

2008 Emission factors @ 2.5mph on arterial roadways

| Vehicle Type:<br>GVWR:             | LDGV   | LDGT12<br><6000 | LDGT34<br>>6000 | LDGT<br>(All) | HDGV   | LDDV   | LDDT   | HDDV   | MC     | All Veh |
|------------------------------------|--------|-----------------|-----------------|---------------|--------|--------|--------|--------|--------|---------|
| VMT Distribution:                  | 0.3571 | 0.3697          | 0.1268          | 17.3          | 0.0414 | 0.0012 | 0.0019 | 0.0957 | 0.0063 | 1.0000  |
| Fuel Economy (mpg):                | 24.0   | 18.6            | 14.3            | 17.3          | 9.6    | 31.8   | 20.0   | 7.2    | 50.0   | 16.3    |
| -----                              |        |                 |                 |               |        |        |        |        |        |         |
| Composite Emission Factors (g/mi): |        |                 |                 |               |        |        |        |        |        |         |
| Composite VOC :                    | 20.028 | 12.135          | 17.230          | 13.436        | 15.578 | 1.639  | 2.570  | 1.358  | 8.99   | 14.660  |
| Composite CO :                     | 49.67  | 39.68           | 58.08           | 44.38         | 60.42  | 4.675  | 5.234  | 10.109 | 97.80  | 43.862  |
| Composite NOX :                    | 2.154  | 2.036           | 2.686           | 2.202         | 2.235  | 2.163  | 2.610  | 13.382 | 1.04   | 3.249   |
| Composite CO2 :                    | 369.9  | 475.8           | 619.2           | 512.4         | 927.8  | 320.2  | 510.0  | 1419.7 | 177.4  | 563.19  |

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|------------------------------------|--------|-----------------|-----------------|---------------|--------|--------|--------|--------|--------|---------|
| VMT Distribution:                  | 0.3571 | 0.3697          | 0.1268          |               | 0.0414 | 0.0012 | 0.0019 | 0.0957 | 0.0063 | 1.0000  |
| -----                              |        |                 |                 |               |        |        |        |        |        |         |
| Composite Emission Factors (g/mi): |        |                 |                 |               |        |        |        |        |        |         |
| Lead:                              | 0.0000 | 0.0000          | 0.0000          | 0.0000        | 0.0000 | -----  | -----  | -----  | 0.0000 | 0.0000  |
| GASPM:                             | 0.0038 | 0.0039          | 0.0051          | 0.0042        | 0.0446 | -----  | -----  | -----  | 0.0142 | 0.0054  |
| ECARBON:                           | -----  | -----           | -----           | -----         | -----  | 0.0862 | 0.0768 | 0.1297 | -----  | 0.0127  |
| OCARBON:                           | -----  | -----           | -----           | -----         | -----  | 0.0243 | 0.1105 | 0.0633 | -----  | 0.0063  |
| S04:                               | 0.0005 | 0.0006          | 0.0007          | 0.0006        | 0.0011 | 0.0002 | 0.0002 | 0.0009 | 0.0002 | 0.0006  |
| Total Exhaust PM:                  | 0.0043 | 0.0046          | 0.0058          | 0.0049        | 0.0457 | 0.1106 | 0.1875 | 0.1939 | 0.0144 | 0.0250  |
| Brake:                             | 0.0053 | 0.0053          | 0.0053          | 0.0053        | 0.0053 | 0.0053 | 0.0053 | 0.0053 | 0.0053 | 0.0053  |
| Tire:                              | 0.0020 | 0.0020          | 0.0020          | 0.0020        | 0.0022 | 0.0020 | 0.0020 | 0.0065 | 0.0010 | 0.0024  |
| Total PM:                          | 0.0117 | 0.0119          | 0.0131          | 0.0122        | 0.0533 | 0.1180 | 0.1948 | 0.2058 | 0.0207 | 0.0328  |
| S02:                               | 0.0068 | 0.0087          | 0.0114          | 0.0094        | 0.0170 | 0.0030 | 0.0048 | 0.0132 | 0.0033 | 0.0091  |
| NH3:                               | 0.1017 | 0.1010          | 0.0970          | 0.1000        | 0.0451 | 0.0068 | 0.0068 | 0.0270 | 0.0113 | 0.0905  |

2009 Emission factors @ 2.5mph on arterial roadways

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|------------------------------------|--------|-----------------|-----------------|---------------|--------|--------|--------|--------|--------|---------|
| VMT Distribution:                  | 0.3443 | 0.3790          | 0.1300          | 17.3          | 0.0414 | 0.0011 | 0.0020 | 0.0959 | 0.0062 | 1.0000  |
| Fuel Economy (mpg):                | 24.0   | 18.6            | 14.3            | 17.3          | 9.6    | 32.9   | 20.0   | 7.2    | 50.0   | 16.2    |
| -----                              |        |                 |                 |               |        |        |        |        |        |         |
| Composite Emission Factors (g/mi): |        |                 |                 |               |        |        |        |        |        |         |
| Composite VOC :                    | 18.422 | 10.960          | 16.390          | 12.346        | 13.567 | 1.628  | 2.512  | 1.273  | 8.98   | 13.374  |
| Composite CO :                     | 47.77  | 37.58           | 54.75           | 41.96         | 46.50  | 4.660  | 5.173  | 8.760  | 97.80  | 41.195  |
| Composite NOX :                    | 2.033  | 1.893           | 2.525           | 2.054         | 1.997  | 2.115  | 2.525  | 12.085 | 1.04   | 3.001   |
| Composite CO2 :                    | 369.2  | 476.4           | 619.8           | 513.0         | 926.1  | 309.4  | 510.0  | 1417.8 | 177.4  | 565.07  |

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|------------------------------------|--------|-----------------|-----------------|---------------|--------|--------|--------|--------|--------|---------|
| VMT Distribution:                  | 0.3443 | 0.3790          | 0.1300          |               | 0.0414 | 0.0011 | 0.0020 | 0.0959 | 0.0062 | 1.0000  |
| -----                              |        |                 |                 |               |        |        |        |        |        |         |
| Composite Emission Factors (g/mi): |        |                 |                 |               |        |        |        |        |        |         |
| Lead:                              | 0.0000 | 0.0000          | 0.0000          | 0.0000        | 0.0000 | -----  | -----  | -----  | 0.0000 | 0.0000  |

|               |          |        |        |        |        |          |        |        |        |        |        |
|---------------|----------|--------|--------|--------|--------|----------|--------|--------|--------|--------|--------|
|               |          |        |        |        |        | Idle.txt |        |        |        |        |        |
|               | GASPM:   | 0.0037 | 0.0038 | 0.0049 | 0.0041 | 0.0392   | -----  | -----  |        | 0.0142 | 0.0051 |
|               | ECARBON: | -----  | -----  | -----  | -----  | -----    | 0.0821 | 0.0748 | 0.1105 | -----  | 0.0108 |
|               | OCARBON: | -----  | -----  | -----  | -----  | -----    | 0.0232 | 0.1076 | 0.0537 | -----  | 0.0054 |
|               | S04:     | 0.0005 | 0.0006 | 0.0006 | 0.0006 | 0.0011   | 0.0002 | 0.0002 | 0.0009 | 0.0002 | 0.0006 |
| Total Exhaust | PM:      | 0.0043 | 0.0044 | 0.0055 | 0.0047 | 0.0403   | 0.1054 | 0.1827 | 0.1651 | 0.0144 | 0.0220 |
|               | Brake:   | 0.0053 | 0.0053 | 0.0053 | 0.0053 | 0.0053   | 0.0053 | 0.0053 | 0.0053 | 0.0053 | 0.0053 |
|               | Tire:    | 0.0020 | 0.0020 | 0.0020 | 0.0020 | 0.0022   | 0.0020 | 0.0020 | 0.0065 | 0.0010 | 0.0024 |
| Total         | PM:      | 0.0116 | 0.0118 | 0.0129 | 0.0121 | 0.0479   | 0.1127 | 0.1900 | 0.1769 | 0.0207 | 0.0297 |
|               | S02:     | 0.0067 | 0.0087 | 0.0114 | 0.0094 | 0.0170   | 0.0029 | 0.0048 | 0.0132 | 0.0033 | 0.0091 |
|               | NH3:     | 0.1017 | 0.1012 | 0.0979 | 0.1003 | 0.0451   | 0.0068 | 0.0068 | 0.0270 | 0.0113 | 0.0907 |

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