

# **Appendix B**

## **Air Quality**

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## Air Quality

### 1.0 Overview and Objectives

This document outlines the procedures used for conducting the air quality emissions modeling and carbon monoxide “hot spot” modeling analyses for the Route 92 Environmental Impact Statement (EIS). The goals of this analysis were to:

- Estimate the potential regional carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and volatile organic compound (VOC) emissions;
- Determine whether or not the project meets USEPA transportation conformity requirements; and
- Estimate resulting one-hour and eight-hour ambient CO concentrations at the most affected roadway intersections.

The analysis was prepared based on the procedures set forth in the Federal Highway Administration (FHWA), U.S. Environmental Protection Agency (EPA) and New Jersey Department of Environmental Protection (NJDEP) regulations and guidelines, and guidance documents.

Regional air emissions modeling impacts were analyzed for:

- Existing Year (2001)
- Horizon Year (2028) No Action
- Horizon Year (2028) EPA Modified No-Build
- Horizon Year (2028) Route 1 Six-Lane Widening
- Horizon Year (2028) Route 1 Six-Lane Widening with Signal Removal, and
- Horizon Year (2028) Route 92.

The Horizon Year is the estimated year of completion plus 20 years, in accordance with FHWA guidance.

The emissions estimates for each alternative were compared with the Existing year emissions estimates to determine whether they would comply with EPA transportation conformity requirements.

In addition, a qualitative screening-level analysis of three sub-alternatives to the four-lane Route 92 alternative was conducted to determine how their transportation and environmental impacts might be different from the proposed four-lane Route 92. These sub-

alternatives, which are fundamentally modified designs and implementations of the currently proposed Route 92 project, consist of:

- A two-lane design for proposed Route 92 (one lane in each direction);
- A four-lane design for the proposed Route 92 (preferred alternative); and
- A four-lane proposed Route 92, without the Perrine Road interchange.

A CO “hot spot” analysis was conducted for worst-case intersections determined by a traffic level-of-service analysis conducted for 17 intersections within the traffic study network area for both Horizon Year No Action and Build (Route 92) scenarios. This analysis did not include the Route 1 alternatives as they present conditions conducive to lower CO emissions due to reduced congestion and increased network speeds, relative to the No Action alternative.

This document presents a summary of regulations and procedures to conduct a regional air emissions modeling and CO “hot spot” air quality analyses. Section 2.0 summarizes the applicable regulations and ambient air quality monitoring data. Section 3.0 contains a discussion on the data requirements needed to conduct the air quality modeling analysis. Procedures for conducting the air quality impact analyses are contained in Section 4.0, and Section 5.0 provides the results of the analyses. Section 6.0 presents conclusions and recommendations and Section 7.0 presents the references used in this air quality impact analysis. Following the text, the regional emissions and CO hot spot modeling results are presented.

## **2.0 Summary of Regulations and Ambient Air Quality Data**

### **2.1 National Ambient Air Quality Standards**

One of the primary purposes of the Clean Air Act (CAA) is to protect and enhance the quality of our nation's air resources. To accomplish this goal, the CAA requires the EPA to promulgate primary and secondary National Ambient Air Quality Standards (NAAQS). Primary NAAQS are those, which allow for an adequate margin of safety, to protect the public health. Secondary NAAQS are those required to protect the public welfare. The CAA delegates to state environmental agencies (i.e., NJDEP) the responsibility for attaining and maintaining these NAAQS by requiring that they adopt a plan which provides for the implementation, maintenance, and enforcement of the NAAQS. The EPA must review and approve each state implementation plan (SIP) consistent with the requirements of the CAA.

Criteria pollutants are those for which NAAQS have been established. The “criteria” air pollutants CO, VOC, and NO<sub>x</sub> are contained in motor vehicle exhaust. VOC and NO<sub>x</sub> are known precursors to ozone (smog) formation. **Table 1** lists the NAAQS for NO<sub>x</sub>, CO and ozone (O<sub>3</sub>).

Pollutant	Averaging Time	Concentration	Primary/Secondary
Nitrogen oxides (NO <sub>x</sub> )	Annual	100 µg/m <sup>3</sup> (0.05 ppm)	Primary
Carbon Monoxide (CO)	1-hour	40,000 µg/m <sup>3</sup> (35 ppm)	Primary
	8-hour	10,000 µg/m <sup>3</sup> (9 ppm)	Primary
Ozone (O <sub>3</sub> )	1-hour	235 µg/m <sup>3</sup> (0.12 ppm)	Primary and Secondary

Primary standards are not to be exceeded more than once per year.

Table 1  
National Ambient Air Quality Standards

## 2.2 EPA/DOT Conformity Requirements

EPA's final conformity regulations provide the criteria and procedures required by the Clean Air Act (CAA). The regulations appear in two forms: 1) under 40 CFR 51 – State Implementation Planning, and 2) 40 CFR 93 – Determining Conformity of Federal Actions to state or Federal Implementation Plans. The transportation conformity regulations were effective November 24, 1993 and apply to EPA-designated air quality nonattainment and maintenance areas. On September 15, 1997, EPA amended the transportation conformity rule to be more streamlined and flexible. This amendment gave state and local governments more authority in choosing performance measures used to examine conformity and more discretion when a transportation plan does not conform to the SIP. These regulations require that the U.S. Department of Transportation (DOT) and Metropolitan Planning Organizations (MPOs) must make conformity determinations for metropolitan transportation plans and transportation improvement programs (TIPs) before they can adopt, accept, approve, or otherwise support such plans and programs. Further, the Federal Highway Administration (FHWA) and the Federal Transit Authority (FTA) must make conformity determinations for highway, or transit projects before DOT or a MPO approves or funds such projects.

On September 5, 2002, EPA created two minor amendments to the Transportation Conformity Rule. The first provides a one-year grace period before conformity is required in areas designated nonattainment for a given air quality standard for the first time. The second amendment requires states to determine conformity within 18 months of EPA's affirmative finding that SIP's motor vehicle emissions budgets are adequate.

The North Jersey Transportation Planning Authority (NJTPA) is the MPO responsible for air quality conformity throughout the region. The Route 92 Corridor is within the NJTPA. Transportation improvement programs are revised and updated annually in the planning process to monitor improvements to air quality conditions throughout the region. The planning year of analysis is 2007 for the MPO, which represents the year that ozone

attainment is mandated by the Clean Air Act Amendments of 1990. The planning year horizon for the Route 92 project is 2028.

On December 16, 1999, the EPA proposed to approve New Jersey's demonstration of attainment, provided the State address a number of conditions (64 Federal Register 70380). The State's proposed SIP revision provides an update to the demonstration of attainment to meet EPA's conditions. One the conditions is a commitment to achieve New Jersey's fair share of an additional level of emission reductions that were identified by the EPA as necessary for attainment of the ozone National Ambient Air Quality Standard (NAAQS). The EPA is allowing states to take credit for the emission reductions from the recently promulgated federal Tier 2 Motor Vehicle Standard/Low Sulfur Gasoline Program. New Jersey's proposed SIP revision provides a revised transportation conformity budget for attainment year 2007 (New York, Northern New Jersey Non-Attainment area) incorporating the predicted benefits from the federal Tier 2 Motor Vehicle Standard/Low Sulfur Gasoline program for that year (NJDEP, *Proposed State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the One-Hour Ozone National Ambient Air Quality Standard, February 4, 2000*).

The EPA released the MOBILE5 Information Sheet #8 to incorporate the benefits of the Tier 2/Low Sulfur Gasoline program (hereafter referred to as Tier 2) on May 3, 2000 (*USEPA, MOBILE5 Information Sheet #8 Tier 2 Benefits Using MOBILE5, EPA420-F-00-001, April 2000*). The Tier 2 program is designed to reduce emissions of precursors of ozone (NO<sub>x</sub> and non-methane organic compounds (NMOG) which contribute to ambient VOC concentrations). The Tier 2 program is built into the MOBILE6.2 model, which was released October 2002.

The regulations apply to all "regionally significant" highways and transit projects in nonattainment and maintenance areas, not just those that trigger a federal action or receive federal funds. A "regionally significant" transportation project is a principal arterial roadway or higher functional classification, plus any other facility that serves regional travel needs, and would normally be included in the SIP emissions modeling for the transportation network. The MPO or DOT responsible for the approval or support of the affected transportation-related plans, programs, or projects must conduct a conformity analysis. The regulations also require a regional emissions analysis of transportation-related plans and programs, and transportation projects funded or approved by FHWA or FTA must also be analyzed for local impacts in certain nonattainment areas.

The transportation conformity regulations only apply in nonattainment and maintenance areas to transportation plans, transportation improvement programs, FHWA/FTA projects, and non-FHWA/FTA projects that are regionally significant. Middlesex County is classified as either in attainment or unclassified for all NAAQS, except for ozone.

### **2.2.1 Conformity Determination Criteria**

The Clean Air Act requires transportation plans and projects to conform to applicable state implementation plans to attain ambient air quality standards. Conformity determinations are to be based upon the most recent emissions budgets contained in the most recently approved plan prepared by the MPO having jurisdiction over the air quality area. The

Clean Air Act Amendments of 1990 define project level conformity to an implementation plan as:

- eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and
- that such activities will not:
  - (i) cause or contribute to any new violation of any standards in any area;
  - (ii) increase the frequency or severity of any existing violation of any standard in any area; and
  - (iii) delay timely attainment of any standard or any required interim emission reductions or other milestone in any area.

Under 40 CFR 93.109, the general requirements for a project not from a conforming plan and TIP to demonstrate conformity of a transportation plan are that projects should meet the following criteria in the Final Transportation Conformity Rule:

- 93.110 Criteria and Procedures: Latest Planning Assumptions
- 93.111 Criteria and Procedures: Latest Emissions Model
- 93.113 Criteria and Procedures: Timely Implementation of TCMs
- 93.116 Criteria and Procedures: Localized CO and PM<sub>10</sub> violations (hot spots)
- 93.118 Criteria and Procedures: Motor Vehicle Emissions Budget, or
- 93.119 Criteria and Procedures: Emission Reductions in Areas without Motor Vehicle Emissions Budgets

The Route 92 Corridor is located in an ozone nonattainment area and in a CO attainment area (See Section 2.3). Therefore, the conformity determination must be conducted using either the budget (93.118), or emission reduction test (93.119) procedures. For this air quality analysis, conformity determination criteria are based on the emission reduction tests. The conformity determination for ozone must follow the procedures set forth in 93.119.

The emission reduction test (Section 93.119(b) of the final conformity rule) is that the long-range (2007 and project build out year) transportation plan must contribute to a reduction in ozone and CO in nonattainment areas. That is, project emissions must be less than the "baseline" emissions. In order to satisfy this criterion, the "Baseline" scenario, as defined in Section 93, must be composed of all in-place regionally significant highway and transit facilities, services and activities, all ongoing travel demand management or transportation system management activities, and reflect the completion of all regionally significant projects, independent of funding source, which are currently under construction, undergoing right-of-way acquisition and protective buying, and have completed the NEPA

process. The “Baseline” scenario is represented by the Existing and No Action alternatives for this project.

The Build (Route 92) scenario must be composed of all projects implemented as components of the approved transportation plan, TIPs adopted under transportation plans, and all other regionally significant projects reasonably anticipated to be completed under the long range transportation plan, including those non-FHWA/FTA highway and transit projects that have clear funding sources and commitments leading toward their implementation and completion by the year of analysis.

To demonstrate whether a reduction in emissions would occur for the transportation plan, estimates of emissions predicted to result from travel on the transportation systems defined by the Baseline and Build scenarios must be performed to determine the difference in regional nonattainment pollutant or pollutant precursor emissions. The criterion of 93.119 is satisfied if, the estimates of regional emissions predicted for the Route 92 scenario are less than those emissions for the Existing and No Action scenarios.

In accordance with 93.122(b)(1), a network-based transportation demand model, relating travel demand and transportation system performance to land-use patterns, population demographics, employment, transportation infrastructure, and transportation policies (for long range planning assumptions), was used to estimate transportation impacts and travel-related parameters for use in the air quality emissions analysis of the Route 92 study area. The criterion in 93.118 would be satisfied if the regional emissions analysis demonstrates that emissions for each of the applicable pollutants or pollutant precursors are less than or equal to the motor vehicle emissions budget estimated for the horizon year of 2028.

### 2.3 NJDEP Ambient Air Quality Data

The most recent ambient air monitoring data for CO were obtained from NJDEP for a monitoring station located near the project area. According to EPA (<http://www.epa.gov/air/data/index.html>), the New Jersey Air Quality Control Region 043 (New York-New Jersey-Connecticut), including Middlesex County, is classified as “attainment” for CO. The monitoring location nearest to proposed Route 92 is at Georges Road, west of the US Route 130/US Route 1 intersection in North Brunswick. However, this location is not representative of the proposed Route 92 region because this monitoring station is located in an area that is more urban than the Route 92 study area. The NJDEP recommends that in the absence of a representative monitoring station, default concentrations can be used the microscale CO modeling analysis. The recommended one-hour concentrations are 5 parts per million (ppm) for an intersection located in a Central Business District; 3 ppm for a suburban area; and 1 ppm for a rural area. The recommended eight-hour CO concentrations are 3.5 parts per million (ppm) for an intersection located in a Central Business District; 2.1 ppm for a suburban area; and 0.7 ppm for a rural area. (NJDEP, *Air Quality Analysis for Intersections*, November 2001). The Route 92 study area is representative of a suburban area; therefore, 3 ppm and 2.1 ppm were used to represent existing one-hour and eight-hour background CO concentrations, respectively.

### 3.0 Data Requirements

This section outlines the data needed to conduct the emissions and air quality modeling analyses that were obtained from the 1994 DEIS and from the traffic modeling analysis.

#### 3.1 Roadway Design Information

The Horizon Year No Action and Build roadway design data required for the air modeling analysis were:

- Length of each roadway segment;
- Widths of each lane; and
- Total pavement widths including paved shoulders and median strips.

#### 3.2 Traffic Data

Existing and projected future years traffic data supplied by the traffic engineers was reviewed for all of the critical roadway intersections in the traffic network study area. The air quality study area is defined as a 6-mile proposed Route 92 corridor stretching from the US Route 1 to New Jersey Turnpike. **Figure 1** shows the air quality study area. The traffic engineers also conducted level-of-service analyses (LOS) for 17 intersections within the study area. Each intersection was reviewed and four worst-case intersections were selected for the CO “hotspot” analysis based on procedures outline in Section 4.

The traffic engineers provided the future vehicle running speeds for each roadway segment for the Horizon Year No Action and Build scenarios for Route 92.

### 4.0 Air Quality Impact Analysis Procedures

A regional emissions modeling and hot spot CO modeling analysis was performed, as required by FHWA and EPA. Guidelines provided by FHWA, NJDEP and EPA were used to perform the air modeling analysis. The air quality modeling was conducted based on EPA's *Guideline for Modeling Carbon Monoxide from Roadway Intersections, 1992*, and NJDEP, *Air Analysis for Intersections, November 2001* for four critical roadway intersections for the Horizon Year No Action and Build scenarios.

#### 4.1 MOBILE6.2 Emission Factor Modeling Methodology

The requirements of 93.111 of the Final Conformity Rule, “Latest emissions model”, are satisfied if the conformity determination is based upon the latest emission



Source: F.R. Harris, 1998

CDM

**Figure 1**  
**Air Quality Study Area**

estimation model available. Pursuant to 93.111, the mobile source emission factors used for the air quality analyses were estimated using the EPA Mobile Source Emissions Factor Model, MOBILE6.2 (October, 2002), and subsequent EPA MOBILE6.2 documentation relevant to the project.

Analysis of mobile source emissions within the proposed Route 92 corridor requires a comparative analysis of the Existing, EPA Modified No Build, Route 1 Improvement Alternatives, and the Horizon Year No Action and Build scenarios. Emission factors used to quantify mobile source impacts and benefits of the alternatives were obtained using MOBILE6.2. This model was used to estimate the 2001 and 2028 No Action and Build speed-dependent mobile source emissions.

The emission rates of individual vehicles are influenced by factors such as ambient air temperature, engine temperature, operating mode, average speed, and maintenance. The average emission rate for a fleet of vehicles operating on a highway is further influenced by the composition of the fleet, vehicle type, and vehicle age. System-wide variables such as fleet turnover, and the effects of clean fuels programs, maintenance programs, and inspection programs, are reflected in the MOBILE6.2 emission factors.

The assumed system-wide variables are the same among alternatives analyzed for a specific year of interest (e.g., 2028).

Area-specific data used in determining MOBILE6.2 emission factors included:

- Vehicle Registration Rates;
- Vehicle Miles Traveled (VMT) mix for gasoline and diesel vehicle classes;
- Tier 1 Testing exhaust emission standards for light-duty vehicles (passenger cars and light-duty trucks);
- Reformulated Gasoline information for NO<sub>x</sub> reduction benefits
- Inspection and Maintenance (I/M) programs for both centralized and de-centralized I/M programs, and
- Anti-Tampering Program (ATP).

**Table 2** presents the MOBILE6.2 input setup for each model year provided by NJTPA. This MOBILE6.2 input setup for that year was used to represent Horizon Year (2028).

MOBILE6.2 produced emission factors for cold start idle emission conditions representative of the A.M. peak hour period and network-averaged vehicle speeds in miles per hour (mph). Carbon monoxide emissions were estimated using ambient January temperature of 31°F, while VOC and NO<sub>x</sub> were estimated using ambient July temperature of 95°F. This because winter is the worst-case for CO concentrations and summer is the worst time for ozone (smog) formation from VOC and NO<sub>x</sub> precursors.

NJDEP requires a two-step method be used to estimate the impact of the vehicle inspection program on emissions from highway mobile sources in New Jersey. These steps are:

- Estimate emissions from all vehicles as if they were inspected at a centralized test-only inspection facility, and
- Estimate emissions from all vehicles as if they were inspected at a decentralized inspection facility test-and-repair facility.

## 4.2 Regional Emissions Modeling Methodology

Two MOBILE6.2 models runs were run for each model year scenario. These model runs include:

- 2001 Existing Year for CO centralized and decentralized I/M program
- 2001 Existing Year for NO<sub>x</sub> and VOC centralized and decentralized I/M program
- 2028 Existing Year for CO centralized and decentralized I/M program
- 2028 Existing Year for NO<sub>x</sub> and VOC centralized and decentralized I/M program

The procedure to estimate regional mobile source emissions for the 2001 Existing, 2028 No Action, and 2028 Route 92 consisted of using the output from the Statewide Transportation Planning Model used to estimate vehicle miles traveled (VMT) and average travel speed for the entire network. Regional emissions were calculated based on the VMT, average travel speed and emission factor dependent emissions contribution of the network. The composite results of the regional emissions inventory were then converted to tons of pollutant per hour from the entire network. The methodology used to estimate the emissions totals are consistent with that used in the 1994 DEIS. The approach is summarized in the following steps:

- Determine vehicle-miles traveled for the roadway network for each model year scenario;
- Determine average transportation network speed for each model year scenario;
- List emissions factors for each pollutant in a cross-referenced table based on scenario;
- Convert MOBILE6.2 emissions factors from grams/vehicle-mile to tons/vehicle-mile; and
- Calculate tons-per-hour emission rate for each link by multiplying the tons per vehicle-mile emission factor by the VMT per hour for the entire transportation network.

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Registration Distribution by Age	New Jersey specific registration distribution
Refueling Emission Factors	Stage 2
Anti-tampering program (ATP)	NJ Specified ATP, functional purge check of emission control system
Inspection and Maintenance Program Inputs	7 New Jersey Specified I/M programs
Scenario Descriptive Input	
Calendar Year of Evaluation	2001, and 2028 (No-build & Build)
Evaluation Month	1 (CO Modeling), 7 (NOx & VOC Modeling)
Max/Min Temperature	31.0 31.0 (CO Modeling)
Absolute Humidity	64.4
Fuel Reid Vapor Pressure (RVP)	9.0
Fuel Program	2 N (Reformulated Gasoline for North Region)
VMT Fractions	DEP Specified
Average Speed	Provided by Traffic Engineers; specific to each alternative/case/location being modeled

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Source: North Jersey Transportation Planning Authority, SIP MOBILE6 Input Files, 2003  
New Jersey Department of Environmental Protection, Air Quality Analysis For Intersections, November 2001.

Table 2  
MOBILE6.2 Model Input Parameters

## 4.3 CAL3QHC Modeling Methodology

### 4.3.1 Intersection Selection

Local CO “hot spot” (microscale) modeling was conducted based on procedures outlined by EPA (USEPA, *Guideline for Modeling Carbon Monoxide from Roadway Intersections*, EPA-454/R-92-005, 1992). These procedures were used to calculate worst-case one-hour CO concentrations. Horizon Year No Action and Build projected traffic data were reviewed to identify intersections and/or congested areas at which CO concentrations could be potentially adverse (with and without the project). The selection of the worst-case intersections is based on the level-of-service (LOS) of an intersection. The LOS is a measure of the operating conditions of an intersection based on the combined traffic volume, signal timing and related congestion and delay. The LOS delay is rated on a scale from A to F, with a LOS A describing intersection operations with very low delays (i.e., less than 5 seconds per vehicle) and a LOS F describing intersection operations with delays in excess of 60 seconds per vehicle. This condition is considered over saturation, which is when traffic volumes exceed the capacity of the intersection.

The methodology used to determine critical intersections is based on those intersections at LOS D, E or F or those that have changed to LOS D, E or F because of increased traffic volumes or construction related to a new project. For this project, the method used to select critical intersections for CO hot spot modeling was to rank the 17 intersections by LOS and delay times and model the top four intersections based on the worst LOS.

The traffic engineers conducted a LOS analysis for 17 intersections within the traffic network study area. **Table 3** presents a comparison of the LOS for the No Action and Build scenarios for each intersection. Of these 17 intersections, ten of them had LOS F. These ten intersections were then ranked by the delay time from highest to lowest. The four worst-case intersections ranked in order of delay time are listed below.

Intersection	No Action		Build	
	Level-of Service	Delay Time (s)	Level-of Service	Delay Time (s)
Dey Rd./CR535	F	1195	F	1768
Rt. 32 (Forsgate Dr.)/CR535	F	269.0	F	620.4
George Rd./Kingston Ln.	D	37.5	C	22.1
Cozzens Ln./Rt. 1	F	289.6	F	233.2
New Road/Rt. 1	F	172.2	F	159.6
Rt. 1/Ridge Rd.	F	N/A	F	N/A
CR522/Rt. 1	F	230.1	F	N/A
Sandhill Rd./Rt. 1	F	191.4	F	153.7
Rt. 27/Raymond Rd.	F	170.3	F	115.3
Rt. 27/Rt. 522	E	77.3	D	53.6
Rt. 522/Kingston Ln.	F	742.5	F	749.2
Rt. 535/Plainsboro	E	67.2	D	50.0
Scudder's Mill Rd./Dey Rd.	F	N/A	F	N/A
Scudder's Mill/Schalk's Crossing	F	206.2	F	158.5
US 130/Dey Rd.	F	1794	F	1664
US 130/Friendship Rd.	F	329.7	F	178.5
Herrod Ave./Rt. 32	N/A	N/A	N/A	N/A

Table 3  
Level-of-Service Intersection Analysis  
Horizon Year No Action and Build Scenarios

- Dey Road/CR 535
- US 130/Dey Road
- Route 522/Kingston Lane
- Route 32 (Forsgate Drive)/CR 535

These four intersections were evaluated in the microscale CO modeling analysis.

#### 4.3.2 Input Parameters

The CAL3QHC model was used to calculate one-hour CO concentrations at receptors located near each intersection. The following input parameters were used in CAL3QHC:

### MOBILE6.2 Modeling Results

- CO emission factors for each model year

### Screening Meteorological Variables

- Temperature: 31°F (average January temperature for New Jersey)
- Surface roughness: (cm/s) (See **Table 4**)
- Atmospheric mixing height: 1,000 m
- Wind direction: every 5° of wind direction from 0° to 360°
- Wind speed: 1.0 m/s
- Atmospheric stability class (use Auer method to determine if an area within three kilometers is more than 50 percent urban or rural); stability class D and E for urban and rural areas, respectively. A stability class E was selected because of the more rural character of the surrounding land use.

### Site Variables

- Roadway segment width (m or ft)
- Roadway segment centerline coordinates (x, y, z) (m or ft)
- Receptor coordinates (x, y, z) (m or ft)

### Traffic Variables

- Traffic volume for each roadway segment (vehicles/hr)
- Travel speed for each roadway segment (mph)
- Emissions source height was set at 0.0 m

As discussed in Section 3.0, site and traffic variables were obtained from the 1994 DEIS and results from traffic modeling analysis.

### **4.3.3 Selecting Receptor Locations**

Receptor locations selected for estimating maximum CO concentrations near a roadway segment were based on guidance provided by EPA (USEPA, *Guideline for Modeling Carbon Monoxide from Roadway Intersections*, EPA-454/R-92-006, 1992) and NJDEP (NJDEP, *Air Quality Analysis For Intersections*, November 2001). According to this guidance, the following are appropriate receptor locations:

- All sidewalks to which the general public has access on a more-or-less continuous basis.

Type of Surface	$z_0$ (cm)
Smooth desert	0.03
Grass (5-6 cm)	0.75
Grass (4 cm)	0.14
Alfalfa (15.2 cm)	2.72
Grass (60-70 cm)	11.40
Wheat (60 cm)	22.00
Corn (220 cm)	74.00
Citrus orchard	198.00
Fir forest	283.00
City land-use	
Single family residential	108.00
Apartment residential	370.00
Office	175.00
Central business district	321.00
Park	127.00

Source: U.S. EPA, Guideline for Modeling Carbon Monoxide from Roadway Intersections, EPA-454/R-92-005, 1992

Table 4  
Surface Roughness Lengths ( $Z_0$ ) for Various Land Uses

- Vacant lots near an intersection, where the general public would have continuous access in the immediate vicinity.
- Portions of a nearby parking lot to which pedestrians have continuous access.
- In the vicinity of parking lot entrances and exits, provided a nearby area contains a public sidewalk, residences, or structures to which the general public is likely to have continuous access.
- On the property lines of all residences, hospitals, rest homes, schools, playgrounds, and the entrances and air intakes to all other buildings.
- At least four receptors should be modeled for each intersection.

One receptor location was selected for each leg of the intersection and both sides of the roadway for a total of four receptors for each intersection. The receptors were placed at least three meters from the edge of each roadway and at a height of 1.8 meters per the guidance in the *NJDEP, Air Quality Analysis For Intersections, November 2001*.

#### 4.3.4 Vehicle CO Emissions Estimates

CO emissions were calculated by intersection roadway link for vehicle speeds provided the results of the traffic intersection analysis. Vehicle speed estimates were provided for both the Horizon Year No Action and Build scenarios. The MOBILE6.2 model is limited to vehicle speeds of 2.5 to 65 mph. The pollutant emissions for each roadway segment is equal to the MOBILE6.2 emission factor for that roadway segment multiplied by the vehicle miles traveled (VMT). VMT is estimated based on the hourly traffic volumes multiplied by the length of the roadway segment. For the microscale analysis, CO emissions were estimated by multiplying the total peak one-hour volume and length of a roadway segment used in CAL3QHC. MOBILE6.2 emission factors (in grams per vehicle-mile) were directly inputted into CAL3QHC. The CO emissions were used for the microscale air modeling analysis to estimate Horizon Year ambient CO concentrations. The MOBILE6.2 input file used for this microscale modeling analysis was provided by NJTPA and is presented in **Table 2**.

#### 4.4 Existing and Horizon Year Background CO Impacts

CO impacts for the Existing Year were based on a one- and eight-hour CO background concentration of 3 ppm and 2.1 ppm, respectively (See Section 2.3). The Horizon Year No Action and Build background CO concentrations were estimated using EPA’s methodology for calculating future background CO concentrations. The “present” concentrations were multiplied by the ratio of the future MOBILE6.2 CO emission factor to the present CO emission factor, and by the ratio of future traffic volume to present traffic volume, for each modeled location (*USEPA, Guideline for Modeling Carbon Monoxide from Roadway Intersections, EPA-454/R-92-005, November 1992*). **Table 5** presents the background concentrations for 2001 and 2028 No Action and Build scenarios.

Year	One Hour Second Highest (ppm)	Eight Hour Second Highest (ppm)
2001	3.0	2.1
2028 No Action	2.0	1.4
2028 Build	1.9	1.3

Table 5  
Existing and Horizon Year Background CO Concentrations

### 5.0 Air Quality Impact Analyses Results

#### 5.1 Regional Emissions Modeling

Regional emissions modeling were performed for the Existing Year (2001) and Horizon Year (2028). The Horizon Year contained the following scenarios: No Action, EPA Modified No-Build, Route 92, Route 1 Six-Lane Widening, and Route 1 Widening with Signal Removal. Two additional scenarios, 2-Lane Route 92 and Route 92 w/o Perrine Road Intersection, were added for a sub-alternative analysis discussed in **Section 5.1.3**. This modeling was conducted with the following goals:

- Estimate the potential regional CO, NO<sub>x</sub>, and VOC emissions;
- Determine whether or not the Route 92 project meets EPA transportation conformity requirements.

The estimation of the potential regional CO, NO<sub>x</sub>, and VOC emissions was based on predicted vehicle miles traveled (VMT) along with average speeds in the study area. This data combined with emission factor data from EPA’s Mobile Source Emissions Factor Model, MOBILE6.2, was used to generate a tons-per-hour emission rate for each model scenario.

The traffic engineer, using the Statewide Transportation Planning Model, supplied the VMT and average speed data. These data for each scenario are presented in **Table 6**. Emission factor data were estimated for each scenario for CO, NO<sub>x</sub>, and VOCs using MOBILE6.2. The MOBILE6.2 inputs for each scenario model run are presented in Section 4.1, **Table 2**. **Table 7** contains the emissions factors for the Route 92 Traffic Study Region.

The resultant VOC, CO, and NO<sub>x</sub> pollutant loadings for the 2001 and 2028 build/No Action scenarios were calculated using the VMT values from **Table 6** and the emissions factors from **Table 7**. This calculation is performed by multiplying the VMT for a specific scenario by the emissions factor for each pollutant and scenario. The results of these calculations are displayed in **Table 8**.

Year	Scenario	VMT	Avg. Speed (mph)
2001	Existing	864,883	22.6
2001	2-Lane Route 92	844,285	24.7
2028	No Action	1,163,744	17.7
2028	EPA Modified No-Build	1,165,285	19.4
2028	Route 1 Six-Lane Widening	1,158,159	18.8
2028	Route 1 Widening with Signal Removal	1,162,800	20.0
2028	2-Lane Route 92	1,153,238	20.4
2028	Route 92 w/o Perrine Road Intersection	1,153,686	21.0
2028	Route 92	1,152,027	21.1

Table 6  
VMTs and Average Speeds in the Traffic Study Area

Year	Scenario	VOC (g/mile)	CO (g/mile)	NO <sub>x</sub> (g/mile)
2001	Existing	1.24	23.83	1.93
2001	2-Lane Route 92	1.21	23.67	1.91
2028	No Action	0.30	11.59	0.17
2028	EPA Modified No-Build	0.29	11.50	0.17
2028	Route 1 Six-Lane Widening	0.29	11.53	0.17
2028	Route 1 Widening with Signal Removal	0.29	11.48	0.17
2028	2-Lane Route 92	0.28	11.46	0.17
2028	Route 92 w/o Perrine Road Intersection	0.28	11.43	0.17
2028	Route 92	0.28	11.43	0.17

Table 7  
Final Emission Factors

Year	Scenario	VOC (tons)	CO (tons)	NO <sub>x</sub> (tons)
2001	Existing	1.17	22.39	1.81
2001	2-Lane Route 92	1.14	22.24	1.80
2028	No Action	0.38	14.71	0.22
2028	EPA Modified No-Build	0.37	14.60	0.22
2028	Route 1 Six-Lane Widening	0.37	14.66	0.22
2028	Route 1 Widening with Signal Removal	0.36	14.59	0.22
2028	2-Lane Route 92	0.36	14.57	0.22
2028	Route 92 w/o Perrine Road Intersection	0.35	14.54	0.22
2028	Route 92	0.35	14.51	0.22

Table 8  
Total VOC, CO, NO<sub>x</sub> Loadings

### 5.1.1 Comparison of Build/No Action Alternatives

The emissions loading data in **Table 8** reveals that all 2028 scenarios produce a reduction of VOC, CO, and NO<sub>x</sub> loadings when compared to the Existing Year scenario of 2001. Route 92 produces a 70% VOC reduction compared to the 67% by the No Action scenario. Additionally, the largest reductions of CO emissions (35%) occur with the Route 92 preferred alternative. All of the 2028 alternatives produce an 88% reduction of NO<sub>x</sub> loadings.

It is important to note that all 2028 scenarios show a reduction of emission rates for CO, VOC and NO<sub>x</sub>. However, Route 92 displays the largest emission rate reduction for CO and VOC. It is clear from this analysis that the Route 92 scenario produces emissions of VOC, CO, and NO<sub>x</sub> that are all less than the (2028 No Action) scenario. Based on the above information, the Route 92 scenario meets EPA's conformity regulations.

A comparison of the regional emissions modeling analysis between the two Route 1 widening scenarios is presented below.

### 5.1.2 Comparison of Route 1 Signalized and Unsignalized Alternatives

There are two scenarios for Route 1: six lanes with signalization and six lanes with signal removal. The first scenario involves widening the road to six lanes and keeping existing

signalization. The second removes five traffic signals and replaces them with overpasses and ramps in addition to widening the road.

Both of these scenarios produce an 88% decrease in NO<sub>x</sub>. However, the latter produces nearly a 1% greater reduction of CO and VOC loading. From an air quality standpoint, removing signals, which increases network speeds, makes the Route 1 Widening with Signal Removal the next best alternative after Route 92.

As discussed in Section 1, “hotspot” analyses were not performed for either Route 1 widening scenario. Both alternatives, when compared to No Action, provide higher network speeds and lower vehicle miles, which would result in reduced congestion. It is expected that these conditions would reduce CO emissions, eliminating the need for this analysis.

### 5.1.3 Screening-level Analysis of Three Sub-Alternatives

An air quality screening-level regional emissions modeling analysis was conducted to assess the air quality impacts of three sub-alternatives:

- A two-lane design for proposed Route 92 (one lane in each direction);
- A four-lane design for the proposed Route 92 (preferred alternative); and,
- A four-lane proposed Route 92, without the Perrine Road interchange.

The emissions loading data in **Table 8** show a reduction of CO, VOC and NO<sub>x</sub> from all 2028 alternatives when compared to the Existing Alternative. Each 2028 alternative produces similar NO<sub>x</sub> and VOC emission loadings. However, the four-lane Route 92 Preferred Alternative produces the smallest loadings for CO when compared to the 2028 No-Build Alternative. The Preferred Alternative results in a 7.9% reduction in VOC emissions and nearly a 1.4% reduction in CO emissions compared to the No-Build alternative. The Route 92 without Perrine Road alternative also results in 7.9% reduction in VOC emissions but only a 1.2 % reduction in CO emissions compared to the No-Build alternative, and the two-lane Route 92 alternative results in a 5.2% reduction in VOC emissions and less than a 1 % reduction in CO emissions compared to the No-Build alternative.

## 5.2 CAL3QHC Modeling

A CO “hot-spot” analysis was performed for the Horizon Year (2028) No Action and Build scenarios for the four worst-case intersections within the Route 92 traffic network area. The input parameters used in these analyses can be found in Section 4.3.2. A surface roughness coefficient of 108 cm was used to represent the surrounding land use. In addition, the Route 92 study area was determined to be more rural than urban; therefore, stability class E was used to represent atmospheric conditions in the area.

CAL3QHC predicted worst-case one-hour average CO concentrations for the Horizon Year No Action and Route 92 scenarios. The results were added to ambient CO levels and compared with the NAAQS. The one-hour analysis was multiplied by a persistence factor

to determine the eight-hour result. A persistence factor of 0.7 is recommended as a conservative conversion from a 1-hour average concentration to an 8-hour average concentration (USEPA, *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised*, EPA-454/R-92-019, October 1992).

**Table 9** presents the results of the CO microscale analysis for the Horizon Year No Action and Build for the four worst-case intersections. The maximum one-hour CO concentrations ranged from 3.4 ppm at the Kingston Lane/Route 522 intersection to 7.1 ppm at the Route 32/CR 535 intersection for the No Action alternative. The Route 92 alternative produced lesser one-hour CO concentrations at all four intersections with maximum concentrations ranging from 3.0 ppm at the Kingston Lane/Route 522 intersection to 5.1 ppm at the US 130 / Dey Road intersection. The one-hour CO concentrations for each alternative were less than the one-hour NAAQS of 35 ppm.

Maximum eight-hour CO concentrations ranged from 2.4 ppm at the Kingston Lane/Route 522 intersection to 5.0 ppm at the Route 32/CR 535 intersection for the No Action alternative. Smaller maximum eight-hour CO concentrations were produced by the Route 92 alternative, ranging from 2.1 ppm at the Kingston Lane/Route 522 intersection to 3.6 ppm at the US 130 / Dey Road intersection for the Route 92 alternative. Both alternatives resulted in eight-hour CO concentrations that were below the NAAQS of 9 ppm.

CAL3QHC output files for each intersection are provided following Section 7.

Intersections	One-Hour Average 2028		Eight-Hour Average 2028		NAAQS	
	No Action	Build	No Action	Build	1 hour	8 hour
Dey Road and CR 535	4.2	3.9	2.9	2.7	35	9
US 130 and Dey Road	5.4	5.1	3.8	3.6	35	9
Kingston Lane /Route 522	3.4	3.0	2.4	2.1	35	9
Route 32 and CR 535	7.1	4.7	5.0	3.3	35	9

Table 9  
CAL3QHC Predicted Maximum CO Concentrations, in ppm

### 5.3 Construction Fugitive Dust Impacts

Construction fugitive dust impacts are discussed qualitatively, because they are generally considered temporary. Construction phases, duration, and dust generation potential is based on information provided by the NJTA. Some of the measures that may be used to mitigate the impacts of fugitive dust include:

- Water or chemical dust suppressant spraying on exposed areas;

- Covering trucks hauling dust generating materials to and from the site;
- Washing wheels and underbodies of construction vehicles prior to departure from the site;
- Reducing vehicle flow over non-paved areas;
- Routinely cleaning paved areas to lessen the amount of dust available to be re-suspended.

## 6.0 Conclusions and Recommendations

The air quality modeling analyses were conducted based on conformity determination criteria presented in Section 2 and CO microscale modeling methodology described in Section 4. The results of the regional emissions modeling analysis found that regional network emissions for Route 92 are projected to be less than the 2001 Existing emissions. Therefore, Route 92 has demonstrated to meet the conformity criterion of 93.119. In addition the results of CO microscale modeling analysis found that the Route 92 alternative would improve CO ambient concentrations when compared to the No Action alternative in Horizon Year 2028.

## 7.0 References

NJDEP, *Air Quality Analysis For Intersections*, November 2001.

USEPA, *Guideline on Air Quality Models (Revised)*, U.S. EPA-450/2-78-027R, July 2001.

USEPA, *User's Guide to CAL3QHC Version 2.0, A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*, U.S. EPA-454/12-92-006, December 1992.

USEPA, *Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised*, EPA-454/R-92-019, October 1992.

USEPA, *Guideline for Modeling Carbon Monoxide from Roadway Intersections*, U.S. EPA-454/R-92-005, November 1992.

## **MOBILE6.2 INPUT/OUTPUT**

2001 - Base Case		
Pollutant	Totals (g/mile)	Total Tons
CO	23.83	22.39
NOx	1.93	1.81
VOC	1.24	1.17
<b>VMT=</b>		852,279

2001 - 2-Lane Route 92		
Pollutant	Totals (g/mile)	Total Tons
CO	23.67	22.24
NOx	1.91	1.80
VOC	1.21	1.14
<b>VMT=</b>		844,285

2028 - No Build		
Pollutant	Totals (g/mile)	Total Tons
CO	11.59	14.71
NOx	0.17	0.22
VOC	0.30	0.38
<b>VMT=</b>		1,163,744

2028 - EPA No Build		
Pollutant	Totals (g/mile)	Total Tons
CO	11.50	14.60
NOx	0.17	0.22
VOC	0.29	0.37
<b>VMT=</b>		1,165,285

2028- Route 92		
Pollutant	Totals (g/mile)	Total Tons
CO	11.43	14.51
NOx	0.17	0.22
VOC	0.28	0.35
<b>VMT=</b>		1,152,027

2028 - 6-Lane Route 92		
Pollutant	Totals (g/mile)	Total Tons
CO	11.53	14.66
NOx	0.17	0.22
VOC	0.29	0.37
<b>VMT=</b>		1,158,159

2028 - Rt. 1 with Signals Removed		
Pollutant	Totals (g/mile)	Total Tons
CO	11.48	14.59
NOx	0.17	0.22
VOC	0.29	0.36
<b>VMT=</b>		1,162,800

2028 - 2-Lane Route 92		
Pollutant	Totals (g/mile)	Total Tons
CO	11.46	14.57
NOx	0.17	0.22
VOC	0.28	0.36
<b>VMT=</b>		1,153,238

2028 - Route 92 w/o Perrine Rd Int.		
Pollutant	Totals (g/mile)	Total Tons
CO	11.43	14.54
NOx	0.17	0.22
VOC	0.28	0.35
<b>VMT=</b>		1,153,686

Comparison to the base case Pollutant Changes			
Alternative	CO	NOx	VOC
2001 - 2-Lane Route 92	-0.66%	-0.78%	-2.65%
2028- No Build	-34.28%	-87.86%	-67.27%
2028- Route 92	-35.17%	-87.86%	-69.77%
2028 - 2-Lane Route 92	-34.94%	-87.85%	-69.30%
2028 - Route 92 w/o Perrine Rd Int.	-35.06%	-87.85%	-69.62%
	-0.90%	0.00%	-2.50%

Comparison to Preferred Alternative - 2028 Route 92 Pollutant changes			
Alternative	CO	NOx	VOC
2028 - No Build	1.382%	0.000%	8.273%
2028 - 2-Lane Route 92	0.359%	0.105%	1.545%
2028 - Route 92 w/o Perrine Rd Int.	0.179%	0.144%	0.504%

Note: Positive values indicate percentage increase in pollutant loading

MOBILE6 INPUT FILE :  
\* Summer I/M (2001) for New Jersey  
REPORT FILE : 01HC-NOx.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 01HC-NOx.TB1  
POLLUTANTS : HC NOX  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.

ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 12211112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2001 Summer - Base Case

CALENDAR YEAR : 2001  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667001 .042505 .141497 .050006 .022996 .019765 .001970 .001513  
.001141 .004313 .005124 .005636 .020081 .000994 .000458 .015000  
AVERAGE SPEED : 22.6 FREEWAY

SCENARIO RECORD : 2001 Summer - 2-lane Route 92

CALENDAR YEAR : 2001  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1

EVALUATION MONTH : 7  
VMT FRACTIONS :  
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AVERAGE SPEED : 24.7 FREEWAY

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REPORT FILE : 01CO.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 01CO.TB1  
POLLUTANTS : CO  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.

ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 12211112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2001 Winter - Base Case

CALENDAR YEAR : 2001  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
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.001141 .004313 .005124 .005636 .020081 .000994 .000458 .015000  
AVERAGE SPEED : 22.6 FREEWAY

SCENARIO RECORD : 2001 Winter - 2-lane Route 92

CALENDAR YEAR : 2001  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1

EVALUATION MONTH : 1  
VMT FRACTIONS :  
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                  .001141 .004313 .005124 .005636 .020081 .000994 .000458 .015000  
AVERAGE SPEED : 24.7 FREEWAY

MOBILE6 INPUT FILE :  
\* Summer I/M (2028) for New Jersey - Build  
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DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28SUMB.TB1  
POLLUTANTS : HC NOX  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
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.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 2.7 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7

```

VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 5.0 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON             : 1
EVALUATION MONTH   : 7
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 5.6 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON             : 1
EVALUATION MONTH   : 7
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 6.9 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON             : 1
EVALUATION MONTH   : 7
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 8.3 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON             : 1
EVALUATION MONTH   : 7
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 11.2 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON             : 1
EVALUATION MONTH   : 7
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 11.8 FREEWAY

SCENARIO RECORD    : 2028 Summer - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N

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SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 14.3 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4
FUEL RVP        : 9.0
FUEL PROGRAM    : 2 N
SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 15.4 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4
FUEL RVP        : 9.0
FUEL PROGRAM    : 2 N
SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 16.9 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4
FUEL RVP        : 9.0
FUEL PROGRAM    : 2 N
SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 18.6 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4
FUEL RVP        : 9.0
FUEL PROGRAM    : 2 N
SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 21.2 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4
FUEL RVP        : 9.0
FUEL PROGRAM    : 2 N
SEASON          : 1
EVALUATION MONTH : 7
VMT FRACTIONS   :
                .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED  : 21.5 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR   : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 70.9 94.1
ABSOLUTE HUMIDITY : 64.4

```

FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 23.8 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 26.3 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 28.6 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 29.6 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.1 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.4 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7

MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 31.8 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 36.2 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 36.8 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 37.1 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 39.3 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 47.6 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 47.7 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 52.3 FREEWAY

SCENARIO RECORD : 2028 Summer - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 53.0 FREEWAY

MOBILE6 INPUT FILE :  
\* Winter I/M (2028) for New Jersey - No Build  
REPORT FILE : 28WIN-NB.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28WIN-NB.TB1  
POLLUTANTS : CO  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 2.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1

VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 3.5 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 4.2 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 5.0 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 5.3 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 7.2 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 7.7 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N

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SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 11.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 13.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 15.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 18.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 19.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 19.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4

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FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 19.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 21.3 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 22.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 24.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 26.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 28.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1

MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 34.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 35.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 37.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 38.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 38.6 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 39.1 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 48.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 49.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 49.1 FREEWAY

MOBILE6 INPUT FILE :  
\* Summer I/M (2028) for New Jersey  
REPORT FILE : 28HC-NOx.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28HC-NOx.TB1  
POLLUTANTS : HC NOX  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Summer - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 17.7 FREEWAY

SCENARIO RECORD : 2028 Summer - EPA No-Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 70.9 94.1  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7

VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 19.4 FREEWAY  
 SCENARIO RECORD : 2028 Summer - Route 92  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 70.9 94.1  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 21.1 FREEWAY  
 SCENARIO RECORD : 2028 Summer - 6-Lane Route 1  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 70.9 94.1  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 18.8 FREEWAY  
 SCENARIO RECORD : 2028 Summer - Route 1 with Signals Removed  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 70.9 94.1  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 20.0 FREEWAY  
 SCENARIO RECORD : 2028 Summer - 2-Lane Route 92  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 70.9 94.1  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 20.4 FREEWAY  
 SCENARIO RECORD : 2028 Summer - Route 92 without Perrine Rd. Intersection  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 70.9 94.1  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 21.0 FREEWAY

MOBILE6 INPUT FILE :  
\* Winter I/M (2028) for New Jersey - Build  
REPORT FILE : 28WINB.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28WINB.TB1  
POLLUTANTS : CO  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 2.7 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1

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VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 5.0 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON            : 1
EVALUATION MONTH   : 1
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 5.6 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON            : 1
EVALUATION MONTH   : 1
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 6.9 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON            : 1
EVALUATION MONTH   : 1
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 8.3 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON            : 1
EVALUATION MONTH   : 1
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 11.2 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N
SEASON            : 1
EVALUATION MONTH   : 1
VMT FRACTIONS      :
                    .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
                    .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED     : 11.8 FREEWAY

SCENARIO RECORD    : 2028 Winter - Build

CALENDAR YEAR      : 2028
EVALUATION MONTH   : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY  : 64.4
FUEL RVP           : 9.0
FUEL PROGRAM       : 2 N

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SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 14.3 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 15.4 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 16.9 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 18.6 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 21.2 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 1
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 21.5 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 1
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4

```

FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 23.8 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 26.3 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 28.6 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 29.6 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.1 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.4 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1

MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 31.8 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 36.2 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 36.8 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 37.1 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 39.3 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 47.6 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 47.7 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 52.3 FREEWAY

SCENARIO RECORD : 2028 Winter - Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 53.0 FREEWAY

MOBILE6 INPUT FILE :  
\* Winter I/M (2028) for New Jersey - No Build  
REPORT FILE : 28WIN-NB.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28WIN-NB.TB1  
POLLUTANTS : CO  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 2.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7

VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 3.5 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 4.2 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 5.0 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 5.3 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 7.2 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 7  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 7.7 FREEWAY  
 SCENARIO RECORD : 2028 Winter - No Build  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 7  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N

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SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 11.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 13.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 15.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 18.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 19.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4
FUEL RVP : 9.0
FUEL PROGRAM : 2 N
SEASON : 1
EVALUATION MONTH : 7
VMT FRACTIONS :
        .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623
        .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000
AVERAGE SPEED : 19.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028
EVALUATION MONTH : 7
MIN/MAX TEMPERATURE: 31.0 31.0
ABSOLUTE HUMIDITY : 64.4

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FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 19.7 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 21.3 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 22.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 24.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 26.5 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 28.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7

MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 30.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 34.9 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 35.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 37.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 38.2 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 38.6 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 39.1 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 48.4 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 49.0 FREEWAY

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 7  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 49.1 FREEWAY

MOBILE6 INPUT FILE :  
\* Winter I/M (2028) for New Jersey  
REPORT FILE : 28CO.out  
DATABASE OUTPUT :  
WITH FIELDNAMES :  
EMISSIONS TABLE : 28CO.TB1  
POLLUTANTS : CO  
AGGREGATED OUTPUT :  
RUN DATA :

REG DISTRIBUTION : NJ\_REG.D  
STAGE II REFUELING :  
89 1 85. 70.  
ANTI-TAMP PROGRAM :  
85 75 50 22222 22222222 2 12 098. 122111112  
I/M EFFECTIVENES : 0.94 0.94 0.94  
I/M PROGRAM : 1 1974 2050 2 TRC IDLE  
I/M MODEL YEARS : 1 1941 1980  
I/M VEHICLES : 1 22222 22222222 2  
I/M STRINGENCY : 1 30.0  
I/M COMPLIANCE : 1 98.0  
I/M WAIVER RATES : 1 0.0 0.0  
I/M PROGRAM : 2 2004 2050 2 TRC OBD I/M  
I/M MODEL YEARS : 2 1996 2050  
I/M VEHICLES : 2 22222 11111111 1  
I/M STRINGENCY : 2 30.0  
I/M COMPLIANCE : 2 98.0  
I/M WAIVER RATES : 2 0.0 3.0  
I/M GRACE PERIOD : 2 4  
I/M PROGRAM : 3 2000 2050 2 TRC ASM 5015 PHASE-IN  
I/M MODEL YEARS : 3 1981 1995  
I/M VEHICLES : 3 22222 11111111 1  
I/M STRINGENCY : 3 30.0  
I/M COMPLIANCE : 3 98.0  
I/M WAIVER RATES : 3 0.0 3.0  
I/M PROGRAM : 4 2000 2050 2 TRC IDLE  
I/M MODEL YEARS : 4 1981 2050  
I/M VEHICLES : 4 11111 22222222 2  
I/M STRINGENCY : 4 30.0  
I/M COMPLIANCE : 4 98.0  
I/M WAIVER RATES : 4 0.0 0.0  
I/M GRACE PERIOD : 4 4  
I/M PROGRAM : 5 1998 2050 2 TRC GC  
I/M MODEL YEARS : 5 1970 2050  
I/M VEHICLES : 5 11111 22222222 2  
I/M COMPLIANCE : 5 98.0  
I/M WAIVER RATES : 5 0.0 0.0  
I/M GRACE PERIOD : 5 4  
I/M PROGRAM : 6 1998 2050 2 TRC GC  
I/M MODEL YEARS : 6 1970 1995  
I/M VEHICLES : 6 22222 11111111 1  
I/M COMPLIANCE : 6 98.0  
I/M WAIVER RATES : 6 0.0 0.0  
I/M PROGRAM : 7 2004 2050 2 TRC EVAP OBD & GC  
I/M MODEL YEARS : 7 1996 2050  
I/M VEHICLES : 7 22222 11111111 1  
I/M COMPLIANCE : 7 98.0  
I/M WAIVER RATES : 7 0.0 0.0  
I/M GRACE PERIOD : 7 4  
EXPAND EVAPORATIVE :  
EXPAND EXHAUST :

SCENARIO RECORD : 2028 Winter - No Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 7  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1  
VMT FRACTIONS :  
.667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
.001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
AVERAGE SPEED : 17.7 FREEWAY

SCENARIO RECORD : 2028 Winter - EPA No-Build

CALENDAR YEAR : 2028  
EVALUATION MONTH : 1  
MIN/MAX TEMPERATURE: 31.0 31.0  
ABSOLUTE HUMIDITY : 64.4  
FUEL RVP : 9.0  
FUEL PROGRAM : 2 N  
SEASON : 1  
EVALUATION MONTH : 1

VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 19.4 FREEWAY  
 SCENARIO RECORD : 2028 Winter - Route 92  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 21.1 FREEWAY  
 SCENARIO RECORD : 2028 Winter - 6-Lane Route 1  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 18.8 FREEWAY  
 SCENARIO RECORD : 2028 Winter - Route 1 with Signals Removed  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 20.0 FREEWAY  
 SCENARIO RECORD : 2028 Winter - 2-Lane Route 92  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 20.4 FREEWAY  
 SCENARIO RECORD : 2028 Winter - Route 92 without Perrine Rd. Intersection  
 CALENDAR YEAR : 2028  
 EVALUATION MONTH : 1  
 MIN/MAX TEMPERATURE: 31.0 31.0  
 ABSOLUTE HUMIDITY : 64.4  
 FUEL RVP : 9.0  
 FUEL PROGRAM : 2 N  
 SEASON : 1  
 EVALUATION MONTH : 1  
 VMT FRACTIONS :  
                   .667000 .042503 .141495 .050005 .022995 .019618 .001934 .001623  
                   .001214 .004386 .005173 .005612 .019996 .000988 .000458 .015000  
 AVERAGE SPEED : 21.0 FREEWAY







User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 24.7 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

Calendar Year: 2001
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 31.0 (F)
Absolute Humidity: 64. grains/lb
Fuel Sulfur Content: 149. ppm

Exhaust I/M Program: Yes
Evap I/M Program: Yes
ATP Program: Yes
Reformulated Gas: Yes

Table with 11 columns: Vehicle Type, LDGV, LDGT12, LDGT34, LDGT (All), HDGV, LDDV, LDDT, HDDV, MC, All Veh. Rows include VMT Distribution, Composite Emission Factors (g/mi), and Exhaust emissions (g/mi).





Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.542	0.389	0.487	0.414	0.535	0.000	0.000	0.000	0.659	0.488

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 3.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 5.6 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	-----	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.601	0.522	0.680	0.567	0.757	0.100	0.206	0.601	6.47	0.682
Composite NOX :	0.261	0.279	0.434	0.323	0.134	0.040	0.166	0.699	1.10	0.306

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.115	0.152	0.213	0.169		0.085	0.181		5.175	
VOC Total Exhaust:	0.154	0.198	0.275	0.220	0.309	0.100	0.206	0.601	5.81	0.278

NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.242	0.255	0.395	0.294		0.039	0.163		0.609	
NOx Total Exhaust:	0.261	0.279	0.434	0.323	0.134	0.040	0.166	0.699	1.10	0.306

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.370	0.268	0.327	0.285	0.341	0.000	0.000	0.000	0.000	0.326
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.446	0.324	0.405	0.345	0.448	0.000	0.000	0.000	0.659	0.404

\* #####  
 \* 2028 Summer - Build

\* File 1, Run 1, Scenario 4.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 6.9  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite VOC :	0.495	0.436	0.568	0.473	0.640	0.093	0.192	0.554	5.58	0.570
Composite NOX :	0.226	0.246	0.386	0.286	0.137	0.037	0.156	0.657	1.08	0.271

-----

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.095	0.124	0.174	0.138		0.078	0.167		4.288	
VOC Total Exhaust:	0.134	0.171	0.237	0.189	0.270	0.093	0.192	0.554	4.92	0.240
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.207	0.222	0.347	0.257		0.036	0.154		0.590	
NOx Total Exhaust:	0.226	0.246	0.386	0.286	0.137	0.037	0.156	0.657	1.08	0.271

-----

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.285	0.209	0.253	0.221	0.263	0.000	0.000	0.000	0.000	0.252
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.362	0.265	0.331	0.282	0.370	0.000	0.000	0.000	0.659	0.330

-----

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 5.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:







Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.281	0.252	0.331	0.274	0.376	0.073	0.149	0.410	3.59	0.336
Composite NOX :	0.139	0.164	0.263	0.192	0.145	0.030	0.127	0.531	1.06	0.183

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.046	0.059	0.084	0.066		0.058	0.124		2.296	
VOC Total Exhaust:	0.085	0.106	0.147	0.117	0.158	0.073	0.149	0.410	2.93	0.152

NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.120	0.139	0.224	0.163		0.029	0.124		0.570	
NOx Total Exhaust:	0.139	0.164	0.263	0.192	0.145	0.030	0.127	0.531	1.06	0.183

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.120	0.090	0.106	0.094	0.111	0.000	0.000	0.000	0.000	0.106
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.196	0.146	0.184	0.156	0.218	0.000	0.000	0.000	0.659	0.184

\* #####

\* 2028 Summer - Build

\* File 1, Run 1, Scenario 9.

\* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 15.4 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028  
Month: July  
Altitude: Low  
Minimum Temperature: 70.9 (F)  
Maximum Temperature: 94.1 (F)  
Absolute Humidity: 64. grains/lb  
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
Evap I/M Program: Yes  
ATP Program: Yes  
Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.270	0.241	0.317	0.262	0.358	0.071	0.144	0.395	3.46	0.322
Composite NOX :	0.132	0.157	0.253	0.184	0.146	0.030	0.124	0.518	1.06	0.176

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.042	0.055	0.078	0.061		0.056	0.119		2.161	
VOC Total Exhaust:	0.082	0.101	0.140	0.112	0.148	0.071	0.144	0.395	2.80	0.145
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.113	0.133	0.214	0.155		0.029	0.121		0.572	
NOx Total Exhaust:	0.132	0.157	0.253	0.184	0.146	0.030	0.124	0.518	1.06	0.176

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.112	0.084	0.099	0.088	0.104	0.000	0.000	0.000	0.000	0.099
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.188	0.139	0.177	0.149	0.211	0.000	0.000	0.000	0.659	0.177

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 10.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 16.9  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.258	0.230	0.304	0.251	0.334	0.068	0.137	0.372	3.31	0.308
Composite NOX :	0.130	0.156	0.251	0.183	0.148	0.029	0.120	0.499	1.08	0.173

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.041	0.053	0.074	0.059		0.053	0.112		2.015	

VOC Total Exhaust:	0.080	0.099	0.137	0.110	0.133	0.068	0.137	0.372	2.65	0.140
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.132	0.212	0.154		0.028	0.117		0.586	
NOx Total Exhaust:	0.130	0.156	0.251	0.183	0.148	0.029	0.120	0.499	1.08	0.173

-----

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.102	0.075	0.089	0.079	0.095	0.000	0.000	0.000	0.000	0.090
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.178	0.131	0.167	0.140	0.201	0.000	0.000	0.000	0.659	0.168

-----

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 11.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 18.6  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):

Composite VOC :	0.247	0.220	0.292	0.240	0.310	0.064	0.130	0.348	3.17	0.294
Composite NOX :	0.129	0.157	0.252	0.184	0.150	0.028	0.115	0.481	1.09	0.173

-----

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.040	0.051	0.073	0.057		0.049	0.105		1.880	
VOC Total Exhaust:	0.079	0.098	0.135	0.108	0.119	0.064	0.130	0.348	2.52	0.135
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.132	0.213	0.155		0.027	0.112		0.602	
NOx Total Exhaust:	0.129	0.157	0.252	0.184	0.150	0.028	0.115	0.481	1.09	0.173

-----

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.092	0.066	0.079	0.070	0.085	0.000	0.000	0.000	0.000	0.080
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.168	0.122	0.157	0.131	0.192	0.000	0.000	0.000	0.659	0.159

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 12.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.233	0.208	0.278	0.228	0.282	0.060	0.121	0.318	3.01	0.278
Composite NOX :	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.458	1.12	0.173

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.039	0.050	0.070	0.056		0.045	0.096		1.715	
VOC Total Exhaust:	0.078	0.096	0.133	0.107	0.101	0.060	0.121	0.318	2.35	0.130
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.134	0.214	0.156		0.025	0.107		0.626	
NOx Total Exhaust:	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.458	1.12	0.173

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.080	0.056	0.067	0.059	0.074	0.000	0.000	0.000	0.000	0.070
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.156	0.112	0.145	0.120	0.180	0.000	0.000	0.000	0.659	0.148

-----  
 \* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 13.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.5  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
 Composite Emission Factors (g/mi):

Composite VOC :	0.232	0.207	0.277	0.227	0.279	0.059	0.120	0.315	2.99	0.276
Composite NOX :	0.129	0.158	0.254	0.185	0.153	0.026	0.109	0.456	1.12	0.172

-----  
 Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.038	0.050	0.070	0.055		0.045	0.095		1.698	
VOC Total Exhaust:	0.078	0.096	0.133	0.106	0.099	0.059	0.120	0.315	2.33	0.129
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.134	0.214	0.156		0.025	0.106		0.630	
NOx Total Exhaust:	0.129	0.158	0.254	0.185	0.153	0.026	0.109	0.456	1.12	0.172

-----  
 Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.079	0.055	0.066	0.058	0.073	0.000	0.000	0.000	0.000	0.069
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.155	0.111	0.144	0.120	0.180	0.000	0.000	0.000	0.659	0.147

-----  
 \* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 14.  
 \* #####  
 M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 23.8 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028
Month: July
Altitude: Low
Minimum Temperature: 70.9 (F)
Maximum Temperature: 94.1 (F)
Absolute Humidity: 64. grains/lb
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes
Evap I/M Program: Yes
ATP Program: Yes
Reformulated Gas: Yes

Table with 11 columns: Vehicle Type, LDGV, LDGT12, LDGT34, LDGT (All), HDGV, LDDV, LDDT, HDDV, MC, All Veh. Rows include VMT Distribution, Composite Emission Factors (g/mi), Exhaust emissions (g/mi), and Non-Exhaust Emissions (g/mi).

\* #####
\* 2028 Summer - Build
\* File 1, Run 1, Scenario 15.
\* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 26.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways













Running Loss:	0.046	0.032	0.039	0.034	0.042	0.000	0.000	0.000	0.000	0.040
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.122	0.088	0.117	0.095	0.149	0.000	0.000	0.000	0.659	0.118

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 22.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 36.8  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.195	0.180	0.242	0.198	0.195	0.044	0.086	0.202	2.45	0.230
Composite NOX :	0.124	0.160	0.256	0.187	0.173	0.024	0.099	0.413	1.27	0.171

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.036	0.047	0.063	0.051		0.029	0.061		1.154	
VOC Total Exhaust:	0.075	0.093	0.126	0.102	0.047	0.044	0.086	0.202	1.79	0.113
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.105	0.136	0.217	0.159		0.023	0.096		0.782	
NOx Total Exhaust:	0.124	0.160	0.256	0.187	0.173	0.024	0.099	0.413	1.27	0.171

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.045	0.031	0.038	0.033	0.041	0.000	0.000	0.000	0.000	0.039
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.121	0.087	0.116	0.095	0.148	0.000	0.000	0.000	0.659	0.117

\* #####

\* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 23.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 37.1  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
 Composite Emission Factors (g/mi):

Composite VOC :	0.195	0.180	0.241	0.197	0.194	0.043	0.085	0.200	2.44	0.229
Composite NOX :	0.124	0.161	0.256	0.187	0.174	0.024	0.099	0.413	1.27	0.171

-----  
 Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.036	0.047	0.063	0.051		0.028	0.060		1.148	
VOC Total Exhaust:	0.075	0.093	0.126	0.102	0.047	0.043	0.085	0.200	1.78	0.112
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.105	0.136	0.217	0.159		0.023	0.097		0.784	
NOx Total Exhaust:	0.124	0.161	0.256	0.187	0.174	0.024	0.099	0.413	1.27	0.171

-----  
 Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.044	0.031	0.037	0.033	0.041	0.000	0.000	0.000	0.000	0.038
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.120	0.087	0.116	0.094	0.147	0.000	0.000	0.000	0.659	0.117

-----  
 \* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 24.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.







ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.178	0.170	0.228	0.186	0.163	0.038	0.073	0.160	2.32	0.211
Composite NOX :	0.129	0.173	0.273	0.201	0.195	0.031	0.130	0.546	1.49	0.187
-----										
Exhaust emissions (g/mi):										
VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.038	0.051	0.066	0.055		0.023	0.048		1.026	
VOC Total Exhaust:	0.077	0.097	0.128	0.106	0.034	0.038	0.073	0.160	1.66	0.111
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.149	0.234	0.173		0.030	0.128		1.004	
NOx Total Exhaust:	0.129	0.173	0.273	0.201	0.195	0.031	0.130	0.546	1.49	0.187
-----										
Non-Exhaust Emissions (g/mi):										
Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.025	0.017	0.021	0.018	0.023	0.000	0.000	0.000	0.000	0.022
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.101	0.073	0.099	0.080	0.129	0.000	0.000	0.000	0.659	0.100

\* #####  
 \* 2028 Summer - Build  
 \* File 1, Run 1, Scenario 28.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 53.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.178	0.170	0.227	0.186	0.163	0.037	0.073	0.159	2.36	0.211
Composite NOX :	0.129	0.174	0.274	0.202	0.196	0.032	0.134	0.561	1.52	0.188
-----										
Exhaust emissions (g/mi):										
VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.038	0.051	0.066	0.055		0.023	0.048		1.069	
VOC Total Exhaust:	0.078	0.098	0.128	0.106	0.034	0.037	0.073	0.159	1.70	0.112
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.149	0.235	0.173		0.031	0.131		1.025	
NOx Total Exhaust:	0.129	0.174	0.274	0.202	0.196	0.032	0.134	0.561	1.52	0.188
-----										
Non-Exhaust Emissions (g/mi):										
Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.024	0.017	0.021	0.018	0.022	0.000	0.000	0.000	0.000	0.021
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.100	0.072	0.099	0.079	0.129	0.000	0.000	0.000	0.659	0.099
-----										





Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	1.019	0.707	0.891	0.755	0.970	0.000	0.000	0.000	0.659	0.901

\* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 3.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 4.2 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	-----	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.933	0.763	0.989	0.827	1.069	0.105	0.216	0.634	7.57	0.994
Composite NOX :	0.284	0.298	0.463	0.344	0.133	0.041	0.173	0.730	1.12	0.328

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.139	0.186	0.260	0.207		0.090	0.191		6.277	
VOC Total Exhaust:	0.179	0.232	0.323	0.258	0.341	0.105	0.216	0.634	6.91	0.322
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.265	0.273	0.424	0.316		0.040	0.171		0.631	
NOx Total Exhaust:	0.284	0.298	0.463	0.344	0.133	0.041	0.173	0.730	1.12	0.328

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.678	0.475	0.588	0.507	0.622	0.000	0.000	0.000	0.000	0.593
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.754	0.530	0.667	0.566	0.728	0.000	0.000	0.000	0.659	0.671

\* #####  
 \* 2028 Summer - No Build

\* File 1, Run 1, Scenario 4.  
 \* #####

M616 Comment: User has supplied post-1999 sulfur levels.  
 M615 Comment: User supplied VMT mix.

M582 Warning: The user supplied freeway average speed of 5.0 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning: there are no sales for vehicle class HDGV8b

M 48 Warning: there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
 Composite Emission Factors (g/mi):

Composite VOC :	0.707	0.601	0.781	0.652	0.860	0.102	0.211	0.617	6.91	0.784
Composite NOX :	0.273	0.289	0.450	0.334	0.134	0.040	0.170	0.714	1.11	0.318

-----  
 Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.125	0.166	0.232	0.184		0.087	0.186		5.615	
VOC Total Exhaust:	0.164	0.212	0.294	0.235	0.324	0.102	0.211	0.617	6.25	0.296
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.254	0.265	0.411	0.306		0.040	0.167		0.618	
NOx Total Exhaust:	0.273	0.289	0.450	0.334	0.134	0.040	0.170	0.714	1.11	0.318

-----  
 Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.466	0.333	0.409	0.354	0.429	0.000	0.000	0.000	0.000	0.409
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.542	0.389	0.487	0.414	0.535	0.000	0.000	0.000	0.659	0.488

-----  
 \* #####

\* 2028 Summer - No Build

\* File 1, Run 1, Scenario 5.

\* #####

M616 Comment: User has supplied post-1999 sulfur levels.  
 M615 Comment: User supplied VMT mix.  
 M582 Warning:









Composite Emission Factors (g/mi):

Composite VOC :	0.288	0.258	0.340	0.281	0.387	0.074	0.151	0.420	3.67	0.344
Composite NOX :	0.143	0.168	0.269	0.197	0.144	0.031	0.129	0.539	1.06	0.187

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.048	0.062	0.088	0.070		0.059	0.126		2.379	
VOC Total Exhaust:	0.087	0.109	0.151	0.121	0.165	0.074	0.151	0.420	3.01	0.156
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.124	0.144	0.230	0.168		0.030	0.126		0.569	
NOx Total Exhaust:	0.143	0.168	0.269	0.197	0.144	0.031	0.129	0.539	1.06	0.187

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.124	0.094	0.111	0.098	0.116	0.000	0.000	0.000	0.000	0.110
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.200	0.149	0.189	0.160	0.222	0.000	0.000	0.000	0.659	0.189

\* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 10.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 15.9  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.265	0.236	0.312	0.258	0.350	0.070	0.142	0.388	3.40	0.317
Composite NOX :	0.130	0.155	0.250	0.182	0.146	0.029	0.123	0.512	1.07	0.174

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.041	0.053	0.076	0.060		0.055	0.117		2.108	

VOC Total Exhaust:	0.081	0.100	0.138	0.111	0.143	0.070	0.142	0.388	2.74	0.143
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.131	0.211	0.153		0.028	0.120		0.575	
NOx Total Exhaust:	0.130	0.155	0.250	0.182	0.146	0.029	0.123	0.512	1.07	0.174

-----

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.109	0.081	0.096	0.085	0.101	0.000	0.000	0.000	0.000	0.096
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.185	0.137	0.174	0.146	0.208	0.000	0.000	0.000	0.659	0.174

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\* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 11.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 18.5  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):

Composite VOC :	0.247	0.220	0.293	0.241	0.312	0.064	0.130	0.349	3.18	0.295
Composite NOX :	0.129	0.157	0.252	0.184	0.150	0.028	0.115	0.482	1.09	0.173

-----

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.040	0.051	0.073	0.057		0.049	0.105		1.887	
VOC Total Exhaust:	0.079	0.098	0.135	0.108	0.120	0.064	0.130	0.349	2.52	0.136
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.132	0.213	0.155		0.027	0.113		0.601	
NOx Total Exhaust:	0.129	0.157	0.252	0.184	0.150	0.028	0.115	0.482	1.09	0.173

-----

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.092	0.067	0.079	0.070	0.086	0.000	0.000	0.000	0.000	0.081
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.168	0.122	0.157	0.131	0.192	0.000	0.000	0.000	0.659	0.159

\* #####

\* 2028 Summer - No Build

\* File 1, Run 1, Scenario 12.

\* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 19.0 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028  
Month: July  
Altitude: Low  
Minimum Temperature: 70.9 (F)  
Maximum Temperature: 94.1 (F)  
Absolute Humidity: 64. grains/lb  
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
Evap I/M Program: Yes  
ATP Program: Yes  
Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.244	0.218	0.289	0.238	0.305	0.064	0.128	0.343	3.15	0.291
Composite NOX :	0.129	0.157	0.252	0.184	0.150	0.027	0.114	0.477	1.10	0.173

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.040	0.051	0.072	0.057		0.049	0.103		1.852	
VOC Total Exhaust:	0.079	0.098	0.135	0.108	0.116	0.064	0.128	0.343	2.49	0.134
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.111	0.133	0.213	0.155		0.026	0.111		0.606	
NOx Total Exhaust:	0.129	0.157	0.252	0.184	0.150	0.027	0.114	0.477	1.10	0.173

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.089	0.064	0.077	0.068	0.083	0.000	0.000	0.000	0.000	0.078
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.165	0.120	0.155	0.129	0.190	0.000	0.000	0.000	0.659	0.157

-----  
 \* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 13.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 19.4  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000								
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
 Composite Emission Factors (g/mi):

Composite VOC :	0.242	0.216	0.287	0.236	0.301	0.063	0.127	0.338	3.12	0.289
Composite NOX :	0.129	0.157	0.253	0.184	0.151	0.027	0.113	0.473	1.10	0.173

-----  
 Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.039	0.051	0.072	0.057		0.048	0.102		1.825	
VOC Total Exhaust:	0.079	0.097	0.134	0.108	0.113	0.063	0.127	0.338	2.46	0.134
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.133	0.213	0.155		0.026	0.111		0.609	
NOx Total Exhaust:	0.129	0.157	0.253	0.184	0.151	0.027	0.113	0.473	1.10	0.173

-----  
 Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.087	0.062	0.075	0.066	0.081	0.000	0.000	0.000	0.000	0.077
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.163	0.118	0.153	0.127	0.188	0.000	0.000	0.000	0.659	0.155

-----  
 \* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 14.  
 \* #####  
 M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 19.7 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028
Month: July
Altitude: Low
Minimum Temperature: 70.9 (F)
Maximum Temperature: 94.1 (F)
Absolute Humidity: 64. grains/lb
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes
Evap I/M Program: Yes
ATP Program: Yes
Reformulated Gas: Yes

Table with 11 columns: Vehicle Type, LDGV, LDGT12, LDGT34, LDGT (All), HDGV, LDDV, LDDT, HDDV, MC, All Veh. Rows include VMT Distribution, Composite Emission Factors (g/mi), Exhaust emissions (g/mi), and Non-Exhaust Emissions (g/mi).

\* #####
\* 2028 Summer - No Build
\* File 1, Run 1, Scenario 15.
\* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 21.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways













Running Loss:	0.048	0.034	0.040	0.036	0.044	0.000	0.000	0.000	0.000	0.042
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.124	0.089	0.119	0.097	0.151	0.000	0.000	0.000	0.659	0.120

-----  
\* #####  
\* 2028 Summer - No Build  
\* File 1, Run 1, Scenario 22.  
\* #####

M616 Comment:  
User has supplied post-1999 sulfur levels.

M615 Comment:  
User supplied VMT mix.

M582 Warning:  
The user supplied freeway average speed of 35.2  
will be used for all hours of the day. 100% of VMT  
has been assigned to a fixed combination of freeways  
and freeway ramps for all hours of the day and all  
vehicle types.

M 48 Warning:  
there are no sales for vehicle class HDGV8b

M 48 Warning:  
there are no sales for vehicle class LDDT12

Calendar Year: 2028  
Month: July  
Altitude: Low  
Minimum Temperature: 70.9 (F)  
Maximum Temperature: 94.1 (F)  
Absolute Humidity: 64. grains/lb  
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
Evap I/M Program: Yes  
ATP Program: Yes  
Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
Composite Emission Factors (g/mi):

Composite VOC :	0.198	0.182	0.244	0.199	0.200	0.045	0.088	0.209	2.48	0.233
Composite NOX :	0.124	0.159	0.255	0.186	0.171	0.024	0.098	0.409	1.26	0.170

-----  
Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.035	0.046	0.063	0.051		0.030	0.063		1.190	
VOC Total Exhaust:	0.075	0.093	0.126	0.102	0.050	0.045	0.088	0.209	1.83	0.113
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.105	0.135	0.215	0.158		0.023	0.096		0.772	
NOx Total Exhaust:	0.124	0.159	0.255	0.186	0.171	0.024	0.098	0.409	1.26	0.170

-----  
Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.047	0.033	0.040	0.035	0.044	0.000	0.000	0.000	0.000	0.041
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.123	0.089	0.118	0.097	0.150	0.000	0.000	0.000	0.659	0.120

-----  
\* #####

\* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 23.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 37.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.195	0.180	0.241	0.197	0.194	0.043	0.085	0.200	2.44	0.229
Composite NOX :	0.124	0.161	0.256	0.187	0.174	0.024	0.099	0.413	1.27	0.171

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.036	0.047	0.063	0.051		0.028	0.060		1.146	
VOC Total Exhaust:	0.075	0.093	0.126	0.102	0.047	0.043	0.085	0.200	1.78	0.112
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.105	0.136	0.217	0.159		0.023	0.097		0.785	
NOx Total Exhaust:	0.124	0.161	0.256	0.187	0.174	0.024	0.099	0.413	1.27	0.171

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.044	0.031	0.037	0.033	0.041	0.000	0.000	0.000	0.000	0.038
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.120	0.087	0.115	0.094	0.147	0.000	0.000	0.000	0.659	0.117

\* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 24.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.







ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	0.181	0.172	0.230	0.188	0.168	0.038	0.075	0.165	2.32	0.214
Composite NOX :	0.127	0.170	0.268	0.197	0.189	0.028	0.117	0.487	1.38	0.181
Exhaust emissions (g/mi):										
VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.038	0.050	0.065	0.054		0.023	0.050		1.026	
VOC Total Exhaust:	0.077	0.096	0.128	0.105	0.035	0.038	0.075	0.165	1.66	0.111
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.109	0.145	0.229	0.169		0.027	0.114		0.888	
NOx Total Exhaust:	0.127	0.170	0.268	0.197	0.189	0.028	0.117	0.487	1.38	0.181
Non-Exhaust Emissions (g/mi):										
Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.029	0.020	0.024	0.021	0.026	0.000	0.000	0.000	0.000	0.025
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.105	0.075	0.102	0.082	0.133	0.000	0.000	0.000	0.659	0.103

\* #####  
 \* 2028 Summer - No Build  
 \* File 1, Run 1, Scenario 28.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 49.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type: GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000



VOC Running:	0.038	0.050	0.065	0.054		0.023	0.050		1.026	
VOC Total Exhaust:	0.077	0.097	0.128	0.105	0.035	0.038	0.074	0.164	1.66	0.111
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.109	0.146	0.230	0.169		0.028	0.116		0.910	
NOx Total Exhaust:	0.128	0.170	0.269	0.198	0.190	0.028	0.119	0.498	1.40	0.182

-----  
Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.028	0.019	0.024	0.020	0.026	0.000	0.000	0.000	0.000	0.024
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.104	0.075	0.102	0.082	0.132	0.000	0.000	0.000	0.659	0.103

-----





\* #####  
 \* 2028 Summer - Route 92  
 \* File 1, Run 1, Scenario 3.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.1  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----  
 Composite Emission Factors (g/mi):

Composite VOC :	0.234	0.208	0.278	0.228	0.283	0.060	0.121	0.319	3.02	0.278
Composite NOX :	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.459	1.11	0.173

-----  
 Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.039	0.050	0.070	0.056		0.045	0.096		1.721	
VOC Total Exhaust:	0.078	0.096	0.133	0.107	0.102	0.060	0.121	0.319	2.36	0.130
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.134	0.214	0.156		0.025	0.107		0.624	
NOx Total Exhaust:	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.459	1.11	0.173

-----  
 Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.080	0.056	0.067	0.059	0.074	0.000	0.000	0.000	0.000	0.070
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.156	0.112	0.145	0.121	0.181	0.000	0.000	0.000	0.659	0.148

\* #####  
 \* 2028 Summer - 6-Lane Route 1  
 \* File 1, Run 1, Scenario 4.  
 \* #####  
 M616 Comment:  
 User has supplied post-1999 sulfur levels.





Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite VOC :	0.237	0.211	0.281	0.231	0.290	0.061	0.124	0.327	3.06	0.282
Composite NOX :	0.129	0.158	0.253	0.184	0.152	0.027	0.111	0.465	1.11	0.173

Exhaust emissions (g/mi):

VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.039	0.050	0.071	0.056		0.046	0.099		1.762	
VOC Total Exhaust:	0.078	0.097	0.133	0.107	0.106	0.061	0.124	0.327	2.40	0.132
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.133	0.214	0.156		0.026	0.109		0.617	
NOx Total Exhaust:	0.129	0.158	0.253	0.184	0.152	0.027	0.111	0.465	1.11	0.173

Non-Exhaust Emissions (g/mi):

Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.083	0.058	0.070	0.062	0.077	0.000	0.000	0.000	0.000	0.072
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.159	0.114	0.148	0.123	0.183	0.000	0.000	0.000	0.659	0.151

\* #####  
 \* 2028 Summer - Route 92 without Perrine Rd. Intersection  
 \* File 1, Run 1, Scenario 7.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 21.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: July  
 Altitude: Low  
 Minimum Temperature: 70.9 (F)  
 Maximum Temperature: 94.1 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite VOC :	0.234	0.209	0.279	0.228	0.283	0.060	0.122	0.320	3.02	0.279
Composite NOX :	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.460	1.11	0.173
-----										
Exhaust emissions (g/mi):										
VOC Start:	0.039	0.047	0.063	0.051		0.015	0.025		0.635	
VOC Running:	0.039	0.050	0.070	0.056		0.045	0.097		1.727	
VOC Total Exhaust:	0.078	0.097	0.133	0.107	0.102	0.060	0.122	0.320	2.36	0.130
NOx Start:	0.019	0.024	0.039	0.029		0.001	0.003		0.490	
NOx Running:	0.110	0.133	0.214	0.156		0.025	0.107		0.623	
NOx Total Exhaust:	0.129	0.158	0.253	0.185	0.153	0.026	0.110	0.460	1.11	0.173
-----										
Non-Exhaust Emissions (g/mi):										
Hot Soak Loss:	0.040	0.022	0.034	0.026	0.028	0.000	0.000	0.000	0.142	0.036
Diurnal Loss:	0.004	0.003	0.004	0.003	0.006	0.000	0.000	0.000	0.010	0.004
Resting Loss:	0.015	0.009	0.014	0.010	0.015	0.000	0.000	0.000	0.506	0.020
Running Loss:	0.080	0.056	0.068	0.060	0.075	0.000	0.000	0.000	0.000	0.070
Crankcase Loss:	0.008	0.009	0.009	0.009	0.011	0.000	0.000	0.000	0.000	0.008
Refueling Loss:	0.009	0.013	0.017	0.014	0.047	0.000	0.000	0.000	0.000	0.011
Total Non-Exhaust:	0.156	0.112	0.146	0.121	0.181	0.000	0.000	0.000	0.659	0.148
-----										



\* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 2.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 5.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite CO :	17.31	15.90	19.26	16.85	28.11	1.682	1.164	0.753	61.12	17.305
----------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	--------

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	9.22	9.46	12.22	10.23		1.430	1.030		55.237	
CO Total Exhaust:	17.31	15.90	19.26	16.85	28.11	1.682	1.164	0.753	61.12	17.305

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 3.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 5.6  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.

Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	16.51	15.12	18.25	16.00	26.84	1.623	1.122	0.722	56.03	16.453
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	8.42	8.67	11.20	9.38		1.371	0.988		50.143	
CO Total Exhaust:	16.51	15.12	18.25	16.00	26.84	1.623	1.122	0.722	56.03	16.453
-----										

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 4.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 6.9 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	15.22	13.83	16.58	14.60	23.52	1.466	1.009	0.640	46.18	15.023
-----										
Exhaust emissions (g/mi):										

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	7.12	7.38	9.54	7.99		1.214	0.875		40.294	
CO Total Exhaust:	15.22	13.83	16.58	14.60	23.52	1.466	1.009	0.640	46.18	15.023

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 5.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 8.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):  
 Composite CO : 14.28 12.89 15.37 13.59 21.11 1.352 0.927 0.580 39.02 13.985

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	6.19	6.45	8.33	6.98		1.100	0.793		33.138	
CO Total Exhaust:	14.28	12.89	15.37	13.59	21.11	1.352	0.927	0.580	39.02	13.985

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 6.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 11.2 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.



VMT Distribution:	0.6664	0.1840	0.0719	0.0180	0.0006	0.0011	0.0430	0.0150	1.0000	
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.97	11.58	13.67	12.17	16.85	1.147	0.779	0.472	28.64	12.510
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.88	5.13	6.63	5.55		0.896	0.645		22.754	
CO Total Exhaust:	12.97	11.58	13.67	12.17	16.85	1.147	0.779	0.472	28.64	12.510

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 8.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 14.3  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.50	11.09	13.05	11.64	14.26	1.019	0.687	0.404	24.42	11.950
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.41	4.65	6.00	5.03		0.768	0.553		18.538	
CO Total Exhaust:	12.50	11.09	13.05	11.64	14.26	1.019	0.687	0.404	24.42	11.950

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 9.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:





\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 12.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite CO :	12.14	10.72	12.55	11.23	9.65	0.783	0.517	0.280	18.31	11.425
-----										

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.05	4.28	5.50	4.62		0.532	0.383		12.425	
CO Total Exhaust:	12.14	10.72	12.55	11.23	9.65	0.783	0.517	0.280	18.31	11.425

-----

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 13.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.5  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028



Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.00	4.22	5.43	4.56		0.471	0.339		11.045	
CO Total Exhaust:	12.09	10.67	12.48	11.18	8.51	0.722	0.473	0.248	16.93	11.335

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 15.  
 \* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 26.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite CO :	12.05	10.63	12.42	11.13	7.64	0.675	0.439	0.223	15.84	11.264
----------------	-------	-------	-------	-------	------	-------	-------	-------	-------	--------

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.96	4.18	5.38	4.52		0.424	0.305		9.951	
CO Total Exhaust:	12.05	10.63	12.42	11.13	7.64	0.675	0.439	0.223	15.84	11.264

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 16.  
 \* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 28.6 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all







Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.02	10.60	12.38	11.10	6.34	0.601	0.386	0.184	13.91	11.183
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.93	4.16	5.34	4.49		0.349	0.252		8.024	
CO Total Exhaust:	12.02	10.60	12.38	11.10	6.34	0.601	0.386	0.184	13.91	11.183
-----										

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 21.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 36.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.14	10.74	12.56	11.25	5.72	0.563	0.359	0.164	12.78	11.275
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.05	4.30	5.51	4.64		0.311	0.224		6.894	
CO Total Exhaust:	12.14	10.74	12.56	11.25	5.72	0.563	0.359	0.164	12.78	11.275
-----										

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 22.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 36.8  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	-----	<6000	>6000	(All)	-----	-----	-----	-----	-----	-----
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite CO :	12.18	10.79	12.61	11.30	5.67	0.559	0.356	0.162	12.65	11.310

-----

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.09	4.34	5.56	4.69		0.308	0.222		6.768	
CO Total Exhaust:	12.18	10.79	12.61	11.30	5.67	0.559	0.356	0.162	12.65	11.310

-----

\* #####  
 \* 2028 Winter - Build  
 \* File 1, Run 1, Scenario 23.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 37.1  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12











\* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 2.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 3.5  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite CO :	20.47	18.97	23.25	20.17	31.29	1.826	1.269	0.830	78.89	20.584

-----

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	12.37	12.52	16.20	13.56		1.575	1.135		73.006	
CO Total Exhaust:	20.47	18.97	23.25	20.17	31.29	1.826	1.269	0.830	78.89	20.584

-----

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 3.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 4.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.

Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	18.71	17.26	21.03	18.32	29.52	1.746	1.211	0.787	69.02	18.763
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	10.62	10.82	13.99	11.71		1.494	1.077		63.134	
CO Total Exhaust:	18.71	17.26	21.03	18.32	29.52	1.746	1.211	0.787	69.02	18.763
-----										

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 4.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 5.0 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	17.31	15.90	19.26	16.85	28.11	1.682	1.164	0.753	61.12	17.305
-----										
Exhaust emissions (g/mi):										

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	9.22	9.46	12.22	10.23		1.430	1.030		55.237	
CO Total Exhaust:	17.31	15.90	19.26	16.85	28.11	1.682	1.164	0.753	61.12	17.305

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 5.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 5.3  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):  
 Composite CO : 16.89 15.50 18.74 16.41 27.69 1.662 1.151 0.743 58.78 16.872

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	8.80	9.05	11.69	9.79		1.411	1.016		52.890	
CO Total Exhaust:	16.89	15.50	18.74	16.41	27.69	1.662	1.151	0.743	58.78	16.872

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 6.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 7.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.



VMT Distribution:	0.6664	0.1840	0.0719	0.0180	0.0006	0.0011	0.0430	0.0150	1.0000	
-----										
Composite Emission Factors (g/mi):										
Composite CO :	14.64	13.25	15.84	13.98	22.03	1.396	0.958	0.603	41.77	14.384
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61	0.252	0.134			5.886	
CO Running:	6.55	6.81	8.79	7.36	1.144	0.824			35.886	
CO Total Exhaust:	14.64	13.25	15.84	13.98	22.03	1.396	0.958	0.603	41.77	14.384

\* #####  
\* 2028 Winter - No Build  
\* File 1, Run 1, Scenario 8.  
\* #####

M616 Comment:  
User has supplied post-1999 sulfur levels.  
M615 Comment:  
User supplied VMT mix.  
M582 Warning:  
The user supplied freeway average speed of 11.5  
will be used for all hours of the day. 100% of VMT  
has been assigned to a fixed combination of freeways  
and freeway ramps for all hours of the day and all  
vehicle types.  
M 48 Warning:  
there are no sales for vehicle class HDGV8b  
M 48 Warning:  
there are no sales for vehicle class LDDT12

Calendar Year: 2028  
Month: Jan.  
Altitude: Low  
Minimum Temperature: 31.0 (F)  
Maximum Temperature: 31.0 (F)  
Absolute Humidity: 64. grains/lb  
Fuel Sulfur Content: 30. ppm  
Exhaust I/M Program: Yes  
Evap I/M Program: Yes  
ATP Program: Yes  
Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719	0.0180	0.0006	0.0011	0.0430	0.0150	1.0000	
-----										
Composite Emission Factors (g/mi):										
Composite CO :	13.04	11.65	13.77	12.24	17.24	1.166	0.793	0.482	29.27	12.594
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61	0.252	0.134			5.886	
CO Running:	4.95	5.20	6.72	5.63	0.915	0.659			23.383	
CO Total Exhaust:	13.04	11.65	13.77	12.24	17.24	1.166	0.793	0.482	29.27	12.594

\* #####  
\* 2028 Winter - No Build  
\* File 1, Run 1, Scenario 9.  
\* #####

M616 Comment:  
User has supplied post-1999 sulfur levels.  
M615 Comment:





\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 12.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 19.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite CO :	12.19	10.78	12.63	11.30	10.82	0.844	0.561	0.312	19.75	11.520
-----										

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.10	4.33	5.58	4.68		0.592	0.427		13.863	
CO Total Exhaust:	12.19	10.78	12.63	11.30	10.82	0.844	0.561	0.312	19.75	11.520

-----

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 13.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 19.4  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028



Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886
CO Running:	4.08	4.31	5.56	4.66		0.572	0.412		13.373
CO Total Exhaust:	12.17	10.76	12.60	11.27	10.42	0.823	0.546	0.301	19.26 11.488

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 15.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 21.3 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

Composite Emission Factors (g/mi):

Composite CO :	12.14	10.72	12.55	11.23	9.60	0.780	0.515	0.279	18.25	11.421
----------------	-------	-------	-------	-------	------	-------	-------	-------	-------	--------

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886
CO Running:	4.04	4.27	5.50	4.62		0.529	0.381		12.366
CO Total Exhaust:	12.14	10.72	12.55	11.23	9.60	0.780	0.515	0.279	18.25 11.421

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 16.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 22.9 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all



GVWR:	<6000	>6000	(All)							
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
Composite Emission Factors (g/mi):										
Composite CO :	12.08	10.67	12.47	11.17	8.43	0.718	0.470	0.246	16.84	11.328
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.99	4.22	5.43	4.56		0.466	0.336		10.952	
CO Total Exhaust:	12.08	10.67	12.47	11.17	8.43	0.718	0.470	0.246	16.84	11.328

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 18.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 26.5 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
Composite Emission Factors (g/mi):										
Composite CO :	12.05	10.63	12.42	11.13	7.58	0.672	0.437	0.221	15.75	11.259
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.95	4.18	5.37	4.52		0.420	0.303		9.868	
CO Total Exhaust:	12.05	10.63	12.42	11.13	7.58	0.672	0.437	0.221	15.75	11.259

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 19.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.



Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.00	10.58	12.35	11.08	6.59	0.616	0.397	0.192	14.35	11.176
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.91	4.14	5.31	4.47		0.364	0.262		8.461	
CO Total Exhaust:	12.00	10.58	12.35	11.08	6.59	0.616	0.397	0.192	14.35	11.176
-----										

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 21.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.  
 M615 Comment:  
 User supplied VMT mix.  
 M582 Warning:  
 The user supplied freeway average speed of 34.9  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.  
 M 48 Warning:  
 there are no sales for vehicle class HDGV8b  
 M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm  
 Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.06	10.65	12.44	11.15	5.85	0.572	0.365	0.169	13.07	11.198
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.96	4.20	5.39	4.54		0.320	0.231		7.182	
CO Total Exhaust:	12.06	10.65	12.44	11.15	5.85	0.572	0.365	0.169	13.07	11.198
-----										

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 22.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 35.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000

-----

Composite Emission Factors (g/mi):										
Composite CO :	12.07	10.67	12.46	11.17	5.82	0.570	0.363	0.168	13.00	11.213

-----

Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	3.98	4.22	5.42	4.56		0.318	0.229		7.113	
CO Total Exhaust:	12.07	10.67	12.46	11.17	5.82	0.570	0.363	0.168	13.00	11.213

-----

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 23.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 37.2  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.21	10.81	12.64	11.33	5.63	0.557	0.354	0.161	12.57	11.333
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.12	4.37	5.60	4.72		0.305	0.220		6.686	
CO Total Exhaust:	12.21	10.81	12.64	11.33	5.63	0.557	0.354	0.161	12.57	11.333
-----										

\* #####  
 \* 2028 Winter - No Build  
 \* File 1, Run 1, Scenario 24.  
 \* #####

M616 Comment:

User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 38.2 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.27	10.88	12.73	11.40	5.55	0.551	0.350	0.158	12.38	11.389







User has supplied post-1999 sulfur levels.

M615 Comment:

User supplied VMT mix.

M582 Warning:

The user supplied freeway average speed of 49.1 will be used for all hours of the day. 100% of VMT has been assigned to a fixed combination of freeways and freeway ramps for all hours of the day and all vehicle types.

M 48 Warning:

there are no sales for vehicle class HDGV8b

M 48 Warning:

there are no sales for vehicle class LDDT12

Calendar Year: 2028  
Month: Jan.  
Altitude: Low  
Minimum Temperature: 31.0 (F)  
Maximum Temperature: 31.0 (F)  
Absolute Humidity: 64. grains/lb  
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
Evap I/M Program: Yes  
ATP Program: Yes  
Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.99	11.67	13.69	12.23	5.59	0.530	0.335	0.147	11.32	12.064
-----										
Exhaust emissions (g/mi):										
CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.90	5.22	6.64	5.62		0.278	0.201		5.434	
CO Total Exhaust:	12.99	11.67	13.69	12.23	5.59	0.530	0.335	0.147	11.32	12.064
-----										







-----  
 \* #####  
 \* 2028 Winter - Route 1 with Signals Removed  
 \* File 1, Run 1, Scenario 5.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 20.0  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12

Calendar Year: 2028  
 Month: Jan.  
 Altitude: Low  
 Minimum Temperature: 31.0 (F)  
 Maximum Temperature: 31.0 (F)  
 Absolute Humidity: 64. grains/lb  
 Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes  
 Evap I/M Program: Yes  
 ATP Program: Yes  
 Reformulated Gas: Yes

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:	<6000	>6000								
VMT Distribution:	0.6664	0.1840	0.0719		0.0180	0.0006	0.0011	0.0430	0.0150	1.0000
-----										
Composite Emission Factors (g/mi):										
Composite CO :	12.17	10.75	12.59	11.27	10.26	0.815	0.540	0.297	19.06	11.475

-----  
 Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.07	4.30	5.54	4.65		0.564	0.406		13.173	
CO Total Exhaust:	12.17	10.75	12.59	11.27	10.26	0.815	0.540	0.297	19.06	11.475

-----  
 \* #####  
 \* 2028 Winter - 2-Lane Route 92  
 \* File 1, Run 1, Scenario 6.  
 \* #####

M616 Comment:  
 User has supplied post-1999 sulfur levels.

M615 Comment:  
 User supplied VMT mix.

M582 Warning:  
 The user supplied freeway average speed of 20.4  
 will be used for all hours of the day. 100% of VMT  
 has been assigned to a fixed combination of freeways  
 and freeway ramps for all hours of the day and all  
 vehicle types.

M 48 Warning:  
 there are no sales for vehicle class HDGV8b

M 48 Warning:  
 there are no sales for vehicle class LDDT12



Composite CO : 12.14 10.73 12.56 11.24 9.75 0.788 0.521 0.283 18.43 11.433

-----  
Exhaust emissions (g/mi):

CO Start:	8.09	6.44	7.05	6.61		0.252	0.134		5.886	
CO Running:	4.05	4.28	5.51	4.63		0.537	0.387		12.545	
CO Total Exhaust:	12.14	10.73	12.56	11.24	9.75	0.788	0.521	0.283	18.43	11.433

-----

**CAL3QHC DIAGRAMS & INPUT/OUTPUT  
FILES**

'Kingston Ln & Rt. 522'	60.00	108.000	0.00	0.00	4	1.0000	0	1				
'Rcpt_1		19.00	14.00	1.80								
'Rcpt_2		18.58	-13.54	1.80								
'Rcpt_3		-14.04	-15.04	1.80								
'Rcpt_4		-14.04	15.05	1.80								
'Rt 92 Build' 20 1 0 'C'												
2												
'N-LQ		'AG'	2.00	-12.00	22.68	-32.68	0.00	4.00	1			
146 98	2.00	179	23.81	1626	2	3						
1												
'N-FA		'AG'	359.55	-365.55	6.00	-12.00	66.00	11.43	0.00	10.00		
2												
'N-TQ		'AG'	6.00	-12.00	13.62	-19.62	0.00	4.00	1			
146 98	2.00	66	23.81	1810	1	3						
2												
'N-RQ		'AG'	10.00	-12.00	13.54	-15.54	0.00	4.00	1			
146 98	2.00	10	23.81	1615	1	3						
1												
'N-FD		'AG'	6.00	12.00	359.55	365.55	931.00	11.41	0.00	10.00		
2												
'S-LQ		'AG'	-2.00	12.00	7.93	21.93	0.00	4.00	1			
146 98	2.00	86	23.81	1787	1	3						
1												
'S-FA		'AG'	347.55	365.55	-6.00	12.00	150.00	16.45	0.00	10.00		
2												
'S-TQ		'AG'	-6.00	12.00	11.32	29.32	0.00	4.00	1			
146 98	2.00	150	23.81	1764	1	3						
2												
'S-RQ		'AG'	-7.00	12.00	0.07	19.07	0.00	4.00	1			
146 98	2.00	81	23.81	1764	2	3						
1												
'S-FD		'AG'	-6.00	-12.00	347.55	-365.55	521.00	11.18	0.00	10.00		
2												
'E-LQ		'AG'	-12.00	-2.00	-512.00	-2.00	0.00	4.00	1			
146 134	2.00	847	23.81	1805	2	3						
1												
'E-FA		'AG'	-500.00	-6.00	0.00	-6.00	296.00	15.02	0.00	10.00		
2												
'E-TQ		'AG'	-12.00	-6.00	-90.10	-6.00	0.00	4.00	1			
146 118	2.00	296	23.81	1900	1	3						
2												
'E-RQ		'AG'	-12.00	-10.00	-301.00	-10.00	0.00	4.00	1			
146 114	2.00	361	23.81	1553	1	3						
1												
'E-FD		'AG'	0.00	-6.00	500.00	-6.00	392.00	8.49	0.00	10.00		
2												
'W-LQ		'AG'	12.00	2.00	17.00	2.00	0.00	4.00	1			
146 134	2.00	10	23.81	1805	2	3						
1												
'W-FA		'AG'	500.00	6.00	0.00	6.00	123.00	11.18	0.00	10.00		
2												
'W-TQ		'AG'	12.00	6.00	35.37	6.00	0.00	4.00	1			
146 114	2.00	123	23.81	1827	1	3						
2												
'W-RQ		'AG'	12.00	10.00	17.00	10.00	0.00	4.00	1			
146 114	2.00	18	23.81	1615	1	3						
1												
'W-FD		'AG'	0.00	6.00	-500.00	6.00	383.00	11.45	0.00	10.00		
1.00	0.00	5	1000.00	1.90	'Y'	5	0	72				

'Dey Rd. & CR 535'	60.00	108.000	0.00	0.00	3	1.0000	0	0				
'Rcpt_1			-10.00	7.00				1.80				
'Rcpt_2			-10.00	-6.00				1.80				
'Rcpt_3			10.00	0.00				1.80				
'2028 Route 92'	11	1	0	'C'								
1												
'N-FA			'AG'	2.00	-500.00	2.00	0.00	1489.00	11.54	0.00		
10.00												
2												
'N-LQ			'AG'	1.00	-2.00	1.00	-4467.81	0.00	4.00	1		
120	107	2.00	69	23.81	1814	2	3					
2												
'N-TQ			'AG'	3.00	-2.00	3.00	-4516.20	0.00	4.00	1		
120	107	2.00	1489	23.81	1814	1	3					
1												
'N-FD			'AG'	2.00	0.00	2.00	500.00	1699.00	11.63	0.00		
10.00												
1												
'S-FA			'AG'	-2.00	500.00	-2.00	0.00	685.00	11.26	0.00	10.00	
2												
'S-RQ			'AG'	-3.00	2.00	-3.00	2476.00	0.00	4.00	1		
120	41	2.00	362	23.81	1888	1	3					
2												
'S-TQ			'AG'	-1.00	2.00	-1.00	48.81	0.00	4.00	1		
120	41	2.00	685	23.81	1888	1	3					
1												
'S-FD			'AG'	-2.00	0.00	-2.00	-500.00	861.00	11.19	0.00	10.00	
2												
'E-RQ			'AG'	-4.00	-1.00	-32.01	-1.00	0.00	4.00	1		
120	96	2.00	176	23.81	1605	2	3					
2												
'E-LQ			'AG'	-4.00	1.00	-37.43	1.00	0.00	4.00	1		
120	96	2.00	210	23.81	1605	2	3					
1												
'W-FD			'AG'	-4.00	3.00	-52.00	3.00	431.00	11.31	0.00	10.00	
1.00	0.00	5	1000.00	1.90	'Y'	5	0	72				



'Rt. 32 Forsgate Dr. & CR 535'											60.00	108.000	0.00	0.00	4	1.0000	0	1		
'Rcpt_1											'	14.00	22.00	1.80						
'Rcpt_2											'	15.00	-22.00	1.80						
'Rcpt_3											'	-18.00	-22.00	1.80						
'Rcpt_4											'	-18.00	22.00	1.80						
'2028 Route 92' 20 1 0 'C'																				
2																				
'N-LQ											'	'AG'	2.00	-16.00	2.00	-21.00	0.00	4.00	1	
135 121											2.00	10	23.81	1752	2	3				
1																				
'N-FA											'	'AG'	6.00	-500.00	6.00	0.00	576.00	17.30	0.00	10.00
2																				
'N-TQ											'	'AG'	5.00	-16.00	5.00	-66.06	0.00	4.00	2	
135 102											2.00	573	23.81	1776	1	3				
2																				
'N-RQ											'	'AG'	10.00	-16.00	10.00	-1046.43	0.00	4.00	1	
135 102											2.00	613	23.81	1495	1	3				
1																				
'N-FD											'	'AG'	6.00	0.00	6.00	500.00	928.00	11.18	0.00	10.00
2																				
'S-LQ											'	'AG'	-2.00	16.00	-2.00	1220.01	0.00	4.00	1	
135 121											2.00	482	23.81	1805	1	3				
1																				
'S-FA											'	'AG'	-8.00	500.00	-8.00	0.00	817.00	13.98	0.00	14.00
2																				
'S-TQ											'	'AG'	-7.00	16.00	-7.00	85.44	0.00	8.00	2	
135 102											2.00	817	23.81	3145	1	3				
2																				
'S-RQ											'	'AG'	-10.00	16.00	-10.00	66.15	0.00	4.00	1	
135 102											2.00	295	23.81	3145	1	3				
1																				
'S-FD											'	'AG'	-8.00	0.00	-8.00	-500.00	1655.00	11.21	0.00	
14.00																				
2																				
'E-LQ											'	'AG'	-12.00	-2.00	-409.95	-2.00	0.00	4.00	1	
135 124											2.00	197	23.81	1656	2	3				
1																				
'E-FA											'	'AG'	-500.00	-10.00	0.00	-10.00	605.00	12.34	0.00	18.00
2																				
'E-TQ											'	'AG'	-12.00	-9.00	-33.51	-9.00	0.00	12.00	3	
135 64											2.00	605	23.81	4637	1	3				
2																				
'E-RQ											'	'AG'	-12.00	-14.00	-22.99	-14.00	0.00	4.00	1	
135 64											2.00	103	23.81	4637	1	3				
1																				
'E-FD											'	'AG'	0.00	-10.00	500.00	-10.00	1700.00	11.34	0.00	
18.00																				
2																				
'W-LQ											'	'AG'	12.00	2.00	2179.18	2.00	0.00	4.00	1	
135 124											2.00	735	23.81	1770	2	3				
1																				
'W-FA											'	'AG'	500.00	10.00	0.00	10.00	1348.00	11.95	0.00	
18.00																				
2																				
'W-TQ											'	'AG'	12.00	9.00	59.93	9.00	0.00	12.00	3	
135 64											2.00	1348	23.81	5061	1	3				
2																				
'W-RQ											'	'AG'	12.00	14.00	28.53	14.00	0.00	4.00	1	
135 64											2.00	155	23.81	5061	1	3				
1																				
'W-FD											'	'AG'	0.00	10.00	-500.00	10.00	1653.00	12.28	0.00	
18.00																				
1.00											0.00	5	1000.00	1.90	'Y'	5	0	72		

'Kingston Ln & Rt. 522'											60.00	108.000	0.00	0.00	4	1.0000	0	1			
'Rcpt_1											19.00	14.00	1.80								
'Rcpt_2											18.58	-13.54	1.80								
'Rcpt_3											-14.04	-15.04	1.80								
'Rcpt_4											-14.04	15.05	1.80								
'2028 No Build'											20	1	0	'C'							
2																					
'N-LQ											2.00	192	23.81	1530	2	3					
146	98										2.00	192	23.81	1530	2	3					
1																					
'N-FA											359.55	-365.55	6.00	-12.00	134.00	11.70	0.00	10.00			
2																					
'N-TQ											6.00	-12.00	21.48	-27.48	0.00	4.00					
146	98										2.00	134	23.81	1712	1	3					
2																					
'N-RQ											10.00	-12.00	13.54	-15.54	0.00	4.00					
146	98										2.00	10	23.81	1615	1	3					
1																					
'N-FD											6.00	12.00	359.55	365.55	1057.00	11.52	0.00				
10.00																					
2																					
'S-LQ											-2.00	12.00	11.97	25.97	0.00	4.00					
146	98										2.00	121	23.81	1752	1	3					
1																					
'S-FA											347.55	365.55	-6.00	12.00	10.00	17.30	0.00	10.00			
2																					
'S-TQ											-6.00	12.00	-2.46	15.54	0.00	4.00					
146	98										2.00	10	23.81	1595	1	3					
2																					
'S-RQ											-7.00	12.00	3.51	22.51	0.00	4.00					
146	98										2.00	91	23.81	1595	2	3					
1																					
'S-FD											-6.00	-12.00	347.55	-365.55	538.00	11.21	0.00	10.00			
2																					
'E-LQ											-12.00	-2.00	-512.00	-2.00	0.00	4.00					
146	134										2.00	884	23.81	1805	2	3					
1																					
'E-FA											-50.00	-6.00	0.00	-6.00	507.00	20.58	0.00	10.00			
2																					
'E-TQ											-12.00	-6.00	-597.10	-6.00	0.00	4.00					
146	114										2.00	507	23.81	1863	1	3					
2																					
'E-RQ											-12.00	-10.00	-841.29	-10.00	0.00	4.00					
146	114										2.00	518	23.81	1509	1	3					
1																					
'E-FD											0.00	-6.00	500.00	-6.00	638.00	11.39	0.00	10.00			
2																					
'W-LQ											12.00	2.00	17.00	2.00	0.00	4.00					
146	134										2.00	10	23.81	1805	2	3					
1																					
'W-FA											500.00	6.00	0.00	6.00	150.00	11.18	0.00	10.00			
2																					
'W-TQ											12.00	6.00	40.50	6.00	0.00	4.00					
146	114										2.00	150	23.81	1727	1	3					
2																					
'W-RQ											12.00	10.00	19.41	10.00	0.00	4.00					
146	114										2.00	39	23.81	1553	1	3					
1																					
'W-FD											0.00	6.00	-500.00	6.00	433.00	11.44	0.00	10.00			
1.00	0.00	5	1000.00	2.00	'Y'	5	0	72													

'Dey Rd. & CR 535'	60.00	108.000	0.00	0.00	3	1.0000	0	0		
'Rcpt_1			' -10.00	6.00	1.80					
'Rcpt_2			' -10.00	-6.00	1.80					
'Rcpt_3			' 10.00	0.00	1.80					
'2028 No Build'	11	1	0	'C'						
1										
'N-FA			' 'AG'	2.00	-500.00	2.00	0.00	996.00	11.36	0.00 10.00
2										
'N-LQ			' 'AG'	1.00	-2.00	1.00	-14.31	0.00	4.00	1
120 107	2.00	262	23.81	1784	2	3				
2										
'N-TQ			' 'AG'	3.00	-2.00	3.00	-2894.26	0.00	4.00	1
120 107	2.00	996	23.81	1784	1	3				
1										
'N-FD			' 'AG'	2.00	0.00	2.00	500.00	1186.00	11.33	0.00
10.00										
1										
'S-FA			' 'AG'	-2.00	500.00	-2.00	0.00	1197.00	11.49	0.00
10.00										
2										
'S-RQ			' 'AG'	-3.00	2.00	-3.00	20.72	0.00	4.00	1
120 41	2.00	274	23.81	1856	1	3				
2										
'S-TQ			' 'AG'	-1.00	2.00	-1.00	247.00	0.00	4.00	1
120 41	2.00	1197	23.81	1856	1	3				
1										
'S-FD			' 'AG'	-2.00	0.00	-2.00	-500.00	1362.00	11.42	0.00
10.00										
2										
'E-RQ			' 'AG'	-4.00	-1.00	-30.26	-1.00	0.00	4.00	1
120 96	2.00	165	23.81	1658	2	3				
2										
'E-LQ			' 'AG'	-4.00	1.00	-34.24	1.00	0.00	4.00	1
120 96	2.00	190	23.81	1658	2	3				
1										
'W-FD			' 'AG'	-4.00	3.00	-504.00	3.00	536.00	11.21	0.00 10.00
1.00	0.00	5	1000.00	2.00	'Y'	5	0	72		

'Dey Rd. & Rt. 130'	60.00	108.000	0.00	0.00	4	1.0000	0	1					
'NE			18.00	15.00				1.80					
'SE			18.00	-14.00				1.80					
'SW			-18.00	-15.00				1.80					
'NW			-19.00	14.00				1.80					
'2028 No Build'	20	1	0	'C'									
2													
'N-LQ			'AG'	2.00	-12.00	2.00	-16.00	0.00	4.00	1			
90	80	2.00	16	23.81	1719	2	3						
1													
'N-FA			'AG'	8.00	-500.00	8.00	0.00	1991.00	12.59	0.00			
14.00													
2													
'N-RQ			'AG'	10.00	-12.00	10.00	-16.00	0.00	4.00	1			
90	76	2.00	10	23.81	3085	1	3						
1													
'N-FD			'AG'	8.00	0.00	8.00	500.00	2812.00	11.20	0.00			
14.00													
2													
'S-LQ			'AG'	-2.00	12.00	-2.00	319.85	0.00	4.00	1			
90	80	2.00	200	23.81	1703	2	3						
1													
'S-FA			'AG'	-8.00	500.00	-8.00	0.00	1628.00	14.38	0.00			
14.00													
2													
'S-RQ			'AG'	-14.00	12.00	-14.00	52.03	0.00	4.00	1			
90	76	2.00	171	23.81	1553	1	3						
1													
'S-FD			'AG'	-8.00	0.00	-8.00	-500.00	1828.00	12.01	0.00			
14.00													
2													
'E-LQ			'AG'	-16.00	-2.00	-1723.90	-2.00	0.00	4.00	1			
90	79	2.00	654	23.81	1736	2	3						
1													
'E-FA			'AG'	-500.00	-6.00	0.00	-6.00	199.00	23.81	0.00	10.00		
2													
'E-RQ			'AG'	-16.00	-10.00	-24.65	-10.00	0.00	4.00	1			
90	44	2.00	118	23.81	1599	1	3						
1													
'E-FD			'AG'	0.00	-6.00	500.00	-6.00	409.00	11.33	0.00	10.00		
2													
'W-LQ			'AG'	12.00	2.00	22.80	2.00	0.00	4.00	1			
90	79	2.00	82	23.81	1787	2	3						
1													
'W-FA			'AG'	500.00	6.00	0.00	6.00	89.00	14.77	0.00	10.00		
2													
'W-RQ			'AG'	12.00	10.00	24.25	10.00	0.00	4.00	1			
90	44	2.00	167	23.81	1380	1	3						
1													
'W-FD			'AG'	0.00	6.00	-500.00	6.00	276.00	11.41	0.00	10.00		
2													
'N-TQ			'AG'	7.00	-12.00	7.00	-112.00	0.00	8.00	2			
90	76	2.00	1991	23.81	3085	1	3						
2													
'S-TQ			'AG'	-7.00	12.00	-7.00	112.00	0.00	8.00	2			
90	76	2.00	1628	23.81	3282	1	3						
2													
'E-TQ			'AG'	-16.00	-5.00	-30.59	-5.00	0.00	4.00	1			
90	44	2.00	199	23.81	1863	1	3						
2													
'W-TQ			'AG'	12.00	5.00	18.53	5.00	0.00	4.00	1			
90	44	2.00	89	23.81	1827	1	3						
1.00	0.00	5	1000.00	2.00	'Y'	5	0	72					

'Rt. 32 Forsgate Dr. & CR 535'	60.00	108.000	0.00	0.00	4	1.0000	0	1		
'Rcpt_1	'	14.00	22.00	1.80						
'Rcpt_2	'	15.00	-22.00	1.80						
'Rcpt_3	'	-18.00	-22.00	1.80						
'Rcpt_4	'	-18.00	22.00	1.80						
'2028 No Build'	19	1	0	'C'						
2										
'N-LQ	'	'AG'	2.00	-16.00	2.00	-21.65	0.00	4.00	1	
135	121	2.00	28	23.81	1556	2	3			
1										
'N-FA	'	'AG'	6.00	-500.00	6.00	0.00	383.00	16.87	0.00	10.00
2										
'N-TQ	'	'AG'	5.00	-16.00	5.00	-48.56	0.00	4.00	2	
135	102	2.00	383	23.81	1776	1	3			
2										
'N-RQ	'	'AG'	10.00	-16.00	10.00	-47.51	0.00	4.00	1	
135	102	2.00	181	23.81	1196	1	3			
1										
'N-FD	'	'AG'	6.00	0.00	6.00	500.00	1039.00	11.26	0.00	
10.00										
2										
'S-LQ	'	'AG'	-2.00	16.00	-2.00	37.73	0.00	4.00	1	
135	121	2.00	97	23.81	1612	2	3			
1										
'S-FA	'	'AG'	-8.00	500.00	-8.00	0.00	1351.00	18.76	0.00	
14.00										
2										
'S-TQ	'	'AG'	-7.00	16.00	-7.00	144.65	0.00	8.00	2	
135	102	2.00	1351	23.81	3454	1	3			
2										
'S-RQ	'	'AG'	-10.00	16.00	-10.00	23.99	0.00	4.00	1	
135	102	2.00	47	23.81	3454	1	3			
1										
'S-FD	'	'AG'	-8.00	0.00	-8.00	-500.00	1497.00	11.50	0.00	
14.00										
2										
'E-LQ	'	'AG'	-12.00	-2.00	-1188.00	-2.00	0.00	4.00	1	
135	124	2.00	427	23.81	1583	2	3			
1										
'E-FA	'	'AG'	-500.00	-10.00	0.00	-10.00	904.00	11.54	0.00	18.00
2										
'E-TQ	'	'AG'	-12.00	-9.00	-44.14	-9.00	0.00	12.00	3	
135	64	2.00	904	23.81	4284	1	3			
2										
'E-RQ	'	'AG'	-12.00	-14.00	-27.57	-14.00	0.00	4.00	1	
135	64	2.00	146	23.81	4284	1	3			
1										
'E-FD	'	'AG'	0.00	-10.00	500.00	-10.00	1182.00	12.12	0.00	
18.00										
1										
'W-FA	'	'AG'	500.00	10.00	0.00	10.00	2516.00	23.81	0.00	
18.00										
2										
'W-TQ	'	'AG'	12.00	9.00	101.46	9.00	0.00	12.00	3	
135	64	2.00	2516	23.81	4871	1	3			
2										
'W-RQ	'	'AG'	12.00	14.00	36.43	14.00	0.00	4.00	1	
135	64	2.00	229	23.81	4871	1	3			
1										
'W-FD	'	'AG'	0.00	10.00	-500.00	10.00	2591.00	12.06	0.00	
18.00										
1.00	0.00	5	1000.00	2.00	'Y'	5	0	72		

JOB: Kingston Ln & Rt. 522

RUN: Rt 92 Build

DATE : 7/30/ 3  
 TIME : 15:34:36

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

-----  
 VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 1.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. N-LQ	*	2.0	-12.0	22.7	-32.7	*	29.	135. AG	43.	100.0	.0	4.0	.37	4.9
2. N-FA	*	359.5	-365.5	6.0	-12.0	*	500.	315. AG	66.	11.4	.0	10.0		
3. N-TQ	*	6.0	-12.0	13.6	-19.6	*	11.	135. AG	43.	100.0	.0	4.0	.12	1.8
4. N-RQ	*	10.0	-12.0	11.2	-13.2	*	2.	135. AG	43.	100.0	.0	4.0	.02	.3
5. N-FD	*	6.0	12.0	359.5	365.5	*	500.	45. AG	931.	11.4	.0	10.0		
6. S-LQ	*	-2.0	12.0	7.9	21.9	*	14.	45. AG	43.	100.0	.0	4.0	.16	2.3
7. S-FA	*	347.5	365.5	-6.0	12.0	*	500.	225. AG	150.	16.5	.0	10.0		
8. S-TQ	*	-6.0	12.0	11.3	29.3	*	25.	45. AG	43.	100.0	.0	4.0	.28	4.1
9. S-RQ	*	-7.0	12.0	2.4	21.4	*	13.	45. AG	43.	100.0	.0	4.0	.15	2.2
10. S-FD	*	-6.0	-12.0	347.5	-365.5	*	500.	135. AG	521.	11.2	.0	10.0		
11. E-LQ	*	-12.0	-2.0	-2542.1	-2.0	*	2530.	270. AG	59.	100.0	.0	4.0	8.64	421.7
12. E-FA	*	-500.0	-6.0	.0	-6.0	*	500.	90. AG	296.	15.0	.0	10.0		
13. E-TQ	*	-12.0	-6.0	-87.0	-6.0	*	75.	270. AG	52.	100.0	.0	4.0	.95	12.5
14. E-RQ	*	-12.0	-10.0	-303.6	-10.0	*	292.	270. AG	50.	100.0	.0	4.0	1.22	48.6
15. E-FD	*	.0	-6.0	500.0	-6.0	*	500.	90. AG	392.	8.5	.0	10.0		
16. W-LQ	*	12.0	2.0	14.2	2.0	*	2.	90. AG	59.	100.0	.0	4.0	.10	.4
17. W-FA	*	500.0	6.0	.0	6.0	*	500.	270. AG	123.	11.2	.0	10.0		
18. W-TQ	*	12.0	6.0	35.4	6.0	*	23.	90. AG	50.	100.0	.0	4.0	.35	3.9
19. W-RQ	*	12.0	10.0	15.4	10.0	*	3.	90. AG	50.	100.0	.0	4.0	.06	.6
20. W-FD	*	.0	6.0	-500.0	6.0	*	500.	270. AG	383.	11.4	.0	10.0		

DATE : 7/30/ 3

TIME : 15:34:36

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 ADDITIONAL QUEUE LINK PARAMETERS  
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LINK DESCRIPTION	* *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	146	98	2.0	179	1626	23.81	2	3
3. N-TQ	*	146	98	2.0	66	1810	23.81	1	3
4. N-RQ	*	146	98	2.0	10	1615	23.81	1	3
6. S-LQ	*	146	98	2.0	86	1787	23.81	1	3
8. S-TQ	*	146	98	2.0	150	1764	23.81	1	3
9. S-RQ	*	146	98	2.0	81	1764	23.81	2	3
11. E-LQ	*	146	134	2.0	847	1805	23.81	2	3
13. E-TQ	*	146	118	2.0	296	1900	23.81	1	3
14. E-RQ	*	146	114	2.0	361	1553	23.81	1	3
16. W-LQ	*	146	134	2.0	10	1805	23.81	2	3
18. W-TQ	*	146	114	2.0	123	1827	23.81	1	3
19. W-RQ	*	146	114	2.0	18	1615	23.81	1	3

-----  
 RECEPTOR LOCATIONS  
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RECEPTOR	* *	COORDINATES (M)			* *
		X	Y	Z	
1. Rcpt_1	*	19.0	14.0	1.8	*
2. Rcpt_2	*	18.6	-13.5	1.8	*
3. Rcpt_3	*	-14.0	-15.0	1.8	*
4. Rcpt_4	*	-14.0	15.1	1.8	*

MODEL RESULTS  
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REMARKS : In search of the angle corresponding to  
the maximum concentration, only the first  
angle, of the angles with same maximum  
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	2.4	2.3	2.4	1.9
5.	*	2.4	2.3	2.4	1.9
10.	*	2.4	2.3	2.3	1.9
15.	*	2.5	2.3	2.2	1.9
20.	*	2.5	2.3	2.3	1.9
25.	*	2.6	2.5	2.5	1.9
30.	*	2.6	2.5	2.4	1.9
35.	*	2.7	2.5	2.5	2.0
40.	*	2.6	2.2	2.6	2.1
45.	*	2.5	2.2	2.5	2.3
50.	*	2.2	2.1	2.3	2.4
55.	*	2.1	2.0	2.3	2.6
60.	*	2.0	2.0	2.2	2.5
65.	*	1.9	2.1	2.2	2.5
70.	*	1.9	2.1	2.1	2.5
75.	*	1.9	2.1	2.2	2.6
80.	*	1.9	2.1	2.2	2.6
85.	*	1.9	2.1	2.4	2.5
90.	*	2.1	2.1	2.3	2.7
95.	*	2.1	2.0	2.3	2.6
100.	*	2.1	2.0	2.2	2.7
105.	*	2.1	1.9	2.2	2.5
110.	*	2.2	1.9	2.3	2.4
115.	*	2.2	1.9	2.3	2.1
120.	*	2.2	1.9	2.2	2.1
125.	*	2.2	1.9	2.3	2.1
130.	*	2.2	2.0	2.2	2.2
135.	*	2.2	2.0	2.2	2.3
140.	*	2.2	2.1	2.1	2.2
145.	*	2.2	2.1	2.0	2.3
150.	*	2.2	2.1	1.9	2.4
155.	*	2.2	2.1	1.9	2.3
160.	*	2.2	2.1	1.9	2.2
165.	*	2.2	2.1	1.9	2.2
170.	*	2.2	2.2	1.9	2.2
175.	*	2.2	2.1	1.9	2.1
180.	*	2.2	2.1	1.9	2.2
185.	*	2.2	2.1	1.9	2.3
190.	*	2.2	2.1	1.9	2.4
195.	*	2.2	2.1	1.9	2.4
200.	*	2.2	2.1	1.9	2.4

205. \* 2.2 2.1 1.9 2.4

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
210.	*	2.2	2.1	1.9	2.4
215.	*	2.3	2.1	1.9	2.4
220.	*	2.1	2.2	1.9	2.4
225.	*	2.2	2.2	1.9	2.4
230.	*	2.1	2.2	1.9	2.5
235.	*	2.2	2.2	1.9	2.5
240.	*	2.6	2.2	1.9	2.5
245.	*	2.6	2.2	1.9	2.5
250.	*	2.7	2.2	1.9	2.5
255.	*	2.8	2.2	1.9	2.6
260.	*	2.8	2.5	2.1	2.5
265.	*	2.8	2.6	2.2	2.5
270.	*	3.0	3.0	2.7	2.4
275.	*	2.7	3.0	2.8	2.1
280.	*	2.7	2.7	2.8	2.0
285.	*	2.6	2.7	2.9	1.9
290.	*	2.5	2.4	2.8	1.9
295.	*	2.5	2.3	2.8	1.9
300.	*	2.4	2.2	2.7	1.9
305.	*	2.4	2.1	2.6	1.9
310.	*	2.4	2.1	2.6	1.9
315.	*	2.4	2.1	2.5	1.9
320.	*	2.4	2.0	2.5	1.9
325.	*	2.4	2.0	2.5	1.9
330.	*	2.3	2.1	2.5	1.9
335.	*	2.3	2.1	2.4	1.9
340.	*	2.3	2.1	2.4	1.9
345.	*	2.3	2.1	2.4	1.9
350.	*	2.4	2.3	2.4	1.9
355.	*	2.4	2.3	2.4	1.9
360.	*	2.4	2.3	2.4	1.9
MAX	*	3.0	3.0	2.9	2.7
DEGR.	*	270	270	285	90

THE HIGHEST CONCENTRATION OF 3.00 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Dey Rd. & CR 535

RUN: 2028 Route 92

DATE : 7/30/ 3  
 TIME : 15:36:26

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

-----  
 VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 1.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. N-FA	*	2.0	-500.0	2.0	.0	*	500.	360.	AG	1489.	11.5	.0	10.0	
2. N-LQ	*	1.0	-2.0	1.0	-14.3	*	12.	180.	AG	57.	100.0	.0	4.0	.51 2.1
3. N-TQ	*	3.0	-2.0	3.0	-4516.4	*	4514.	180.	AG	57.	100.0	.0	4.0	**** 752.4
4. N-FD	*	2.0	.0	2.0	500.0	*	500.	360.	AG	1699.	11.6	.0	10.0	
5. S-FA	*	-2.0	500.0	-2.0	.0	*	500.	180.	AG	685.	11.3	.0	10.0	
6. S-RQ	*	-3.0	2.0	-3.0	26.7	*	25.	360.	AG	22.	100.0	.0	4.0	.31 4.1
7. S-TQ	*	-1.0	2.0	-1.0	48.8	*	47.	360.	AG	22.	100.0	.0	4.0	.58 7.8
8. S-FD	*	-2.0	.0	-2.0	-500.0	*	500.	180.	AG	861.	11.2	.0	10.0	
9. E-RQ	*	-4.0	-1.0	-32.2	-1.0	*	28.	270.	AG	51.	100.0	.0	4.0	.66 4.7
10. E-LQ	*	-4.0	1.0	-38.0	1.0	*	34.	270.	AG	51.	100.0	.0	4.0	.79 5.7
11. W-FD	*	-4.0	3.0	-52.0	3.0	*	48.	270.	AG	431.	11.3	.0	10.0	

DATE : 7/30/ 3  
 TIME : 15:36:26

-----  
 ADDITIONAL QUEUE LINK PARAMETERS  
 -----

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. N-LQ	*	120	107	2.0	69	1814	23.81	2	3
3. N-TQ	*	120	107	2.0	1489	1814	23.81	1	3
6. S-RQ	*	120	41	2.0	362	1888	23.81	1	3
7. S-TQ	*	120	41	2.0	685	1888	23.81	1	3
9. E-RQ	*	120	96	2.0	176	1605	23.81	2	3
10. E-LQ	*	120	96	2.0	210	1605	23.81	2	3

-----  
 RECEPTOR LOCATIONS  
 -----

RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. Rcpt_1	*	-10.0	7.0	1.8	*
2. Rcpt_2	*	-10.0	-6.0	1.8	*
3. Rcpt_3	*	10.0	.0	1.8	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3
0.	*	2.9	3.2	3.1
5.	*	3.1	3.4	2.6
10.	*	3.3	3.6	2.3
15.	*	3.2	3.7	2.0
20.	*	3.2	3.6	1.9
25.	*	3.2	3.4	1.9
30.	*	3.1	3.4	1.9
35.	*	3.0	3.2	1.9
40.	*	3.0	3.0	1.9
45.	*	3.0	3.0	1.9
50.	*	2.9	2.8	1.9
55.	*	2.8	2.8	1.9
60.	*	2.7	2.8	1.9
65.	*	2.7	2.6	1.9
70.	*	2.7	2.8	1.9
75.	*	2.8	2.8	1.9
80.	*	2.8	2.9	1.9
85.	*	2.8	2.8	1.9
90.	*	2.8	2.8	1.9
95.	*	2.8	2.8	1.9
100.	*	2.8	2.8	1.9
105.	*	2.7	2.8	1.9
110.	*	2.7	2.8	1.9
115.	*	2.7	2.8	1.9
120.	*	2.8	2.9	1.9
125.	*	2.9	2.9	1.9
130.	*	3.0	2.9	1.9
135.	*	3.2	2.8	1.9
140.	*	3.3	2.9	1.9
145.	*	3.4	2.9	1.9
150.	*	3.5	3.0	1.9
155.	*	3.7	3.2	1.9
160.	*	3.6	3.3	1.9
165.	*	3.8	3.5	2.0
170.	*	3.9	3.5	2.3
175.	*	3.8	3.4	2.8
180.	*	3.6	3.1	3.3
185.	*	3.0	2.6	3.6
190.	*	2.5	2.1	3.6
195.	*	2.3	1.9	3.6
200.	*	2.3	1.9	3.4

205. \* 2.3 1.9 3.2

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3
210.	*	2.3	1.9	3.2
215.	*	2.3	1.9	3.2
220.	*	2.3	1.9	3.1
225.	*	2.4	1.9	3.1
230.	*	2.4	1.9	3.0
235.	*	2.4	1.9	3.0
240.	*	2.5	1.9	2.9
245.	*	2.5	1.9	2.8
250.	*	2.5	1.9	2.9
255.	*	2.4	1.9	3.1
260.	*	2.3	1.9	3.0
265.	*	2.3	1.9	3.0
270.	*	2.2	1.9	3.1
275.	*	2.1	2.2	3.1
280.	*	2.1	2.2	3.0
285.	*	2.0	2.3	2.9
290.	*	2.0	2.4	2.8
295.	*	2.0	2.5	2.8
300.	*	1.9	2.5	2.7
305.	*	1.9	2.5	2.7
310.	*	1.9	2.5	2.8
315.	*	1.9	2.4	2.8
320.	*	1.9	2.4	2.9
325.	*	1.9	2.4	3.0
330.	*	1.9	2.3	3.2
335.	*	1.9	2.3	3.2
340.	*	1.9	2.2	3.3
345.	*	1.9	2.2	3.3
350.	*	2.2	2.5	3.5
355.	*	2.5	2.8	3.3
360.	*	2.9	3.2	3.1
MAX	*	3.9	3.7	3.6
DEGR.	*	170	15	185

THE HIGHEST CONCENTRATION OF 3.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Dey Rd. & Rt. 130

RUN: 2028 Route 92

DATE : 7/30/ 3

TIME : 15:30:27

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 1.9 PPM

LINK VARIABLES

LINK DESCRIPTION	* *	LINK COORDINATES (M)				* *	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. N-LQ	*	2.0	-12.0	2.0	-14.8	*	3.	180. AG	57.	100.0	.0	4.0	.18	.5
2. N-FA	*	8.0	-500.0	8.0	.0	*	500.	360. AG	1737.	11.8	.0	14.0		
3. N-RQ	*	10.0	-12.0	10.0	-13.1	*	1.	180. AG	54.	100.0	.0	4.0	.03	.2
4. N-FD	*	8.0	.0	8.0	500.0	*	500.	360. AG	1955.	12.0	.0	14.0		
5. S-LQ	*	-2.0	12.0	-2.0	519.4	*	507.	360. AG	57.	100.0	.0	4.0	2.31	84.6
6. S-FA	*	-8.0	500.0	-8.0	.0	*	500.	180. AG	1685.	15.0	.0	14.0		
7. S-RQ	*	-10.0	12.0	-10.0	29.4	*	17.	360. AG	54.	100.0	.0	4.0	.39	2.9
8. S-FD	*	-8.0	.0	-8.0	-500.0	*	500.	180. AG	1970.	12.0	.0	14.0		
9. E-LQ	*	-12.0	-2.0	-31.1	-2.0	*	19.	270. AG	56.	100.0	.0	4.0	.91	3.2
10. E-FA	*	-500.0	-6.0	.0	-6.0	*	500.	90. AG	128.	11.3	.0	10.0		
11. E-RQ	*	-12.0	-10.0	-27.7	-10.0	*	16.	270. AG	31.	100.0	.0	4.0	.28	2.6
12. E-FD	*	.0	-6.0	500.0	-6.3	*	500.	90. AG	405.	11.3	.0	10.0		
13. W-LQ	*	12.0	2.0	21.3	2.0	*	9.	90. AG	56.	100.0	.0	4.0	.52	1.6
14. W-FA	*	500.0	6.0	.0	6.0	*	500.	270. AG	31.	12.5	.0	10.0		
15. W-RQ	*	12.0	10.0	18.8	10.0	*	7.	90. AG	31.	100.0	.0	4.0	.13	1.1
16. W-FD	*	.0	6.0	-500.0	6.0	*	500.	270. AG	189.	11.4	.0	10.0		
17. N-TQ	*	7.0	-12.0	7.0	-1796.6	*	1785.	180. AG	108.	100.0	.0	8.0	2.66	297.4
18. S-TQ	*	-7.0	12.0	-7.0	1639.9	*	1628.	360. AG	108.	100.0	.0	8.0	2.41	271.3
19. E-TQ	*	-12.0	-5.0	-21.4	-5.0	*	9.	270. AG	31.	100.0	.0	4.0	.15	1.6
20. W-TQ	*	12.0	5.0	14.3	5.0	*	2.	90. AG	31.	100.0	.0	4.0	.03	.4

DATE : 7/30/ 3

TIME : 15:30:27

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 ADDITIONAL QUEUE LINK PARAMETERS  
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LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	90	80	2.0	21	1719	23.81	2	5
3. N-RQ	*	90	76	2.0	9	2935	23.81	1	5
5. S-LQ	*	90	80	2.0	268	1752	23.81	2	5
7. S-RQ	*	90	76	2.0	137	3155	23.81	1	5
9. E-LQ	*	90	79	2.0	125	1770	23.81	2	5
11. E-RQ	*	90	44	2.0	214	1615	23.81	1	5
13. W-LQ	*	90	79	2.0	71	1752	23.81	2	5
15. W-RQ	*	90	44	2.0	93	1524	23.81	1	5
17. N-TQ	*	90	76	2.0	1737	2935	23.81	1	5
18. S-TQ	*	90	76	2.0	1685	3155	23.81	1	5
19. E-TQ	*	90	44	2.0	128	1881	23.81	1	5
20. W-TQ	*	90	44	2.0	31	1900	23.81	1	5

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 RECEPTOR LOCATIONS  
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RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. NE	*	18.0	16.0	1.8	*
2. SE	*	18.0	-16.0	1.8	*
3. SW	*	-18.0	-16.0	1.8	*
4. NW	*	-18.0	16.0	1.8	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	3.6	3.8	4.2	3.9
5.	*	2.8	3.0	4.9	4.6
10.	*	2.3	2.4	5.1	4.8
15.	*	2.0	2.1	4.9	4.7
20.	*	1.9	2.0	4.3	4.3
25.	*	1.9	2.0	4.1	4.3
30.	*	1.9	2.0	3.7	4.1
35.	*	1.9	2.0	3.5	3.9
40.	*	1.9	2.0	3.3	3.8
45.	*	1.9	2.0	3.3	3.8
50.	*	1.9	2.1	3.1	3.6
55.	*	1.9	2.1	3.2	3.6
60.	*	1.9	2.1	3.1	3.6
65.	*	1.9	2.1	3.1	3.5
70.	*	1.9	2.1	3.0	3.5
75.	*	1.9	2.1	3.1	3.5
80.	*	1.9	2.1	3.2	3.5
85.	*	1.9	2.1	3.3	3.5
90.	*	2.0	2.1	3.3	3.5
95.	*	2.0	2.0	3.2	3.5
100.	*	2.0	1.9	3.2	3.5
105.	*	2.0	1.9	3.1	3.4
110.	*	2.0	1.9	3.2	3.4
115.	*	2.0	1.9	3.2	3.3
120.	*	2.0	1.9	3.2	3.4
125.	*	2.0	1.9	3.3	3.4
130.	*	2.0	1.9	3.3	3.3
135.	*	2.0	1.9	3.3	3.5
140.	*	2.0	1.9	3.4	3.4
145.	*	2.0	1.9	3.4	3.5
150.	*	2.0	1.9	3.6	3.8
155.	*	2.0	1.9	3.7	3.8
160.	*	2.0	1.9	3.9	4.0
165.	*	2.1	2.0	4.1	4.4
170.	*	2.6	2.4	4.2	4.4
175.	*	3.1	3.0	4.0	4.2
180.	*	3.9	3.6	3.4	3.6
185.	*	4.5	4.1	2.8	3.0
190.	*	4.5	4.3	2.3	2.5
195.	*	4.4	4.3	2.0	2.2
200.	*	4.1	3.9	1.9	2.1

205. \* 4.0 3.8 1.9 2.1

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
210.	*	3.6	3.7	1.9	2.1
215.	*	3.5	3.5	1.9	2.0
220.	*	3.3	3.4	1.9	2.0
225.	*	3.2	3.4	1.9	2.0
230.	*	3.1	3.3	1.9	2.0
235.	*	3.0	3.3	1.9	2.0
240.	*	3.1	3.2	1.9	2.0
245.	*	3.1	3.2	1.9	2.0
250.	*	3.1	3.2	1.9	2.0
255.	*	3.1	3.2	1.9	2.0
260.	*	3.1	3.2	1.9	2.0
265.	*	3.3	3.2	1.9	2.0
270.	*	3.3	3.2	2.0	2.0
275.	*	3.4	3.3	2.1	2.0
280.	*	3.3	3.3	2.1	1.9
285.	*	3.4	3.3	2.1	1.9
290.	*	3.4	3.4	2.1	1.9
295.	*	3.4	3.2	2.1	1.9
300.	*	3.4	3.2	2.2	1.9
305.	*	3.4	3.2	2.1	1.9
310.	*	3.5	3.1	2.0	1.9
315.	*	3.5	3.4	2.0	1.9
320.	*	3.6	3.4	2.1	1.9
325.	*	3.7	3.6	2.1	1.9
330.	*	3.8	3.9	2.1	1.9
335.	*	3.9	3.9	2.1	1.9
340.	*	4.2	4.2	2.1	1.9
345.	*	4.3	4.5	2.2	2.0
350.	*	4.4	4.6	2.6	2.4
355.	*	4.2	4.4	3.4	3.2
360.	*	3.6	3.8	4.2	3.9
MAX	*	4.5	4.6	5.1	4.8
DEGR.	*	185	350	10	10

THE HIGHEST CONCENTRATION OF 5.10 PPM OCCURRED AT RECEPTOR REC3 .

JOB: Rt. 32 Forsgate Dr. & CR 535

RUN: 2028 Route 92

DATE : 7/30/ 3  
 TIME : 15:32:45

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 1.9 PPM

LINK VARIABLES

LINK DESCRIPTION	* *	LINK COORDINATES (M)				* *	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	
		X1	Y1	X2	Y2										
1. N-LQ	*	2.0	-16.0	2.0	-18.0	*	2.	180.	AG	57.	100.0	.0	4.0	.08	.3
2. N-FA	*	6.0	-500.0	6.0	.0	*	500.	360.	AG	576.	17.3	.0	10.0		
3. N-TQ	*	5.0	-16.0	5.0	-66.0	*	50.	180.	AG	97.	100.0	.0	4.0	.75	8.3
4. N-RQ	*	10.0	-16.0	10.0	-1046.9	*	1031.	180.	AG	48.	100.0	.0	4.0	1.91	171.8
5. N-FD	*	6.0	.0	6.0	500.0	*	500.	360.	AG	928.	11.2	.0	10.0		
6. S-LQ	*	-2.0	16.0	-2.0	1222.3	*	1206.	360.	AG	57.	100.0	.0	4.0	3.62	201.0
7. S-FA	*	-8.0	500.0	-8.0	.0	*	500.	180.	AG	817.	14.0	.0	14.0		
8. S-TQ	*	-7.0	16.0	-7.0	85.4	*	69.	360.	AG	97.	100.0	.0	8.0	.60	11.6
9. S-RQ	*	-10.0	16.0	-10.0	66.2	*	50.	360.	AG	48.	100.0	.0	4.0	.44	8.4
10. S-FD	*	-8.0	.0	-8.0	-500.0	*	500.	180.	AG	1655.	11.2	.0	14.0		
11. E-LQ	*	-12.0	-2.0	-412.7	-2.0	*	401.	270.	AG	59.	100.0	.0	4.0	2.32	66.8
12. E-FA	*	-500.0	-10.0	.0	-10.0	*	500.	90.	AG	605.	12.3	.0	18.0		
13. E-TQ	*	-12.0	-9.0	-33.4	-9.0	*	21.	270.	AG	91.	100.0	.0	12.0	.09	3.6
14. E-RQ	*	-12.0	-14.0	-23.0	-14.0	*	11.	270.	AG	30.	100.0	.0	4.0	.04	1.8
15. E-FD	*	.0	-10.0	500.0	-10.0	*	500.	90.	AG	1700.	11.3	.0	18.0		
16. W-LQ	*	12.0	2.0	2181.9	2.0	*	2170.	90.	AG	59.	100.0	.0	4.0	8.08	361.7
17. W-FA	*	500.0	10.0	.0	10.0	*	500.	270.	AG	1348.	11.9	.0	18.0		
18. W-TQ	*	12.0	9.0	59.9	9.0	*	48.	90.	AG	91.	100.0	.0	12.0	.18	8.0
19. W-RQ	*	12.0	14.0	28.5	14.0	*	17.	90.	AG	30.	100.0	.0	4.0	.06	2.8
20. W-FD	*	.0	10.0	-500.0	10.0	*	500.	270.	AG	1653.	12.3	.0	18.0		

DATE : 7/30/ 3  
 TIME : 15:32:45

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 ADDITIONAL QUEUE LINK PARAMETERS  
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LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	135	121	2.0	10	1752	23.81	2	3
3. N-TQ	*	135	102	2.0	573	1776	23.81	1	3
4. N-RQ	*	135	102	2.0	613	1495	23.81	1	3
6. S-LQ	*	135	121	2.0	482	1805	23.81	1	3
8. S-TQ	*	135	102	2.0	817	3145	23.81	1	3
9. S-RQ	*	135	102	2.0	295	3145	23.81	1	3
11. E-LQ	*	135	124	2.0	197	1656	23.81	2	3
13. E-TQ	*	135	64	2.0	605	4637	23.81	1	3
14. E-RQ	*	135	64	2.0	103	4637	23.81	1	3
16. W-LQ	*	135	124	2.0	735	1770	23.81	2	3
18. W-TQ	*	135	64	2.0	1348	5061	23.81	1	3
19. W-RQ	*	135	64	2.0	155	5061	23.81	1	3

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 RECEPTOR LOCATIONS  
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RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. Rcpt_1	*	14.0	22.0	1.8	*
2. Rcpt_2	*	15.0	-22.0	1.8	*
3. Rcpt_3	*	-18.0	-22.0	1.8	*
4. Rcpt_4	*	-18.0	22.0	1.8	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	2.7	3.6	3.9	2.8
5.	*	2.4	3.4	4.3	3.2
10.	*	2.0	3.0	4.3	3.4
15.	*	2.0	2.9	4.1	3.5
20.	*	1.9	2.9	3.9	3.3
25.	*	1.9	2.9	3.7	3.1
30.	*	1.9	3.0	3.6	3.1
35.	*	1.9	3.0	3.5	3.0
40.	*	1.9	3.0	3.5	3.0
45.	*	1.9	3.0	3.4	3.0
50.	*	1.9	3.1	3.5	3.0
55.	*	1.9	3.1	3.7	2.9
60.	*	1.9	3.2	3.7	2.8
65.	*	1.9	3.3	3.8	2.8
70.	*	1.9	3.3	3.9	2.8
75.	*	2.0	3.5	4.2	2.9
80.	*	2.1	3.6	4.3	3.0
85.	*	2.5	3.4	4.1	3.4
90.	*	2.9	3.0	3.8	3.9
95.	*	3.5	2.6	3.5	4.4
100.	*	3.6	2.1	3.0	4.7
105.	*	3.7	2.0	2.9	4.6
110.	*	3.5	1.9	2.8	4.3
115.	*	3.4	1.9	2.8	4.0
120.	*	3.4	1.9	2.9	3.9
125.	*	3.4	1.9	2.9	3.8
130.	*	3.4	1.9	2.9	3.8
135.	*	3.3	1.9	2.9	3.4
140.	*	3.1	1.9	3.0	3.6
145.	*	3.1	1.9	3.0	3.6
150.	*	3.1	1.9	3.1	3.8
155.	*	3.0	1.9	3.2	3.7
160.	*	3.0	1.9	3.2	3.9
165.	*	3.0	1.9	3.4	3.9
170.	*	3.3	2.2	3.4	4.1
175.	*	3.7	2.6	3.2	4.1
180.	*	4.3	2.9	3.0	3.8
185.	*	4.2	3.3	2.5	3.4
190.	*	4.2	3.5	2.1	2.9
195.	*	4.0	3.5	2.0	2.8
200.	*	3.6	3.3	1.9	2.7

205. \* 3.6 3.3 1.9 2.8

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
210.	*	3.5	3.3	1.9	2.8
215.	*	3.5	3.1	1.9	2.7
220.	*	3.5	3.1	1.9	2.7
225.	*	3.4	3.0	1.9	2.8
230.	*	3.5	3.0	1.9	2.8
235.	*	3.6	2.9	1.9	2.9
240.	*	3.5	2.9	1.9	3.0
245.	*	3.5	2.9	1.9	3.1
250.	*	3.8	2.9	1.9	3.2
255.	*	3.9	2.9	1.9	3.3
260.	*	4.0	2.9	2.0	3.4
265.	*	3.9	3.1	2.2	3.3
270.	*	3.8	3.5	2.6	2.9
275.	*	3.3	3.9	2.8	2.4
280.	*	3.0	4.0	2.9	2.1
285.	*	2.9	4.0	2.9	2.0
290.	*	2.8	4.1	2.9	1.9
295.	*	2.8	4.0	2.9	1.9
300.	*	2.8	3.8	2.8	1.9
305.	*	2.8	3.9	2.8	1.9
310.	*	2.9	3.7	2.9	1.9
315.	*	3.0	3.5	2.8	1.9
320.	*	3.0	3.5	2.8	1.9
325.	*	3.0	3.7	2.7	1.9
330.	*	2.9	3.4	2.7	1.9
335.	*	3.0	3.8	2.8	1.9
340.	*	2.9	3.9	2.8	1.9
345.	*	3.2	4.0	2.8	2.0
350.	*	3.2	3.9	2.9	2.0
355.	*	3.0	4.0	3.4	2.4
360.	*	2.7	3.6	3.9	2.8
MAX	*	4.3	4.1	4.3	4.7
DEGR.	*	180	290	5	100

THE HIGHEST CONCENTRATION OF 4.70 PPM OCCURRED AT RECEPTOR REC4 .

JOB: Kingston Ln & Rt. 522

RUN: 2028 No Build

DATE : 7/30/ 3  
 TIME : 15:35:27

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

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 VS = .0 CM/S      VD = .0 CM/S      Z0 = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 2.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. N-LQ	*	2.0	-12.0	24.2	-34.2	*	31.	135. AG	43.	100.0	.0	4.0	.42	5.2
2. N-FA	*	359.5	-365.5	6.0	-12.0	*	500.	315. AG	134.	11.7	.0	10.0		
3. N-TQ	*	6.0	-12.0	21.5	-27.5	*	22.	135. AG	43.	100.0	.0	4.0	.26	3.6
4. N-RQ	*	10.0	-12.0	11.2	-13.2	*	2.	135. AG	43.	100.0	.0	4.0	.02	.3
5. N-FD	*	6.0	12.0	359.5	365.5	*	500.	45. AG	1057.	11.5	.0	10.0		
6. S-LQ	*	-2.0	12.0	12.0	26.0	*	20.	45. AG	43.	100.0	.0	4.0	.23	3.3
7. S-FA	*	347.5	365.5	-6.0	12.0	*	500.	225. AG	10.	17.3	.0	10.0		
8. S-TQ	*	-6.0	12.0	-4.8	13.2	*	2.	45. AG	43.	100.0	.0	4.0	.02	.3
9. S-RQ	*	-7.0	12.0	3.5	22.5	*	15.	45. AG	43.	100.0	.0	4.0	.19	2.5
10. S-FD	*	-6.0	-12.0	347.5	-365.5	*	500.	135. AG	538.	11.2	.0	10.0		
11. E-LQ	*	-12.0	-2.0	-2665.4	-2.0	*	2653.	270. AG	59.	100.0	.0	4.0	9.02	442.2
12. E-FA	*	-50.0	-6.0	.0	-6.0	*	50.	90. AG	507.	20.6	.0	10.0		
13. E-TQ	*	-12.0	-6.0	-598.0	-6.0	*	586.	270. AG	50.	100.0	.0	4.0	1.42	97.7
14. E-RQ	*	-12.0	-10.0	-842.5	-10.0	*	831.	270. AG	50.	100.0	.0	4.0	1.79	138.4
15. E-FD	*	.0	-6.0	500.0	-6.0	*	500.	90. AG	638.	11.4	.0	10.0		
16. W-LQ	*	12.0	2.0	14.2	2.0	*	2.	90. AG	59.	100.0	.0	4.0	.10	.4
17. W-FA	*	500.0	6.0	.0	6.0	*	500.	270. AG	150.	11.2	.0	10.0		
18. W-TQ	*	12.0	6.0	40.5	6.0	*	29.	90. AG	50.	100.0	.0	4.0	.45	4.8
19. W-RQ	*	12.0	10.0	19.4	10.0	*	7.	90. AG	50.	100.0	.0	4.0	.13	1.2
20. W-FD	*	.0	6.0	-500.0	6.0	*	500.	270. AG	433.	11.4	.0	10.0		

DATE : 7/30/ 3  
 TIME : 15:35:27

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 ADDITIONAL QUEUE LINK PARAMETERS  
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LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	146	98	2.0	192	1530	23.81	2	3
3. N-TQ	*	146	98	2.0	134	1712	23.81	1	3
4. N-RQ	*	146	98	2.0	10	1615	23.81	1	3
6. S-LQ	*	146	98	2.0	121	1752	23.81	1	3
8. S-TQ	*	146	98	2.0	10	1595	23.81	1	3
9. S-RQ	*	146	98	2.0	91	1595	23.81	2	3
11. E-LQ	*	146	134	2.0	884	1805	23.81	2	3
13. E-TQ	*	146	114	2.0	507	1863	23.81	1	3
14. E-RQ	*	146	114	2.0	518	1509	23.81	1	3
16. W-LQ	*	146	134	2.0	10	1805	23.81	2	3
18. W-TQ	*	146	114	2.0	150	1727	23.81	1	3
19. W-RQ	*	146	114	2.0	39	1553	23.81	1	3

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 RECEPTOR LOCATIONS  
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RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. Rcpt_1	*	19.0	14.0	1.8	*
2. Rcpt_2	*	18.6	-13.5	1.8	*
3. Rcpt_3	*	-14.0	-15.0	1.8	*
4. Rcpt_4	*	-14.0	15.1	1.8	*

MODEL RESULTS  
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REMARKS : In search of the angle corresponding to  
the maximum concentration, only the first  
angle, of the angles with same maximum  
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	2.4	2.5	2.7	2.0
5.	*	2.5	2.5	2.7	2.0
10.	*	2.5	2.5	2.6	2.0
15.	*	2.5	2.6	2.5	2.0
20.	*	2.6	2.6	2.6	2.0
25.	*	2.6	2.6	2.6	2.0
30.	*	2.7	2.6	2.7	2.0
35.	*	2.8	2.6	2.7	2.1
40.	*	2.7	2.7	2.8	2.2
45.	*	2.6	2.6	2.8	2.3
50.	*	2.4	2.4	2.8	2.4
55.	*	2.2	2.3	2.5	2.5
60.	*	2.1	2.3	2.6	2.4
65.	*	2.0	2.4	2.6	2.6
70.	*	2.0	2.4	2.5	2.6
75.	*	2.0	2.5	2.6	2.5
80.	*	2.0	2.6	2.6	2.5
85.	*	2.1	2.4	2.7	2.6
90.	*	2.2	2.4	2.7	2.6
95.	*	2.3	2.2	2.6	2.8
100.	*	2.3	2.1	2.5	2.7
105.	*	2.4	2.0	2.4	2.6
110.	*	2.4	2.0	2.4	2.6
115.	*	2.4	2.0	2.5	2.3
120.	*	2.4	2.0	2.4	2.3
125.	*	2.4	2.0	2.5	2.3
130.	*	2.4	2.1	2.5	2.3
135.	*	2.5	2.2	2.3	2.5
140.	*	2.4	2.3	2.2	2.7
145.	*	2.4	2.3	2.1	2.7
150.	*	2.4	2.3	2.0	2.6
155.	*	2.4	2.3	2.0	2.5
160.	*	2.3	2.3	2.0	2.4
165.	*	2.3	2.5	2.0	2.4
170.	*	2.4	2.5	2.0	2.4
175.	*	2.4	2.5	2.0	2.3
180.	*	2.4	2.4	2.0	2.4
185.	*	2.4	2.4	2.0	2.5
190.	*	2.4	2.4	2.0	2.6
195.	*	2.4	2.4	2.0	2.6
200.	*	2.4	2.3	2.0	2.6

205. \* 2.5 2.3 2.0 2.6

WIND * CONCENTRATION					
ANGLE * (PPM)					
(DEGR) *	REC1	REC2	REC3	REC4	
210.	*	2.6	2.3	2.0	2.7
215.	*	2.7	2.3	2.0	2.7
220.	*	2.7	2.3	2.0	2.7
225.	*	2.6	2.3	2.0	2.7
230.	*	2.5	2.3	2.0	2.7
235.	*	2.5	2.3	2.0	2.7
240.	*	2.9	2.3	2.0	2.6
245.	*	2.8	2.3	2.0	2.6
250.	*	2.9	2.3	2.0	2.5
255.	*	2.9	2.3	2.0	2.7
260.	*	3.0	2.7	2.1	2.7
265.	*	3.0	2.9	2.4	2.7
270.	*	3.0	3.2	2.9	2.6
275.	*	2.7	3.4	2.9	2.2
280.	*	2.7	3.2	3.1	2.1
285.	*	2.6	3.1	3.2	2.0
290.	*	2.6	2.7	3.0	2.0
295.	*	2.4	2.6	3.1	2.0
300.	*	2.4	2.4	2.9	2.0
305.	*	2.5	2.5	2.9	2.0
310.	*	2.5	2.4	2.9	2.0
315.	*	2.5	2.4	2.8	2.0
320.	*	2.5	2.3	2.8	2.0
325.	*	2.4	2.2	2.8	2.0
330.	*	2.3	2.3	2.8	2.0
335.	*	2.4	2.3	2.7	2.0
340.	*	2.4	2.3	2.7	2.0
345.	*	2.4	2.4	2.7	2.0
350.	*	2.4	2.5	2.7	2.0
355.	*	2.4	2.5	2.7	2.0
360.	*	2.4	2.5	2.7	2.0
-----*					
MAX	*	3.0	3.4	3.2	2.8
DEGR.	*	260	275	285	95

THE HIGHEST CONCENTRATION OF 3.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Dey Rd. & CR 535

RUN: 2028 No Build

DATE : 7/30/ 3  
 TIME : 15:37:14

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

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 VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 2.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. N-FA	*	2.0	-500.0	2.0	.0	*	500.	360.	AG	996.	11.4	.0	10.0	
2. N-LQ	*	1.0	-2.0	1.0	-460.9	*	459.	180.	AG	57.	100.0	.0	4.0	1.97 76.5
3. N-TQ	*	3.0	-2.0	3.0	-2897.0	*	2895.	180.	AG	57.	100.0	.0	4.0	7.49 482.5
4. N-FD	*	2.0	.0	2.0	500.0	*	500.	360.	AG	1186.	11.3	.0	10.0	
5. S-FA	*	-2.0	500.0	-2.0	.0	*	500.	180.	AG	1197.	11.5	.0	10.0	
6. S-RQ	*	-3.0	2.0	-3.0	20.7	*	19.	360.	AG	22.	100.0	.0	4.0	.24 3.1
7. S-TQ	*	-1.0	2.0	-1.0	250.0	*	248.	360.	AG	22.	100.0	.0	4.0	1.03 41.3
8. S-FD	*	-2.0	.0	-2.0	-500.0	*	500.	180.	AG	1362.	11.4	.0	10.0	
9. E-RQ	*	-4.0	-1.0	-30.4	-1.0	*	26.	270.	AG	51.	100.0	.0	4.0	.60 4.4
10. E-LQ	*	-4.0	1.0	-34.4	1.0	*	30.	270.	AG	51.	100.0	.0	4.0	.69 5.1
11. W-FD	*	-4.0	3.0	-504.0	3.0	*	500.	270.	AG	536.	11.2	.0	10.0	

DATE : 7/30/ 3

TIME : 15:37:14

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 ADDITIONAL QUEUE LINK PARAMETERS  
 -----

LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. N-LQ	* * *	120	107	2.0	262	1784	23.81	2	3
3. N-TQ	* * *	120	107	2.0	996	1784	23.81	1	3
6. S-RQ	* * *	120	41	2.0	274	1856	23.81	1	3
7. S-TQ	* * *	120	41	2.0	1197	1856	23.81	1	3
9. E-RQ	* * *	120	96	2.0	165	1658	23.81	2	3
10. E-LQ	* * *	120	96	2.0	190	1658	23.81	2	3

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 RECEPTOR LOCATIONS  
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RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. Rcpt_1	* * *	-10.0	6.0	1.8	* * *
2. Rcpt_2	* * *	-10.0	-6.0	1.8	* * *
3. Rcpt_3	* * *	10.0	.0	1.8	* * *

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3
0.	*	3.1	3.6	3.0
5.	*	3.5	3.9	2.7
10.	*	3.5	3.9	2.3
15.	*	3.5	3.9	2.1
20.	*	3.3	3.7	2.0
25.	*	3.3	3.7	2.0
30.	*	3.1	3.5	2.0
35.	*	3.1	3.3	2.0
40.	*	3.1	3.3	2.0
45.	*	3.1	3.1	2.0
50.	*	3.1	3.0	2.0
55.	*	3.2	2.9	2.0
60.	*	3.0	2.9	2.0
65.	*	2.9	2.9	2.0
70.	*	2.9	2.9	2.0
75.	*	2.9	2.9	2.0
80.	*	2.9	2.8	2.0
85.	*	2.9	3.0	2.0
90.	*	2.9	3.0	2.0
95.	*	2.9	3.0	2.0
100.	*	2.8	2.9	2.0
105.	*	2.9	2.9	2.0
110.	*	3.0	3.0	2.0
115.	*	2.9	3.0	2.0
120.	*	3.1	3.0	2.0
125.	*	3.3	3.0	2.0
130.	*	3.3	3.0	2.0
135.	*	3.5	3.1	2.0
140.	*	3.4	3.1	2.0
145.	*	3.5	3.2	2.0
150.	*	3.6	3.4	2.0
155.	*	3.9	3.5	2.0
160.	*	3.9	3.6	2.0
165.	*	4.2	3.8	2.1
170.	*	4.2	3.8	2.4
175.	*	4.2	3.8	2.9
180.	*	3.9	3.5	3.5
185.	*	3.3	2.9	3.9
190.	*	2.7	2.3	3.9
195.	*	2.5	2.1	3.9
200.	*	2.4	2.0	3.6

205. \* 2.5 2.0 3.5

WIND	*	CONCENTRATION		
ANGLE	*	(PPM)		
(DEGR)	*	REC1	REC2	REC3
210.	*	2.5	2.0	3.4
215.	*	2.5	2.0	3.4
220.	*	2.5	2.0	3.3
225.	*	2.5	2.0	3.1
230.	*	2.6	2.0	3.0
235.	*	2.6	2.0	3.0
240.	*	2.6	2.0	2.9
245.	*	2.7	2.0	2.9
250.	*	2.7	2.0	2.9
255.	*	2.8	2.0	3.1
260.	*	2.7	2.1	3.2
265.	*	2.7	2.2	3.1
270.	*	2.7	2.3	3.4
275.	*	2.5	2.4	3.2
280.	*	2.4	2.5	3.3
285.	*	2.2	2.5	2.9
290.	*	2.2	2.6	2.8
295.	*	2.1	2.6	2.8
300.	*	2.1	2.6	2.9
305.	*	2.1	2.6	2.8
310.	*	2.1	2.5	2.9
315.	*	2.0	2.5	2.9
320.	*	2.0	2.5	3.0
325.	*	2.0	2.5	3.0
330.	*	2.0	2.5	3.2
335.	*	2.0	2.5	3.2
340.	*	2.0	2.4	3.3
345.	*	2.1	2.5	3.5
350.	*	2.3	2.7	3.5
355.	*	2.7	3.1	3.5
360.	*	3.1	3.6	3.0
MAX	*	4.2	3.9	3.9
DEGR.	*	165	5	185

THE HIGHEST CONCENTRATION OF 4.20 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Dey Rd. & Rt. 130

RUN: 2028 No Build

DATE : 7/30/ 3  
 TIME : 15:31:41

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S      VD = .0 CM/S      ZO = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 2.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH	BRG TYPE	VPH	EF	H	W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(M)	(DEG)	(G/MI)	(M)	(M)		(VEH)	
1. N-LQ	*	2.0	-12.0	2.0	-14.1	*	2.	180. AG	57.	100.0	.0	4.0	.14	.4
2. N-FA	*	8.0	-500.0	8.0	.0	*	500.	360. AG	1991.	12.6	.0	14.0		
3. N-RQ	*	10.0	-12.0	10.0	-13.3	*	1.	180. AG	54.	100.0	.0	4.0	.03	.2
4. N-FD	*	8.0	.0	8.0	500.0	*	500.	360. AG	2812.	11.2	.0	14.0		
5. S-LQ	*	-2.0	12.0	-2.0	321.5	*	310.	360. AG	57.	100.0	.0	4.0	1.77	51.6
6. S-FA	*	-8.0	500.0	-8.0	.0	*	500.	180. AG	1628.	14.4	.0	14.0		
7. S-RQ	*	-14.0	12.0	-14.0	52.4	*	40.	360. AG	54.	100.0	.0	4.0	.99	6.7
8. S-FD	*	-8.0	.0	-8.0	-500.0	*	500.	180. AG	1828.	12.0	.0	14.0		
9. E-LQ	*	-16.0	-2.0	-1723.9	-2.0	*	1708.	270. AG	56.	100.0	.0	4.0	4.84	284.7
10. E-FA	*	-500.0	-6.0	.0	-6.0	*	500.	90. AG	199.	23.8	.0	10.0		
11. E-RQ	*	-16.0	-10.0	-24.7	-10.0	*	9.	270. AG	31.	100.0	.0	4.0	.16	1.4
12. E-FD	*	.0	-6.0	500.0	-6.0	*	500.	90. AG	409.	11.3	.0	10.0		
13. W-LQ	*	12.0	2.0	22.8	2.0	*	11.	90. AG	56.	100.0	.0	4.0	.59	1.8
14. W-FA	*	500.0	6.0	.0	6.0	*	500.	270. AG	89.	14.8	.0	10.0		
15. W-RQ	*	12.0	10.0	24.2	10.0	*	12.	90. AG	31.	100.0	.0	4.0	.26	2.0
16. W-FD	*	.0	6.0	-500.0	6.0	*	500.	270. AG	276.	11.4	.0	10.0		
17. N-TQ	*	7.0	-12.0	7.0	-2176.9	*	2165.	180. AG	108.	100.0	.0	8.0	2.91	360.8
18. S-TQ	*	-7.0	12.0	-7.0	1528.5	*	1516.	360. AG	108.	100.0	.0	8.0	2.24	252.7
19. E-TQ	*	-16.0	-5.0	-30.6	-5.0	*	15.	270. AG	31.	100.0	.0	4.0	.23	2.4
20. W-TQ	*	12.0	5.0	18.5	5.0	*	7.	90. AG	31.	100.0	.0	4.0	.10	1.1

DATE : 7/30/ 3

TIME : 15:31:41

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 ADDITIONAL QUEUE LINK PARAMETERS  
 -----

LINK DESCRIPTION	* *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	90	80	2.0	16	1719	23.81	2	3
3. N-RQ	*	90	76	2.0	10	3085	23.81	1	3
5. S-LQ	*	90	80	2.0	200	1703	23.81	2	3
7. S-RQ	*	90	76	2.0	171	1553	23.81	1	3
9. E-LQ	*	90	79	2.0	654	1736	23.81	2	3
11. E-RQ	*	90	44	2.0	118	1599	23.81	1	3
13. W-LQ	*	90	79	2.0	82	1787	23.81	2	3
15. W-RQ	*	90	44	2.0	167	1380	23.81	1	3
17. N-TQ	*	90	76	2.0	1991	3085	23.81	1	3
18. S-TQ	*	90	76	2.0	1628	3282	23.81	1	3
19. E-TQ	*	90	44	2.0	199	1863	23.81	1	3
20. W-TQ	*	90	44	2.0	89	1827	23.81	1	3

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 RECEPTOR LOCATIONS  
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RECEPTOR	* *	COORDINATES (M)			* *
		X	Y	Z	
1. NE	*	18.0	15.0	1.8	*
2. SE	*	18.0	-14.0	1.8	*
3. SW	*	-18.0	-15.0	1.8	*
4. NW	*	-19.0	14.0	1.8	*

MODEL RESULTS  
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REMARKS : In search of the angle corresponding to  
the maximum concentration, only the first  
angle, of the angles with same maximum  
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	4.1	4.2	4.6	4.0
5.	*	3.2	3.4	5.2	4.6
10.	*	2.5	2.7	5.4	5.0
15.	*	2.1	2.2	5.1	5.0
20.	*	2.1	2.1	4.4	4.6
25.	*	2.0	2.1	4.4	4.5
30.	*	2.0	2.1	4.0	4.2
35.	*	2.0	2.2	3.8	4.2
40.	*	2.0	2.2	3.7	4.0
45.	*	2.0	2.2	3.7	4.0
50.	*	2.0	2.2	3.4	3.9
55.	*	2.0	2.2	3.4	3.9
60.	*	2.0	2.2	3.3	3.8
65.	*	2.0	2.2	3.3	3.9
70.	*	2.0	2.2	3.3	3.8
75.	*	2.0	2.3	3.4	3.7
80.	*	2.0	2.3	3.3	3.5
85.	*	2.0	2.3	3.3	3.5
90.	*	2.2	2.2	3.3	3.7
95.	*	2.2	2.1	3.2	3.6
100.	*	2.2	2.1	3.3	3.5
105.	*	2.2	2.0	3.2	3.7
110.	*	2.2	2.0	3.3	3.5
115.	*	2.2	2.0	3.3	3.4
120.	*	2.2	2.0	3.3	3.3
125.	*	2.1	2.0	3.4	3.4
130.	*	2.2	2.0	3.4	3.5
135.	*	2.2	2.0	3.5	3.6
140.	*	2.2	2.0	3.5	3.6
145.	*	2.2	2.0	3.5	3.7
150.	*	2.2	2.0	3.7	3.9
155.	*	2.2	2.0	3.8	4.0
160.	*	2.3	2.0	4.1	4.1
165.	*	2.4	2.1	4.3	4.4
170.	*	2.8	2.5	4.3	4.4
175.	*	3.5	3.2	4.1	4.3
180.	*	4.3	3.9	3.7	3.8
185.	*	4.7	4.4	2.9	3.1
190.	*	5.0	4.6	2.4	2.6
195.	*	4.9	4.5	2.1	2.4
200.	*	4.5	4.3	2.0	2.3

205. \* 4.3 4.1 2.0 2.3

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
210.	*	4.0	4.0	2.0	2.3
215.	*	3.9	3.8	2.0	2.3
220.	*	3.6	3.7	2.0	2.3
225.	*	3.8	3.6	2.0	2.3
230.	*	3.6	3.5	2.0	2.3
235.	*	3.5	3.5	2.0	2.3
240.	*	3.5	3.5	2.0	2.3
245.	*	3.6	3.4	2.0	2.3
250.	*	3.6	3.4	2.0	2.4
255.	*	3.6	3.4	2.0	2.5
260.	*	3.9	3.4	2.1	2.6
265.	*	3.9	3.5	2.2	2.5
270.	*	3.8	3.8	2.5	2.4
275.	*	3.7	3.8	2.5	2.2
280.	*	3.7	3.8	2.6	2.0
285.	*	3.7	3.7	2.5	2.0
290.	*	3.7	3.6	2.5	2.0
295.	*	3.7	3.6	2.4	2.0
300.	*	3.8	3.5	2.4	2.0
305.	*	3.8	3.5	2.5	2.0
310.	*	3.8	3.8	2.5	2.0
315.	*	3.9	3.6	2.6	2.0
320.	*	3.9	3.9	2.6	2.0
325.	*	4.0	4.1	2.5	2.0
330.	*	4.1	4.2	2.5	2.0
335.	*	4.4	4.3	2.5	2.0
340.	*	4.6	4.6	2.5	2.0
345.	*	4.9	5.1	2.6	2.1
350.	*	5.0	5.2	3.0	2.5
355.	*	4.8	5.0	3.8	3.1
360.	*	4.1	4.2	4.6	4.0
MAX	*	5.0	5.2	5.4	5.0
DEGR.	*	350	350	10	10

THE HIGHEST CONCENTRATION OF 5.40 PPM OCCURRED AT RECEPTOR REC3 .

JOB: Rt. 32 Forsgate Dr. & CR 535

RUN: 2028 No Build

DATE : 7/30/ 3  
 TIME : 15:33:45

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

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 VS = .0 CM/S      VD = .0 CM/S      Z0 = 108. CM  
 U = 1.0 M/S      CLAS = 5 (E)      ATIM = 60. MINUTES      MIXH = 1000. M      AMB = 2.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	
		X1	Y1	X2	Y2										
1. N-LQ	*	2.0	-16.0	2.0	-21.6	*	6.	180.	AG	57.	100.0	.0	4.0	.24	.9
2. N-FA	*	6.0	-500.0	6.0	.0	*	500.	360.	AG	383.	16.9	.0	10.0		
3. N-TQ	*	5.0	-16.0	5.0	-48.5	*	32.	180.	AG	97.	100.0	.0	4.0	.50	5.4
4. N-RQ	*	10.0	-16.0	10.0	-47.6	*	32.	180.	AG	48.	100.0	.0	4.0	.71	5.3
5. N-FD	*	6.0	.0	6.0	500.0	*	500.	360.	AG	1039.	11.3	.0	10.0		
6. S-LQ	*	-2.0	16.0	-2.0	37.8	*	22.	360.	AG	57.	100.0	.0	4.0	.82	3.6
7. S-FA	*	-8.0	500.0	-8.0	.0	*	500.	180.	AG	1351.	18.8	.0	14.0		
8. S-TQ	*	-7.0	16.0	-7.0	144.7	*	129.	360.	AG	97.	100.0	.0	8.0	.91	21.4
9. S-RQ	*	-10.0	16.0	-10.0	24.0	*	8.	360.	AG	48.	100.0	.0	4.0	.06	1.3
10. S-FD	*	-8.0	.0	-8.0	-500.0	*	500.	180.	AG	1497.	11.5	.0	14.0		
11. E-LQ	*	-12.0	-2.0	-1188.3	-2.0	*	1176.	270.	AG	59.	100.0	.0	4.0	5.21	196.0
12. E-FA	*	-500.0	-10.0	.0	-10.0	*	500.	90.	AG	904.	11.5	.0	18.0		
13. E-TQ	*	-12.0	-9.0	-44.1	-9.0	*	32.	270.	AG	91.	100.0	.0	12.0	.14	5.4
14. E-RQ	*	-12.0	-14.0	-27.6	-14.0	*	16.	270.	AG	30.	100.0	.0	4.0	.07	2.6
15. E-FD	*	.0	-10.0	500.0	-10.0	*	500.	90.	AG	1182.	12.1	.0	18.0		
16. W-FA	*	500.0	10.0	.0	10.0	*	500.	270.	AG	2516.	23.8	.0	18.0		
17. W-TQ	*	12.0	9.0	101.4	9.0	*	89.	90.	AG	91.	100.0	.0	12.0	.35	14.9
18. W-RQ	*	12.0	14.0	36.4	14.0	*	24.	90.	AG	30.	100.0	.0	4.0	.09	4.1
19. W-FD	*	.0	10.0	-500.0	10.0	*	500.	270.	AG	2591.	12.1	.0	18.0		

DATE : 7/30/ 3

TIME : 15:33:45

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 ADDITIONAL QUEUE LINK PARAMETERS  
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LINK DESCRIPTION	* * *	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. N-LQ	*	135	121	2.0	28	1556	23.81	2	3
3. N-TQ	*	135	102	2.0	383	1776	23.81	1	3
4. N-RQ	*	135	102	2.0	181	1196	23.81	1	3
6. S-LQ	*	135	121	2.0	97	1612	23.81	2	3
8. S-TQ	*	135	102	2.0	1351	3454	23.81	1	3
9. S-RQ	*	135	102	2.0	47	3454	23.81	1	3
11. E-LQ	*	135	124	2.0	427	1583	23.81	2	3
13. E-TQ	*	135	64	2.0	904	4284	23.81	1	3
14. E-RQ	*	135	64	2.0	146	4284	23.81	1	3
17. W-TQ	*	135	64	2.0	2516	4871	23.81	1	3
18. W-RQ	*	135	64	2.0	229	4871	23.81	1	3

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 RECEPTOR LOCATIONS  
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RECEPTOR	* * *	COORDINATES (M)			* * *
		X	Y	Z	
1. Rcpt_1	*	14.0	22.0	1.8	*
2. Rcpt_2	*	15.0	-22.0	1.8	*
3. Rcpt_3	*	-18.0	-22.0	1.8	*
4. Rcpt_4	*	-18.0	22.0	1.8	*

MODEL RESULTS  
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REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4
0.	*	3.0	4.6	4.7	3.5
5.	*	2.5	4.0	5.0	4.0
10.	*	2.3	3.7	5.1	4.1
15.	*	2.1	3.5	5.0	4.1
20.	*	2.0	3.5	4.6	4.0
25.	*	2.0	3.5	4.6	3.8
30.	*	2.0	3.5	4.4	3.7
35.	*	2.0	3.5	4.2	3.5
40.	*	2.0	3.7	4.3	3.4
45.	*	2.0	3.8	4.5	3.5
50.	*	2.0	3.9	4.4	3.4
55.	*	2.0	3.9	4.4	3.3
60.	*	2.0	4.1	4.6	3.3
65.	*	2.0	4.1	4.8	3.2
70.	*	2.1	4.3	5.0	3.3
75.	*	2.2	4.5	5.1	3.5
80.	*	2.7	4.3	5.1	4.0
85.	*	3.7	4.0	4.7	5.0
90.	*	4.8	3.4	4.1	6.0
95.	*	5.7	2.7	3.5	6.9
100.	*	6.0	2.3	3.1	7.1
105.	*	6.0	2.1	2.9	6.9
110.	*	5.6	2.0	2.8	6.3
115.	*	5.3	2.0	2.8	5.7
120.	*	5.1	2.0	2.8	5.4
125.	*	4.9	2.0	2.7	5.1
130.	*	4.8	2.0	2.8	4.9
135.	*	4.7	2.0	2.8	4.4
140.	*	4.5	2.0	2.8	4.4
145.	*	4.3	2.0	2.8	4.6
150.	*	4.2	2.0	2.8	4.4
155.	*	4.2	2.0	3.0	4.4
160.	*	4.1	2.0	3.1	4.3
165.	*	4.1	2.0	3.2	4.5
170.	*	4.3	2.2	3.2	4.4
175.	*	4.6	2.4	3.2	4.5
180.	*	5.0	2.7	2.8	4.2
185.	*	5.2	2.9	2.6	3.8
190.	*	5.1	3.1	2.2	3.4
195.	*	5.1	3.1	2.1	3.3
200.	*	5.0	3.1	2.0	3.2

205. \* 4.7 3.2 2.0 3.3

WIND * CONCENTRATION					
ANGLE * (PPM)					
(DEGR) *	REC1	REC2	REC3	REC4	
210.	4.9	3.1	2.0	3.3	
215.	4.6	3.0	2.0	3.4	
220.	4.9	3.0	2.0	3.4	
225.	4.9	3.0	2.0	3.4	
230.	5.0	2.9	2.0	3.4	
235.	4.9	2.8	2.0	3.5	
240.	5.0	2.8	2.0	3.5	
245.	5.0	2.8	2.0	3.7	
250.	5.2	2.8	2.0	3.9	
255.	5.3	2.8	2.0	4.1	
260.	5.3	3.0	2.2	4.2	
265.	5.1	3.4	2.6	4.0	
270.	4.6	3.8	2.9	3.5	
275.	4.1	4.4	3.4	3.0	
280.	3.5	4.6	3.6	2.4	
285.	3.2	4.6	3.7	2.1	
290.	3.1	4.5	3.5	2.1	
295.	3.2	4.1	3.5	2.0	
300.	3.2	4.1	3.4	2.0	
305.	3.2	4.1	3.3	2.0	
310.	3.2	3.9	3.3	2.0	
315.	3.3	3.8	3.3	2.0	
320.	3.2	3.9	3.3	2.0	
325.	3.3	4.2	3.2	2.0	
330.	3.3	4.1	3.2	2.0	
335.	3.5	4.4	3.2	2.0	
340.	3.5	4.6	3.2	2.0	
345.	3.7	4.8	3.3	2.1	
350.	3.7	4.9	3.5	2.3	
355.	3.5	4.9	4.1	2.9	
360.	3.0	4.6	4.7	3.5	
-----*					
MAX	6.0	4.9	5.1	7.1	
DEGR.	100	350	10	100	

THE HIGHEST CONCENTRATION OF 7.10 PPM OCCURRED AT RECEPTOR REC4 .