February 2000

Louisiana Energ

Department of Natural Resources

A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

LOUISIANA FY99 CRUDE OIL REFINERY SURVEY REPORT NOW AVAILABLE

by Sam Stuckey, P.E.

For the twelve month fiscal year ending June 30, 1999 (FY99), the average Louisiana refinery operating rate decreased to 92.6% from 93.9% in FY98. While there were some changes in the product mix of individual refineries, the overall mix remained about the same and the trend to less mid-grade gasoline production continued, with only one refinery reporting that product. Projects and process reconfigurations to improve efficiency or alter the product mix have resulted in a total crude capacity increase of over 50,000 barrels per calendar day (bcd) since June 1998. Survey results are shown on the next page.

The total operating capacity of 2,694,838 bcd reported as of June 30, 1999, is up 2.6% from our FY98 survey. The overall operating rate of 92.6% compares with the national rate of 96.7% for calendar year 1998 and 93.5% for the 12-month period ending June 30, 1999.

Of the eighteen refineries that operated during the fiscal year, six produced reformulated gasoline (RFG) for sale in those markets where the U.S. Environmental Protection Agency (EPA) had mandated its use. RFG accounted for 10.3% of all gasoline production by Louisiana refineries, which was 0.5% less than last year. Total gasoline production increased 7.9% over the previous twelve month period.

Louisiana refineries continued to obtain most of their crude supply from outside the state as oil production within the state continued to decline. Only 21% came from within Louisiana's borders. Of the outside sources supplying crude to Louisiana refineries, foreign countries provided the most at 57%, the federal Offshore Continental Shelf (OCS) was next at 16%, and other states provided 5%. These percentages are essentially the same as the previous report.

The monthly Gulf Coast Refinery Margin displayed roller-coaster performance for the last half of FY99 after an essentially positive history for calendar year 1998. The cash operating margin peaked at \$1.15 in April 1999, but was only \$0.06 for June 1999.

Recent Changes

Orion Refining Corp. (previously, TransAmerican Refining Corp.) restarted its vacuum and crude units in June 1998 and began processing heavy, sour feedstocks. The facility operated at 66.3% of capacity (110,000 bcd) during this survey period. Rated capacity is expected to increase to 200,000 bcd after catalytic cracking and alkylation units come on line in calendar year 2000.

The Canal Refining Company facility at Church Point did not operate for this reporting period, but expected to resume operations in early 2000 following completion of extensive maintenance and process projects.

Other information in the **Louisiana Crude Oil Refinery Survey Report** includes key personnel, mailing addresses, and geographical location descriptions. Tabulated statistical data, charts, and graphs relating to oil production, refinery crude oil sources, refinery margins, capacities, operating rates, and product slates are also contained in the report. For a copy of the complete report, contact:

Louisiana Department of Natural Resources Technology Assessment Division P.O. Box 94396 Baton Rouge, LA 70804-9396 Technology Assessment Division

				Louis	Louisiana FY 1999 DNR Survey	DNR S	urvey									1
	OPERATING				12-MONTH				%	OF TOI	% OF TOTAL PRODUCT SLATE	DUCT	SLATE			
REFINERY NAME	CAPACITY As of	OPERATING RATE *		OPERABLE RATE	THROUGHPUT 1 July 98-		GASOLINE	INE		OTHE	OTHER FUELS	Š	MISO	MISCELLANEOUS	EOUS	ALL
	June 30, 1999 (BCD)	(%)	(BCD)	(%)	30 June 99 (Barrels)	REG	MID P	PREM	RFG DI	DIESEL	JET/] KERO	FUEL	LPGs	NAPTH	COKE/ RESID	OTHER
American International Refinery, Lake Charles Note A	35,000	2.8	0	2.8	352,357					0.6	7.0		2.0	11.0		71.0
B. P. Amoco PLC - Alliance	254,500	90.3	5,500	88.3	83,840,553	28.9		15.0		28.0	14.9		2.3		1.6/0.6	8.7
Calcasieu Refining Co.	15,300	99.2	0	99.2	5,539,344					32.5	18.4	20.6	4.5	23.7		
Calumet Lubricants - Cotton Valley	7,700	89.4	2,500	67.5	2,512,484					0.3				57.0		42.7
Calumet Lubricants - Princeton	7,638	87.8	662	80.8	2,447,335				1	11.0						89.0
Chalmette Refining, LLC	180,500	98.6	10,000	93.4	64,970,000	43.1		11.5		6.5	12.3	12.8	5.0		0.35/3.8	4.7
Citgo Petroleum Corp.	320,000	97.0	0	0.72	113,339,646	27.2		15.7	7.1	10.7	18.1	3.3	2.0		7.0	8.9
Conoco, Inc Lake Charles	250,000	93.2	0	93.2	85,068,473	17.0		10.0	14.0 3	30.0	17.0	1.0	1.0	1.0	8.0/1.0	
Exxon Co. U.S.A.	470,000	92.3	0	92.3	158,300,500	22.0		8.0	7.0 1	16.0	12.0		2.0	1.0	4.0/3.0	25.0
Marathon Ashland Petroleum, LLC	255,000	88.8	0	88.8	82,682,649	40.2		11.7	0.6		1.4	17.6	4.7	0.1	0/11.0	12.6
Motiva Enterprises, LLC - Convent	225,000	103.0	0	103.0	84,548,300	32.0		3.8	5.1 1	18.6	11.7		2.1		1.5/14.5	10.7
Motiva Enterprises, LLC - Norco	235,000	96.4	0	96.4	82,728,171	37.1		19.7	4.9	16.7	15.0		1.3	0.7	1.8/2.8	
Murphy Oil U.S.A., Inc.	101,000	90.0	0	90.06	33,172,463	33.9		8.6	1	15.1	7.6	11.3	0.8		0/12.2	2.6
Orion Refining Corp.	110,000	66.3	0	66.3	26,619,224				_	16.0	6.0			14.0	8.0/23.0	38.0
Pennzoil-Quaker State Corp.	46,200	92.6	0	92.6	15,613,605	35.9	1.7	2.5	(1	21.7	14.0		2.3	0.3	0/3.1	18.5
Placid Refining Co.	49,000	98.9	0	98.9	17,682,810	37.6		5.7	(4	26.2	10.9		0.5	0.4	0/6.1	12.6
Shell Chemical Co St. Rose	55,000	79.7	0	79.7	16,000,000					20.0	9.0		2.0	21.0	0/15.0	33.0
Valero Refining Co La.	78,000	82.7	0	82.7	23,556,040	28.0		3.3		17.9	13.4		2.0	11.2		24.2
WEIGHTED STATE AVERAGE (%)		92.6		91.9		28.2	0.0	10.4	4.4	16.4	12.4	3.6	2.2	1.7	3.1/5.2	12.2
TOTAL LA. CAPACITY	2,694,838		18,662		898,973,954											

CRUDE CAPACITY (Barrels per Calendar Day, BCD) and PERCENT PRODUCT SLATE LOUISIANA OPERATING REFINERIES

Note A - Not used in weighted average calculation. * Operating rates are calculated by dividing the 12-month total crude input by the operating capacity provided by survey respondents.