



**Report of "Tar," Nicotine, and Carbon Monoxide of the  
Smoke of 1252 Varieties of Domestic Cigarettes  
For the Year 1997**

This report contains data on the "tar," nicotine, and carbon monoxide yields of 1252 varieties of cigarettes manufactured and sold in the United States in 1997.<sup>1</sup>

Limitations of the Cigarette Test Method

Cigarette ratings for "tar," nicotine and carbon monoxide are currently determined by machine testing conducted in accordance with a methodology adopted by the Commission in 1967. The "tar" and nicotine testing program was intended to provide smokers seeking to switch to lower "tar" cigarettes with a single, standardized measurement with which to choose among the then-existing brands.<sup>2</sup>

Over the past 30 years that the current system has been in place, there have been dramatic decreases in the machine-measured "tar" and nicotine yields of cigarettes. Since 1968, the average sales-weighted machine-measured "tar" yield has fallen from 21.6 mg. to 12.0 mg. Today, 70% of all

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<sup>1</sup> This report is the most recent in a series that the Federal Trade Commission (FTC) has prepared since 1967.

<sup>2</sup> When the test method was adopted, the public health community believed that "[t]he preponderance of scientific evidence strongly suggests that the lower the "tar" and nicotine content of cigarette smoke, the less harmful would be the effect." U.S. Dep't of Health and Human Services, *The Health Consequences of Smoking: The Changing Cigarette* 1 (1981) (quoting 1966 Public Health Service statement).

rely on the ratings it produces as indicators of how much "tar" and nicotine they actually get from their cigarettes. In fact, the current ratings tend to be relatively poor predictors of "tar" and nicotine exposure. This appears to be due primarily to compensation -- the tendency of smokers of lower rated cigarettes to take bigger or more frequent puffs, or otherwise alter their smoking behavior to get the amount of nicotine they need. Such variations in the way people smoke can have significant effects on the amount of "tar," nicotine, and carbon monoxide they get from any particular cigarette. The

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<sup>3</sup> *Smoking and Tobacco Control Monograph 8: Changes in Cigarette-Related Disease Risk*  
(continued...)

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<sup>3</sup>(...continued)

*and Their Implications for Prevention and Control*, National Institutes of Health, National Cancer Institute (1997).

<sup>4</sup> See Thun, M.J., et al., "Cigarette Smoking and Changes in the Histopathology of Lung Cancer," 89 *J. of the Nat'l Cancer Inst.* 1580 (1997); Ernster, V.L., "The Epidemiology of Lung Cancer in Women," 4 *Annals of Epidemiology* 102 (1994); Levi, F.S., et al., "Lung Carcinoma Trends by Histologic Type in Vaud and Neuchatel, Switzerland, 1974-1994," 79 *Cancer* 906 (1997).

<sup>5</sup> Among other things, HHS's review is designed to reconcile the findings of recent studies suggesting that cigarettes with lower "tar" ratings may not be less harmful with the findings of other studies suggesting that there may be some risk reduction from the use of lower "tar" cigarettes. See Parish, H., et al., "Cigarette smoking, tar yields, and non-fatal myocardial infarction: 14,000 cases and 32,000 controls in the UK," 311 *Brit. Med. J.*

- C How much "tar" and nicotine an individual gets from a cigarette depends on how he or she smokes it – smokers of cigarette brands with lower "tar" and nicotine ratings who take larger or more frequent puffs may get as much "tar" and nicotine as smokers of higher rated brands;
- C Many cigarettes have ventilation holes that, when blocked, substantially increase exposure to the harmful constituents in smoke;
- C There is no such thing as a safe smoke, no matter what the "tar" and nicotine ratings are; and
- C People who are concerned about the health effects of smoking should quit.

The Commission also believes it is vital that there be a mechanism for implementing the recommended changes once the HHS review is completed. Although the Commission brings a strong, market-based expertise to its scrutiny of consumer protection matters, it does not have the specialized scientific expertise needed to design scientific test procedures. Indeed, when evaluating medical or other scientific issues, the Commission often relies on other government agencies and outside experts with more knowledge in the relevant areas. Therefore, in its July 1999 "Report to Congress for 1997, Pursuant to the Cigarette Labeling and Advertising Act," the Commission recommended that Congress consider giving authority over cigarette testing to one of the Federal government's science-based, public health agencies.

#### The Source of the Data in This Report

The FTC obtained the test results published in this report from the five largest cigarette manufacturers in the United States. These companies are: Brown & Williamson Tobacco Corporation; Liggett Group, Inc.; Lorillard, Inc.; Philip Morris, Inc.; and R.J. Reynolds Tobacco Company, Inc.

The Tobacco Institute Testing Laboratory (TITL), a private laboratory operated by the cigarette industry, conducted much of the "tar," nicotine, and carbon monoxide testing for these varieties.<sup>6</sup> The Commission collected the results of the TITL testing directly from the individual companies under compulsory process. Generic, private label, and other brands not widely available were not tested by TITL. The Commission obtained the information on these other brands directly from the manufacturers, pursuant to compulsory process. Results of such non-TITL testing are indicated by asterisks. The methodology, processes, and procedures that the five cigarette companies and TITL employ are identical to those the Commission, in its own testing lab, had followed in the past.<sup>7</sup> Harold Pillsbury, the former director of the FTC laboratory and currently a contractor to the Commission, had unrestricted access to the TITL laboratory to review TITL's testing methodology and protocols and to monitor the actual testing process. TITL provided the results to the respective cigarette companies, which then provided TITL's data regarding their own brands to the Commission in response to compulsory process.

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<sup>6</sup> In early 1999, the Tobacco Institute was disbanded pursuant to the multi-state tobacco settlement. The Tobacco Institute Testing Laboratory's facilities have continued operation under the name Tobacco Industry Testing Laboratory.

<sup>7</sup> The Commission decided in early 1987 to close its laboratory. The Commission found that closing the laboratory was necessary for several reasons: chiefly, the cost of the laboratory was significant, and the Commission would have had to commit significant additional funds to continue the program. The Commission was also persuaded that the information could be obtained from other sources, and other means were available to verify the accuracy of industry testing results.

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<sup>8</sup> On April 13, 1983, the Commission announced it had determined that its testing methodology understated the measured deliveries for Brown & Williamson's Barclay cigarettes. Therefore, Barclay cigarettes were removed from the Commission's reports for "tar," nicotine, and carbon monoxide until a new, accurate methodology could be tested and adopted. The Commission found that there was also a significant likelihood that the same problem existed with two other Brown & Williamson varieties -- Kool Ultra and Kool Ultra 100's.

On July 25, 1986, the Commission informed Brown & Williamson that as a result of a review of data presented by Brown & Williamson regarding "tar" and nicotine rating for two varieties of

1965, as modified by F.J. Schultz' and A.W. Spears' report published in Tobacco Vol. 162, No. 24, page 32, dated June 17, 1966, to determine the moisture content;

5. Determine and report the "tar" yield after subtracting moisture and alkaloids (as nicotine) from particulate matter;
6. Report "tar" yield to the nearest whole milligram and nicotine yield to the nearest 1/10 milligram.<sup>9</sup>

TITL reported, and the FTC's contractor confirmed, that an independent company under contract to TITL obtained the tested cigarette samples. Under its contract, this company purchased two packages of every variety of cigarettes in 50 geographical locations throughout the United States. If not all varieties were available in every location, one or more additional packages of cigarettes were purchased in the areas where the respective varieties were available. Cigarettes used in the test represented cigarettes sold in the U.S. at the time of purchase in 1997.

"Tar" and carbon monoxide ratings are rounded to the nearest milligram (mg.); those with 0.5 mg. or greater are rounded up, while those with 0.4 mg. or less are rounded down. The nicotine figures are

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<sup>9</sup> The Commission's 1980 announcement, 45 Fed. Reg. 46,483 (1980), adopted a new testing methodology to determine cigarettes' carbon monoxide (CO) yields, and modified the existing specifications for determining nicotine yields:

1. Determine CO concentration using a 20-port smoking machine described by H.C. Pillsbury and G. Merfeld at the 32nd Tobacco Chemists Research Conference, October 1978;
2. The concentration of CO will be reported as milligrams per cigarette;
3. The present method for "tar" and nicotine determination will be modified to use the method described in an article entitled, "Gas Chromatographic Determination of Nicotine Contained on Cambridge Filter Pads," by John R. Wagner, et al., as presented at the annual meeting of the Association of Official Analytical Chemists, October 1978.



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<sup>10</sup> Several issues should be noted with regard to the collection and tabulation of the data in Table 1. First, the underlying "tar" and nicotine ratings were obtained using smoking machine parameters (puff

**TABLE 1**  
**SALES WEIGHTED "TAR" AND NICOTINE YIELDS**  
**1968-1997**

<u>YEAR</u>	<u>"TAR" (mg.)</u>	<u>NICOTINE (mg.)</u>
1968	21.6	1.35
1969	20.7	1.38
1970	20.0	1.31
1971	20.2	1.32
1972	19.9	1.39
1973	19.3	1.32
1974	18.4	1.24
1975	18.6	1.21
1976	18.1	1.16
1977	16.8	1.12
1978	16.1	1.11
1979	15.1	1.07
1980	14.1	1.04
1981	13.2	0.92
1982	13.5	0.89
1983	13.4	0.88
1984	13.0	0.89
1985	13.0	0.95
1986	13.4	0.93
1987	13.3	0.94
1988	13.3	0.94
1989	13.1	0.96
1990	12.5	0.93
1991	12.6	0.94
1992	12.4	0.92
1993	12.4	0.90
1994	12.1	0.90
1995	12.0	0.87
1996	12.0	0.88
1997	12.0	0.89

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<sup>10</sup>(...continued)

were incorporated as needed into the database that was used to compute the sales-weighted "tar" and nicotine figures in Table 1.

Finally, when the FTC created its computerized database for "tar" and nicotine figures in 1982, various problems resulted in missing observations for between four and eight percent of the data for the years 1982 through 1984. Although these missing observations do not appear to generate systemic biases in the data, they suggest that the data in Table 1 may be more useful for gauging long term trends than for evaluating changes over very short time spans.

**TABLE 2****VARIETIES WITH THE LOWEST "TAR" YIELD**

<b>Brand Name</b>	<b>Description</b>					<b>Tar</b>	<b>Nic</b>	<b>CO</b>
Carlton	King	F	HP	Ultra-Lt		<0.5	<0.05	<0.5
Now	King	F	HP			<0.5	<0.05	<0.5
Now	100	F	HP			<0.5	<0.05	<0.5
Carlton	King	F	SP	Lt		<0.5	.1	1
Cambridge	King	F	SP	Lowest		1	.1	1
Carlton	100	F	HP	Lt	Menthol	1	.1	1
Carlton	King	F	HP			1	.1	1
Carlton	King	F	SP	Lt	Menthol	1	.1	1
Carlton	100	F	HP	Lt		1	.1	1
Bristol	King	F	SP	Lowest		1	.1	2
Merit	King	F	HP	Ultima		1	.1	2
Now	King	F	SP			1	.1	2
Now	King	F	SP		Menthol	1	.1	2
Merit	King	F	SP	Ultima		1	.1	3
Carlton	100	F	SP	Lt		1	.2	2

NOTE: F - Filter, HP - Hard Pack, SP - Soft Pack, Lt - Light

**TABLE 3****VARIETIES WITH THE HIGHEST "TAR" YIELD**

<b>Brand Name</b>	<b>Description</b>						<b>Tar</b>	<b>Nic</b>	<b>CO</b>
Bristol	King	NF	SP				27	1.7	16
Commander	King	NF	SP				27	1.7	15
Basic	King	NF	SP				26	1.7	15
English Ovals	King	NF	HP				25	2.0	15
Old Gold	King	NF	SP	Straight			25	1.8	17
Pyramid	King	NF	SP	FF			25	1.5	18
Camel	Reg	NF	SP				24	1.7	16
All American Value*	King	NF	SP				24	1.6	NA
Best Buy*	King	NF	SP			Generic	24	1.6	NA
Bronson*	King	NF	SP			Generic	24	1.6	NA
Genco*	King	NF	SP			Generic	24	1.6	NA
Generals*	King	NF	SP			Generic	24	1.6	NA
Gridlock*	King	NF	SP			Generic	24	1.6	NA
Premium Buy*	King	NF	SP			Generic	24	1.6	NA
Shenandoah*	King	NF	SP			Generic	24	1.6	NA
Shield*	King	NF	SP			Generic	24	1.6	NA
Top Choice*	King	NF	SP			Generic	24	1.6	NA
Lucky Strike	Reg	NF	SP				24	1.5	17
Chesterfield	King	NF	SP	FF			24	1.4	17
Tareyton	King	NF	SP				24	1.4	16

NOTE:

NF - Non-Filter, HP - Hard Pack, SP - Soft Pack, FF - Full Flavor

\* indicates brand tested by the manufacturer rather than by TITL.



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Brand Name	Description					Tar	Nic	CO
Bargain Buy*	100	F	SP	Lt	Menthol	10	.7	12
Bargain Buy*	King	F	SP	Lt	Menthol	9	.6	12
Bargain Buy*	100	F	SP	Lt		9	.7	12
Bargain Buy*	King	F	SP	Lt		9	.6	12
Bargain Buy*	100	F	SP	FF		13	.8	17
Bargain Buy*	King	F	SP	FF		14	.8	16
Basic	King	F	HP			16	1	16
Basic	King	F	SP			16	1	16
Basic	100	F	SP			15	1	18
Basic	100	F	SP	Lt	Menthol	10	.8	14
Basic	King	F	SP	FF	Menthol	15	1	16
Basic	King	NF	SP			26	1.7	15
Basic	King	F	SP	Lt		10	.7	13
Basic	King	F	SP	Lt	Menthol	10	.7	13
Basic	100	F	SP	Lt		10	.8	14
Basic	King	F	HP	Lt		10	.7	13
Basic	100	F	SP	Ultra-Lt		6	.5	9
Basic	100	F	SP	FF	Menthol	15	1	17
Basic	King	F	HP		Menthol	16	1	16
Basic	King	F	SP	Ultra-Lt		6	.5	8
Basic*	100	F	HP			16	1	NA
Basic*	100	F	HP	Lt		11	.8	NA
Beacon*	100	F	SP	Lt	Menthol	10	.7	12
Beacon*	King	F	SP	Lt	Menthol	9	.6	12
Beacon*	King	F	SP	Ultra		4	.3	6
Beacon*	100	F	SP	FF	Menthol	14	.9	18
Beacon*	King	NF	SP			20	1.1	16
Beacon*	King	F	SP	FF	Menthol	14	.8	16
Beacon*	King	F	SP	Lt		9	.6	12
Beacon*	100	F	SP	Lt		9	.7	12
Beacon*	King	F	SP	FF		14	.8	16
Beacon*	100	F	SP	FF		13	.8	17
Beacon*	100	F	SP	Ultra		4	.4	7
Bee	King	F	HP	Lt		10	.9	12
Bee	King	F	HP			15	1.1	14
Belair	King	F	SP		Menthol	10	.8	9
Belair	100	F	SP		Menthol	9	.8	10
Benson & Hedges	King	F	HP			16	1.1	13
Benson & Hedges	100	F	SP	Lt	Menthol	10	.8	12
Benson & Hedges	100	F	HP	Ultra-Lt	Dlx	6	.5	7
Benson & Hedges	100	F	SP	Lt		10	.8	12

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<b>Brand Name</b>	<b>Description</b>	<b>Tar</b>	<b>Nic</b>	<b>CO</b>

**Benson & Hedge**

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Brand Name	Description					Tar	Nic	CO
Best Value	100	F	SP	FF	Menthol	14	.9	18
Best Value	King	F	SP	FF	Menthol	14	.8	16
Best Value	100	F	SP	Ultra-Lt		4	.4	7
Best Value	King	NF	SP			20	1.1	16
Big Money*	100	F	SP	Lt	Menthol Generic	11	.8	NA
Bonus Value*	King	F	SP	FF		14	.8	16
Bonus Value*	King	F	HP	FF		15	.9	16
Bonus Value*	100	F	SP	Lt		9	.7	12
Bonus Value*	100	F	SP	FF		13	.8	17
Bonus Value*	King	F	HP	Lt		10	.7	13
Bonus Value*	100	F	SP	Lt	Menthol	10	.7	12
Bonus Value*	King	F	SP	FF	Menthol	14	.8	16
Bonus Value*	King	F	SP	Lt	Menthol	9	.6	12
Bonus Value*	100	F	SP	FF	Menthol	14	.9	18
Bonus Value*	King	F	SP	Ultra		4	.3	6
Bonus Value*	King	F	SP	Lt		9	.6	12
Bonus Value*	King	NF	SP			20	1.1	16
Bonus Value*	100	F	SP	Ultra		4	.4	7
Brandon*	100	F	SP	FF	Menthol	14	.9	18
Brandon*	King	F	SP	FF	Menthol	14	.8	16
Brandon*	100	F	SP	Lt	Menthol	10	.7	12
Brandon*	King	F	HP	Lt		10	.7	13
Brandon*	100	F	SP	Ultra-Lt		4	.4	7
Brandon*	100	F	SP	FF		13	.8	17
Brandon*	King	F	HP	FF		15	.9	16
Brandon*	King	F	SP	Ultra-Lt		4	.3	6
Brandon*	100	F	SP	Lt		9	.7	12
Brandon*	King	F	SP	Lt		9	.6	12
Brandon*	King	F	SP	FF		14	.8	16
Brandon*	King	F	SP	Lt	Menthol	9	.6	12
Brentwood*	100	F	SP	FF	Menthol	14	.9	18
Brentwood*	100	F	SP	Brandon*	King F SP Brandon*			











**"Tar," Nicotine & Carbon Monoxide Report**

<b>Brand Name</b>	<b>Description</b>	<b>Tar</b>	<b>Nic</b>	<b>CO</b>

**"Tar," Nicotine & Carbon Monoxide Report**

<b>Brand Name</b>	<b>Description</b>					<b>Tar</b>	<b>Nic</b>	<b>CO</b>
Doral	King	F	HP	Lt		8	.5	12
Doral	King	F	HP	FF		13	.8	15
Doral	100	F	SP	Ultra-Lt		4	.4	8
Doral	King	F	SP	Ultra-Lt		4	.3	6
Doral	King	NF	SP			19	1.0	16
Doral	100	F	SP	FF	Menthol	13	.8	16
Doral	100	F	HP	Lt		12	.8	14
Doral	King	F	SP	FF		13	.8	15
Doral	100	F	HP	FF		13	.8	16
Doral	King	F	SP	Lt		8	.6	12
Doral	King	F	SP	Lt	Menthol	8	.6	12
Doral	100	F	SP	Lt	Menthol	10	.7	14
Doral	100	F	SP	Lt		10	.7	14
Doral	King	F	HP	FF	Menthol	13	.9	15
Eclipse*	King	F	HP	Mild		2	.1	7
Eclipse*	King	F	HP			3	.1	8
Eclipse*	King	F	HP		Menthol	3	.1	9
Eclipse*	King	F	HP	Mild	Menthol	2	.1	7
English Ovals	King	NF	HP			25	2.0	15
Eve	120	F	HP	Ultra-Lt		5	.5	5
Eve	120	F	HP	Lt	Menthol	11	.8	11
Eve	120	F	HP	Lt	Menthol	11	.8	11
Eve	120	F	HP	Lt		11	.9	12
Eve	120	F	HP	Lt		11	.9	12
Eve	120	F	HP	Ultra-Lt	Menthol	5	.4	5Eve

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Brand Name	Description						Tar	Nic	CO
F&L *	100	F	SP	FF	Menthol	Generic	16	1.0	NA
F&L *	King	F	HP	Lt		Generic	11	.8	NA
F&L *	100	F	SP	Lt		Generic	11	.8	NA
F&L *	King	F	SP	Ultra-Lt		Generic	6	.5	NA
F&L *	King	F	SP	FF	Menthol	Generic	16	1.0	NA
F&L *	King	F	SP	Lt		Generic	11	.7	NA
F&L *	King	F	SP	FF		Generic	15	1.0	NA
First Choice*	King	F	SP	FF			14	.8	16
First Choice*	100	F	SP	Lt			9	.7	12
First Choice*	100	F	SP	Ultra			4	.4	7
First Choice*	King	F	SP	Lt			9	.6	12
First Choice*	100	F	SP	Lt	Menthol		10	.7	12
First Choice*	King	NF	SP				20	1.1	16
First Choice*	King	F	SP	Lt	Menthol		9	.6	12
First Choice*	100	F	SP	FF			13	.8	17
First Choice*	King	F	SP	Ultra-Lt			4	.3	6
Focus*	King	F	HP	FF			15	.9	16
Focus*	King	F	SP	Lt	Menthol		9	.6	12
Focus*	King	F	SP	Ultra-Lt			4	.3	6
Focus*	100	F	SP	FF	Menthol		14	.9	18
Focus*	King	F	HP	Lt			10	.7	13
Focus*	100	F	SP	Lt	Menthol		10	.7	12
Focus*	King	F	SP	Lt			9	.6	12
Focus*	100	F	SP	Ultra-Lt			4	.4	7
Focus*	King	NF	SP				20	1.1	16
Focus*	King	F	SP	FF			14	.8	16
Focus*	100	F	SP	Lt			9	.7	12
Focus*	100	F	SP	FF			13	.8	17
Focus*	King	F	SP	FF	Menthol		14	.8	16
Gen/Private Label*	King	F	SP	Lt			10	.6	14
Gen/Private Label*	100	F	HP	Lt	Menthol		10	.6	15
Gen/Private Label*	King	NF	SP	FF			23	1.4	15
Gen/Private Label*	King	F	SP	Lt	Menthol		10	.6	14
Gen/Private Label*	King	F	SP	Ultra-Lt			6	.4	6
Gen/Private Label*	100	F	HP	Lt			10	.6	15
Gen/Private Label*	100	F	HP	Ultra-Lt			6	.4	8
Gen/Private Label*	100	F	SP	FF			15	.8	20
Gen/Private Label*	100	F	SP	FF	Menthol		15	.8	20
Gen/Private Label*	100	F	SP	Lt			10	.6	15
Gen/Private Label*	100	F	SP	Lt	Menthol		10	.6	15
Gen/Private Label*	100	F	SP	Ultra-Lt			6	.4	8











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Brand Name	Description					Tar	Nic	CO
Marker*	King	F	SP	FF		14	.8	16
Marker*	100	F	SP	FF	Menthol	14	.9	18
Marker*	King	NF	SP			20	1.1	16
Marker*	King	F	SP	Ultra-Lt		4	.3	6
Marker*	100	F	SP	Lt	Menthol	10	.7	12
Marker*	100	F	SP	Lt		9	.7	12
Marker*	King	F	SP	Lt		9	.6	12
Marker*	King	F	SP	Lt	Menthol	9	.6	12
Marker*	100	F	SP	FF		13	.8	17
Marker*	King	F	SP	FF	Menthol	14	.8	16
Marlboro	King	F	SP	Medium		11	0.9	12
Marlboro	King	F	HP			16	1.1	14
Marlboro	King	F	SP			16	1.1	15
Marlboro	King	F	SP			15	1.1	14
Marlboro	King	F	SP		Menthol	16	1.1	15
Marlboro	100	F	SP		Gold	15	1.2	15
Marlboro	100	F	HP		Gold	15	1.1	15
Marlboro	100	F	HP	Medium		13	1.0	13
Marlboro	King	F	SP	Lt		10	.8	12
Marlboro	100	F	HP		Red	15	1.1	14
Marlboro	King	F	SP	Lt	Menthol	9	.8	10
Marlboro	100	F	SP	Lt		10	.8	12
Marlboro	100	F	HP	Lt		10	.8	12
Marlboro	100	F	HP	Lt	Menthol	9	.7	11
Marlboro	King	F	HP	Lt	Menthol	9	.8	9
Marlboro	King	F	HP	Ultra-Lt		5	.4	7
Marlboro	100	F	HP	Ultra-Lt		6	.5	8
Marlboro	King	F	HP		Menthol	16	1.1	14
Marlboro	King	F	HP	Medium		11	0.9	12
Marlboro	King	F	HP	Lt		11	.8	12
Marlboro	100	F	SP		Red	15	1.2	14
Marlboro	King	F	SP	Lt		10	0.8	12
Marlboro	100	F	SP	Medium		12	0.9	13
Maverick	King	F	HP	Lt		10	0.8	9
Maverick	King	F	HP			13	0.9	14
Maverick	100	F	SP			14	1.1	15
Maverick	King	F	SP	Lt		8	0.6	9
Maverick	King	F	SP			14	1.0	14
Maverick	100	F	SP	Lt		9	0.7	11
Maverick*	100	F	HP	Special	Menthol	19	1.3	19
Maverick*	King	F	HP	Special	Menthol	15	1.1	16



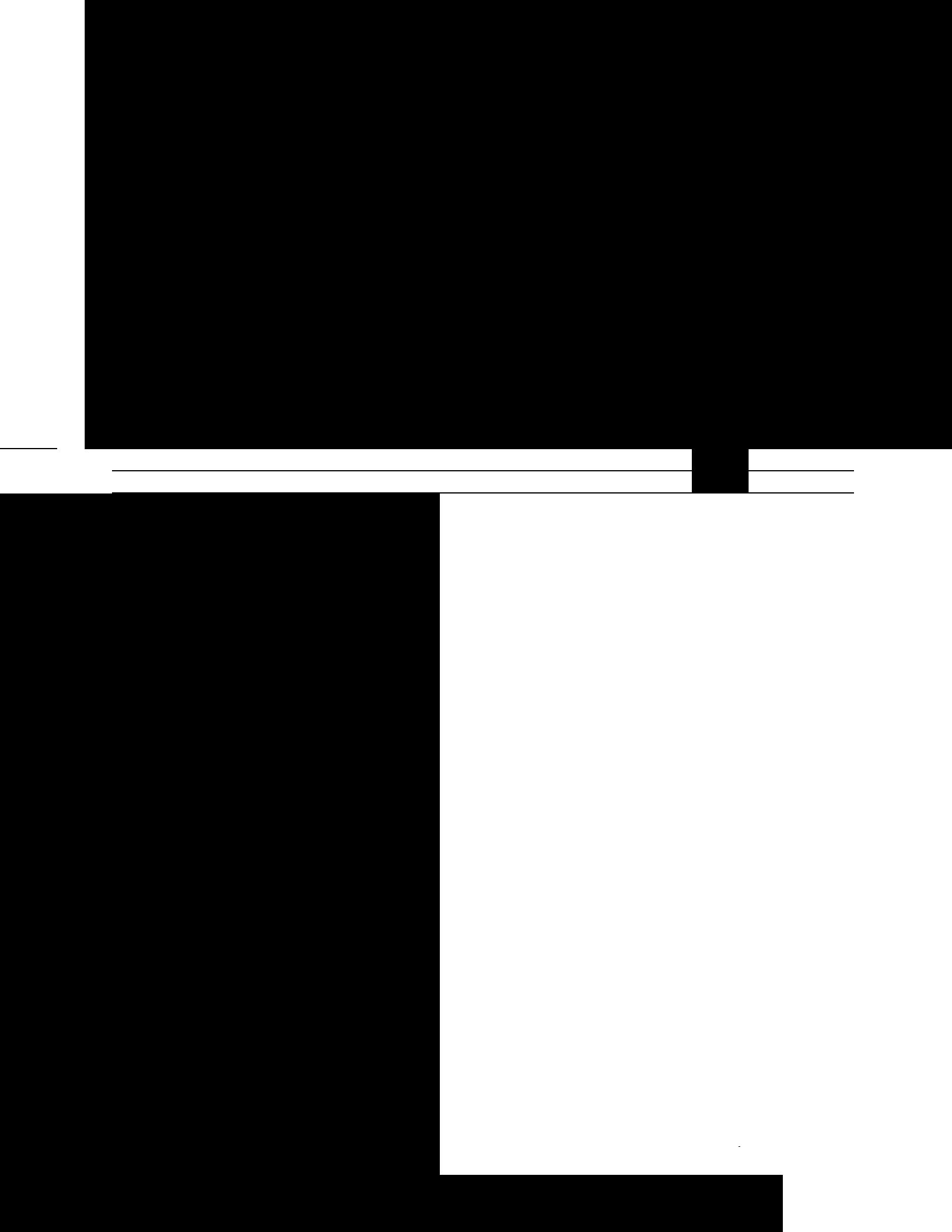


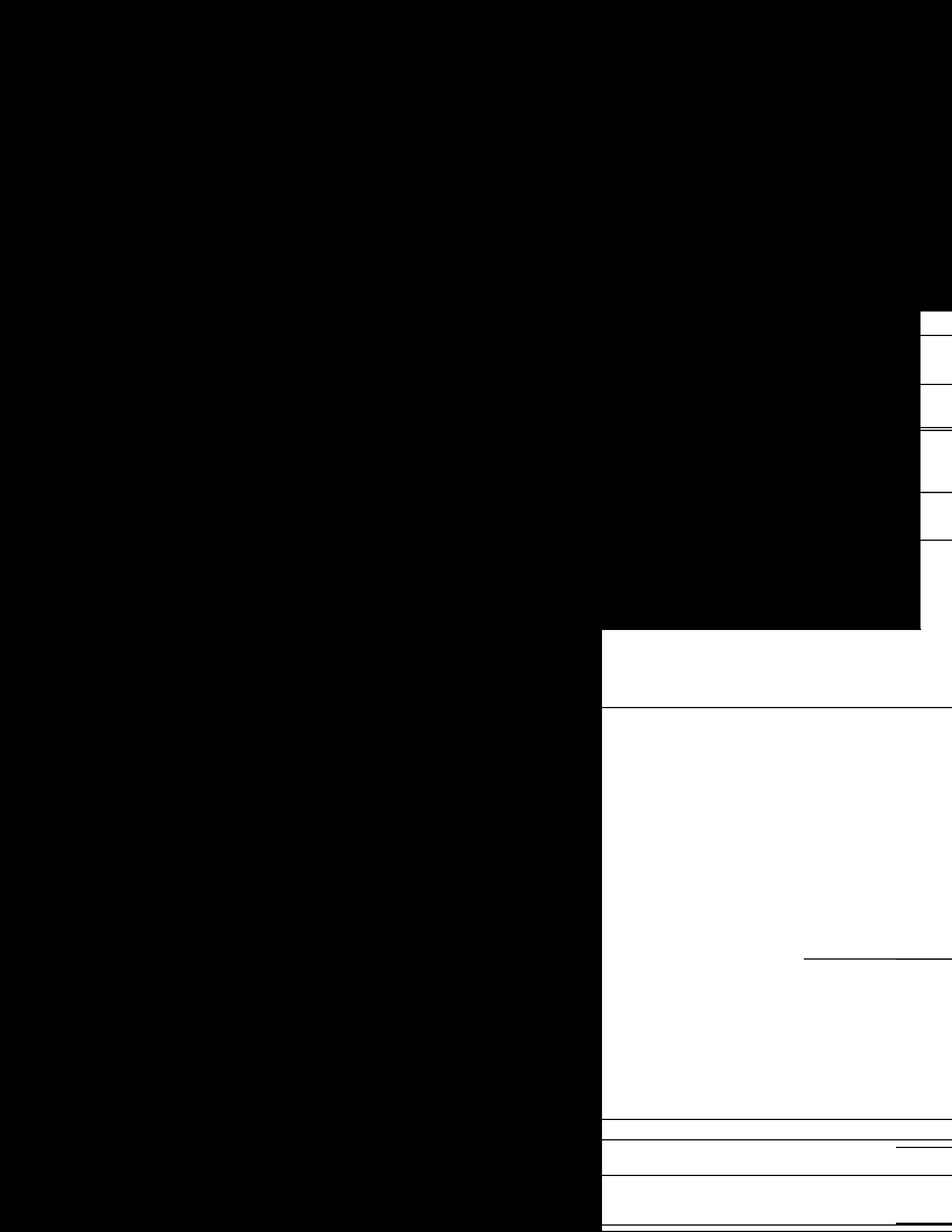
**"Tar," Nicotine & Carbon Monoxide Report**

<b>Brand Name</b>	<b>Description</b>					<b>Tar</b>	<b>Nic</b>	<b>CO</b>
Newport	100	F	SP		Menthol	18	1.4	18
Newport	King	F	SP		Menthol	17	1.2	17
Newport	King	F	SP		Menthol 10-pk	17	1.2	16
Newport	100	F	HP		Menthol	18	1.4	18
Newport Ice	King	F	HP	Lt	Menthol	9	.7	13
Newport Ice	King	F	SP		Menthol	16	1.1	17
Newport Ice	100	F	SP		Menthol	18	1.3	19
Newport Lights	100	F	SP	Lt	Menthol	9	.8	11
Newport Lights	100	F	HP	Lt	Menthol	10	.8	11
Newport Lights	King	F	SP	Lt	Menthol	8	.7	11
Newport Lights	King	F	HP	Lt	Menthol	8	.7	11
Newport Slim	100	F	HP	Slim-Lt	Menthol 10s	9	.8	10
Newport	King	F	HP		Menthol	16	1.1	15
Newport Stripes	100	F	HP	Lt	Menthol	11	.9	14
No Frills*	100	F	SP	Lt	Generic	11	.8	NA
No Frills*	100	F	SP	Ultra-Lt	Generic	6	.5	NA
No Frills*	100	F	SP	FF	Generic	15	1.0	NA
No Frills*	King	F	SP	Ultra-Lt	Generic	6	.5	NA
No Frills*	King	F	SP	Lt	Menthol Generic	11	.7	NA
No Frills*	King	F	SP	Lt	Generic	11	.7	NA
North Star	King	F	HP			15	1.2	16
North Star	King	F	HP	Lt		9	.8	10
Now	100	F	SP			2	.2	3
Now	100	F	HP			<0.5	<0.05	<0.5
Now	King	F	SP		Menthol	1	.1	2
Now	King	F	HP			<0.5	<0.05	<0.5
Now	King	F	SP			1	.1	2
Now	100	F	SP		Menthol	2	.2	3
Old Gold	King	NF	SP	Straight		25	1.8	17
Old Gold	King	F	SP	Lt		8	.8	10
Old Gold*	100	F	SP	Lt	Menthol	9	0.7	10
Old Gold*	100	F	SP	Lt		4	0.5	5
Old Gold	King	F	HP			14	1.0	15
Old Gold	100	F	HP			15	1.1	18
Old Gold	King	F	SP			15	1.1	16
Old Gold	100	F	SP	Lt		12	.9	14
Old Gold	100	F	SP			14	1.1	18
Old Gold	King	F	HP	Lt		7	.7	10
Pace*	100	F	SP	Lt		9	.7	12
Pace*	King	F	SP	Lt	Menthol	9	.6	12
Pace*	100	F	SP	Ultra-Lt		4	.4	7













**"Tar," Nicotine & Carbon Monoxide Report**

<b>Brand Name</b>	<b>Description</b>	<b>Tar</b>	<b>Nic</b>	<b>Pag Tf</b>
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## "Tar," Nicotine & Carbon Monoxide Report

Brand Name	Description				Tar	Nic	CO	
Smoke One*	100	F	SP		Menthol	10	.7	12
Smoke One*	King	F	SP			9	.6	12
Smoke One*	100	F	HP			10	.8	13
Smoke One*	King	F	HP			10	.7	13
Smoke One*	King	F	SP			4	.3	6
Smoke One*	100	F	SP			9	.7	12
Smoke One*	100	F	SP			13	.8	17
Smoke One*	100	F	SP			4	.4	7
Smoke One*	King	F	SP		Menthol	14	.8	16
Smoke One*	100	F	SP		Menthol	14	.9	18
Smoke One*	King	F	SP		Menthol	9	.6	12
Smoke One*	King	F	SP			14	.8	16
State	King	F	HP	FF		15	1.4	16
State	King	F	HP			15	1.4	16
State	100	F	HP	FF		14	1.4	14
State	King	F	HP	Lt		12	1.2	11
Sterling	100	F	SP			13	.8	17
Sterling	100	F	SP	Ultra-Lt		4	.3	7
Sterling	100	F	SP	Ultra-Lt	Menthol	4	.4	8
Sterling	100	F	SP		Menthol	13	.8	17
Sterling	100	F	HP	Slim-Lt		7	.5	9
Sterling	100	F	HP	Slim-Lt	Menthol	7	.5	9
Sterling	100	F	SP	Lt		9	.7	11
Sterling	100	F	SP	Lt	Menthol	10	.8	12
Stockton*	King	F	SP	Ultra-Lt		4	.3	6
Stockton*	King	F	SP	Lt	Menthol	9	.6	12
Stockton*	100	F	SP	Lt		9	.7	12
Stockton*	100	F	SP	Lt	Menthol	10	.7	12
Stockton*	King	F	SP	Lt		9	.6	12
Stockton*	100	F	SP	FF		13	.8	17
Stockton*	King	F	SP	FF		14	.8	16
Stockton*	100	F	SP	Ultra-Lt		4	.4	7
Stride*	100	F	SP	FF		16	1.3	21
Stride*	King	F	SP	FF		14	1.1	18
Style	100	F	HP	Slim-Lt	Menthol	8	.7	9
Style	100	F	HP	Slim-Lt		9	.8	10
Style	100	F	SP	Lt		11	.9	14
Style	100	F	HP	Lt		11	.9	14
Style	100	F	HP	Lt	Menthol	11	.9	14
Style	100	F	SP	Lt	Menthol	11	.9	13
Summit	100	F	SP	FF		15	1.0	17

"Tar," Nicotine & Carbon Monoxide Report

Brand Name	Description	Tar	Nic	CO
Summit	King NF SP	22	1.2	15
Summit	King F SP Ultra-Lt	6	.6	8
Summit	100 F SP Ultra-Lt	4	.4	6
Summit	100 F SP Lt Menthol	8	.6	8
Summit	100 F SP FF Menthol	14	1.0	15
Summit	King F SP Lt	9	.7	11
Summit	King F SP Lt Menthol	10	.7	11
Summit	King F SP FF	15	.9	15
Summit	100 F SP Lt	9	.7	11
Summit	King F HP Lt	9	.7	11
Summit*	King F HP FF	15	.9	15
Summit*	King F SP FF Menthol	15	.9	14
Sundance*	King NF SP	20	1.1	16
Sundance*	100 F SP Ultra-Lt	4	.4	7
Sundance*	King F SP FF	14	.8	16
Sundance*	King F HP Lt	10	.7	13
Sundance*	j 108 0 TD 0 Tc (8) Tj 36 0 KD (.6) Tj 35 0 TD (8) Tj -445.5 -15 TD -0.252 Tc (Summit) O TD 0 Tc (King) T Tj			

**"Tar," Nicotine & Carbon Monoxide Report**

<b>Brand Name</b>	<b>Description</b>	<b>Tar</b>	<b>Nic</b>	<b>CO</b>	<b>Brand Name</b>







