

## GASOLINE QUALITIES: SULFUR AND BENZENE CONTENT

ALL GASOLINE									
	HOVENSA			Port Reading			National Average*		
	2000	2001	2002	2000	2001	2002	2000	2001	2002
<b>SULFUR (PPM)</b>	78	107	117	117	106	114	270	264	N/A
<b>BENZENE (VOL %)</b>	0.49	0.74	0.50	0.41	0.44	0.49	0.99	1.03	N/A

N/A = NOT AVAILABLE

\*Excludes California. 2002 National Average data not available as of May 2003.

## CONVENTIONAL GASOLINE CHARACTERISTICS

CONVENTIONAL GASOLINE EMISSIONS - MG/MILE						
	PHASE II MODEL - 2001			PHASE II MODEL - 2002		
	HOVENSA	Port Reading	National Average*	HOVENSA	Port Reading	National Average*
<b>Exhaust Toxics</b>	78.0	86.7	91.7	75.9	83.3	N/A
<b>NO<sub>x</sub></b>	1354	1567	1446	1349	1526	N/A

N/A = NOT AVAILABLE

\*Excludes California. 2002 National Average data not available as of May 2003.

# REFORMULATED GASOLINE CHARACTERISTICS

REFORMULATED GASOLINE EMISSIONS - % REDUCTION FROM CLEAN AIR ACT BASELINE								
	PHASE II MODEL - 2001				PHASE II MODEL - 2002			
	HOVENSA	Port Reading	National Average	Mandatory Reduction	HOVENSA	Port Reading	National Average*	Mandatory Reduction
<b>Toxics</b>	30.2%	34.3%	30.0%	21.5%	31.9%	32.5%	N/A	N/A
<b>NO<sub>x</sub></b>								
<b>Summer</b>	8.3%	7.2%	8.9%	6.8%	8.00%	7.10%	N/A	6.8%
<b>Winter</b>	6.9%	3.6%	6.4%	1.5%	7.40%	1.80%	N/A	1.5%
<b>Average</b>	7.8%	5.9%	7.6%	N/A	7.68%	4.58%	N/A	N/A

N/A = NOT APPLICABLE

\* 2002 National Average data not available as of May 2003.