800</b>	<b>216,700</b>	<b>56,000</b>
Shell Oil Products US Martinez	72,000	0	42,300	0	0	31,000	0	0
Tesoro Refining & Marketing Co Carson	102,500	0	55,000	0	0	0	43,000	0
Martinez	72,000	1,000	0	37,000	0	26,000	0	0
Wilmington	35,000	0	10,000	23,000	0	0	33,000	0
Valero Refining Co California Benicia	75,300	0	34,000	0	0	0	37,200	0
Wilmington Asphalt Plant	0	0	0	0	0	0	0	0
Wilmington Refinery	56,300	0	0	0	0	18,000	0	0
<b>Colorado</b>	<b>30,000</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21,900</b>	<b>0</b>	<b>0</b>
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
<b>Delaware</b>	<b>82,000</b>	<b>4,000</b>	<b>0</b>	<b>22,300</b>	<b>0</b>	<b>43,800</b>	<b>0</b>	<b>0</b>
Delaware City Refining Co LLC Delaware City	82,000	4,000	0	22,300	0	43,800	0	0
<b>Hawaii</b>	<b>22,000</b>	<b>0</b>	<b>2,000</b>	<b>18,000</b>	<b>0</b>	<b>13,500</b>	<b>0</b>	<b>0</b>
Chevron USA Inc Honolulu	22,000	0	0	0	0	0	0	0
Hawaii Independent Energy LLC Ewa Beach	0	0	2,000	18,000	0	13,500	0	0
<b>Illinois</b>	<b>324,300</b>	<b>0</b>	<b>0</b>	<b>92,000</b>	<b>0</b>	<b>212,800</b>	<b>34,900</b>	<b>0</b>
ExxonMobil Refining & Supply Co Joliet	99,300	0	0	0	0	52,600	0	0
Marathon Petroleum Co LP Robinson	54,500	0	0	38,000	0	80,500	0	0
PDV Midwest Refining LLC Lemont	69,500	0	0	0	0	0	34,900	0
WRB Refining LP Wood River	101,000	0	0	54,000	0	79,700	0	0
<b>Indiana</b>	<b>183,200</b>	<b>7,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,500</b>	<b>65,000</b>	<b>0</b>
BP Products North America Inc Whiting	175,000	7,000	0	0	0	0	65,000	0
Countrymark Cooperative Inc Mount Vernon	8,200	200	0	0	0	6,500	0	0
<b>Kansas</b>	<b>104,000</b>	<b>500</b>	<b>0</b>	<b>38,500</b>	<b>0</b>	<b>57,500</b>	<b>23,500</b>	<b>0</b>
CHS McPherson Refinery Inc McPherson	24,000	500	0	38,500	0	24,000	0	0
Coffeyville Resources Rfg & Mktg Coffeyville	36,000	0	0	0	0	26,000	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>California</b>	<b>443,100</b>	<b>270,500</b>	<b>198,100</b>	<b>339,300</b>	<b>122,100</b>	<b>0</b>	<b>723,000</b>	<b>70,200</b>
Shell Oil Products US								
Martinez	27,500	92,500	0	0	49,000	0	84,500	14,500
Tesoro Refining & Marketing Co								
Carson	45,000	27,000	10,000	21,000	0	0	95,000	0
Martinez	27,000	43,000	0	40,000	18,500	0	69,500	0
Wilmington	34,000	0	19,000	10,000	23,000	0	45,000	0
Valero Refining Co California								
Benicia	30,000	43,200	15,400	15,000	5,000	0	39,000	21,700
Wilmington Asphalt Plant	0	0	0	0	0	0	0	0
Wilmington Refinery	32,000	0	0	45,000	0	0	67,000	0
<b>Colorado</b>	<b>21,900</b>	<b>0</b>	<b>12,100</b>	<b>21,000</b>	<b>0</b>	<b>0</b>	<b>30,000</b>	<b>0</b>
Suncor Energy (USA) Inc								
Commerce City East	11,000	0	0	0	0	0	0	0
Commerce City West	10,900	0	12,100	21,000	0	0	30,000	0
<b>Delaware</b>	<b>50,000</b>	<b>32,000</b>	<b>16,500</b>	<b>52,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Delaware City Refining Co LLC								
Delaware City	50,000	32,000	16,500	52,000	0	0	0	0
<b>Hawaii</b>	<b>13,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,500</b>
Chevron USA Inc								
Honolulu	0	0	0	0	0	0	0	3,500
Hawaii Independent Energy LLC								
Ewa Beach	13,000	0	0	0	0	0	0	0
<b>Illinois</b>	<b>432,000</b>	<b>115,500</b>	<b>66,950</b>	<b>315,400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,800</b>
ExxonMobil Refining & Supply Co								
Joliet	169,500	0	0	85,100	0	0	0	0
Marathon Petroleum Co LP								
Robinson	68,000	41,500	0	79,500	0	0	0	0
PDV Midwest Refining LLC								
Lemont	110,200	0	13,700	94,500	0	0	0	6,800
WRB Refining LP								
Wood River	84,300	74,000	53,250	56,300	0	0	0	0
<b>Indiana</b>	<b>78,000</b>	<b>6,500</b>	<b>46,000</b>	<b>134,500</b>	<b>0</b>	<b>0</b>	<b>204,000</b>	<b>0</b>
BP Products North America Inc								
Whiting	69,000	0	46,000	120,800	0	0	204,000	0
Countrymark Cooperative Inc								
Mount Vernon	9,000	6,500	0	13,700	0	0	0	0
<b>Kansas</b>	<b>122,500</b>	<b>22,000</b>	<b>21,000</b>	<b>127,200</b>	<b>27,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>
CHS McPherson Refinery Inc								
McPherson	38,000	0	0	43,200	0	0	0	0
Coffeyville Resources Rfg & Mktg								
Coffeyville	36,000	22,000	9,000	30,000	27,000	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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
<b>Kansas</b> .....	<b>339,000</b>	<b>0</b>	<b>355,000</b>	<b>0</b>	<b>148,000</b>	<b>69,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
HollyFrontier El Dorado Refining LLC El Dorado .....	138,000	0	141,000	0	64,000	19,000	0	0	0
<b>Kentucky</b> .....	<b>278,500</b>	<b>0</b>	<b>298,300</b>	<b>0</b>	<b>122,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Continental Refining Company LLC Somerset .....	5,500	0	6,300	0	0	0	0	0	0
Marathon Petroleum Co LP Catlettsburg .....	273,000	0	292,000	0	122,000	0	0	0	0
<b>Louisiana</b> .....	<b>3,348,820</b>	<b>0</b>	<b>3,504,355</b>	<b>0</b>	<b>1,761,000</b>	<b>553,500</b>	<b>0</b>	<b>0</b>	<b>10,600</b>
Alon Refining Krotz Springs Inc Krotz Springs .....	80,000	0	83,000	0	36,200	0	0	0	0
Calcasieu Refining Co Lake Charles .....	89,000	0	90,000	0	30,000	0	0	0	0
Calumet Lubricants Co LP Cotton Valley .....	13,020	0	14,000	0	0	0	0	0	0
Princeton .....	8,300	0	8,655	0	7,000	0	0	0	0
Calumet Shreveport LLC Shreveport .....	57,000	0	60,000	0	28,000	0	0	0	0
Chalmette Refining LLC Chalmette .....	192,500	0	197,000	0	169,000	28,000	0	0	0
Citgo Petroleum Corp Lake Charles .....	427,800	0	440,000	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 .....	502,500	0	523,200	0	246,100	123,500	0	0	0
Marathon Petroleum Co LP Garyville .....	539,000	0	574,000	0	297,000	93,500	0	0	0
Motiva Enterprises LLC Convent .....	235,000	0	255,000	0	119,400	0	0	0	0
Norco .....	237,700	0	250,000	0	91,300	28,500	0	0	0
Phillips 66 Company Belle Chasse .....	247,000	0	260,000	0	103,000	26,000	0	0	0
Westlake .....	260,000	0	273,000	0	132,000	60,000	0	0	10,600
Placid Refining Co Port Allen .....	75,000	0	82,500	0	27,000	0	0	0	0
Shell Oil Products US Saint Rose .....	45,000	0	46,000	0	25,000	0	0	0	0
Valero Energy Corporation Meraux .....	125,000	0	128,000	0	60,000	0	0	0	0
Valero Refining New Orleans LLC Norco .....	215,000	0	220,000	0	160,000	84,000	0	0	0
<b>Michigan</b> .....	<b>132,000</b>	<b>0</b>	<b>144,000</b>	<b>0</b>	<b>77,500</b>	<b>30,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Marathon Petroleum Co LP Detroit .....	132,000	0	144,000	0	77,500	30,000	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Kansas</b> .....	<b>104,000</b>	<b>500</b>	<b>0</b>	<b>38,500</b>	<b>0</b>	<b>57,500</b>	<b>23,500</b>	<b>0</b>
HollyFrontier El Dorado Refining LLC El Dorado .....	44,000	0	0	0	0	7,500	23,500	0
<b>Kentucky</b> .....	<b>104,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21,500</b>	<b>32,300</b>	<b>13,000</b>
Continental Refining Company LLC Somerset .....	0	0	0	0	0	0	1,300	0
Marathon Petroleum Co LP Catlettsburg .....	104,000	0	0	0	0	21,500	31,000	13,000
<b>Louisiana</b> .....	<b>1,130,900</b>	<b>5,500</b>	<b>55,000</b>	<b>370,100</b>	<b>52,000</b>	<b>501,290</b>	<b>106,200</b>	<b>71,000</b>
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 Lubricants Co LP Cotton Valley .....	0	0	0	0	0	0	0	0
Princeton .....	0	0	0	0	0	0	0	0
Calumet Shreveport LLC Shreveport .....	0	0	0	0	0	12,000	0	0
Chalmette Refining LLC Chalmette .....	75,600	0	0	0	0	22,700	0	0
Citgo Petroleum Corp Lake Charles .....	148,000	3,000	0	47,400	0	59,600	53,200	0
Excel Paralubes Westlake .....	0	0	0	43,000	0	0	0	0
ExxonMobil Refining & Supply Co Baton Rouge .....	244,500	0	27,000	0	0	76,000	0	0
Marathon Petroleum Co LP Garyville .....	138,000	0	0	117,000	0	128,000	0	38,000
Motiva Enterprises LLC Convent .....	92,000	0	0	0	52,000	0	40,000	0
Norco .....	118,800	0	0	44,000	0	40,000	0	0
Phillips 66 Company Belle Chasse .....	105,000	2,000	0	0	0	48,490	0	0
Westlake .....	50,000	0	0	0	0	44,000	0	0
Placid Refining Co Port Allen .....	25,000	500	0	0	0	11,000	0	11,000
Shell Oil Products US Saint Rose .....	0	0	0	0	0	0	0	0
Valero Energy Corporation Meraux .....	0	0	0	48,700	0	32,000	0	22,000
Valero Refining New Orleans LLC Norco .....	100,000	0	28,000	70,000	0	27,500	0	0
<b>Michigan</b> .....	<b>40,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21,500</b>	<b>0</b>	<b>0</b>
Marathon Petroleum Co LP Detroit .....	40,000	0	0	0	0	21,500	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Kansas</b> .....	<b>122,500</b>	<b>22,000</b>	<b>21,000</b>	<b>127,200</b>	<b>27,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>
HollyFrontier El Dorado Refining LLC El Dorado .....	48,500	0	12,000	54,000	0	0	50,000	0
<b>Kentucky</b> .....	<b>54,800</b>	<b>0</b>	<b>31,000</b>	<b>78,350</b>	<b>0</b>	<b>0</b>	<b>107,000</b>	<b>0</b>
Continental Refining Company LLC Somerset .....	1,300	0	0	850	0	0	0	0
Marathon Petroleum Co LP Catlettsburg .....	53,500	0	31,000	77,500	0	0	107,000	0
<b>Louisiana</b> .....	<b>699,340</b>	<b>759,900</b>	<b>240,200</b>	<b>891,300</b>	<b>44,000</b>	<b>12,500</b>	<b>305,700</b>	<b>25,000</b>
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 Lubricants Co LP Cotton Valley .....	6,200	0	0	0	0	0	0	0
Princeton .....	0	0	0	0	0	0	0	0
Calumet Shreveport LLC Shreveport .....	16,000	0	0	14,000	0	0	21,100	1,200
Chalmette Refining LLC Chalmette .....	22,400	44,000	0	31,000	0	0	65,600	0
Citgo Petroleum Corp Lake Charles .....	127,000	85,400	68,000	100,000	0	0	0	23,800
Excel Paralubes Westlake .....	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baton Rouge .....	76,000	238,000	0	202,500	0	0	0	0
Marathon Petroleum Co LP Garyville .....	108,000	114,000	80,000	159,000	0	0	106,000	0
Motiva Enterprises LLC Convent .....	98,000	0	39,800	70,000	0	0	40,000	0
Norco .....	38,500	77,000	0	70,000	0	0	0	0
Phillips 66 Company Belle Chasse .....	50,540	65,000	0	74,800	0	0	0	0
Westlake .....	50,000	38,500	24,000	55,000	0	12,500	49,000	0
Placid Refining Co Port Allen .....	11,000	20,000	0	25,000	0	0	0	0
Shell Oil Products US Saint Rose .....	0	0	0	0	0	0	0	0
Valero Energy Corporation Meraux .....	37,700	0	16,400	40,000	0	0	0	0
Valero Refining New Orleans LLC Norco .....	44,000	60,000	12,000	50,000	44,000	0	24,000	0
<b>Michigan</b> .....	<b>33,500</b>	<b>0</b>	<b>7,000</b>	<b>46,000</b>	<b>0</b>	<b>0</b>	<b>43,500</b>	<b>0</b>
Marathon Petroleum Co LP Detroit .....	33,500	0	7,000	46,000	0	0	43,500	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Minnesota</b>	<b>378,900</b>	<b>0</b>	<b>436,800</b>	<b>0</b>	<b>278,000</b>	<b>67,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Flint Hills Resources LP									
Saint Paul	290,000	0	339,000	0	234,000	67,000	0	0	0
St Paul Park Refining Co LLC									
Saint Paul	88,900	0	97,800	0	44,000	0	0	0	0
<b>Mississippi</b>	<b>364,000</b>	<b>0</b>	<b>397,500</b>	<b>0</b>	<b>338,875</b>	<b>105,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Chevron USA Inc									
Pascagoula	330,000	0	360,000	0	314,000	105,000	0	0	0
Ergon Refining Inc									
Vicksburg	23,000	0	25,000	0	18,000	0	0	0	0
Hunt Southland Refining Co									
Sandersville	11,000	0	12,500	0	6,875	0	0	0	0
<b>Montana</b>	<b>203,600</b>	<b>9,600</b>	<b>212,400</b>	<b>10,000</b>	<b>115,000</b>	<b>36,700</b>	<b>10,400</b>	<b>0</b>	<b>0</b>
Calumet Montana Refining LLC									
Great Falls	24,000	9,600	25,000	10,000	20,000	0	0	0	0
Cenex Harvest States Coop									
Laurel	59,600	0	61,100	0	29,000	15,000	0	0	0
ExxonMobil Refining & Supply Co									
Billings	60,000	0	62,900	0	28,900	0	10,400	0	0
Phillips 66 Company									
Billings	60,000	0	63,400	0	37,100	21,700	0	0	0
<b>Nevada</b>	<b>2,000</b>	<b>0</b>	<b>5,000</b>	<b>0</b>	<b>2,750</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Foreland Refining Corp									
Ely	2,000	0	5,000	0	2,750	0	0	0	0
<b>New Jersey</b>	<b>440,000</b>	<b>32,000</b>	<b>460,000</b>	<b>35,000</b>	<b>197,000</b>	<b>27,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Axeon Specialty Products LLC									
Paulsboro	42,000	32,000	43,000	35,000	32,000	0	0	0	0
Paulsboro Refining Co LLC									
Paulsboro	160,000	0	166,000	0	90,000	27,000	0	0	0
Phillips 66 Company									
Linden	238,000	0	251,000	0	75,000	0	0	0	0
<b>New Mexico</b>	<b>127,500</b>	<b>0</b>	<b>141,000</b>	<b>0</b>	<b>29,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
HollyFrontier Navajo Refining LLC									
Artesia	102,000	0	115,000	0	29,600	0	0	0	0
Western Refining Southwest Inc									
Gallup	25,500	0	26,000	0	0	0	0	0	0
<b>North Dakota</b>	<b>93,360</b>	<b>0</b>	<b>94,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Dakota Prairie Refining LLC									
Dickinson	19,500	0	20,000	0	0	0	0	0	0
Tesoro West Coast									
Mandan	73,860	0	74,600	0	0	0	0	0	0
<b>Ohio</b>	<b>558,000</b>	<b>0</b>	<b>618,000</b>	<b>0</b>	<b>159,500</b>	<b>58,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP-Husky Refining LLC									
Toledo	153,000	0	160,000	0	71,500	35,000	0	0	0
Lima Refining Company									
Lima	152,000	0	170,000	0	53,000	23,000	0	0	0



**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Minnesota</b>	<b>115,500</b>	<b>2,500</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>37,000</b>	<b>38,300</b>	<b>0</b>
Flint Hills Resources LP Saint Paul	87,000	0	50,000	0	0	37,000	13,800	0
St Paul Park Refining Co LLC Saint Paul	28,500	2,500	0	0	0	0	24,500	0
<b>Mississippi</b>	<b>88,000</b>	<b>0</b>	<b>0</b>	<b>117,500</b>	<b>0</b>	<b>61,600</b>	<b>34,000</b>	<b>0</b>
Chevron USA Inc Pascagoula	88,000	0	0	117,500	0	61,600	34,000	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
<b>Montana</b>	<b>64,660</b>	<b>990</b>	<b>6,200</b>	<b>24,000</b>	<b>0</b>	<b>12,500</b>	<b>27,050</b>	<b>0</b>
Calumet Montana Refining LLC Great Falls	3,000	0	0	24,000	0	0	1,000	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	21,500	990	0	0	0	0	13,550	0
<b>Nevada</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Foreland Refining Corp Ely	0	0	0	0	0	0	0	0
<b>New Jersey</b>	<b>200,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>64,000</b>	<b>0</b>	<b>22,000</b>
Axeon Specialty Products LLC Paulsboro	0	0	0	0	0	0	0	0
Paulsboro Refining Co LLC Paulsboro	55,000	0	0	0	0	32,000	0	0
Phillips 66 Company Linden	145,000	0	0	0	0	32,000	0	22,000
<b>New Mexico</b>	<b>35,500</b>	<b>3,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>24,000</b>	<b>7,300</b>	<b>0</b>
HollyFrontier Navajo Refining LLC Artesia	27,000	0	0	0	0	24,000	0	0
Western Refining Southwest Inc Gallup	8,500	3,000	0	0	0	0	7,300	0
<b>North Dakota</b>	<b>27,000</b>	<b>3,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12,500</b>	<b>0</b>
Dakota Prairie Refining LLC Dickinson	0	0	0	0	0	0	0	0
Tesoro West Coast Mandan	27,000	3,600	0	0	0	0	12,500	0
<b>Ohio</b>	<b>208,300</b>	<b>0</b>	<b>52,000</b>	<b>31,000</b>	<b>0</b>	<b>63,500</b>	<b>106,800</b>	<b>0</b>
BP-Husky Refining LLC Toledo	55,000	0	0	31,000	0	42,000	0	0
Lima Refining Company Lima	45,300	0	0	0	0	0	55,000	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Minnesota</b>	<b>74,800</b>	<b>49,700</b>	<b>53,600</b>	<b>93,500</b>	<b>9,000</b>	<b>0</b>	<b>144,500</b>	<b>0</b>
Flint Hills Resources LP Saint Paul	49,800	49,700	43,500	62,000	9,000	0	115,000	0
St Paul Park Refining Co LLC Saint Paul	25,000	0	10,100	31,500	0	0	29,500	0
<b>Mississippi</b>	<b>57,300</b>	<b>0</b>	<b>30,000</b>	<b>37,200</b>	<b>0</b>	<b>0</b>	<b>104,000</b>	<b>70,800</b>
Chevron USA Inc Pascagoula	57,300	0	30,000	35,000	0	0	104,000	50,000
Ergon Refining Inc Vicksburg	0	0	0	2,200	0	0	0	20,800
Hunt Southland Refining Co Sandersville	0	0	0	0	0	0	0	0
<b>Montana</b>	<b>46,950</b>	<b>26,500</b>	<b>18,400</b>	<b>46,750</b>	<b>25,000</b>	<b>0</b>	<b>45,760</b>	<b>7,900</b>
Calumet Montana Refining LLC Great Falls	2,500	0	5,000	6,000	0	0	0	0
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	13,550	6,000	5,800	29,750	0	0	25,760	0
<b>Nevada</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Foreland Refining Corp Ely	0	0	0	0	0	0	0	0
<b>New Jersey</b>	<b>97,500</b>	<b>37,000</b>	<b>29,100</b>	<b>154,000</b>	<b>17,500</b>	<b>0</b>	<b>0</b>	<b>0</b>
Axeon Specialty Products LLC Paulsboro	0	0	0	0	0	0	0	0
Paulsboro Refining Co LLC Paulsboro	32,000	37,000	29,100	46,000	0	0	0	0
Phillips 66 Company Linden	65,500	0	0	108,000	17,500	0	0	0
<b>New Mexico</b>	<b>43,600</b>	<b>0</b>	<b>12,000</b>	<b>45,500</b>	<b>0</b>	<b>0</b>	<b>51,000</b>	<b>0</b>
HollyFrontier Navajo Refining LLC Artesia	36,000	0	12,000	41,000	0	0	51,000	0
Western Refining Southwest Inc Gallup	7,600	0	0	4,500	0	0	0	0
<b>North Dakota</b>	<b>13,600</b>	<b>0</b>	<b>0</b>	<b>31,800</b>	<b>5,700</b>	<b>0</b>	<b>0</b>	<b>0</b>
Dakota Prairie Refining LLC Dickinson	0	0	0	8,000	0	0	0	0
Tesoro West Coast Mandan	13,600	0	0	23,800	5,700	0	0	0
<b>Ohio</b>	<b>179,400</b>	<b>107,000</b>	<b>69,500</b>	<b>81,500</b>	<b>0</b>	<b>0</b>	<b>78,000</b>	<b>0</b>
BP-Husky Refining LLC Toledo	40,000	0	0	22,000	0	0	51,000	0
Lima Refining Company Lima	63,000	35,000	24,000	36,000	0	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Ohio</b>	<b>558,000</b>	<b>0</b>	<b>618,000</b>	<b>0</b>	<b>159,500</b>	<b>58,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Marathon Petroleum Co LP									
Canton	93,000	0	100,000	0	35,000	0	0	0	0
Toledo Refining Co LLC									
Toledo	160,000	0	188,000	0	0	0	0	0	0
<b>Oklahoma</b>	<b>511,300</b>	<b>0</b>	<b>547,247</b>	<b>0</b>	<b>219,554</b>	<b>38,385</b>	<b>0</b>	<b>0</b>	<b>0</b>
HollyFrontier Tulsa Refining LLC									
Tulsa East	70,300	0	75,500	0	27,000	0	0	0	0
Tulsa West	85,000	0	90,000	0	32,000	11,000	0	0	0
Phillips 66 Company									
Ponca City	200,000	0	218,747	0	88,254	27,385	0	0	0
Valero Refining Co Oklahoma									
Ardmore	86,000	0	88,000	0	32,000	0	0	0	0
Wynnewood Refining Co									
Wynnewood	70,000	0	75,000	0	40,300	0	0	0	0
<b>Pennsylvania</b>	<b>601,000</b>	<b>0</b>	<b>644,800</b>	<b>0</b>	<b>276,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
Philadelphia Energy Solutions									
Philadelphia	335,000	0	355,000	0	163,200	0	0	0	0
United Refining Co									
Warren	65,000	0	70,000	0	40,000	0	0	0	0
<b>Tennessee</b>	<b>190,000</b>	<b>0</b>	<b>195,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Premcor Refining Group Inc									
Memphis	190,000	0	195,000	0	0	0	0	0	0
<b>Texas</b>	<b>5,452,250</b>	<b>0</b>	<b>5,841,700</b>	<b>0</b>	<b>2,605,000</b>	<b>893,080</b>	<b>42,000</b>	<b>0</b>	<b>0</b>
Alon USA Energy Inc									
Big Spring	73,000	0	74,000	0	24,000	0	0	0	0
Buckeye Texas Processing LLC									
Corpus Christi	46,250	0	50,000	0	0	0	0	0	0
Calumet Lubricants Co									
San Antonio	20,000	0	21,000	0	0	0	0	0	0
Citgo Refining & Chemical Inc									
Corpus Christi	157,500	0	163,500	0	85,300	44,900	0	0	0
Deer Park Refining LTD Partnership									
Deer Park	285,500	0	340,000	0	180,000	90,000	0	0	0
Delek Refining LTD									
Tyler	72,000	0	75,000	0	28,000	6,500	0	0	0
Equistar Chemicals LP									
Channelview	0	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co									
Baytown	560,500	0	584,000	0	297,000	54,000	42,000	0	0
Beaumont	344,600	0	359,200	0	148,800	48,000	0	0	0
Flint Hills Resources LP									
Corpus Christi	295,630	0	304,000	0	87,500	15,500	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Ohio</b>	<b>208,300</b>	<b>0</b>	<b>52,000</b>	<b>31,000</b>	<b>0</b>	<b>63,500</b>	<b>106,800</b>	<b>0</b>
Marathon Petroleum Co LP Canton	26,000	0	0	0	0	21,500	0	0
Toledo Refining Co LLC Toledo	82,000	0	52,000	0	0	0	51,800	0
<b>Oklahoma</b>	<b>151,813</b>	<b>2,000</b>	<b>14,000</b>	<b>18,200</b>	<b>0</b>	<b>61,500</b>	<b>53,593</b>	<b>4,850</b>
HollyFrontier Tulsa Refining LLC Tulsa East	25,000	2,000	0	0	0	23,000	0	0
Tulsa West	0	0	0	0	0	0	0	0
Phillips 66 Company Ponca City	74,613	0	0	0	0	0	53,593	0
Valero Refining Co Oklahoma Ardmore	30,000	0	14,000	0	0	20,500	0	0
Wynnewood Refining Co Wynnewood	22,200	0	0	18,200	0	18,000	0	4,850
<b>Pennsylvania</b>	<b>216,500</b>	<b>1,000</b>	<b>23,000</b>	<b>0</b>	<b>0</b>	<b>50,000</b>	<b>102,200</b>	<b>0</b>
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
Philadelphia Energy Solutions Philadelphia	138,500	0	0	0	0	0	86,000	0
United Refining Co Warren	25,000	1,000	0	0	0	0	14,000	0
<b>Tennessee</b>	<b>70,000</b>	<b>0</b>	<b>26,500</b>	<b>0</b>	<b>0</b>	<b>36,000</b>	<b>0</b>	<b>0</b>
Premcor Refining Group Inc Memphis	70,000	0	26,500	0	0	36,000	0	0
<b>Texas</b>	<b>1,842,450</b>	<b>25,000</b>	<b>251,300</b>	<b>370,000</b>	<b>75,000</b>	<b>962,200</b>	<b>115,280</b>	<b>166,000</b>
Alon USA Energy Inc Big Spring	25,000	0	0	0	0	21,000	0	10,000
Buckeye Texas Processing LLC Corpus Christi	0	0	0	0	0	0	0	0
Calumet Lubricants Co San Antonio	0	0	0	0	0	0	6,000	0
Citgo Refining & Chemical Inc Corpus Christi	83,800	0	0	0	0	51,500	0	0
Deer Park Refining LTD Partnership Deer Park	75,000	5,000	0	60,000	0	45,000	24,500	0
Delek Refining LTD Tyler	20,250	0	0	0	0	13,000	4,500	0
Equistar Chemicals LP Channelview	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co Baytown	215,000	8,000	29,900	0	0	123,500	0	47,000
Beaumont	117,700	0	65,500	0	0	146,000	0	0
Flint Hills Resources LP Corpus Christi	110,000	0	15,000	0	0	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Ohio</b> .....	<b>179,400</b>	<b>107,000</b>	<b>69,500</b>	<b>81,500</b>	<b>0</b>	<b>0</b>	<b>78,000</b>	<b>0</b>
Marathon Petroleum Co LP								
Canton .....	30,500	0	13,500	23,500	0	0	27,000	0
Toledo Refining Co LLC								
Toledo .....	45,900	72,000	32,000	0	0	0	0	0
<b>Oklahoma</b> .....	<b>157,493</b>	<b>97,984</b>	<b>18,500</b>	<b>134,581</b>	<b>34,355</b>	<b>0</b>	<b>58,338</b>	<b>35,548</b>
HollyFrontier Tulsa Refining LLC								
Tulsa East .....	22,000	29,000	0	45,000	0	0	0	0
Tulsa West .....	28,000	0	0	0	0	0	0	21,600
Phillips 66 Company								
Ponca City .....	53,593	53,984	18,500	31,981	34,355	0	23,888	13,948
Valero Refining Co Oklahoma								
Ardmore .....	27,000	0	0	32,000	0	0	34,450	0
Wynnewood Refining Co								
Wynnewood .....	26,900	15,000	0	25,600	0	0	0	0
<b>Pennsylvania</b> .....	<b>192,700</b>	<b>93,300</b>	<b>5,000</b>	<b>70,300</b>	<b>163,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
American Refining Group Inc								
Bradford .....	3,600	0	0	0	0	0	0	0
Monroe Energy LLC								
Trainer .....	77,100	23,300	0	53,300	0	0	0	0
Philadelphia Energy Solutions								
Philadelphia .....	88,000	65,000	0	0	163,000	0	0	0
United Refining Co								
Warren .....	24,000	5,000	5,000	17,000	0	0	0	0
<b>Tennessee</b> .....	<b>52,000</b>	<b>39,000</b>	<b>0</b>	<b>38,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Premcor Refining Group Inc								
Memphis .....	52,000	39,000	0	38,000	0	0	0	0
<b>Texas</b> .....	<b>1,400,590</b>	<b>985,500</b>	<b>628,800</b>	<b>1,294,925</b>	<b>61,000</b>	<b>233,500</b>	<b>949,740</b>	<b>128,800</b>
Alon USA Energy Inc								
Big Spring .....	25,500	0	5,000	23,000	0	0	6,500	0
Buckeye Texas Processing LLC								
Corpus Christi .....	0	0	0	0	0	0	0	0
Calumet Lubricants Co								
San Antonio .....	6,000	0	0	7,000	0	0	0	0
Citgo Refining & Chemical Inc								
Corpus Christi .....	52,800	36,500	0	92,600	0	0	71,900	0
Deer Park Refining LTD Partnership								
Deer Park .....	75,500	43,000	40,000	0	45,000	49,500	80,000	43,000
Delek Refining LTD								
Tyler .....	28,000	13,000	0	36,000	0	0	0	0
Equistar Chemicals LP								
Channelview .....	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co								
Baytown .....	155,500	196,000	132,700	146,300	0	0	117,000	46,500
Beaumont .....	159,800	25,000	51,000	42,000	0	0	0	23,600
Flint Hills Resources LP								
Corpus Christi .....	85,800	75,000	54,000	73,000	0	0	54,000	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Texas</b>	<b>5,452,250</b>	<b>0</b>	<b>5,841,700</b>	<b>0</b>	<b>2,605,000</b>	<b>893,080</b>	<b>42,000</b>	<b>0</b>	<b>0</b>
Houston Refining LP									
Houston	263,776	0	302,300	0	202,000	99,500	0	0	0
Kinder Morgan Crude & Condensate									
Galena Park	84,000	0	100,000	0	0	0	0	0	0
Lazarus Energy LLC									
Nixon	13,765	0	15,000	0	0	0	0	0	0
Marathon Petroleum Co LP									
Galveston Bay	459,000	0	481,000	0	237,000	33,000	0	0	0
Texas City	86,000	0	89,500	0	0	0	0	0	0
Motiva Enterprises LLC									
Port Arthur	603,000	0	635,000	0	331,800	164,500	0	0	0
Pasadena Refining Systems Inc									
Pasadena	112,229	0	115,700	0	38,000	0	0	0	0
Petromax Refining Co LLC									
Houston	25,000	0	27,500	0	0	0	0	0	0
Phillips 66 Company									
Sweeny	247,000	0	260,000	0	132,100	78,700	0	0	0
Premcor Refining Group Inc									
Port Arthur	335,000	0	415,000	0	220,000	99,600	0	0	0
South Hampton Resources Inc									
Silsbee	0	0	0	0	0	0	0	0	0
Total Petrochemicals & Refining USA									
Port Arthur	225,500	0	245,000	0	105,300	60,000	0	0	0
Valero Energy Corporation									
Sunray	168,000	0	172,000	0	50,000	0	0	0	0
Three Rivers	89,000	0	91,000	0	33,500	0	0	0	0
Valero Refining Co Texas LP									
Corpus Christi	293,000	0	300,000	0	97,000	17,000	0	0	0
Houston	100,000	0	103,000	0	38,000	0	0	0	0
Texas City	225,000	0	231,000	0	133,500	53,500	0	0	0
Western Refining Company LP									
El Paso	122,000	0	134,000	0	56,200	0	0	0	0
WRB Refining LP									
Borger	146,000	0	154,000	0	80,000	28,380	0	0	0
<b>Utah</b>	<b>181,050</b>	<b>0</b>	<b>193,100</b>	<b>0</b>	<b>34,500</b>	<b>9,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Big West Oil Co									
North Salt Lake	30,500	0	32,000	0	0	0	0	0	0
Chevron USA Inc									
Salt Lake City	53,000	0	56,000	0	27,500	9,000	0	0	0
HollyFrontier Woods Cross Refining LLC									
Woods Cross	25,050	0	26,400	0	0	0	0	0	0
Silver Eagle Refining									
Woods Cross	15,000	0	15,700	0	7,000	0	0	0	0
Tesoro West Coast									
Salt Lake City	57,500	0	63,000	0	0	0	0	0	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Texas</b> .....	<b>1,842,450</b>	<b>25,000</b>	<b>251,300</b>	<b>370,000</b>	<b>75,000</b>	<b>962,200</b>	<b>115,280</b>	<b>166,000</b>
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
Marathon Petroleum Co LP								
Galveston Bay .....	200,500	0	69,000	0	75,000	138,000	0	17,000
Texas City .....	58,500	0	0	0	0	0	11,000	0
Motiva Enterprises LLC								
Port Arthur .....	90,000	0	0	82,000	0	129,500	0	0
Pasadena Refining Systems Inc								
Pasadena .....	52,000	0	0	0	0	22,000	0	0
Petromax Refining Co LLC								
Houston .....	0	0	0	0	0	0	0	0
Phillips 66 Company								
Sweeny .....	107,700	12,000	0	0	0	37,500	0	0
Premcor Refining Group Inc								
Port Arthur .....	75,000	0	0	123,000	0	55,000	0	0
South Hampton Resources Inc								
Silsbee .....	0	0	0	0	0	1,600	0	0
Total Petrochemicals & Refining USA								
Port Arthur .....	80,000	0	0	0	0	43,000	0	15,500
Valero Energy Corporation								
Sunray .....	54,500	0	0	27,000	0	29,000	18,000	14,500
Three Rivers .....	23,500	0	0	28,000	0	23,500	10,000	10,500
Valero Refining Co Texas LP								
Corpus Christi .....	95,500	0	0	50,000	0	39,000	10,000	0
Houston .....	71,500	0	71,900	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	26,000	0	0
WRB Refining LP								
Borger .....	56,000	0	0	0	0	0	31,280	0
<b>Utah</b> .....	<b>61,860</b>	<b>3,000</b>	<b>0</b>	<b>9,000</b>	<b>0</b>	<b>0</b>	<b>36,800</b>	<b>6,000</b>
Big West Oil Co								
North Salt Lake .....	11,500	0	0	0	0	0	8,500	0
Chevron USA Inc								
Salt Lake City .....	15,000	0	0	0	0	0	8,500	0
HollyFrontier Woods Cross Refining LLC								
Woods Cross .....	9,360	0	0	9,000	0	0	8,400	6,000
Silver Eagle Refining								
Woods Cross .....	0	0	0	0	0	0	0	0
Tesoro West Coast								
Salt Lake City .....	26,000	3,000	0	0	0	0	11,400	0

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Texas</b> .....	<b>1,400,590</b>	<b>985,500</b>	<b>628,800</b>	<b>1,294,925</b>	<b>61,000</b>	<b>233,500</b>	<b>949,740</b>	<b>128,800</b>
Houston Refining LP								
Houston .....	60,500	76,000	43,500	92,175	0	0	116,100	5,200
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
Marathon Petroleum Co LP								
Galveston Bay .....	121,000	57,000	79,000	55,000	0	0	105,000	0
Texas City .....	0	0	0	0	0	0	0	0
Motiva Enterprises LLC								
Port Arthur .....	163,150	55,000	78,000	153,300	0	0	50,000	0
Pasadena Refining Systems Inc								
Pasadena .....	22,000	40,000	0	0	16,000	0	0	0
Petromax Refining Co LLC								
Houston .....	0	0	0	0	0	0	0	0
Phillips 66 Company								
Sweeny .....	67,300	8,700	0	123,700	0	0	107,000	0
Premcor Refining Group Inc								
Port Arthur .....	48,700	85,000	33,000	104,600	0	0	60,000	0
South Hampton Resources Inc								
Silsbee .....	11,000	0	0	0	0	0	0	4,000
Total Petrochemicals & Refining USA								
Port Arthur .....	57,500	51,600	31,000	70,000	0	0	54,400	0
Valero Energy Corporation								
Sunray .....	43,000	39,600	0	47,500	0	0	0	0
Three Rivers .....	24,000	0	10,000	25,000	0	0	20,000	0
Valero Refining Co Texas LP								
Corpus Christi .....	64,000	60,000	11,000	63,250	0	74,000	30,000	0
Houston .....	9,000	32,900	14,100	0	0	0	0	0
Texas City .....	25,000	61,500	28,000	55,000	0	110,000	0	6,500
Western Refining Company LP								
El Paso .....	30,000	29,700	10,000	50,000	0	0	0	0
WRB Refining LP								
Borger .....	65,540	0	8,500	35,500	0	0	77,840	0
<b>Utah</b> .....	<b>44,700</b>	<b>8,000</b>	<b>2,900</b>	<b>49,800</b>	<b>28,800</b>	<b>0</b>	<b>0</b>	<b>7,200</b>
Big West Oil Co								
North Salt Lake .....	11,500	0	0	11,000	0	0	0	0
Chevron USA Inc								
Salt Lake City .....	8,300	0	0	13,300	18,000	0	0	7,200
HollyFrontier Woods Cross Refining LLC								
Woods Cross .....	12,500	0	2,900	0	10,800	0	0	0
Silver Eagle Refining								
Woods Cross .....	1,000	0	0	3,000	0	0	0	0
Tesoro West Coast								
Salt Lake City .....	11,400	8,000	0	22,500	0	0	0	0



**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Washington</b> .....	<b>633,700</b>	<b>0</b>	<b>659,500</b>	<b>0</b>	<b>294,700</b>	<b>82,800</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP West Coast Products LLC Ferndale .....	227,000	0	236,000	0	112,000	57,500	0	0	0
Phillips 66 Company Ferndale .....	101,000	0	107,500	0	50,700	0	0	0	0
Shell Oil Products US Anacortes .....	145,000	0	149,000	0	65,800	25,300	0	0	0
Tesoro West Coast Anacortes .....	120,000	0	125,000	0	47,000	0	0	0	0
US Oil & Refining Co Tacoma .....	40,700	0	42,000	0	19,200	0	0	0	0
<b>West Virginia</b> .....	<b>22,300</b>	<b>0</b>	<b>23,000</b>	<b>0</b>	<b>8,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Ergon West Virginia Inc Newell .....	22,300	0	23,000	0	8,600	0	0	0	0
<b>Wisconsin</b> .....	<b>38,000</b>	<b>0</b>	<b>50,000</b>	<b>0</b>	<b>20,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Calumet Lubricants Co LP Superior .....	38,000	0	50,000	0	20,500	0	0	0	0
<b>Wyoming</b> .....	<b>177,500</b>	<b>3,800</b>	<b>189,400</b>	<b>4,500</b>	<b>72,500</b>	<b>33,700</b>	<b>0</b>	<b>0</b>	<b>0</b>
Antelope Refining LLC Douglas .....	0	3,800	0	4,500	3,500	0	0	0	0
HollyFrontier Cheyenne Refining LLC Cheyenne .....	47,000	0	52,000	0	28,000	13,700	0	0	0
Little America Refining Co Evansville .....	24,500	0	25,500	0	0	0	0	0	0
Silver Eagle Refining Evanston .....	3,000	0	3,400	0	0	0	0	0	0
Sinclair Wyoming Refining Co Sinclair .....	85,000	0	90,000	0	41,000	20,000	0	0	0
Wyoming Refining Co New Castle .....	18,000	0	18,500	0	0	0	0	0	0
<b>U.S. Total</b> .....	<b>18,165,136</b>	<b>151,900</b>	<b>19,345,102</b>	<b>162,500</b>	<b>9,073,285</b>	<b>2,797,765</b>	<b>158,900</b>	<b>16,000</b>	<b>10,600</b>

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(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	
<b>Washington</b> .....	<b>148,400</b>	<b>3,000</b>	<b>0</b>	<b>65,000</b>	<b>0</b>	<b>109,400</b>	<b>28,500</b>	<b>24,300</b>
BP West Coast Products LLC Ferdale .....	0	0	0	65,000	0	65,000	0	0
Phillips 66 Company Ferdale .....	38,500	0	0	0	0	18,400	0	0
Shell Oil Products US Anacortes .....	57,900	0	0	0	0	0	21,700	0
Tesoro West Coast Anacortes .....	52,000	3,000	0	0	0	26,000	0	24,300
US Oil & Refining Co Tacoma .....	0	0	0	0	0	0	6,800	0
<b>West Virginia</b> .....	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,950</b>	<b>0</b>	<b>0</b>
Ergon West Virginia Inc Newell .....	0	0	0	0	0	3,950	0	0
<b>Wisconsin</b> .....	<b>11,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,000</b>	<b>0</b>	<b>0</b>
Calumet Lubricants Co LP Superior .....	11,000	0	0	0	0	8,000	0	0
<b>Wyoming</b> .....	<b>53,500</b>	<b>500</b>	<b>15,600</b>	<b>0</b>	<b>0</b>	<b>14,200</b>	<b>21,400</b>	<b>0</b>
Antelope Refining LLC Douglas .....	0	0	0	0	0	0	0	0
HollyFrontier Cheyenne Refining LLC Cheyenne .....	12,500	0	0	0	0	9,200	0	0
Little America Refining Co Evansville .....	11,500	500	0	0	0	5,000	0	0
Silver Eagle Refining Evanston .....	0	0	0	0	0	0	2,900	0
Sinclair Wyoming Refining Co Sinclair .....	22,000	0	15,600	0	0	0	14,500	0
Wyoming Refining Co New Castle .....	7,500	0	0	0	0	0	4,000	0
<b>U.S. Total</b> .....	<b>6,052,183</b>	<b>75,690</b>	<b>687,400</b>	<b>1,503,200</b>	<b>127,000</b>	<b>2,658,740</b>	<b>1,084,323</b>	<b>370,550</b>

**Table 3. Capacity of Operable Petroleum Refineries by State as of January 1, 2016**  
(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
<b>Washington</b>	<b>176,100</b>	<b>90,300</b>	<b>39,000</b>	<b>162,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
BP West Coast Products LLC Ferndale	74,000	0	20,000	55,000	0	0	0	0
Phillips 66 Company Ferndale	19,000	22,100	0	32,300	0	0	0	0
Shell Oil Products US Anacortes	33,500	35,700	19,000	40,700	0	0	0	0
Tesoro West Coast Anacortes	39,200	32,500	0	26,300	0	0	0	0
US Oil & Refining Co Tacoma	10,400	0	0	8,200	0	0	0	0
<b>West Virginia</b>	<b>4,300</b>	<b>0</b>	<b>0</b>	<b>9,000</b>	<b>0</b>	<b>0</b>	<b>6,300</b>	<b>0</b>
Ergon West Virginia Inc Newell	4,300	0	0	9,000	0	0	6,300	0
<b>Wisconsin</b>	<b>11,000</b>	<b>7,500</b>	<b>7,700</b>	<b>6,500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Calumet Lubricants Co LP Superior	11,000	7,500	7,700	6,500	0	0	0	0
<b>Wyoming</b>	<b>44,400</b>	<b>16,500</b>	<b>15,000</b>	<b>52,500</b>	<b>0</b>	<b>0</b>	<b>20,000</b>	<b>0</b>
Antelope Refining LLC Douglas	0	0	0	0	0	0	0	0
HollyFrontier Cheyenne Refining LLC Cheyenne	10,000	10,000	0	18,000	0	0	0	0
Little America Refining Co Evansville	7,500	6,500	0	10,500	0	0	0	0
Silver Eagle Refining Evanston	3,900	0	0	0	0	0	0	0
Sinclair Wyoming Refining Co Sinclair	19,000	0	15,000	18,000	0	0	20,000	0
Wyoming Refining Co New Castle	4,000	0	0	6,000	0	0	0	0
<b>U.S. Total</b>	<b>4,614,073</b>	<b>2,773,434</b>	<b>1,570,850</b>	<b>4,375,906</b>	<b>561,455</b>	<b>246,000</b>	<b>2,971,838</b>	<b>369,248</b>

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 Bakersfield Operating Inc.....	CA	Hunt Southland Refining Co.....	MS
Alon Refining Krotz Springs Inc.....	LA	Kern Oil & Refining Co.....	CA
Alon USA Energy Inc.....	TX	Kinder Morgan Crude & Condensate.....	TX
American Refining Group Inc.....	PA	Lazarus Energy LLC.....	TX
Antelope Refining LLC.....	WY	Lima Refining Company.....	OH
Axeon Specialty Products LLC.....	NJ	Lion Oil Co.....	AR
BP Exploration Alaska Inc.....	AK	Little America Refining Co.....	WY
BP Products North America Inc.....	IN	Lunday Thagard Co.....	CA
BP West Coast Products LLC.....	WA	Marathon Petroleum Co LP.....	IL, KY, LA, MI, OH, TX
BP-Husky Refining LLC.....	OH	Monroe Energy LLC.....	PA
Big West Oil Co.....	UT	Motiva Enterprises LLC.....	LA, TX
Buckeye Texas Processing LLC.....	TX	PDV Midwest Refining LLC.....	IL
CHS McPherson Refinery Inc.....	KS	Paramount Petroleum Corporation.....	CA
Calcasieu Refining Co.....	LA	Pasadena Refining Systems Inc.....	TX
Calumet Lubricants Co.....	TX	Paulsboro Refining Co LLC.....	NJ
Calumet Lubricants Co LP.....	LA, WI	Petro Star Inc.....	AK
Calumet Montana Refining LLC.....	MT	Petromax Refining Co LLC.....	TX
Calumet Shreveport LLC.....	LA	Philadelphia Energy Solutions.....	PA
Cenex Harvest States Coop.....	MT	Phillips 66 Company.....	CA, LA, MT, NJ, OK, TX, WA
Chalmette Refining LLC.....	LA	Placid Refining Co.....	LA
Chevron USA Inc.....	CA, HI, MS, UT	Premcor Refining Group Inc.....	TN, TX
Citgo Petroleum Corp.....	LA	San Joaquin Refining Co Inc.....	CA
Citgo Refining & Chemical Inc.....	TX	Santa Maria Refining Company.....	CA
Coffeyville Resources Rfg & Mktg.....	KS	Shell Chemical LP.....	AL
ConocoPhillips Alaska Inc.....	AK	Shell Oil Products US.....	CA, LA, WA
Continental Refining Company LLC.....	KY	Silver Eagle Refining.....	UT, WY
Countrymark Cooperative Inc.....	IN	Sinclair Wyoming Refining Co.....	WY
Cross Oil Refining & Marketing Inc.....	AR	South Hampton Resources Inc.....	TX
Dakota Prairie Refining LLC.....	ND	St Paul Park Refining Co LLC.....	MN
Deer Park Refining LTD Partnership.....	TX	Suncor Energy (USA) Inc.....	CO
Delaware City Refining Co LLC.....	DE	Tesoro Alaska Petroleum Co.....	AK
Delek Refining LTD.....	TX	Tesoro Refining & Marketing Co.....	CA
Equistar Chemicals LP.....	TX	Tesoro West Coast.....	ND, UT, WA
Ergon Refining Inc.....	MS	Toledo Refining Co LLC.....	OH
Ergon West Virginia Inc.....	WV	Total Petrochemicals & Refining USA.....	TX
Excel Paralubes.....	LA	US Oil & Refining Co.....	WA
ExxonMobil Refining & Supply Co.....	CA, IL, LA, MT, TX	United Refining Co.....	PA
Flint Hills Resources LP.....	MN, TX	Valero Energy Corporation.....	LA, TX
Foreland Refining Corp.....	NV	Valero Refining Co California.....	CA
Goodway Refining LLC.....	AL	Valero Refining Co Oklahoma.....	OK
Hawaii Independent Energy LLC.....	HI	Valero Refining Co Texas LP.....	TX
HollyFrontier Cheyenne Refining LLC.....	WY	Valero Refining New Orleans LLC.....	LA
HollyFrontier El Dorado Refining LLC.....	KS	WRB Refining LP.....	IL, TX
HollyFrontier Navajo Refining LLC.....	NM	Western Refining Company LP.....	TX
HollyFrontier Tulsa Refining LLC.....	OK	Western Refining Southwest Inc.....	NM
HollyFrontier Woods Cross Refining LLC.....	UT	Wynnewood Refining Co.....	OK
Houston Refining LP.....	TX	Wyoming Refining Co.....	WY
Hunt Refining Co.....	AL		

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
<b>Alabama</b> .....	<b>0</b>	<b>0</b>	<b>15,000</b>	<b>1,150</b>	<b>4,200</b>	<b>0</b>	<b>0</b>	<b>7,120</b>	<b>40</b>	<b>228</b>
Hunt Refining Co										
Tuscaloosa .....	0	0	15,000	0	4,200	0	0	7,120	40	195
Shell Chemical LP										
Saraland .....	0	0	0	1,150	0	0	0	0	0	33
<b>Alaska</b> .....	<b>0</b>	<b>0</b>	<b>10,000</b>	<b>0</b>	<b>5,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>27</b>
Tesoro Alaska Petroleum Co										
Kenai .....	0	0	10,000	0	5,000	0	0	0	13	27
<b>Arkansas</b> .....	<b>5,000</b>	<b>0</b>	<b>21,500</b>	<b>0</b>	<b>7,500</b>	<b>0</b>	<b>5,500</b>	<b>0</b>	<b>13</b>	<b>157</b>
Cross Oil Refining & Marketing Inc										
Smackover .....	0	0	1,000	0	0	0	5,500	0	3	0
Lion Oil Co										
El Dorado .....	5,000	0	20,500	0	7,500	0	0	0	10	157
<b>California</b> .....	<b>201,562</b>	<b>1,500</b>	<b>48,833</b>	<b>40,400</b>	<b>129,600</b>	<b>200</b>	<b>39,800</b>	<b>143,000</b>	<b>1,088</b>	<b>5,092</b>
Alon Bakersfield Operating Inc										
Bakersfield .....	0	0	0	300	500	200	0	0	23	70
Chevron USA Inc										
El Segundo .....	32,200	0	0	10,500	22,300	0	0	25,500	77	894
Richmond .....	32,662	0	0	7,200	46,000	0	34,000	0	181	789
ExxonMobil Refining & Supply Co										
Torrance .....	24,200	0	0	0	0	0	0	16,700	146	400
Kern Oil & Refining Co										
Bakersfield .....	0	0	0	0	0	0	0	0	0	11
Lunday Thagard Co										
South Gate .....	0	0	5,833	0	0	0	0	0	0	0

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Paramount Petroleum Corporation										
Paramount .....	0	0	16,500	0	0	0	0	0	0	40
Phillips 66 Company										
Rodeo .....	0	0	0	3,800	10,000	0	0	14,500	22	560
Wilmington .....	16,000	0	0	3,100	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
Santa Maria Refining Company										
Santa Maria .....	0	0	6,000	0	0	0	0	0	0	0
Shell Oil Products US										
Martinez .....	12,500	0	0	0	15,000	0	0	9,000	193	413
Tesoro Refining & Marketing Co										
Carson .....	17,000	0	0	3,500	23,000	0	0	16,700	105	476
Martinez .....	15,400	0	0	0	0	0	0	15,000	82	200
Wilmington .....	12,500	0	0	7,800	0	0	0	12,000	15	280
Valero Refining Co California										
Benicia .....	17,100	0	9,000	4,200	0	0	0	6,800	135	303
Wilmington Asphalt Plant .....	0	0	3,500	0	0	0	0	0	0	0
Wilmington Refinery .....	22,000	0	0	0	0	0	0	10,000	0	280
<b>Colorado .....</b>	<b>0</b>	<b>0</b>	<b>12,250</b>	<b>985</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>116</b>
Suncor Energy (USA) Inc										
Commerce City East .....	0	0	0	985	0	0	0	0	0	2
Commerce City West .....	0	0	12,250	0	0	0	0	0	22	114
<b>Delaware .....</b>	<b>11,729</b>	<b>5,191</b>	<b>0</b>	<b>6,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,620</b>	<b>40</b>	<b>596</b>
Delaware City Refining Co LLC										
Delaware City .....	11,729	5,191	0	6,000	0	0	0	13,620	40	596
<b>Hawaii .....</b>	<b>5,000</b>	<b>0</b>	<b>15,000</b>	<b>3,200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>38</b>

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Chevron USA Inc										
Honolulu .....	5,000	0	0	3,200	0	0	0	0	3	0
Hawaii Independent Energy LLC										
Ewa Beach .....	0	0	15,000	0	0	0	0	0	18	38
<b>Illinois .....</b>	<b>84,900</b>	<b>17,200</b>	<b>38,100</b>	<b>0</b>	<b>16,000</b>	<b>0</b>	<b>0</b>	<b>65,995</b>	<b>202</b>	<b>2,380</b>
ExxonMobil Refining & Supply Co										
Joliet .....	29,100	0	15,100	0	0	0	0	18,595	0	683
Marathon Petroleum Co LP										
Robinson .....	13,000	3,300	0	0	16,000	0	0	7,500	0	202
PDV Midwest Refining LLC										
Lemont .....	21,000	9,400	0	0	0	0	0	12,000	12	487
WRB Refining LP										
Wood River .....	21,800	4,500	23,000	0	0	0	0	27,900	190	1,008
<b>Indiana .....</b>	<b>33,200</b>	<b>16,800</b>	<b>33,700</b>	<b>0</b>	<b>28,000</b>	<b>0</b>	<b>0</b>	<b>30,000</b>	<b>0</b>	<b>1,913</b>
BP Products North America Inc										
Whiting .....	31,000	16,800	30,000	0	24,800	0	0	30,000	0	1,904
Countrymark Cooperative Inc										
Mount Vernon .....	2,200	0	3,700	0	3,200	0	0	0	0	9
<b>Kansas .....</b>	<b>33,500</b>	<b>0</b>	<b>4,000</b>	<b>5,300</b>	<b>27,000</b>	<b>0</b>	<b>0</b>	<b>20,060</b>	<b>90</b>	<b>712</b>
CHS McPherson Refinery Inc										
McPherson .....	9,500	0	0	3,800	12,000	0	0	4,360	34	168
Coffeyville Resources Rfg & Mktg										
Coffeyville .....	10,000	0	0	0	0	0	0	8,700	0	229
HollyFrontier El Dorado Refining LLC										
El Dorado .....	14,000	0	4,000	1,500	15,000	0	0	7,000	56	315
<b>Kentucky .....</b>	<b>21,000</b>	<b>3,200</b>	<b>35,400</b>	<b>0</b>	<b>18,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>448</b>

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Marathon Petroleum Co LP										
Catlettsburg .....	21,000	3,200	35,400	0	18,000	0	0	0	0	448
<b>Louisiana .....</b>	<b>220,000</b>	<b>49,900</b>	<b>57,000</b>	<b>26,500</b>	<b>73,720</b>	<b>0</b>	<b>66,000</b>	<b>166,057</b>	<b>118</b>	<b>6,773</b>
Alon Refining Krotz Springs Inc										
Krotz Springs .....	0	0	0	0	6,220	0	0	0	0	0
Calcasieu Refining Co										
Lake Charles .....	0	0	0	3,500	0	0	0	0	0	0
Calumet Lubricants Co LP										
Cotton Valley .....	0	0	0	0	500	0	0	0	2	0
Princeton .....	0	0	2,000	0	0	0	7,000	0	4	3
Calumet Shreveport LLC										
Shreveport .....	0	0	6,500	0	0	0	12,500	0	12	40
Chalmette Refining LLC										
Chalmette .....	16,800	10,500	0	0	0	0	0	9,000	0	920
Citgo Petroleum Corp										
Lake Charles .....	26,400	20,900	0	0	28,000	0	0	30,000	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	0	0	0	0	16,500	31,525	0	800
Marathon Petroleum Co LP										
Garyville .....	33,000	0	33,000	23,000	26,500	0	0	33,000	0	1,476
Motiva Enterprises LLC										
Convent .....	16,500	0	0	0	12,500	0	0	0	0	728
Norco .....	16,800	0	0	0	0	0	0	7,316	0	180
Phillips 66 Company										
Belle Chasse .....	35,000	15,500	0	0	0	0	0	6,716	0	125
Westlake .....	6,000	0	2,500	0	0	0	0	22,500	0	440



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				Isobutane	Isopentane and Isohexane	Isooctane				
Placid Refining Co										
Port Allen .....	7,500	0	0	0	0	0	0	0	0	55
Shell Oil Products US										
Saint Rose .....	0	0	13,000	0	0	0	0	0	0	0
Valero Energy Corporation										
Meraux .....	0	0	0	0	0	0	0	0	0	224
Valero Refining New Orleans LLC										
Norco .....	21,000	3,000	0	0	0	0	0	26,000	100	880
<b>Michigan .....</b>	<b>7,000</b>	<b>0</b>	<b>23,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10,500</b>	<b>0</b>	<b>459</b>
Marathon Petroleum Co LP										
Detroit .....	7,000	0	23,000	0	0	0	0	10,500	0	459
<b>Minnesota .....</b>	<b>18,000</b>	<b>0</b>	<b>58,000</b>	<b>1,000</b>	<b>27,500</b>	<b>0</b>	<b>0</b>	<b>22,900</b>	<b>186</b>	<b>1,264</b>
Flint Hills Resources LP										
Saint Paul .....	12,500	0	45,000	0	18,000	0	0	22,900	176	1,142
St Paul Park Refining Co LLC										
Saint Paul .....	5,500	0	13,000	1,000	9,500	0	0	0	10	122
<b>Mississippi .....</b>	<b>18,600</b>	<b>21,000</b>	<b>36,125</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48,000</b>	<b>35,500</b>	<b>243</b>	<b>1,355</b>
Chevron USA Inc										
Pascagoula .....	18,600	21,000	20,000	0	0	0	25,000	35,500	230	1,355
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
<b>Montana .....</b>	<b>17,350</b>	<b>0</b>	<b>44,300</b>	<b>5,250</b>	<b>1,500</b>	<b>0</b>	<b>0</b>	<b>13,575</b>	<b>97</b>	<b>489</b>
Calumet Montana Refining LLC										
Great Falls .....	1,000	0	10,000	0	1,500	0	0	0	7	0

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				Isobutane	Isopentane and Isohexane	Isooctane				
Cenex Harvest States Coop										
Laurel .....	4,000	0	19,800	1,250	0	0	0	4,100	33	243
ExxonMobil Refining & Supply Co										
Billings .....	5,100	0	14,500	0	0	0	0	4,000	23	0
Phillips 66 Company										
Billings .....	7,250	0	0	4,000	0	0	0	5,475	34	246
<b>Nevada .....</b>	<b>0</b>	<b>0</b>	<b>1,600</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Foreland Refining Corp										
Ely .....	0	0	1,600	0	0	0	0	0	0	0
<b>New Jersey .....</b>	<b>29,200</b>	<b>0</b>	<b>70,000</b>	<b>4,000</b>	<b>0</b>	<b>0</b>	<b>12,000</b>	<b>7,500</b>	<b>26</b>	<b>280</b>
Axeon Specialty Products LLC										
Paulsboro .....	0	0	49,000	0	0	0	0	0	0	0
Paulsboro Refining Co LLC										
Paulsboro .....	11,200	0	21,000	0	0	0	12,000	7,500	9	280
Phillips 66 Company										
Linden .....	18,000	0	0	4,000	0	0	0	0	17	0
<b>New Mexico .....</b>	<b>10,900</b>	<b>0</b>	<b>7,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>202</b>
HollyFrontier Navajo Refining LLC										
Artesia .....	9,100	0	7,000	0	0	0	0	0	38	200
Western Refining Southwest Inc										
Gallup .....	1,800	0	0	0	0	0	0	0	0	2
<b>North Dakota .....</b>	<b>4,830</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>19</b>
Dakota Prairie Refining LLC										
Dickinson .....	0	0	0	0	0	0	0	0	2	2
Tesoro West Coast										
Mandan .....	4,830	0	0	0	0	0	0	0	0	17

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				Isobutane	Isopentane and Isohexane	Isooctane				
<b>Ohio</b> .....	<b>28,950</b>	<b>20,000</b>	<b>23,800</b>	<b>12,500</b>	<b>18,700</b>	<b>0</b>	<b>0</b>	<b>14,200</b>	<b>0</b>	<b>683</b>
BP-Husky Refining LLC										
Toledo .....	11,500	0	9,000	0	0	0	0	10,000	0	353
Lima Refining Company										
Lima .....	0	9,200	0	4,500	18,700	0	0	4,200	0	110
Marathon Petroleum Co LP										
Canton .....	7,500	0	14,800	0	0	0	0	0	0	104
Toledo Refining Co LLC										
Toledo .....	9,950	10,800	0	8,000	0	0	0	0	0	116
<b>Oklahoma</b> .....	<b>35,141</b>	<b>21,000</b>	<b>43,414</b>	<b>900</b>	<b>13,000</b>	<b>0</b>	<b>10,000</b>	<b>9,050</b>	<b>72</b>	<b>324</b>
HollyFrontier Tulsa Refining LLC										
Tulsa East .....	5,500	0	15,200	0	13,000	0	0	0	0	75
Tulsa West .....	0	0	6,500	900	0	0	10,000	2,750	0	0
Phillips 66 Company										
Ponca City .....	17,129	0	0	0	0	0	0	6,300	35	0
Valero Refining Co Oklahoma										
Ardmore .....	7,012	0	14,714	0	0	0	0	0	27	249
Wynnewood Refining Co										
Wynnewood .....	5,500	21,000	7,000	0	0	0	0	0	10	0
<b>Pennsylvania</b> .....	<b>42,500</b>	<b>4,920</b>	<b>22,065</b>	<b>8,000</b>	<b>8,500</b>	<b>0</b>	<b>2,945</b>	<b>0</b>	<b>0</b>	<b>282</b>
American Refining Group Inc										
Bradford .....	0	0	65	0	0	0	2,945	0	0	0
Monroe Energy LLC										
Trainer .....	12,000	0	0	0	0	0	0	0	0	90
Philadelphia Energy Solutions										
Philadelphia .....	26,000	4,920	0	8,000	0	0	0	0	0	125

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
United Refining Co										
Warren .....	4,500	0	22,000	0	8,500	0	0	0	0	67
<b>Tennessee .....</b>	<b>12,700</b>	<b>29,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>116</b>
Premcor Refining Group Inc										
Memphis .....	12,700	29,000	0	0	0	0	0	0	30	116
<b>Texas .....</b>	<b>378,350</b>	<b>127,564</b>	<b>64,600</b>	<b>61,400</b>	<b>150,240</b>	<b>0</b>	<b>82,795</b>	<b>292,564</b>	<b>458</b>	<b>16,105</b>
Alon USA Energy Inc										
Big Spring .....	5,000	1,000	7,600	0	0	0	0	0	0	150
Citgo Refining & Chemical Inc										
Corpus Christi .....	24,000	16,200	0	0	0	0	0	17,160	0	368
Deer Park Refining LTD Partnership										
Deer Park .....	18,500	0	0	0	0	0	0	35,080	0	1,085
Delek Refining LTD										
Tyler .....	4,700	0	0	0	0	0	0	1,500	0	39
Equistar Chemicals LP										
Channelview .....	22,000	0	0	0	0	0	0	0	0	0
ExxonMobil Refining & Supply Co										
Baytown .....	37,000	0	0	0	0	0	28,000	22,750	0	1,828
Beaumont .....	14,900	0	0	11,200	25,800	0	10,000	15,039	0	590
Flint Hills Resources LP										
Corpus Christi .....	15,500	0	0	4,900	3,500	0	0	3,925	0	426
Houston Refining LP										
Houston .....	11,250	19,300	0	0	0	0	3,895	29,850	0	1,123
Marathon Petroleum Co LP										
Galveston Bay .....	40,000	35,600	0	0	0	0	0	11,900	0	1,452
Texas City .....	14,500	2,900	0	0	0	0	0	0	0	40
Motiva Enterprises LLC										
Port Arthur .....	20,000	0	0	0	49,140	0	39,000	47,850	52	2,912

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Pasadena Refining Systems Inc										
Pasadena .....	12,500	0	0	0	0	0	0	0	0	28
Phillips 66 Company										
Sweeny .....	21,700	11,600	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	1,064	0	0	4,400	0	0	0	0	0
Total Petrochemicals & Refining USA										
Port Arthur .....	6,700	13,600	0	0	7,800	0	0	19,200	0	806
Valero Energy Corporation										
Sunray .....	9,800	0	12,000	3,000	0	0	0	0	30	75
Three Rivers .....	6,500	10,800	0	3,000	0	0	1,900	0	0	134
Valero Refining Co Texas LP										
Corpus Christi .....	21,300	15,500	38,000	17,000	12,000	0	0	6,270	275	1,288
Houston .....	11,800	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	7,000	7,300	0	0	0	0	10	0
WRB Refining LP										
Borger .....	14,000	0	0	15,000	31,000	0	0	8,000	91	340
<b>Utah .....</b>	<b>18,900</b>	<b>0</b>	<b>1,800</b>	<b>3,200</b>	<b>6,000</b>	<b>0</b>	<b>0</b>	<b>2,500</b>	<b>0</b>	<b>95</b>
Big West Oil Co										
North Salt Lake .....	3,000	0	0	1,900	3,000	0	0	0	0	4
Chevron USA Inc										
Salt Lake City .....	5,600	0	0	1,300	0	0	0	2,500	0	63
HollyFrontier Woods Cross Refining LLC										
Woods Cross .....	3,300	0	1,800	0	3,000	0	0	0	0	10

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Tesoro West Coast										
Salt Lake City .....	7,000	0	0	0	0	0	0	0	0	18
<b>Washington .....</b>	<b>36,100</b>	<b>0</b>	<b>13,500</b>	<b>12,300</b>	<b>28,500</b>	<b>0</b>	<b>0</b>	<b>23,650</b>	<b>137</b>	<b>822</b>
BP West Coast Products LLC										
Ferndale .....	0	0	0	6,000	24,000	0	0	15,250	137	284
Phillips 66 Company										
Ferndale .....	10,200	0	0	2,700	0	0	0	0	0	123
Shell Oil Products US										
Anacortes .....	12,100	0	0	0	0	0	0	8,400	0	350
Tesoro West Coast										
Anacortes .....	13,800	0	5,500	3,600	0	0	0	0	0	54
US Oil & Refining Co										
Tacoma .....	0	0	8,000	0	4,500	0	0	0	0	11
<b>West Virginia .....</b>	<b>0</b>	<b>0</b>	<b>700</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,100</b>	<b>0</b>	<b>3</b>	<b>1</b>
Ergon West Virginia Inc										
Newell .....	0	0	700	0	0	0	6,100	0	3	1
<b>Wisconsin .....</b>	<b>1,600</b>	<b>6,000</b>	<b>7,900</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>
Calumet Lubricants Co LP										
Superior .....	1,600	6,000	7,900	0	0	0	0	0	0	34
<b>Wyoming .....</b>	<b>10,000</b>	<b>0</b>	<b>24,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11,700</b>	<b>58</b>	<b>333</b>
HollyFrontier Cheyenne Refining LLC										
Cheyenne .....	4,200	0	16,000	0	0	0	0	4,700	6	116
Little America Refining Co										
Evansville .....	0	0	0	0	0	0	0	0	0	10
Sinclair Wyoming Refining Co										
Sinclair .....	4,500	0	8,000	0	0	0	0	7,000	52	207

**Table 4. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2016**

(Barrels per Stream Day, Except Where Noted)

State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isomers			Lubricants	Marketable Petroleum Coke	Hydrogen <sup>a</sup> (MMcfd)	Sulfur (short tons per day)
				Isobutane	Isopentane and Isohexane	Isooctane				
Wyoming Refining Co										
New Castle .....	1,300	0	0	0	0	0	0	0	0	0
<b>U.S. Total .....</b>	<b>1,286,012</b>	<b>323,275</b>	<b>732,587</b>	<b>192,085</b>	<b>562,960</b>	<b>200</b>	<b>273,140</b>	<b>889,491</b>	<b>2,997</b>	<b>41,343</b>

<sup>a</sup> Includes hydrogen production capacity of hydrogen plants on refinery grounds.

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, 2016**

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
<b>Companies with Capacity Over 100,000 bbl/cd</b>		Galveston Bay, Texas .....	459,000
VALERO ENERGY CORP .....	2,062,300	Catlettsburg, Kentucky .....	273,000
Valero Refining Co Texas LP		Robinson, Illinois .....	212,000
Corpus Christi, Texas .....	293,000	Detroit, Michigan .....	132,000
Texas City, Texas .....	225,000	Canton, Ohio .....	93,000
Houston, Texas .....	100,000	Texas City, Texas .....	86,000
Premcor Refining Group Inc		PHILLIPS 66 COMPANY .....	1,612,200
Port Arthur, Texas .....	335,000	Phillips 66 Company	
Memphis, Tennessee .....	190,000	Westlake, Louisiana .....	260,000
Valero Energy Corporation		Belle Chasse, Louisiana .....	247,000
Sunray, Texas .....	168,000	Sweeny, Texas .....	247,000
Meraux, Louisiana .....	125,000	Linden, New Jersey .....	238,000
Three Rivers, Texas .....	89,000	Ponca City, Oklahoma .....	200,000
Valero Refining Co California		Wilmington, California .....	139,000
Benicia, California .....	145,000	Rodeo, California .....	120,200
Wilmington Refinery, California .....	85,000	Ferndale, Washington .....	101,000
Wilmington Asphalt Plant, California .....	6,300	Billings, Montana .....	60,000
Valero Refining New Orleans LLC		MOTIVA ENTERPRISES LLC .....	1,075,700
Norco, Louisiana .....	215,000	(50% Royal Dutch/Shell Group, 50% Saudi Aramco)	
Valero Refining Co Oklahoma		Motiva Enterprises LLC	
Ardmore, Oklahoma .....	86,000	Port Arthur, Texas .....	603,000
EXXON MOBIL CORP .....	1,857,500	Norco, Louisiana .....	237,700
ExxonMobil Refining & Supply Co		Convent, Louisiana .....	235,000
Baytown, Texas .....	560,500	CHEVRON CORP .....	951,271
Baton Rouge, Louisiana .....	502,500	Chevron USA Inc	
Beaumont, Texas .....	344,600	Pascagoula, Mississippi .....	330,000
Joliet, Illinois .....	238,600	El Segundo, California .....	269,000
Torrance, California .....	151,300	Richmond, California .....	245,271
Billings, Montana .....	60,000	Honolulu, Hawaii .....	54,000
MARATHON PETROLEUM CORP .....	1,794,000	Salt Lake City, Utah .....	53,000
Marathon Petroleum Co LP			
Garyville, Louisiana .....	539,000		



**Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2016**

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
TESORO CORP .....	831,030	BP Exploration Alaska Inc	
Tesoro Refining & Marketing Co		Prudhoe Bay, Alaska .....	10,500
Carson, California .....	256,830	KOCH INDUSTRIES INC .....	585,630
Martinez, California .....	166,000	Flint Hills Resources LP	
Wilmington, California .....	98,340	Corpus Christi, Texas .....	295,630
Tesoro West Coast		Saint Paul, Minnesota .....	290,000
Anacortes, Washington .....	120,000	WRB REFINING LP .....	482,000
Mandan, North Dakota .....	73,860	WRB Refining LP	
Salt Lake City, Utah .....	57,500	Wood River, Illinois .....	336,000
Tesoro Alaska Petroleum Co		(50% Phillips 66, 50% Cenovus)	
Kenai, Alaska .....	58,500	Borger, Texas .....	146,000
PDV AMERICA INC .....	761,240	(50% Phillips 66, 50% Cenovus)	
Citgo Petroleum Corp		HOLLYFRONTIER CORP .....	467,350
Lake Charles, Louisiana .....	427,800	HollyFrontier Tulsa Refining LLC	
PDV Midwest Refining LLC		Tulsa West, Oklahoma .....	85,000
Lemont, Illinois .....	175,940	Tulsa East, Oklahoma .....	70,300
Citgo Refining & Chemical Inc		HollyFrontier El Dorado Refining LLC	
Corpus Christi, Texas .....	157,500	El Dorado, Kansas .....	138,000
PBF ENERGY CO LLC .....	694,700	HollyFrontier Navajo Refining LLC	
Chalmette Refining LLC <sup>a</sup>		Artesia, New Mexico .....	102,000
Chalmette, Louisiana .....	192,500	HollyFrontier Cheyenne Refining LLC	
Delaware City Refining Co LLC		Cheyenne, Wyoming .....	47,000
Delaware City, Delaware .....	182,200	HollyFrontier Woods Cross Refining LLC	
Paulsboro Refining Co LLC		Woods Cross, Utah .....	25,050
Paulsboro, New Jersey .....	160,000	ROYAL DUTCH/SHELL GROUP .....	437,975
Toledo Refining Co LLC		Shell Oil Products US	
Toledo, Ohio .....	160,000	Martinez, California .....	156,400
BP PLC .....	651,000	Anacortes, Washington .....	145,000
BP Products North America Inc		Saint Rose, Louisiana .....	45,000
Whiting, Indiana .....	413,500	Shell Chemical LP	
BP West Coast Products LLC		Saraland, Alabama .....	91,575
Ferndale, Washington .....	227,000		

**Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2016**

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
CARLYLE GROUP		Calumet Shreveport LLC	
Philadelphia Energy Solutions		Shreveport, Louisiana .....	57,000
Philadelphia, Pennsylvania .....	335,000	Calumet Montana Refining LLC	
DEER PARK REFINING LTD PTNRSHIP (50% Royal Dutch/Shell Group, 50% Pemex)		Great Falls, Montana .....	33,600
Deer Park Refining LTD Partnership		Calumet Lubricants Co	
Deer Park, Texas .....	285,500	San Antonio, Texas .....	20,000
ACCESS INDUSTRIES		DELEK GROUP LTD .....	155,000
Houston Refining LP		Lion Oil Co	
Houston, Texas .....	263,776	El Dorado, Arkansas .....	83,000
ALON ISRAEL OIL COMPANY LTD .....	237,500	Delek Refining LTD	
Paramount Petroleum Corporation		Tyler, Texas .....	72,000
Paramount, California .....	84,500	BP-HUSKY REFINING LLC (50% BP, 50% Husky)	
Alon Refining Krotz Springs Inc		BP-Husky Refining LLC	
Krotz Springs, Louisiana .....	80,000	Toledo, Ohio .....	153,000
Alon USA Energy Inc		HUSKY ENERGY INC	
Big Spring, Texas .....	73,000	Lima Refining Company	
TOTAL SA		Lima, Ohio .....	152,000
Total Petrochemicals & Refining USA		WESTERN REFINING INC. ....	147,500
Port Arthur, Texas .....	225,500	Western Refining Company LP	
DELTA AIR LINES INC		El Paso, Texas .....	122,000
Monroe Energy LLC		Western Refining Southwest Inc	
Trainer, Pennsylvania .....	190,000	Gallup, New Mexico .....	25,500
CVR ENERGY .....	185,000	CHS INC .....	145,600
Coffeyville Resources Rfg & Mktg		CHS McPherson Refinery Inc	
Coffeyville, Kansas .....	115,000	b	
Wynnewood Refining Co		McPherson, Kansas .....	86,000
Wynnewood, Oklahoma .....	70,000	Cenex Harvest States Coop	
CALUMET SPECIALTY PRODUCTS PARTNERS, L.P. ....	169,920	Laurel, Montana .....	59,600
Calumet Lubricants Co LP		PETROBRAS AMERICA INC	
Superior, Wisconsin .....	38,000	Pasadena Refining Systems Inc	
Cotton Valley, Louisiana .....	13,020	Pasadena, Texas .....	112,229
Princeton, Louisiana .....	8,300		



**Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2016**

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
KERN OIL & REFINING CO		Santa Maria, California .....	9,500
Kern Oil & Refining Co		WORLD OIL CO	
Bakersfield, California .....	26,000	Lunday Thagard Co	
PETROMAX REFINING CO LLC		South Gate, California .....	8,500
Petromax Refining Co LLC		MARTIN RESOURCE MGMT CORP	
Houston, Texas .....	25,000	Cross Oil Refining & Marketing Inc	
DAKOTA PRAIRIE REFINING		Smackover, Arkansas .....	7,500
Dakota Prairie Refining LLC		CONTINENTAL REFINING CO LLC	
Dickinson, North Dakota .....	19,500	Continental Refining Company LLC	
BLACK ELK REFINING LLC		Somerset, Kentucky .....	5,500
Wyoming Refining Co		GOODWAY REFINING LLC	
New Castle, Wyoming .....	18,000	Goodway Refining LLC	
SILVER EAGLE REFINING INC	18,000	Atmore, Alabama .....	4,100
Silver Eagle Refining		GENESIS ENERGY LP	
Woods Cross, Utah .....	15,000	Antelope Refining LLC	
Evanston, Wyoming .....	3,000	Douglas, Wyoming .....	3,800
CONOCOPHILLIPS		FORELAND REFINING CORP	
ConocoPhillips Alaska Inc		Foreland Refining Corp	
Prudhoe Bay, Alaska .....	15,000	Ely, Nevada .....	2,000
SAN JOAQUIN REFINING CO INC		<b>Total.....</b>	<b>40,900</b>
San Joaquin Refining Co Inc		<b>U.S. Total.....</b>	<b>18,317,036</b>
Bakersfield, California .....	15,000		
BLUE DOLPHIN ENERGY CO			
Lazarus Energy LLC			
Nixon, Texas .....	13,765		
AMERICAN REFINING GROUP INC			
American Refining Group Inc			
Bradford, Pennsylvania .....	11,000		
<b>Total.....</b>	<b>188,365</b>		
<b>Companies with Capacity 10,000 bbl/cd or Less</b>			
GREKA ENERGY			
Santa Maria Refining Company			

**Table 5. Refiners' Total Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2016**

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

<sup>a</sup> Formerly 50% ExxonMobil, 50% PDV.

<sup>b</sup> Formerly owned by NCRA.

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

**Table 6. Operable Crude Oil and Downstream Charge Capacity of Petroleum Refineries, January 1, 1987 to****January 1, 2016**

(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, 1987	16,460	6,935	1,928	5,251	466	1,189	3,805	9,083	230
JAN 1, 1988	16,825	7,198	2,080	5,424	381	1,202	3,891	9,170	240
JAN 1, 1989	16,568	7,225	2,073	5,324	326	1,238	3,911	9,440	245
JAN 1, 1990	16,507	7,245	2,108	5,441	314	1,282	3,896	9,537	279
JAN 1, 1991	16,557	7,276	2,158	5,559	304	1,308	3,926	9,676	271
JAN 1, 1992	16,633	7,127	2,100	5,608	280	1,363	3,907	9,644	276
JAN 1, 1993	15,935	6,892	2,082	5,540	244	1,397	3,728	9,677	269
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
<b>JAN 1, 2016</b>	<b>19,508</b>	<b>9,073</b>	<b>2,983</b>	<b>6,052</b>	<b>76</b>	<b>2,318</b>	<b>3,743</b>	<b>17,483</b>	<b>371</b>
PADD I	1,353	586	82	499	5	45	264	1,030	22
PADD II	4,221	1,775	577	1,339	16	322	893	3,867	18
PADD III	10,118	4,830	1,636	3,118	34	1,309	1,864	9,319	244
PADD IV	720	256	90	210	5	55	134	592	6
PADD V	3,096	1,626	599	887	16	586	588	2,675	80
<b>JAN 1, 2017<sup>a</sup></b>	<b>19,668</b>	<b>9,074</b>	<b>2,985</b>	<b>6,061</b>	<b>76</b>	<b>2,373</b>	<b>3,745</b>	<b>17,624</b>	<b>371</b>
PADD I	1,353	586	82	499	5	45	264	1,046	22
PADD II	4,256	1,775	579	1,339	16	348	893	3,893	18
PADD III	10,228	4,830	1,636	3,118	34	1,332	1,866	9,417	244
PADD IV	735	256	90	218	5	61	134	593	6
PADD V	3,096	1,626	599	887	16	586	588	2,675	80
<b>2016-2017<sup>a</sup></b>	<b>160</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>55</b>	<b>2</b>	<b>141</b>	<b>0</b>
PADD I	0	0	0	0	0	0	0	16	0
PADD II	35	0	2	0	0	26	0	26	0
PADD III	110	0	0	0	0	23	2	98	0
PADD IV	15	0	0	8	0	6	0	1	0
PADD V	0	0	0	0	0	0	0	0	0

<sup>a</sup> 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, January 1, 1987 to January 1, 2016**

(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 <sup>a</sup> (MMcfd)	Sulfur (short tons/day)
JAN 1, 1987	974	287	788	326	250	364	2,569	23,806
JAN 1, 1988	993	289	788	465	232	368	2,418	27,639
JAN 1, 1989	1,015	290	823	469	230	333	2,501	28,369
JAN 1, 1990	1,030	290	844	456	232	341	2,607	24,202
JAN 1, 1991	1,077	292	866	490	229	367	2,527	23,875
JAN 1, 1992	1,095	290	812	494	217	356	2,644	23,811
JAN 1, 1993	1,083	286	814	499	217	393	2,674	25,940
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
<b>JAN 1, 2016</b>	<b>1,286</b>	<b>323</b>	<b>733</b>	<b>755</b>	<b>273</b>	<b>889</b>	<b>2,997</b>	<b>41,343</b>
PADD I	83	10	93	27	21	21	69	1,159
PADD II	281	113	267	168	10	173	582	8,352
PADD III	633	198	201	325	202	501	910	24,820
PADD IV	46	0	82	17	0	28	177	1,033
PADD V	243	2	89	219	40	167	1,259	5,979
<b>JAN 1, 2017<sup>b</sup></b>	<b>1,290</b>	<b>323</b>	<b>733</b>	<b>755</b>	<b>273</b>	<b>890</b>	<b>3,038</b>	<b>41,634</b>
PADD I	83	10	93	27	21	21	69	1,159
PADD II	281	113	267	168	10	173	604	8,352
PADD III	634	198	201	325	202	501	912	25,111
PADD IV	48	0	82	17	0	28	194	1,033
PADD V	243	2	89	219	40	167	1,259	5,979
<b>2016-2017<sup>b</sup></b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>41</b>	<b>291</b>
PADD I	0	0	0	0	0	0	0	0
PADD II	0	0	0	0	0	0	22	0
PADD III	1	0	0	0	0	0	2	291
PADD IV	2	0	0	0	0	0	17	0
PADD V	0	0	0	0	0	0	0	0

<sup>a</sup> Includes hydrogen production capacity of hydrogen plants on refinery grounds.<sup>b</sup> 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, 2014 - 2016**  
(Barrels per Calendar Day)

Year/PAD District	Cokers		Catalytic Crackers		Hydrocrackers		Reformers	
	Capacity	Inputs	Capacity	Inputs	Capacity	Inputs	Capacity	Inputs
<b>2014</b>	<b>2,686,917</b>	<b>2,337,425</b>	<b>5,616,015</b>	<b>4,884,975</b>	<b>2,034,689</b>	<b>1,662,603</b>	<b>3,419,407</b>	<b>2,591,992</b>
PADD I	74,900	47,633	475,800	407,342	41,500	29,849	240,550	175,036
PADD II	520,521	444,060	1,213,427	1,023,877	310,950	267,016	837,754	645,874
PADD III	1,479,496	1,312,296	2,916,764	2,598,230	1,118,239	879,381	1,699,083	1,290,449
PADD IV	82,500	62,833	189,324	167,647	28,500	21,241	118,360	98,452
PADD V	529,500	470,603	820,700	687,879	535,500	465,115	523,660	382,181
<b>2015</b>	<b>2,686,299</b>	<b>2,366,852</b>	<b>5,583,169</b>	<b>4,834,386</b>	<b>2,123,431</b>	<b>1,700,249</b>	<b>3,392,641</b>	<b>2,731,167</b>
PADD I	74,900	51,699	473,800	406,197	41,500	34,847	237,550	181,392
PADD II	519,740	439,066	1,217,590	1,054,008	312,850	253,332	814,550	654,940
PADD III	1,489,899	1,361,005	2,882,183	2,584,515	1,202,201	956,816	1,702,952	1,394,682
PADD IV	82,500	68,090	188,576	166,455	28,500	18,792	117,160	100,225
PADD V	519,260	446,992	821,020	623,211	538,380	436,463	520,429	399,929
<b>2016</b>	<b>2,650,839</b>	<b>NA</b>	<b>5,596,552</b>	<b>NA</b>	<b>2,121,715</b>	<b>NA</b>	<b>3,385,049</b>	<b>NA</b>
PADD I	74,900	NA	475,800	NA	41,500	NA	241,050	NA
PADD II	521,543	NA	1,235,625	NA	292,600	NA	812,460	NA
PADD III	1,458,026	NA	2,867,837	NA	1,193,745	NA	1,700,570	NA
PADD IV	82,500	NA	195,480	NA	51,700	NA	118,830	NA
PADD V	513,870	NA	821,810	NA	542,170	NA	512,139	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 2014 data is final, 2015 data is preliminary.



**Table 9. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 2015<sup>a</sup>**

(Thousand Barrels)

Method	PAD Districts					United States
	I	II	III	IV	V	
<b>Pipeline</b>	<b>25,319</b>	<b>1,270,581</b>	<b>1,894,658</b>	<b>178,448</b>	<b>290,577</b>	<b>3,659,583</b>
Domestic	2,766	679,552	1,624,647	86,978	222,419	2,616,362
Foreign	22,553	591,029	270,011	91,470	68,158	1,043,221
<b>Tanker</b>	<b>305,663</b>	<b>0</b>	<b>941,152</b>	<b>0</b>	<b>513,584</b>	<b>1,760,399</b>
Domestic	119,833	0	28,324	0	180,353	328,510
Foreign	185,830	0	912,828	0	333,231	1,431,889
<b>Barge</b>	<b>22,367</b>	<b>4,569</b>	<b>227,383</b>	<b>0</b>	<b>28,604</b>	<b>282,923</b>
Domestic	15,192	4,569	171,808	0	3,649	195,218
Foreign	7,175	0	55,575	0	24,955	87,705
<b>Tank Cars (Rail)</b>	<b>53,713</b>	<b>1,465</b>	<b>13,440</b>	<b>17</b>	<b>56,605</b>	<b>125,240</b>
Domestic	48,658	1,429	6,313	17	54,373	110,790
Foreign	5,055	36	7,127	0	2,232	14,450
<b>Trucks</b>	<b>2,924</b>	<b>24,145</b>	<b>100,003</b>	<b>41,420</b>	<b>8,161</b>	<b>176,653</b>
Domestic	2,924	24,145	100,003	41,420	8,161	176,653
Foreign	0	0	0	0	0	0
<b>Total</b>	<b>409,986</b>	<b>1,300,760</b>	<b>3,176,636</b>	<b>219,885</b>	<b>897,531</b>	<b>6,004,798</b>
Domestic	189,373	709,695	1,931,095	128,415	468,955	3,427,533
Foreign	220,613	591,065	1,245,541	91,470	428,576	2,577,265

<sup>a</sup>

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, 2015**  
(Thousand Barrels, Except Where Noted)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Crude Oil	0	0	0	0	0	0
Liquefied Petroleum Gases	0	1,834	309	20	846	3,009
Distillate Fuel Oil	0	26	220	8	110	364
Residual Fuel Oil	20	18	22	2	333	395
Still Gas	15,955	50,290	112,346	8,842	44,613	232,046
Marketable Petroleum Coke	0	0	0	520	90	610
Catalyst Petroleum Coke	8,229	17,001	43,013	2,876	10,891	82,010
Natural Gas (million cubic feet)	48,181	151,555	445,865	28,953	177,513	852,067
Coal (thousand short tons)	17	0	0	0	0	17
Purchased Electricity (million kWh)	2,664	12,821	25,048	2,142	4,185	46,860
Purchased Steam (million pounds)	4,611	10,684	98,350	1,755	12,939	128,339
Other Products <sup>a</sup>	61	78	333	13	466	951

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.)

<sup>a</sup> Includes pentanes plus, other hydrocarbons, oxygenates, 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 by PAD District, 2015**  
(Million Cubic Feet)

Commodity	PAD Districts					United States
	I	II	III	IV	V	
Natural Gas Used As Feedstock For Hydrogen Production	5,865	48,390	56,223	12,330	58,145	180,953

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

**Table 11. New, Shutdown and Reactivated Refineries During 2015**

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd) <sup>a</sup>	Total Downstream Charge Capacity (bbl/sd) <sup>b</sup>	Date Operable	Date of Last Operation	Date Shutdown
<b>NEW</b>						
<b>PAD District III</b>		<b>71,250</b>				
Buckeye Texas Processing LLC	Corpus Christi, TX	46,250		11/15		
Petromax Refining Co LLC	Houston, TX	25,000		07/15		
<b>SHUTDOWN</b>						
<b>PAD District III</b>		<b>0</b>	<b>12,000</b>			
Pelican Refining Company LLC	Lake Charles, LA	0	12,000		12/14	01/15

<sup>a</sup> bbl/cd=Barrels per calendar day.

<sup>b</sup> bbl/sd=Barrels per stream day.

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

**Table 12. Refinery Sales During 2015**

Former Corporation/Refiner	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	New Corporation/Refiner	Date of Sale
<b>CHS Inc./NCRA</b> McPherson, KS	86,000	<b>CHS Inc./CHS McPherson Refinery Inc.</b>	9/15
<b>Chalmette Refining LLC</b> Chalmette, LA	192,500	<b>PBF Energy Co LLC/Chalmette Refining LLC</b>	11/15

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, 2016**

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bb/cd)	Total Downstream Charge Capacity (bb/sd)	Date of Last Operation	Date Shutdown
<b>PAD District I</b>		<b>570,450</b>			
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
Axeon Specialty Products LLC	Savannah, GA	28,000	0	09/12	12/14
<b>PAD District II</b>		<b>472,315</b>			
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

**Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2016**

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
<b>PAD District III</b>		<b>299,480</b>			
Imron Refining, Inc.	San Leon, TX	7,000	0	c	08/90
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	02/92
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
<b>PAD District IV</b>		<b>58,000</b>			
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

**Table 13. Refineries Permanently Shutdown By PAD District Between January 1, 1990 and January 1, 2016**

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date of Last Operation	Date Shutdown
<b>PAD District V</b>		<b>410,360</b>			
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	10/92
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	06/14
<b>U.S. Total</b>		<b>1,810,605</b>			
<b>PAD District VI</b>		<b>704,300</b>			
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
Hovensa LLC	Kingshill, VI	500,000	1,086,000	02/12	02/12

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

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 crude oil and 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, 2016 there were 141 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 electronic mail or facsimile. 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 three 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:

<http://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 hydrotreating and hydrorefining. 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 and September 30 on the Form EIA-810, "Monthly Refinery Report."