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# **LOUISIANA ENERGY FACTS**

# **ANNUAL 2002**

Department of Natural Resources Jack C. Caldwell Secretary of Natural Resources



Prepared by Manuel Lam, Senior Energy Analyst

Technology Assessment Division T. Michael French, Director

P.O. Box 44156
Baton Rouge, LA 70804-4156
E-mail:techasmt@dnr.state.la.us

December 30, 2002



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General questions and comments regarding the **Annual** may be referred to TA staff at (225) 342-1270. Questions concerning specific areas of the **Annual** may be directed to the Technology Assessment Division staff members listed below.

Oil & gas production, drilling, revenue, reserves, prices:

Manuel Lam Program Manager (225) 342-8919

E-mail: MANUELL@DNR.STATE.LA.US

Petroleum refineries, cogeneration, independent power producers, alternative motor fuels, coal, lignite:

Bill Delmar Assistant Director (225) 342-5053

E-mail: BILLD@DNR.STATE.LA.US

Electric utilities, drilling incentives, petroleum economics:

Bob Sprehe Energy Economist (225) 342-7967

E-mail: BOBS@DNR.STATE.LA.US

Additional copies of the **Annual** may be obtained by contacting:

Department of Natural Resources Technology Assessment Division P.O. Box 44156 Baton Rouge, LA 70804-4156

Phone: (225) 342-1270 FAX: (225) 342-1397

E-mail: TECHASMT@DNR.STATE.LA.US



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#### Louisiana Energy Facts Annual 2002

#### INTRODUCTION

#### ABOUT THIS PUBLICATION

The Louisiana Energy Facts Annual is published to provide a comprehensive compendium of Louisiana related energy production and use statistics on an annual basis. To aid in the interpretation of the data and the discernment of trends, the data tables are supplemented with numerous graphs and charts. The **Annual** is published as soon as sufficient data for the previous calendar year is available. Due to time lags in the availability of some of the data, this means there is approximately a nine month lag before the year's Annual can be published. Some changes have been introduced in order to incorporate the latest available data.

If you receive our monthly **Louisiana Energy Facts**, you may find that some of the previously published data has been revised in the **Annual**. This data, by its nature, continues to be revised, sometimes years after its initial publication. We try to bring attention to these changes by marking them as revisions.

The most recent Louisiana Energy Facts monthly may contain even more updates. Please refer to the recent monthlies for the very latest data. The Louisiana Energy Facts monthly is available in print and online at our website:

#### http://www.dnr.state.la.us/SEC/EXECDIV/TECHASMT

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#### **Energy Facts and Figures**

Note: the data in these tables will be updated throughout the year. The data files are not audited and will change as more reliable data becomes available.

The state oil and gas production data has been modified. Current production data and all future reports will reflect changes due to modifications in the reporting system by the DNR Office of Conservation, Production Audit Section. The new data for oil will not include crude oil, condensate, or raw make recovered from gas plants. In the past, these products were added to the state production as crude oil or condensate. A separate report on gas plant liquids production is not available at present. The gas data system was adjusted to reflect production from the well on the date produced. It was previously reported on the date first purchased.

This new reporting system should produce more accurate and timely data. The Technology Assessment Division is not the source of the data, but merely reports data provided to us by the responsible agency. We understand that users of our time series data need consistency and, for that reason, our time series have been adjusted backward to reflect these new modifications.

We hope you find this **Annual** useful, and we welcome any comments or suggestions.

Any comments or suggestions about this publication should be directed to the Technology Assessment Division staff members listed on the General Questions and Comments page.

#### **2002 HIGHLIGHTS**

The data in the 2002 Louisiana Energy Facts Annual contains some recent trends.

### Crude oil and natural gas prices are rising

Gas price average was \$2.66 per MCF in January 2002, and is now \$4.85 per MCF. The Louisiana natural gas spot market average hit bottom at \$1.85 per MCF in October 2001, the lowest price in five years. The price for gas has steadily risen, subject to seasonal adjustments, since then. The 2003 average price for gas is expected to be \$3.48 per MCF.

South Louisiana crude oil was priced at \$20.10 per barrel in January 2002 and is now \$30.04 per barrel. The crude oil spot market average price rose to \$26.18 per barrel in 2002, a 1% increase compared to 2001. The 2003 average is expected to be \$26.50 per barrel, a 1% increase over 2002.

### Oil and gas production is decreasing

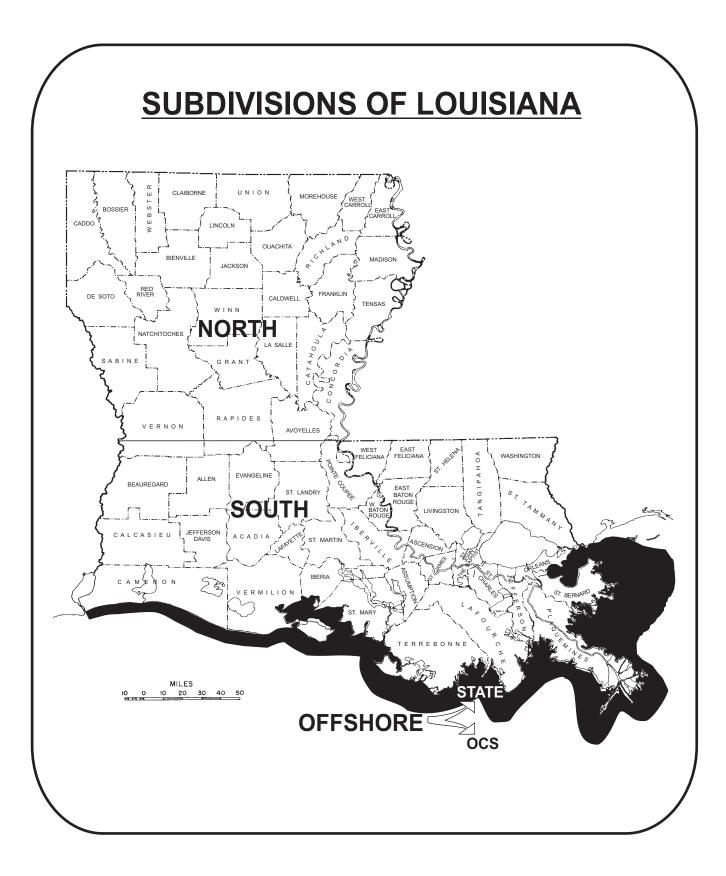
Louisiana state crude oil and condensate production, excluding federal Outer Continental Shelf (OCS), dropped to 96 million barrels in 2002, a 9.3% decrease from 2001. An additional 2.8% decrease in production is expected in 2003. Louisiana state natural gas and casinghead, excluding federal OCS, dropped to 1.28 TCF in 2002, an 8.1% decrease from 2001. It is expected to decrease an additional 5.1% in 2003. The larger than normal decline in oil and gas production in 2002 was related to two hurricanes (Isidore and Lili) hitting Louisiana in October of that year.

#### Drilling activity is low

The price of south Louisiana sweet crude oil and natural gas in the spot market did not encourage the exploration and development of oil and gas fields. The average number of active rigs dropped to 163 in 2002, a 31% decrease from 2001. The average number of active rigs is expected to remain at this level in 2003. Drilling permits issued in state controlled areas, excluding federal OCS, dropped to 1,025 in 2002, a 21% decrease from 2001. The number of drilling permits issued is expected to remain at this level in 2001.

#### Other significant items

Louisiana's proved oil and gas reserves were lower in 2002 than in 2001. This was due to low drilling and the uncertainty of oil and gas prices. Non-agricultural employment was also lower in 2002, as opposed to 2001, due to the downturn in the U.S. economy.



# Table 1

## LOUISIANA STATE CRUDE OIL PRODUCTION

Excluding OCS (Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	30,736,984	103,284,948	23,924,888	157,946,820
1982	31,485,800	96,155,535	22,793,085	150,434,420
1983	29,831,731	93,737,027	22,806,268	146,375,026
1984	29,590,376	96,690,421	25,117,916	151,398,713
1985	29,436,551	97,622,513	24,292,173	151,351,237
1986	26,795,748	97,853,602	24,619,169	149,268,519
1987	25,036,758	95,476,492	23,372,480	143,885,730
1988	23,966,252	88,701,776	22,800,047	135,468,075
1989	22,249,645	78,352,396	20,890,198	121,492,239
1990	22,681,173	72,770,216	21,356,618	116,808,007
1991	22,693,470	69,567,532	22,498,111	114,759,114
1992	21,914,801	68,285,536	21,820,087	112,020,424
1993	20,088,542	65,698,407	21,593,063	107,380,012
1994	17,236,407	59,754,375	21,163,672	98,154,453
1995	16,643,923	59,472,528	20,140,864	96,257,315
1996	16,900,516 r	58,970,676 r	19,117,088 r	94,988,280 r
1997	17,029,889 r	60,203,404 r	17,143,321 r	94,376,613 r
1998	15,609,750 r	60,791,985 r	15,122,306 r	91,524,041 r
1999	12,897,911 r	56,009,831 r	12,092,848 r	81,000,591 r
2000	11,740,889 r	53,090,131 r	11,131,481 r	75,962,501 r
January	877,998 r	4,077,465 r	832,860 r	5,788,323 r
February	836,212 r	3,900,889 r	793,250 r	5,530,351 r
March	912,818 r	4,278,718 r	865,808 r	6,057,344 r
April	903,916 r	4,259,018 r	857,079 r	6,020,013 r
May	935,267 r	4,431,859 r	886,309 r	6,253,435 r
June	918,595 r	4,192,789 r	875,440 r	5,986,824 r
July	945,895	4,317,397	901,458	6,164,751
August	921,970	4,208,192	878,657	6,008,819
September	851,003	4,136,726	803,983	5,791,712
October	871,483	4,263,736	822,739	5,957,957
November	838,473	4,129,806	790,947	5,759,226
December	830,376	4,118,191	782,653	5,731,219
2001 Total	10,644,004	50,314,787	10,091,183	71,049,974
January	813,085	3,983,120	762,693	5,558,898
February	728,857	3,582,798	682,688	4,994,343
March	795,239	3,920,834	743,664	5,459,737
April	757,522	3,743,962	707,135	5,208,619
May	807,923	3,999,967	752,717	5,560,607
June	777,180	3,851,130	722,540	5,350,850
July	764,621	3,788,362	709,219	5,262,202
August	791,509	3,929,169	732,734	5,453,412
September	862,230 e	4,287,406 e	796,592 e	5,946,228 e
October	859,008 e	3,877,556 e	591,961 e	5,328,524 e
November	856,064 e	4,268,339 e	787,563 e	5,911,966 e
December	853,254 e	4,259,423 e	783,280 e	5,895,956 e
2002 Total e Estimated	<b>9,666,489</b> e r Revised p Preliminary	47,492,069 e	8,772,785 e	65,931,343 e

# Table 2

## LOUISIANA STATE CONDENSATE PRODUCTION

Excluding OCS (Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	4,371,074	35,181,456	2,348,549	41,901,079
1982	4,120,663	32,663,371	2,147,896	38,931,930
1983	3,598,850	27,638,588	1,996,504	33,233,942
1984	3,140,006	30,785,661	1,918,564	35,844,231
1985	2,668,233	29,260,762	1,721,098	33,650,093
1986	2,755,749	26,709,496	2,176,970	31,642,215
1987	2,512,024	25,594,838	1,811,598	29,918,460
1988	2,780,394	27,008,968	1,739,471	31,528,833
1989	2,979,706	26,767,411	1,856,899	31,604,016
1990	3,341,804	26,878,867	1,686,289	31,906,959
1991	4,008,686	26,222,372	1,685,239	31,916,297
1992	3,787,323	25,391,530	1,601,299	30,780,152
1993	3,647,049	25,232,030	1,629,026	30,508,106
1994	3,726,244	23,747,186	1,497,058	28,970,488
1995	3,927,365	22,863,248	2,177,307	28,967,920
1996	5,162,597 r	26,495,283 r	2,313,384 r	33,971,263 r
1997	4,396,476 r	24,242,465 r	2,737,482 r	31,376,423 r
1998	3,960,448 r	24,391,844 r	2,398,819 r	30,751,111 r
1999	3,556,042 r	24,037,543 r	2,233,696 r	29,827,281 r
2000	3,669,057 r	25,206,091 r	2,338,960 r	31,214,108 r
	, ,	, ,	, ,	, ,
January	342,569 r	2,385,805 r	221,064 r	2,949,438 r
February	308,378 r	2,152,484 r	199,398 r	2,660,260 r
March	345,487 r	2,417,293 r	223,872 r	2,986,652 r
April	325,238 r	2,281,523 r	211,238 r	2,817,999 r
May	339,265 r	2,386,624 r	220,898 r	2,946,787 r
June	332,074 r	2,251,075 r	221,163 r	2,804,312 r
July	339,595	2,302,062	226,173	2,867,830
August	323,405	2,192,311	215,390	2,731,106
September	306,446	2,182,228	201,710	2,690,384
October	318,294	2,273,385	210,068	2,801,747
November	312,057	2,235,672	206,513	2,754,243
December	322,880	2,320,391	214,267	2,857,539
2001 Total	3,915,688	27,380,854	2,571,755	33,868,297
January	315,157	2,271,929	209,722	2,796,808
February	311,252	2,250,626	207,688	2,769,566
March	339,383	2,461,635	227,084	3,028,102
April	327,912	2,385,876	220,021	2,933,810
May	334,592	2,442,152	225,136	3,001,880
June	315,803	2,312,318	213,095	2,841,216
July	258,009	1,895,149	174,591	2,327,749
August	247,998	1,827,427	168,295	2,243,720
September	237,084 e	1,752,615 e	161,351 e	2,151,050 e
October	236,040 e	1,050,543 e	101,106 e	1,387,689 e
November	234,996 e	1,748,472 e	160,860 e	2,144,328 e
December	233,953 e	1,746,400 e	160,614 e	2,140,967 e
2002 Total	3,392,179 e	24,145,142 e	2,229,563 e	29,766,884 e
e Estimated	r Revised p Preliminary	<u>-</u>	<b>-</b> , <b></b> -0,000 6	20,100,007 6
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Table 3

# LOUISIANA STATE CRUDE OIL and CONDENSATE PRODUCTION Excluding OCS (Barrels)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	35,108,058	138,466,404	26,273,437	199,847,899
1982	35,606,463	128,818,906	24,940,981	189,366,350
1983	33,430,581	121,375,615	24,802,772	179,608,968
1984	32,730,382	127,476,082	27,036,480	187,242,944
1985	32,104,784	126,883,275	26,013,271	185,001,330
1986	29,551,497	124,563,098	26,796,139	180,910,734
1987	27,548,782	121,071,330	25,184,078	173,804,190
1988	26,746,646	115,710,745	24,539,518	166,996,908
1989	25,229,350	105,119,808	22,747,097	153,096,255
1990	26,022,976	99,649,083	23,042,907	148,714,966
1991	26,702,156	95,789,904	24,183,350	146,675,411
1992	25,702,124	93,677,066	23,421,386	142,800,576
1993	23,735,591	90,930,437	23,222,089	137,888,118
1994	20,962,650	83,501,561	22,660,730	127,124,941
1995	20,571,288	82,335,776	22,318,172	125,225,235
1996	22,063,113 r	85,465,958 r	21,430,472 r	128,959,543 r
1997	21,426,364 r	84,445,869 r	19,880,803 r	125,753,036 r
1998	19,570,198 r	85,183,829 r	17,521,125 r	122,275,152 r
1999	16,453,953 r	80,047,375 r	14,326,544 r	110,827,872 r
2000	15,409,946 r	78,296,222 r	13,470,441 r	107,176,609 r
January	1,220,567 r	6,463,270 r	1,053,924 r	8,737,761 r
February	1,144,590 r	6,053,373 r	992,648 r	8,190,611 r
March	1,258,304 r	6,696,011 r	1,089,680 r	9,043,996 r
April	1,229,155 r	6,540,541 r	1,068,316 r	8,838,012 r
May	1,274,531 r	6,818,483 r	1,107,208 r	9,200,222 r
June	1,250,669 r	6,443,863 r	1,096,604 r	8,791,136 r
July	1,285,491	6,619,459	1,127,631	9,032,581
August	1,245,375	6,400,503	1,094,047	8,739,925
September	1,157,448	6,318,954	1,005,693	8,482,096
October	1,189,777	6,537,121	1,032,806	8,759,704
November	1,150,530	6,365,478	997,461	8,513,469
December	1,153,256	6,438,582	996,920	8,588,758
2001 Total	14,559,692	77,695,641	12,662,938	104,918,271
January	1,128,242	6,255,049	972,416	8,355,706
February	1,040,108	5,833,425	890,376	7,763,910
March	1,134,622	6,382,469	970,748	8,487,838
April	1,085,434	6,129,839	927,157	8,142,429
May	1,142,515	6,442,119	977,853	8,562,487
June	1,092,983	6,163,448	935,635	8,192,065
July	1,022,629	5,683,512	883,810	7,589,951
August	1,039,507	5,756,596	901,029	7,697,132
September	1,099,314 e	6,040,021 e	957,943 e	8,097,278 e
October	1,095,048 e	4,928,099 e	693,066 e	6,716,213 e
November	1,091,060 e	6,016,811 e	948,423 e	8,056,294 e
December	1,087,207 e	6,005,823 e	943,894 e	8,036,923 e
2002 Total	13,058,668 e	71,637,211 e	11,002,348 e	95,698,227 e
- Cationatad	r Davised in Drelimination	,,	11,002,040 6	00,000,227 6

e Estimated r Revised p Preliminary

Figure 1

## LOUISIANA STATE OIL PRODUCTION

**Actual and Forecasted Through Year 2030** 

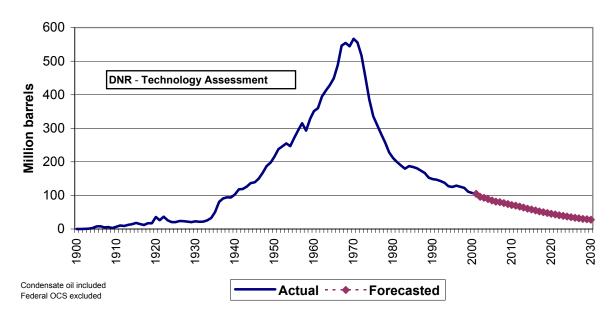


Figure 2

# 2001 UNITED STATES OIL PRODUCTION BY STATE

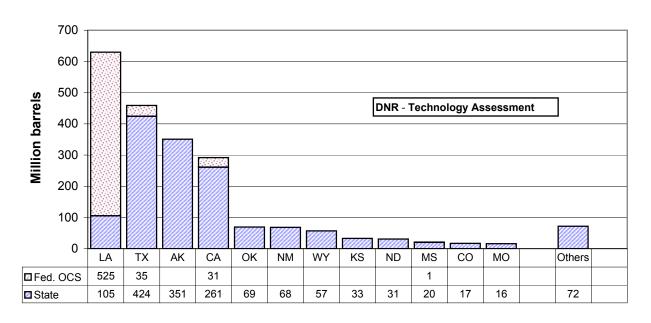


Table 4

LOUISIANA TOTAL CRUDE OIL and CONDENSATE PRODUCTION (Barrels)

	ONSHORE	OFFSH	ORE	TOTAL
DATE		State	Federal OCS	
1981	173,574,462	26,273,437	255,875,717	455,723,616
1982	164,425,369	24,940,981	275,513,489	464,879,839
1983	154,806,196	24,802,772	298,093,559	477,702,527
1984	160,206,464	27,036,480	318,024,622	505,267,566
1985	158,988,059	26,013,271	338,901,863	523,903,193
1986	154,114,595	26,796,139	340,152,276	521,063,010
1987	148,620,112	25,184,078	307,950,881	481,755,071
1988	142,457,390	24,539,518	261,936,530	428,933,438
1989	130,349,158	22,747,097	246,207,653	399,303,908
1990	125,672,059	23,042,907	264,670,535	413,385,501
1991	122,492,061	24,183,350	262,647,733	409,323,144
1992	119,379,190	23,421,386	288,918,208	431,718,784
1993	114,666,029	23,222,089	293,443,881	431,331,999
1994	104,464,211	22,660,730	293,077,191	420,202,132
1995	102,907,063	22,318,172	320,255,087	445,480,322
1996	107,529,071 r	21,430,472 r	349,101,048	478,060,591 r
1997	105,872,233 r	19,880,803 r	399,536,004	525,289,040 r
1998	104,754,027 r	17,521,125 r	425,865,901	548,141,053 r
1999	96,501,328 r	14,326,544 r	451,391,454	562,219,326 r
2000	93,706,168 r	13,470,441 r	485,235,494	592,412,103 r
	,,	-, -,	,, -	, , ,
January	7,683,837 r	1,053,924 r	42,099,146	50,836,907 r
February	7,197,963 r	992,648 r	38,088,982	46,279,593 r
March	7,954,316 r	1,089,680 r	43,287,237	52,331,233 r
April	7,769,696 r	1,068,316 r	42,032,878	50,870,890 r
May	8,093,014 r	1,107,208 r	45,411,602	54,611,824 r
June	7,694,532 r	1,096,604 r	43,657,392	52,448,528 r
July	7,904,950	1,127,631	45,406,868	54,439,449
August	7,645,878	1,094,047	44,764,068	53,503,993
September	7,476,403	1,005,693	44,403,381	52,885,477
October	7,726,898	1,032,806	46,203,978	54,963,682
November	7,516,008	997,461	45,168,303	53,681,772
December	7,591,838	996,920	46,955,647	55,544,405
2001 Total	92,255,333	12,662,938	527,479,483	632,397,754
2001 10141	02,200,000	,00_,000	021,110,100	002,001,101
January	7,383,290	972,416	46,662,175 e	55,017,881
February	6,873,533	890,376	42,809,161 e	50,573,070
March	7,517,091	970,748	47,161,078 e	55,648,917
April	7,215,273	927,157	45,586,739 e	53,729,168
May	7,584,634	977,853	48,095,458 e	56,657,945
June	7,256,430	935,635	46,008,961 e	54,201,026
July	6,706,141	883,810	46,955,647 e	54,545,598
August	6,796,103	901,029	10,000,011	7,697,132
September	7,139,335 e	957,943 e		8,097,278 e
October	6,023,147 e	693,066 e		6,716,213 e
November	7,107,871 e	948,423 e		8,056,294 e
December	7,093,030 e	943,894 e		8,036,923 e
2002 Total	84,695,879 e	11,002,348 e	323,279,218	418,977,446 e
e Estimated	r Revised p Preliminary	,	,: 3,2 :0	,,

**TABLE 5** 

# LOUISIANA STATE OIL PRODUCTION\* BY TAX RATES AS PUBLISHED IN SEVERANCE TAX REPORTS<sup>8</sup> (Barrels)

DATE	FULL RATE	INCAPABLE WELLS RATE	STRIPPER WELLS RATE	TAXED VOLUME
1981	193,725,528	2,579,437	9,072,057	205,377,024
1982	180,197,905	2,955,008	9,103,966	192,301,881
1983	172,094,095	2,884,691	9,731,435	184,710,221
1984	171,425,402	3,099,053	9,830,262	184,354,717
1985	173,545,432	3,110,740	10,513,745	187,169,920
1986	180,108,437	3,208,451	10,059,344	193,376,232
1987	155,987,737	3,201,095	8,809,543	168,015,044
1988	142,605,746	3,288,994	8,242,330	154,150,151
1989	139,442,253	3,265,429	7,429,510	150,165,554
1990	131,140,448	3,274,774	7,154,125	141,577,610
1991	136,212,521	3,888,128	8,112,117	148,212,765
1992	133,399,849	3,665,298	7,718,696	144,783,843
1993	128,699,431	3,448,387	7,240,065	139,387,883
1994	118,109,958	3,691,802	6,347,047 e	128,148,807 e
1995	108,373,913	4,239,717	6,230,454 e	118,844,084 e
1996	103,524,192	3,786,147	6,240,956 e	113,551,295 e
1997	101,772,533	3,466,389	6,101,247 e	111,340,169 e
1998	89,083,365	2,878,225	5,892,007 e	97,853,597 e
1999	85,207,438	2,786,515	5,690,984 e	93,684,937 e
2000	88,411,207	2,783,268	5,322,515 e	96,516,990 e
2000	00,411,201	2,700,200	0,022,010 0	30,510,550 €
January	7,616,194	231,605	485,250 e	8,333,049 e
February	6,359,309	270,977	377,086 e	7,007,372 e
March	7,305,131	180,287	471,076 e	7,956,494 e
April	6,544,439	254,560	407,246 e	7,206,245 e
May	6,803,935	233,864	414,181 e	7,451,981 e
June	6,217,049	207,077	436,417 e	6,860,543 e
July	7,744,362	278,531	489,059 e	8,511,952 e
August	6,997,987	180,493	489,271 e	7,667,751 e
September	7,104,032	225,547	423,812 e	7,753,390 e
October	7,552,030	193,642	419,274 e	8,164,946 e
November	6,640,699	152,188	364,052 e	7,156,939 e
December	7,108,891	167,912	398,417 e	7,675,220 e
2001 Total	83,994,058	2,576,683	5,175,142 e	91,745,883 e
January	8,672,311	207,256	401,489 e	9,281,056 e
February	6,949,603	205,696	414,481 e	7,569,780 e
March	6,024,226	213,546	377,244 e	6,615,016 e
April	6,486,915 e	189,319 e	397,277 e	7,073,511 e
May	7,470,540	180,530	405,011	8,056,081
June	5,765,068	208,798	430,760	6,404,626
July	6,915,943	242,684	402,961	7,561,589
August	6,662,692	209,567	416,695	7,288,955
September	6,949,303	268,295	403,723	7,621,320
October	5,815,172	216,668	320,885	6,352,725
November				
December	07 744 770	0.440.050	0.070.505	70.004.050
2002 Total	67,711,773 e	2,142,359 e	3,970,525 e	73,824,658 e

e Estimated r Revised p Preliminary

<sup>\*</sup> Due to reporting time lag and well exemptions the above figures are different from actual production. See footnote in Appendix B.

Figure 3

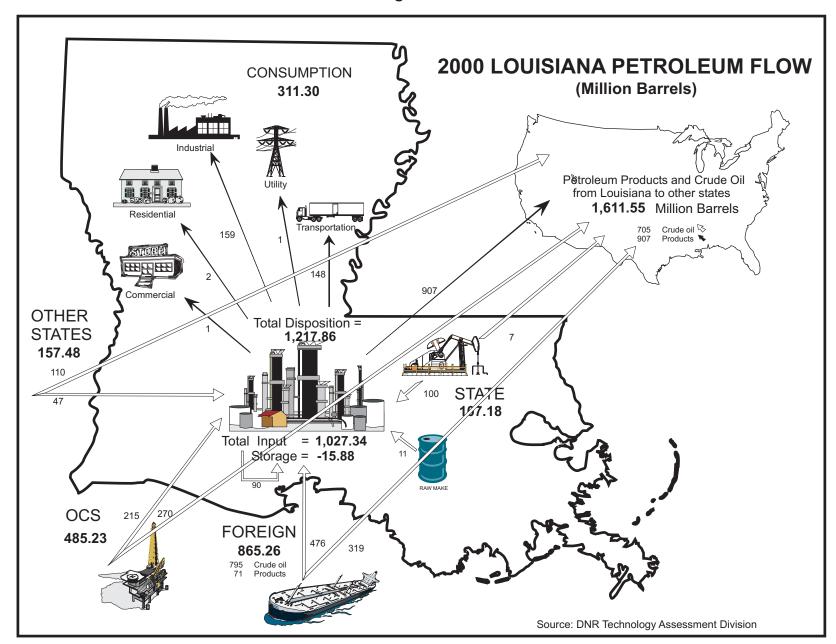


Table 6

UNITED STATES OCS CRUDE OIL AND CONDENSATE PRODUCTION<sup>12</sup>
(Barrels)

1954     3,342,230     0     0     3,34       1955     6,703,528     1,956     0     6,70       1956     11,001,248     13,284     0     11,01       1957     16,064,395     5,792     0     16,07       1958     24,769,037     0     0     24,76       1959     35,697,264     257     0     35,69	50,697 42,230 05,484 14,532 70,187 59,037 07,521 65,989 30,078 36,582 79,240 00,126 58,615
1955     6,703,528     1,956     0     6,70       1956     11,001,248     13,284     0     11,01       1957     16,064,395     5,792     0     16,07       1958     24,769,037     0     0     24,76       1959     35,697,264     257     0     35,69	05,484 14,532 70,187 69,037 07,521 65,989 80,078 86,582 79,240 00,126 68,615
1956       11,001,248       13,284       0       11,01         1957       16,064,395       5,792       0       16,07         1958       24,769,037       0       0       24,76         1959       35,697,264       257       0       35,69	14,532 70,187 69,037 97,521 65,989 80,078 86,582 79,240 90,126 68,615
1957       16,064,395       5,792       0       16,07         1958       24,769,037       0       0       24,76         1959       35,697,264       257       0       35,69	70,187 69,037 97,521 65,989 80,078 86,582 79,240 90,126 68,615
1958       24,769,037       0       0       24,76         1959       35,697,264       257       0       35,69	59,037 67,521 65,989 80,078 86,582 79,240 90,126 68,615
1959 35,697,264 257 0 35,69	97,521 65,989 80,078 86,582 79,240 90,126 68,615
	35,989 30,078 36,582 79,240 00,126 38,615
1960 49 665 891 98 0 49 66	30,078 36,582 79,240 00,126 58,615
1500 45,005,051 50 45,00	36,582 79,240 00,126 38,615
1961 64,330,078 0 0 64,33	79,240 00,126 88,615
	00,126 88,615
	00,126 88,615
	88,615
	,
1967 218,995,828 2,865,786 0 221,86	31.614
1968 263,825,359 3,110,642 2,059,889 268,99	
1969 300,159,292 2,759,851 9,940,844 312,85	
1970 333,411,492 2,247,048 24,987,628 360,64	
1971 385,760,351 1,685,047 31,103,548 418,54	
1972 387,590,662 1,733,018 22,562,213 411,88	
1973 374,196,856 1,617,829 18,915,314 394,72	
1974 342,435,496 1,381,825 16,776,744 360,59	
1975 313,592,559 1,340,136 15,304,757 330,23	
1976 301,887,002 1,054,554 13,978,553 316,92	
1977 290,771,605 909,037 12,267,598 303,94	
1978 278,071,535 2,107,599 12,085,908 292,26	
1979 271,008,916 3,595,546 10,961,076 285,56	
1980 256,688,082 10,502,007 10,198,886 277,38	
1981 255,875,717 14,284,661 19,605,027 289,76	
1982 275,513,489 17,263,766 28,434,202 321,21	
1983 298,093,559 19,710,197 30,527,487 348,33	
1984 318,024,622 21,960,086 30,254,306 370,23	
1985 338,901,863 20,640,957 29,781,465 389,32	
1986 340,152,276 19,835,882 29,227,846 389,21	
1987 307,950,881 24,634,142 33,556,686 366,14	
1988 261,936,530 26,115,776 32,615,118 320,66	
1989 246,207,653 25,887,841 33,072,161 305,16	
1990 264,670,535 26,439,927 33,312,719 324,42	
1991 262,647,733 23,899,428 29,146,090 315,69	
1992 288,918,208 23,582,162 41,222,801 353,72	
1993 293,443,881 19,151,111 50,078,144 362,67	
1994 293,077,191 19,121,540 57,229,464 369,47	
1995 320,255,087 17,347,391 71,254,440 408,87	'5,006
1996 349,101,048 21,078,663 67,804,200 438,00	
1997 399,536,004 20,927,592 58,279,489 478,77	'5,008
1998 425,865,901 20,128,157 40,636,231 476,65	
1999 451,391,454 19,832,067 42,071,101 513,31	7,586
	70,347 r
2001 502,623,073 p 16,447,355 p 34,763,192 p 553,85	59,881 p

e Estimated r Revised p Preliminary See footnote in Appendix B.

Table 7

UNITED STATES CRUDE OIL AND CONDENSATE PRODUCTION AND IMPORTS (Thousand barrels)

DATE	ALL OCS <sup>12</sup>	DOMESTIC	IMPORTS	IMPORTS
DATE	ALL OCS	DOMESTIC PROPUSED TO 1	IMPORTS	IMPORTS
4004	200 705	PRODUCTION <sup>7</sup>	OTHER <sup>7</sup>	SPR <sup>7</sup>
1981	289,765	3,128,780	1,511,465	93,440
1982	321,211	3,156,885	1,212,895	60,225
1983	348,331	3,171,120	1,130,040	85,410
1984	370,239	3,249,714	1,181,814	72,102
1985	389,324	3,274,415	1,125,295	43,070
1986	389,216	3,168,200	1,507,450	17,520
1987	366,142	3,047,385	1,679,365	26,645
1988	320,667	2,979,240	1,850,130	18,666
1989	305,168	2,778,745	2,112,255	20,440
1990	324,423	2,684,575	2,141,455	9,855
1991	315,693	2,707,039	2,110,332	0
1992	353,726	2,618,125	2,212,344	3,594
1993	362,676	2,495,933	2,451,415	5,367
1994	369,474	2,418,981	2,560,220	4,485
1995	408,875	2,383,404	2,642,689	0
1996	438,004	2,368,535	2,738,387	0
1997	478,775	2,339,981	2,918,425	0
1998	476,655	2,293,763	3,120,791	0
1999	513,318	2,162,752	3,132,376	2,065
2000	565,770 r	2,135,062	3,271,257 r	3,006
January	44,360 r	180,905	271,539	995
February	40,294 r	163,529	237,540	0
March	45,761 r	182,203	293,336	454
April	44,075 r	175,615	294,621	0
May	47,665 r	181,638	298,387	919
June	45,629	173,971	267,043	0
July	47,429	180,000	291,110	464
August	47,071	180,509	281,864	0
September	46,604	174,858	271,605	2
October	48,321	180,159	281,375	0
November	47,417	178,390	274,411	524
December	49,233	184,402	271,607	556
2001 Total	553,860	2,136,179	3,334,438	3,914
January	49,064	183,967	266,997	1,026
February	44,921	166,254	240,331	1,649
March	49,258	183,337	268,155	0
April	47,522	176,609	274,211	0
May	47,051	183,146	284,853	500
June	48,016	176,610	276,352	502
July	49,020	178,963	279,315	0
August		180,648	295,892	0
September		161,339	263,873	0
October				
November				
December				
2002 Total	334,852	1,590,873	2,449,979	3,677
e Estimated	r Revised p Preliminary			

Table 8

LOUISIANA STATE ROYALTY OIL, GAS AND PLANT PRODUCTS
CALCULATED VOLUMES, Excluding OCS

	O,	LOOLAILD	VOLUMES, Excluding 000	DLANT
DATE		OIL	GAS	PLANT
DATE			(MCF)	LIQUIDS (Barrels)
1981		<b>(Barrels)</b> 9,460,901	100,944,844	966,222
1982		8,756,198	95,448,648	808,946
1982		8,956,936	88,029,268	694,641
1984				
		8,786,732	86,315,477	944,965
1985 1986		8,404,223	76,612,605 81,463,285	845,349 1,751,664
1987		8,859,310 8,040,773	78,166,315	511,790
1987		7,544,770	69,991,244	456,976
1989		7,184,774	69,936,929	461,237
1909		6,781,765	66,417,089	348,776
1990		6,923,565	61,809,109	1,063,909
1991		6,837,552	57,911,258	1,689,942
1992		6,721,350	67,052,274	698,857
1993		6,288,843	54,798,617	600,660
1994		6,301,254	57,032,170	938,660
1995		6,489,394 r	60,326,587 r	936,660 477,640 r
1990		6,534,913 r	60,778,002 r	1,440,435 r
1997		6,604,124 r	56,691,269 r	331,767 r
1999		6,030,138 r	51,051,870 r	204,124 r
2000		5,757,909 r	53,780,835 r	355,112 r
2000		5,757,909	33,760,633 F	333, FIZ F
January		479,354 r	4,424,730 r	85,361 r
February		507,435 r	4,948,127 r	34,763 r
March		502,633 r	5,558,518 r	<b>44</b> ,686 r
April		530,340 r	5,099,049 r	59,575 r
May		496,155 r	5,193,779 r	100,660 r
June		469,152 r	5,727,495 r	153,245 r
July		486,642 r	5,244,410 r	102,560 r
August		549,397	5,142,274	75,295
September		457,904	5,128,192	102,272
October		540,770	5,184,170	80,825
November		508,119	4,733,016	74,485
December		502,539	4,957,694	62,311
2001 Total		6,030,440	61,341,454	976,040
January		420,285	4,921,778	52,251
February		391,858	4,085,210	58,816
March		425,988	4,311,012	57,471
April		377,751	4,106,201	72,285
May		442,430	4,345,672	80,339
June		414,072	4,240,880	63,418
July		405,101	4,722,406	63,829
August		398,060	3,910,266 p	49,897
September		296,129 p		14,902 p
October				
November				
December		0.574.074	04 040 404	E40 000
2002 Total	- D- ' '	3,571,674	34,643,424	513,208
e Estimated	r Revised	p Preliminary		

# Table 9 LOUISIANA STATE NATURAL GAS PRODUCTION WET AFTER LEASE SEPARATION

Excluding OCS and Casinghead Gas (Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	361,036,595 r	1,599,446,319 r	348,599,052 r	2,309,081,966 r
1982	318,621,509 r	1,384,120,463 r	332,096,939 r	2,034,838,911 r
1983	305,360,107 r	1,180,261,867 r	291,012,508 r	1,776,634,482 r
1984	326,338,092 r	1,248,036,005 r	284,926,166 r	1,859,300,263 r
1985	295,244,077 r	1,137,225,154 r	220,415,274 r	1,652,884,505 r
1986	308,388,203 r	1,106,084,855 r	212,591,069 r	1,627,064,127 r
1987	303,050,793 r	1,041,232,533 r	199,093,721 r	1,543,377,047 r
1988	322,955,920 r	1,058,079,256 r	191,498,869 r	1,572,534,045 r
1989	335,963,137 r	1,035,013,840 r	180,876,988 r	1,551,853,965 r
1990	354,696,578 r	1,040,239,002 r	160,569,034 r	1,555,504,613 r
1991	345,612,948 r	1,022,125,055 r	129,387,685 r	1,497,125,688 r
1992	343,439,890 r	994,039,578 r	123,902,708 r	1,461,382,176 r
1993	333,395,251 r	970,764,461 r	130,660,784 r	1,434,820,496 r
1994	334,564,842 r	925,335,735 r	134,106,599 r	1,394,007,176 r
1995	344,719,040 r	908,236,089 r	140,906,019 r	1,393,861,148 r
1996	392,357,509 r	933,475,774 r	166,905,966 r	1,492,739,249 r
1997	405,452,524 r	871,317,755 r	165,298,903 r	1,442,069,182 r
1998	394,378,024 r	845,365,803 r	158,810,864 r	1,398,554,691 r
1999	360,802,420 r	813,704,051 r	134,060,180 r	1,308,566,651 r
2000	356,515,706 r	835,670,606 r	135,004,800 r	1,327,191,113 r
2000	000,010,7001	000,070,000	100,001,0001	1,027,101,1101
January	30,380,417 r	72,473,869 r	11,556,129 r	114,410,415 r
February	28,185,653 r	67,420,600 r	10,728,187 r	106,334,440 r
March	33,623,998 r	80,636,780 r	12,805,323 r	127,066,101 r
April	30,138,191 r	72,451,507 r	11,483,098 r	114,072,796 r
May	31,278,309 r	75,357,725 r	11,921,639 r	118,557,673 r
June	29,748,318 r	71,809,881 r	11,340,687 r	112,898,886 r
July	30,931,380 r	74,358,314 r	11,785,315 r	117,075,009 r
August	30,771,428	74,639,858	11,741,048	117,152,334
September	29,214,601	70,613,620	11,461,458	111,289,680
October	30,039,828	72,773,567	11,272,489	114,085,884
November	29,472,085	71,562,811	11,062,356	112,097,252
December	29,906,745	72,792,281	11,228,871	113,927,897
2001 Total	363,690,954	876,890,812	138,386,601	1,378,968,367
January	28,187,812	68,840,320	10,593,878	107,622,010
February	25,857,359	63,311,673	9,721,216	98,890,248
March	28,685,391	70,421,280	10,788,093	109,894,764
April	27,215,756	66,994,439	10,239,028	104,449,223
May	28,372,166	70,036,034	10,678,080	109,086,280
June	27,363,620	67,740,389	10,302,508	105,406,518
July	28,082,517	69,715,152	10,577,105	108,374,773
August	27,890,700	69,436,526	10,508,855	107,836,082
September	27,699,420 e	69,160,178 e	10,440,845 e	107,300,442 e
October	24,943,984 e	62,463,324 e	9,405,954 e	96,813,262 e
November	27,317,529 e	68,610,062 e	10,305,106 e	106,232,697 e
December	27,126,026 e	68,332,737 e	10,236,995 e	105,695,757 e
2002 Total	328,742,280 e	815,062,113 e	123,797,663 e	1,267,602,056 e
e Estimated	r Revised p Preliminary	, <del>-,</del>	-,,	, , , , , , , , , , , ,

# Table 10

# LOUISIANA STATE CASINGHEAD GAS PRODUCTION WET AFTER LEASE SEPARATION, Excluding OCS

(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	54,449,743 r	144,969,808 r	21,917,745 r	221,337,297 r
1982	55,835,567 r	134,295,510 r	23,326,417 r	213,457,494 r
1983	54,841,710 r	124,281,782 r	26,159,080 r	205,282,572 r
1984	55,944,990 r	125,085,805 r	29,071,888 r	210,102,684 r
1985	55,759,287 r	112,357,808 r	29,648,675 r	197,765,770 r
1986	55,231,487 r	110,445,487 r	33,513,264 r	199,190,237 r
1987	53,608,927 r	111,178,438 r	29,030,143 r	193,817,508 r
1988	51,642,390 r	111,388,728 r	22,754,523 r	185,785,641 r
1989	43,226,234 r	95,636,544 r	22,432,765 r	161,295,543 r
1990	35,720,964 r	97,403,093 r	21,463,782 r	154,587,839 r
1991	36,360,803 r	94,750,220 r	20,506,337 r	151,617,360 r
1992	28,776,676 r	130,335,922 r	23,086,767 r	182,199,364 r
1993	20,416,003 r	134,059,073 r	23,177,673 r	177,652,749 r
1994	19,490,914 r	102,313,166 r	21,100,651 r	142,904,730 r
1995	18,712,027 r	100,070,988 r	23,542,867 r	142,325,882 r
1996	24,806,243 r	93,986,744 r	18,713,358 r	137,506,345 r
1997	36,479,230 r	104,499,510 r	20,549,384 r	161,528,124 r
1998	42,654,462 r	114,246,366 r	20,695,966 r	177,596,793 r
1999	33,049,556 r	96,156,877 r	15,410,069 r	144,616,502 r
2000	30,783,335 r	89,863,222 r	14,201,297 r	134,847,855 r
	, ,	, ,	, ,	, ,
January	2,310,463 r	6,760,207 r	1,059,150 r	10,129,821 r
February	2,222,260 r	6,504,354 r	1,017,773 r	9,744,387 r
March	2,469,245 r	7,229,714 r	1,129,864 r	10,828,823 r
April	2,502,717 r	7,330,197 r	1,144,166 r	10,977,080 r
May	2,565,961 r	7,517,947 r	1,172,079 r	11,255,987 r
June	2,394,834 r	7,018,874 r	1,093,025 r	10,506,733 r
July	2,433,208 r	7,126,614 r	1,112,389 r	10,672,211 r
August	2,343,645	6,873,480	1,067,785	10,284,909
September	2,244,374	6,584,551	1,021,670	9,850,595
October	2,481,545	6,394,112	1,154,779	10,030,436
November	2,438,863	6,286,311	1,133,794	9,858,968
December	2,452,281	6,323,094	1,138,889	9,914,264
2001 Total	28,859,396	81,949,456	13,245,362	124,054,214
January	2,323,474	5,993,541	1,078,275	9,395,291
February	2,019,184	5,210,504	936,171	8,165,858
March	2,167,615	5,595,587	1,004,046	8,767,247
April	2,105,857	5,438,188	974,532	8,518,577
May	2,247,305	5,805,657	1,039,035	9,091,998
June	2,089,447	5,399,919	965,179	8,454,545
July	2,587,415	6,689,361	1,194,089	10,470,865
August	2,585,298	6,686,406	1,191,999	10,463,703
September	2,583,178 e	6,683,451 e	1,189,914 e	10,456,543 e
October	2,114,082 e	5,471,838 e	972,924 e	8,558,843 e
November	2,578,935 e	6,677,546 e	1,185,748 e	10,442,229 e
December	2,576,816 e	6,674,590 e	1,183,661 e	10,435,067 e
2002 Total	27,978,606 e	<b>72,326,588</b> e	12,915,572 e	113,220,767 e
e Estimated	r Revised p Preliminary			

Figure 4

#### LOUISIANA STATE GAS PRODUCTION

**Actual and Forecasted Through Year 2030** 

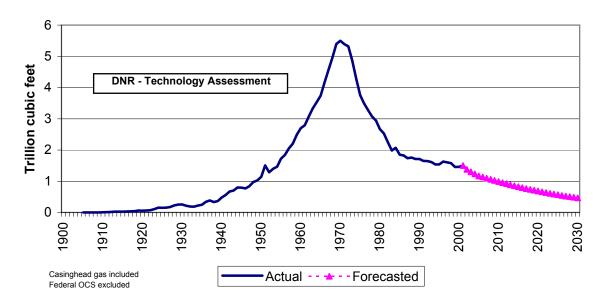


Figure 5

## 2001 UNITED STATES GAS PRODUCTION BY STATE

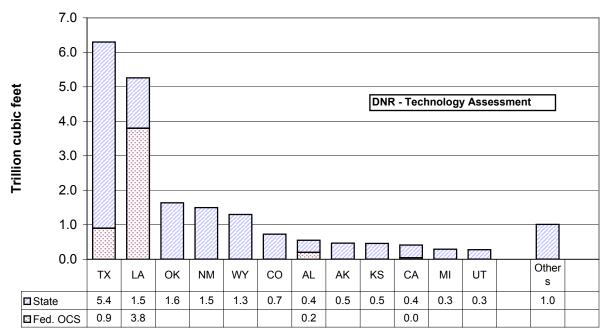


Table 11

# LOUISIANA STATE GAS PRODUCTION, WET AFTER LEASE SEPARATION Natural Gas and Casinghead Gas, Excluding OCS

(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)\*

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1981	415,486,338 r	1,744,416,128 r	370,516,797 r	2,530,419,263 r
1982	374,457,076 r	1,518,415,973 r	355,423,356 r	2,248,296,405 r
1983	360,201,817 r	1,304,543,649 r	317,171,588 r	1,981,917,054 r
1984	382,283,082 r	1,373,121,810 r	313,998,055 r	2,069,402,947 r
1985	351,003,364 r	1,249,582,962 r	250,063,949 r	1,850,650,275 r
1986	363,619,690 r	1,216,530,342 r	246,104,333 r	1,826,254,364 r
1987	356,659,720 r	1,152,410,971 r	228,123,864 r	1,737,194,555 r
1988	374,598,311 r	1,169,467,984 r	214,253,392 r	1,758,319,686 r
1989	379,189,370 r	1,130,650,385 r	203,309,753 r	1,713,149,508 r
1990	390,417,542 r	1,137,642,094 r	182,032,816 r	1,710,092,452 r
1991	381,973,751 r	1,116,875,275 r	149,894,021 r	1,648,743,048 r
1992	372,216,566 r	1,124,375,499 r	146,989,475 r	1,643,581,540 r
1993	353,811,255 r	1,104,823,534 r	153,838,456 r	1,612,473,245 r
1994	354,055,756 r	1,027,648,900 r	155,207,250 r	1,536,911,906 r
1995	363,431,067 r	1,008,307,077 r	164,448,886 r	1,536,187,030 r
1996	417,163,752 r	1,027,462,518 r	185,619,324 r	1,630,245,594 r
1997	441,931,755 r	975,817,264 r	185,848,287 r	1,603,597,306 r
1998	437,032,486 r	959,612,168 r	179,506,830 r	1,576,151,484 r
1999	393,851,976 r	909,860,928 r	149,470,249 r	1,453,183,153 r
2000	387,299,042 r	925,533,829 r	149,206,098 r	1,462,038,968 r
2000	, ,			
January	32,690,881 r	79,234,076 r	12,615,279 r	124,540,236 r
February	30,407,913 r	73,924,953 r	11,745,961 r	116,078,827 r
March	36,093,243 r	87,866,494 r	13,935,187 r	137,894,924 r
April	32,640,908 r	79,781,704 r	12,627,264 r	125,049,876 r
May	33,844,270 r	82,875,672 r	13,093,718 r	129,813,660 r
June	32,143,152 r	78,828,754 r	12,433,712 r	123,405,619 r
July	33,364,588 r	81,484,928 r	12,897,704 r	127,747,220 r
August	33,115,073	81,513,338	12,808,832	127,437,243
September	31,458,975	77,198,171	12,483,128	121,140,275
October	32,521,374	79,167,679	12,427,267	124,116,320
November	31,910,948	77,849,122	12,196,150	121,956,220
December	32,359,026	79,115,376	12,367,759	123,842,161
2001 Total	392,550,351	958,840,268	151,631,962	1,503,022,581
January	30,511,286	74,833,861	11,672,153	117,017,301
February	27,876,542	68,522,177	10,657,387	107,056,107
March	30,853,006	76,016,867	11,792,138	118,662,011
April	29,321,614	72,432,627	11,213,559	112,967,799
May	30,619,472	75,841,691	11,717,116	118,178,278
June	29,453,067	73,140,308	11,267,687	113,861,063
July	30,669,931	76,404,513	11,771,194	118,845,638
August	30,475,998	76,122,932	11,700,855	118,299,784
September	30,282,598 e	75,843,629 e	11,630,759 e	117,756,985 e
October	27,058,066 e	67,935,162 e	10,378,877 e	105,372,105 e
November	29,896,464 e	75,287,608 e	11,490,854 e	116,674,925 e
December	29,702,842 e	75,007,327 e	11,420,656 e	116,130,825 e
2002 Total	356,720,886 e	887,388,701 e	136,713,235 e	1,380,822,822 e

e Estimated r Revised p Preliminary

<sup>\*</sup> See Appendix D-1 for corresponding volumes at 14.73 psia.

Table 12

# LOUISIANA TOTAL GAS PRODUCTION, WET AFTER LEASE SEPARATION

**Natural Gas and Casinghead Gas** 

(Thousand Cubic Feet (MCF) at 15.025 psia and 60 degrees Fahrenheit)\*

	ONSHORE	OFFSHORE		TOTAL
DATE		State	Federal OCS <sup>12</sup>	
1981	2,159,902,466 r	370,516,797 r	4,025,867,929	6,556,287,192 r
1982	1,892,873,049 r	355,423,356 r	3,729,057,653	5,977,354,058 r
1983	1,664,745,466 r	317,171,588 r	3,111,576,348	5,093,493,402 r
1984	1,755,404,892 r	313,998,055 r	3,508,475,799	5,577,878,746 r
1985	1,600,586,326 r	250,063,949 r	3,055,687,773	4,906,338,048 r
1986	1,580,150,031 r	246,104,333 r	2,870,347,386	4,696,601,750 r
1987	1,509,070,691 r	228,123,864 r	3,117,669,167	4,854,863,722 r
1988	1,544,066,294 r	214,253,392 r	3,036,077,646	4,794,397,332 r
1989	1,509,839,755 r	203,309,753 r	2,947,545,132	4,660,694,640 r
1990	1,528,059,636 r	182,032,816 r	3,633,554,307	5,343,646,759 r
1991	1,498,849,027 r	149,894,021 r	3,225,373,562	4,874,116,610 r
1992	1,496,592,065 r	146,989,475 r	3,272,561,370	4,916,142,910 r
1993	1,458,634,789 r	153,838,456 r	3,320,312,261	4,932,785,506 r
1994	1,381,704,656 r	155,207,250 r	3,423,837,064	4,960,748,970 r
1995	1,371,738,144 r	164,448,886 r	3,564,677,663	5,100,864,693 r
1996	1,444,626,270 r	185,619,324 r	3,821,696,407	5,451,942,001 r
1997	1,417,749,019 r	185,848,287 r	3,837,040,050	5,440,637,356 r
1998	1,396,644,654 r	179,506,830 r	3,714,986,973	5,291,138,457 r
1999	1,303,712,904 r	149,470,249 r	3,908,741,837	5,361,924,990 r
2000	1,312,832,870 r	149,206,098 r	3,591,874,112	5,053,913,080 r
January	111,924,957 r	12,615,279 r	334,843,582 p	459,383,818 r
February	104,332,866 r	11,745,961 r	304,822,225 p	420,901,052 r
March	123,959,737 r	13,935,187 r	327,605,938 p	465,500,862 r
April	112,422,612 r	12,627,264 r	345,857,067 p	470,906,943 r
May	116,719,942 r	13,093,718 r	370,283,186 p	500,096,846 r
June	110,971,907 r	12,433,712 r	308,265,699 p	431,671,318 r
July	114,849,516 r	12,897,704 r	316,831,884 p	444,579,104 r
August	114,628,411	12,808,832	323,014,513 p	450,451,756
September	108,657,147	12,483,128	303,815,597 p	424,955,872
October	111,689,053	12,427,267	319,194,579 p	443,310,899
November	109,760,070	12,196,150	305,852,386 p	427,808,606
December	111,474,402	12,367,759	321,310,000 p	445,152,161
2001 Total	1,351,390,619	151,631,962	3,881,696,656 p	5,384,719,237
January	105,345,147	11,672,153	323,096,084 e	440,113,384 e
February	96,398,719	10,657,387	288,770,165 e	395,826,271 e
March	106,869,873	11,792,138	334,942,926 e	453,604,938 e
April	101,754,240	11,213,559	324,490,679 e	437,458,478 e
May	106,461,163	11,717,116	320,224,041 e	438,402,319 e
June	102,593,375	11,267,687	328,701,166 e	442,562,229 e
July	107,074,445	11,771,194	342,423,896 e	461,269,535 e
August	106,598,930	11,700,855		118,299,784
September	106,126,226 e	11,630,759 e		117,756,985 e
October	94,993,228 e	10,378,877 e		105,372,105 e
November	105,184,072 e	11,490,854 e		116,674,925 e
December	104,710,169 e	11,420,656 e		116,130,825 e
2002 Total	1,244,109,587 e	136,713,235 е	2,262,648,957 e	3,643,471,780 e
o Estimated	r Doviced a Proliminary			

e Estimated r Revised p Preliminary

NOTE: The 2001 Federal OCS production is estimated from the marketed production

<sup>\*</sup> See Appendix D-2 for corresponding volumes at 14.73 psia.

Table 13

LOUISIANA MARKETED AND DRY GAS PRODUCTION
(Billion Cubic Feet (BCF) at 15.025 psia and 60 degrees Fahrenheit)\*

	ı	MARKETED		EXTRACTION	
DATE	State	ocs	Total <sup>3</sup>	LOSS <sup>3</sup>	$DRY^3$
1981	2,219 r	4,428	6,647 r	140	6,507
1982	1,974 r	4,077	6,050 r	126	5,924
1983	1,722 r	3,505	5,227 r	122	5,106
1984	1,835 r	3,875	5,711 r	130	5,581
1985	1,656 r	3,259	4,915 r	115	4,800
1986	1,625 r	3,174	4,799 r	113	4,686
1987	1,544 r	3,478	5,022 r	122	4,899
1988	1,664 r	3,415	5,079 r	118	4,961
1989	1,620 r	3,359	4,978 r	119	4,859
1990	1,597 r	3,542	5,139 r	117	5,022
1991	1,544 r	3,391	4,936 r	127	4,809
1992	1,658 r	3,160	4,818 r	130	4,688
1993	1,599 r	3,294	4,893 r	128	4,765
1994	1,549 r	3,519	5,068 r	126	4,942
1995	1,471 r	3,537	5,008 r	143	4,865
1996	1,488 r	3,650	5,138 r	137	5,001 r
1997	1,480 r	3,647	5,127 r	147	4,980
1998	1,469 r	3,715 r	5,184 r	142	5,042 r
1999	1,263 r	3,909 r	5,172 r	162	5,010 r
2000	1,377 r	3,592 r	4,969 г	175	4,794 r
January	129 r	330 г	459 r		
February	120 r	300 r	<b>420</b> r		
March	143 r	323 r	465 r		
April	110 r	341 r	<b>450</b> r		
May	100 r	365 r	465 r		
June	134 r	304 r	438 r		
July	141 r	312 r	453 r		
August	128	318	446		
September	134	299	434		
October	132	314	446		
November	127	301	428		
December	127	317	444		
2001 Total	1,525	3,824	5,349	185	5,164
January	136	317	453		
February	126	283	409		
March	129	328	457		
April	124	318	442		
May	123	314	457		
June	101	322	442		
July	108	336	463		
August	95				
September	106				
October					
November					
December	4				
2002 Total	1,048	2,218	3,123		
e Estimated	r Revised n Prelim	inarv			

e Estimated r Revised p Preliminary

<sup>\*</sup> See Appendix D-3 for corresponding volumes at 14.73 psia.

Figure 6

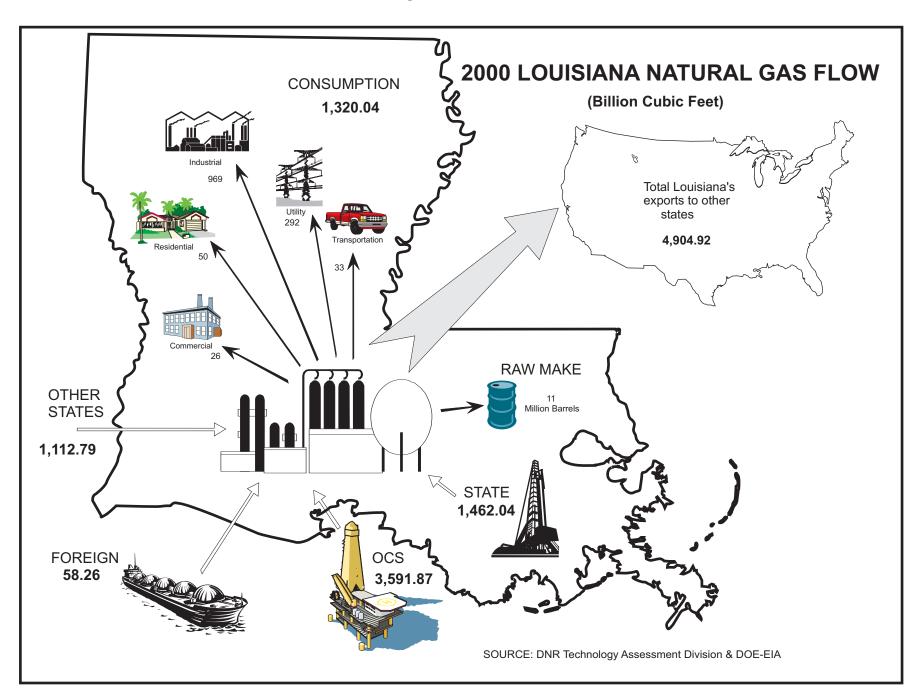


Table 14

# **LOUISIANA STATE GAS PRODUCTION BY TAX RATES**

AS PUBLISHED IN SEVERANCE TAX REPORTS<sup>8</sup> (MCF at 15.025psia and 60 degrees Fahrenheit)

DATE	FULL RATE	INCAPABLE GAS WELLS RATE	OTHER RATES	TAXED VOLUME
1981	2,259,226,741	69,127,132	27,821,281	2,356,175,154
1982	2,040,417,849	67,415,215	23,885,266	2,131,718,329
1983	1,830,549,223	66,037,859	20,750,463	1,917,337,545
1984	1,849,689,870	61,394,328	22,460,870	1,933,548,068
1985	1,710,600,175	56,471,054	22,020,986	1,789,092,195
1986	1,748,310,878	56,729,077	22,829,692	1,827,869,647
1987	1,577,841,418	56,316,278	20,374,445	1,654,532,141
1988	1,487,438,834	54,709,819	22,370,768	1,564,519,421
1989	1,529,057,929	54,419,642	31,800,386	1,615,277,957
1990	1,525,451,737	53,547,797	19,438,902	1,598,438,436
1991	1,492,986,396	52,500,178	35,820,609	1,581,307,183
1992	1,499,489,622	55,146,661	25,466,874	1,580,103,157
1993	1,463,723,027	46,017,071	13,839,450	1,523,579,548
1994	1,410,035,722	52,417,334	13,688,870	1,476,141,926
1995	1,334,980,887	53,491,942	13,759,192	1,402,232,021
1996	1,354,105,430	52,368,159	11,191,715	1,417,665,304
1997	1,343,182,922	57,663,413	9,951,387	1,410,797,722
1998	1,191,471,607	60,242,544	11,733,098	1,263,447,249
1999	1,151,493,116	57,308,865	10,617,631	1,219,419,612
2000	1,217,171,149	53,797,867	8,198,104	1,279,167,120
January	103,643,122	4,926,843	544,694	109,114,659
February	97,544,195	3,990,854	619,307	102,154,356
March	115,255,175	6,540,317	974,655	122,770,147
April	84,259,135	5,685,163	644,922	90,589,220
May	73,782,237	6,149,870	630,824	80,562,931
June	109,734,527	5,496,464	403,655	115,634,646
July	114,136,738	6,813,644	658,336	121,608,718
August	102,361,538	6,012,088	594,946	108,968,572
September	154,109,762	10,737,839	790,128	165,637,729
October	105,826,164	6,230,291	762,931	112,819,386
November	101,907,941	6,088,700	708,491	108,705,132
December	101,952,598	6,015,635	473,799	108,442,032
2001 Total	1,264,513,132	74,687,708	7,806,688	1,347,007,528
January	109,588,576	6,238,759	663,286	116,490,621
February	100,942,846	6,804,663	699,066	108,446,575
March	101,921,672	6,682,823	773,765	109,378,260
April	N/A	N/A	N/A	N/A
May	109,158,853	13,428,046	774,974	123,361,873
June	93,305,260	7,133,266	617,521	101,056,047
July	101,226,575	6,243,574	514,017	107,984,166
August	87,141,331	7,047,791	987,564	95,176,686
September	101,904,240	3,208,189	842,869	105,955,298
October	90,351,957	6,326,937	647,718	97,326,612
November	, ,	, ,	, -	, -,
December				
2002 Total	895,541,310	63,114,048	6,520,780	965,176,138
See footnote in		. ,	• •	, , , = =

Table 15

# UNITED STATES OCS GAS PRODUCTION<sup>12</sup>

Natural Gas and Casinghead Gas (MCF at 15.025 psia and 60 degrees Fahrenheit)\*

YEAR	LOUISIANA	TEXAS	CALIFORNIA	TOTAL
PRIOR	19,490,712	0	0	19,490,712
1954	55,219,200	0	0	55,219,200
1955	79,683,214	0	0	79,683,214
1956	81,265,031	0	0	81,265,031
1957	80,947,656	4,703	0	80,952,359
1958	125,185,735	0	0	125,185,735
1959	203,089,002	0	0	203,089,002
1960	267,673,709	0	0	267,673,709
1961	312,031,003	0	0	312,031,003
1962	443,079,048	0	0	443,079,048
1963	553,272,142	0	0	553,272,142
1964	609,524,401	0	0	609,524,401
1965	632,914,005	0	0	632,914,005
1966	946,433,484	41,233,595	0	987,667,078
1967	1,065,915,553	97,990,476	0	1,163,906,029
1968	1,385,715,670	107,752,805	783,984	1,494,252,460
1969	1,786,760,423	124,601,568	4,750,708	1,916,112,699
1970	2,228,516,212	130,683,192	11,989,041	2,371,188,444
1971	2,582,297,962	124,857,371	15,363,786	2,722,519,119
1972	2,824,792,196	144,267,198	9,836,582	2,978,895,976
1973	2,995,634,220	145,754,588	7,143,485	3,148,532,293
1974	3,283,413,450	156,838,375	5,464,209	3,445,716,035
1975	3,266,745,456	120,166,178	3,874,047	3,390,785,681
1976	3,431,149,749	90,764,667	3,406,969	3,525,321,386
1977	3,575,898,616	85,236,246	3,225,368	3,664,360,230
1978	4,068,255,571	227,305,175	3,404,117	4,298,964,864
1979	4,076,873,552	501,546,069	2,810,535	4,581,230,155
1980	3,934,902,550	612,378,333	3,046,020	4,550,326,904
1981	4,025,867,929	715,937,640	12,515,654	4,754,321,224
1982	3,729,057,653	841,173,981	17,402,403	4,587,634,037
1983	3,111,576,348	834,112,318	15,709,672	3,961,398,338
1984	3,508,475,799	913,008,621	27,260,940	4,448,745,360
1985	3,055,687,773	818,533,627	48,198,926	3,922,420,326
1986	2,870,347,386	959,161,285	41,850,867	3,871,359,539
1987	3,117,669,167	1,180,839,487	40,181,438	4,338,690,093
1988	3,036,077,646	1,155,285,485	33,891,880	4,225,255,011
1989	2,947,545,132	1,142,237,197	28,013,874	4,117,796,204
1990	3,633,554,307	1,321,607,333	37,775,234	4,992,936,873
1991	3,225,373,562	1,161,671,524	39,828,917	4,426,874,003
1992	3,272,561,370	1,215,055,449	40,071,149	4,593,647,066
1993	3,320,312,261	1,007,755,289	41,255,853	4,444,381,437
1994	3,423,837,064 3,564,677,663	994,291,314	40,860,740 35,710,325	4,565,582,229 4,600,143,070
1995 1996	3,821,696,407	890,682,224 953,772,416	37,080,328	4,925,771,640
1997	3,837,040,050 3,714,986,973	946,381,458 850,572,237	39,922,549 25,912,242	4,977,314,878
1998 1999	3,714,966,973	798,140,396	36,529,861	4,740,449,969 4,894,344,157
2000	3,589,466,891 r	848,553,880 r	35,991,391 r	4,581,371,190 r
2000	3,881,696,656 p	590,118,630 p	40,456,343 p	4,619,510,899 p
	r Revised in Prelimina		то,тоо,о <del>т</del> о р	<del>-1</del> ,010,000 β

e Estimated r Revised p Preliminary

See footnote in Appendix B.

<sup>\*</sup> See Appendix D-4 for corresponding volumes at 14.73 psia.

Figure 7

LOUISIANA OIL PRODUCTION AND PRICE

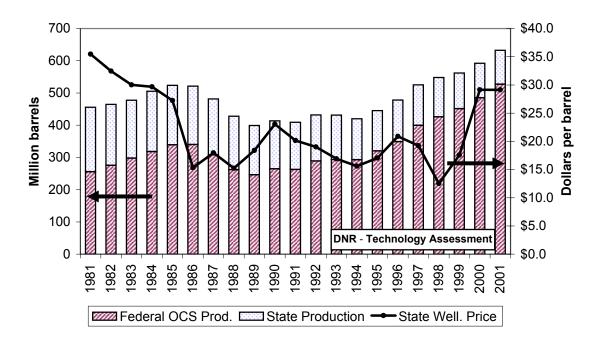


Figure 8

LOUISIANA GAS PRODUCTION AND PRICE

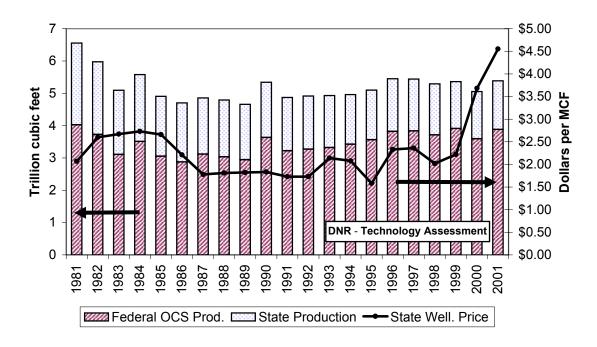


Table 16

UNITED STATES NATURAL GAS AND CASINGHEAD GAS PRODUCTION (Billion Cubic Feet (BCF) at 15.025 psia and 60 degrees Fahrenheit)\*

DATE	GROSS	WET AFTER LEASE SEPARATION	MARKETED	DRY	GROSS IMPORTS
1981	21,164	19,660	19,564	18,805	886
1982	19,874	18,309	18,217	17,470	915
1983	18,293	16,646	16,553	15,778	900
1984	19,869	18,051	17,945	17,124	827
1985	19,222	17,024	16,931	16,131	931
1986	18,755	16,623	16,528	15,744	736
1987	19,745	17,212	17,091	16,294	973
1988	20,587	17,706	17,567	16,767	1,268
1989	20,661	17,879	17,740	16,971	1,354
1990	21,100	18,376	18,229	17,460	1,502
1991	21,322	18,336	18,169	17,351	1,738
1992	21,698	18,509	18,344	17,490	2,096
1993	22,279	18,832	18,609	17,740	2,304
1994	23,118	19,547	19,323	18,451	2,572
1995	23,277	19,402 r	19,123	18,233	2,785
1996	23,640 r	19,690 r	19,423 r	18,484 r	2,880
1997	23,737 r	19,727 r	19,475 r	18,531 r	2,935
1998	23,635 r	19,670 r	19,569 r	18,650 r	3,090
1999	23,355 r	19,524 r	19,416 r	18,462 r	3,515 r
2000	23,679 r	19,708 r	19,610 r	18,614 r	3,707
January	2,089 r	1,736 r	1,727 r	1,639 r	367 r
February	1,890 r	1,568 r	1,561 r	1,482 r	324 r
March	2,112 r	1,741 r	1,732 r	1,644 r	353 r
April	2,018 r	1,678 r	1,669 r	1,585 r	315 r
May	2,059 r	1,724 r	1,715 r	1,628 r	323 r
June	1,959 r	1,640 r	1,632 r	1,549 r	318 r
July	2,020 r	1,698 r	1,689 r	1,603 r	360 r
August	2,023	1,694 r	1,685 r	1,599	349
September	1,945	1,635 r	1,626 r	1,544	311
October	2,032	1,718	1,709	1,622	322
November	2,010	1,652	1,643	1,560	287
December	2,076	1,707	1,699	1,612	305
2001 Total	24,234	20,192	20,087	19,067	3,932
January	2,095	1,742	1,734	1,646	342
February	1,887	1,559	1,551	1,473	304
March	2,100	1,740	1,732	1,644	332
April	2,005	1,667	1,659	1,575	312
May	2,068	1,727	1,718	1,631	321
June	1,996	1,671	1,663	1,578	317
July	2,048	1,743	1,735	1,647	323
August	1,968	1,655	1,647	1,563	344
September					
October					
November					
December					
2002 Total	16,167	13,505	13,439	12,756	2,595

e Estimated r Revised p Preliminary

<sup>\*</sup> See Appendix D-5 for corresponding volumes at 14.73 psia. See footnote in Appendix B.

**TABLE 17** 

# **LOUISIANA AVERAGE CRUDE OIL PRICES**

(Dollars per Barrel)

	SOUTH LOUISI	ANA SWEET	Δ	LL GRADES A	T WELLHEAD	
	Spot	Refinery		ocs	Severance	State
DATE	Market <sup>10</sup>	Posted	State <sup>6</sup>	Gulf <sup>6</sup>	Tax <sup>8</sup>	Royalty
1981	N/A	36.13	35.45	35.07	33.07	35.08
1982	N/A	32.91	32.44	32.61	33.55	32.33
1983	30.63	30.63	30.02	29.77	30.38	28.64
1984	29.64	30.04	29.67	29.36	29.98	29.44
1985	28.42	27.86	27.22	27.33	27.18	27.40
1986	14.72	15.71	15.32	15.27	17.23	15.78
1987	19.38	18.52	17.97	17.54	17.55	17.85
1988	16.13	15.75	15.22	14.71	16.38	14.67
1989	19.75	18.97	18.39	17.83	17.87	17.92
1990	25.11	23.35	23.04	22.40	22.54	22.76
1991	21.70	20.60	20.15	19.40	21.13	19.90
1992	20.77	19.72	19.01	18.38	19.31	19.10
1993	18.56	17.27	16.72	16.17	17.39	16.84
1994	17.25	15.84	15.61	14.72	15.46	15.52
1995	18.60	17.16	17.06	16.16	16.98	17.06
1996	22.32	20.77	20.87	20.00	20.56	21.24 r
1997	20.69	18.90	19.23	18.63	19.80	19.22 r
1998	14.21	12.17	12.52	12.03	13.47	12.31 r
1999	19.00	16.73	17.55	16.46	16.09	17.22 r
2000	30.29	27.89	29.14	27.57	28.10	28.70 r
2000	30.29	27.09	29.14	21.51	20.10	20.701
lanuary.	29.29	27.17	28.27	26.54	28.79	29.53 r
January February	28.96	26.90	28.89	26.62	28.92	26.50 r
March	26.68	24.31	25.75	24.08	29.03	24.75 r
April	27.33	24.93	25.84	23.90	27.57	23.87 r
May	29.05	26.54	26.60	24.40	26.38	27.01 r
June	28.04	25.23	25.44	24.40	29.05	27.01 r
July	26.25	24.00	25.19	24.43	25.94	23.88
-	26.84	24.00	26.00	24.43 24.71	24.64	23.86
August September	26.48	23.74	25.18	23.95	25.73	25.68
•	22.10	19.52	21.65	21.38	27.69	18.23
October			19.33			16.25
November	19.82	16.88	18.29	18.05 17.29	22.31	
December	19.28 <b>25.84</b>	16.77	24.70		18.67 <b>26.23</b>	16.60 <b>23.51</b>
2001 Average	25.04	23.35	24.70	23.36	20.23	23.51
lanuary.	20.10	17.01	18.63	17.07	18.12	17.93
January February	21.06	18.10	19.40	17.07	17.59	18.93
March	24.76	21.83	22.93	19.44	19.11	21.67
		23.47	24.54	22.20	20.19	25.18
April	26.65 26.57	23.47	25.72	24.74	23.76	26.30
May		23.92				
June	25.65 26.07	24.22	24.74 25.70	24.19 24.45	27.87	24.00
July	26.97 27.05		25.79	24.43	23.90	24.85
August	27.95 20.10	25.32			33.06	26.15 27.81
September	29.19	26.69			24.11	
October	29.02				37.15	28.57
November	26.25					
December	30.04	22.50	22.44	24 42	24.40	2444
2002 Average	26.18	22.59	23.11	21.43	24.49	24.14

e Estimated r Revised p Preliminary See footnote in Appendix B.

Figure 9

CRUDE OIL AVERAGE PRICES

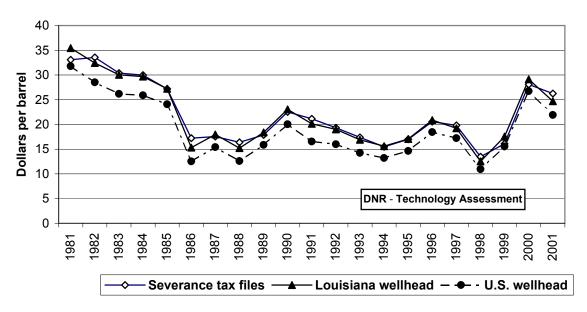


Figure 10

NATURAL GAS AVERAGE PRICES

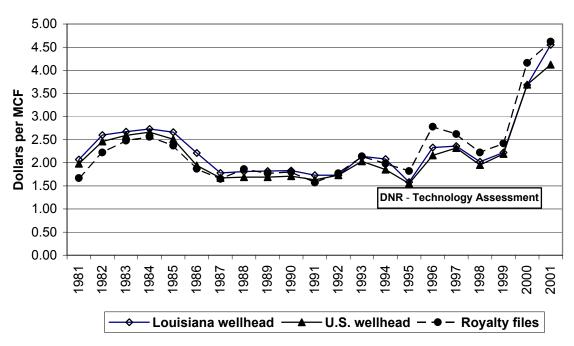


TABLE 18

UNITED STATES AVERAGE CRUDE OIL PRICES<sup>2</sup>
(Dollars per Barrel)

	REFINERY ACQUSITION		DOMESTIC	IMPORTS	IMPORTS IMPORTS		
DATE	Domestic	Imports	WELLHEAD	LANDED	FOB	OPEC	
	Costs	Costs				FOB	
1981	34.33	37.05	31.77	36.47	35.15	35.17	
1982	31.32	33.55	28.52	33.18	32.02	33.48	
1983	28.87	29.3	26.19	28.93	27.81	28.46	
1984	28.53	28.88	25.88	28.54	27.60	27.79	
1985	26.66	26.99	24.09	26.67	25.84	25.67	
1986	14.82	14	12.51	13.49	12.52	12.21	
1987	17.76	18.13	15.40	17.65	16.69	16.43	
1988	14.74	14.56	12.58	14.08	13.25	13.43	
1989	17.87	18.08	15.86	17.68	16.89	17.06	
1990	22.59	21.76	20.03	21.13	20.37	20.40	
1991	19.35	18.74	16.53	18.02	16.91	17.01	
1992	18.62	18.12	16.00	17.65	16.66	16.76	
1993	16.66	16.17	14.24	15.75	14.72	14.72	
1994	15.64	15.41	13.19	15.07	14.13	13.94	
1995	17.32	17.15	14.62	16.77	15.69	15.35	
1996	20.81	20.60	18.46	20.27	19.24	18.87	
1997	19.65	18.55	17.23	18.14	16.98	16.33	
1998	13.15	12.35	10.94	11.86	10.75	10.17	
1999	17.64	17.27	15.53	17.38	16.48	16.01	
2000	29.08	27.68	26.72	27.54	26.26	25.55	
January	26.84	24.49	24.58	24.17	22.49	21.99	
February	27.67	24.97	25.27	24.31	23.11	22.39	
March	25.64	23.01	23.02	22.88	20.96	20.84	
April	25.12	22.99	23.41	23.13	21.89	21.91	
May	26.37	24.63	24.06	24.19	22.85	22.03	
June	26.30	23.95	23.43	23.82	22.73	21.41 r	
July	25.27	22.83	22.94 r	22.84 r	21.37 r	20.53 r	
August	25.44 r	23.77 r	23.08	23.30	22.00	21.20	
September	25.48	22.51	22.37	22.16	20.84	18.69	
October	21.79	18.76	18.73	18.40	17.18	15.92	
November	18.98	16.06	16.49	16.25	15.05	14.06	
December	17.34	15.95	15.49	16.05	15.25	14.64	
2001 Average	24.35	21.99	21.91	21.79	20.48	19.63	
January	17.85	16.93	15.89	17.25	16.05	15.89	
February	18.70	18.13	16.92	19.16	17.68	17.65	
March	21.57	22.78	20.04	22.22	21.64	21.49	
April	24.27	23.87	22.14	24.16	23.06	22.49	
May	25.78	24.29	23.51	24.49	23.16	22.26	
June	24.81	23.33	22.59	23.90	22.59	22.13	
July	25.37	24.86	23.47	24.62	23.48	22.98	
August	26.83	26.01					
September							
October							
November							
December			<b>.</b>				
2002 Average	23.15	22.53	20.65	22.26	21.09	20.70	
e ⊨stimated r	Revised p Prelin	nınarv					

e Estimated r Revised p Preliminary See footnote in Appendix B.

Table 19

LOUISIANA NATURAL GAS WELLHEAD PRICES (Dollars/Thousand Cubic Feet)

DATE	MMS	DOE STATE	DNR STATE	SPOT MARKET <sup>5</sup>		ET <sup>5</sup>
	OCS <sup>12</sup>	WELLS <sup>3</sup>	ROYALTY	Low	High	Average
1981	2.11	2.07	1.67	N/A	N/A	N/A
1982	2.65	2.60	2.21	N/A	N/A	N/A
1983	2.72	2.67	2.48	N/A	N/A	N/A
1984	2.70	2.73	2.56	N/A	N/A	N/A
1985	2.72	2.66	2.37	2.13	3.07	2.61
1986	2.26	2.21	1.87	1.46	2.34	1.76
1987	1.82	1.78	1.65	1.40	1.82	1.55
1988	1.84	1.81	1.86	1.40	2.29	1.79
1989	1.86	1.82	1.77	1.40	2.29	1.76
1990	1.87	1.83	1.80	1.35	2.60	1.77
1991	1.77	1.73	1.57	1.43	1.56	1.50
1992	1.77	1.73	1.77	1.74	1.85	1.80
1993	2.18	2.14	2.14	2.08	2.21	2.15
1994	2.10	2.08	1.98	1.86	1.95	1.91
1995	1.61	1.58	1.82	1.62	1.68	1.65
1996	2.37	2.33	2.78 r	2.47	2.69	2.60
1997	2.63	2.36	2.62 r	2.54	2.67	2.60
1998	2.36	2.02 r	2.22 r	2.08	2.18	2.14
1999	2.18	2.22 r	2.42 r	2.25	2.36	2.31
2000	3.59 r	3.68 r	4.16 r	3.92	4.03	3.98
January			11.27 r	10.04	10.30	10.24
February			6.72 r	6.34	6.50	6.44
March			5.46 r	5.10	5.20	5.14
April			5.75 r	5.46	5.62	5.53
May			5.00 r	4.89	5.15	5.03
June			3.65 r	3.74	3.95	3.83
July			3.34 r	3.12	3.38	3.25
August			3.08	3.12	3.43	3.25
September			2.32	2.29	2.50	2.37
October			3.33	1.77	1.98	1.85
November			3.00	3.12	3.28	3.22
December			2.50	2.29	2.39	2.35
2001 Average	4.40	4.55	4.62	4.27	4.47	4.38
January			2.41	2.60	2.70	2.66
February			2.20	1.98	2.13	2.06
March			2.68	2.39	2.50	2.46
April			3.58	3.38	3.59	3.48
May			3.54	3.33	3.54	3.44
June			3.46	3.38	3.54	3.48
July			3.26	3.28	3.38	3.34
August			3.00	2.91	3.07	3.03
September			3.24	3.28	3.33	3.31
October			3.48	4.05	4.27	4.18
November				4.06	4.33	4.22
December	NI/A	NI/A	2.00	4.06	4.85	4.68
2002 Average	N/A	N/A	3.09	3.22	3.43	3.36

e Estimated r Revised p Preliminary See footnote in Appendix B.

Table 20 LOUISIANA AVERAGE NATURAL GAS PRICES DELIVERED TO CONSUMER (Dollars/Thousand Cubic Feet)

DATE	CITY GATES	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	UTILITY
1981	2.38 e	4.15	3.69	1.88	2.82
1982	3.38 e	5.32	4.93	3.16	3.23
1983	3.59 e	6.12	5.71	3.13	3.30
1984	3.78	5.96	5.54	3.18	3.18
1985	3.55	5.67	5.28	3.03	2.86
1986	2.95	5.77	5.25	1.91	1.94
1987	2.38	5.56	4.97	1.80	1.67
1988	2.93	5.74	5.14	1.99	1.70
1989	3.01	5.97	5.19	1.97	1.78
1990	2.97	6.09	5.26	2.00	1.73
1991	2.56	6.24 r	4.91 r	1.74	1.63
1992	2.48	6.19 r	4.85 r	2.00 r	1.93
1993	2.75 r	6.68 r	5.41 r	2.31 r	2.49
1994	2.52 r	6.78 r	5.39 r	2.18 r	2.24
1995	2.17 r	6.59 r	5.15 r	1.82	1.92
1996	3.03 r	7.55 r	6.18 r	2.83 r	3.07
1997	2.94 r	7.60 r	6.12 r	2.87 r	2.88
1998	2.32 r	7.51 r	5.72 r	2.43	2.40
1999	2.73 r	7.55 r	5.83 r	2.51 r	2.55
2000	4.50 r	9.20 r	7.52 r	4.01 r	4.56
		0.20			
January	10.43	11.83	12.83 r	9.56 r	10.07
February	6.96	11.02	10.77 r	6.61 r	6.88
March	6.11 r	9.36	8.36 r	5.32 r	5.65
April	6.06	8.69	7.72 r	5.49 r	5.82
May	5.03 r	9.42	7.55 r	5.07 r	5.03
June	4.60	9.36	6.75 r	4.51 r	4.06
July			6.91	4.00	3.40
August	4.23		7.23	3.88	3.22
September	3.47			3.54	2.44
October	3.16		5.25	3.03	2.26
November			7.45	3.61	3.15
December			7.28	3.25	2.78
2001 Average	5.56	9.95	8.01	4.82	4.56
January	3.91	6.75	6.58	3.22	2.76
February			6.15	2.90	2.49
March				3.06	3.18
April			6.67	3.52	3.77
May				3.64	3.84
June					
July				3.52	
August				3.24	
September					
October					
November					
December					
2002 Average	3.91	6.75	6.47	3.30	3.21
e Estimated r Revi					
See footnote in App	oendix B.				

Table 21

UNITED STATES AVERAGE NATURAL GAS PRICES (Dollars/Thousand Cubic Feet)

		SPOT	FOREIGN	CITY	DELIVERED TO
DATE	WELLHEAD <sup>3</sup>	MARKET <sup>5</sup>	IMPORTS <sup>3</sup>	GATES <sup>3</sup>	RESIDENTIAL <sup>3</sup>
1981	1.98	N/A	4.84	2.89	4.29
1982	2.46	N/A	4.94	3.60	5.17
1983	2.59	N/A	4.51	4.04	6.06
1984	2.66	N/A	4.08	3.89	6.12
1985	2.51	2.49	3.19	3.75	6.12
1986	1.94	1.68	2.53	3.22	5.83
1987	1.67	1.48	2.17	2.87	5.54
1988	1.69	1.69	2.00	2.92	5.47
1989	1.69	1.64	2.04	3.01	5.64
1990	1.71	1.67	1.94	3.03	5.80
1991	1.63 r	1.45	1.82	2.90	6.22 r
1992	1.73 r	1.75	1.85	3.01	6.28 r
1993	2.03 r	2.10	2.03	3.21	6.67 r
1994	1.85	1.84	1.87	3.07	6.89 r
1995	1.55	1.56	1.49	2.78	6.58 r
1996	2.16 r	2.39	1.96	3.27	6.97 r
1997	2.32	2.54	2.15	3.66	6.94
1998	1.95	2.11	1.97	3.07	7.45
1999	2.19 r	2.28	2.23	3.10	7.34
2000	3.69 r	3.94 r	3.88	4.62	8.51 r
	0.00		0.00		
January	8.06	10.19	9.48 r	8.94 r	10.14 r
February	5.84	6.50	6.44	7.13 r	10.28 r
March	5.15	5.17	5.42 r	6.16 r	9.88 r
April	5.21	5.48	5.35	6.38 r	10.17 r
May	4.56	4.97	4.95	5.87 r	11.11 r
June	3.88	3.75	3.94	5.37 r	11.49 r
July	3.39	3.16	3.17	4.33	11.08
August	3.23	3.18	3.13	4.29	10.75
September	2.55	2.34	2.63	3.67	10.12
October	2.40	1.81	2.14	3.32	8.22
November	2.74	3.16	2.96	3.98	7.97
December	2.38	2.34	2.68	3.92	7.32
2001 Average	4.12	4.34	4.36	5.78	9.88
January	2.35	2.63	2.72	4.03	7.23
February	2.14	2.02	2.31	3.77	7.19
March	2.52	2.40	2.61	3.78	6.95
April	3.02	3.43	3.27	4.09	7.55
May	3.01	3.34	3.25	5.17	8.41
June	2.94	3.29	3.09	4.14	9.42
July	2.89	3.19		3.90	9.99
August	2.77	2.91		3.59	10.23
September		3.13			
October		4.13			
November		4.16			
December		4.62			
2002 Average	2.71	3.27	2.88	3.92	8.37
e Estimated r l	Revised p Prelimin	ary			

e Estimated r Revised p Preliminary See footnote in Appendix B.

Table 22

LOUISIANA STATE OIL AND GAS DRILLING PERMITS ISSUED BY TYPE

Excluding OCS

DATE	DEVELOPMENTAL	+	WILDCATS	= TOTAL =	OFFSHORE	+	ONSHORE
1981	5,195		1,086	6,281	N/A		N/A
1982	4,454		727	5,181	N/A		N/A
1983	4,852		642	5,494	201		5,293
1984	6,929		702	7,631	231		7,400
1985	4,811		599	5,410	165		5,245
1986	1,984		298	2,282	84		2,198
1987	2,148		284	2,432	73		2,359
1988	1,601		249	1,850	94		1,756
1989	1,486		204	1,690	75		1,615
1990	1,526		181	1,707	85		1,622
1991	1,209		100	1,309	77		1,232
1992	1,044		92	1,136	59		1,077
1993	1,040		109	1,149	76		1,073
1994	1,015		98	1,113	74		1,039
1995	979		86	1,065	68		997
1996	1,248		133	1,381	121		1,260
1997	1,424		138	1,562	85		1,477
1998	1,171		115	1,286	96		1,190
1999	908		109	1,017	79		938
2000	1,363		90	1,453	151		1,302
January	110		3	113	12		101
February	117		4	121	9		112
March	123		7	130	6		124
	108		5	113	8		105
April	139		5	144	11		133
May	126		10	136	7		129
June	116		7	123	7		116
July	130		9	139	14		125
August	81		13	94	4		90
September October	111		13	124	7		117
November	68		8	76	7		69
December	48		4	76 52	4		48
2001 Total	1, <b>277</b>		88	1,365	96		1, <b>269</b>
2001 10tai	1,211		00	1,303	30		1,203
January	42		3	45	3		42
February	62		8	70	6		64
March	77		7	84	3		81
April	74		12	86	6		80
May	95		5	100	5		95
June	64		7	71	8		63
July	82		12	94	11		83
August	70		26	96	9		87
September	88		7	95	6		89
October	86		12	98	12		86
November	90		18	108	10		98
December	72		6	78	11		67
2002 Total	902		123	1,025	90		935

Figure 11

### LOUISIANA STATE DRILLING PERMITS ISSUED

Federal OCS Excluded

8,000
7,000
6,000
4,000
3,000
2,000
1,000
1,000

Offshore Wildcats Total Issued

Figure 12

LOUISIANA AVERAGE ACTIVE RIGS

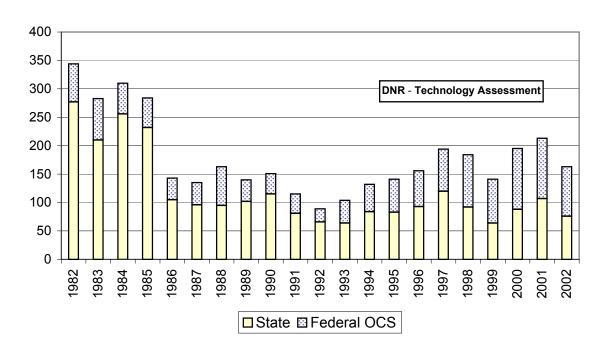


Table 23
LOUISIANA AVERAGE RIGS RUNNING

DATE	NORTH⁴	SOUTH	INLAND		OFFSHOR	RE	TOTAL
		Water <sup>4</sup>	Land <sup>4</sup>	State	ocs	(State+OCS) <sup>4</sup>	RIGS⁴
1981	58	83	160	85	69	154	455
1982	40	60	108	69	67	136	344
1983	29	47	82	51	73	124	283
1984	30	51	96	78	54	132	310
1985	25	44	86	78	52	130	283
1986	12	20	42	31	38	69	143
1987	11	23	36	26	39	65	135
1988	14	27	35	20	68	88	163
1989	16	17	35	34	38	72	140
1990	19	20	36	40	36	76	151
1991	11	16	31	23	34	57	115
1992	9	13	27	16	23	39	88
1993	11	12	22	19	40	59	104
1994	14	16	25	29	48	78	132
1995	16	15	28	23	58	82	141
1996	19	19	31	25	63	88	156
1997	21	23	48	28	74	102	194
1998	19	21	38	14	92	106	184
1999	16	16	21	12	77	88	141
2000	24	16	37	11	107	118	195
lan	20	20	20	40	101	124	222
January	30	20	38	13	121	134	222
February	30	20	43	19	108	127	220
March	28 27	21 21	48 50	20 19	109 109	129 128	226
April	32	22	50 48	19	113	129	226 231
May	32 32	20	46 49	15	110	125	226
June	32 36	21	49 51	15 17	106	123	231
July	36	21	49	17	100	123	231 221
August	36 34	22	49 42	10	102	114	212
September October	28	23	39	6	103	106	196
November	26 26	23 18	3 <del>9</del> 36	7	98	105	185
	25	17	30 37	4	90	94	173
December 2001 Average	<b>30</b>	<b>20</b>	44	13	1 <b>06</b>	119	214
_00171101ug0			• •		100		
January	24	15	32	4	94	98	169
February	19	16	32	3	94	97	164
March	17	15	27	4	91	95	154
April	17	16	30	3	87	89	152
May	23	17	29	3	84	87	156
June	23	13	32	6	83	89	157
July	21	19	29	7	84	91	160
August	23	17	33	9	86	94	167
September	33	18	37	8	89	96	184
October	31	16	36	7	82	89	172
November	25	18	33	6	81	87	162
December	25	17	32	4	86	90	163
2002 Average	23	16	32	5	87	92	163
See footnote in A	ppendix B.						

**DNR Technology Assessment Division** 

Table 24

LOUISIANA STATE PRODUCING CRUDE OIL WELLS

Excluding OCS

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1957	10,686	8,817	N/A	19,503
1958	10,950	9,541	N/A	20,491
1959	11,380	10,454	N/A	21,834
1960	11,501	11,173	N/A	22,674
1961	11,790	12,202	N/A	23,993
1962	12,192	13,344	N/A	25,536
1963	12,833	14,144	N/A	26,977
1964	13,901	13,661	1,265	28,826
1965	14,505	11,558	3,938	30,001
1966	14,419	12,165	4,330	30,915
1967	14,191	12,183	4,677	31,051
1968	13,856	11,698	4,767	30,321
1969	13,670	11,131	4,954	29,756
1970	13,166	10,363	1,179	24,707
1971	12,889	9,626	1,107	23,623
1972	12,475	8,912	1,048	22,436
1973	11,698	8,249	1,025	20,972
1974	11,984	8,262	985	21,230
1975	12,259	8,094	936	21,288
1976	12,393	7,730	1,073	21,196
1977	12,915	7,444	1,067	21,425
1978	13,019	7,219	1,086	21,324
1979	12,961	6,859	1,078	20,898
1980	13,981	6,832	1,073	21,885
1981	15,084	6,777	1,105	22,966
1982	15,540	6,608	1,112	23,259
1983	16,299	6,374	1,037	23,710
1984	17,544	6,300	1,038	24,882
1985	18,794	6,223	1,014	26,031
1986	19,346	6,061	1,001	26,408
1987	18,630	5,768	945	25,343
1988	17,953	5,698	964	24,615
1989	16,849	5,474	927	23,250
1990	17,369	5,215	906	23,490
1991	17,731	5,143	868	23,742
1992	17,449	5,155	842	23,446
1993	16,810	5,015	814	22,640
1994	15,904	4,682	805	21,392
1995	15,260	4,451	769	20,479
1996	15,148	4,295	719	20,163
1997	14,573	4,165	619	20,358
1998	13,975	3,962	546	18,484
1999	13,747	3,971	546	18,264
2000	13,742 e	3,982 e	546 e	18,271 e
2001	15,415 e	4,471 e	755 e	20,641 e
2002	14,184 e	4,190 e	684 e	19,059 е
e Estimated	r Revised p Preliminary			



Figure 13
LOUISIANA WELL COMPLETIONS BY TYPE

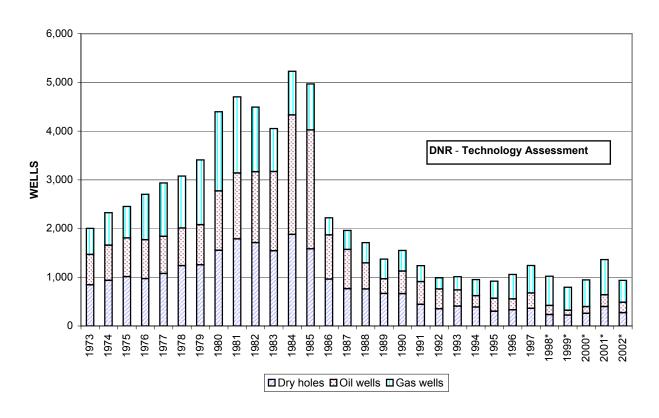


Table 25

LOUISIANA STATE PRODUCING NATURAL GAS WELLS

Excluding OCS

DATE	NORTH	SOUTH	OFFSHORE	TOTAL
1957	3,182	1,717	0	4,899
1958	3,269	1,935	0	5,204
1959	3,398	2,306	0	5,704
1960	3,449	2,714	0	6,163
1961	3,611	2,996	0	6,607
1962	3,843	3,304	0	7,148
1963	4,103	3,545	0	7,648
1964	4,336	3,502	187	8,025
1965	4,477	3,227	618	8,321
1966	4,566	3,381	748	8,694
1967	4,548	3,448	882	8,878
1968	4,563	3,582	1,048	9,194
1969	4,558	3,451	1,297	9,306
1970	4,511	3,438	311	8,260
1971	4,449	3,389	327	8,164
1972	4,664	3,397	316	8,378
1973	4,927	3,449	332	8,707
1974	5,159	3,458	313	8,929
1975	5,373	3,331	308	9,012
1976	5,851	3,289	362	9,502
1977	6,343	3,331	449	10,123
1978	6,915	3,253	472	10,640
1979	7,372	3,214	514	11,100
1980	8,360	3,277	551	12,188
1981	9,479	3,226	557	13,262
1982	10,154	3,136	564	13,855
1983	10,502	3,065	549	14,115
1984	10,812	2,955	532	14,299
1985	11,026	2,887	511	14,424
1986	11,049	2,730	436	14,216
1987	10,726	2,635	413	13,774
1988	10,813	2,539	445	13,796
1989	10,861	2,474	501	13,836
1990	10,802	2,407	512	13,721
1991	10,702	2,261	496	13,459
1992	10,498	2,149	496	13,143
1993	10,506	2,192	490	13,189
1994	10,596	2,260	473	13,329
1995	10,452	2,200	335	12,987
1996	10,376	2,148	274	12,799
1997	10,446	2,149	296	12,891
1998	10,579	1,995	259	12,833
1999	10,581	2,010	262	12,853
2000	10,578 e	2,026 e	266 е	12,870 e
2001	11,060 e	2,290 e	292 е	13,643 е
2002	10,571 e	2,051 e	272 е	12,894 e
e Estimated	r Revised p Preliminary			

Table 26

LOUISIANA STATE WELL COMPLETION BY TYPE AND BY REGION Excluding OCS

	YEAR	OFFSHORE	SOUTH	NORTH	TOTAL
	1987	21	348	434	803
	1988	11	211	312	534
	1989	7	126	170	303
	1990	9	164	288	461
С	1991	22	178	266	466
R O	1992	19	163	222	404
UI	1993	24	136	173	333
DL	1994	13	103	117	233
Е	1995	31	100	137	268
	1996	34	67	122	223
	1997	39	168	106	313
	1998	24 e	100 e	64 e	188
	1999	4 e	35 e	60 e	99
	2000	10 e	51 e	77 e	138
	2001	11 e	92 e	137 e	240
	2002	10 e	86 e	117 e	213
	1987	5	124	264	393
	1988	11	149	258	418
	1989	17	132	254	403
	1990	11	157	258	426
N	1991	9	126	192	327
Α	1992	8	111	113	232
TG	1993	6	89	176	271
UA	1994	9	141	180	330
R S	1995	8	126	216	350
Α	1996	22	154	325	501
L	1997	22	160	383	565
	1998	23 e	170 e	407 e	600
	1999	17 e	169 e	287 e	473
	2000	21 e	166 e	359 e	546
	2001	20 e	279 e	426 e	725
	2002	15 e	215 e	219 e	449
	1987	14	302	435	766
	1988	17	325	418	760
	1989	13	281	373	667
	1990	15	283	366	664
	1991	11	205	228	444
DΗ	1992	5	158	190	353
R O	1993	4	168	234	406
ΥL	1994	12	141	236	389
E	1995	8	138	155	301
	1996	12	151	170	333
	1997	9	165	188	362
	1998	7 e	104 e	121 e	232 e
	1999	8 e	80 e	135 e	223 e
	2000	9 e	98 e	154 e	261 e
	2001	10 e	184 e	205 e	399 е
	2002	4 e	122 e	147 e	273 е
	e Estimated	r Revised p Prelimina	ry		

Table 27

# LOUISIANA STATE MINERAL BONUSES, RENTALS AND ROYALTY OVERRIDE REVENUES, Excluding OCS

(Million Dollars)

		OVERRIDE		
DATE	BONUSES	ROYALTY	RENTALS	TOTAL
1981	150.70	0.81	49.31	200.82
1982	61.23	0.70	53.66	115.60
1983	53.03	0.67	27.73	81.43
1984	67.98	0.80	21.21	89.99
1985	32.08	0.90	20.86	53.84
1986	15.89	0.50	12.25	28.64
1987	26.82	0.39	6.70	33.90
1988	17.65	0.29	9.28	27.22
1989	11.59	0.29	8.34	20.21
1990	19.02	0.32	6.76	26.10
1991	9.82	0.32	8.71	18.85
1992	4.26	0.32	6.97	11.55
1993	13.29	0.20	4.20	17.68
1994	15.31	0.19	6.15	21.65
1995	31.96	0.69	9.47	42.12
1996	39.63	-0.27	18.40	57.76
1997	38.27	0.84	25.00	64.11
1998	42.27	0.69	25.86	68.82
1999	14.17	0.45	20.27	34.89
2000	21.12	1.13 r	14.16 r	36.41
January	3.04	0.09	1.02	4.14
February	0.00	0.08	1.74	1.82
March	5.53	0.16	1.20	6.89
April	6.18	0.26	0.26	6.70
May	2.87	0.06	0.74	3.67
June	1.06	0.18	1.75	2.99
July	2.25	0.23	0.60	3.08
August	4.37	0.12	0.85	5.34
September	0.52	0.18	1.21	1.91
October	1.25	0.30	1.58	3.13
November	1.77	0.15	1.09	3.00
December	0.86	0.08	1.72	2.66
2001 Total	29.70	1.89	13.75	45.34
January	1.12	0.05	1.00	2.17
February	0.58	0.85	1.65	3.07
March	5.84	0.29	1.02	7.15
April	0.97	0.13	1.91	3.02
May	2.67	0.09	0.63	3.39
June	1.29	0.12	1.53	2.93
July	5.88	0.12	1.57	7.59
August	0.98	0.14	1.04	2.15
September	1.53	0.10	0.84	2.13
October	0.74	0.25	1.32	2.47
November	0.74	0.13	0.74	1.68
December	2.31	0.13	1.02	3.34
2002 Total	24.74	2.29	1.02 14.26	41.28
ZUUZ TÜLAT	24.14	4.43	14.20	41.20

### Table 28

### LOUISIANA STATE MINERAL ROYALTY REVENUE

Excluding OCS (Million Dollars)

			PLANT		
DATE	OIL	GAS	LIQUIDS	OTHERS	TOTAL
1981	291.90	160.24	18.20	3.28	473.62
1982	248.44	204.25	14.35	1.82	468.86
1983	224.62	211.84	13.00	1.83	451.29
1984	226.64	210.99	13.06	2.29	452.98
1985	201.14	174.45	9.55	2.62	387.76
1986	122.22	154.83	6.34	1.96	285.34
1987	125.72	120.54	4.90	1.60	252.76
1988	98.55	124.06	4.39	1.35	228.35
1989	112.30	116.18	3.92	1.42	233.82
1990	135.44	113.14	3.80	0.90	253.28
1991	120.49	91.43	4.51	0.34	216.76
1992	113.29	97.07	4.69	0.00	215.04
1993	99.20	125.01	4.53	0.00	228.74
1994	85.72	102.95	4.05	0.00	192.72
1995	95.82 r	146.60 r	4.60 r	0.00	247.02 r
1996	111.28 r	187.27 r	6.08 r	0.00	304.64 r
1997	116.91 r	165.68 r	6.21 r	0.00	288.81 r
1998	72.62 r	123.93 r	2.80 r	0.00	199.36 r
1999	80.27 r	115.47 r	1.89 r	0.00	197.62 r
2000	147.91 r	192.12 r	3.47 r	0.00	343.49 r
January	11.62	30.44 r	0.29 r		42.34
February	12.51 r	45.35 r	0.26 r		58.12
March	11.71 r	31.41 r	0.21 r		43.33
April	10.89 r	27.49 r	0.50 r		38.88
May	10.77 r	27.21 r	0.60 r		38.58
June	11.69 r	24.50 r	0.94 r		37.14
July	10.99 r	19.36 r	0.74 r		31.09
August	10.27	16.05	0.63		26.95
September	10.61	14.49	0.67		25.77
October	10.04	10.86	0.38		21.29
November	8.70	10.33	0.36		19.40
December	7.32	12.92	0.46		20.69
2001 Total	127.13	270.40	6.02	0.00	403.56
January	7.40	11.34	0.39		19.13
February	6.70	11.39	0.37		18.45
March	6.57	8.24	0.39		15.20
April	8.31	10.77	0.47		19.55
May	8.41	13.77	0.57		22.75
June	9.61	14.54	0.59		24.74
July	8.72	13.78	0.55		23.06
August	8.92	14.17	0.58		23.67
September	9.17	11.29	0.58		21.05
October	7.16	2.53	0.09		9.78
November	0.53	0.06			0.59
December					
2002 Total	81.50	111.89	4.57	0.00	197.96
e Estimated	r Revised p Prelim	inary			

e Estimated r Revised p Preliminary

Table 29

# LOUISIANA STATE MINERAL SEVERANCE TAX REVENUE<sup>8</sup> Excluding OCS (Million Dollars)

			OTHER	SEVERANCE
DATE	OIL	GAS	MINERALS	TOTAL
1981	815.38	164.07	N/A	979.44
1982	766.49	147.53	N/A	914.02
1983	662.00	131.52	2.45	795.98
1984	652.39	130.99	3.62	787.00
1985	598.67	120.96	3.73	723.37
1986	389.87	125.14	3.42	518.42
1987	345.18	111.84	2.99	460.01
1988	296.45	106.29	2.65	405.39
1989	312.99	108.84	2.43	424.26
1990	373.21	124.61	2.75	500.58
1991	367.13	146.83	1.97	515.93
1992	326.07	126.24	1.63	453.94
1993	283.68	107.32	1.76	392.76
1994	229.40	114.58	2.02	346.00
1995	233.37	114.58	1.85	349.80
1996	270.36	98.60	1.88	370.84
1997	257.13	118.27	1.85	377.25
1998	148.96	120.98	1.40	271.34
1999	171.29	102.48	1.82	275.60
2000	337.51	104.33	1.50	443.34
January	28.07	10.12	0.08	38.27
February	23.65	9.67	0.10	33.42
March	27.09	11.27	0.13	38.48
April	23.22	8.55	0.14	31.91
May	22.99	7.58	0.15	30.72
June	23.30	10.81	0.10	34.20
July	25.64	11.19	0.18	37.00
August	22.00	14.98	0.14	37.12
September	23.69	20.15	0.15	43.99
October	26.84	20.49	0.18	47.51
November	18.85	20.47	0.16	39.48
December	16.63	20.49	0.15	37.27
2001 Total	281.95	165.77	1.65	449.38
January	19.68	22.23	0.12	42.04
February	15.33	19.29	0.10	34.72
March	20.37	19.50	0.13	40.00
April	0.00	0.00	0.00	0.00
May	22.51	19.84	0.10	42.45
June	20.82	17.56	0.14	38.53
July	21.11	18.85	0.15	40.11
August	28.68	13.86	0.15	42.69
September	21.32	11.67	0.07	33.06
October	28.14	10.77	0.18	39.08
November				
December				
2002 Total	197.96	153.58	1.15	352.69
See footnote in Appendix B.				

Table 30

STATE SECTION 8(g) REVENUE FROM LOUISIANA'S OCS<sup>13</sup>
(Dollars)

					SETTLE-	
YEAR	RENTALS	BONUSES	<b>ROYALTIES</b>	<b>8G ESCROW</b>	MENT	TOTAL
1986	610,567	1,912,734	66,176,203			68,699,504
1987	148,578	3,150,519	11,043,115	572,000,000	2,520,000	588,862,212
1988	153,561	5,528,006	8,708,079		2,520,000	16,909,646
1989	175,817	2,890,298	7,163,105		2,520,000	12,749,220
1990	430,198	5,570,375	6,239,368		2,520,000	14,759,941
1991	303,824	2,220,094	8,461,261		2,520,000	13,505,179
1992	258,787	1,189,989	6,405,279		5,880,000	13,734,055
1993	235,250	965,504	7,373,550		5,880,000	14,454,304
1994	1,016,932	1,913,682	11,780,932		5,880,000	20,591,546
1995	255,213	890,002	8,012,718		5,880,000	15,037,933
1996	292,445	4,666,400	12,283,395		5,880,000	23,122,240
1997	686,051	5,689,689	11,855,454		8,400,000	26,631,194
1998	412,229	1,744,928	9,621,860		8,400,000	20,179,017
1999	357,379	241,659	6,284,879		8,400,000	15,283,917
2000	321,695	1,268,244	12,690,937		8,400,000	22,680,876
2001	303,675	2,148,111	29,789,999		8,400,000	40,641,785

See footnotes on Appendix B

Royalty revenues from Federal offshore leases on the Outer Continental Shelf (OCS) are distributed to the Land and Water. Conservation Fund, the Historic Preservation Fund, and the General Fund of the U.S. Treasury. Transfers are made in each fiscal year from OCS royalties, rentals and bonuses in order to maintain the Land and Water Conservation Fund's annual authorization of \$900 million. Annually, \$150 million is put into the Historic Preservation Fund. The balance of offshore revenue receipts is directed to the General Fund of the U.S. Treasury.

Section 8(g) of the Outer Continental Shelf Lands Act Amendments of 1978 provided that the states were to receive a "fair and equitable" division of revenues generated from the leasing of lands within 3 miles of the seaward boundary of a coastal state that contains one or more oil and gas pools or fields underlying both the OCS and lands subject to the jurisdiction of the state. The states and the federal government, however, were unable to reach agreement concerning the meaning of the term "fair and equitable". Revenues generated in the 3-mile boundary zone were subsequently placed into an escrow fund in August 1979.

Congress resolved the dispute over the meaning of "fair and equitable" in the Outer Continental Shelf Lands Act Amendments of 1985, Public Law 99-272. The law provided for the following distribution of revenues to the states under section 8(g):

Before 1986: Louisiana did not receive any shared revenue from OCS production prior to 1986.

1986: Louisiana received a payment of \$68.7 million from royalties, rentals and bonuses collected in 1986 and prior years.

1998-2000: In 1987 Louisiana received an initial settlement payment of \$572 million from the escrow funds. A series of annual settlement payments have been disbursed to the states over a 15-year period along with an annual disbursement of 27 percent of royalty, rental, and bonus revenues received within each affected state's 8(g) zone. The annual settlement payments are: From 1987 through 1991, Louisiana received an annual settlement payment of \$2.52 million per year. From 1992 through 1996, the state received an annual settlement payment of \$5.88 million per year. Beginning in 1997 until the last payment in 2001, Louisiana will receive an annual settlement payment of approximately \$8.40 million per year.

2002 and After: No further settlement payments; states receive only a recurring annual disbursement of 27 percent of royalty, rental, and bonus revenues received within each affected state's 8(g) zone. Louisiana will receive an annual disbursement of 27 percent of royalty, rental, and bonus revenues received within Louisiana's affected 8(g) zone.

TABLE 31

LOUISIANA STATE TOTAL MINERAL REVENUE
(Dollars)

YEAR	FEDERAL OCS (8g)	FEDERAL ONSHORE	STATE BOUNDARIES	TOTAL
1980	0	355,000	1,072,513,958	1,072,868,958
1981	0	612,000	1,653,883,820	1,654,495,820
1982	0	617,000	1,498,482,501	1,499,099,501
1983	0	637,000	1,328,700,057	1,329,337,057
1984	0	905,000	1,329,965,030	1,330,870,030
1985	0	795,000	1,164,969,360	1,165,764,360
1986	68,699,504	555,000	832,406,385	901,660,889
1987	588,862,212	517,000	746,675,897	1,336,055,109
1988	16,909,646	545,000	660,959,699	678,414,345
1989	12,749,220	452,000	678,301,987	691,503,207
1990	14,759,941	542,000	779,963,703	795,265,644
1991	13,505,179	328,000	751,117,246	764,950,425
1992	13,734,055	376,000	680,527,788	694,637,843
1993	14,454,304	782,000	639,182,812 r	654,412,032
1994	20,591,546	532,000	560,371,998	581,495,544
1995	15,037,933	728,000	638,942,698 r	605,347,517
1996	23,122,240	943,209	733,235,111 r	726,355,108
1997	26,631,194	817,329	730,169,075 r	738,880,571
1998	20,179,017	996,000	539,513,979 r	560,688,996 r
1999	15,283,917	1,276,465	508,102,794 r	524,663,176 r
2000	22,680,876	1,024,730	823,227,720	846,933,326
2001	40,614,785	1,484,476	898,272,659	940,371,920

e Estimated r Revised p Preliminary

See footnote in Appendix B.

Federal OCS: See table 30.

**Federal Onshore:** Revenue distributed to the state under section 35 of the Mineral Leasing Act (MLA). MLA provides to the state 50% of mineral revenue from federal lands located within the state boundaries. Revenues came from royalties, rents and bonuses.

**State Boundaries:** Revenue from mineral production such as bonuses, override royalties, rents, royalties and severance taxes within state lands.

Table 32

FEDERAL REVENUE FROM LOUISIANA OCS OIL AND GAS LEASES (Dollars)

YEAR	BONUS <sup>12</sup> PAYMENTS	RENTAL <sup>12</sup> PAYMENTS	MINIMUM <sup>12</sup> ROYALTIES	PRODUCTION <sup>12</sup> ROYALTIES	TOTAL <sup>a</sup> COLLECTION
1962	488,923,341	7,707,267	497,202	65,253,373	562,381,183
1963	0	7,059,246	632,376	75,347,238	83,038,860
1964	60,340,626	7,040,422	823,439	112,999,967	181,204,454
1965	0	5,909,553	1,021,505	126,121,728	133,052,786
1966	238,958,065	4,736,294	1,327,830	131,253,307	376,275,496
1967	510,079,178	5,500,516	1,888,758	149,096,032	666,564,484
1968	149,868,789	5,275,979	2,140,858	190,907,982	348,193,608
1969	110,945,535	5,584,162	1,922,340	226,504,238	344,956,275
1970	945,064,773	6,243,362	1,692,274	262,709,833	1,215,710,242
1971	96,304,523	5,687,848	1,564,845	324,815,819	428,373,035
1972	2,251,347,556	6,396,291	1,725,573	342,476,302	2,601,945,722
1973	193,031,709	5,272,797	2,005,785	380,509,177	580,819,468
1974	3,528,744,084	8,350,760	1,739,159	535,836,029	4,074,670,032
1975	325,424,688	8,947,571	1,837,253	593,359,397	929,568,909
1976	482,592,035	12,974,770	1,879,704	682,922,971	1,180,369,480
1977	813,991,004	7,740,185	1,248,616	899,016,863	1,721,996,668
1978	1,015,873,944	8,616,027	1,502,963	1,086,517,424	2,112,510,358
1979	2,521,190,635	7,328,999	1,105,865	1,344,995,442	3,874,620,941
1980	2,676,927,673	7,361,904	1,277,987	1,866,737,837	4,552,305,401
1981	3,308,009,881	8,205,515	1,211,959	2,825,271,285	6,142,698,640
1982	1,110,172,751	7,288,316	1,349,850	3,166,294,042	4,285,104,959
1983	3,796,644,766	13,620,158	2,540,294	2,764,348,600	6,577,153,818
1984	1,154,495,009	16,323,567	2,010,462	3,195,995,282	4,368,824,320
1985	830,710,260	33,756,447	2,139,530	2,940,519,737	3,807,125,974
1986	113,731,609	34,110,029	3,199,547	2,006,205,199	2,157,246,384
1987	247,344,486	52,115,828	19,239,027	1,803,208,740	2,121,908,081
1988	388,730,457	35,752,757	8,727,373	1,571,981,500	2,005,192,087
1989	386,710,637	48,498,402	26,261,190	1,618,163,065	2,079,633,294
1990	421,375,632	55,568,777	16,028,740	2,068,487,831	2,561,460,980
1991	276,234,849	59,126,732	15,444,167	1,857,392,914	2,208,198,662
1992	53,716,797	49,087,621	33,533,897	1,848,599,157	1,984,937,472
1993	61,454,861	29,268,366	119,445,091	2,009,644,653	2,219,812,971
1994	256,271,643	30,003,884	141,190,812	1,888,953,102	2,316,419,441
1995	296,254,733	62,526,069	19,803,444	1,764,875,791	2,143,460,037
1996	24,330,068	53,231,380	40,394,227	2,549,759,516	3,154,940,691
1997	1,169,790	55,761,920	65,651,370	2,857,126,443	3,789,383,151
1998	9,207,972	51,518,286	-14,452,431	2,267,502,514	2,313,776,341
1999	1,169,790	40,463,226	49,219,184	2,228,250,265	2,319,102,465
2000	83,630,219	32,710,256	167,647,231	3,045,847,943	3,329,835,649
2001	160,037,859	30,078,009	177,773,259	5,126,344,201	5,494,233,328

<sup>&</sup>lt;sup>a</sup> Total collection, including state 8G shares. See footnote in Appendix B.

Table 33

## LOUISIANA ESTIMATED CRUDE OIL PROVED RESERVES<sup>9</sup> EXCLUDING LEASE CONDENSATE

As of December 31st of Each Year (Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1981	317	642	2,026	N/A	2,985	29,426
1982	240	611	1,677	N/A	2,528	27,858
1983	223	569	1,915	N/A	2,707	27,735
1984	165	585	1,911	N/A	2,661	28,446
1985	196	565	122	1,759	2,642	28,416
1986	160	547	119	1,640	2,466	26,889
1987	175	505	127	1,514	2,321	27,256
1988	154	511	135	1,527	2,327	26,825
1989	123	479	143	1,691	2,436	26,501
1990	120	435	150	1,772	2,477	26,254
1991	127	408	144	1,775	2,454	24,682
1992	125	417	126	1,643	2,311	23,745
1993	108	382	149	1,880	2,519	22,957
1994	108	391	150	1,922	2,571	22,457
1995	108	387	142	2,269	2,906	22,351
1996	128	382	148	2,357	3,015	22,017
1997	136	427	151	2,587	3,301	22,546
1998	101	357	97	2,483	3,038	21,034
1999	108	384	108	2,442	3,042	21,765
2000	97	310	122	2,751	3,280	22,045
2001	87	341	136	3,877	4,441	22,446

NOTE: Federal OCS is included in the south offshore figure from 1980 through 1984.

See footnotes on Appendix B

N/A Not Available

Figure 14

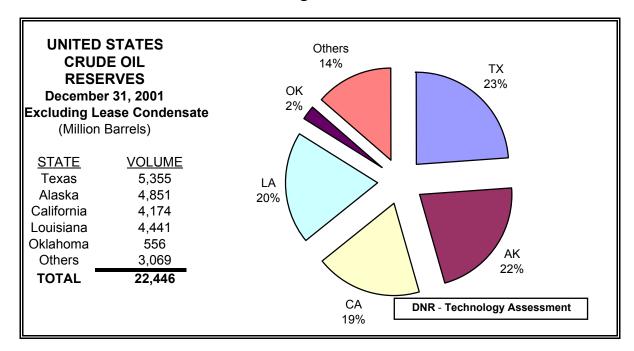


Table 34

LOUISIANA ESTIMATED LEASE CONDENSATE PROVED RESERVES<sup>9</sup>

As of December 31st of Each Year (Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1981	36	253	280	N/A	569	1,580
1982	26	243	310	N/A	579	1,601
1983	24	238	300	N/A	562	1,613
1984	19	229	269	N/A	517	1,522
1985	18	220	257	N/A	495	1,453
1986	18	208	11	230	467	1,436
1987	17	194	13	223	447	1,402
1988	17	193	13	223	446	1,389
1989	20	196	12	278	506	1,389
1990	20	182	12	258	472	1,302
1991	21	175	9	253	458	1,244
1992	19	151	8	226	404	1,226
1993	19	133	9	235	396	1,192
1994	21	123	9	233	386	1,147
1995	24	136	11	305	476	1,197
1996	24	127	11	422	584	1,307
1997	30	134	12	433	609	1,341
1998	23	138	16	435	612	1,336
1999	25	134	15	435	609	1,295
2000	22	130	17	437	606	1,333
2001	27	141	19	325	512	1,398

NOTE: Federal OCS is included in the south offshore figure from 1980 through 1985.

See footnotes on Appendix B

N/A Not Available

Figure 15

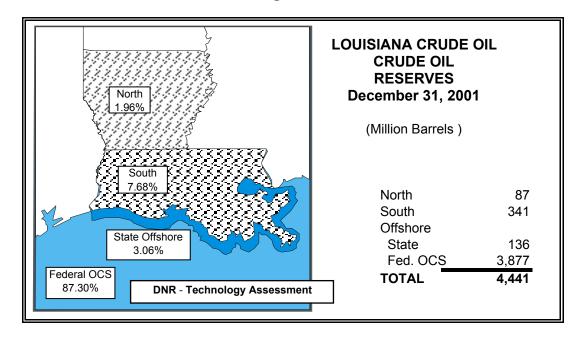


Table 35

### LOUISIANA ESTIMATED DRY NATURAL GAS PROVED RESERVES

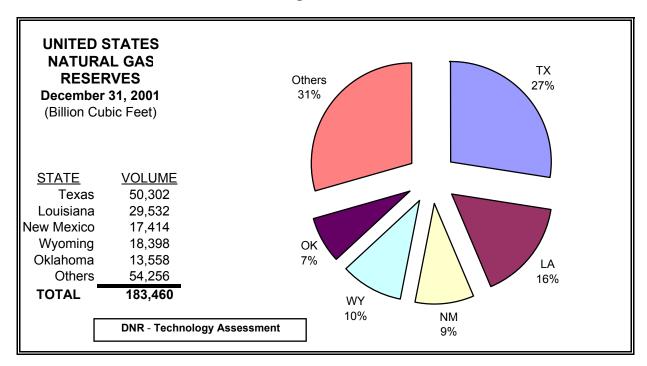
As of December 31st of Each Year

(Billion Cubic Feet, at 14.73 psia and 60 degrees Fahrenheit)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1981	3,270	12,645	31,462	N/A	47,377	201,730
1982	2,919	11,801	30,203 c	N/A	44,923	201,512
1983	2,939	11,142	28,480 с	N/A	42,561 c	200,247
1984	2,494	10,331	28,574 с	N/A	41,399 c	197,463
1985	2,587	9,808	1,643	26,113 с	40,151 c	193,369
1986	2,515	9,103	1,312	25,454 с	38,384 c	191,586
1987	2,306	8,693	1,431	23,260 с	35,690 c	187,211
1988	2,398	8,654	1,172	23,471 с	35,695 c	168,024
1989	2,652	8,645	1,219	24,187 с	36,703 c	167,116
1990	2,588	8,171	969	22,679 с	34,407 c	169,346
1991	2,384	7,504	1,024	21,611 с	32,523 c	167,062
1992	2,311	6,693	776	19,653 с	29,433 с	165,015
1993	2,325	5,932	917	19,383 с	28,557 c	162,415
1994	2,537	6,251	960	20,835 с	30,583 c	163,837
1995	2,788	5,648	838	21,392 с	30,666 c	165,146
1996	3,105	5,704	734	21,856 с	31,399 c	166,474
1997	3,093	5,855	725	21,934 с	31,607 c	167,223
1998	2,898	5,698	551	20,774 с	29,921 c	164,041
1999	3,079	5,535	628	19,598 с	28,840 c	167,406
2000	3,298	5,245	696	19,788 с	29,027 c	177,427
2001	3,881	5,185	745	19,721 c	29,532 c	183,460

NOTE: Federal OCS is included in the south offshore figure from 1980 through 1984.

Figure 16



N/A Not Available

<sup>&</sup>lt;sup>C</sup> Includes Federal Offshore Alabama

Table 36

## LOUISIANA ESTIMATED NATURAL GAS LIQUIDS PROVED RESERVES<sup>9</sup> EXCLUDING LEASE CONDENSATE

As of December 31st of Each Year (Million Barrels)

YEAR	North	South Onshore	South Offshore	Federal OCS	Total Louisiana	TOTAL US
1981	59	287	431	N/A	777	5,488
1982	73	301	374	N/A	748	5,620
1983	61	263	409	N/A	733	6,288
1984	55	298	462	N/A	815	6,121
1985	39	234	420	N/A	693	6,491
1986	39	220	28	336	623	6,729
1987	33	235	33	309	610	6,745
1988	39	228	27	289	583	6,849
1989	40	215	39	297	591	6,380
1990	38	249	37	261	585	6,284
1991	38	242	41	292	613	6,222
1992	41	229	47	246	563	6,225
1993	38	201	21	255	515	6,030
1994	48	214	19	267	548	6,023
1995	55	359	16	191	621	6,202
1996	61	284	36	199	580	6,516
1997	50	199	12	352	613	6,632
1998	34	187	13	341	575	6,188
1999	36	230	19	398	681	6,611
2000	39	207	21	315	582	8,345
2001	35	128	41	273	477	7,993

NOTE: Federal OCS is included in the south offshore figure from 1979 through 1985.

See footnotes on Appendix B

N/A Not Available

Figure 17

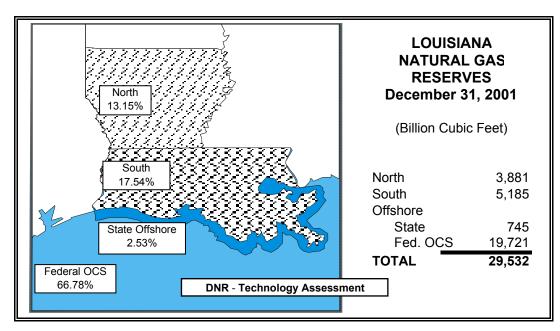


Table 37
LOUISIANA NONAGRICULTURAL EMPLOYMENT<sup>1</sup>

DATE	OIL & GAS PRODUCTION	CHEMICAL INDUSTRY	OIL REFINING	OIL PIPELINE	TOTAL EMPLOYMENT
1981	94,772	32,711	16,314	1,200	1,627,796
1982	92,225	33,984	13,111	1,033	1,571,017
1983	77,283	30,272	13,140	1,282	1,531,480
1984	78,032	29,104	13,053	1,247	1,568,064
1985	77,781	28,093	12,458	1,144	1,550,443
1986	58,888	25,998	12,233	1,168	1,475,318
1987	52,117	25,345	12,225	1,051	1,438,793
1988	54,565	26,957	11,258	1,039	1,468,508
1989	52,509	27,717	11,321	1,016	1,492,051
1990	54,063	29,083	11,535	1,041	1,546,820
1991	54,412	29,412	12,268	1,073	1,566,779
1992	45,869	30,349	12,543	1,095	1,583,423
1993	44,422	30,419	12,728	1,078	1,613,577
1994	44,885	30,014	13,037	1,014	1,671,087
1995	44,279	30,168	11,603	932	1,721,651
1996	46,885	30,096	11,262	789	1,757,619
1997	51,559	29,935	11,038	792	1,797,225
1998	54,875	30,196	10,984	702	1,837,505
1999	44,645	28,898	11,046	693	1,846,026
2000	45,714	28,335	10,345	724	1,872,494
January	45,243	28,006	10,275	2,427 a	1,847,547
February	46,278	27,968	10,419	2,681 a	1,854,853
March	47,082	27,994	10,505	2,679 a	1,868,488
April	46,989	27,450	10,671	2,430 a	1,878,416
May	47,675	27,459	10,752	2,465 a	1,888,026
June	48,413	27,469	10,799	2,472 a	1,895,966
July	47,902	27,334	10,909	2,326 a	1,850,606
August	48,247	27,075	10,883	2,311 a	1,861,694
September	48,036	26,936	10,798	2,277 a	1,871,422
October	47,146	26,944	10,529	2,318 a	1,867,690
November	45,523	26,739	10,618	2,310 a	1,871,223
December	45,579	26,664	10,554	2,309 a	1,870,897
2001 Average	47,009	27,337	10,643	<b>2,417</b> a	1,868,902
January	45,312	26,374	10,596	2,269 a	1,831,650
February	44,935	26,265	10,570	2,273 a	1,837,948
March	44,631	26,186	10,568	2,260 a	1,847,797
April					
May					
June					
July					
August					
September					
October					
November					
December	4		44		4 000 100
2002 Average a Data from 2001 o	44,959 in include all pipeline wo	<b>26,275</b> rlers.	10,578	2,267	1,839,132

a Data from 2001 on include all pipeline worlers. See footnote in Appendix B.

Figure 18

LOUISIANA ENERGY CONSUMPTION BY SOURCE

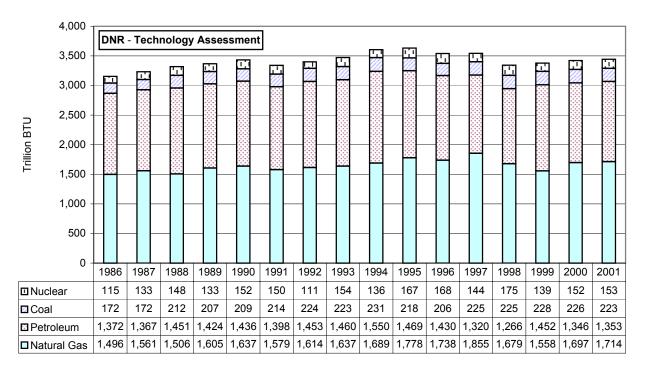


Figure 19

LOUISIANA REFINERY CRUDE OIL INPUT BY SOURCE

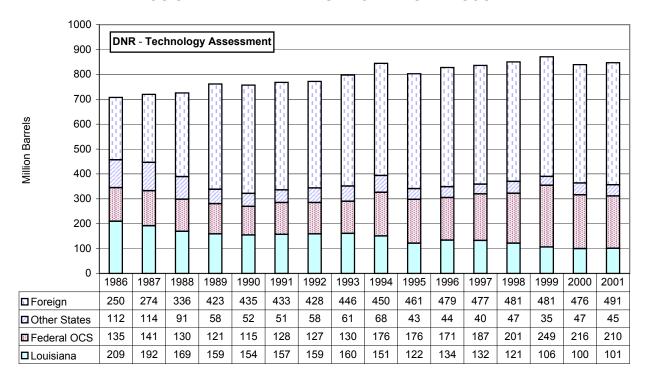


Table 38

LOUISIANA ENERGY CONSUMPTION ESTIMATES BY SOURCE<sup>11</sup>

1961       1,570.7       1,029       89,889       N/A       0         1962       1,584.7       1,015       94,051       N/A       0         1963       1,689.5       1,091       99,427       N/A       0
1962 1,584.7 1,015 94,051 N/A 0
1,000.0
1964 1,794.1 1,144 106,260 N/A 0
1965 1,766.8 1,110 109,325 N/A 0
1966 1,882.9 1,202 115,895 N/A 0
1967 2,124.1 1,394 123,074 N/A 0
1968 2,295.0 1,521 134,822 N/A 0
1969 2,572.3 1,763 148,052 N/A 0
1970 2,701.4 1,841 150,124 0 0
1971 2,809.3 1,884 163,298 0 0
1972 2,989.3 1,940 186,445 0 0
1973 3,225.9 2,010 212,662 0 0
1974 3,313.3 2,008 222,611 0 0
1975 3,028.8 1,789 214,065 0 0
1976 3,419.1 2,044 237,208 0 0
1977 3,794.6 2,191 270,987 79 0
1978 3,930.1 2,249 279,482 172 0
1979 3,823.5 1,978 307,896 118 0
1980 3,651.3 r 1,794 296,347 111 0
1981 3,688.6 r 1,782 295,551 1,363 0
1982 3,441.2 r 1,556 287,818 3,724 0
1983 3,284.5 r 1,413 276,220 6,154 0
1984 3,413.5 r 1,594 248,977 6,855 0
1985 3,192.5 r 1,386 248,339 9,217 2,457
1986 3,353.4 r 1,439 261,599 10,459 10,637
1987 3,435.5 r 1,501 258,487 10,391 12,324
1988 3,473.1 r 1,446 272,626 12,848 13,785
1989 3,592.6 r 1,538 267,202 12,471 12,391
1990 3,623.8 r 1,571 268,893 12,547 14,197
1991 3,545.9 r 1,508 263,436 12,965 13,956
1992 3,636.0 r 1,546 273,850 13,674 10,356
1993 3,688.6 r 1,578 275,569 13,676 14,398
1994 3,837.3 r 1,624 296,101 14,100 12,779
1995 3,837.2 r 1,718 282,424 13,357 15,686
1996 3,848.5 r 1,664 273,409 12,534 15,765
1997 3,828.0 r 1,659 246,790 13,874 13,511
1998 3,564.0 r 1,569 237,839 13,891 16,428
1999 3,608.6 r 1,495 280,507 13,954 13,112
2000 3,965.2 r 1,537 333,434 15,734 15,796
2001 3,706.3 e 1,304 312,540 e 14,375 e 13,309 e

e Estimated r Revised p Preliminary

TBTU = Trillion BTU BCF = Billion Cubic Feet KWH = Kilowatt-hours

MBBLS = Thousand Barrels

MST = Thousand Short Tons

See footnote in Appendix B.

### **TABLE 39**

### **LOUISIANA REFINERIES STATISTICS**

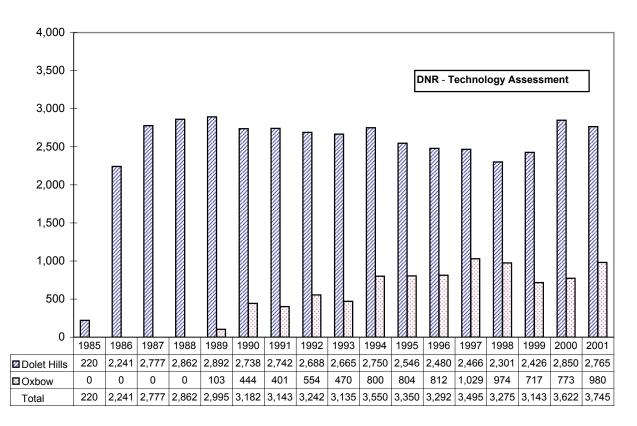
	AVERAGE	DAILY AVERAGE	LICENSED
DATE	STOCK ON HAND	<b>RUNS TO STILL</b>	REFINERIES
	(Barrels)	(Barrels)	
1981	14,207,520	1,727,400	31
1982	12,905,202	1,716,091	31
1983	13,317,761	1,649,283	27
1984	13,182,207	1,720,172	25
1985	13,425,129	1,735,402	24
1986	13,391,258	1,901,450	23
1987	13,967,381	1,947,187	22
1988	14,295,591	1,946,861	21
1989	14,158,306	2,051,304	23
1990	13,783,012	2,045,697	23
1991	14,197,185	2,071,276	23
1992	14,331,412	2,090,248	22
1993	14,521,046	2,159,422	20
1994	15,126,534	2,150,403	19
1995	14,325,305	2,109,245	19
1996	14,462,108	2,252,573	19
1997	14,275,221	2,257,275	19 r
1998	14,965,117	2,312,239	19 r
1999	15,467,674	2,414,781	17 r
2000	14,818,774	2,334,842	16 r
January	15,708,671	2,587,368	<b>17</b> r
February	14,863,962	2,486,369	17 r
March	15,089,158	2,289,612	17 r
April	16,791,645	2,516,613	17 r
May	12,826,187	2,590,535	17 r
June	13,926,917	2,323,764	17 r
July	15,801,908	2,555,775	17 r
August	14,496,184	2,367,766	17 r
September	14,736,737	2,501,499	17
October	17,346,292	2,480,531	17
November	16,465,928	2,555,340	17
December	17,054,446	2,509,115	17
2001 Average	15,425,670	2,480,357	17
January	15,916,718	2,416,488	18
February	16,354,143	2,465,836	18
March	16,907,779	2,576,468	18
April	19,135,030	2,612,364	18
May	18,370,131	2,567,134	18
June	18,347,192	2,473,324	18
July	20,786,883	2,480,877	18
August	18,356,264	2,442,770	18
September	14,542,679	2,183,505	18
October	10,186,541 p	2,143,901	18
November			
December			
2002 Average	16,890,336	2,436,267	18
e Estimated r	Revised p Preliminary		



Exxon-Mobil Refinery - Baton Rouge

Figure 20

LOUISIANA LIGNITE PRODUCTION BY MINE SOURCE
(Thousand Tons Shipped)



<sup>\*</sup> Projected

Table 40

### LOUISIANA ELECTRIC UTILITIES NET ELECTRICITY GENERATION<sup>14</sup> BY FUEL TYPE

(Million KWH)

YEAR	COAL	LIGNITE	OIL	GAS	NUCLEAR	TOTAL
1961	0	0	23	12,605	0	12,628
1962	0	0	34	13,541	0	13,575
1963	0	0	37	14,808	0	14,845
1964	0	0	54	16,007	0	16,061
1965	0	0	26	17,819	0	17,845
1966	0	0	24	21,643	0	21,667
1967	0	0	20	23,132	0	23,152
1968	0	0	32	26,123	0	26,155
1969	0	0	26	32,301	0	32,327
1970	0	0	79	33,623	0	33,702
1971	0	0	N/A	N/A	0	37,118
1972	0	0	N/A	N/A	0	39,348
1973	0	0	14,353	36,351	0	40,704
1974	0	0	5,034	34,472	0	39,506
1975	0	0	3,257	35,967	0	39,224
1976	0	0	7,773	37,343	0	45,116
1977	0	0	13,255	35,196	0	48,451
1978	0	0	14,568	36,935	0	51,503
1979	0	0	8,259	38,396	0	46,655
1980	0	0	4,787	40,952	0	45,739
1981	1,529	0	2,634	39,947	0	44,110
1982	4,998	0	940	35,594	0	41,532
1983	8,377	0	356	28,311	0	37,044
1984	9,830	0	140	29,360	0	39,330
1985	13,968	0	100	27,736	2,457	44,261
1986	12,642	2,884	419	26,202	10,637	52,784
1987	12,176	2,926	60	23,823	12,324	51,309
1988	14,372	4,059	272	24,286	13,785	56,774
1989	14,227	3,854	298	21,900	12,391	52,670
1990	13,890	3,910	130	26,061	14,197	58,188
1991	14,786	4,126	45	24,245	13,956	57,158
1992	15,613	4,183	483	24,554	10,356	55,189
1993	15,794	3,572	1,838	23,751	14,398	59,353
1994	15,761	4,364	680	26,586	12,779	60,170
1995	14,632	4,321	49	30,867	15,686	65,555
1996	14,630	4,002	273	23,972	15,765	58,642
1997	16,453	4,499	645	26,580	13,511	61,688
1998	16,131	4,631	600	28,318	16,428	66,107
1999	16,386	4,780	397	30,162	13,112	64,837
2000*	6,676 r	5,145 r	840	26,669	15,796	55,125
2001*	6,136	4,731	1,775	20,284	17,366	50,292

e Estimated r Revised p Preliminary

<sup>\*</sup> Partial data, Big Cajun 1 & 2 did not report. See footnotes on Appendix B

### **APPENDICES**

Abbreviations	A-1
Data Sources	B-1
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Gas Production at 14.73 psia	D-1
Louisiana Energy Briefs and Topics	E-1



The Sol of New Orleans II
The University of New Orleans's solar powered car

### Appendix A

### **Abbreviations**

Billion Cubic Feet
British Thermal Unit
Louisiana Department of Natural Resources
United States Department of Energy
United States Department of the Interior
Energy Information Administration, DOE
Free on Board
Kilowatt-hours
Thousand Barrels
Thousand Cubic Feet
Minerals Management Service, DOI
Thousand Short Tons
Natural Gas Clearinghouse
Outer Continental Shelf
Organization of Petroleum Exporting Countries
Refinery Acquisition Costs
South Louisiana Sweet Crude Oil
Strategic Petroleum Reserve
Trillion BTU
Trillion Cubic Feet

# **State Abbreviations Used in the Louisiana Energy Facts Annual**

AL	Alabama	MS	Mississippi
AK	Alaska	ND	North Dakota
CA	California	NM	New Mexico
CO	Colorado	OK	Oklahoma
IL	Illinois	TX	Texas
KS	Kansas	UT	Utah
LA	Louisiana	WY	Wyoming
MI	Michigan		-

### Appendix B

### **Data Sources**

Unless otherwise specified, data is from the Louisiana Department of Natural Resources.

- 1. EMPLOYMENT AND TOTAL WAGES PAID BY EMPLOYERS SUBJECT TO LOUISIANA EMPLOYMENT SECURITY LAW, Baton Rouge, LA: Louisiana Department of Labor, Office of Employment Security, Research and Statistics Unit.
- 2. MONTHLY ENERGY REVIEW and ANNUAL ENERGY REVIEW, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 3. NATURAL GAS MONTHLY and NATURAL GAS ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 4. Baker Hughes from OIL & GAS JOURNAL, Tulsa, OK: PennWell Publishing Co.
- 5. October 2002 to Present, NATURAL GAS WEEK, Washington, D.C.: Energy Intelligence Group. Prior, SURVEY OF DOMESTIC SPOT MARKET PRICES, Houston, TX: Dynegy Inc. (Formerly Natural Gas Clearinghouse).
- 6. PETROLEUM MARKETING MONTHLY and PETROLEUM MARKETING ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 7. PETROLEUM SUPPLY MONTHLY and PETROLEUM SUPPLY ANNUAL, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 8. SEVERANCE TAX, Baton Rouge, LA: Louisiana Department of Revenue and Taxation, Severance Tax Section.
- 9. U.S. CRUDE OIL, NATURAL GAS and NATURAL GAS LIQUIDS RESERVES, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 10. THE WALL STREET JOURNAL, Gulf Coast Edition, Beaumont, TX: Dow Jones and Company.
- 11. STATE ENERGY DATA REPORT, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.
- 12. FEDERAL OFFSHORE STATISTICS, Washington, D.C.: U.S. Department of the Interior, Minerals Management Service.
- 13. MINERAL REVENUE, Washington, D.C.: U.S. Department of the Interior, Minerals Management Service, Royalty Management Program.
- 14. ELECTRIC POWER MONTHLY, Washington, D.C.: U.S. Department of Energy, Energy Information Administration.

### Appendix C

### Glossary

**Bonus.** A cash payment by the lessee for the execution of a lease. A lease is a contract that gives a lessee the right: (a) to search for minerals, (b) to develop the surface for extraction, and (c) to produce minerals within the area covered by the contract.

**Casinghead Gas**. All natural gas released from oil during the production of oil from underground reservoirs.

**City-Gate**. A point or measuring station at which a gas distribution company receives gas from a pipeline company or transmission system.

**Commercial Consumption**. Gas used by non-manufacturing organizations such as hotels, restaurants, retail stores, laundries, and other service enterprises. This also includes gas used by local, state, and federal agencies engaged in non-manufacturing activities.

Condensate. (See Lease Condensate).

**Crude Oil**. A mixture of hydrocarbons that existed in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

### **CRUDE OIL PRICES**

**Domestic Wellhead**. The average price at which all domestic crude oil is first purchased.

**Imports FOB**. The price actually charged at the producing country's port of loading. It is the responsibility of the buyer to arrange for transportation and insurance.

**Imports Landed**. The dollar per barrel price of crude oil at the port of discharge. It includes crude oil landed in the U.S. and U.S. company-owned refineries in the Caribbean, but excludes crude oil from countries that export only small amounts to the United States. The landed price does not include charges incurred at the port of discharge.

**Imports OPEC FOB**. The average price actually charged by OPEC at their country's port of loading. This price does not include transportation or insurance.

**OCS Gulf**. The average price at which all offshore, Outer Continental Shelf, Central Gulf region crude oil is first purchased as reported by the U.S. Department of Energy, Energy Information Administration.

**Refinery Acquisition Costs** (RAC). The average price paid by refiners in the U.S. for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners.

- a) **Domestic**. The average price of crude oil produced in the United States or from the Outer Continental Shelf of the U.S.
- b) Imports. The average price of any crude oil not reported as domestic.

**Refinery Posted**. The average price from a survey of selected refiners' postings for South Louisiana Sweet (SLS) crude, which is effective at the middle and at the end of the month.

**Severance Tax**. The average wellhead price calculated from oil severance taxes paid to the Louisiana Department of Revenue and Taxation.

**Spot Market**. The spot market crude oil price is the average of daily South Louisiana Sweet (SLS) crude price futures traded in the month and usually includes transportation from the producing field to the St. James, Louisiana terminal.

**State**. The average price at which all Louisiana crude oil, excluding Louisiana OCS, is first purchased as reported in a survey by the U.S. Department of Energy, Energy Information Administration.

**State Royalty**. The average wellhead price from its royalty share of oil produced in state lands or water bottoms. The price is calculated by the ratio of received oil royalty gross revenue divided by royalty volume share reported to the Louisiana Department of Natural Resources.

**Developmental Well**. Wells drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**Dry Gas**. (See Natural Gas, "Dry").

**Dry Hole**. An exploratory or developmental well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

**Electric Utility Consumption**. Gas used as fuel in electric utility plants.

**Exploratory Well**. A well drilled to find and produce oil or gas in an unproved area, to find a new reservoir in an old field, or to extend the limits of a known oil or gas reservoir.

**Exports**. Crude oil or natural gas delivered out of the Continental United States and Alaska to foreign countries.

**Extraction Loss**. The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Federal Offshore or Federal OCS. (See Louisiana OCS)

**FOB Price** (Free on board). The price actually charged at the producing country's port of loading. The reported price includes deductions for any rebates and discounts or additions of premiums where applicable and should be the actual price paid with no adjustment for credit terms

Gate. (See City-Gate)

**Gross Revenue**. Amount of money received from a purchaser, including charges for field gathering, transportation from wellhead to purchaser receiving terminal, and state production severance tax.

**Gross Withdrawals**. (See Natural Gas, Gross Withdrawals)

**Imports**. Crude oil or natural gas received in the Continental United States, Alaska, and Hawaii from foreign countries.

**Industrial Consumption**. Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

**Lease Condensate**. A mixture consisting primarily of pentane and heavier hydrocarbons that is recovered as a liquid from natural gas in lease or field separation facilities, exclusive of products recovered at natural gas processing plants or facilities.

**Lease Separator**. A facility installed at the surface for the purpose of: (a) separating gases from produced crude oil and water at the temperature and pressure conditions of the separator, and/or (b) separating gases from that portion of the produced natural gas stream which liquefies at the temperature and pressure conditions of the separator.

**Louisiana OCS**. Submerged lands under federal regulatory jurisdiction that comprise the Continental Margin or Outer Continental Shelf adjacent to Louisiana and seaward of the Louisiana Offshore region.

**Louisiana Offshore**. A 3-mile strip of submerged lands under state regulatory jurisdiction located between the State coast line and the OCS region.

**Louisiana Onshore**. Region defined by the State boundary and the coast line.

**Major Pipeline Company**. A company whose combined sales for resale, and gas transported interstate or stored for a fee, exceeded 50 million thousand cubic feet in the previous year.

**Marketed Production**. (See Natural Gas, Marketed Production)

**Natural Gas.** A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in the gaseous phase or in solution with crude oil in natural underground reservoirs at reservoir conditions. The principal hydrocarbons usually contained in the mixture are methane, ethane, propane, butanes and pentanes. Typical non-hydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide and nitrogen. Under reservoir conditions, natural gas and the liquefiable portions occur either in a single gaseous phase in the reservoir or in solution with crude oil, and are not distinguishable at the time as separated substances.

**Natural Gas, "Dry"**. The actual or calculated volume of natural gas which remains after: (a) the liquefiable hydrocarbon portion has been removed from the gas stream, and (b) any volumes of non-hydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable.

**Natural Gas, Gross Withdrawals**. Full well-stream volume, including all natural gas plant liquids and all non-hydrocarbon gases, but excluding lease condensate.

Natural Gas Liquids. Lease condensate plus natural gas plant liquids.

**Natural Gas, Marketed Production**. Gross withdrawals less gas used for repressurizing, quantities vented and flared, and non-hydrocarbon gases removed in treating or processing operations. It includes all quantities of gas used in field and processing operations.

**Natural Gas, OCS Gas**. OCS gas volume is as reported. Most is "dry" gas, though some is "wet" gas.

**Natural Gas Plant Liquids**. Those hydrocarbons remaining in a natural gas stream after field separation and later separated and recovered at a natural gas processing plant or cycling plant through the processes of absorption, adsorption, condensation, fractionation or other methods. Generally such liquids consist of propane and heavier hydrocarbons and are commonly referred to as condensate, natural gasoline, or liquefied petroleum gases. Where hydrocarbon components lighter than propane (e.g., ethane) are recovered as liquids, these components are included with natural gas liquids.

### NATURAL GAS PRICES

**Spot Market** The average price of natural gas paid at the regional spot market receipt points or zones as reported by the Energy Intelligence Group's NATURAL GAS WEEK. The data are a volume weighted average and reflect market activity information gathered during the entire month before the publication date, regardless of delivery date. The data are not an arbitrary weighting by production zone, but a true deal-by-deal volume weighting of prices gathered. Data prior to October 2002 were from Dynegy's survey of the domestic natural gas spot market receipt points or zones located in Louisiana. The new and old points or zones are as follows:

#### NATURAL GAS PIPELINES AND SALES POINTS FOR PRICES

<u>Dynegy</u> <u>Natural Gas Week</u>

ANR

Eunice, LA COLUMBIA GULF

Average Louisiana onshore laterals

LOUISIANA INTRASTATES

Average of Faustina, LIG, Bridgeline, and Monterrey pipelines

SOUTHERN NATURAL

South Louisiana

TENNESSEE GAS

Vinton, LA

TEXAS GAS TRANSMISSION

Zone 1 (North Louisiana)

GULF SOUTH PIPELINE TRUNKI

ANR

Patterson, LA

COLUMBIA GULF TRANSMISSION Co.

Average of Erath, Rayne, and

Texaco Henry Plant in Louisiana

LOUISIANA INTRASTATES

Average of LIG, Bridgeline, LRC,

and Acadian pipelines

SOUTHERN NATURAL

Saint Mary Parish, LA

TENNESSEE GAS

South Louisiana

TEXAS GAS TRANSMISSION

Zone 1 (North Louisiana)

TRUNKLINE GAS Co.

**OCS.** The average wellhead price calculated from sales and volumes from Louisiana OCS natural gas as reported by the U.S. Department of Interior, Minerals Management Service.

**State Royalty**. The average wellhead price calculated from revenue received and volumes reported to the Louisiana Department of Natural Resources.

**State Wells**. The average price of gas sold at Louisiana wellhead. This price includes: (a) value of natural gas plant liquids subsequently removed from the gas, (b) gathering and compression charges, and (c) State production, severance, and/or similar charges.

### **Major Pipelines Purchases.**

- a) **Domestic Producers**. The average price of natural gas produced in the United States or from the Outer Continental Shelf of the U.S.
- b) Foreign Imports. The average price of any natural gas not reported as domestic.

**Wellhead**. The wellhead sales price including: (a) value of natural gas plant liquids subsequently removed from the gas, (b) gathering and compression charges, and (c) State production, severance, and/or similar charges.

Natural Gas, Wet After Lease Separation. The volume of natural gas, if any, remaining after: (a) removal of lease condensate in lease and/or field separation facilities, and (b) exclusion of non-hydrocarbon gases where they occur in sufficient quantities to render the gas unmarketable. Also excludes gas returned to formation in pressure maintenance and secondary recovery projects and gas returned to earth from cycling and/or gasoline plants. Natural gas liquids may be recovered from volumes of natural gas, wet after lease separation, at natural gas processing plants.

**Organization of Petroleum Exporting Countries (OPEC)**. Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

**Outer Continental Shelf (OCS).** All submerged lands that comprise the Continental Margin adjacent to the U.S. and seaward of the state offshore lands. Production in the OCS is under federal regulatory jurisdiction and ownership.

**Processing Plant**. A facility designed to recover natural gas liquids from a stream of natural gas which may or may not have passed through lease separators and/or field separation facilities. Another function of natural gas processing plants is to control the quality of the processed natural gas stream.

**Proved Reserves of Crude Oil**. As of December 31 of the report year, the estimated quantities of all liquids defined as crude oil which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Volumes of crude oil in underground storage are not considered proved reserves.

**Proved Reserves of Lease Condensate**. The volumes of lease condensate as of December 31 of the report year expected to be recovered in future years in conjunction with the production of proved reserves of natural gas as of December 31 of the report year.

**Proved Reserves of Natural Gas**. The estimated quantities of natural gas as of December 31 of the report year which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. Volumes of natural gas in underground storage are not considered proved reserves.

**Proved Reserves of Natural Gas Liquids**. The volumes of natural gas liquids (including lease condensate) as of December 31 of the report year, which analysis of geologic and engineering data demonstrates with reasonable certainty to be separable in the future from proved natural gas reserves under existing economic and operating conditions.

**Rental**. Money paid by the lessee to maintain the lease after the first year if it is not producing. A lease is considered expired when rental is not paid on time on an unproductive lease.

**Reservoir**. A porous and permeable underground formation containing an individual and separate natural accumulation of producible hydrocarbons (oil and/or gas) which is confined by impermeable rock or water barriers and is characterized by a single natural pressure system. Reservoirs are considered proved if economic producibility is supported by actual production or conclusive formation tests (drill stem or wire line), or if economic producibility is supported by core analysis and/or electric or other log interpretations. The area of a gas or oil reservoir considered proved includes: (a) that portion delineated by drilling and defined by gas-oil and/or gas-water contacts, if any; and (b) the immediately adjoining portions not yet drilled, but which

can be reasonably judged as economically productive on the basis of available geological and engineering data.

**Residential Consumption**. Gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses.

**Royalty (Including Royalty Override) Interest**. Those interests which entitle their owner(s) to a share of the mineral production from a property or to a share of the proceeds from there. These interests do not contain the rights and obligations of operating the property and normally do not bear any of the costs of exploration, development, or operation of the property.

**Royalty Override (Or Overriding Royalty)**. An interest in oil and gas produced at the surface free of any cost of production. It is royalty in addition to the usual landowner's royalty reserved to the lessor. The Layman's Guide to Oil & Gas by Brown & Miller defines overriding royalty as a percentage of all revenue earned by a well and carrying no cost obligation.

State Offshore. (See Louisiana Offshore).

Wet After Lease Separation. (See Natural Gas, Wet After Lease Separation).

Wildcat Well . (See Developmental Well).

# Appendix D

# Louisiana Gas Volume at 14.73 psia

	<b>Page</b>
Louisiana State Gas Production, Wet After Separation	D-2
Louisiana Gas Production, Wet After Separation	D-3
Louisiana Marketed And Dry Gas Production	D-4
The United States Federal OCS Gas Production	D-5
The United States Gas Production	D-6



## Appendix E

## **Louisiana Energy Briefs and Topics**

Louisiana Electric Utilities-Statistical Digest 1960-1999	E - 2
Selected Louisiana Energy Statistics	E - 5
Oil and Gas Reserve Definitions	E - 7
Drilling Well Classification System	E - 12
An Opportunity for Environment Cooperation, Not Confrontation	E - 15
New Myths and Old Realities	E - 17
ENERGY STAR® Home Improvement Toolbox	E - 20

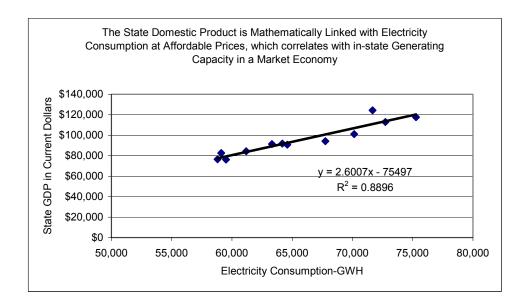


Calumet Refinery 1996

# LOUISIANA ELECTRIC UTILITIES STATISTICAL DIGEST 1960-1999

The Technology Assessment Division of the Department of Natural Resources now has available a newer edition of its report "Louisiana Electric Utilities, Volume II, Statistical Digest: 1960-1998, with an update summary for 1999".

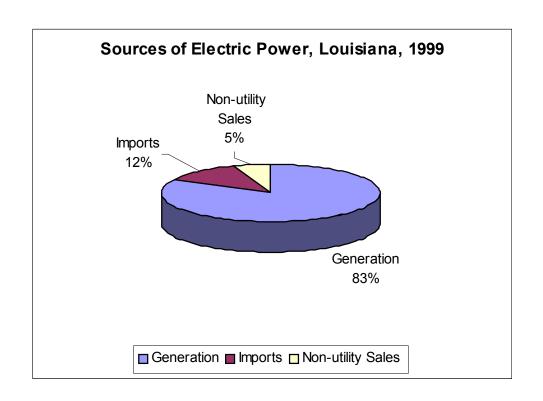
This report examines, among other things, the impact of the emerging issue of electric power deregulation on the state's economy. State GDP is closely linked with consumer access to secure, dependable, and affordable electric power.



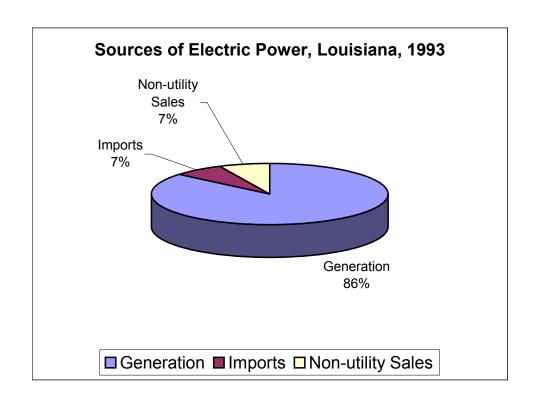
In the Statistical Report we also incorporate an analysis comparing the cost of generating electricity from a variety of energy sources, such as nuclear, fossil fuel, and the advanced technologies associated with each.

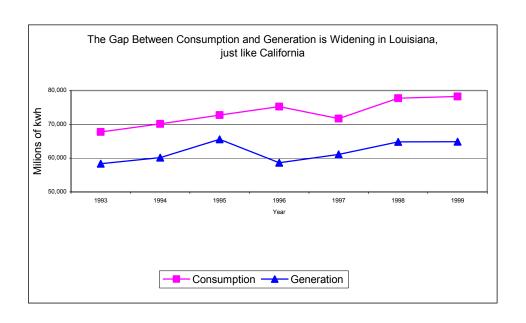
The report will be a useful guide to those interested in the electric power generation and consumption trends evolving in the state and underlying the issue of federal deregulation legislation.

On the next page we offer an overview of the growth of electric power consumption and sources of that electric power, starting in 1993 and coincident with the beginning of the current, long running national economic expansion period.

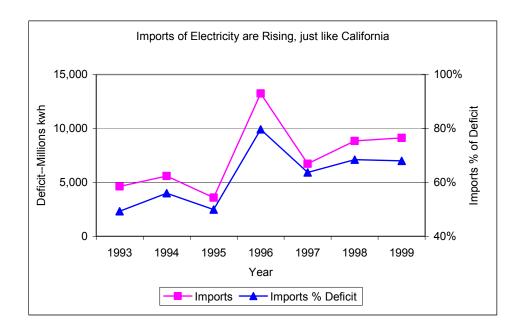


# BETWEEN 1993 AND 1999, IMPORTS OF ELECTRIC POWER GREW TO 12% OF TOTAL ELECTRIC POWER SUPPLY





AND AS THE CONSUMPTION/GENERATION GAP WIDENED, IMPORTS FILL 70% OF THE SHORTFALL



## SELECTED LOUISIANA ENERGY STATISTICS

Among the 50 states, Louisiana's rankings (in 2001 unless otherwise indicated) were:

PRIMARY ENERGY PRODUCTION	REFINING AND PETROCHEMICALS
(Including Louisiana OCS)	
1 <sup>ST</sup> in crude oil	2 <sup>ND</sup> in refining capacity
2 <sup>ND</sup> in natural gas	2 <sup>ND</sup> in primary petrochemical production
2 <sup>ND</sup> in total energy	
PRIMARY ENERGY PRODUCTION	<b>ENERGY CONSUMPTION (2000)</b>
(Excluding Louisiana OCS)	
	3 <sup>RD</sup> in industrial energy
3 <sup>RD</sup> in natural gas	3 <sup>RD</sup> in per capita energy
4 <sup>TH</sup> in crude oil	3 <sup>RD</sup> in natural gas
8 <sup>TH</sup> in total energy	5 <sup>TH</sup> in petroleum
	8 <sup>TH</sup> in total energy
	22 <sup>ND</sup> in residential energy

#### **PRODUCTION**

State controlled (i.e., excluding OCS) natural gas production peaked at 5.6 TCF per year in 1970, declined to 1.5 TCF in 1995, and rebounded 4.5% to 1.6 TCF in 1996. The 1998 gas production was approximately 1.6 TCF and the 2001 production was around 1.5 TCF.

State controlled gas production is on a long term decline rate of 3.8% per year, though the current short term (2003-2007) forecast decline is around 5.8% per year.

State controlled crude oil and condensate production peaked at 566 million barrels per year in 1970, declined to 127 million barrels in 1994, recovered to 129 million barrels in 1996 and declined to 104.6 million barrels in 2001.

State controlled crude oil production is on a long term decline rate of 4.4% per year, though the current short term (2003-2007) forecast decline is around 4.5% per year. If oil stays around \$25.00 per barrel, the decline will remain as predicted. If the price holds consistently above \$25.00 per barrel, the decline rate may be lower.

- Louisiana OCS (federal) territory is the most extensively developed and matured OCS territory in the US.
- Louisiana OCS territory has produced 90.5% of the 13.4 billion barrels of crude oil and condensate and 81.5% of the 143 TCF of natural gas extracted from all federal OCS territories from the beginning of time through the end of 2001.
- Louisiana OCS gas production peaked at 4.16 TCF per year in 1979, declined to 3.0 TCF in 1989, and increased to 3.72 TCF in 2001.
- Louisiana OCS crude oil and condensate production first peaked at 388 million barrels per year in 1972 and declined to 246 million barrels in 1989. In this decade, the production has steadily risen from 264 million barrels in 1990 to 502 million barrels in 2001 due to the development of deep water drilling.

#### **REVENUE**

- At the peak in Fiscal Year (FY) 1981/82, oil and gas revenues from severance, royalties and bonuses amounted to \$1.6 billion, or 41% of total state taxes, licenses and fees. For FY2001/02, these revenues are estimated to be in the vicinity of \$789 million, or about 10% of total estimated taxes, licenses, and fees.
- At constant production, the State Treasury gains or loses about \$18 million of direct revenue from oil severance taxes and royalty payments for every \$1 per barrel change in oil prices. This figure rises to \$23 to \$28 million per dollar change when indirect revenue impacts are included (e.g., income tax, sales tax, etc.).

#### **DRILLING ACTIVITY**

- Drilling permits issued on state controlled territory peaked at 7,631 permits in 1984 and declined to a low of 1,017 permits in 1999. In 2000 drilling permits rebounded to 1,453, and in 2001 drilling permits fell down to 1,365.
- The average active rotary rig count for Louisiana, excluding OCS, reached a high of 386 rigs in 1981 and reached a low of 64 rigs in 1993. By 1997 the average rose back to 120 active rigs, in 1999 the average dropped again to 65 active rigs, and in 2001 it recovered to 108 active rigs.
- The 2001 average active rotary rig count for Louisiana OCS was the second highest since records have been kept, 106 active rigs. The highest active rotary rigs count was 107 rigs recorded in 2000. In 1999 the average active rigs were 76, or 16.6% lower than the 1998 average active rotary rigs.

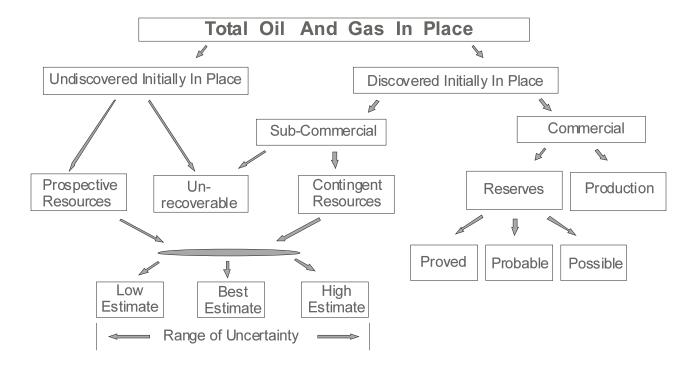
### OIL AND NATURAL GAS RESERVE DEFINITIONS

#### By Bob Sprehe

The Society of Petroleum Engineers (SPE), the World Petroleum Congress (WPC), and the American Association of Petroleum Geologists (AAPG) have approved a set of "petroleum" definitions as of February, 2000. These definitions cover the entire resource base. It was felt that the increased geopolitical discussions regarding the potential supplies of resources, especially crude oil and natural gas, made it necessary to establish a classification system to include those quantities of petroleum contained in accumulations that are currently subcommercial or that are yet to be discovered. These categories of resources represent potential future additions to reserves and are therefore important to both countries and companies for planning and portfolio management. An agreed resource classification system is summarized in Figure 1.

Figure 1

RESOURCE CLASSIFICATION SYSTEM



Source: Petroleum Resources Classification and Definition web page, SPE.org

Figure 1 is similar to the chart for Resource Classification System approved by the Board of Directors, Society of Petroleum Engineers (SPE) Inc., the Executive Board, World Petroleum Congress (WPC), and the Executive Committee, American Association of Petroleum Geologists (AAPG), February, 2000.

For purposes of these definitions, the term "petroleum" refers to naturally occurring liquids and gases which are predominantly comprised of hydrocarbon compounds. Petroleum may also contain non-hydrocarbon compounds in which sulfur, oxygen, and/or nitrogen atoms are combined with carbon and hydrogen. Common examples of non-hydrocarbons found in petroleum are nitrogen, carbon dioxide, and hydrogen sulfide.

#### **Definitions:**

In these definitions the quantities estimated to be initially in place are defined as Total Petroleum initially in place, Discovered Petroleum initially in place, and Undiscovered Petroleum initially in place.

Recoverable portions are defined as Reserves, Contingent Resources, and Prospective Resources.

Reserves constitute a subset of resources, being those quantities that are discovered in known accumulations, recoverable, commercial, and remaining.

**Total Petroleum Initially In Place** is that quantity of petroleum which is estimated to exist originally in naturally occurring accumulations as of a given date of evaluation.

**Discovered Petroleum Initially In Place** is that quantity of petroleum which is estimated, on a given date, to be contained in known accumulations, plus those quantities already produced therefrom.

**Reserves** are defined as those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward.

**Contingent Resources** are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from known accumulations, but which are not currently considered to be commercially recoverable. **Contingent Resources** may include, for example, accumulations for which there is no viable market, or where commercial recovery is dependent on the

development of new technology, or where evaluation of the accumulation is still at an early stage.

**Undiscovered Petroleum Initially In Place** is that quantity of petroleum estimated, on a given date, to be contained in accumulations yet to be discovered.

**Prospective Resources** are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from undiscovered accumulations.

Range of Uncertainty reflects a reasonable range of estimated potentially recoverable volumes for an individual accumulation. "Best Estimate" is used here as a generic expression for the estimate considered being closest to the quantity that will actually be recovered from the accumulation between the date of the estimate and the time of abandonment. The terms "High and Low Estimates" should provide a reasonable assessment of the range of uncertainty in the Best Estimate.

**Proved Reserves** are those quantities of petroleum which by analysis of geological and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under current economic conditions, operating methods, and government regulations. Proved reserves can be categorized as developed or undeveloped.

**Unproved Reserves** are based on geologic and/or engineering data similar to that used in estimates of proved reserves; but technical, contractual, economic, or regulatory uncertainties preclude such reserves being classified as proved. Unproved reserves may be further classified as probable reserves and possible reserves.

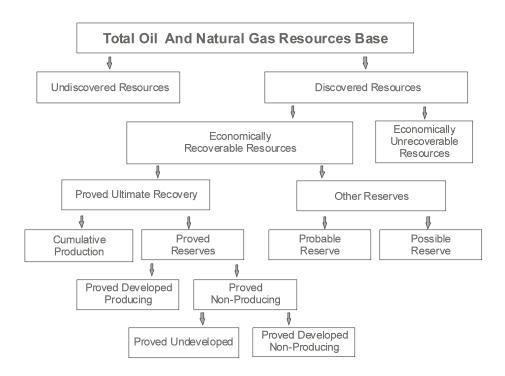
**Probable Reserves** are those unproved reserves which analysis of geological and engineering data suggests are more likely than not to be recoverable.

**Possible Reserves** are those unproved reserves which analysis of geological and engineering data suggests are less likely to be recoverable than probable reserves.

We illustrate below a similar categorization but from the Energy Information Administration (EIA). The EIA carries the definition of Proved Reserves on to define the Status of Proved Reserves.

#### Figure 2

#### COMPONENTS OF THE OIL AND GAS RESOURCE BASE



Source: Energy Information Administration (EIA), Office of Oil and Gas

Reserve Status Categories define the development and producing status of wells and reservoirs:

**Developed Reserves** are expected to be recovered from existing wells including reserves behind pipe. Improved recovery reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor. Developed reserves may be sub-categorized as producing or non-producing.

**Producing:** Reserves subcategorized as producing are expected to be recovered from completion intervals which are open and producing at the time of the estimate. Improved recovery reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor.

**Non-Producing**: Reserves subcategorized as non-producing include shut-in and behind pipe reserves.

**Undeveloped Reserves** are expected to be recovered (1) from new wells on undrilled acreage, (2) from deepening existing wells to a different reservoir, or (3) where a relatively large expenditure is required to (a) recomplete an existing well, or (b) install production or transportation facilities for primary or improved recovery projects.

For further information on definitions go to the Society of Petroleum Engineers (SPE) web site:

#### www.spe.org

All of these charts and definitions came from publications on that web site, or from the EIA's "U. S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 2000 Annual Report". Also available at the EIA web site:

www.eia.doe.gov/

#### DRILLING WELL CLASSIFICATION SYSTEM

The American Association of Petroleum Geologists (AAPG) and the American Petroleum Institute have agreed on a system for classification of drilling wells as developed by F.H. Lahee in 1944. Such a system aids in clarifying the degree of technical, financial, and economic risk associated with each well.

#### Tests Drilled with the intent of being completed as hydrocarbon producers if found.

**New Field Wildcat.** A new field wildcat is located far from producing pools, and on a structure which has not produced before. In regions where local structure has little or no control on accumulation, these holes are generally at least 2 miles from the nearest productive area. Distance, however, is not the determining factor. The classification is based on the degree of risk assumed by the operator, and his intention to test a structure or stratigraphic condition not previously productive.

**New-Pool (Pay) Wildcat**. A new pool wildcat is located to explore for new pools on a structure already producing, but off to one side of the presently producing area. In some regions where local structure is almost negligible as a control, exploration holes of this group may be called "near wildcats". Such will usually be less than 2 miles from the nearest productive area. Sometimes a new pool wildcat may extend a pool already partly developed, if so its final classification is an Extension.

**Deeper Pool (Pay) Test**. A deeper pool test is an exploratory hole located within the productive area of a pool, or pools, already partly or wholly developed. It is drilled below the deepest such pool penetrated by it to explore for deeper unknown prospects. Sometimes such a hole extends a deeper pool which has been partly developed in another part of the field.

**Shallower Pool (Pay) Test.** A shallower pool test is exploratory only if drilled in search of some new productive reservoir, unknown but possibly suspected from data secured from other wells. The test must be located within the productive area of a pool, or pools, previously developed. Sometimes such a test extends a shallower pool partly developed elsewhere in the same field.

**Outpost or Extension Test.** An outpost is located and drilled with the expectation of extending for a considerable distance the productive area of a partly developed pool. It is usually two or more locations distant from the nearest productive area. Sometimes an outpost discovers a new pool.

**Development Well.** A well drilled to exploit a hydrocarbon accumulation discovered by previous drilling.

Tests drilled without the intent of being completed for hydrocarbon production.

**Stratigraphic Test.** A drilling effort, geologically directed, to obtain information pertaining to a specific earth condition that might lead toward a possible accumulation of hydrocarbon. It must be drilled without the intention of being completed for hydrocarbon production. This classification includes tests identified as core tests by some operators.

**Service well.** A well that is either drilled or completed for the purpose of supporting production of an existing field through observation, injection, water supply, etc.

## AN OPPORTUNITY FOR ENVIRONMENTAL COOPERATION, NOT CONFRONTATION?

For years there has appeared to be an irreconcilable culture clash between the environmental interests and the energy industry, particularly the fossil fuel sector, i.e., coal, oil, and natural gas. But on July 24, 2002, the Pew Center on Global Climate Change, under the direction of Ms. Eileen Claussen, former Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, released a new report entitled "Designing a Climate Friendly Energy Policy: Options for the Near Term". The complete report is available on the Pew Center's web site:

www.pewclimate.org/projects.

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The Pew Center is an independent, non-profit, and non-partisan organization dedicated to providing credible information, straight answers, and innovative solutions in the effort to address global climate change.

The Center's press release quotes Ms. Claussen as follows: "As the findings in this report indicate, the notion that energy policy and climate policy objectives are necessarily at odds is simply a myth. Energy use and climate change are inextricably linked, so it makes sense for policy makers to consider options that simultaneously advance the goals of energy policy and climate policy. Choices made in the current energy policy debate will directly impact U. S. greenhouse gas emissions far into the future. In addition, near term energy policy decisions will affect the costs of implementing any future climate policy."

The report identifies chief U. S. energy policy objectives, including:

- (1) A secure, plentiful, diverse primary energy supply,
- (2) A robust, reliable infrastructure for energy conversion and delivery,
- (3) Affordable and stable energy prices, and
- (4) Environmentally sustainable energy production and use.

Key elements of a climate friendly energy policy include:

- (1) Increasing natural gas production and expanding natural gas transportation infrastructure;
- (2) Developing and deploying renewable energy technologies and efficient electricity production technologies, without weakening Clean Air protections;
- (3) Enhancing efficiency of automobiles and light trucks, industry, and buildings, and
- (4) Research and development on non-fossil fuels and carbon sequestration.

The report examines a number of energy policy options that would advance U. S. energy policy goals during the upcoming decades while at the same time contributing to efforts to curb global warming. The report was written by Douglas W. Smith, Robert R. Nordhaus, Thomas C. Roberts, Shelley Fidler, Janet Anderson, Kyle Danish, and Richard Agnew of Van Ness Feldman, P. C., with Marc Chupka of the Brattle Group.

The Energy Policy Act of 1992 had unintended consequences, i.e., the significant downgrades in credit quality among gas (and electric) utilities, the increased emphasis on "financial Mcf's" of natural gas, not physical Mcf's of natural gas production, and the increased volatility of energy prices, especially crude oil and natural gas. Each of these consequences has contributed to damage the credibility of the role of natural gas as a secure and dependable source of energy supply at affordable prices.

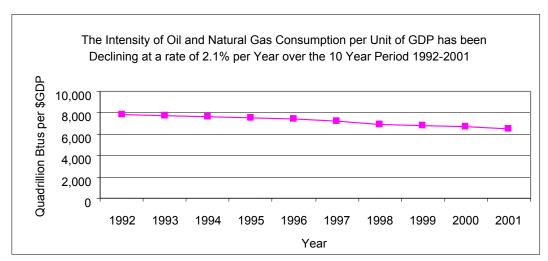
This report, from such a prestigious environmental institution, may create the opportunity for constructive dialogue between what had been perceived as adversaries. They may finally realize the true potential of natural gas in the U. S. energy policy mix in the 21<sup>st</sup> Century, and result in the opening of lands currently off limits for exploration. Let us hope that reasonable people of good will from each point of view can come together to capitalize on this opportunity created by the Pew Center for Global Climate Change, for the benefit of the economy and Mankind, and convey their goodwill to our national legislators.

### "NEW MYTHS AND OLD REALITIES"

#### by Bob Sprehe

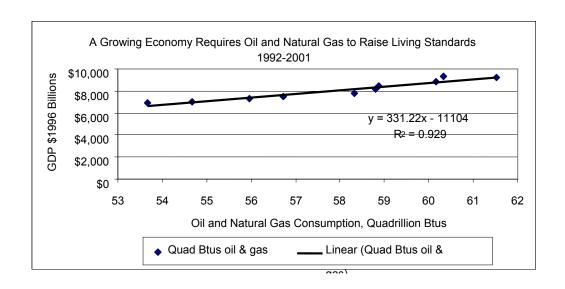
The U. S. economy dropped into recession in 2001. The economy experienced three consecutive quarters of downturn. According to the National Bureau of Economic Research (NBER), the organization charged with the responsibility for dating the start and ending of U. S. recessions, we may not yet be out of this recession. The current reasoning is that employment has yet to recover at a pace suggestive of economic recoveries.

The topic of a possible war with Iraq, and of how oil prices may impact a potential economic recovery, is a "hot topic" for authorities and experts of the chattering class on the TV talk shows. Many of these authorities and experts point to two economic factors: first, the economy is much less dependent on oil than it has been in the past, therefore any run up in oil price is expected to have a minimal impact on the pending economic recovery. Second, the proximate cause of the current recession was the decline in business investment. Once that recovers, so the story goes, the economy will resume its growth.

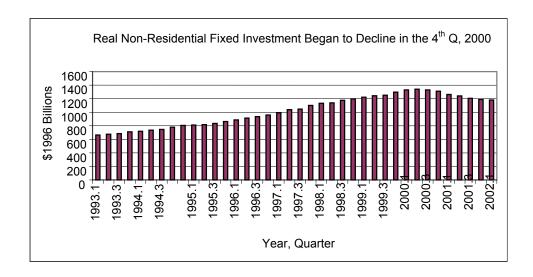


It is accurate to say the economy is less dependent on oil. U. S. Department of Energy, Energy Information Administration (EIA) statistics on the consumption of oil and natural gas per unit of Gross Domestic Product (GDP) are commonly cited.

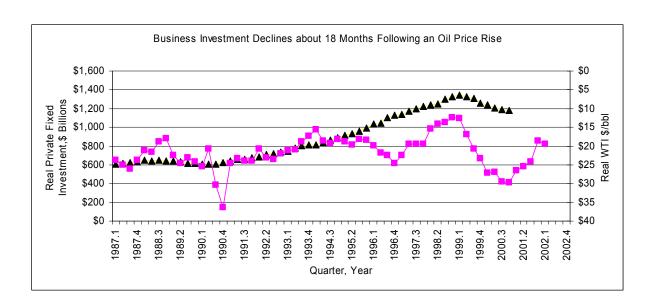
But, it is also accurate that energy leverages our physical and intellectual capital to increase living standards. And as those living standards rise, so too does the consumption of oil (as a proxy for energy use).



The chattering class may well have created a "New Myth" that the price of oil is no longer of inordinate concern to our economic recovery. While oil and natural gas intensity per unit of GDP declined at a compound annual rate of 2.1% between 1992 and 2001, GDP growth has increased at a 3.4% compound annual rate over the same time period. The result: an increase in oil and natural gas consumption.



Likewise, business investments (Source: U. S. Department of Commerce) began to decline in the last quarter of 2000 following a sustained rise over a prolonged period of years. Recession followed in 2001.



Another possible "New Myth" the chattering class may be projecting is that a decline in business investments was the proximate cause of the most recent recession.

Oil (energy) price volatility increases the uncertainty of the economic payoff of business investments. There is a respectable correlation between the direction of oil price (note the rise beginning in 1999) and the direction of business investment. Note how investment lagged oil prices by 18 months in the figure above. With today's price of oil remaining near \$30 per barrel, business investment may be slow to recover.

It may also be that the "New Myths" cite accurate data, but "Old Realities" remain true; the U.S. economy is dependent on abundant, affordable energy.

## **ENERGY STAR® HOME IMPROVEMENT TOOLBOX**

ENERGY STAR offers businesses and consumers energy efficient solutions - helping to save money while protecting the environment for future generations.

For your home, ENERGY STAR offers you the Home Improvement Toolbox. It has an array of tools that can help consumers spend their home improvement dollars more wisely, select energy-saving equipment, make cost-effective upgrades to their homes, and protect the environment. These tools could potentially help consumers lower their utility bill expenses up to 30 percent, or approximately \$400 per year, for a home using \$1,400 in energy per year. The Home Improvement Toolbox has 4 tools:

The Home Energy Yardstick This tool provides an energy performance score for consumer homes. It determines how much energy their homes use in comparison to others. Consumers are prompted to input their zip code, square footage, number of occupants and basic information from their utility bills to receive an energy performance score for their homes. If the score is less than 86, consumers can use the other tools in the Home Improvement Toolbox to improve their Yardstick score. A score of 86 or better indicates that the house insulation is carefully installed, its windows are well insulated, its heating and cooling ducts are tightly sealed, its heating and cooling (HVAC) system is efficient, and air infiltration is low.

<u>The Home Improvement Advisor</u> This tool delivers a list of valuable statistics on cost of improvement projects. It also helps consumers select the ones that will give them the most in return-on-investment and amount of energy saved.

<u>The Home Doctor</u> This tool offers solutions that alleviate drafty room and cold floor problems, increase energy efficiency, and lower utility bills.

<u>The Home Remodeler</u> This tool helps consumers to select energy-efficient upgrades into their home improvement plans.

The Home Improvement Toolbox can be found at:

www.energystar.gov/homeimprovement

ENERGY STAR® was introduced by the US Environmental Protection Agency in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products, in order to reduce carbon dioxide emissions. EPA partnered with the US Department of Energy in 1996 to promote the ENERGY STAR label, with each agency taking responsibility for particular product categories. ENERGY STAR has expanded to cover new homes, most of the buildings sector, residential heating and cooling equipment, major appliances, office equipment, lighting, consumer electronics, and more product areas.