

# Petroleum and Natural Gas Situation

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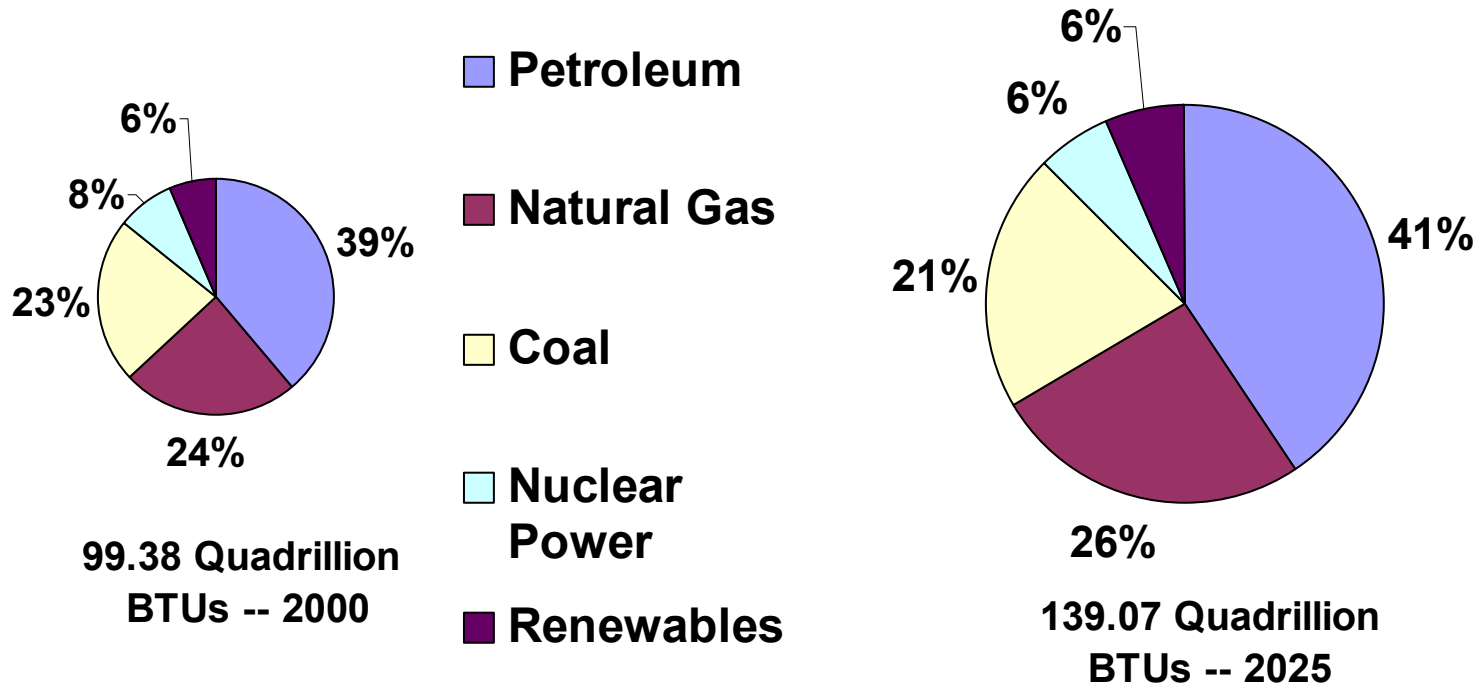
**[www.api.org](http://www.api.org)**

**[www.naturalgasfacts.org](http://www.naturalgasfacts.org)**

**September 17, 2003**

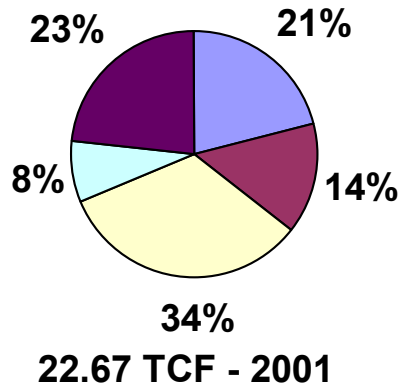


# Energy Consumption by Fuel - 2000 and 2025

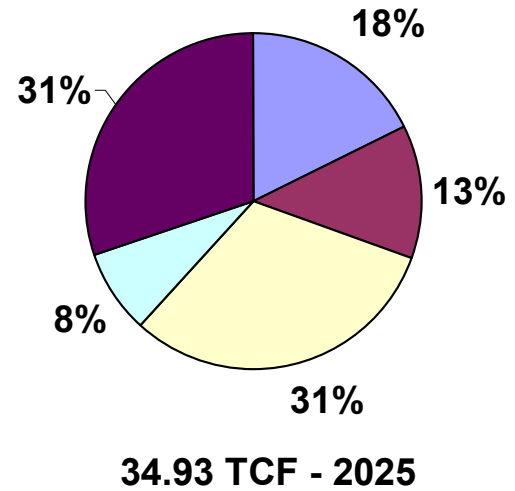


Source: Department of Energy/ Energy Information Administration

# Natural Gas Consumption by Sector - 2001 and 2025



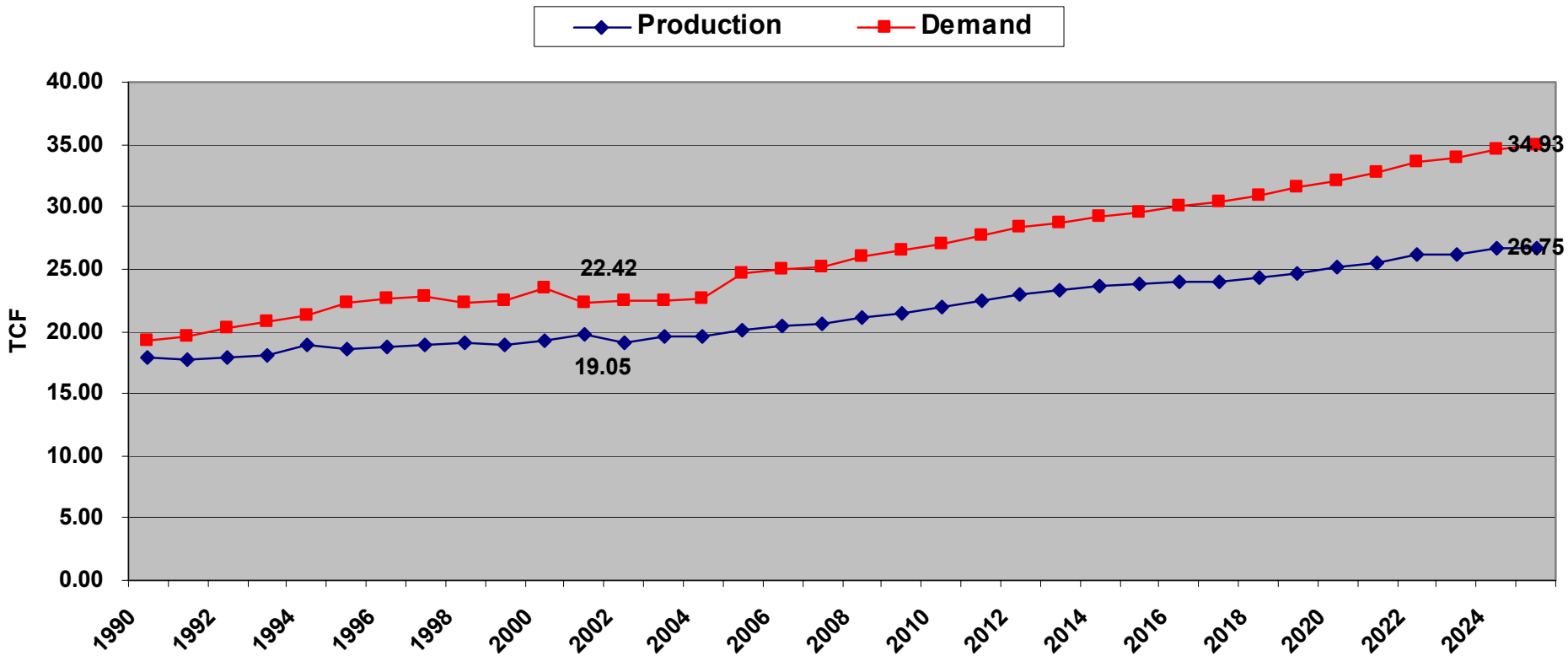
- Residential
- Commercial
- Industrial
- Transportation
- Electric Power



Source: Department of Energy/ Energy Information Administration

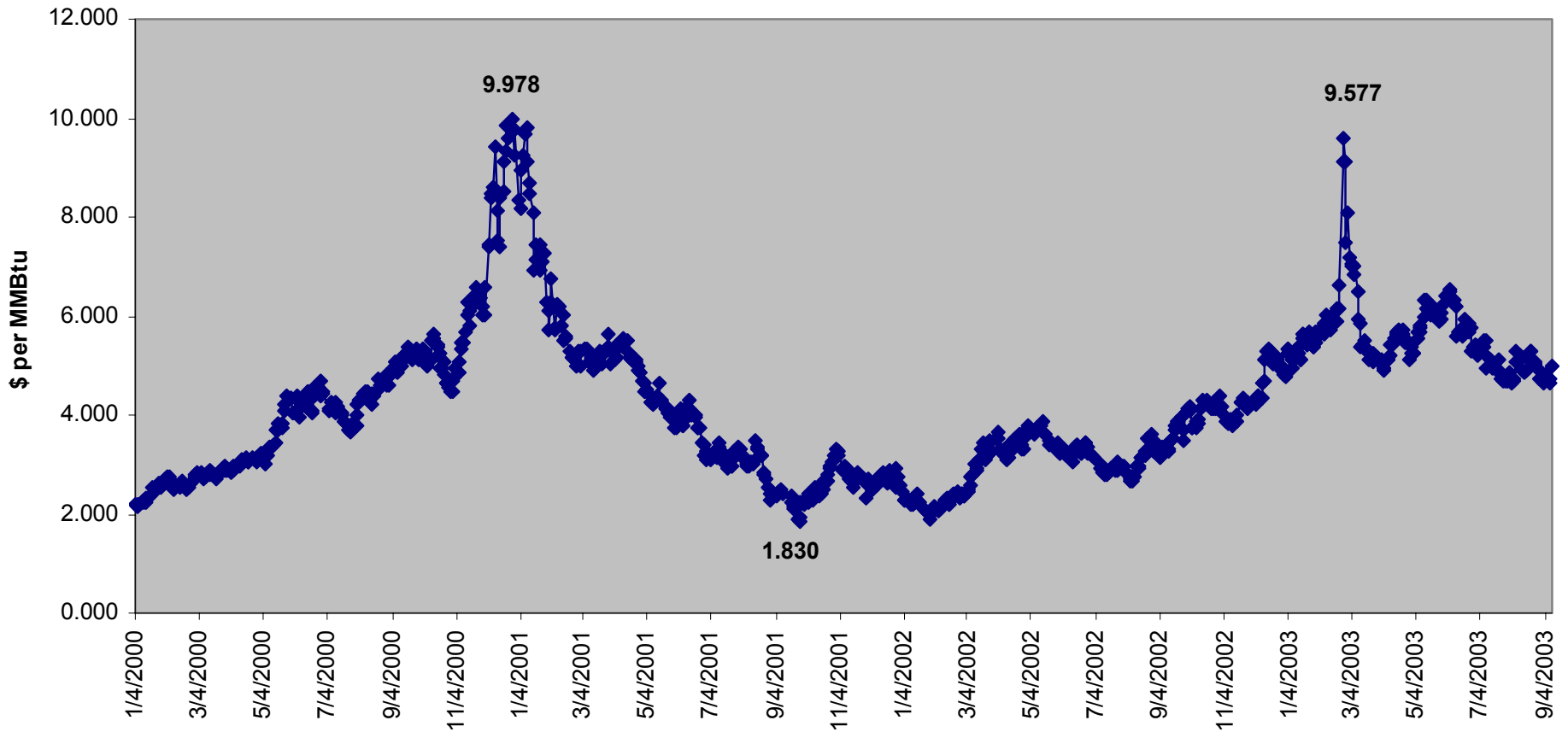
EIA's forecast shows large growth in gas demand AND production despite flat production for 9 years

Natural Gas  
AEO2003 Forecast

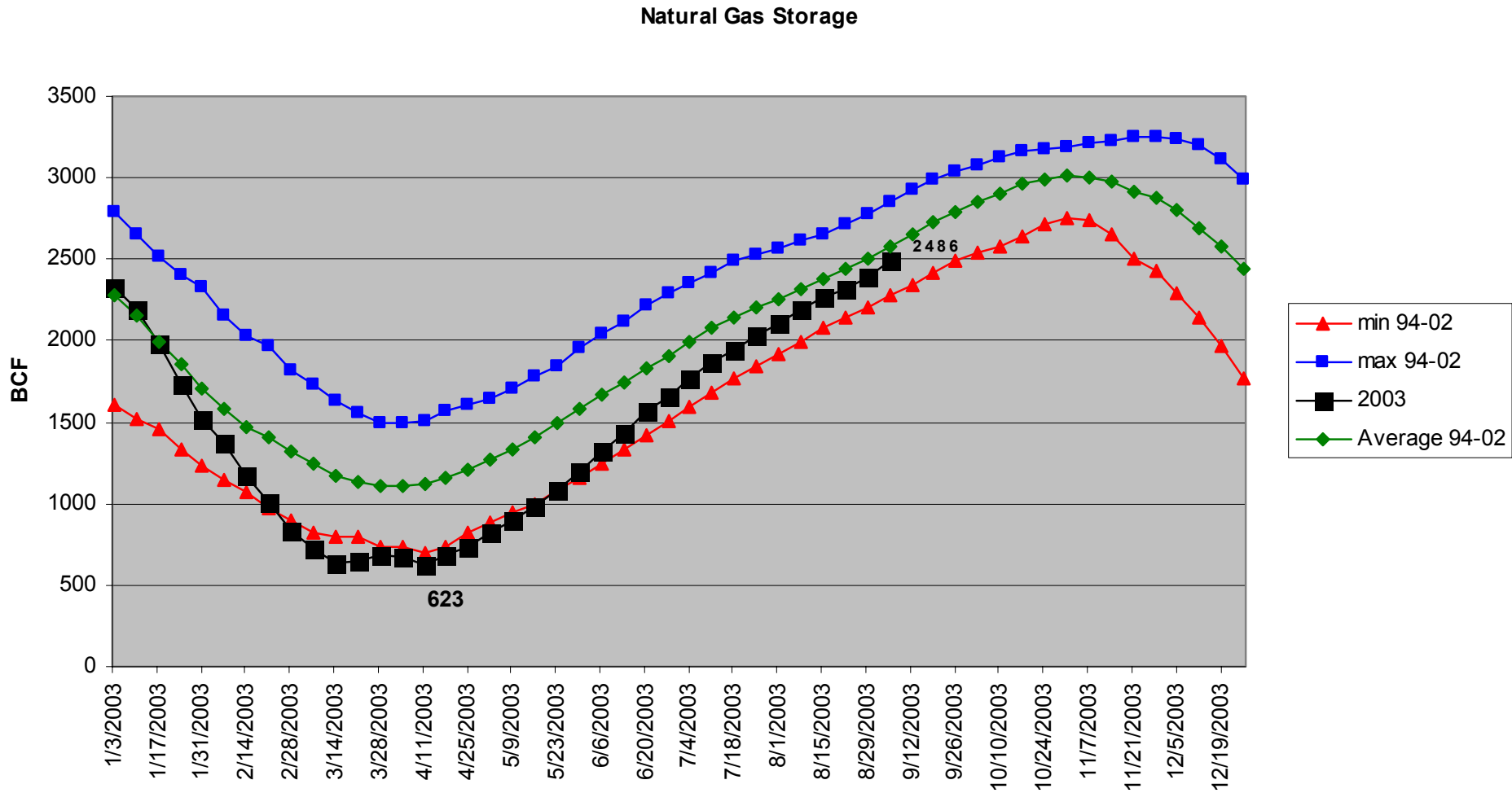


# Natural gas prices have spiked twice in the past three years

**NYMEX Natural Gas Futures Price**

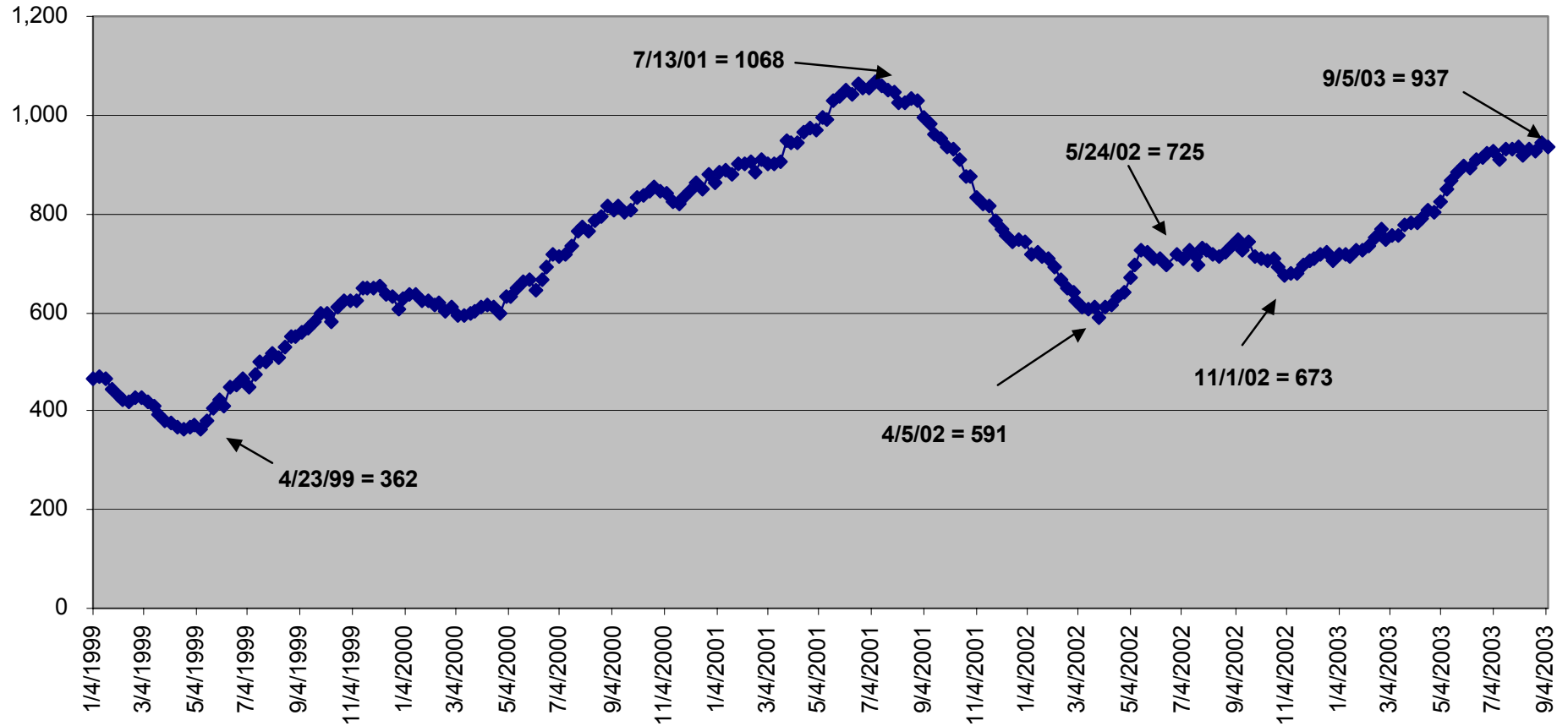


# Natural gas in storage is increasing from low levels



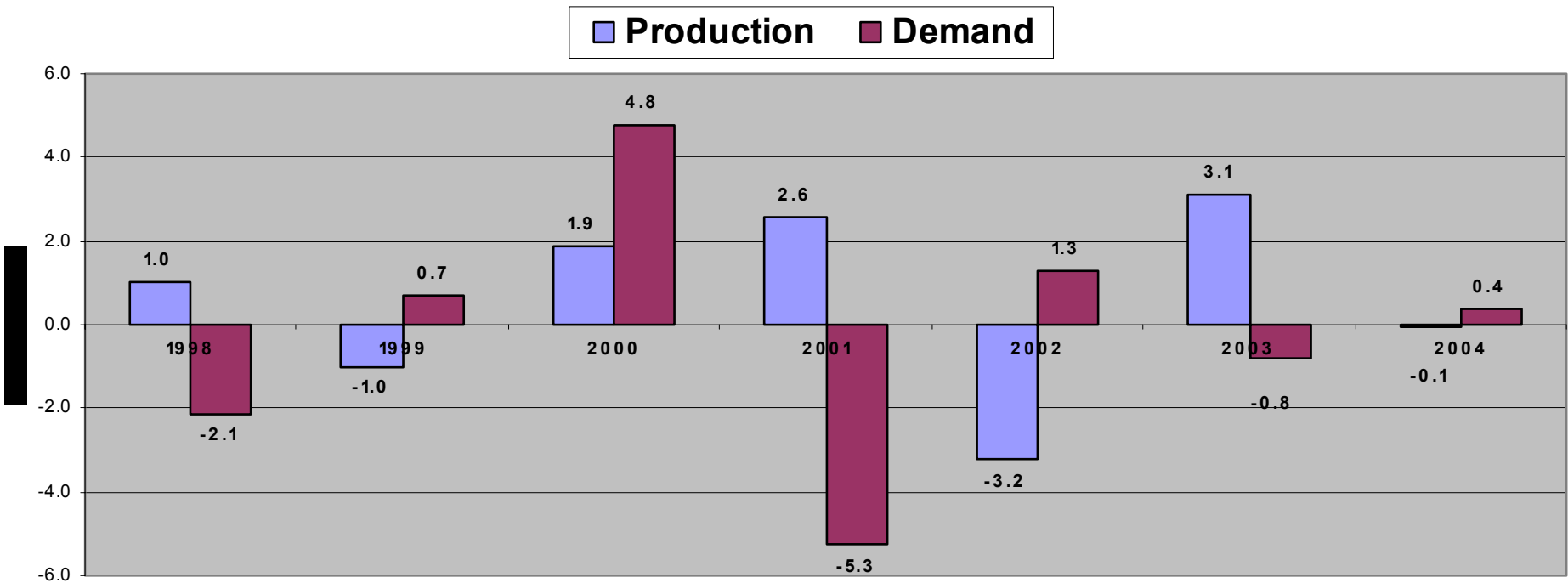
# Rigs drilling for natural gas have increased by over 50 percent from the lows of last year

US Natural Gas Rig Counts



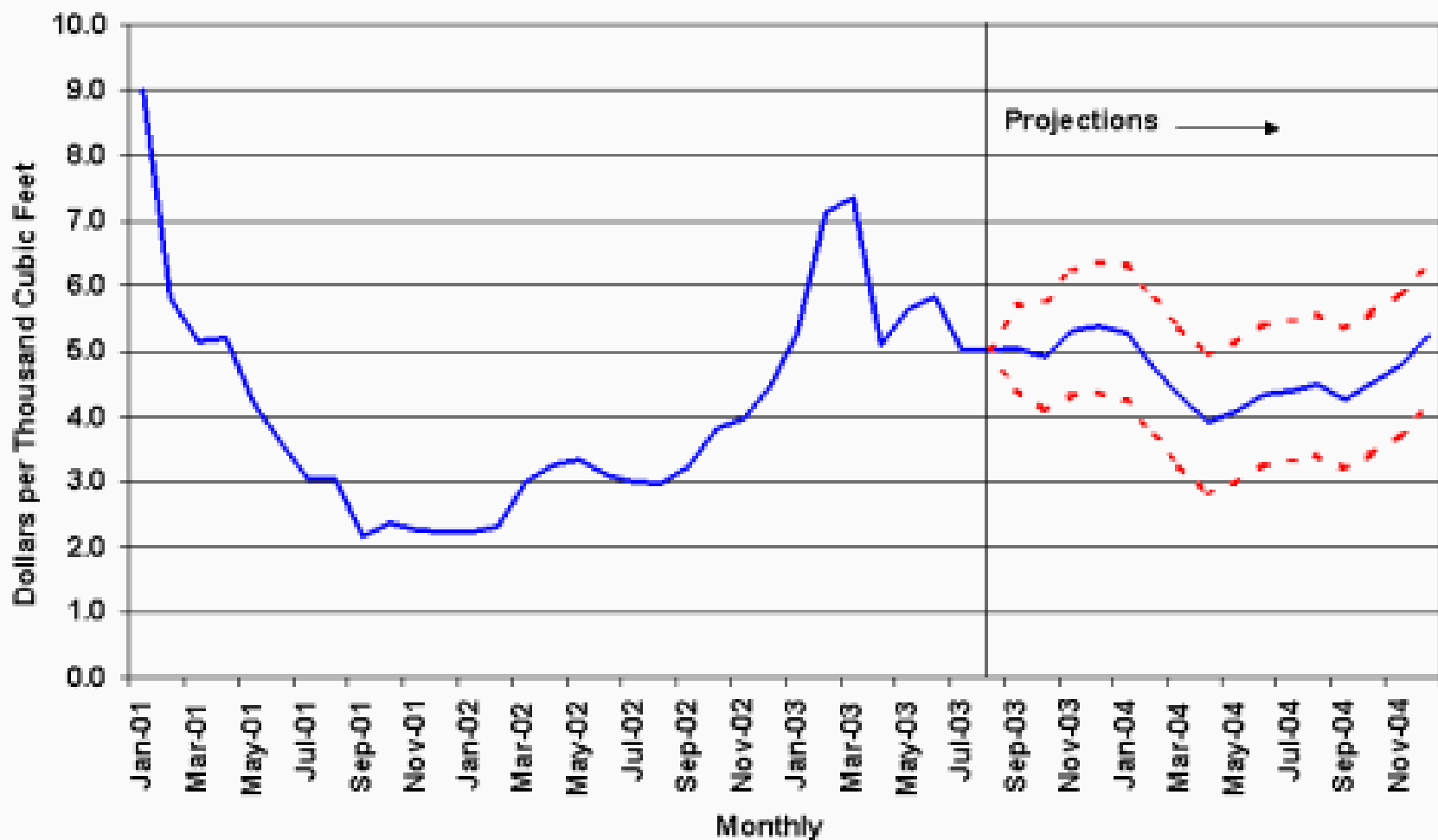
# EIA projects modest production growth and slow demand growth in 2003 and 2004

Natural Gas Forecast  
EIA - September 2003





## Figure 9. Natural Gas Spot Prices (Base Case and 95% Confidence Interval\*)

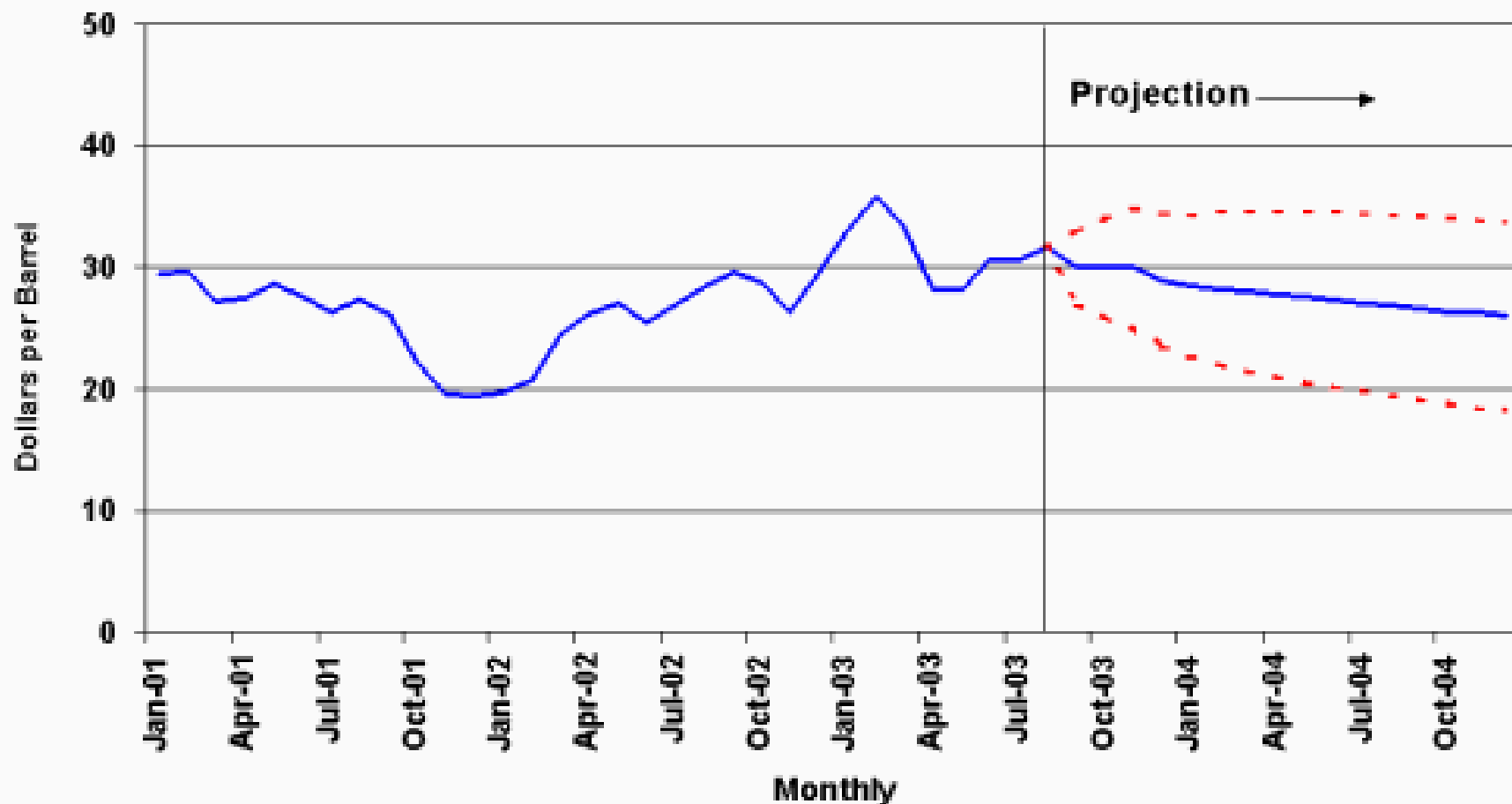


\*The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, September 2003.



**Figure 1. WTI Crude Oil Price  
(Base Case and 95% Confidence Interval\*)**

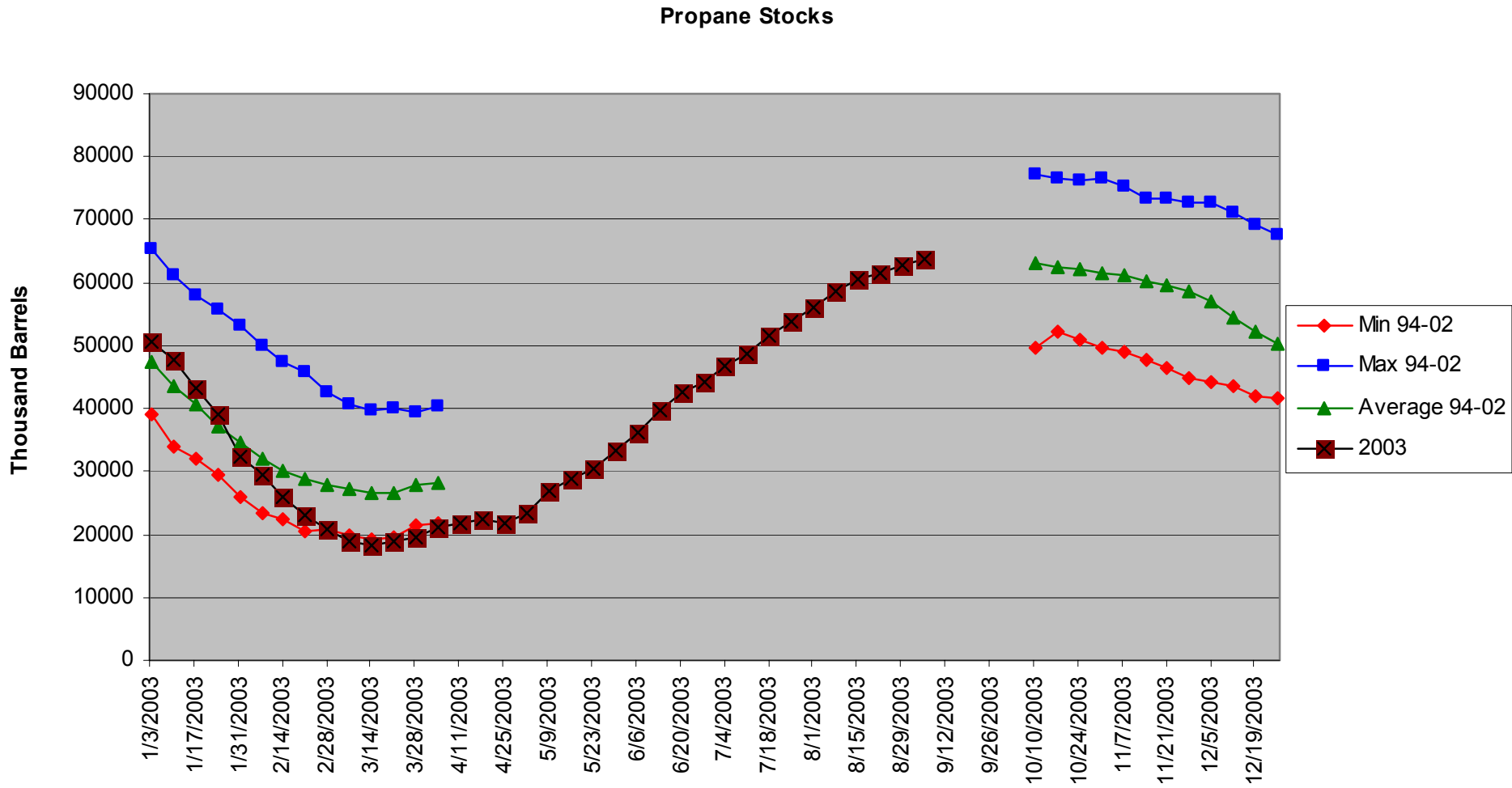


\*The confidence intervals show  $\pm 2$  standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.

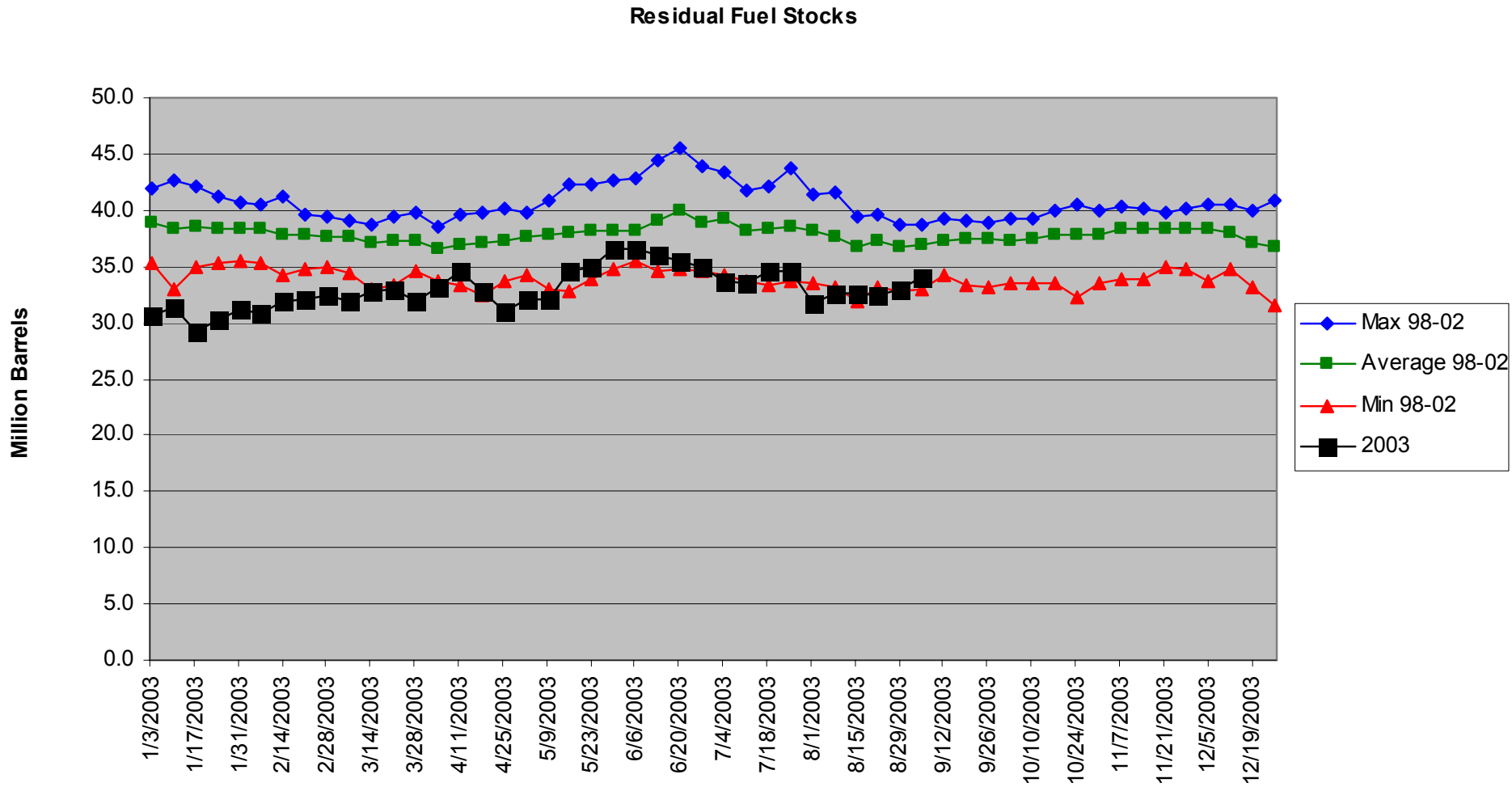
Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2003.



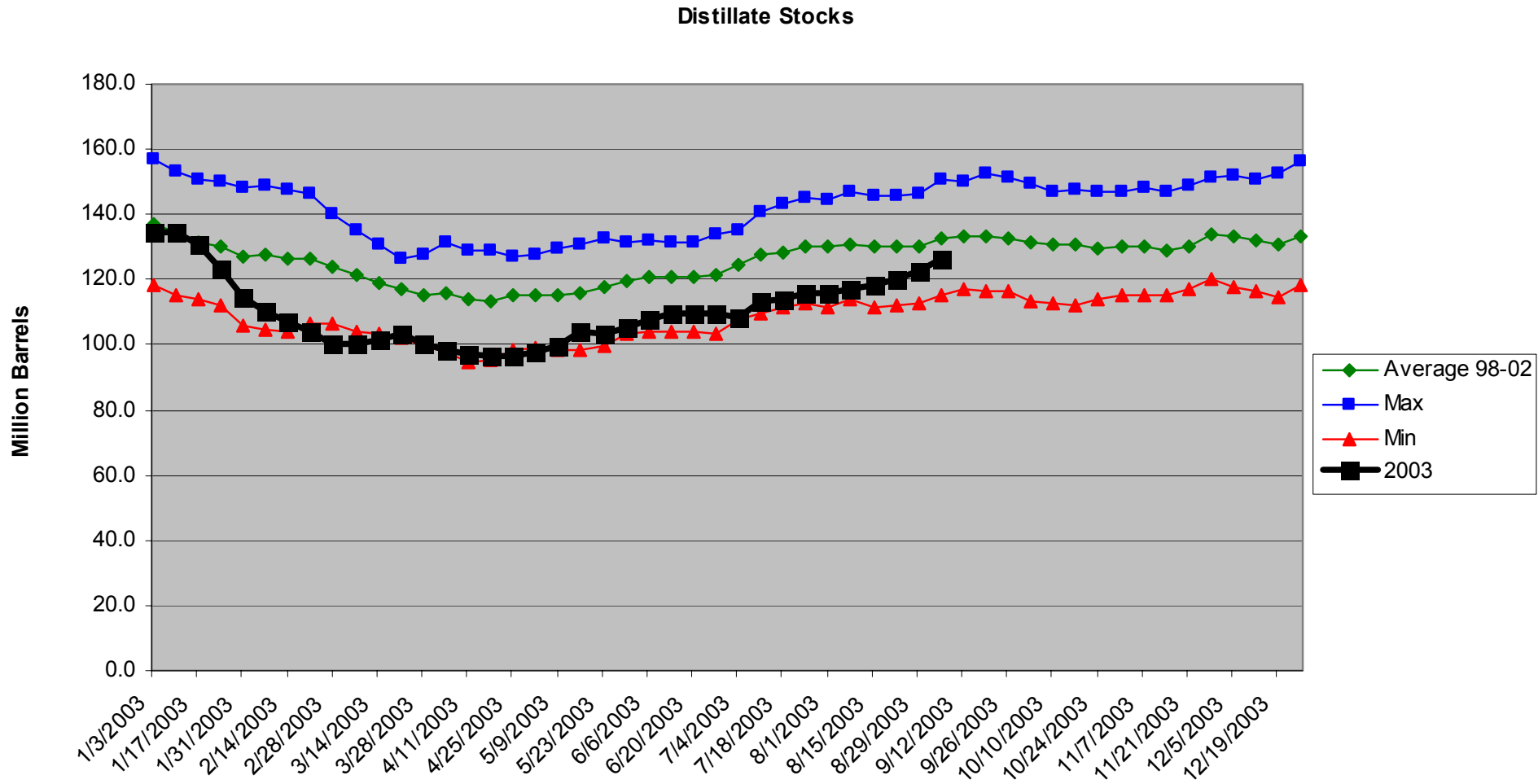
# Propane in storage has recovered from low levels



# Residual fuel in storage is also at low levels



# Distillate oil in storage is at low levels



# Distillate oil in storage is even lower in the Northeast

<b>Total Distillate Inventories (heating oil and diesel fuel)</b>						
	<b>Week ended Sep 05 Million Barrels</b>	<b>Week ended Aug 29 Million Barrels</b>	<b>Year Ago Million Barrels</b>	<b>% Change from Last Year</b>	<b>Average 1998-2002 Million Barrels</b>	<b>% Change from Average</b>
<b>National</b>	126.4	122.7	134.0	-6	132.8	-5
<b>East Coast</b>	48.6	47.6	57.2	-15	56.9	-15
<b>New England</b>	8.3	8.1	10.4	-20	11.5	-28
<b>Mid-Atlantic</b>	27.8	26.4	32.4	-14	32.4	-14
<b>South Atlantic</b>	12.5	13.2	14.4	-13	13.1	-4
<b>Midwest</b>	30.9	30.2	30.3	2	30.3	2
<b>Gulf Coast</b>	32.2	30.1	32.0	1	31.3	3
<b>Mountain</b>	2.7	2.6	2.8	-2	2.9	-5
<b>West Coast</b>	12.0	12.2	11.8	2	11.4	5
<b>High Sulfur Distillate Inventories (heating oil)</b>						
	<b>Week ended Sep 05 Million Barrels</b>	<b>Week ended Aug 29 Million Barrels</b>	<b>Year Ago Million Barrels</b>	<b>% Change from Last Year</b>	<b>Average 1998-2002 Million Barrels</b>	<b>% Change from Average</b>
<b>National</b>	47.5	45.9	59.5	-20	61.9	-23
<b>East Coast</b>	28.2	27.4	37.3	-24	38.0	-26
<b>New England</b>	5.6	5.6	7.9	-29	9.7	-42
<b>Mid-Atlantic</b>	18.2	16.4	23.4	-22	23.3	-22
<b>South Atlantic</b>	4.5	5.4	6.0	-25	5.1	-12
<b>Midwest</b>	7.6	7.5	8.4	-10	8.9	-15
<b>Gulf Coast</b>	8.9	8.1	11.2	-20	11.9	-25
<b>Mountain</b>	0.54	0.50	0.39	39	0.41	31
<b>West Coast</b>	2.2	2.5	2.2	1	2.6	-15

## EIA Winter Outlook for Natural Gas

Consumption is expected to increase this winter. Prices are expected to rise, and consumers are expected to pay more for gas service this winter.

Winter	1999-00	2000-01	2001-02	2002-03	2003-04
	Actual	Actual	Actual	Actual	Forecast
Consumption (Mcf)	81.7	99.1	81.3	95.2	91.8
Avg. Price (\$/Mcf)	6.69	9.53	7.38	8.32	9.42
Expenditures (\$)	546	944	600	792	865

Notes: Consumption based on typical per household use for the Midwest region. Prices shown are national average delivered-to-household prices.

Sources: History: EIA; Projections: Short-Term Energy Outlook August, 2003.



# EIA Winter Outlook for Heating Oil

## Consumer Prices and Expenditures – Heating Oil (Northeast)

	2000- 2001	2001- 2002	2002- 2003	2003- 2004
	Actual	Actual	Actual	Forecast (est.)
<b>Consumption (gals.)</b>	<b>731</b>	<b>584</b>	<b>711</b>	<b>692</b>
<b>Average Price</b>	<b>\$1.37</b>	<b>\$1.10</b>	<b>\$1.31</b>	<b>\$1.29</b>
<b>Expenditures</b>	<b>\$999</b>	<b>\$643</b>	<b>\$931</b>	<b>\$893</b>





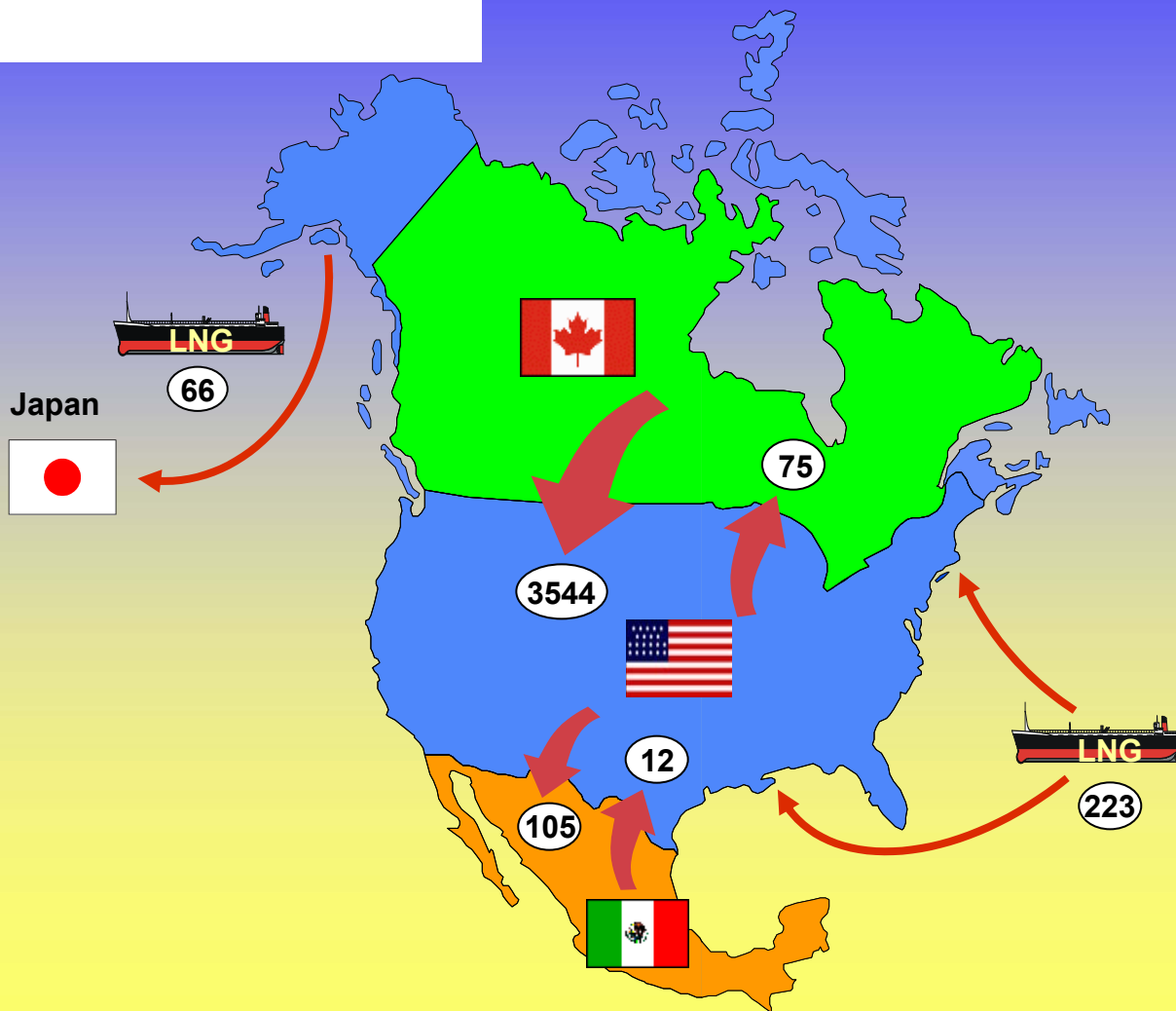
# EIA Winter Outlook for Propane

## Consumer Prices and Expenditures – Propane (Midwest)

	2000- 2001	2001- 2002	2002- 2003	2003- 2004
	Actual	Actual	Actual	Forecast (est.)
<b>Consumption (gals.)</b>	<b>979</b>	<b>803</b>	<b>936</b>	<b>902</b>
<b>Average Price</b>	<b>\$1.37</b>	<b>\$1.11</b>	<b>\$1.20</b>	<b>\$1.20</b>
<b>Expenditures</b>	<b>\$1,344</b>	<b>\$887</b>	<b>\$1,122</b>	<b>\$1,082</b>



# Central Gas Imports & Exports, 2000



Algeria



44

Australia



6

Indonesia



3

Nigeria



13

Oman



10

Qatar



46

Trinidad and Tobago



99

United Arab Emirates



3

# Only 4 LNG terminals will operate this year

**U.S. LNG Import Facilities**

**Current Capacity**

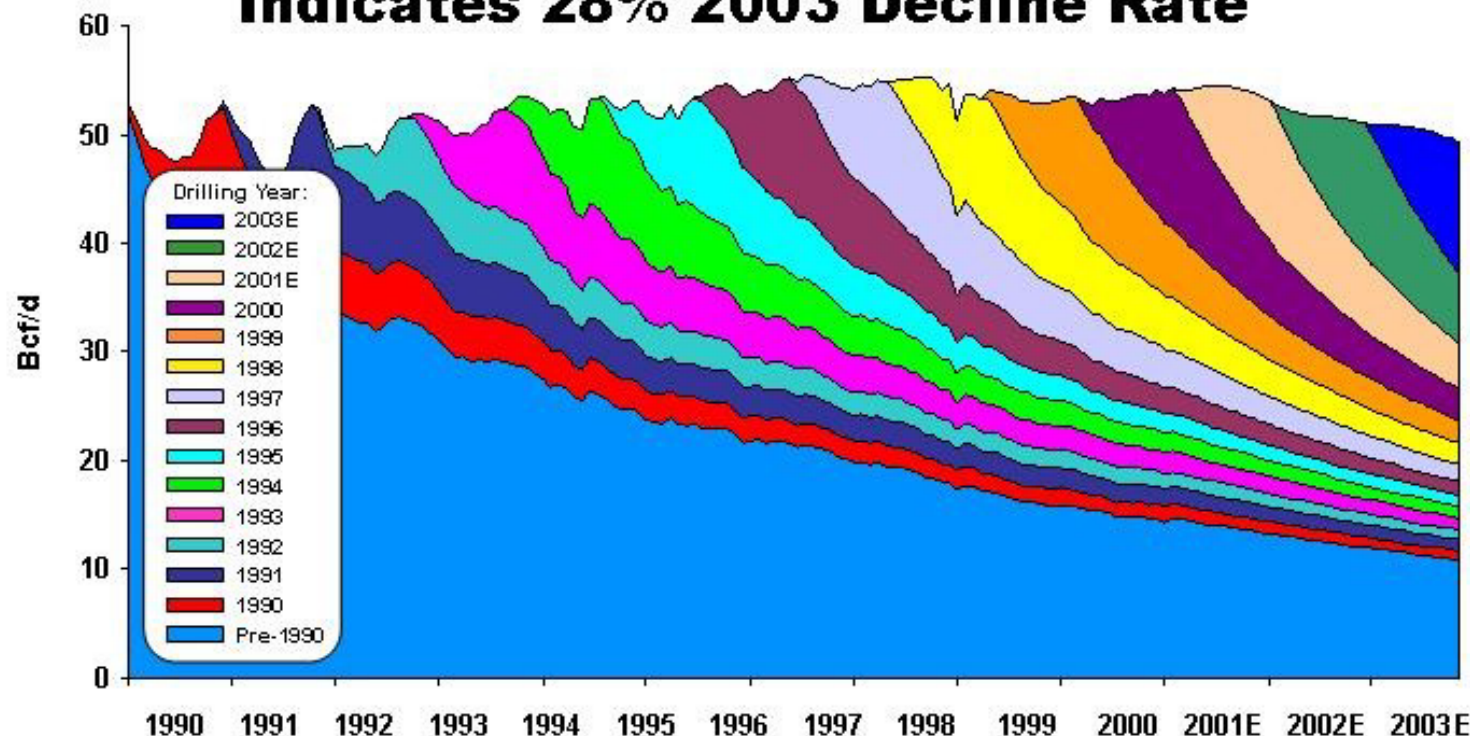
Location	Status	Sendout (MMcf/Day)	Storage (Bcf)	Possible Capacity Expansion
Everett, MA	Active	450 100 by truck	3.5	165 MMcf/d– sendout
Lake Charles, LA	Active	700	6.3	300 MMcf/d– sendout
Elba Island, GA	Restarting operations	440	4.1	360 MMcf/d– sendout
Cove Point, MD	• Active for Storage • Planned opening for imports 2002	1,000 (nameplate) <sup>1</sup>	5.0	2.8 Bcf – storage

Note: Except where noted, sendout capacity is LNG vaporization which is then shipped via pipeline

<sup>1</sup> This is Cove Point’s nameplate capacity. Capacity for reopening has not yet been determined.

# New natural gas reservoirs are being depleted faster each year

## U.S. Natural Gas Production History\* Indicates 28% 2003 Decline Rate



Production Decline Rate of Base:

17% 17% 16% 18% 19% 19% 20% 21% 23% 23% 25% 24% 27% 28%

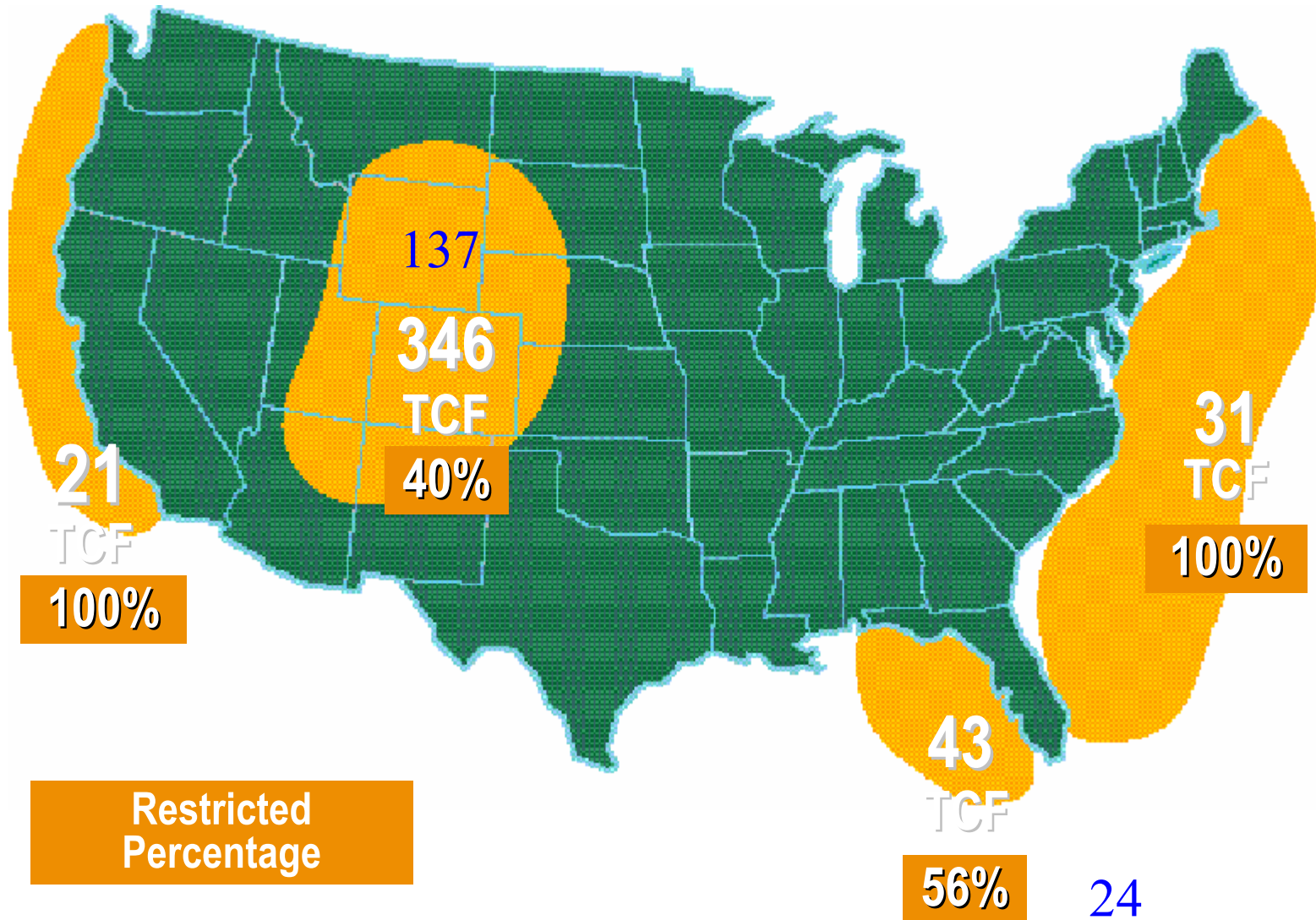
\* Representing 94% of Total U.S. Natural Gas Production

Includes Data Supplied by Petroleum Information Corporation; Copyright 1990-2003 Petroleum Information Corporation

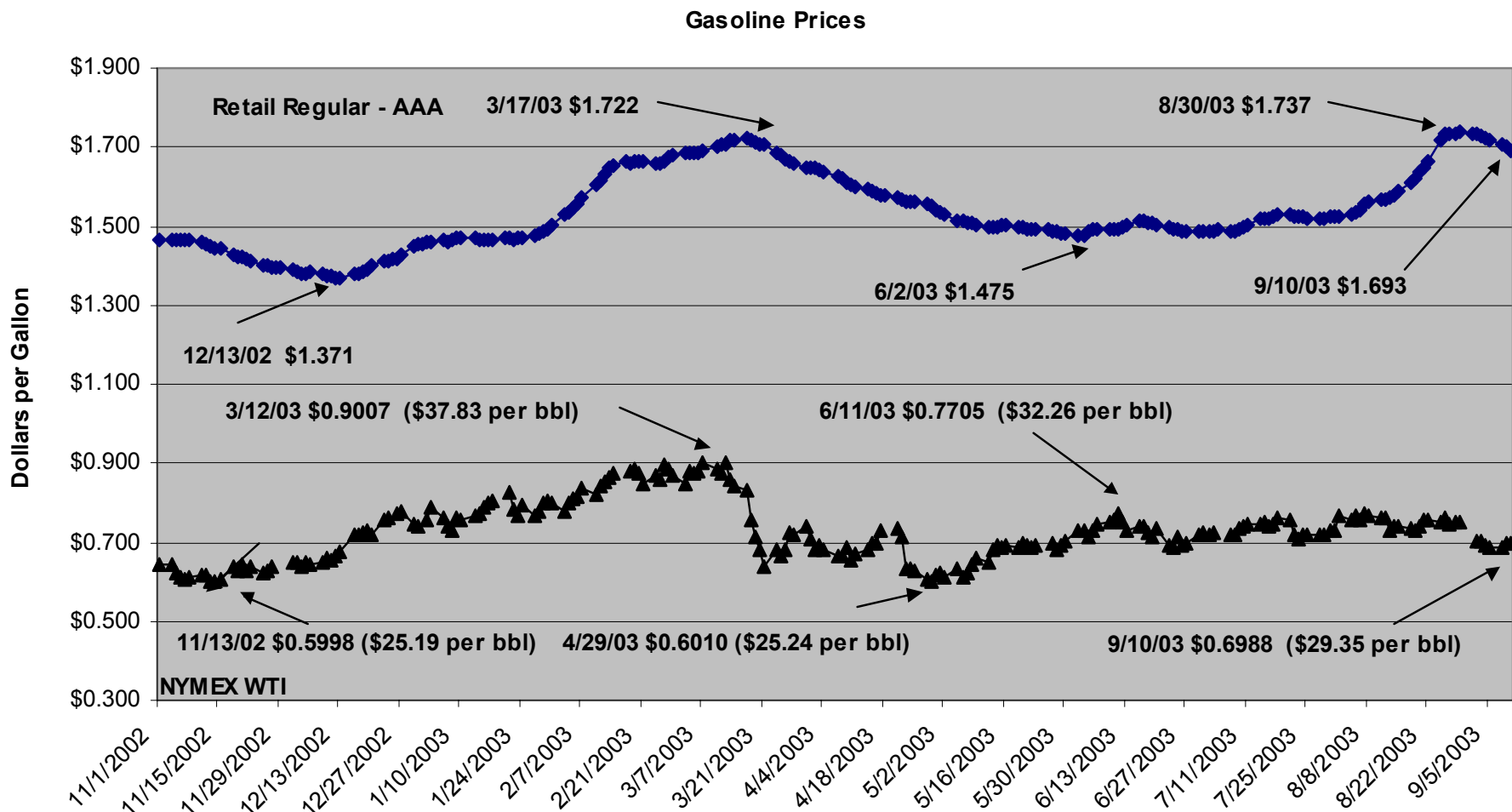
Chart Prepared by and Property of EOG Resources, Inc.; Copyright 2002-2003



The NPC estimates that 213 TCF of Lower 48 natural gas resources on Federal lands are restricted from access



# Due to high oil prices, refinery and pipeline problems, gasoline prices have reached record levels



Source: Retail Gasoline - AAA - [www.fuelgaugereport.com](http://www.fuelgaugereport.com), Crude Oil - NYMEX - [quotes.ino.com](http://quotes.ino.com)

# Gasoline inventories are slightly below average

<b>Total Gasoline Inventories</b>						
Inventories listed in millions of barrels.	<b>Week Ended September 5</b>	<b>Week Ended August 29</b>	<b>Year Ago*</b>	<b>Change from Previous Year</b>	<b>1998-2002 Average**</b>	<b>Change from 1998-2002 Average</b>
National	195.9	194.7	206.5	-5.1%	201.1	-2.6%
East Coast	52.5	51.4	57.9	-9.3%	55.2	-4.9%
New England	3.8	3.8	4.8	-20.5%	4.3	-10.3%
Mid-Atlantic	24.4	23.4	31.0	-21.1%	27.9	-12.4%
South Atlantic	24.3	24.2	22.1	9.7%	23.1	5.2%
Midwest	50.2	49.2	50.4	-0.4%	52.4	-4.2%
Gulf Coast	58.8	60.1	60.7	-3.1%	59.0	-0.3%
Mountain	5.9	5.6	6.4	-7.0%	5.8	2.9%
West Coast	28.4	28.3	31.1	-8.6%	28.7	-0.9%
<b>Reformulated Gasoline (RFG) Inventories</b>						
Inventories listed in millions of barrels.	<b>Week Ended September 5</b>	<b>Week Ended August 29</b>	<b>Year Ago*</b>	<b>Change from Previous Year</b>	<b>1998-2002 Average**</b>	<b>Change from 1998-2002 Average</b>
National	32.1	31.0	42.0	-23%	40.4	-20%
East Coast	13.9	14.9	19.1	-27%	17.9	-22%
New England	2.5	2.7	3.6	-30%	3.3	-24%
Mid-Atlantic	7.8	7.5	12.4	-37%	10.3	-25%
South Atlantic	3.6	4.8	3.2	14%	4.2	-14%
Midwest	1.0	0.9	1.1	-11%	1.8	-46%
Gulf Coast	9.6	8.2	9.1	5%	9.2	4%
Mountain	-	-	-	-	-	-
West Coast	7.7	6.9	12.6	-39%	11.4	-33%