

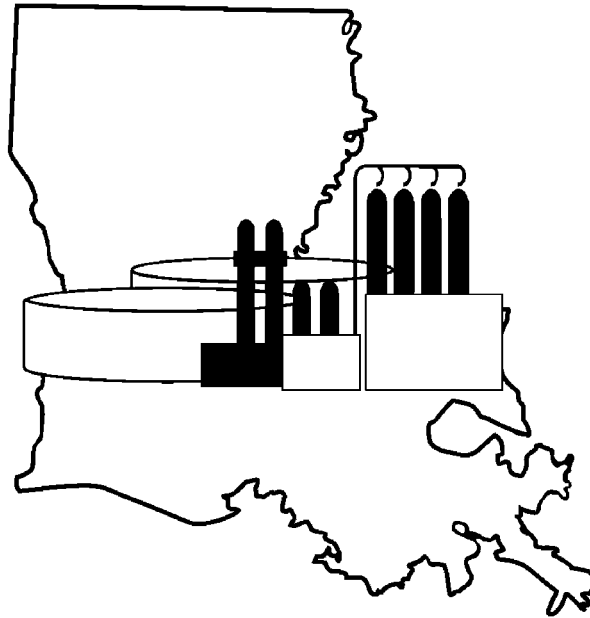
LOUISIANA CRUDE OIL REFINERY SURVEY REPORT

Fifteenth Edition

2006 Survey

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Refining, Alternative Energy & Power Systems Program



LOUISIANA DEPARTMENT OF NATURAL RESOURCES

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Baton Rouge, Louisiana
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Table of Contents

	<u>Page</u>
Foreword.....	iii
Discussion	
Overview.....	2
Increasing Ethanol Usage	4
Ultra Low Sulfur Diesel (ULSD) Phase-In.....	4
Hurricanes Katrina and Rita.....	4
Operating Refinery Recent Changes.....	6
Non-Operating Refinery Recent Changes	6
Definitions.....	7

Figures

1 Location Map of Louisiana Refineries	1
2 Operating Capacity of Louisiana and U.S. Refineries.....	21
3 Operating Rates of Louisiana, Texas Gulf Coast, and U.S. Refineries	22
4 Louisiana Oil Production (Excluding OCS) and Refinery Operable Capacity.....	23
5 Historical Crude Oil Sources for Louisiana Refineries	24
6 Crude Oil Input Percentages by Source and Refinery	25
7 Gulf Coast Refinery Cash Operating Margins.....	27

Tables

Operating Refineries

1 Louisiana Operating Refineries, Capacity and Throughput Changes.....	9
2 Louisiana Operating Refineries, Crude Capacity and Percent Product Slate 2006 DNR Survey.....	10
3 U.S. Department of Energy, Capacity of Louisiana Operable Petroleum Refineries	12

4	U.S. Department of Energy, Production Capacity of Louisiana Operable Petroleum Refineries.....	15
5	<i>Oil and Gas Journal</i> 2006 Worldwide Refining Survey Capacities of Louisiana Refineries	16
6	Crude Oil Input Percentages by Source and Refinery	26
7	Louisiana Operating Refinery Mailing Address and Contact Information.....	28
8	Louisiana Operating Refinery Locations	29
9	Louisiana Operating Refinery Name History (1980 – 2006).....	30
<u>Non-Operating Refineries</u>		
10	Louisiana Non-Operating Refinery Mailing Address and Contact Information	31
11	Louisiana Non-Operating Refinery Location and Status Information.....	32
12	Louisiana Non-Operating Refinery Name History (1980 – 2006)	33

Foreword

Since 1989, the Technology Assessment Division of the Louisiana Department of Natural Resources (DNR) has periodically conducted surveys of Louisiana crude oil refineries. The results of the survey are compiled into a report focusing on developments that have occurred since the previous survey. These include an overview of the general direction of the industry and updated information on the current status of refinery ownership, mailing addresses, operating status, and key personnel. Tabulated statistical data, charts, and graphs relating to oil production, refinery crude oil sources, refinery margins, capacities, operating rates, and product slate are also presented. Information on both operating and non-operating refineries that are still intact is included. The previous survey was published in June 2006.

The time period covered by DNR's current survey is July 1, 2005 – June 30, 2006, and is designed to complement the petroleum statistics published by the Energy Information Administration (EIA). DNR gratefully acknowledges permission to use the latest *Oil and Gas Journal* Worldwide Refining Survey results to provide another independent dataset for comparison.

The operating refining capacities, operating rates, and product slate statistics presented in this report are prepared from data supplied by survey respondents. The information on the non-operating refineries is obtained from their owners, trustees, or management personnel and is current within a few weeks of publication. The data used to construct the charts and graphs on oil production, refinery margins, and crude oil sources is obtained from DNR's database.

The principal terms and phrases used in this report are the same as those used in EIA publications. The definitions of these terms can be found on page 7 of this report. The slight difference in meaning between *operable* and *operating*, when used to specify capacity or utilization rate, has caused some confusion. "Operable" refers to the maximum amount of crude oil capacity that a refinery can utilize to process crude oil in its atmospheric stills; "operating" refers to the amount of crude oil capacity actually utilized. See page 7 for detailed definitions.

The Department of Natural Resources uses the information in this report to enhance the economic development efforts of the State by:

- Developing information on State and Federal energy policies that affect the oil and gas production and refining industries located in the State;
- Helping crude suppliers locate refining sources and refined petroleum product buyers locate sources of supply;
- Assisting new industries desiring to site facilities near refineries; and,
- Providing information to parties evaluating refineries for possible purchase.

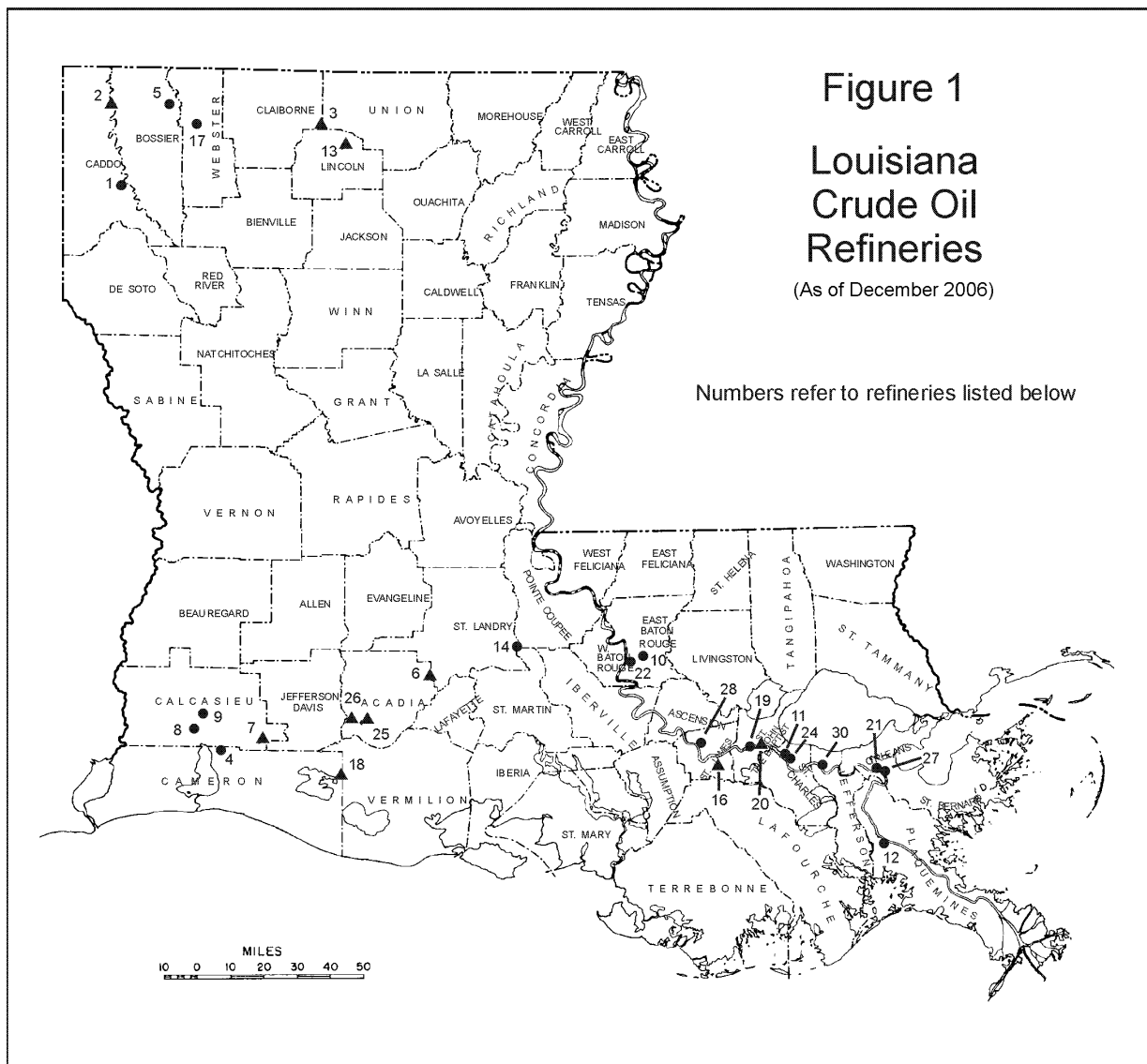
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Figure 1

Louisiana Crude Oil Refineries

(As of December 2006)

Numbers refer to refineries listed below



Technology Assessment Division

OPERATING REFINERIES ●		NON-OPERATING REFINERIES ▲	
1	Calumet Shreveport - Shreveport	6	Canal Refining - Church Point
4	Calcasieu Refining - Lake Charles	7	American International Refinery - Lake Charles
5	Calumet Lubricants - Princeton	18	Tina Resources - Talen's Landing
8	CITGO Petroleum - Lake Charles	25	Quantum Fuel & Refining - Egan
9	ConocoPhillips - Lake Charles	26	Gold Line Refining - Jennings
10	ExxonMobil - Baton Rouge		
11	Valero Refining - Norco		
12	ConocoPhillips - Belle Chasse		
14	Valero Refining - Krotz Springs		
17	Calumet Lubricants - Cotton Valley		
19	Marathon Petroleum - Garyville		
21	Murphy Oil U.S.A. - Meraux		
22	Placid Refining - Port Allen		
24	Motiva Enterprises - Norco		
27	Chalmette Refining - Chalmette		
28	Motiva Enterprises - Convent		
30	Shell Chemical - St. Rose		

Note: Refineries 2, 3, 13, 15, 16, 20, 23, and 29 have been intentionally removed from this listing because they no longer produce finished refinery products (15) or have been dismantled (all others).

Discussion

Overview

Louisiana is a primary energy producing state with 432 million barrels in crude reserves (2005), ranking it 7th among the states (2nd if the Louisiana portion of the federal outer continental shelf (OCS) is included). Louisiana ranks 4th among the states in crude oil production (1st if Louisiana OCS is included), with an estimated 73.9 million barrels produced in 2006. The Louisiana OCS territory is the most extensively developed and matured OCS territory in the United States. The Louisiana OCS territory has produced approximately 85% of the 16.7 billion barrels of crude oil and condensate consumed in the U.S. from the beginning of time through the end of 2006.

The discovery of these large quantities of crude oil led to the development of the refining and petrochemical industry in Louisiana. Louisiana's refining capacity grew with oil production until about 1970 when Louisiana's oil production peaked and began to decline. Refinery capacity continued to grow by processing more oil from other states as well as overseas. In 2005, 63% of refinery input was foreign crude.

All refineries and refining companies are not created equal. There are small refineries and large ones. Some are quite complex, while others are relatively simple. A number are part of major, integrated oil companies, and some are independent.

In addition to refining, integrated oil companies are engaged in all other aspects of the petroleum industry which range from the exploration of crude oil to the marketing of finished petroleum products.

Independent refiners, on the other hand, purchase most of their crude oil on the open market rather than producing it. Refiners such as Placid Refining Co. and Calcasieu Refining Co. are examples of independent refiners.

Major oil companies dominate the refining industry. The top 10 U.S. refiners, all of them major, integrated oil companies, account for about 78% of the total domestic refinery charge capacity. Most of these have operations in Louisiana, either as wholly owned facilities such as the Baton Rouge ExxonMobil refinery or as part owners or joint ventures such as Motiva Refineries in Norco and Convent.

Many refineries are primarily fuels refineries, some are lube stock refineries, and others are petrochemical refineries. The Shell oil refinery in St. Rose is a good example of a petrochemical refinery. All of its products are raw feed for a chemical plant. Table 2 (pg. 10 & 11) clearly shows the focus and product slate of the refiners in Louisiana.

Besides the level of vertical integration of a refiner and the product mix of a refinery, industry analysts also look at capacity and complexity.

A "complexity factor" is assigned to each process unit of a refinery based on its relative construction cost. The atmospheric crude distillation unit is assigned a value of one. For

example, the cost of a fluidized catalytic cracker is six times greater than an atmospheric crude distillation unit of the same capacity, so its unit complexity factor is six.

Greater complexity does not necessarily go hand-in-hand with larger capacity. Some of the smaller facilities in Louisiana are the most complex. For example, the smaller lube and wax producing refineries of North Louisiana are quite complex when compared to some very large refineries in the state.

EIA statistics show that overall U.S. petroleum product demand increased by 0.3% in 2005 to 20.802 million barrels per day. Finished motor gasoline supply rose 0.6% in 2005 to 9.159 million barrels per day, and jet fuel, after reversing its three year decline in 2004, rose 3.0% to 1.68 million barrels per day.

According to DNR's current survey, the Louisiana refinery operating rate was 84.5% for this survey period. Figure 3 (pg. 22) compares Louisiana, Texas gulf coast, and total U.S. refinery operating rates since 1991. The operating capacity for Louisiana refineries was 2,953,442 barrels per calendar day (bcd), an increase of 40,779 bcd over the previous survey. Table 1 (pg. 9) shows the details of operating capacity and throughput changes between DNR's two most recent surveys. Figure 2 (pg. 21) shows the historical Louisiana and U.S. operating capacity since 1953. Regular gasoline accounted for 48.3% of Louisiana refinery production. A complete listing of Louisiana refinery products is shown in Table 2 (pg. 11).

As reported in the *Oil & Gas Journal's* 2006 Worldwide Refinery Report, world wide refining capacity increased slightly by approximately 52,000 bcd to 85.179 million bcd (MMbcd). This was the fifth year in a row for record high world wide capacity, but the smallest increase since 2001. U.S. refining capacity increased by 146,418 bcd to 17.273 MMbcd, and Louisiana refining capacity increased by 22,720 bcd to 2.912 MMbcd. Louisiana ranks second among the states with 16.9% of the U.S. refining capacity. Texas ranks first with 27.8% and California ranks third with 11.4%.

The table to the right shows the ranking of the 10 largest refiners in the world according to crude capacity. There were no newcomers to the list, but some changes in ranking occurred in the 3rd through 8th positions. The most notable change was ConocoPhillips jumping from 8th to 5th.

World Rank	Company	Crude Capacity (bcd)
1	ExxonMobil	5,706,000
2	Royal Dutch Shell PLC	5,181,000
3	Sinopec	3,611,000
4	BP PLC	3,474,000
5	ConocoPhillips	2,927,000
6	Valero Energy Corp.	2,834,000
7	Petroleos de Venezuela SA	2,678,000
8	Total SA	2,668,000
9	China National Petroleum	2,440,000
10	Saudi Aramco	2,369,000

Source: *Oil & Gas Journal*, Dec. 18, 2006

Gulf Coast refinery margins for 2006 were over \$12 per barrel for the second straight year. Figure 7 (pg. 27) shows historical Gulf Coast refinery margins as reported in the *Oil & Gas Journal*. In 1999, the *Oil & Gas Journal* switched data sources from Wright Killen to Muse Stancil. Both sources trend similarly, but differ in value due to different assumptions about refinery operations. Wright Killen refining margins are gross cash margins before depreciation,

taxes, and financial charges, based on actual refinery yields and crude oil and wholesale product prices. Wright Killen estimates fixed costs, excluding most corporate expenses for such activities as research and development, and variable costs based on regional refinery configurations. Details about the methodology used by Muse Stancil are explained in the January 15, 2001 edition of the *Oil & Gas Journal*.

Increasing Ethanol Usage

Refiners nationwide are making adjustments to allow for increasing amounts of ethanol to be blended into gasoline. The increase is the result of the phase-out of methyl tertiary butyl ether (MTBE), the elimination of the oxygenate requirement for reformulated gasoline (RFG), and the enactment of a national renewable fuel standard.

The Clean Air Act Amendments of 1990 mandated the use of oxygenated gasoline in areas of high pollution. One of the programs designed to meet this requirement was the RFG program. MTBE is the preferred oxygenate (outside the Midwest region) for RFG because it is easier to blend, has a high octane rating, has lower volatility, and can be shipped through existing pipelines; however, the use of MTBE in gasoline has been banned in several states due to concerns over ground water contamination.

The Energy Policy Act of 2005 contained two provisions that led to the increasing use of ethanol. First, it eliminated the Clean Air Act's oxygenate requirement for RFG beginning in 2006. This removed a key defense in MTBE product liability suits, and has led to a further decrease in the use of MTBE. Ethanol is being used to make up for the volume loss associated with the removal of MTBE. Second, the legislation enacted a requirement that the gasoline pool contain a certain volume of renewable fuel. Ethanol is a renewable fuel and is being used to meet this requirement.

Ultra Low Sulfur Diesel (ULSD) Phase-In

The transition to ULSD began in 2006. The specifications for ULSD require a dramatic reduction in sulfur content, from 500 parts per million (ppm) to 15 ppm. The deadlines were: June 1st – 80% of refined and imported on-highway diesel had to be ULSD, September 1st – distribution terminals had to receive ULSD, and October 15th – ULSD had to be available at retail outlets. In order to reduce the sulfur content, many refiners had to make investments in desulfurization technology. So far, the transition has been relatively smooth with no major supply disruptions. By December 1, 2010, all on-highway diesel must be ULSD. A similar transition to ULSD for off-highway use is mandated to occur between 2010 and 2014.

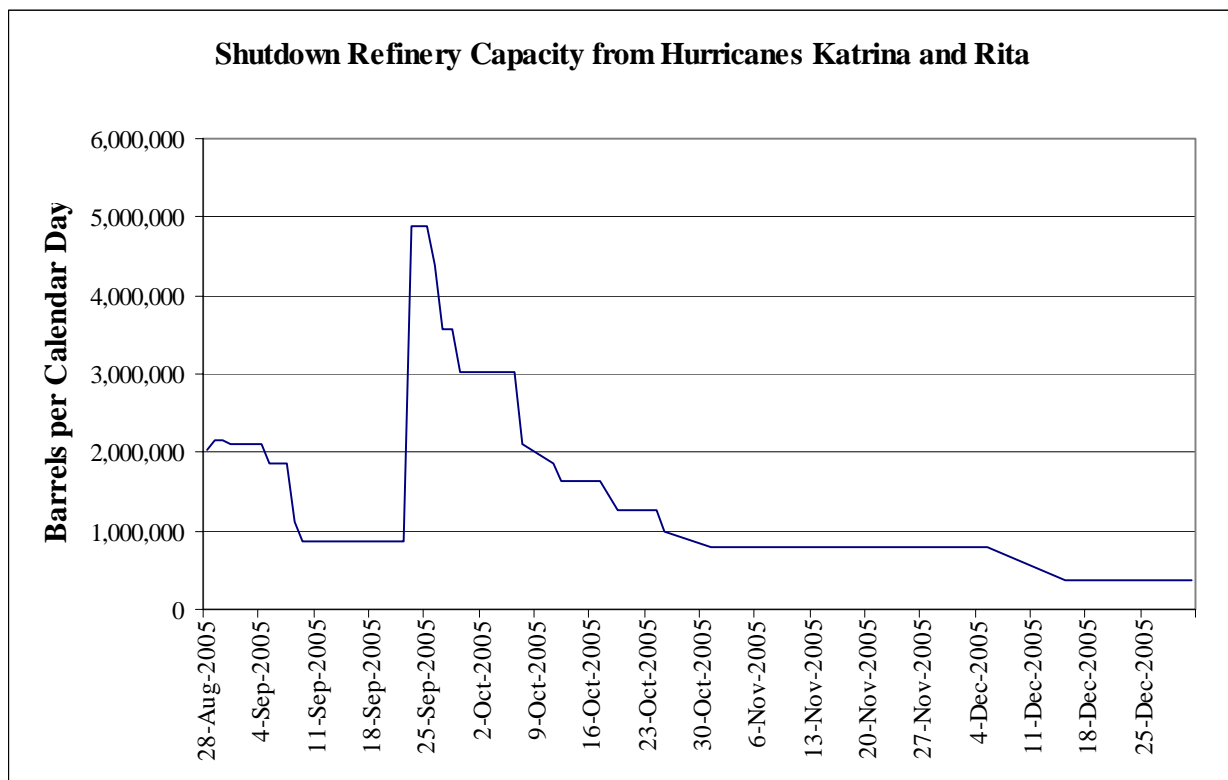
Hurricanes Katrina and Rita

Hurricanes Katrina and Rita struck during the time period covered by this survey. The storms caused major damage to 3 Louisiana refineries and slight to moderate damage to several Louisiana refineries. The refinery outages resulted in an 84.5% operating rate for this survey period. Prior to this, the operating rate for Louisiana refineries had not been below 90% since 1992. The table below lists the Louisiana refineries affected by Hurricanes Katrina and Rita.

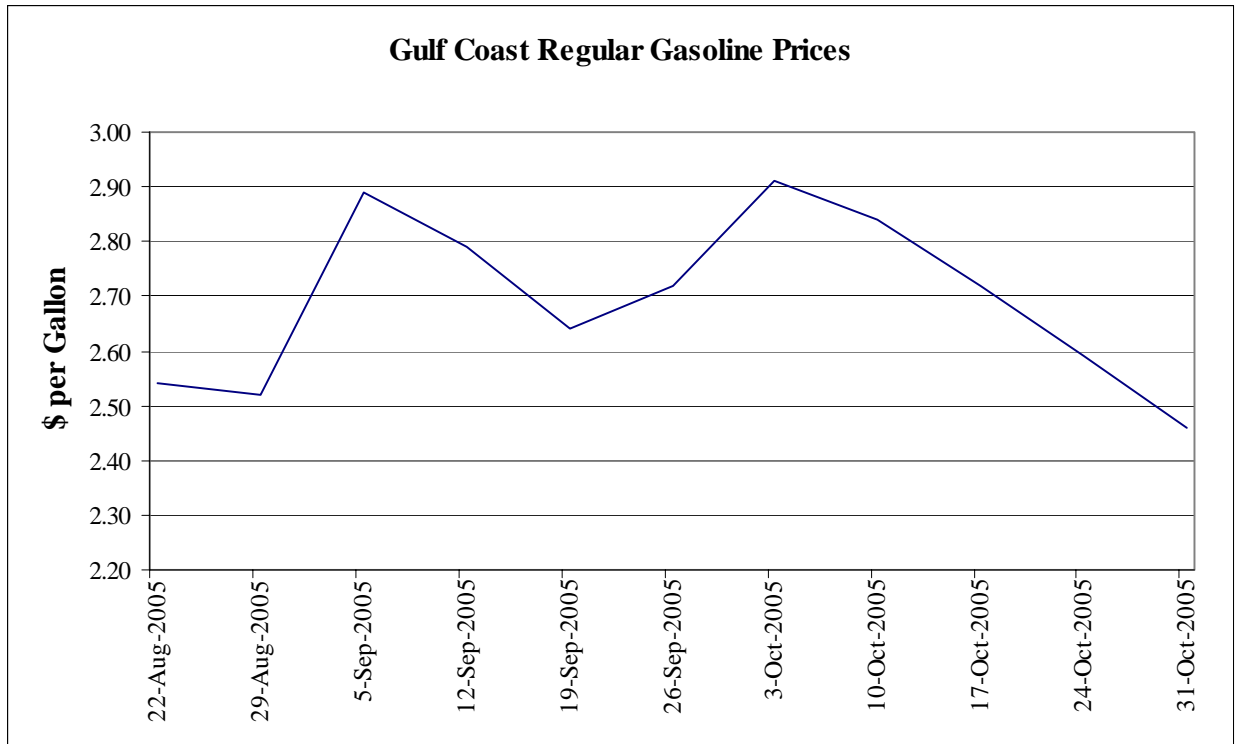
Louisiana Refineries Affected by '05 Hurricanes				
Hurricane	Refinery	Location	Capacity (bcd)	Notes
Katrina	ConocoPhillips	Belle Chase	247,000	major damage
	Chalmette Refining	Chalmette	187,200	major damage
	ExxonMobil	Baton Rouge	493,500	
	Marathon Petroleum	Garyville	245,000	
	Murphy Oil	Meraux	120,000	major damage
	Motiva	Convent	235,000	
	Motiva	Norco	226,500	
	Placid	Port Allen	48,500	
	Valero	Krotz Springs	80,000	
	Valero	Norco	185,000	
Rita	Citgo	Lake Charles	324,300	
	ConocoPhillips	West Lake	239,400	

Source: U.S. Dept. of Energy, Office of Electricity Delivery and Energy Reliability

Refineries recovered from the storm quickly for the most part. By the end of the year, all but 3 of the affected refineries in Louisiana were operating at full capacity. The 3 remaining refineries were all back online and up to full capacity by mid 2006. The figure below shows the reduction in Gulf Coast refinery capacity that resulted from Hurricanes Katrina and Rita.



As expected, the sudden reduction in refinery capacity caused an increase in fuel prices nationwide and fuel shortages and price spikes along the Gulf Coast and southeast parts of the country. The figure below shows the rise and fall of Gulf Coast gasoline prices resulting from the supply decrease. Diesel prices experienced similar movement.



Operating Refinery Recent Changes

No significant changes for Louisiana operating refineries have taken place since DNR’s last survey. Valero Energy is investigating the feasibility of expanding the Norco refinery by 180,000 bcd, almost double the current capacity. As reported in DNR’s last survey, Marathon is in the process of a 180,000 bcd expansion of the Garyville refinery.

The identity and location of each of the operating refineries is shown on the map in Figure 1 (pg. 1). Mailing addresses and contacts are listed in Table 7 (pg. 28). Physical locations are listed in Table 8 (pg. 29), and name histories are listed in Table 9 (pg. 30).

Non-Operating Refinery Recent Changes

Lazarus Energy Co. bought the Gold Line Refining facility in Jennings, and the Canal Refining facility in Church Point with plans to operate both. No estimate for start up dates was available.

The identity and location of each of the non-operating refineries is shown on the map in Figure 1 (pg. 1). Mailing addresses and contacts are listed in Table 10 (pg. 31). Physical locations, last known crude capacity, date last operated, and present status are described in Table 11 (pg. 32), and name histories are listed in Table 12 (pg. 33).

Definitions

Barrels per calendar day - The amount of input that a distillation facility can process under usual operating conditions. The amount is expressed in terms of capacity during a 24-hour period and reduces the maximum processing capability of all units at the facility under continuous operation (see Barrels per Stream Day) to account for the following limitations that may delay, interrupt, or slow down production:

- The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams, through other than downstream facilities, is part of a refinery's normal operation;
- The types and grades of inputs to be processed;
- The types and grades of products expected to be manufactured;
- The environmental constraints associated with refinery operations;
- The reduction of capacity for scheduled downtime due to such conditions as routine inspection, maintenance, repairs, and turnaround; and
- The reduction of capacity for unscheduled downtime due to such conditions as mechanical problems, repairs, and slowdowns.

Barrels per stream day - The maximum number of barrels of input that a distillation facility can process within a 24-hour period when running at full capacity under optimal crude oil and product slate conditions with no allowance for downtime.

Charge capacity - The input (feed) capacity of the refinery processing facilities.

Idle capacity - The component of *operable* capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation, but under active repair that can be completed within 90 days.

Operable capacity - The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation, but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day. *Note: This survey uses the capacity at the **end** of the period.*

Operating capacity - The component of operable capacity that is in operation at the beginning of the period. *Note: This survey uses the capacity at the **end** of the period.*

Operable utilization rate - Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating utilization rate - Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operating refining capacity of the units.

Throughput - Is the actual barrels of crude oil processed by the atmospheric stills for the survey time period.

Operating rate % - Throughput divided by 365 divided by operating capacity expressed as a percentage.

Operable rate % - Throughput divided by 365 divided by operable capacity expressed as a percentage.

Table 1
Louisiana Operating Refineries
Capacity and Throughput Changes ¹

Refinery Name	Previous Survey Operating Capacity (bcd)	Capacity Change (bcd)	Previous Survey 12-Month Throughput (Barrels)	Throughput Change (Barrels)	Capacity Change (%)	Throughput Change (%)
Calcasieu Refining Co Lake Charles	31,000	24,000	10,959,254	2,588,514	77.42	23.62
Calumet Lubricants Co LP Cotton Valley	12,158	0	2,940,587	78,112	0.00	2.66
Calumet Lubricants Co LP Princeton	8,505	-221	3,061,800	-209,665	-2.60	-6.85
Calumet Shreveport LLC Shreveport	40,000	1,000	2,969,018	11,997,493	2.50	404.09
Chalmette Refining LLC Chalmette	195,000	1,000	65,188,426	-12,629,426	0.51	-19.37
Citgo Petroleum Corp Lake Charles	438,000	0	139,431,481	8,351,187	0.00	5.99
ConocoPhillips Belle Chasse	247,000	0	86,647,396	-39,659,296	0.00	-45.77
ConocoPhillips West Lake	239,000	0	82,270,405	-18,719,634	0.00	-22.75
ExxonMobil Refining & Supply Co Baton Rouge	493,500	7,500	179,397,500	-10,767,500	1.52	-6.00
Marathon Petroleum Co LLC Garyville	255,000	0	95,241,074	-8,328,931	0.00	-8.75
Motiva Enterprises LLC Convent	225,000	0	82,125,000	0	0.00	0.00
Motiva Enterprises LLC Norco	240,000	0	76,458,154	-3,515,094	0.00	-4.60
Murphy Oil USA Inc ² Meraux	120,000	0			0.00	
Placid Refining Co Port Allen	49,500	6,500	18,013,377	1,471,244	13.13	8.17
Shell Chemical Co St. Rose	54,000	1,000	15,808,333	2,135,103	1.85	13.51
Valero Refining Co Krotz Spings	80,000	0	28,907,333	-4,661,665	0.00	-16.13
Valero Refining Co Norco	185,000	0	61,478,687	23,859,703	0.00	38.81
Totals ²	2,912,663	40,779	950,897,825	-48,009,855	1.40	-5.05

1. Capacity change from 6/30/2005 to 6/30/2006. Throughput change from 12-month period ending 6/30/2005 to the 12-month period ending 6/30/2006.

2. Murphy was not able to respond to previous survey due to outage resulting from Hurricane Katrina. Previous operating capacity figure from EIA. Throughput change totals do not include Murphy.

Table 2
Louisiana Operating Refineries
Crude Capacity and Percent Product Slate
June 30, 2006 DNR Survey

Data in this table may differ from data reported elsewhere for a different time period.

Refinery Name	DNR Fac. Code	Operating capacity as of 6/30/2006 (bcd)	Operating rate (%)	Idle capacity (bcd)	Operable rate (%)	Throughput 7/1/2005 - 6/30/2006 (Barrels)
Calcasieu Refining Co Lake Charles	CLC	55,000	67.5	0	67.5	13,547,768
Calumet Lubricants Co LP Cotton Valley	CTT	12,158	68.0	0	68.0	3,018,699
Calumet Lubricants Co LP Princeton	CLM	8,284	94.3	1,216	82.3	2,852,135
Calumet Shreveport LLC Shreveport	ATL	41,000	100.0	0	100.0	14,966,511
Chalmette Refining LLC Chalmette	TNN	196,000	73.5	0	73.5	52,559,000
Citgo Petroleum Corp Lake Charles	CTS	438,000	92.4	0	92.4	147,782,668
ConocoPhillips Belle Chasse	STN	247,000	52.1	0	52.1	46,988,100
ConocoPhillips West Lake	CNB	239,000	72.9	0	72.9	63,550,771
ExxonMobil Refining & Supply Co Baton Rouge	EXX	501,000	92.2	0	92.2	168,630,000
Marathon Petroleum Co LLC Garyville	MRT	255,000	93.4	0	93.4	86,912,143
Motiva Enterprises LLC Convent	TXC	225,000	100.0	0	100.0	82,125,000
Motiva Enterprises LLC Norco	SHL	240,000	83.3	0	83.3	72,943,060
Murphy Oil USA Inc Meraux	MRP	120,000	19.3	0	19.3	8,469,318
Placid Refining Co Port Allen	PLC	56,000	95.3	0	95.3	19,484,621
Shell Chemical Co St. Rose	INT	55,000	89.4	0	89.4	17,943,436
Valero Refining Co Krotz Spings	HLL	80,000	83.0	0	83.0	24,245,668
Valero Refining Co Norco	GDH	185,000	126.4	0	126.4	85,338,390
Weighted State Average			84.5		84.5	
Total La. Operating Capacity		2,953,442		1,216		911,357,288

Table 2 (Continued)
Louisiana Operating Refineries
Crude Capacity and Percent Product Slate
June 30, 2006 DNR Survey

Data in this table may differ from data reported elsewhere for a different time period.

DNR Fac. Code	% of Total Product Slate												
	Gasoline			Other Fuels			Miscellaneous			Other Products			
	Reg.	Prem.	RFG	Diesel	Jet/ Kero.	Fuel oil	LPGs	Napth.	Resid./ Coke	Product 1	Product 2	Product 3	All Other
CLC				22.4	13.6	26.1	8.0	29.4		0.4 vent gas			
CTT				2.3				67.4		17.3 gas oil	12.2 light straight run	0.8 butane/ pentane	
CLM				8.0				2.0		72.0 lube oil	18.0 asphalt		
ATL	27.6	0.8		22.1	17.6			1.2	2.9	18.2 lubes	3.3 waxes	4.3 asphalt	2.0 slop oil/cat feed
TNN	29.8	7.4		24.8	7.2	4.3	4.0	0.3	7.2	6.8 fuel gas/FCC carbon	3.2 aromatics	4.1 gas oil	1.1 gasoline comp., sulfur
CTS	36.5	4.4	1.4	16.9	18.6	2.6	1.1		9.0	3.2 petrochem.	2.5 propane/ propylene	2.7 lubes, waxes	2.8 vacuum gas oil, butane
STN	22.9	3.9		27.7	13.2	2.6	2.9	1.4	3.1	8.5 gasoline & diesel bldstk.	2.6 chemicals, sulfur	10.9 vacuum gas oil	0.4 mid-grade gasoline
CNB	31.5			33.2	12.3		1.1		8.4	11.4 lube oil feed stock	2.1 ref. grade propylene		
EXX	17.4	5.8	12.7	14.6	11.0	2.9	1.8	2.0	4.0	19.8 petrochem. feedstock	5.0 fuel gas, sulfur, misc.	2.4 lubes, waxes	0.6 aviation gasoline
MRT	47.0	4.3	0.1		0.7	23.7	6.6	0.4	5.8	7.8 asphalt	3.2 dry gas	0.6 sulfur	
TXC	44.0	0.1		23.3	14.3	12.7	2.0			0.5 MTBE	3.1 propylene	0.1 dimate	
SHL	36.9	11.5	3.1	12.8	10.5	3.0	11.1	0.6	5.6	0.8 MTBE	2.0 fuel gas	1.0 normal butane	1.1 gasoline bldsk., misc.
MRP	34.7	4.0		34.2	1.8	17.5	2.0	0.1	0.0	3.0 gas oil	2.2 butanes	0.5 sulfur	
PLC	46.1	0.8		25.7	10.9		0.3	0.9	7.4	3.8 propylene	3.2 fuel gas	0.9 gas oil	
INT				20.0					8.0	72.0 olefins plant feed			
HLL	26.1	0.4		12.2	11.4	26.0	2.0	11.2	2.8	5.2 light-cycle oil	2.6 light straight run	0.1 fuel gas	
GDH	40.0			25.0	1.0	20.0	5.0		9.0				
Wtd. %	48.3	2.9	2.1	13.9	7.8	6.1	2.5	1.2	4.3				

Table 3
U.S. Department of Energy
Capacity of Louisiana Operable Petroleum Refineries as of January 1, 2006
(Barrels per Stream Day, Except Where Noted)

Refinery Name	DNR Fac. Code	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	Vis-Breaking	Other Gas/Oil
Calcasieu Refining Co Lake Charles	CLC	30,000	0	32,000	0	0	0	0	0	0
Calumet Lubricants Co LP Cotton Valley	CTT	13,020	0	14,000	0	0	0	0	0	0
Calumet Lubricants Co LP Princeton	CLM	8,300	0	8,655	0	7,000	0	0	0	0
Calumet Shreveport LLC Shreveport	ATL	42,000	0	50,000	0	24,300	0	0	0	0
Chalmette Refining LLC Chalmette	TNN	188,160	0	196,000	0	116,700	35,000	0	0	0
Citgo Petroleum Corp Lake Charles	CTS	429,500	0	454,500	0	200,000	104,000	0	0	0
ConocoPhillips Belle Chasse	STN	0	247,000	0	260,000	92,000	27,000	0	0	0
ConocoPhillips West Lake	CNB	239,400	0	252,000	0	132,000	64,000	0	0	10,600
ExxonMobil Refining & Supply Co Baton Rouge	EXX	501,000	0	522,000	0	236,500	118,500	0	0	0
Marathon Petroleum Co LLC Garyville	MRT	245,000	0	275,000	0	134,000	37,400	0	0	0
Motiva Enterprises LLC Convent	TXC	235,000	0	255,000	0	119,400	0	0	0	0
Motiva Enterprises LLC Norco	SHL	226,500	0	242,000	0	86,500	23,600	0	0	0
Murphy Oil USA Inc Meraux	MRP	0	120,000	0	125,000	50,000	0	0	0	0
Placid Refining Co Port Allen	PLC	56,000	0	58,000	0	25,000	0	0	0	0
Shell Chemical Co St. Rose	INT	55,000	0	56,000	0	28,000	0	0	0	0
Valero Refining Co Krotz Spings	HLL	80,000	0	83,000	0	36,200	0	0	0	0
Valero Refining Co Norco	GDH	185,003	0	186,000	0	130,000	70,400	0	0	0
Totals		2,533,883	367,000	2,684,155	385,000	1,417,600	479,900	0	0	10,600

Source: Energy Information Administration, "Refinery Capacity 2006", Table 3

Table 3 (Continued)
U.S. Department of Energy
Capacity of Louisiana Operable Petroleum Refineries as of January 1, 2006
(Barrels per Stream Day, Except Where Noted)

DNR Fac. Code	Downstream Charge Capacity (Continued)							
	Catalytic Cracking		Catalytic Hydrocracking			Catalytic Reforming		Fuels Solvent Deasphalting
	Fresh	Recycled	Distillate	Gas Oil	Residual	Low Pressure	High Pressure	
CLC	0	0	0	0	0	0	0	0
CTT	0	0	0	0	0	0	0	0
CLM	0	0	0	0	0	0	0	0
ATL	3,500	7,000	0	0	0	8,000	0	0
TNN	71,600	0	20,200	0	0	20,000	29,400	0
CTS	147,000	3,000	0	42,000	0	58,000	52,800	0
STN	102,000	2,000	0	0	0	0	44,600	0
CNB	50,000	0	0	34,000	0	44,000	0	0
EXX	241,000	0	26,500	0	0	78,000	0	0
MRT	131,000	0	0	0	0	48,500	0	35,000
TXC	92,000	0	0	0	52,000	0	40,000	0
SHL	114,000	0	0	34,000	0	40,000	22,000	0
MRP	37,000	0	0	32,000	0	32,000	0	18,000
PLC	20,000	500	0	0	0	11,000	0	7,000
INT	0	0	0	0	0	0	0	0
HLL	34,000	0	0	0	0	0	13,000	0
GDH	97,380	8,000	0	0	0	25,000	0	0
Totals	1,140,480	20,500	46,700	142,000	52,000	364,500	201,800	60,000

Source: Energy Information Administration, "Refinery Capacity 2006", Table 3

Table 3 (Continued)
U.S. Department of Energy
Capacity of Louisiana Operable Petroleum Refineries as of January 1, 2006

(Barrels per Stream Day, Except Where Noted)

Refinery Name	DNR Fac. Code	Downstream Charge Capacity (Continued)							
		Desulfurization (incl. Catalytic Hydrotreating)							
		Naptha/Reformer Feed	Gasoline	Kerosene/Jet Fuel	Diesel Fuel	Other Distillate	Residual	Heavy Gas Oil	Other
Calcasieu Refining Co Lake Charles	CLC	0	0	0	0	0	0	0	0
Calumet Lubricants Co LP Cotton Valley	CTT	4,750	0	0	0	0	0	0	0
Calumet Lubricants Co LP Princeton	CLM	0	0	0	0	8,500	0	0	0
Calumet Shreveport LLC Shreveport	ATL	12,000	0	0	0	8,000	0	8,000	1,200
Chalmette Refining LLC Chalmette	TNN	40,000	45,000	0	0	27,500	0	64,500	0
Citgo Petroleum Corp Lake Charles	CTS	123,000	77,000	29,000	37,500	0	0	0	0
ConocoPhillips Belle Chasse	STN	48,300	0	0	70,100	0	0	0	0
ConocoPhillips West Lake	CNB	50,000	38,500	24,000	55,000	0	12,500	49,000	0
ExxonMobil Refining & Supply Co Baton Rouge	EXX	78,000	129,000	0	100,000	0	0	0	145,600
Marathon Petroleum Co LLC Garyville	MRT	50,000	87,000	0	81,000	0	0	106,000	0
Motiva Enterprises LLC Convent	TXC	98,000	0	39,800	61,000	0	0	36,000	0
Motiva Enterprises LLC Norco	SHL	38,500	73,000	0	55,000	0	0	0	0
Murphy Oil USA Inc Meraux	MRP	35,000	0	18,000	34,000	0	0	12,000	0
Placid Refining Co Port Allen	PLC	11,000	0	0	15,000	0	0	0	0
Shell Chemical Co St. Rose	INT	0	0	0	0	0	0	0	0
Valero Refining Co Krotz Spings	HLL	14,000	0	0	0	0	0	0	0
Valero Refining Co Norco	GDH	34,100	60,000	11,200	0	48,000	0	35,100	0
Totals		636,650	509,500	122,000	508,600	92,000	12,500	310,600	146,800

Source: Energy Information Administration, "Refinery Capacity 2006", Table 3

Table 4
U.S. Department of Energy
Production Capacity of Louisiana Operable Petroleum Refineries as of January 1, 2006
(Barrels per Stream Day)

Refinery Name	DNR FAC. CODE	Production Capacity								
		Alkylate	Aromatics	Asphalt and Road Oil	Isomers		Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
					Isobutane	Isopentane and Isohexane				
Calcasieu Refining Co Lake Charles	CLC	0	0	0	3,400	0	0	0	0	0
Calumet Lubricants Co LP Cotton Valley	CTT	0	0	0	0	500	0	0	2	0
Calumet Lubricants Co LP Princeton	CLM	0	0	2,000	0	0	7,000	0	5	3
Calumet Shreveport LLC Shreveport	ATL	4,500	0	11,600	4,000	0	9,000	0	6	10
Chalmette Refining LLC Chalmette	TNN	13,100	10,200	0	10,000	10,000	0	11,000	0	935
Citgo Petroleum Corp Lake Charles	CTS	22,000	17,200	0	0	28,000	11,000	26,500	0	640
ConocoPhillips Belle Chasse	STN	38,000	12,300	0	0	0	0	5,289	0	125
ConocoPhillips West Lake	CNB	6,000	0	0	930	0	24,000	22,500	0	860
ExxonMobil Refining & Supply Co Baton Rouge	EXX	37,000	0	0	0	0	16,600	30,157	0	800
Marathon Petroleum Co LLC Garyville	MRT	28,000	0	30,000	24,000	21,000	0	12,900	0	790
Motiva Enterprises LLC Convent	TXC	16,500	0	0	0	12,500	0	0	63	728
Motiva Enterprises LLC Norco	SHL	16,800	0	0	0	0	0	4,900	60	169
Murphy Oil USA Inc Meraux	MRP	8,500	0	18,000	0	0	0	0	0	31
Placid Refining Co Port Allen	PLC	4,000	0	0	0	0	0	0	0	28
Shell Chemical Co St. Rose	INT	0	0	0	0	0	0	0	0	0
Valero Refining Co Krotz Spings	HLL	0	0	0	2,970	6,220	0	0	0	0
Valero Refining Co Norco	GDH	19,800	0	0	0	0	0	23,785	0	393
Totals		214,200	39,700	61,600	45,300	78,220	67,600	137,031	136	5,512

MMcfd = Million cubic feet per day

Source: Energy Information Administration, "Refinery Capacity 2006", Table 4

**Table 5: Oil & Gas Journal 2006 Worldwide Refining Survey
Capacities of Louisiana Refineries as of January 1, 2007**

Reprinted with permission. *Oil and Gas Journal*, December 18, 2006

Refinery Name	DNR Fac. Code	Charge Capacity, Barrels per Calendar Day							
		Crude	Vacuum Distillation	Coking	Thermal Operations	Catalytic Cracking	Catalytic Reforming	Cat Hydro-cracking	Cat Hydro-treating
Calcasieu Refining Co. Lake Charles	CLC	32,000							
Calumet Lubricants Co. Cotton Valley	CTT	9,500							¹³ 5,000
Calumet Lubricants Co. Princeton	CLM	9,500	8,500					⁴ 8,000	
Calumet Lubricants Co. Shreveport	ATL	35,000	15,000				¹ 10,000	^{C4} 8,500	¹ 12,000 ⁵ 7,000 ¹³ 5,000
Chalmette Refining LLC Chalmette	TNN	192,500	112,000	² 38,000		¹ 68,000	¹ 28,000 ³ 19,000	^{C1} 18,500	¹ 39,500 ⁷ 27,000 ⁸ 62,000 ¹² 44,000
Cit-Con Oil Corp - Lake Charles			36,100						
Citgo Petroleum Corp. Lake Charles	CTS	440,000	79,800	² 88,200		¹ 126,000	¹ 42,300 ³ 52,200	^{C1} 37,800	¹ 103,500 ² 6,300 ⁴ 26,100 ⁵ 32,400 ⁸ 64,800
ConocoPhillips Belle Chasse	STN	247,000	92,000	² 25,200		¹ 104,000	¹ 42,000		¹ 47,000 ⁷ 65,000 ¹² 53,000 ¹³ 32,400
ConocoPhillips Westlake	CNB	239,000	106,200	² 57,800		¹ 44,800	³ 33,000	³ 29,000	¹ 35,600 ⁴ 21,800 ⁵ 49,100 ⁶ 4,000 ⁷ 35,900 ¹² 34,500
ExxonMobil Refining Supply Co. Baton Rouge	EXX	503,000	231,500	² 114,000		¹ 229,000	² 75,500	^{C1} 26,500	¹ 75,500 ² 104,000 ⁷ 97,000 ¹¹ 24,500 ¹² 97,000 ¹³ 47,500
Marathon Ashland Petroleum LLC Garyville	MRT	245,000	127,300	² 35,500		¹ 125,500	³ 46,100		¹ 47,500 ⁵ 100,700 ⁸ 100,700 ¹² 82,700
Motiva Enterprises LLC Convent	TXC	235,000	100,000			¹ 85,000	¹ 36,000	² 45,000	¹ 40,000 ⁴ 25,000 ⁵ 67,000 ⁸ 38,000 ¹² 48,000
Motiva Enterprises LLC Norco	SHL	220,000	78,000	² 21,300		¹ 105,000	¹ 19,100 ² 38,200	^{C1} 31,500	¹ 38,000 ⁵ 35,300 ¹⁴ 49,500

See page 20 for notes and legend

**Table 5 (Cont.): Oil & Gas Journal 2006 Worldwide Refining Survey
Capacities of Louisiana Refineries as of January 1, 2007**

Reprinted with permission. *Oil and Gas Journal*, December 18, 2006

DNR Fac. Code	Production Capacity, Barrels per Calendar Day									
	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
CLC										
CTT							^{a1} 2.5 ⁴ 2.5			
CLM					7,500		^{a1} 4.5 ⁴ 4.5		3	
ATL					8,000		^{a1} 6.1 ⁴ 6.1		15	
TNN	² 12,500		¹ 10,000	³ 10,000				2,050	920	
CTS	¹ 20,700		¹ 13,500	³ 28,800	8,550 9,900	¹ 3,150	^{a1} 47.7 ⁶ 10.8	3,870	567	
STN	² 38,000		¹ 24,600 ² 7,200				⁷ 10.4	800	70	
CNB	¹ 7,500	¹ 1000					⁴ 90.5	3,600	350	
EXX	¹ 38,500	¹ 9,500			16,500		⁴ 12.0 ⁶ 12.0	5,430	690	
MRT	² 26,600			¹ 22,800 ³ 20,000				2368	1021	28,500
TXC	¹ 13,050	² 3,600		³ 11,250			¹ 58.0		700	
SHL	¹ 14,800					¹ 7,500	¹ 49.4	900	140	

See page 20 for notes and legend

**Table 5 (Cont.): Oil & Gas Journal 2006 Worldwide Refining Survey
Capacities of Louisiana Refineries as of January 1, 2007**

Reprinted with permission. *Oil and Gas Journal*, December 18, 2006

Refinery Name	DNR Fac. Code	Charge Capacity, Barrels per Calendar Day							
		Crude	Vacuum Distillation	Coking	Thermal Operations	Catalytic Cracking	Catalytic Reforming	Cat Hydro- cracking	Cat Hydro- treating
Murphy Oil USA Inc. Meraux	MRP	125,000	50,000			¹ 37,000			² 35,000
									⁷ 52,000
									⁹ 42,000
									¹³ 24,750
Placid Refining Co. LLC Port Allen	PLC	55,000	22,000			¹ 20,000	¹ 1,000	² 14,000	
								⁷ 17,000	
Shell Chemical Co. - St. Rose	INT	55,000	28,000						
Valero Energy Corp. Krotz Springs	HLL	83,000	36,000			¹ 33,000	¹ 12,000	¹ 14,000	
								² 4,500	
Valero Energy Corp. Norco	GDH	186,000	200,000	² 70,400		¹ 100,000	¹ 25,000	² 36,000	
								⁵ 48,000	
								⁸ 35,100	
								¹² 12,000	
Totals		2,911,500	1,322,400	450,400	0	1,077,300	488,400	204,800	2,235,150

See page 20 for notes and legend

**Table 5 (Cont.): Oil & Gas Journal 2006 Worldwide Refining Survey
Capacities of Louisiana Refineries as of January 1, 2007**

Reprinted with permission. *Oil and Gas Journal*, December 18, 2006

DNR Fac. Code	Production Capacity, Barrels per Calendar Day									
	Alkylation	Pol./Dim.	Aromatics	Isomerization	Lubes	Oxygenates	Hydrogen (MMcfd)	Coke (t/d)	Sulfur (t/d)	Asphalt
MRP	² 8,500								1,800	
PLC	² 3,800								28	
INT										
HLL		¹ 2,100		³ 4,500						
GDH	¹ 19,000							4,500	450	
Totals	202,950	16,200	55,300	97,350	50,450	10,650	317	23,518	6,754	28,500

See page 20 for notes and legend

Legend & Notes for Table 5

LEGEND

Coking

1. Fluid coking
2. Delayed coking
3. Other

Thermal Processes

1. Thermal cracking
2. Visbreaking

Catalytic Cracking

1. Fluid
2. Other

Catalytic Reforming

1. Semiregenerative
2. Cyclic
3. Continuous regen.
4. Other

Catalytic Hydrocracking

1. Distillate upgrading
2. Residual upgrading
3. Lube oil manufacturing
4. Other
- c. Conventional (high-pressure) hydrocracking:
(>100 barg or 1,450 psig)
- m. Mild to moderate hydrocracking:
(<100 barg or 1,450 psig)

Catalytic Hydrotreating

1. Pretreating cat reformer feeds
2. Naphtha desulfurization
3. Naphtha aromatics saturation
4. Kerosine/jet fuel desulfurization
5. Diesel desulfurization
6. Distillate aromatics saturation
7. Other distillates
8. Pretreatment of cat cracker feeds
9. Other heavy gas oil hydrotreating
10. Resid hydrotreating
11. Lube oil polishing
12. Post hydrotreating of FCC naphtha
13. Other

Alkylation

1. Sulfuric acid
2. Hydrofluoric acid

Polymerization/Dimerization

1. Polymerization
2. Dimerization

Aromatics

1. BTX
2. Hydrodealkylation
3. Cyclohexane
4. Cumene

Isomerization

1. C₄ feed
2. C₅ feed
3. C₅ and C₆ feed

Oxygenates

1. MTBE
2. ETBE
3. TAME
4. Other

Hydrogen

Production:

1. Steam methane reforming
2. Steam naphtha reforming
3. Partial oxidation
 - a. Third-party plant

Recovery:

4. Pressure swing adsorption
5. Cryogenic
6. Membrane
7. Other

NOTES

Capacity definitions:

Capacity expressed in barrels per calendar day (b/cd) is the maximum number of barrels of input that can be processed during a 24-hr period, after making allowances for the following:

- (a) Types and grades of inputs to be processed.
- (b) Types and grades of products to be manufactured.
- (c) Environmental constraints associated with refinery operations.
- (d) Scheduled downtime such as mechanical problems, repairs, and slowdowns.

Capacity expressed in barrels per stream day (b/sd) is the amount a unit can process when running at full capacity under optimal feedstock and product slate conditions. An asterisk (*) beside a refinery location indicates that the number has been converted from b/sd to b/cd using the conversion factor 0.95 for crude and vacuum distillation units and 0.9 for all downstream cracking and conversion units.

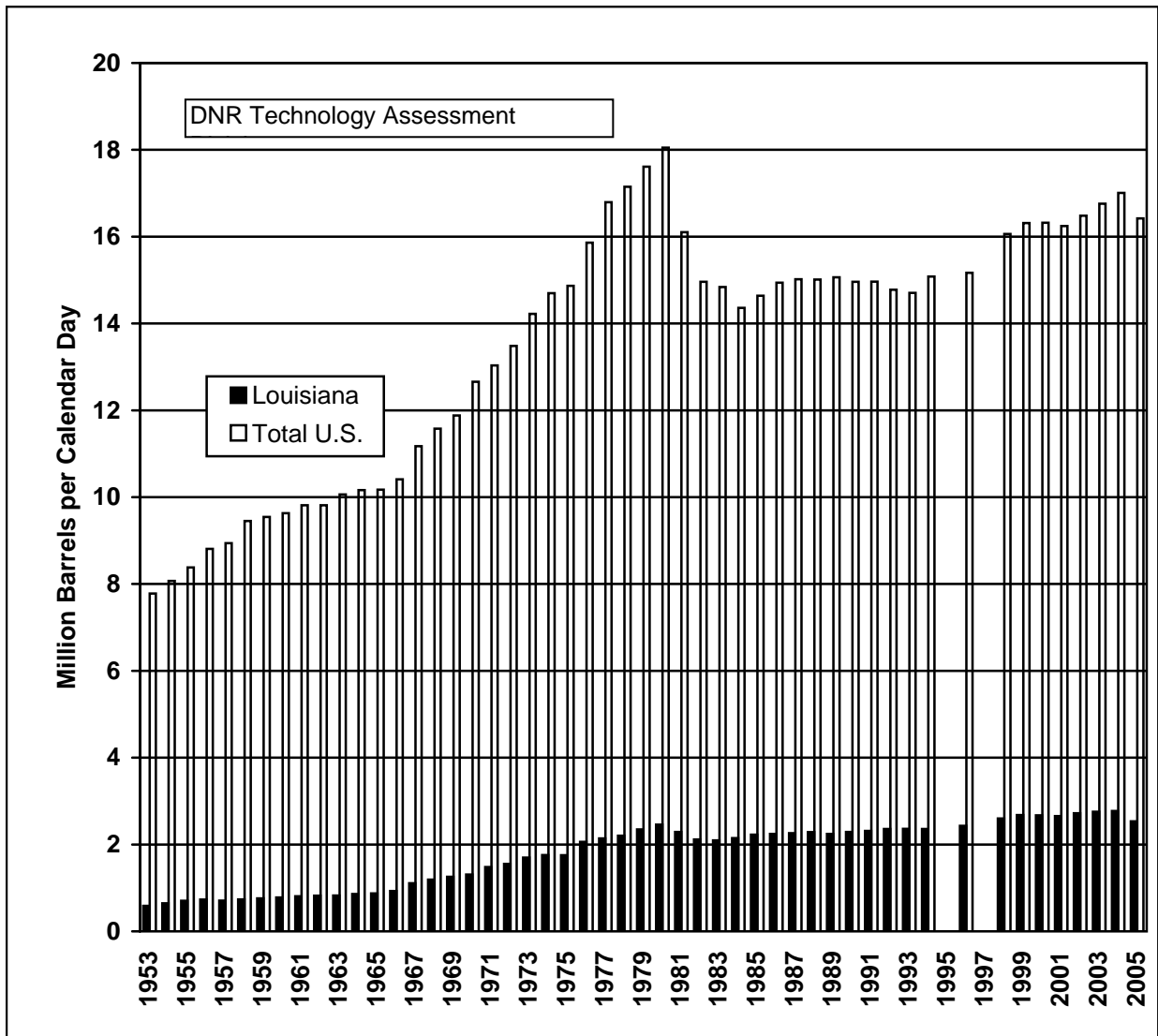
Hydrogen:

Hydrogen volumes presented here represent either generation or upgrading to 90+% purity.

Catalytic reforming:

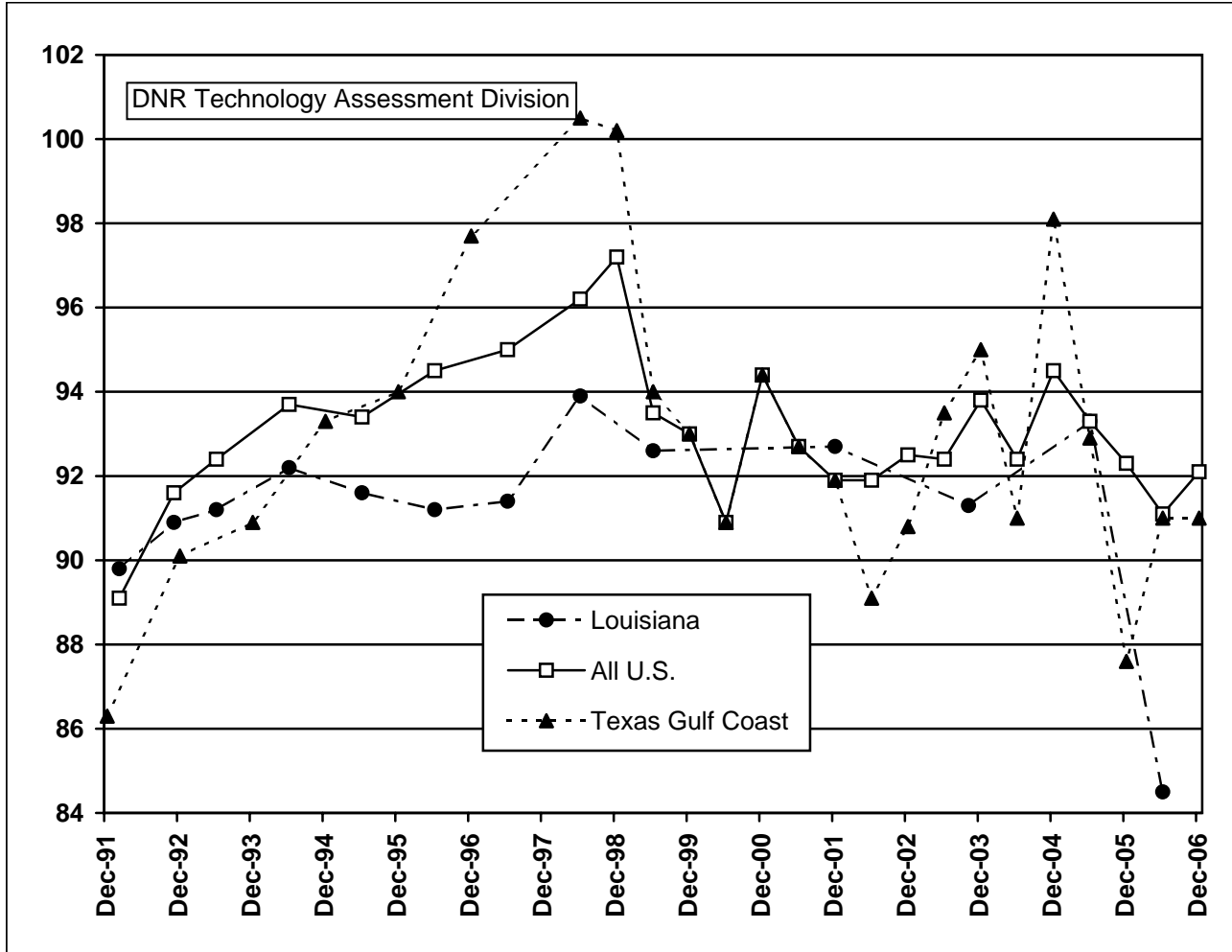
1. Semiregenerative reforming is characterized by shutdown of the reforming unit at specified intervals, or at the operator's convenience, for in situ catalyst regeneration.
2. Cyclic regeneration reforming is characterized by continuous or continual regeneration of catalyst in situ in any one of several reactors that can be isolated from and returned to the reforming operation. This is accomplished without changing feed rate or octane.
3. Continuous regeneration reforming is characterized by the continuous regeneration of part of the catalyst in a special regenerator, followed by continuous addition of this regenerated catalyst to the reactor.
4. Other includes nonregenerative reforming (catalyst is replaced by fresh catalyst) and moving-bed catalyst systems.

Figure 2
Operating Capacity of Louisiana and U.S. Refineries



Source: 1953 - 1975: U.S. Bureau of Mines, "Petroleum Refineries in the United States and Puerto Rico" Annual
 1976 - 1981: EIA, "Petroleum Refineries in the United States and U.S. Territories" Annual
 1982 - 2005: EIA, "Petroleum Supply Annual, Vol. 1" (data not available for 1995 & 1997)

Figure 3
Operating Rates (%)
Louisiana, Texas Gulf Coast, and U.S. Refineries

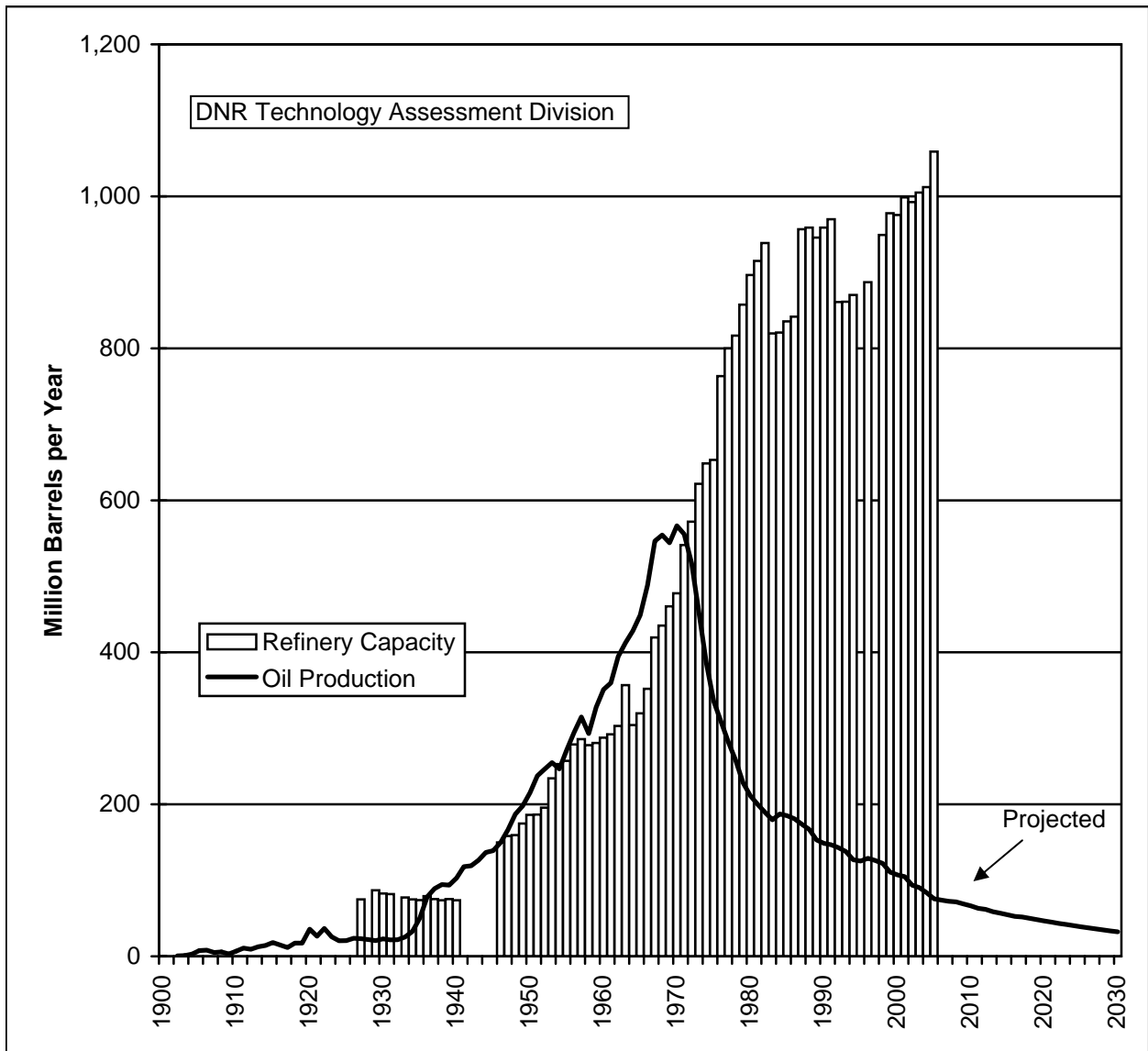


Note: Data points generally represent 6-month or 12-month averages

Source: LA Refineries: DNR Survey

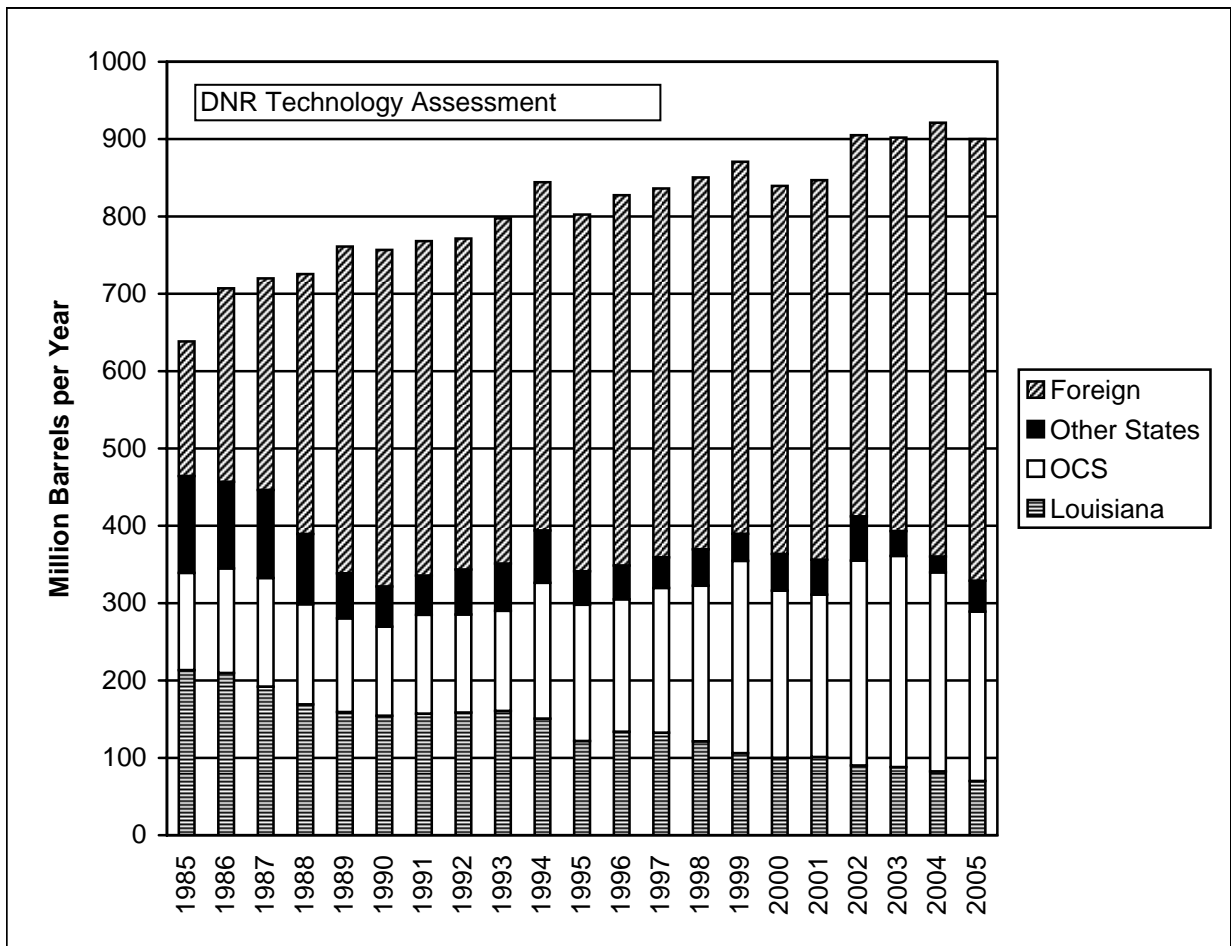
TX & U.S. Refineries: EIA, "Petroleum Supply Monthly"

Figure 4
Louisiana Oil Production (Excluding OCS) and Refinery Operable Capacity



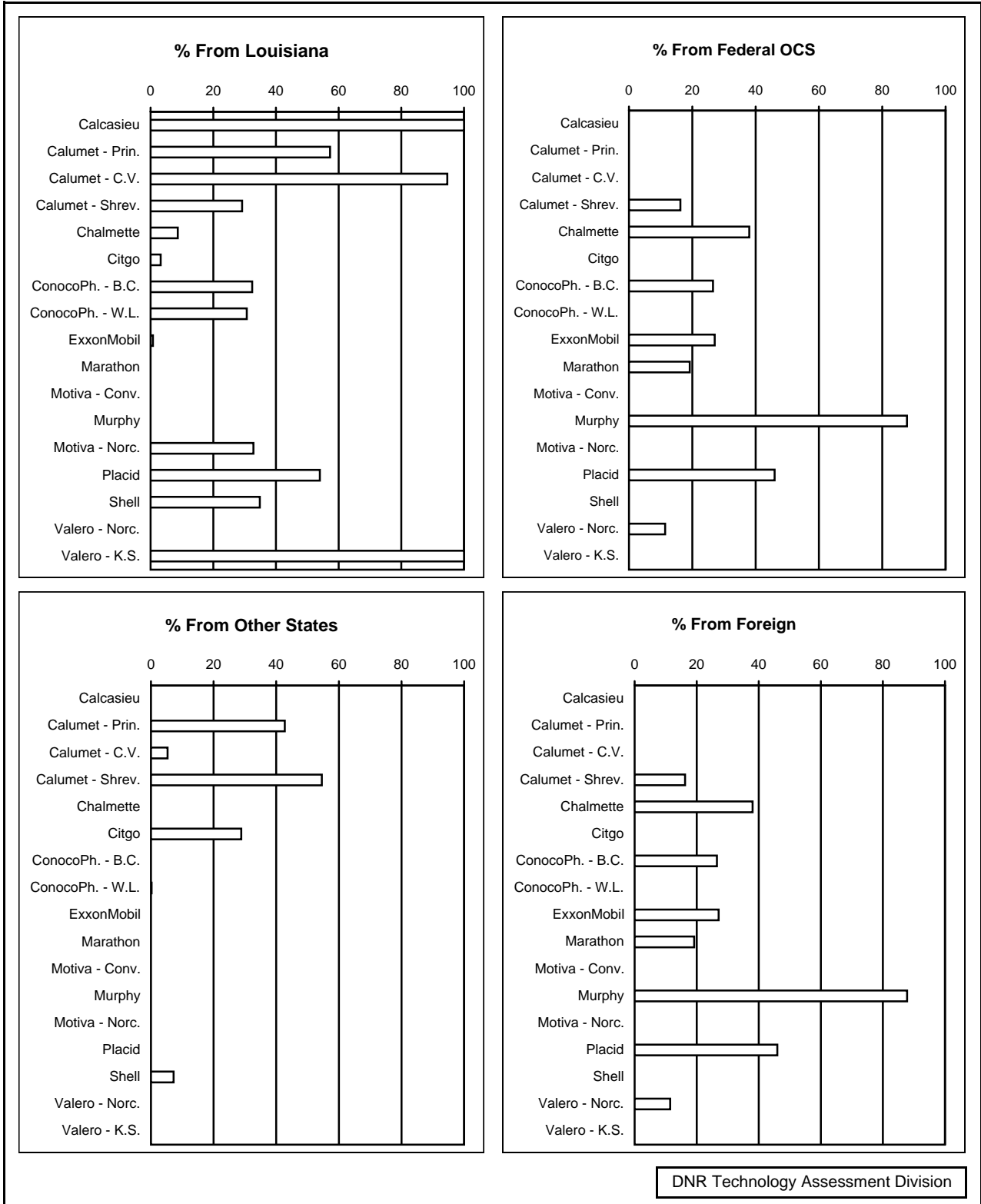
Source: Oil production data from DNR database; Refinery capacity data from DNR database and EIA, "Petroleum Supply Annual, Vol. 1" and EIA, Refinery Capacity Data Report

Figure 5
Historical Crude Oil Sources for Louisiana Refineries



Source: DNR Database, from Refiner's Monthly Report, Form R-3

Figure 6
Crude Oil Input Percentages by Source and Refinery
2006 DNR Survey (FY 2006)



DNR Technology Assessment Division

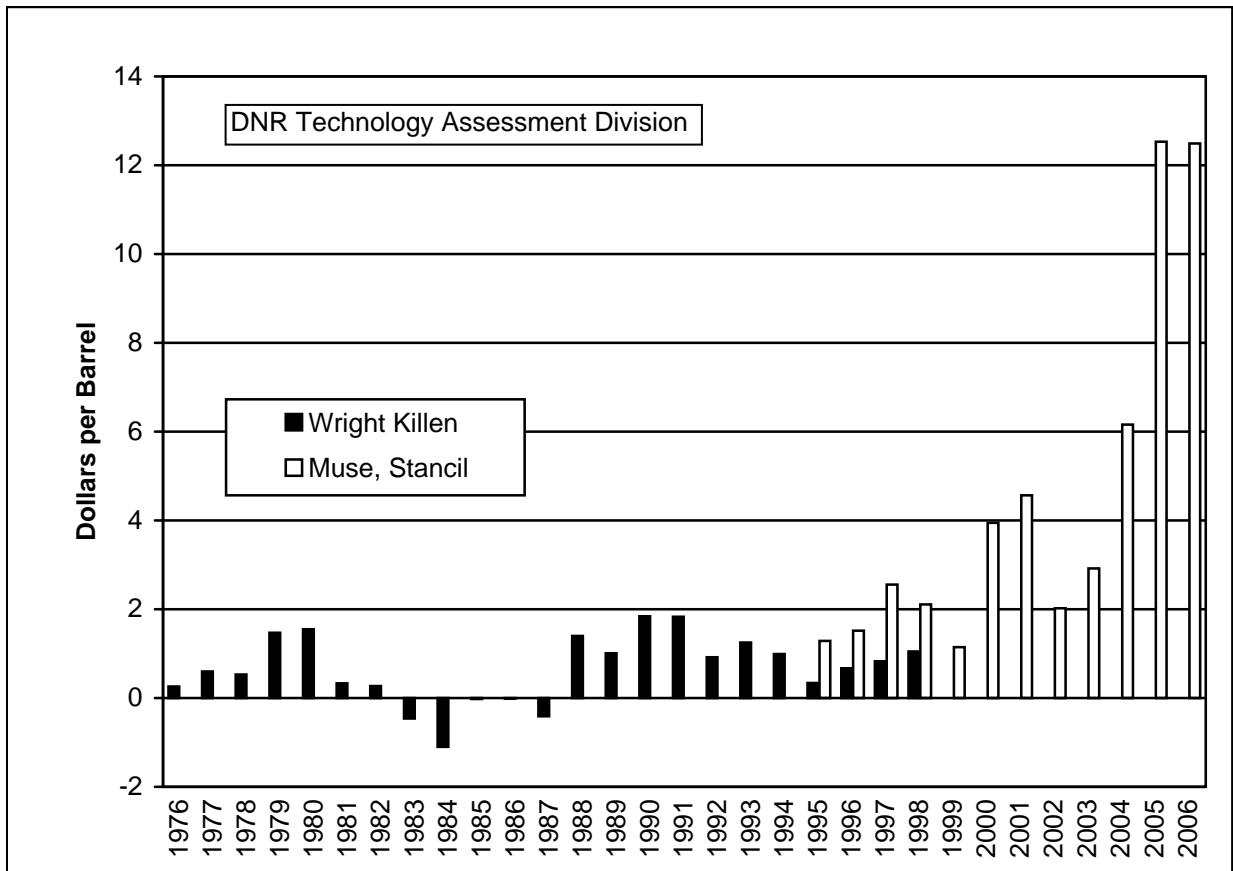
Source: DNR Database, from Refiner's Monthly Report, Form R-3

**Table 6 (Data for Figure 6)
Crude Oil Input Percentages by Source and Refinery
2006 DNR Survey (FY 2006)**

Refinery	Louisiana	Federal OCS	Other States	Foreign
Calcasieu Refining Co Lake Charles	100.00	0.00	0.00	0.00
Calumet Lubricants Co Princeton	57.26	0.00	42.74	0.00
Calumet Lubricants Co Cotton Valley	94.68	0.00	5.32	0.00
Calumet Shreveport LLC Shreveport	29.19	16.24	54.57	0.00
Chalmette Refining LLC Chalmette	8.67	38.01	0.00	53.31
Citgo Petroleum Corp Lake Charles	3.21	0.00	28.85	67.94
ConocoPhillips Belle Chase	32.41	26.52	0.00	41.07
ConocoPhillips West Lake	30.68	0.00	0.21	69.11
ExxonMobil Refining & Supply Co Baton Rouge	0.73	27.07	0.00	72.20
Marathon Petroleum Co LLC Garyville	0.00	19.17	0.00	80.83
Motiva Enterprises LLC Convent	0.00	0.00	0.00	100.00
Murphy Oil USA Inc Meraux	0.00	87.80	0.00	12.20
Motiva Enterprises LLC Norco	32.81	0.00	0.00	67.19
Placid Refining Co LLC Port Allen	54.01	45.99	0.00	0.00
Shell Chemical Co St. Rose	34.86	0.00	7.22	57.92
Valero Refining Co Norco	0.00	11.44	0.00	88.56
Valero Refining Co Krotz Springs	100.00	0.00	0.00	0.00

Source: DNR Database, from Refiner's Monthly Report, Form R-3

Figure 7
Gulf Coast Refinery Cash Operating Margins



Source: *Oil & Gas Journal*

Table 7
Louisiana Operating Refinery Mailing Address and Contact Information

Company Name	Mailing Address	Contacts *	Telephone
Calcasieu Refining Co	4359 W. Tank Farm Rd. Lake Charles, LA 70605	Carolyn Taflinger Russ Willmon Tim Jordan	(337) 478 2130
Calumet Lubricants Co LP	PO Box 97 Cotton Valley, LA 71018	Rodney Butts Charles Cost Rodney Butts	(318) 832 4236
Calumet Lubricants Co LP	10234 La Hwy. 157 Princeton, LA 71067-9172	Jerry Arnold Jerry Arnold Jerry Tollefsen	(318) 949 2421
Calumet Shreveport LLC	PO Box 3099 Shreveport, LA 71133	Rick Williams Jeff Lang Dan McKibben	(318) 632 4102
Chalmette Refining LLC	PO Box 1007 Chalmette, LA 70044	Shannon Milburn Albert Stroink	(504) 281 6266
Citgo Petroleum Corp	PO Box 1562 Lake Charles, LA 70602	Phil Woods Al Prebula Steve Hays	(337) 708 6357
ConocoPhillips	PO Box 176 Bell Chasse, LA 70037-0176	Bill Crawford Peter Batey	(504) 656 3641
ConocoPhillips	PO Box 37 Westlake, LA 70669	Dawn Cox John Gott	(918) 661 4821
ExxonMobil Refining and Supply Co	PO Box 551 Baton Rouge, LA 70821	Barbara Beckman Bruce March A.K. Drew Turner	(225) 977 8888
Marathon Petroleum Co LLC	PO Box AC Garyville, LA 70051-0842	Junius McCants Rich Bedell Bill Kepner	(985) 535 2241
Motiva Enterprises LLC	PO Box 37 Convent, LA 70723	Gary Miller Doug Quinn Todd Monette	(225) 562 6820
Motiva Enterprises LLC	PO Box 10 Norco, LA 70079	Gene Bourgeois Keith Casey Dan Yoder	(504) 465 6986
Murphy Oil USA Inc	PO Box 100 Meraux, LA 70075-0100	Dennis Bennett Greg Neve David Mendrek	(504) 278 5299
Placid Refining Co	1940 La Hwy 1 North Port Allen, LA 70767	Gary Fuller Gary Fuller	(225) 346 7464
Shell Chemical Co	PO Box 10 Norco, LA 70079	Tom Ford Tom Ford Liam O'Sullivan	(504) 465 6393
Valero Refining Co	PO Box 453 Krotz Springs, LA 70750 0453	Kevin Roy John Hill Gregg Byers	(337) 566 0114
Valero Refining Co	PO Box 537 Norco, LA 70079	William Buhler Gary Simmons Tommy Luong	(985) 764 4717

* Contacts are listed in order as: Contact person, Plant Manager, Plant Engineer

Table 8
Louisiana Operating Refinery Locations

Company Name	Physical Location
Calcasieu Refining Co	4359 W. Tank Farm Rd. Lake Charles 70605
Calumet Lubricants Co LP	1756 Old Hwy. 7 Cotton Valley 71018
Calumet Lubricants Co LP	10234 Hwy. 157 Princeton 71067
Calumet Shreveport LLC	3333 Midway St. Shreveport 71109
Chalmette Refining LLC	500 W. St. Bernard Hwy. Chalmette 70044
Citgo Petroleum Corp	4401 Hwy. 108 Sulphur 70665
ConocoPhillips	15551 Hwy. 23 South Belle Chase 70037
ConocoPhillips	2200 Old Spanish Trail Rd. Westlake 70669
ExxonMobil Refining and Supply Co	4045 Scenic Hwy. Baton Rouge 70805
Marathon Petroleum Co LLC	U.S. 61 @ Marathon Ave. Garyville 70051
Motiva Enterprises LLC	La. 44 Convent 70723
Motiva Enterprises LLC	15536 River Rd. Norco 70079
Murphy Oil USA Inc	2500 St. Bernard Hwy. Meraux 70075
Placid Refining Co	1940 La. 1 North. Port Allen 70767
Shell Chemical Co	11842 River Rd. St. Rose 70087
Valero Energy Corp	La. 105 Krotz Springs 70750
Valero Energy Corp	14902 River Rd. Norco 70079

**Table 9
Louisiana Operating Refinery Name History (1980-2006)**

Refinery Name	Date	DNR Code & Location	Refinery Name	Date	DNR Code & Location
ExxonMobil Refinery and Supply Co Exxon Co USA	1999- 1980-99	EXX - Baton Rouge	Calcasieu Refining Co CPI Oil & Refining Inc Calcasieu Refining Ltd	1985- 1982-84 1980-81	CLC - Lake Charles
ConocoPhillips Philips Petroleum Co B.P. Amoco PLC B.P. Oil Corp Standard Oil Co Gulf Refining & Marketing Co Gulf Oil Corp Gulf Oil Co US	2003- 2000-02 1999-00 1989-98 1986-88 1985-85 1981-84 1979-80	STN - Belle Chasse	Citgo Petroleum Corp Cities Service Co ConocoPhillips Conoco Inc Conoco Continental Oil Co	1984- 1980-83 2003- 1982-02 1980-81 1979	CTS - Lake Charles CNB - Lake Charles
Chalmette Refining LLC Mobil Oil Corp Tenneco Oil Co	1998 - 1989-98 1980-88	TNN - Chalmette	Murphy Oil USA Inc Murphy Oil Corp Motiva Enterprises LLC Shell Oil Co	1984- 1980-83 1998- 1980-98	MRP - Meraux SHL - Norco
Motiva Enterprises LLC Star Enterprises Texaco Refining & Marketing Texaco Inc	1998- 1989-98 1985-88 1980-84	TXC - Convent	Calumet Lubricants Co LP Calumet Refining Co Placid Refining Co	1991- 1980-90 1980-	CLM - Princeton PLC - Port Allen
Calumet Lubricants Co LP Kerr-McGee Refining Corp Kerr-McGee Corp Cotton Valley Solvents Co	1996- 1985-95 1983-84 1980-82	CTT - Cotton Valley	Calumet Shreveport LLC Calumet Lubricants Co LP Pennzoil-Quaker State Corp Pennzoil Producing Co Pennzoil Products Co Pennzoil Co Atlas Processing Co	2005- 2000-04 1999-00 1992-98 1986-91 1985-85 1980-84	ATL - Shreveport
Marathon Petroleum Co LLC Marathon Ashland Petroleum LLC Marathon Oil Co Marathon Petroleum Co Marathon Oil Co	2005- 1998-04 1992-98 1985-91 1980-84	MRT - Garyville	Shell Chemical Co St. Rose Refinery Inc Phibro Energy USA Inc Phibro Refining Inc Hill Petroleum Co International Processors	1996- 1994-95 1993-93 1992-92 1987-91 1981-86	INT - St. Rose
Valero Refining Co Orion Refining Corp TransAmerican Refining Co TransAmerica Refining Co GHR Energy Corp Good Hope Refineries Inc Good Hope Industries Inc	2004- 1999-03 1992-98 1988-91 1982-87 1981-81 1980-80	GDH - Good Hope			
Valero Refining Co Basis Petroleum Inc Phibro Energy USA Inc Phibro Refining Inc Hill Petroleum Co	1997- 1996-96 1993-95 1992-92 1980-91	HLL - Krotz Springs			

Table 10**Louisiana Non-Operating Refinery Mailing Address and Contact Information**

Company Name	Mailing Address	Contacts	Telephone
American International Refinery Inc	PO Drawer 16866 Lake Charles, LA 70616	Mr. Allen Lyons	(337) 439 4066
Bayou State Oil Corp	PO Box 7886 Shreveport, LA 71137	Mr. Ellis E. Brown, Sr.	(318) 222 0737
Lazarus Energy Holdings LLC	4400 Post Oak Pkwy Houston, TX 77027	n/a	(713) 850 0500
Lazarus Energy Holdings LLC	4400 Post Oak Pkwy Houston, TX 77027	n/a	(713) 850 0500
Quantum Fuel & Refining	Po Box 136 Newton, TX 75966	Mr. James Hughes	(409) 397 9093
Tina Resources Inc	207 Firestone Dr. Marble Falls, TX 78654	Mr. Leslie Vance	(512) 463 2123
Non-Operable Refineries			
El Paso Field Services	400 Travis Street Ste 1100 Shreveport, LA 71101	Mr. Martin Anthony	(318) 677 5551
Ergon St. James Co	PO Box 318 St. James, LA 70086	Mr. Ronald Ardoine	(225) 265 8020
Lisbon Refinery JV LLC	8613 East Wilderness Way Shreveport, LA 71106	Mr. James Ballengee	(318) 469 3084
Petroleum Fuel and Terminal	PO Box T Garyville, LA 70051	Mr. Claude Phelps	(985) 535 6256

Table 11
Louisiana Non-Operating Refinery Location and Status Information

Name	Physical Location	Last Known Operating Capacity	Date Last Operated	Status
American International Refinery Inc	La. 3059 Lake Charles	35,000	2003	Shutdown. Unable to contact.
Bayou State Oil Corp	U.S. 71 N. @ La. 2 West Hosston	3,000	Feb. 1987	No plans to reopen. Some equipment sold, but process equipment remains operable.
Canal Refining Co	1901 E. Ebey Church Point	30,000	2003	Sold to Lazarus Energy Co. Planning to start up.
El Paso Field Services	U.S. 167 Dubach	10,000	Jun. 1993	Dismantled
Gold Line Refining Co Ltd	U.S. 90 E. Jennings	14,800	Feb. 1998	Sold to Lazarus Energy Co. Planning to start up.
Lisbon Refinery J.V. LLC	La. 2 Lisbon	12,500	Jan. 1996	150,000 barrels storage useable. Refinery to be dismantled.
Petroleum Fuel & Terminal Co	La. 44 Mt. Airy	23,000	Dec. 1986	Process equipment dismantled and disposed of.
Ergon St. James Co LLC	La.18 St. James	20,000	Aug. 1983	Mostly dismantled and taken possession of by land owners.
Tina Resources Inc.	La. 14 Lake Arthur	7,400	Feb. 1986	Not able to contact. Last status received was that the refinery was for sale.
Quantum Fuel & Refining	101 Old Ferry Rd. Egan	10,000	Sep. 1987	500,000 barrel storage capacity. Currently seeking to restart.

**Table 12
Louisiana Non-Operating Refinery Name History (1980-2006)**

Refinery Name	Dates	DNR Code & Location	Refinery Name	Dates	DNR Code & Location
American International Refinery Inc	1997-	LKC - Lake Charles	Lazarus Energy Holdings LLC	2006-	SLP - Mermanteau
Gold Line Refining Ltd	1992-97		Gold Line Refining Co Ltd	1994-98	
American Int'l Refining Inc	1989-91		CAS Refining	1991-93	
Lake Charles Refining Co	1980-88		Celeron Oil and Gas Co	1983-90	
Aweco	1979-79		Slapco	1980-82	
Sooner Refining Co	1980-82	SNR - Darrow	South Louisiana Production Co	1979	
Conoco Inc	1982-89	CNA - Egan	Petroleum Fuel & Terminal Co	1992-	MTR - Mt. Airy
Conoco	1980-81		Clark Oil and Refining Corp	1983-91	
Continental Oil Co	1979		Mt. Airy Refining	1980-82	
Quantum Fuel & Refining	1998-	LOR - Egan	St. James Co LLC	1998-	TXS - St. James
U.S. Refining Inc	1994-98		Texas NAPCO Inc	1983-98	
Britt Processing & Refining Co	1992-93		La Jet Inc	1980-82	
Crystal Refining Inc	1989-91		McTan Refining Corp	1983-96	BRN - St. James
OGC Corp	1988-88		McTan Corp	1982-82	
Louisiana Oil Refining Co of Egan	1987-87		Bruin Refining Co	1980-81	
El Paso Field Services	1997-	KRR - Dubach	Sabine Resources Group	1990-92	PRT - Stonewall
Arcadia Refining	1995-96		Port Petroleum Inc	1980-89	
Endevco Inc	1989-94		Schulze Processing Inc	1980-82	SCH - Tallulah
Kerr-McGee Refining Corp	1985-88		Gulf Oil Co USA	1981-81	GLF - Venice
Kerr-McGee Corp	1980-84		Gulf Oil Corp	1980-80	
Tina Resources Inc	1993-96	MLL - Gueydon	Lisbon Refinery J.V LLC	1998-	CLB - Lisbon
Cameron Oil Refining Co Inc	1992-92		Padre Refining Co	1997-98	
Cameron Resources	1990-91		Arcadia Refining & Mktg. Co	1995-96	
Mallard Resources Inc	1980-89		Dubach Gas Co	1992-94	
Bayou State Oil Corp	1980-	BYS - Hosston	Claiborne Gasoline Co	1980-91	
Evangeline Refining Co	1980-92	EVN - Jennings	Lazarus Energy Holdings LLC	2006-	CNL - Church Pt.
Shepard Oil Co	1980-82	SHP - Jennings	Canal Refining Co	1980-06	
Laidlaw Environmental Systems	1992-92	TSR - Jennings			
GSX Recovery Systems	1983-91				
T & S Refining Co	1980-82				

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