

APPENDIX O:
HEALTH RISK ASSESSMENT

Air Quality Dynamics,
South Parks Towers Mixed-Use Development Project,
April 2019.

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South Park Towers Mixed-Use Development Project

HEALTH RISK ASSESSMENT

Prepared For:

Venice Hope Group, LLC
1606 South Flower Street
Los Angeles, California 90015

Prepared By:

**Air Quality Dynamics
(818) 703-3294**

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1.0 INTRODUCTION

In 2005, the California Air Resources Board (ARB) promulgated an advisory recommendation to avoid siting sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day or rural roads with 50,000 vehicles per day. According to the ARB, the increased cancer risk is 300 to 1,700 per million within this domain. The strongest association of traffic related emissions with adverse health outcomes was seen within 300 feet of roadways with high truck densities. Notwithstanding, the ARB notes that a site specific analysis would be required to determine the actual risk near a particular land use and should consider factors such as prevailing wind direction and local topography.

The Los Angeles City Planning Commission (Commission) has also published an advisory notice (Zoning Information No. 2427 - Freeway Adjacent Advisory Notice) regarding siting sensitive land uses near freeways. The Commission reports that freeways are a major source of air pollution and their impact on public health has been and continues to be subject to public health research. Further, the Commission notes that this research traditionally focused on impacts to communities within 500 feet of freeways; however, recent studies have established strong links to negative health outcomes affecting sensitive populations up to and beyond 1,000 feet. The Commission believes that 1,000 feet is a conservative distance to evaluate proposed projects that house populations considered to be more at-risk from the negative effects of air pollution. Notwithstanding, the Los Angeles City Municipal Code was recently amended to require minimum efficiency reporting value (MERV) 13 filtration for projects located within 1,000 feet of a freeway. However, there is no technical basis for this directive. Depending on site conditions, higher MERV filtration may be required based upon actual distance from the freeway, height of building structures and location of proposed mechanical ventilation equipment.

Additionally, the proposed development is designed to meet transit priority project criteria and is therefore subject to the provisions of Public Resources Code Section 21155.1 whereby the risk of public health exposure to freeway emissions shall not exceed identified state or federal standards. However, should a finding be made to the contrary, the effects of any potential exposures must be mitigated to a level of insignificance in compliance with state and federal requirements. Furthermore, the South Coast Air Quality Management District (SCAQMD) has recently commented on the limited effectiveness of air filters to remove gaseous emissions as well as the need to address outdoor exposures while individuals enjoy amenities such as a pool, courtyards and related common areas. As such, the assessment of both acute and chronic exposures to toxic and criteria pollutants is required to address these concerns.

Based upon the considerations noted above, a health risk assessment was prepared to assess the potential effects of pollutants on individuals who utilize/reside at the proposed project site. The analysis also serves to provide a nexus between identified impacts and the effectiveness of available mitigation measures. The assessment and dispersion modeling methodologies used in the preparation of this report were composed of all relevant procedures presented by the U.S. Environmental Protection Agency, California Environmental Protection Agency and

SCAQMD. The methodologies and assumptions offered under this regulatory guidance were used to ensure that the assessment effectively quantified pollutant exposures associated with the generation of contaminant emissions from adjacent mobile source activity. This report summarizes the protocol used to evaluate contaminant exposures and presents the results of the health risk assessment.

2.0 SITE DESCRIPTION

The proposed project includes the construction of a mixed-use development with a 22-story hotel with associated retail space as well as a 23-story mixed-use residential and commercial building with ground floor commercial/retail space. A pedestrian paseo is located between the two buildings. The hotel building includes a ground-floor lobby, two levels of above-grade parking on levels two to three, a 5th level amenity deck and 15 levels of guest accommodations. The mixed-use residential building includes a lobby and retail spaces on the ground floor level, parking on levels two to four, a 5th floor amenity deck and 19 levels of residential units with a roof terrace/amenity deck. Both buildings achieve a maximum height of approximately 260 feet above grade.

The proposed project is located in the Greater Downtown Housing Incentive, Transit Priority and Employment and Economic Incentive Program designation areas within the City of Los Angeles. The site is bounded by Venice Boulevard to the north, Hope Street to the east, the California Interstate 10 (Santa Monica) Freeway to the south and Flower Street to the west. Figure 1 presents an aerial photograph of the project location and adjoining community.

Figure 1
Site Location /Vicinity Aerial Photograph



3.0 SOURCE IDENTIFICATION

The California Department of Transportation (Caltrans) Performance Measurement System (PeMS) collects and maintains traffic information for roadways traversing the California state highway system. PeMS is a data management system that stores and processes raw data in real time. PeMS can be accessed via an internet browser and contains a series of built-in analytical capabilities to support the elucidation of a variety of analytical scenarios allowing users to query both current and archived freeway performance data. For this analysis, aggregate time series data for the 2018 calendar year was accessed to identify traffic volume (flow) and vehicle speeds to accommodate an assessment of chronic (long term), annual, 24-hour, 8-hour and acute (1-hour) exposures.

Caltrans also collects and maintains traffic volume counts for freeway on/off ramps and adjoining segments. Due to the paucity of this information in the PeMS database, the Traffic and Vehicle Data Systems Unit database was reviewed to obtain representative traffic volumes for these discrete roadway segments.

Based upon the arithmetic average of traffic flow identified in the PeMS database and population profiles noted above, hourly traffic volumes for the east and westbound California Interstate 10 freeway segments were identified. For acute exposures, the MROUND function in Excel, which returns a number rounded to the nearest multiple, was utilized to identify congested roadway conditions representing minimum route speeds rounded to the lowest mile per hour speed increment. Reported ramp volumes were assumed to have a uniform distribution and were averaged to produce an hourly traffic profile. Table 1 presents the hourly traffic volumes considered in the assessment.

Table 1
Hourly Freeway Traffic Volumes

Roadway Segment	Speed Scenario	Traffic Volumes		
		All	Gas	Diesel
Interstate 10 Eastbound	Average	5269	5042	227
Interstate 10 Westbound	Average	4438	4247	191
Interstate 10 Eastbound	Minimum	4934	4721	213
Interstate 10 Westbound	Minimum	6096	5833	263
Eastbound On from Northbound Route 110	Average Minimum	975	933	42
Eastbound from Vermont to Grand	Average Minimum	1835	1756	79
Eastbound Off to Grand	Average Minimum	1155	1105	50
Westbound On from Grand	Average Minimum	725	694	31
Eastbound On from Flower	Average Minimum	634	607	27
Westbound Off to Route 110	Average Minimum	1629	1559	70

4.0 SOURCE CHARACTERIZATION

In urban communities, vehicle emissions contribute significantly to localized concentrations of air contaminants. Typically, emissions generated from these sources are characterized by vehicle mix, the rate pollutants are generated during the course of travel and the number of vehicles traversing the roadway network.

Currently, emission factors are generated from a series of computer-based programs to produce a composite emission rate for vehicles traveling at various speeds within a defined geographical area or along a discrete roadway segment. To account for the emission standards imposed on the California fleet, the ARB has developed the EMFAC2017 emission factor model. EMFAC2017 was utilized to identify pollutant emission rates for total organic gases (TOG), diesel particulates, particulates (PM₁₀ and PM_{2.5}), carbon monoxide (CO) and nitrogen oxide (NO_x) compounds. To produce a representative vehicle fleet distribution, the assessment utilized ARB's Los Angeles County (South Coast) population estimates for the proposed project buildout year of 2025. Table 2 lists the identified fleet mix considered in the assessment.

Table 2
Vehicle Fleet Mix Profile

Vehicle Class	Los Angeles County (SC)		
	Fuel	Vehicle Population	Percent
Light Duty Auto (LDA)	Diesel	40165	0.53
Light Duty Auto (LDA)	Gas	4055771	53.04
Light Duty Truck (LDT1)	Diesel	219	0.00
Light Duty Truck (LDT1)	Gas	499962	6.54
Light Duty Truck (LDT2)	Diesel	11309	0.15
Light Duty Truck (LDT2)	Gas	1449452	18.96
Light Heavy Duty Truck (LHDT1)	Diesel	77839	1.02
Light Heavy Duty Truck (LHDT1)	Gas	105035	1.37
Light Heavy Duty Truck (LHDT2)	Diesel	31626	0.41
Light Heavy Duty Truck (LHDT2)	Gas	18215	0.24
Motorcycle (MCY)	Gas	196540	2.57
Medium Duty Vehicle (MDV)	Diesel	24604	0.32
Medium Duty Vehicle (MDV)	Gas	951897	12.45
Motor Home (MH)	Diesel	6745	0.09
Motor Home (MH)	Gas	18897	0.25
Medium Heavy Duty Truck	Diesel	70457	0.92
Medium Heavy Duty Truck	Gas	14915	0.20
Heavy Heavy Duty Truck (HHDT)	Diesel	59965	0.78
Heavy Heavy Duty Truck (HHDT)	Gas	52	0.00
Other Bus (OBUS)	Diesel	3357	0.04
Other Bus (OBUS)	Gas	3953	0.05
School Bus (SBUS)	Diesel	3552	0.05

Table 2 continued
Vehicle Fleet Mix Profile

Vehicle Class	Los Angeles County (SC)		
	Fuel	Vehicle Population	Percent
School Bus (SBUS)	Gas	1687	0.02
Urban Bus (UBUS)	Diesel	6	0.00
Urban Bus (UBUS)	Gas	469	0.01

Route speeds of 55 miles per hour for the east and westbound freeway segments were based upon the arithmetic average of hourly speeds reported in the PeMS database. A route speed of 20 miles per hour for the east and westbound segments were utilized to characterize congested or minimum speed conditions. For on and off ramps, the modal emission algorithm from the California Line Source Dispersion Model Caline4 was used to account for both accelerating and decelerating vehicles along these discrete roadway segments. For this assessment, initial route speeds of 45 and 5 miles per hour were utilized to characterize ramp acceleration and deceleration modes, respectively.

For particulates (PM_{10} and $PM_{2.5}$), emissions were quantified through the reentrainment of paved roadway dust. The predictive emission equation developed by the U.S. Environmental Protection Agency (AP-42, Section 13.2.1) was utilized to generate particulate source strength. To account for the mass rate of emissions entrained from the roadway surface, the contribution from exhaust, brake and tire wear were added to the AP-42 emission factor equation. Compounds associated with on-road mobile source emissions are presented in Table 3.

Table 3
Compounds Emitted From On-Road Mobile Source Activity

Pollutant
Benzene
Formaldehyde
1,3-Butadiene
Acetaldehyde
Acrolein
Diesel Particulates
Reentrained Particulates (PM_{10} , $PM_{2.5}$)
Carbon Monoxide (CO)
Nitrogen Dioxide (NO_2)

Appendix B presents the emission rate calculation worksheets for the freeway segments considered in the assessment.

5.0 EXPOSURE QUANTIFICATION

In order to assess the impact of emitted compounds on individuals who reside within and/or access common areas throughout the project area, air quality modeling utilizing the

AMS/EPA Regulatory Model AERMOD was performed to assess the downwind extent of mobile source emissions located within 1,000 feet of the project site. AERMOD is a steady-state Gaussian plume model applicable to directly emitted air pollutants that employs best state-of-practice parameterizations for characterizing meteorological influences and atmospheric dispersion. AERMOD is the U.S. Environmental Protection Agency's guideline model for the assessment of near-field pollutant dispersion.

The model offers additional flexibility by allowing the user to assign initial vertical and lateral dispersion parameters for sources representative of a localized mobile fleet. For this assessment, the volume source algorithm was utilized to model the emissions generated from mobile source activity. Vertical (σ_z) dispersion parameters were developed for each source location by approximating mixing zone residence time and quantifying the initial vertical term as performed in the California Line Source Dispersion Model Caline3. The horizontal (σ_y) parameters were generated by dividing the source separation distance by a standard deviation of 2.15.

The Ambient Ratio Method 2 (ARM2), which is based on an evaluation of NO_2/NO_x ratios from the U.S. Environmental Protection Agency's Air Quality System (AQS) record of ambient air quality data, was used to assess the impacts of NO_2 . The U.S. Environmental Protection Agency reports that results from ARM2 simulations are more conservative relative to the Tier 3 methods associated with the ozone limiting (OLM) and plume volume molar ratio (PVMRM) methods currently recommended in the Guideline on Air Quality Models, Appendix W. For this analysis, the ARM2 default minimum and maximum NO_2/NO_x ratios of 0.5 and 0.9 were incorporated into the model simulation.

Air dispersion models require additional input parameters including pollutant emission data and local meteorology. Due to their sensitivity to individual meteorological parameters such as wind speed and direction, the U.S. Environmental Protection Agency recommends that meteorological data used as input into dispersion models be selected on the basis of relative spatial and temporal conditions that exist in the area of concern. In response to this recommendation, meteorological data from the SCAQMD USC/Downtown Los Angeles monitoring station (Source Receptor Area 1) was used to represent local weather conditions and prevailing winds. For short duration exposures, five years of available AERMOD meteorological data were reviewed to identify the calendar years which produced the highest pollutant concentrations. For chronic exposures, maximum concentrations were produced by incorporating all five years of available data.

The modeling analysis also considered the spatial distribution of mobile source activity in relation to the proposed site. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each volume source location. On-site receptors were uniformly placed to provide coverage across the identified project boundary commensurate with hotel/residential uses and areas of common access. Terrain height adjustments were incorporated into the modeling exercise to account for the discrepancy in source elevations and the average grade plane of the project site.

For 1-hour and 8-hour exposures, receptor locations were set at flagpole heights commensurate with transient locations, areas of common access and recreational amenities such as pools and courtyards. For chronic, annual and 24-hour exposures, receptor locations were set at flagpole heights representing the presumed height above local terrain for proposed heating, ventilation and air conditioning (HVAC) equipment. Graphical representations of the mobile source and receptor grid networks are presented in Figures 2 through 5.

Figure 2
Mobile Source Grid Network

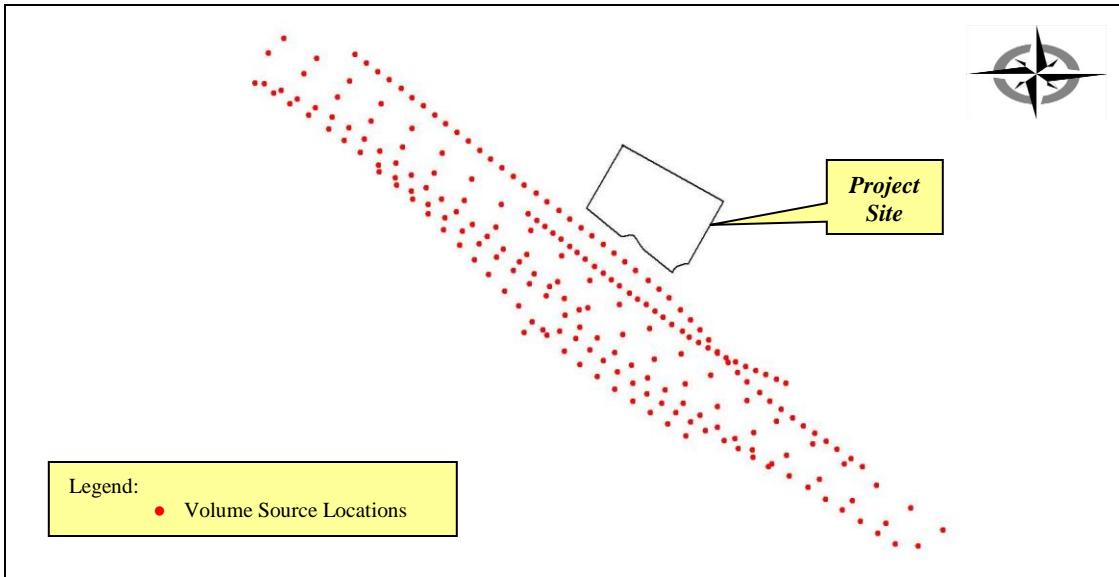


Figure 3
Receptor Grid Network / Common Area Access

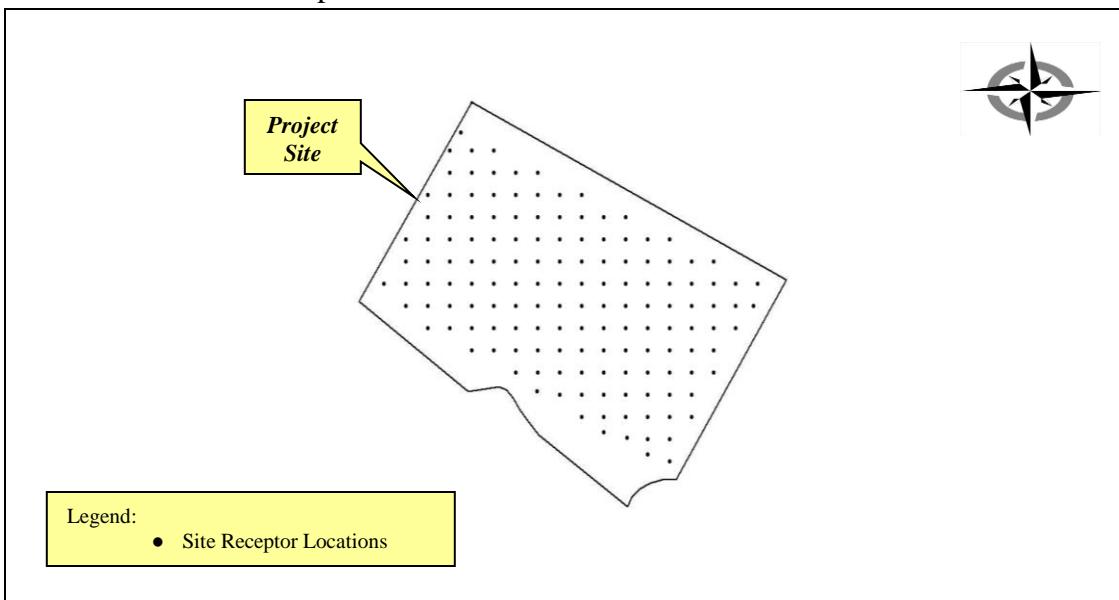


Figure 4
Receptor Grid Network / Residential Occupancy

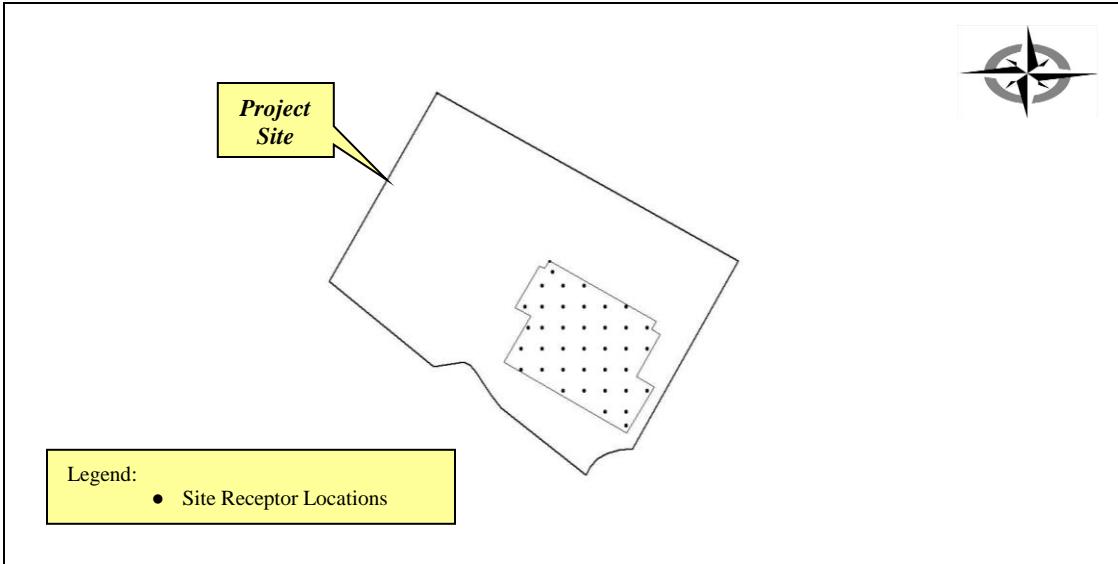
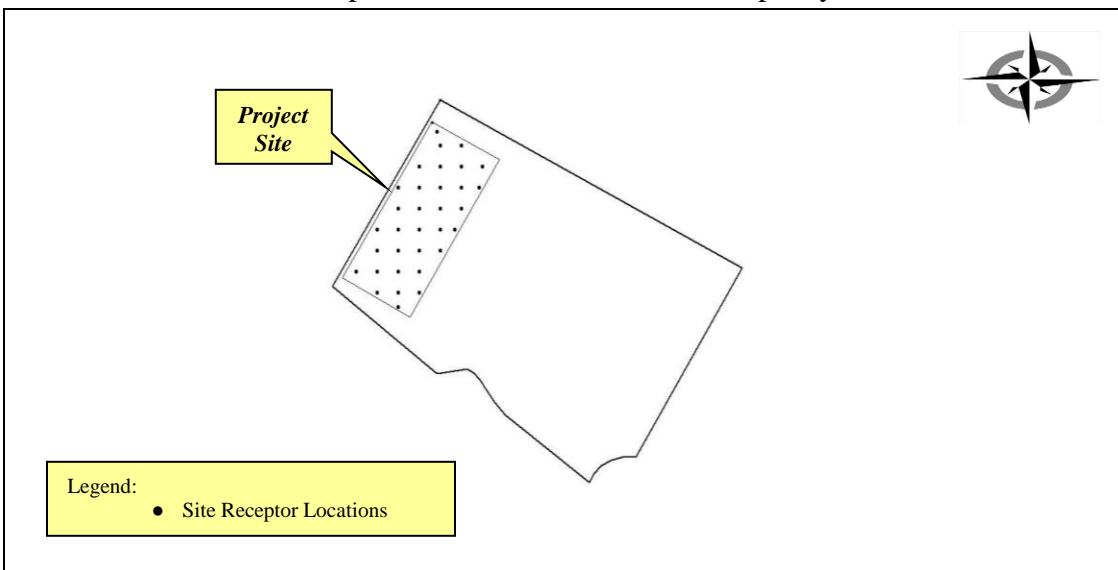


Figure 5
Receptor Grid Network / Hotel Occupancy



A dispersion model input table is provided in Appendix C. A listing of model output summary files are provided in Appendix E.

6.0 RISK CHARACTERIZATION

For chronic, annual and 24-hour exposures, concentration estimates for residential receptors are considered static whereby exposures are assumed to be continuous based upon the averaging time under consideration. For guests residing at the proposed hotel development, only the 24-hour exposure estimate would apply. Short duration exposures (i.e., 1 and 8-hour) apply to all common areas such as a pool and related residential/hotel amenities since it is reasonable to assume that an individual could be present for periods of one to eight hours.

6.1 Carcinogenic Chemical Risk

Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Any exposure, therefore, will have some associated risk. As a result, the State of California has established a threshold of one in one hundred thousand (1.0E-05) as a level posing no significant risk for exposures to carcinogens regulated under the Safe Drinking Water and Toxic Enforcement Act (Proposition 65). For a chemical that is known to the State of California to cause cancer, the level posing no significant risk is defined as the level of exposure that would result in not more than one excess case of cancer in 100,000 individuals exposed to the chemical over a 70-year lifetime. This threshold is also consistent with the maximum incremental cancer risk established by the SCAQMD for projects prepared under the auspices of the California Environmental Quality Act (CEQA).

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. Under a deterministic approach (i.e., point estimate methodology), the cancer risk probability is determined by multiplying the chemical's annual concentration by its unit risk factor (URF). None of the compounds considered in the assessment have oral slope factors and, as such, a multi-pathway analysis was not performed. The URF is a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It represents an upper bound estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu\text{g}/\text{m}^3$) over a 70-year lifetime. The URFs utilized in the assessment and corresponding cancer potency factors were obtained from the *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*.

A review of available guidance was conducted to determine applicability of the use of early life exposure adjustments to identified carcinogens. For risk assessments conducted under the auspices of The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly, Statutes of 1987; Health and Safety Code Section 44300 et seq.) and associated guidelines promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) a weighting factor is applied to all carcinogens regardless of purported mechanism of action. Notwithstanding, applicability of AB 2588 is limited to commercial and industrial operations. There are two broad classes of facilities subject to the AB 2588 Program: Core facilities and facilities identified within discrete industry-wide source categories. Core facilities subject to AB 2588 compliance are sources whose criteria pollutant emissions (particulate matter, oxides of sulfur, oxides of nitrogen and volatile organic compounds) are 25 tons per year or more as well as those facilities whose criteria pollutant emissions are 10 tons per year or more but less than 25 tons per year. Industry-wide source facilities are classified as smaller operations with relatively similar emission profiles (e.g., auto body shops, gas stations and dry cleaners using perchloroethylene). The emissions generated from on-road mobile sources are not classified as core operations nor subject to industry-wide source evaluation.

Additionally, in comments presented to the SCAQMD Governing Board (Meeting Date: June 5, 2015, Agenda No. 28) relating to toxic air contaminant exposures under Rules 1401, 1401.1, 1402 and 212 revisions, use of the OEHHA guidelines and their applicability for projects subject to CEQA, it was reported that:

The Proposed Amended Rules are separate from the CEQA significance thresholds. The Response to Comments Staff Report PAR 1401, 1401.1, 1402, and 212 A - 8 June 2015 SCAQMD staff is currently evaluating how to implement the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will evaluate a variety of options on how to evaluate health risks under the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will conduct public workshops to gather input before bringing recommendations to the Governing Board.

To date, the SCAQMD, as a commenting agency, has not conducted public workshops nor developed policy relating to the applicability of applying the OEHHA guidance for projects prepared by other public/lead agencies subject to CEQA.

As a result, this health risk assessment relied upon U.S. Environmental Protection Agency guidance relating to the use of early life exposure adjustment factors (*Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, EPA/630/R-003F) whereby adjustment factors are only considered when carcinogens act “through the mutagenic mode of action.” In 2006, the U.S. Environmental Protection Agency published a memorandum which provides guidance regarding the preparation of health risk assessments should carcinogenic compounds elicit a mutagenic mode of action (USEPA, 2006). As presented in the technical memorandum, numerous compounds were identified as having a mutagenic mode of action. None of the gaseous compounds considered in this health risk assessment elicit a mutagenic mode of action and, therefore, early life exposure adjustments were not considered. For diesel particulates, polycyclic aromatic hydrocarbons (PAHs) and their derivatives, which are known to exhibit a mutagenic mode of action, comprise < 1% of the exhaust particulate mass. To date, the U.S. Environmental Protection Agency reports that whole diesel engine exhaust has not been shown to elicit a mutagenic mode of action (USEPA, 2018).

Additionally, the California Department of Toxic Substances Control (DTSC) which is charged with protecting individuals and the environment from the effects of toxic substances and responsible for assessing, investigating and evaluating sensitive receptor populations to ensure that properties are free of contamination or that health protective remediation levels are achieved has adopted the U.S. Environmental Protection Agency’s policy in the application of early life exposure adjustments and is consistent with the methodology considered in the assessment of residential exposures.

To effectively quantify dose, the procedure requires the incorporation of several discrete exposure variates. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day

(mg/kg/day)⁻¹ to derive the cancer risk estimate. Therefore, to assess exposures associated with the proposed residential population, the following dose algorithm was utilized.

$$CDI = (C_{air} \times EF \times ED \times IR) / (BW \times AT)$$

Where:

- CDI = chronic daily intake (mg/kg/day)
- C_{air} = concentration of contaminant in air (mg/m³)
- EF = exposure frequency (days/year)
- ED = exposure duration (years)
- IR = inhalation rate (m³/day)
- BW = body weight (kg)
- AT = averaging time (days)

To represent residential exposures, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). Specifically, activity patterns for population mobility recommended by the U.S. Environmental Protection Agency and presented in the *Exposure Factors Handbook* were utilized. As a result, lifetime risk values for residents were adjusted to account for an exposure duration of 350 days per year for 30 years (i.e., 95th percentile). Additional discussion regarding the use of the 30-year exposure duration is presented in Appendix D. A 9-year exposure duration was additionally assessed to identify risk estimates associated with the average time individuals are reported to reside at a given residence. These values are consistent with CEQA which considers the evaluation of environmental effects of proposed projects in a manner that reflects both reasonable and feasible assumptions (*Laurel Heights Improvement Association of San Francisco, Inc. v. Regents of the University of California*). For body weight and inhalation, the assessment employed average adult values of 70 kilograms and 20 cubic meters per day, respectively.

Table 4 presents the maximum predicted carcinogenic risk estimate for the maximum exposed residential receptor. As noted, carcinogenic risks did not exceed the significance threshold of one in one hundred thousand (1.0E-05) for both the 30 and 9-year exposure scenarios. Appendix A, Tables A1 and A2, columns f-g, present the URFs and corresponding cancer potency factors for carcinogens considered in the assessment. The cancer risk attributed to each compound and summation of those risks are presented in column h.

Table 4
Maximum Residential Receptor / Carcinogenic Risk

Floor Level	Exposure Scenario	
	30-Year	9-Year
5	8.5E-06	2.6E-06

Note::8.5E-06 and 2.6E-06 denote excess cases of cancer of 8.5 and 2.6 in one million (1,000,000) individuals exposed.

6.2 Noncarcinogenic Hazards

An evaluation of the potential noncancer effects of contaminant exposures was also conducted. Under the point estimate approach, adverse health effects are evaluated by comparing the concentration of each compound with the appropriate Reference Exposure Level (REL). Available RELs presented in the *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values* were considered in the assessment.

To quantify noncarcinogenic impacts, the hazard index approach was used. The hazard index assumes that subthreshold exposures adversely affect a specific organ or organ system (i.e., toxicological endpoint). For each discrete pollutant exposure, target organs presented in regulatory guidance were utilized.

To calculate the hazard index, the pollutant concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds one (i.e., unity), a health hazard is presumed to exist. For chronic exposures, RELs were converted to units expressed in mg/kg/day to accommodate the above referenced intake algorithm. To assess acute noncancer impacts, the maximum pollutant concentration is divided by the REL for the corresponding averaging time (e.g., 1-hour). No exposure frequency or duration adjustments are considered for short duration exposures.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the 30 and 9-year exposure scenarios. For acute exposures, the hazard indices for each respective averaging time did not exceed unity for all receptor locations.

Appendix A, Tables A1 and A2, columns i-j, present the RELs and corresponding reference dose values used in the evaluation of chronic noncarcinogenic exposures. For the maximum exposed receptor, the noncancer hazard quotient for identified compounds generated from each source and a summation for each toxicological endpoint are presented in columns k-r. Tables A3 and A4, column e present the RELs for the assessment of acute exposures. Columns f-m identify each compound's hazard quotient and corresponding index for each endpoint for the maximum exposed receptor location.

6.3 Criteria Pollutant Exposures

The State of California has promulgated strict ambient air quality standards for various pollutants. These standards were established to safeguard the public's health and welfare with specific emphasis on protecting those individuals susceptible to respiratory distress, such as asthmatics, the young, the elderly and those with existing conditions which may be affected by increased pollutant concentrations. However, recent research has shown that unhealthful respiratory responses occur with exposures to pollutants at levels that only marginally exceed clean air standards. Table 5 presents the California Ambient Air Quality Standards (CAAQS) for the criteria pollutants considered in the assessment.

Table 5
California Ambient Air Quality Standards

Pollutant	Standard	Health Effects
Particulates (PM ₁₀)	>50 µg/m ³ (24-hr avg.) >20 µg/m ³ (Annual)	1) Excess deaths from short-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory disease. 2) Excess seasonal declines in pulmonary function especially in children.
Particulates (PM _{2.5})	>12 µg/m ³ (Annual)	1) Excess deaths and illness from long-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory and cardio pulmonary disease.
Carbon Monoxide (CO)	>9.0 ppm (8-hr avg.) >20.0 ppm (1-hr avg.)	1) Aggravation of angina pectoris and other aspects of coronary heart disease. 2) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease. 3) Impairment of central nervous system functions. 4) Possible increased risk to fetuses.
Nitrogen Dioxide (NO ₂)	>0.18 ppm (1-hr avg.)	1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups. 2) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes.

Abbreviations: ppm: parts per million; µg/m³: micrograms per cubic meter.

Source: California Code of Regulations, Title 17, Section 70200.

Pollutant emissions are considered to have a significant effect on the environment if they result in concentrations that create either a violation of an ambient air quality standard, contribute to an existing air quality violation or expose sensitive receptors to substantive pollutant concentrations. Should ambient air quality already exceed existing standards, the SCAQMD has established significance criteria for selected compounds to account for the continued degradation of local air quality. Background concentrations are based upon the highest observed value for the most recent three-year period.

For PM₁₀ emissions, background concentrations representative of the project area exceed the CAAQS for the 24-hour and annual averaging times. As a result, a significant impact is achieved when pollutant concentrations produce a measurable change over existing background levels. For fine particulates, no measurable change criterion currently exists whereby the SCAQMD significance threshold of 2.5 µg/m³ is used to assess PM_{2.5} impacts for the 24-hour averaging time.

For the CO 1 and 8-hour averaging times and the NO₂ 1-hour averaging time, background concentrations are below current air quality standards. As such, significance is achieved when pollutant concentrations add to existing levels and create an exceedance of the CAAQS.

Table 6 shows the pollutant concentrations collected at the Central Los Angeles monitoring station for the last three years of available data. Table 7 outlines the relevant significance thresholds considered to affect local air quality.

Table 6
Central Los Angeles Monitoring Summary

Pollutant/ Averaging Time	Year			
	2015	2016	2017	Maximum
Particulates (PM ₁₀) 24-Hour	88	67	96	96
Particulates (PM ₁₀) Annual	33.0	32.4	34.4	34.4
Carbon Monoxide (CO) 1-Hour 8-Hour	3.2 1.8	1.9 1.4	1.9 1.6	3.2 1.8
Nitrogen Dioxide (NO ₂) 1-Hour	0.0791	0.0647	0.0806	0.0806

Note: PM₁₀ concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). All others are expressed in parts per million (ppm).
Source: South Coast Air Quality Management District.

Table 7
SCAQMD Air Quality Significance Thresholds

Pollutant	Averaging Time	Pollutant Concentration
Particulates (PM ₁₀)	24-Hours	2.5 $\mu\text{g}/\text{m}^3$ (operation)
Particulates (PM _{2.5})	24-Hours	2.5 $\mu\text{g}/\text{m}^3$ (operation)
Particulates (PM ₁₀)	Annual	1.0 $\mu\text{g}/\text{m}^3$
Carbon Monoxide (CO)	1/8-Hours	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standards of 20 ppm (1-hour) and 9 ppm (8-hour).
Nitrogen Dioxide (NO ₂)	1-Hour	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standard of 0.18 ppm.

Abbreviations: ppm: parts per million; $\mu\text{g}/\text{m}^3$: micrograms per cubic meter.
Source: South Coast Air Quality Management District.

For the residential occupancy, maximum predicted PM₁₀ concentrations exceed the significance threshold for the 24-hour averaging time for floor levels 5 through 10. The maximum predicted PM₁₀ concentration also exceeds the annual averaging time on floor levels 5 through 11. The PM_{2.5} significance threshold was exceeded on floor levels 5 and 6. For hotel patrons, 24-hour PM₁₀ concentrations were exceeded on floor levels 6 through 9. PM_{2.5} concentrations were exceeded on floor level 6.

Tables 8 and 9 present the maximum predicted concentrations for each identified floor level that exceed the respective particulate significance thresholds.

Table 8
Residential Receptors / PM₁₀ and PM_{2.5}

Floor Level	Pollutant / Averaging Time		
	PM ₁₀ 24 Hour	PM ₁₀ Annual	PM _{2.5} 24-Hour
5	11.47609	7.71376	3.37407
6	8.40621	5.48254	2.58165
7	6.38760	3.99096	-
8	4.66090	2.79554	-
9	3.52959	1.97858	-
10	2.61956	1.41997	-
11	-	1.07079	-

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 9
Hotel Receptors / PM₁₀ and PM_{2.5}

Floor Level	Pollutant / Averaging Time	
	PM ₁₀ 24 Hour	PM _{2.5} 24-Hour
6	8.25491	2.64200
7	6.11934	-
8	4.40642	-
9	3.31810	-

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

The maximum modeled 1-hour concentration for CO of 0.32446 parts per million (ppm) (371.57064 $\mu\text{g}/\text{m}^3$) when added to an existing background concentration of 3.2 ppm, will not cause an exceedance of the CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 0.16804 ppm, (192.44312 $\mu\text{g}/\text{m}^3$) when added to an existing background level of 1.8 ppm, does not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, the maximum 1-hour concentration of 0.02074 ppm (39.01582 $\mu\text{g}/\text{m}^3$) was predicted. This concentration, when added to a background concentration of 0.0806 ppm, will not cause an exceedance of the CAAQS of 0.18 ppm.

7.0 CONCLUSION

In comparison to the threshold level referenced in Section 6.1, carcinogenic risk estimates for the maximum exposed residential receptor did not exceed the significance threshold of one in one hundred thousand (1.0E-05) for both the 30 and 9-year exposure scenarios.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for all 30 year and 9-year exposure scenarios. For short duration exposures, the hazard indices for the identified averaging times did not exceed unity. Therefore, noncarcinogenic hazards were predicted to be within acceptable limits.

For residential receptors, maximum predicted PM₁₀ concentrations exceed the significance threshold for the 24-hour averaging time for floor levels 5 through 10. The PM₁₀ maximum predicted concentration for the annual averaging time was exceeded on floor levels 5 through 11. The PM_{2.5} significance threshold was exceeded on floor levels 5 and 6. For hotel patrons, 24-hour PM₁₀ concentrations were exceeded on floor levels 6 through 9. PM_{2.5} concentrations were exceeded on floor level 6. For CO and NO₂, maximum predicted concentrations are within acceptable limits.

8.0 REGULATORY COMPLIANCE MEASURES

As noted in Sections 6.2 and 6.3 above, short duration exposures associated with both toxic and criteria pollutants are below identified significance thresholds. As such, no impacts are anticipated to individuals who reside at the proposed project site, access common areas and/or utilize available outdoor amenities. Exceedance of identified significance thresholds are associated with annual and/or 24-hour particulate exposures from the reentrainment of paved roadway dust. As a result, control of particulate impacts may be accomplished by reducing pollutant concentrations within residential and hotel occupancies. By restricting the rate of infiltration, exposures can be controlled to reduce particulate concentrations below SCAQMD's significance thresholds.

As previously stated, the project is subject to Los Angeles City Ordinance No. 184245 which requires the installation of air filtration systems which achieve a MERV 13 efficiency as defined by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 52.2. For the PM₁₀ and PM_{2.5} size ranges, removal efficiencies are reported to be 90 and 85 percent, respectively. Tables 10 through 14 present the particulate concentration reductions associated with incorporation of MERV 13 filtration.

Table 10
Residential Receptors / PM₁₀ 24-Hour
w/MERV 13 Filtration

Floor Level	Concentration	Significance Threshold	Exceeds Significance Threshold
5	1.14761	2.5	No
6	0.84062	2.5	No
7	0.63876	2.5	No
8	0.46609	2.5	No
9	0.35296	2.5	No
10	0.26196	2.5	No

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 11
Residential Receptors / PM₁₀ Annual
w/MERV 13 Filtration

Floor Level	Concentration	Significance Threshold	Exceeds Significance Threshold
5	0.77138	1.0	No
6	0.54825	1.0	
7	0.39910	1.0	No
8	0.27955	1.0	No
9	0.19786	1.0	No
10	0.14200	1.0	No
11	0.10708	1.0	No

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 12
Residential Receptors / PM_{2.5} 24-Hour
w/MERV 13 Filtration

Floor Level	Concentration	Significance Threshold	Exceeds Significance Threshold
5	0.50611	2.5	No
6	0.38725	2.5	No

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 13
Hotel Receptors / PM₁₀ 24-Hour
w/MERV 13 Filtration

Floor Level	Concentration	Significance Threshold	Exceeds Significance Threshold
6	0.82549	2.5	No
7	0.61193	2.5	No
8	0.44064	2.5	No
9	0.33181	2.5	No

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Table 14
Hotel Receptors / PM_{2.5} 24-Hour
w/MERV 13 Filtration

Floor Level	Concentration	Significance Threshold	Exceeds Significance Threshold
6	0.39630	2.5	No

Note: Concentrations are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

As noted in Tables 10 through 14, incorporation of the identified filter design will reduce particulate exposures below established significance thresholds.

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APPENDIX A

Risk Calculation Worksheets

Table A1
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
30 Year Exposure Scenario / Maximum Residential Receptor at Fifth Floor Level

Source (a)	Concentration		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk			Noncarcinogenic Hazards / Toxicological Endpoints*									
	(ug/m3) (b)	(mg/m3) (c)			URF (ug/m3) (f)	CPF (mg/kg/day) (g)	RISK (h)	REL (ug/m3) (i)	RfD (mg/kg/day) (j)	RESP (k)	CNS/PNS (l)	CV/BL (m)	IMMUN (n)	KIDN (o)	GI/LV (p)	REPRO (q)	EYES (r)
Freeway	0.23941	2.4E-04	4.91E-01	Benzene	2.9E-05	1.0E-01	1.4E-06	3.0E+00	8.6E-04								
			3.17E-01	Formaldehyde	6.0E-06	2.1E-02	1.9E-07	9.0E+00	2.6E-03	8.1E-03							
			1.09E-01	1,3-Butadiene	1.7E-04	6.0E-01	1.8E-06	2.0E+00	5.7E-04								
			5.70E-02	Acetaldehyde	2.7E-06	1.0E-02	1.6E-08	1.4E+02	4.0E-02	9.3E-05							
			2.60E-02	Acrolein				3.5E-01	1.0E-04	1.7E-02							
	0.04152	4.2E-05	1.00E+00	Diesel Particulates	3.0E-04	1.1E+00	5.1E-06	5.0E+00	1.4E-03	8.0E-03						1.3E-02	
Total							8.5E-06			3.3E-02	0.0E+00	3.8E-02	0.0E+00	0.0E+00	0.0E+00	1.3E-02	0.0E+00

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g., teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	30
inhalation rate (m3/day)	20
average body weight (kg)	70
averaging time _(cancer) (days)	25550
averaging time _(noncancer) (days)	10950

Table A2
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
9 Year Exposure Scenario / Maximum Residential Receptor at Fifth Floor Level

Source (a)	Concentration		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk			Noncarcinogenic Hazards / Toxicological Endpoints*									
	(ug/m3) (b)	(mg/m3) (c)			URF (ug/m3) (f)	CPF (mg/kg/day) (g)	RISK (h)	REL (ug/m3) (i)	RfD (mg/kg/day) (j)	RESP (k)	CNS/PNS (l)	CV/BL (m)	IMMUN (n)	KIDN (o)	GI/LV (p)	REPRO (q)	EYES (r)
Freeway	0.23941	2.4E-04	4.91E-01	Benzene	2.9E-05	1.0E-01	4.2E-07	3.0E+00	8.6E-04								
			3.17E-01	Formaldehyde	6.0E-06	2.1E-02	5.6E-08	9.0E+00	2.6E-03	8.1E-03							
			1.09E-01	1,3-Butadiene	1.7E-04	6.0E-01	5.5E-07	2.0E+00	5.7E-04								
			5.70E-02	Acetaldehyde	2.7E-06	1.0E-02	4.8E-09	1.4E+02	4.0E-02	9.3E-05							
			2.60E-02	Acrolein				3.5E-01	1.0E-04	1.7E-02							
	0.04152	4.2E-05	1.00E+00	Diesel Particulates	3.0E-04	1.1E+00	1.5E-06	5.0E+00	1.4E-03	8.0E-03						1.3E-02	
Total							2.6E-06			3.3E-02	0.0E+00	3.8E-02	0.0E+00	0.0E+00	0.0E+00	1.3E-02	0.0E+00

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g., teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	9
inhalation rate (m3/day)	20
average body weight (kg)	70
averaging time _(cancer) (days)	25550
averaging time _(noncancer) (days)	3285

Table A3
Quantification of Noncarcinogenic Acute Hazards
1-Hour Exposure Scenario / Maximum Exposed Receptor

Source (a)	Concentration (ug/m3) (b)	Weight Fraction (c)	Contaminant (d)	Noncarcinogenic Hazards / Toxicological Endpoints*								
				REL (ug/m3) (e)	RESP (f)	CNS/PNS (g)	CV/BL (h)	IMMUN (i)	KIDN (j)	GI/LV (k)	REPRO (l)	EYES (m)
Freeway TOG	1.78447	4.91E-01	Benzene	2.7E+01			3.2E-02	3.2E-02			3.2E-02	1.0E-02
		3.17E-01	Formaldehyde	5.5E+01							2.9E-04	2.2E-04
		1.09E-01	1,3-Butadiene	6.6E+02								1.9E-02
		5.70E-02	Acetaldehyde	4.7E+02	2.2E-04							
		2.60E-02	Acrolein	2.5E+00	1.9E-02							
Freeway Diesel/TOG	0.21461	8.20E-02	Benzene	2.7E+01			6.5E-04	6.5E-04			6.5E-04	2.4E-03
		6.07E-01	Formaldehyde	5.5E+01							2.6E-06	1.4E-04
		8.00E-03	1,3-Butadiene	6.6E+02								
		3.03E-01	Acetaldehyde	4.7E+02	1.4E-04							
Total					1.9E-02	0.0E+00	3.3E-02	3.3E-02	0.0E+00	0.0E+00	3.3E-02	3.2E-02

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g., teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Table A4
Quantification of Noncarcinogenic Acute Hazards
8-Hour Exposure Scenario / Maximum Exposed Receptor

Source (a)	Concentration (ug/m3) (b)	Weight Fraction (c)	Contaminant (d)	Noncarcinogenic Hazards / Toxicological Endpoints*								
				REL (ug/m3) (e)	RESP (f)	CNS/PNS (g)	CV/BL (h)	IMMUN (i)	KIDN (j)	GI/LV (k)	REPRO (l)	EYES (m)
Freeway TOG	0.68547	4.91E-01	Benzene	3.0E+00			1.1E-01					
		3.17E-01	Formaldehyde	9.0E+00	2.4E-02							8.3E-03
		1.09E-01	1,3-Butadiene	9.0E+00								
		5.70E-02	Acetaldehyde	3.0E+02	1.3E-04							
		2.60E-02	Acrolein	7.0E-01	2.5E-02							
Freeway Diesel/TOG	0.08246	8.20E-02	Benzene	3.0E+00			2.3E-03					
		6.07E-01	Formaldehyde	9.0E+00	5.6E-03							7.3E-05
		8.00E-03	1,3-Butadiene	9.0E+00								
		3.03E-01	Acetaldehyde	3.0E+02	8.3E-05							
Total				5.5E-02	0.0E+00	1.1E-01	0.0E+00	0.0E+00	0.0E+00	8.4E-03	0.0E+00	

* Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g., teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

APPENDIX B

Emission Rate Calculation Worksheets

EMFAC2017 Worksheet
(5 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: Criteria

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	CO_RUNEX (gms/mile)	CO_RUNEX AVE (gms/mile)	NOX_RUNEX (gms/mile)	NOX_RUNEX AVE (gms/mile)	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)	PM10_PMTW (gms/mile)	PM10_PMTW AVE (gms/mile)	PM10_PMBW (gms/mile)	PM10_PMBW AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	5	40165.35984	0.0053	3.011585871	0.01581880	0.100557638	0.00052819	0.01678735	0.00008818	0.0080	0.00004202	0.03675	0.000193035
Los Angeles	2025	Annual	LDA	GAS	Aggregated	5	405570.858	0.5304	1.000245339	0.53052585	0.046939275	0.024869369	0.008739713	0.00463551	0.0080	0.00424317	0.03675	0.019492043
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	5	219.2677433	0.0000	3.685590617	0.00010568	0.677535417	0.00001943	0.432674328	0.00001241	0.0080	0.00000023	0.03675	0.000001054
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	5	499962.2227	0.0654	1.880772757	0.1297027	0.137996723	0.00902262	0.011548984	0.00075511	0.0080	0.00052306	0.03675	0.002402819
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	5	11309.01748	0.0015	2.395924159	0.00354344	0.146816732	0.00021713	0.01091981	0.00001615	0.0080	0.00001183	0.03675	0.000054351
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	5	1449451.693	0.1896	1.396770679	0.26476188	0.097922351	0.01856146	0.009268814	0.00175693	0.0080	0.00151642	0.03675	0.006966068
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	5	77839.37602	0.0102	2.822728248	0.02873393	0.756454637	0.00770032	0.031767236	0.00032337	0.0120	0.00012215	0.07644	0.000778120
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	5	105035.2402	0.0137	1.401426374	0.01925005	0.207297428	0.00284745	0.00788368	0.00010829	0.0080	0.00010989	0.07644	0.001049983
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	5	31626.3724	0.0041	2.867790087	0.01186106	0.758646463	0.00313773	0.039500123	0.00016337	0.0120	0.00004963	0.08918	0.000368845
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	5	18214.5893	0.0024	0.863269313	0.00205633	0.228196607	0.00054357	0.007356105	0.00001752	0.0080	0.00001906	0.08918	0.000212429
Los Angeles	2025	Annual	MCY	GAS	Aggregated	5	196539.6797	0.0257	41.91004748	1.07719666	1.470571535	0.03779749	0.012642389	0.00032494	0.0040	0.00010281	0.01176	0.000302262
Los Angeles	2025	Annual	MDV	DSL	Aggregated	5	24603.85227	0.0032	3.175740265	0.01021821	0.095139354	0.00030612	0.009824659	0.00003161	0.0080	0.00002574	0.03675	0.000118246
Los Angeles	2025	Annual	MDV	GAS	Aggregated	5	951896.8886	0.1245	1.561253771	0.19435245	0.12016638	0.01495889	0.009413929	0.00117189	0.0080	0.00099588	0.03675	0.004574818
Los Angeles	2025	Annual	MH	DSL	Aggregated	5	6745.29341	0.0009	2.084358362	0.00183865	11.54514319	0.01018420	0.142619961	0.00012581	0.0160	0.00001411	0.13034	0.000114975
Los Angeles	2025	Annual	MH	GAS	Aggregated	5	18896.58635	0.0025	2.022799199	0.00499877	0.348226608	0.00086054	0.008125463	0.00002008	0.0120	0.00002965	0.13034	0.000322098
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	5	70456.83842	0.0092	0.784611246	0.00722943	6.447736669	0.05940966	0.005847579	0.00005388	0.0120	0.00011057	0.13034	0.001209957
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	5	14915.38467	0.0020	1.747914235	0.00340943	0.45786843	0.00089310	0.007032118	0.00001372	0.0120	0.00002341	0.13034	0.000254237
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	5	59964.70242	0.0078	2.144702048	0.01681858	13.30592157	0.10434394	0.01407826	0.00011040	0.0360	0.00028231	0.06174	0.000484160
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	5	51.50915854	0.0000	58.36800431	0.00039318	5.185716305	0.00003493	0.007477685	0.00000005	0.0200	0.00000013	0.06174	0.000000416
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	5	3357.424206	0.0004	1.286396328	0.00056482	8.750441807	0.00384205	0.007230917	0.00000317	0.0120	0.00000527	0.13034	0.000057228
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	5	3952.687638	0.0005	2.122074959	0.00109693	0.577247345	0.00029839	0.006591088	0.00000341	0.0120	0.00000620	0.13034	0.000067375
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	5	3551.771731	0.0005	1.211380985	0.00056267	14.29890559	0.06664163	0.109490815	0.00005086	0.0120	0.00000557	0.74480	0.000345948
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	5	1686.657165	0.0002	1.37939439	0.00030426	0.517706655	0.00011419	0.005678651	0.00000125	0.0080	0.00000176	0.74480	0.000164283
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	5	6.0834	0.0000	0.403615955	0.00000032	2.470588676	0.00000197	0.007138464	0.00000001	0.0360	0.00000003	0.06175	0.000000049
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	5	469.1198848	0.0001	0.395479823	0.00002426	0.257553091	0.00001580	0.007622117	0.0000047	0.0113	0.00000070	0.12357	0.0000007581

7646688	1.0	2.319	0.307
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0.0098	0.008
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0.040	0.040
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EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG GAS

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	GAS	Aggregated	5	405570.858	0.5543	0.063126617	0.0350
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	5	499962.2227	0.0683	0.165644539	0.0113
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	5	1449451.693	0.1981	0.112113131	0.0222
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	5	105035.2402	0.0144	0.173555973	0.0025
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	5	18214.5893	0.0025	0.13062527	0.0003
Los Angeles	2025	Annual	MCY	GAS	Aggregated	5	196539.6797	0.0269	15.38395194	0.4132
Los Angeles	2025	Annual	MDV	GAS	Aggregated	5	951896.8886	0.1301	0.140938243	0.0183
Los Angeles	2025	Annual	MH	GAS	Aggregated	5	18896.58635	0.0026	0.265871732	0.0007
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	5	14915.38467	0.0020	0.338258956	0.0007
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	5	51.50915854	0.0000	3.500309723	0.0000
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	5	3952.687638	0.0005	0.404580887	0.0002
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	5	1686.657165	0.0002	0.292884689	0.0001
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	5	469.1198848	0.007513227	0.0000	

0.505	0.0000
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EMFAC2017 Worksheet
(5 mph)

PM2_5_RUNEX	PM2_5_RUNEX_AVE	PM2_5_PMTW	PM2_5_PMTW_AVE	PM2_5_PMBW	PM2_5_PMBW_AVE
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.016061137	0.000084363	0.0020	0.000010505	0.01575	0.000082729
0.008035843	0.004262177	0.0020	0.001060791	0.01575	0.008353733
0.413957028	0.000011870	0.0020	0.000000057	0.01575	0.000000452
0.010618865	0.000694292	0.0020	0.000130766	0.01575	0.001029780
0.010447424	0.000015451	0.0020	0.000002958	0.01575	0.000023293
0.008522332	0.001615433	0.0020	0.000379106	0.01575	0.002985458
0.030393	0.000309385	0.0030	0.000030538	0.03276	0.000333480
0.007248753	0.000099569	0.0020	0.000027472	0.03276	0.000449993
0.037791366	0.000156303	0.0030	0.000012408	0.03822	0.000158076
0.006763667	0.000016111	0.0020	0.000004764	0.03822	0.000091041
0.011794309	0.000303144	0.0010	0.000025703	0.00504	0.000129541
0.009399649	0.000030244	0.0020	0.000006435	0.01575	0.000050677
0.008655824	0.001077519	0.0020	0.000248970	0.01575	0.001960636
0.136450285	0.000120365	0.0040	0.000003528	0.05586	0.000049275
0.007471063	0.000018463	0.0030	0.000007414	0.05586	0.000138042
0.005594615	0.000051549	0.0030	0.000027642	0.05586	0.000514696
0.006465773	0.000012612	0.0030	0.000005852	0.05586	0.000108959
0.013469241	0.000105625	0.0090	0.000070577	0.02646	0.000207497
0.006875456	0.000000046	0.0050	0.000000034	0.02646	0.000000178
0.006918111	0.000003038	0.0030	0.000001317	0.05586	0.000024526
0.006060262	0.000003133	0.0030	0.000001551	0.05586	0.000028875
0.104754291	0.000048657	0.0030	0.000001393	0.31920	0.000148264
0.00522131	0.000001152	0.0020	0.000000441	0.31920	0.000070407
0.006829657	0.000000005	0.0090	0.000000007	0.02646	0.000000021
0.007008256	0.000000430	0.0028	0.000000174	0.05296	0.000003249

0.0090

0.002

0.017

EMFAC2017 Worksheet
(5 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG DSL

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	5	40165.35984	0.1218	0.167095532	0.0203
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	5	219.2677433	0.0007	0.764857041	0.0005
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	5	11309.01748	0.0343	0.293796529	0.0101
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	5	77839.37602	0.2360	0.823749714	0.1944
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	5	31626.3724	0.0959	0.82733982	0.0793
Los Angeles	2025	Annual	MDV	DSL	Aggregated	5	24603.85227	0.0746	0.166046266	0.0124
Los Angeles	2025	Annual	MH	DSL	Aggregated	5	6745.29341	0.0204	0.942896751	0.0193
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	5	70456.83842	0.2136	0.064619031	0.0138
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	5	59964.70242	0.1818	0.154459773	0.0281
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	5	3357.424206	0.0102	0.090084562	0.0009
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	5	3551.771731	0.0108	0.701540097	0.0076
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	5	6.0834	0.0000	0.185577815	0.0000
							329845	1.0		0.387

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: DSL Particulate

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	5	40165.35984	0.1218	0.01678735	0.0020
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	5	219.2677433	0.0007	0.432674328	0.0003
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	5	11309.01748	0.0343	0.01091981	0.0004
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	5	77839.37602	0.2360	0.031767236	0.0075
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	5	31626.3724	0.0959	0.039500123	0.0038
Los Angeles	2025	Annual	MDV	DSL	Aggregated	5	24603.85227	0.0746	0.009824659	0.0007
Los Angeles	2025	Annual	MH	DSL	Aggregated	5	6745.29341	0.0204	0.142619961	0.0029
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	5	70456.83842	0.2136	0.005847579	0.0012
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	5	59964.70242	0.1818	0.01407826	0.0026
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	5	3357.424206	0.0102	0.007230917	0.0001
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	5	3551.771731	0.0108	0.109490815	0.0012
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	5	6.0834	0.0000	0.007138464	0.0000
							329845	1.0		0.023

EMFAC2017 Worksheet
(20 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: Criteria

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	CO_RUNEX (gms/mile)	CO_RUNEX AVE (gms/mile)	NOx_RUNEX (gms/mile)	NOx_RUNEX AVE (gms/mile)	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)	PM10_PMTW (gms/mile)	PM10_PMTW_AVE (gms/mile)	PM10_PMBW (gms/mile)	PM10_PMBW_AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	20	40165.35984	0.0053	0.448511689	0.00235587	0.051173885	0.00026880	0.0008042875	0.00004225	0.0080	0.00004202	0.03675	0.000193035
Los Angeles	2025	Annual	LDA	GAS	Aggregated	20	405570.858	0.5304	0.755791448	0.40086855	0.031884318	0.01691131	0.0025671	0.00136158	0.0080	0.00424317	0.03675	0.019492043
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	20	219.2677433	0.0000	1.232678549	0.00003535	0.736632494	0.00002112	0.168473879	0.00000483	0.0080	0.00000023	0.03675	0.000001054
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	20	499962.2227	0.0654	1.355615449	0.08863399	0.0878917	0.00574661	0.003493231	0.00022840	0.0080	0.00052306	0.03675	0.002402819
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	20	11309.01748	0.0015	0.344718722	0.00050982	0.05678077	0.00008398	0.006853916	0.00001014	0.0080	0.00001183	0.03675	0.000054351
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	20	1449451.693	0.1896	1.041104054	0.19734425	0.064566151	0.01223870	0.002736715	0.00051875	0.0080	0.00151642	0.03675	0.006966068
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	20	77839.37602	0.0102	0.504297359	0.00513349	0.643240318	0.00654786	0.016524741	0.00016821	0.0120	0.00012215	0.07644	0.000778120
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	20	105035.2402	0.0137	0.761737716	0.01046326	0.15268361	0.00209727	0.002343864	0.00003220	0.0080	0.00010989	0.07644	0.001049983
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	20	31626.3724	0.0041	0.508078637	0.00210139	0.635024527	0.00262643	0.021449777	0.00008872	0.0120	0.00004963	0.08918	0.000368845
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	20	18214.5893	0.0024	0.546567529	0.00130194	0.160722877	0.00038285	0.002165404	0.00000516	0.0080	0.00001906	0.08918	0.000212429
Los Angeles	2025	Annual	MCY	GAS	Aggregated	20	196539.6797	0.0257	21.86448211	0.56197376	1.131601763	0.02908509	0.003990427	0.00010256	0.0040	0.00010281	0.01176	0.000302262
Los Angeles	2025	Annual	MDV	DSL	Aggregated	20	24603.85227	0.0032	0.459617306	0.00147886	0.041510338	0.00013356	0.005471983	0.00001761	0.0080	0.00002574	0.03675	0.000118246
Los Angeles	2025	Annual	MDV	GAS	Aggregated	20	951896.8886	0.1245	1.151323864	0.14332238	0.07967666	0.00991854	0.002785046	0.00034670	0.0080	0.00099588	0.03675	0.004574818
Los Angeles	2025	Annual	MH	DSL	Aggregated	20	6745.29341	0.0009	0.441018164	0.00038903	4.556209401	0.00401912	0.068732544	0.00006063	0.0160	0.00001411	0.13034	0.000114975
Los Angeles	2025	Annual	MH	GAS	Aggregated	20	18896.58635	0.0025	1.117803034	0.00276233	0.251218174	0.00062081	0.002413132	0.00000596	0.0120	0.00002965	0.13034	0.000322098
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	20	70456.83842	0.0092	0.176176627	0.00162330	2.751012951	0.02534792	0.003224687	0.00002971	0.0120	0.00011057	0.13034	0.001209957
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	20	14915.38467	0.0020	1.265669911	0.00246878	0.317297655	0.00061891	0.002062184	0.00000402	0.0120	0.00002341	0.13034	0.000254237
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	20	59964.70242	0.0078	0.482072169	0.00378037	5.728764934	0.04492450	0.007937729	0.00006225	0.0360	0.00028231	0.06174	0.000484160
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	20	51.50915854	0.0000	41.8942428	0.00028221	3.734319929	0.00002515	0.002247284	0.00000002	0.0200	0.00000013	0.06174	0.000000416
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	20	3357.424206	0.0004	0.286191255	0.00012566	3.780039793	0.00165970	0.004280586	0.00000188	0.0120	0.00000527	0.13034	0.000057228
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	20	3952.687638	0.0005	1.489741027	0.00077007	0.404850343	0.00020927	0.001938019	0.00000100	0.0120	0.00000620	0.13034	0.000067375
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	20	3551.771731	0.0005	0.403660251	0.00018749	6.311094636	0.00293141	0.039383761	0.00001829	0.0120	0.00000557	0.74480	0.000345948
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	20	1686.657165	0.0002	1.050365025	0.00023168	0.356352387	0.00007860	0.001660776	0.00000037	0.0080	0.00000176	0.74480	0.000164283
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	20	6.0834	0.0000	0.133031006	0.00000011	0.818064806	0.00000065	0.005188121	0.00000000	0.0360	0.00000003	0.06175	0.000000049
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	20	469.1198848	0.0001	0.301145326	0.00001848	0.177281203	0.000001088	0.002229162	0.00000014	0.0113	0.00000070	0.12357	0.0000007581

7646688	1.0	1.428	0.167
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0.0031	0.008
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0.040	
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EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG GAS

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	GAS	Aggregated	20	405570.858	0.5543	0.018869897	0.0105
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	20	499962.2227	0.0683	0.052919083	0.0036
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	20	1449451.693	0.1981	0.034413944	0.0068
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	20	105035.2402	0.0144	0.057735525	0.0008
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	20	18214.5893	0.0025	0.040625566	0.0001
Los Angeles	2025	Annual	MCY	GAS	Aggregated	20	196539.6797	0.0269	4.908637695	0.1319
Los Angeles	2025	Annual	MDV	GAS	Aggregated	20	951896.8886	0.1301	0.043318484	0.0056
Los Angeles	2025	Annual	MH	GAS	Aggregated	20	18896.58635	0.0026	0.084712394	0.0002
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	20	14915.38467	0.0020	0.100307357	0.0002
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	20	51.50915854	0.0000	1.056648917	0.0000
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	20	3952.687638	0.0005	0.120987158	0.0001
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	20	1686.657165	0.0002	0.085656961	0.0000
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	20	469.1198848	0.0001	0.028518687	0.0000

7316843	1.0
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0.160	
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EMFAC2017 Worksheet
(20 mph)

PM2_5_RUNEX	PM2_5_RUNEX_AVE	PM2_5_PMTW	PM2_5_PMTW_AVE	PM2_5_PMBW	PM2_5_PMBW_AVE
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.007694944	0.000040419	0.0020	0.000010505	0.01575	0.000082729
0.002360353	0.001251921	0.0020	0.001060791	0.01575	0.008353733
0.161185774	0.000004622	0.0020	0.000000057	0.01575	0.000000452
0.003211897	0.000210003	0.0020	0.000130766	0.01575	0.001029780
0.006557418	0.000009698	0.0020	0.000002958	0.01575	0.000023293
0.002516308	0.000476973	0.0020	0.000379106	0.01575	0.002985458
0.015809888	0.000160937	0.0030	0.000030538	0.03276	0.000333480
0.002155096	0.000029602	0.0020	0.000027472	0.03276	0.000449993
0.02052187	0.000084878	0.0030	0.000012408	0.03822	0.000158076
0.001991009	0.000004743	0.0020	0.000004764	0.03822	0.000091041
0.003723637	0.0000095707	0.0010	0.000025703	0.00504	0.000129541
0.005235268	0.000016845	0.0020	0.000006435	0.01575	0.000050677
0.002560771	0.000318777	0.0020	0.000248970	0.01575	0.001960636
0.065759205	0.0000058007	0.0040	0.000003528	0.05586	0.000049275
0.002218786	0.000005483	0.0030	0.000007414	0.05586	0.000138042
0.003085188	0.000028427	0.0030	0.000027642	0.05586	0.000514696
0.001896102	0.000003698	0.0030	0.000005852	0.05586	0.000108959
0.007594347	0.000059554	0.0090	0.000070577	0.02646	0.000207497
0.002066294	0.000000014	0.0050	0.000000034	0.02646	0.000000178
0.004095409	0.000001798	0.0030	0.000001317	0.05586	0.000024526
0.001781937	0.000000921	0.0030	0.000001551	0.05586	0.000028875
0.037680037	0.000017502	0.0030	0.000001393	0.31920	0.000148264
0.001527023	0.000000337	0.0020	0.000000441	0.31920	0.000070407
0.004963685	0.000000004	0.0090	0.000000007	0.02646	0.000000021
0.002049632	0.000000126	0.0028	0.000000174	0.05296	0.000003249

0.0029

0.002

0.017

EMFAC2017 Worksheet
(20 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG DSL

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	20	40165.35984	0.1218	0.02802064	0.0034
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	20	219.2677433	0.0007	0.264581015	0.0002
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	20	11309.01748	0.0343	0.042670178	0.0015
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	20	77839.37602	0.2360	0.140559766	0.0332
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	20	31626.3724	0.0959	0.140731707	0.0135
Los Angeles	2025	Annual	MDV	DSL	Aggregated	20	24603.85227	0.0746	0.025223787	0.0019
Los Angeles	2025	Annual	MH	DSL	Aggregated	20	6745.29341	0.0204	0.14657737	0.0030
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	20	70456.83842	0.2136	0.015173894	0.0032
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	20	59964.70242	0.1818	0.036431203	0.0066
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	20	3357.424206	0.0102	0.02134806	0.0002
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	20	3551.771731	0.0108	0.138416954	0.0015
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	20	6.0834	0.0000	0.081576216	0.0000
						329845	1.0		0.068	

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: DSL Particulate

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	20	40165.35984	0.1218	0.008042875	0.0010
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	20	219.2677433	0.0007	0.168473879	0.0001
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	20	11309.01748	0.0343	0.006853916	0.0002
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	20	77839.37602	0.2360	0.016524741	0.0039
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	20	31626.3724	0.0959	0.021449777	0.0021
Los Angeles	2025	Annual	MDV	DSL	Aggregated	20	24603.85227	0.0746	0.005471983	0.0004
Los Angeles	2025	Annual	MH	DSL	Aggregated	20	6745.29341	0.0204	0.068732544	0.0014
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	20	70456.83842	0.2136	0.003224687	0.0007
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	20	59964.70242	0.1818	0.007937729	0.0014
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	20	3357.424206	0.0102	0.004280586	0.0000
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	20	3551.771731	0.0108	0.039383761	0.0004
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	20	6.0834	0.0000	0.005188121	0.0000
						329845	1.0		0.012	

EMFAC2017 Worksheet
(45 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: Criteria

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	CO_RUNEX (gms/mile)	CO_RUNEX AVE (gms/mile)	NOX_RUNEX (gms/mile)	NOX_RUNEX AVE (gms/mile)	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)	PM10_PMTW (gms/mile)	PM10_PMTW_AVE (gms/mile)	PM10_PMBW (gms/mile)	PM10_PMBW_AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	45	40165.35984	0.0053	0.125516305	0.00065929	0.039436497	0.00020715	0.004353698	0.00002287	0.0080	0.00004202	0.03675	0.000193035
Los Angeles	2025	Annual	LDA	GAS	Aggregated	45	405570.858	0.5304	0.505291631	0.26800452	0.023552986	0.01249240	0.000966764	0.00051277	0.0080	0.00424317	0.03675	0.019492043
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	45	219.2677433	0.0000	0.74753169	0.00002144	0.900109482	0.00002581	0.085897572	0.00000246	0.0080	0.00000023	0.03675	0.000001054
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	45	499962.2227	0.0654	0.893107579	0.05839391	0.064680977	0.00422903	0.001337743	0.00008747	0.0080	0.00052306	0.03675	0.002402819
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	45	11309.01748	0.0015	0.089344244	0.00013214	0.028541761	0.00004221	0.003931534	0.00000581	0.0080	0.00001183	0.03675	0.000054351
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	45	1449451.693	0.1896	0.692808041	0.13132375	0.047551379	0.00901350	0.001033737	0.00019595	0.0080	0.00151642	0.03675	0.006966068
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	45	77839.37602	0.0102	0.190529367	0.00193949	0.714830193	0.00727661	0.009123155	0.00009287	0.0120	0.00012215	0.07644	0.000778120
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	45	105035.2402	0.0137	0.506362423	0.00695542	0.12531321	0.00172131	0.000901379	0.00001238	0.0080	0.00010989	0.07644	0.001049983
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	45	31626.3724	0.0041	0.189862747	0.00078526	0.700582172	0.00289758	0.011955689	0.00004945	0.0120	0.00004963	0.08918	0.000368845
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	45	18214.5893	0.0024	0.364801799	0.00086897	0.123328878	0.00029377	0.000821139	0.00000196	0.0080	0.00001906	0.08918	0.000212429
Los Angeles	2025	Annual	MCY	GAS	Aggregated	45	196539.6797	0.0257	14.5169006	0.37312191	0.985306123	0.02532492	0.001659117	0.00004264	0.0040	0.00010281	0.01176	0.000302262
Los Angeles	2025	Annual	MDV	DSL	Aggregated	45	24603.85227	0.0032	0.120769584	0.00038859	0.026130188	0.00008408	0.003066463	0.00000987	0.0080	0.00002574	0.03675	0.000118246
Los Angeles	2025	Annual	MDV	GAS	Aggregated	45	951896.8886	0.1245	0.766612732	0.09543167	0.059216045	0.00737150	0.001054494	0.00013127	0.0080	0.00099588	0.03675	0.004574818
Los Angeles	2025	Annual	MH	DSL	Aggregated	45	6745.29341	0.0009	0.169837771	0.00014982	2.550331024	0.00224970	0.048896764	0.00004313	0.0160	0.00001411	0.13034	0.000114975
Los Angeles	2025	Annual	MH	GAS	Aggregated	45	18896.58635	0.0025	0.743404505	0.00183711	0.200038569	0.00049434	0.000926613	0.00000229	0.0120	0.00002965	0.13034	0.000322098
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	45	70456.83842	0.0092	0.045325349	0.00041763	0.682150093	0.00628535	0.005984276	0.00005514	0.0120	0.00011057	0.13034	0.001200957
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	45	14915.38467	0.0020	0.847360189	0.00165283	0.237144071	0.00046257	0.000777739	0.00000152	0.0120	0.00002341	0.13034	0.000254237
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	45	59964.70242	0.0078	0.124023617	0.00097258	1.499704017	0.01176056	0.014889393	0.00011676	0.0360	0.00028231	0.06174	0.000484160
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	45	51.50915854	0.0000	28.04271058	0.00018890	2.965479255	0.00001998	0.000877198	0.00000001	0.0200	0.00000013	0.06174	0.000000416
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	45	3357.424206	0.0004	0.07269613	0.00003192	0.916094371	0.00040223	0.008953215	0.00000393	0.0120	0.00000527	0.13034	0.000057228
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	45	3952.687638	0.0005	0.996704859	0.00051521	0.308564108	0.00015950	0.000733726	0.00000038	0.0120	0.00000620	0.13034	0.00067375
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	45	3551.771731	0.0005	0.154425266	0.00007173	4.515429484	0.00209735	0.024213387	0.00001125	0.0120	0.00000557	0.74480	0.000345948
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	45	1686.657165	0.0002	0.703951399	0.00015527	0.26334058	0.00005809	0.000623899	0.00000014	0.0080	0.00000176	0.74480	0.000164283
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	45	6.0834	0.0000	0.060611135	0.00000005	0.167500299	0.00000013	0.009637211	0.00000001	0.0360	0.00000003	0.06175	0.000000049
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	45	469.1198848	0.0001	0.201826669	0.00001238	0.1301008902	0.00000804	0.000837423	0.00000005	0.0113	0.00000070	0.12357	0.0000007581

7646688 1.0 0.944 0.095 0.0014 0.008 0.040

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG GAS

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	GAS	Aggregated	45	405570.858	0.5543	0.007178981	0.0040
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	45	499962.2227	0.0683	0.020894394	0.0014
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	45	1449451.693	0.1981	0.013283943	0.0026
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	45	105035.2402	0.0144	0.025500087	0.0004
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	45	18214.5893	0.0025	0.01658500	0.0000
Los Angeles	2025	Annual	MCY	GAS	Aggregated	45	196539.6797	0.0269	2.067638782	0.0555
Los Angeles	2025	Annual	MDV	GAS	Aggregated	45	951896.8886	0.1301	0.016840666	0.0022
Los Angeles	2025	Annual	MH	GAS	Aggregated	45	18896.58635	0.0026	0.035622527	0.0001
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	45	14915.38467	0.0020	0.03843603	0.0001
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	45	51.50915854	0.0000	0.414943989	0.0000
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	45	3952.687638	0.0005	0.046905642	0.0000
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	45	1686.657165	0.0002	0.032178524	0.0000
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	45	469.1198848	0.0001	0.01071354	0.0000

7316843 1.0 0.066

EMFAC2017 Worksheet
(45 mph)

PM2_5_RUNEX	PM2_5_RUNEX_AVE	PM2_5_PMTW	PM2_5_PMTW_AVE	PM2_5_PMBW	PM2_5_PMBW_AVE
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.004165359	0.000021879	0.0020	0.000010505	0.01575	0.000082729
0.000888904	0.00471471	0.0020	0.001060791	0.01575	0.008353733
0.082181681	0.000002357	0.0020	0.000000057	0.01575	0.000000452
0.001230005	0.000080421	0.0020	0.000130766	0.01575	0.001029780
0.003761457	0.000005563	0.0020	0.000002958	0.01575	0.000023293
0.000950483	0.000180167	0.0020	0.000379106	0.01575	0.002985458
0.008728492	0.000088852	0.0030	0.000030538	0.03276	0.000333480
0.000828785	0.000011384	0.0020	0.000027472	0.03276	0.000449993
0.011438491	0.000047309	0.0030	0.000012408	0.03822	0.000158076
0.000755007	0.000001798	0.0020	0.000004764	0.03822	0.000091041
0.001548647	0.000039804	0.0010	0.000025703	0.00504	0.000129541
0.00293381	0.000009440	0.0020	0.000006435	0.01575	0.000050677
0.000969581	0.000120698	0.0020	0.000248970	0.01575	0.001960636
0.046781511	0.000041267	0.0040	0.000003528	0.05586	0.000049275
0.000851986	0.000002105	0.0030	0.000007414	0.05586	0.000138042
0.005725399	0.000052754	0.0030	0.000027642	0.05586	0.000514696
0.000715102	0.000001395	0.0030	0.000005852	0.05586	0.000108959
0.014245285	0.000111710	0.0090	0.000070577	0.02646	0.000207497
0.000806551	0.000000005	0.0050	0.000000034	0.02646	0.000000178
0.008565903	0.000003761	0.0030	0.000001317	0.05586	0.000024526
0.000674634	0.000000349	0.0030	0.000001551	0.05586	0.000028875
0.023165927	0.000010760	0.0030	0.000001393	0.31920	0.000148264
0.000573653	0.000000127	0.0020	0.000000441	0.31920	0.000070407
0.00922031	0.000000007	0.0090	0.000000007	0.02646	0.000000021
0.00076998	0.000000047	0.0028	0.000000174	0.05296	0.000003249

0.0013

0.002

0.017

EMFAC2017 Worksheet
(45 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG DSL

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	45	40165.35984	0.1218	0.008787393	0.0011
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	45	219.2677433	0.0007	0.12993029	0.0001
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	45	11309.01748	0.0343	0.011109081	0.0004
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	45	77839.37602	0.2360	0.044914856	0.0106
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	45	31626.3724	0.0959	0.044820629	0.0043
Los Angeles	2025	Annual	MDV	DSL	Aggregated	45	24603.85227	0.0746	0.007007501	0.0005
Los Angeles	2025	Annual	MH	DSL	Aggregated	45	6745.29341	0.0204	0.044711614	0.0009
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	45	70456.83842	0.2136	0.006181468	0.0013
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	45	59964.70242	0.1818	0.014895137	0.0027
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	45	3357.424206	0.0102	0.008821405	0.0001
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	45	3551.771731	0.0108	0.045697041	0.0005
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	45	6.0834	0.0000	0.045575897	0.0000
							329845	1.0		0.022

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: DSL Particulate

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	45	40165.35984	0.1218	0.004353698	0.0005
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	45	219.2677433	0.0007	0.085897572	0.0001
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	45	11309.01748	0.0343	0.003931534	0.0001
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	45	77839.37602	0.2360	0.009123155	0.0022
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	45	31626.3724	0.0959	0.011955689	0.0011
Los Angeles	2025	Annual	MDV	DSL	Aggregated	45	24603.85227	0.0746	0.003066463	0.0002
Los Angeles	2025	Annual	MH	DSL	Aggregated	45	6745.29341	0.0204	0.048896764	0.0010
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	45	70456.83842	0.2136	0.005984276	0.0013
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	45	59964.70242	0.1818	0.014889393	0.0027
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	45	3357.424206	0.0102	0.008953215	0.0001
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	45	3551.771731	0.0108	0.024213387	0.0003
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	45	6.0834	0.0000	0.009637211	0.0000
							329845	1.0		0.010

EMFAC2017 Worksheet
(55 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: Criteria

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	CO_RUNEX (gms/mile)	CO_RUNEX AVE (gms/mile)	NOX_RUNEX (gms/mile)	NOX_RUNEX AVE (gms/mile)	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)	PM10_PMTW (gms/mile)	PM10_PMTW_AVE (gms/mile)	PM10_PMBW (gms/mile)	PM10_PMBW_AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	55	40165.35984	0.0053	0.10461183	0.00054949	0.039640596	0.00020822	0.004223972	0.00002219	0.0080	0.00004202	0.03675	0.000193035
Los Angeles	2025	Annual	LDA	GAS	Aggregated	55	405570.858	0.5304	0.439675737	0.23320213	0.023495369	0.01246184	0.000949064	0.00050338	0.0080	0.00424317	0.03675	0.019492043
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	55	219.2677433	0.0000	0.890599459	0.00002554	0.971635895	0.00002786	0.089801302	0.00000258	0.0080	0.00000023	0.03675	0.000001054
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	55	499962.227	0.0654	0.787870307	0.05151320	0.066596659	0.00435428	0.001301988	0.00008513	0.0080	0.00052306	0.03675	0.002402819
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	55	11309.01748	0.0015	0.069728127	0.00010312	0.025628898	0.00003790	0.003544317	0.00000524	0.0080	0.00001183	0.03675	0.000054351
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	55	1449451.693	0.1896	0.604967995	0.11467342	0.048094777	0.00911650	0.001013207	0.00019206	0.0080	0.00151642	0.03675	0.006966068
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	55	77893.37602	0.0102	0.191632026	0.00195072	0.762606162	0.00776294	0.008634062	0.00008789	0.0120	0.00012215	0.07644	0.000778120
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	55	105035.2402	0.0137	0.525034671	0.00721190	0.126978685	0.00174418	0.000891308	0.00001224	0.0080	0.00010989	0.07644	0.001049983
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	55	31626.3724	0.0041	0.189930023	0.00078554	0.746691994	0.00308829	0.011179055	0.00004624	0.0120	0.00004963	0.08918	0.000368845
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	55	18214.5893	0.0024	0.347728788	0.00082830	0.12324247	0.00029357	0.000809123	0.0000193	0.0080	0.00001906	0.08918	0.000212429
Los Angeles	2025	Annual	MCY	GAS	Aggregated	55	196539.6797	0.0257	15.41354081	0.39616788	1.009772307	0.02595376	0.00167106	0.00004295	0.0040	0.00010281	0.01176	0.000302262
Los Angeles	2025	Annual	MDV	DSL	Aggregated	55	24603.85227	0.0032	0.095435037	0.00030707	0.025086856	0.00008072	0.00284774	0.00000916	0.0080	0.00002574	0.03675	0.000118246
Los Angeles	2025	Annual	MDV	GAS	Aggregated	55	951896.8886	0.1245	0.673343075	0.08382101	0.059988967	0.00746772	0.001033944	0.00012871	0.0080	0.00099588	0.03675	0.004574818
Los Angeles	2025	Annual	MH	DSL	Aggregated	55	6745.29341	0.0009	0.149728773	0.00013208	2.349366286	0.00207242	0.057516854	0.00005074	0.0160	0.00001411	0.13034	0.000114975
Los Angeles	2025	Annual	MH	GAS	Aggregated	55	18896.58635	0.0025	0.763586674	0.00188698	0.201461588	0.00049785	0.000915916	0.00000226	0.0120	0.00002965	0.13034	0.000322098
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	55	70456.83842	0.0092	0.035860318	0.00030402	0.601513856	0.00554237	0.00971476	0.00008951	0.0120	0.00011057	0.13034	0.001200957
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	55	14915.38467	0.0020	0.75404653	0.00147082	0.235616559	0.00045959	0.000765301	0.00000149	0.0120	0.00002341	0.13034	0.000254237
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	55	59964.70242	0.0078	0.098010519	0.00076859	1.353634754	0.01061509	0.024147287	0.00018936	0.0360	0.00028231	0.06174	0.000484160
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	55	51.50915854	0.0000	25.06346868	0.00016883	2.984903838	0.0002011	0.00087057	0.00000001	0.0200	0.00000013	0.06174	0.000000416
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	55	3357.424206	0.0004	0.057366283	0.00002519	0.825919771	0.00036264	0.014769629	0.00000648	0.0120	0.00000527	0.13034	0.000057228
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	55	3952.687638	0.0005	0.900729268	0.00046560	0.307897792	0.00015916	0.0000037	0.0120	0.00000620	0.13034	0.000067375	
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	55	3551.771731	0.0005	0.134093767	0.00006228	4.518834205	0.00209893	0.031161148	0.00001447	0.0120	0.00000557	0.74480	0.000345948
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	55	1686.657165	0.0002	0.611268837	0.00013483	0.260983642	0.00005757	0.00061331	0.00000014	0.0080	0.00000176	0.74480	0.000164283
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	55	6.0834	0.0000	0.050263037	0.00000004	0.147007717	0.00000012	0.014534097	0.00000001	0.0360	0.00000003	0.06175	0.000000049
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	55	469.1198848	0.0001	0.175254077	0.00001075	0.129836535	0.00000797	0.000823209	0.00000005	0.0113	0.00000070	0.12357	0.000000781

7646688	1.0	0.897	0.094
		0.0015	0.008
		0.008	0.040

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG GAS

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	GAS	Aggregated	55	405570.858	0.5543	0.007011388	0.0039
Los Angeles	2025	Annual	LDT1	GAS	Aggregated	55	499962.227	0.0683	0.020057267	0.0014
Los Angeles	2025	Annual	LDT2	GAS	Aggregated	55	1449451.693	0.1981	0.012873471	0.0026
Los Angeles	2025	Annual	LHDT1	GAS	Aggregated	55	105035.2402	0.0144	0.02602217	0.0004
Los Angeles	2025	Annual	LHDT2	GAS	Aggregated	55	18214.5893	0.0025	0.016635091	0.0000
Los Angeles	2025	Annual	MCY	GAS	Aggregated	55	196539.6797	0.0269	2.088580288	0.0561
Los Angeles	2025	Annual	MDV	GAS	Aggregated	55	951896.8886	0.1301	0.016398365	0.0021
Los Angeles	2025	Annual	MH	GAS	Aggregated	55	18896.58635	0.0026	0.035969818	0.0001
Los Angeles	2025	Annual	MHDT	GAS	Aggregated	55	14915.38467	0.0020	0.037972537	0.0001
Los Angeles	2025	Annual	HHDT	GAS	Aggregated	55	51.50915854	0.0000	0.412410339	0.0000
Los Angeles	2025	Annual	OBUS	GAS	Aggregated	55	3952.687638	0.0005	0.04647402	0.0000
Los Angeles	2025	Annual	SBUS	GAS	Aggregated	55	1686.657165	0.0002	0.031632345	0.0000
Los Angeles	2025	Annual	UBUS	GAS	Aggregated	55	469.1198848	0.010531694	0.0000	

7316843	1.0	0.067
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EMFAC2017 Worksheet
(55 mph)

PM2_5_RUNEX	PM2_5_RUNEX_AVE	PM2_5_PMTW	PM2_5_PMTW_AVE	PM2_5_PMBW	PM2_5_PMBW_AVE
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.004041245	0.000021227	0.0020	0.000010505	0.01575	0.000082729
0.000872629	0.000462839	0.0020	0.001060791	0.01575	0.008353733
0.085916537	0.000002464	0.0020	0.000000057	0.01575	0.000000452
0.00119713	0.000078272	0.0020	0.000130766	0.01575	0.001029780
0.003390992	0.000005015	0.0020	0.000002958	0.01575	0.000023293
0.000931606	0.000176589	0.0020	0.000379106	0.01575	0.002985458
0.008260556	0.000084088	0.0030	0.000030538	0.03276	0.000333480
0.000819525	0.000011257	0.0020	0.000027472	0.03276	0.000449993
0.010695454	0.000044236	0.0030	0.000012408	0.03822	0.000158076
0.000743959	0.000001772	0.0020	0.000004764	0.03822	0.000091041
0.001559898	0.000040093	0.0010	0.000025703	0.00504	0.000129541
0.002724548	0.000008766	0.0020	0.000006435	0.01575	0.000050677
0.000950687	0.000118346	0.0020	0.000248970	0.01575	0.001960636
0.055028701	0.000048542	0.0040	0.000003528	0.05586	0.000049275
0.000842151	0.000002081	0.0030	0.000007414	0.05586	0.000138042
0.009294504	0.000085640	0.0030	0.000027642	0.05586	0.000514696
0.000703666	0.000001373	0.0030	0.000005852	0.05586	0.000108959
0.023102686	0.000181169	0.0090	0.000070577	0.02646	0.000207497
0.000800457	0.000000005	0.0050	0.000000034	0.02646	0.000000178
0.014130701	0.000006204	0.0030	0.000001317	0.05586	0.000024526
0.00066449	0.000000343	0.0030	0.000001551	0.05586	0.000028875
0.02981313	0.0000013848	0.0030	0.000001393	0.31920	0.000148264
0.000563916	0.000000124	0.0020	0.000000441	0.31920	0.000070407
0.013905359	0.000000011	0.0090	0.000000007	0.02646	0.000000021
0.000756911	0.000000046	0.0028	0.000000174	0.05296	0.000003249

0.0014

0.002

0.017

EMFAC2017 Worksheet
(55 mph)

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG DSL

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	55	40165.35984	0.1218	0.007664052	0.0009
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	55	219.2677433	0.0007	0.134918891	0.0001
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	55	11309.01748	0.0343	0.008643692	0.0003
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	55	77839.37602	0.2360	0.039557076	0.0093
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	55	31626.3724	0.0959	0.039406752	0.0038
Los Angeles	2025	Annual	MDV	DSL	Aggregated	55	24603.85227	0.0746	0.005696443	0.0004
Los Angeles	2025	Annual	MH	DSL	Aggregated	55	6745.29341	0.0204	0.038540123	0.0008
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	55	70456.83842	0.2136	0.006727758	0.0014
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	55	59964.70242	0.1818	0.016232667	0.0030
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	55	3357.424206	0.0102	0.009727897	0.0001
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	55	3551.771731	0.0108	0.044762786	0.0005
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	55	6.0834	0.0000	0.039675716	0.0000
						329845	1.0		0.021	

EMFAC2017 Emission Rates

Region Type: County

Region: Los Angeles (SC)

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: DSL Particulate

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)
Los Angeles	2025	Annual	LDA	DSL	Aggregated	55	40165.35984	0.1218	0.004223972	0.0005
Los Angeles	2025	Annual	LDT1	DSL	Aggregated	55	219.2677433	0.0007	0.089801302	0.0001
Los Angeles	2025	Annual	LDT2	DSL	Aggregated	55	11309.01748	0.0343	0.003544317	0.0001
Los Angeles	2025	Annual	LHDT1	DSL	Aggregated	55	77839.37602	0.2360	0.008634062	0.0020
Los Angeles	2025	Annual	LHDT2	DSL	Aggregated	55	31626.3724	0.0959	0.011179055	0.0011
Los Angeles	2025	Annual	MDV	DSL	Aggregated	55	24603.85227	0.0746	0.00284774	0.0002
Los Angeles	2025	Annual	MH	DSL	Aggregated	55	6745.29341	0.0204	0.057516854	0.0012
Los Angeles	2025	Annual	MHDT	DSL	Aggregated	55	70456.83842	0.2136	0.00971476	0.0021
Los Angeles	2025	Annual	HHDT	DSL	Aggregated	55	59964.70242	0.1818	0.024147287	0.0044
Los Angeles	2025	Annual	OBUS	DSL	Aggregated	55	3357.424206	0.0102	0.014769629	0.0002
Los Angeles	2025	Annual	SBUS	DSL	Aggregated	55	3551.771731	0.0108	0.031161148	0.0003
Los Angeles	2025	Annual	UBUS	DSL	Aggregated	55	6.0834	0.0000	0.014534097	0.0000
						329845	1.0		0.012	

Emission Factor Rate Adjustment Worksheet

CO Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (\text{emfac at average link speed} \times 16/60) \times (0.027) \times (\exp (.098 \times \text{acceleration speed product})) \times (60 \text{ min/hr}) / (\text{average link speed})$$

emfac at link speed	0.944
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	2.245
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (\text{emfac at idle speed} * 1.5)$$

emfac at idle speed (gr/mi)	2.319
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Emfac (gr/mi)	3.479
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NOX Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (\text{emfac at average link speed} \times 16/60) \times (0.027) \times (\exp (.098 \times \text{acceleration speed product})) \times (60 \text{ min/hr}) / (\text{average link speed})$$

emfac at link speed	0.095
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	0.226
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (\text{emfac at idle speed} * 1.5)$$

emfac at idle speed (gr/mi)	0.307
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Emfac (gr/mi)	0.461
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Emission Factor Rate Adjustment Worksheet

PM10 Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (\text{emfac at average link speed} \times 16/60) \times (0.027) \times (\exp (.098 \times \text{acceleration speed product})) \times (60 \text{ min/hr}) / (\text{average link speed})$$

emfac at link speed	0.0014
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	0.0033
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (\text{emfac at idle speed} * 1.5)$$

emfac at idle speed (gr/mi)	0.0098
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Emfac (gr/mi)	0.015
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PM2.5 Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (\text{emfac at average link speed} \times 16/60) \times (0.027) \times (\exp (.098 \times \text{acceleration speed product})) \times (60 \text{ min/hr}) / (\text{average link speed})$$

emfac at link speed	0.0013
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	0.0031
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (\text{emfac at idle speed} * 1.5)$$

emfac at idle speed (gr/mi)	0.0090
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Emfac (gr/mi)	0.014
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Emission Factor Rate Adjustment Worksheet

TOG GAS Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (emfac at average link speed x 16/60) x (0.027) x (\exp (.098 x acceleration speed product)) x (60 min/hr) / (\text{average link speed})$$

emfac at link speed	0.066
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	0.157
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (emfac at idle speed * 1.5)$$

emfac at idle speed (gr/mi)	0.505
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Emfac (gr/mi)	0.758
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TOG DSL Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (emfac at average link speed x 16/60) x (0.027) x (\exp (.098 x acceleration speed product)) x (60 min/hr) / (\text{average link speed})$$

emfac at link speed	0.022
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi)	0.052
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Deceleration / Off-Ramp

$$Emfac (gr/mi) = (emfac at idle speed * 1.5)$$

emfac at idle speed (gr/mi)	0.387
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Emfac (gr/mi)	0.581
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Emission Factor Rate Adjustment Worksheet

DSL Particulate Emissions

Acceleration / On-Ramp (15 - 45 mph)

$$Emfac (gr/mi) = (\text{emfac at average link speed} \times 16/60) \times (0.027) \times (\exp (.098 \times \text{acceleration speed product})) \times (60 \text{ min/hr}) / (\text{average link speed})$$

emfac at link speed	0.010
speed (mph)	45.0
acceleration time (sec)	18.0
acceleration rate (mph/sec)	2.50

Emfac (gr/mi) 0.024

Deceleration / Off-Ramp

$$Emfac (gr/mi) = (\text{emfac at idle speed} * 1.5)$$

emfac at idle speed (gr/mi) 0.023

Emfac (gr/mi) 0.035

Source: California Department of Transportation, 1989. Division of New Technology and Research. Caline4 – A Dispersion Model for Predicting Air Pollution Concentrations Near Roadways (Revised). FHWA/CA/TL-84/15.

Emission Factor Profile Worksheet

Chronic Exposure

TOG -Toxic Emissions

Gasoline/Toxic Fractions/Hot Stabilized Exhaust

Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2004	0.028414	0.021422	0.006603	0.005511	0.001533
2005	0.028205	0.021200	0.006551	0.005450	0.001520
2006	0.027938	0.021000	0.006483	0.005350	0.001510
2007	0.027660	0.020700	0.006410	0.005250	0.001490
2008	0.027338	0.020300	0.006326	0.005120	0.001470
2009	0.026849	0.019800	0.006190	0.004870	0.001450
2010	0.026521	0.019400	0.006105	0.004750	0.001430
2011	0.026521	0.019400	0.006105	0.004750	0.001430
2012	0.025656	0.018500	0.005873	0.004370	0.001380
2013	0.025656	0.018500	0.005873	0.004370	0.001380
2014	0.025656	0.018500	0.005873	0.004370	0.001380
2015	0.024349	0.017100	0.005530	0.003850	0.001310
2016	0.024349	0.017100	0.005530	0.003850	0.001310
2017	0.024349	0.017100	0.005530	0.003850	0.001310
2018	0.022182	0.014700	0.004944	0.002860	0.001130
2019	0.022182	0.014700	0.004944	0.002860	0.001130
2020	0.021079	0.013600	0.004659	0.002450	0.001130
2021	0.021079	0.013600	0.004659	0.002450	0.001130
2022	0.021079	0.013600	0.004659	0.002450	0.001130
2023	0.021079	0.013600	0.004659	0.002450	0.001130
2024	0.021079	0.013600	0.004659	0.002450	0.001130
2025	0.021079	0.013600	0.004659	0.002450	0.001130
2026	0.021079	0.013600	0.004659	0.002450	0.001130
2027	0.021079	0.013600	0.004659	0.002450	0.001130
2028	0.021079	0.013600	0.004659	0.002450	0.001130
2029	0.021079	0.013600	0.004659	0.002450	0.001130
2030	0.021079	0.013600	0.004659	0.002450	0.001130

Analysis Year

2025	0.021079	0.013600	0.004659	0.002450	0.001130
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TOG Emissson Rate - gr/mi

Speed (MPH)	Acceleration	0.157
	Deceleration	0.758
	55	0.067

Toxic Emission Rate - gr/mi

Speed (MPH)	Acceleration	0.006738
	Deceleration	0.032532
	55	0.002876

Weight Fraction / Speciation

Benzene	0.491
Formaldehyde	0.317
1,3-Butadiene	0.109
Acetaldehyde	0.057
Acrolein	0.026

Emission Factor Profile Worksheet

Chronic Exposure

Diesel Particulate Emissions - PM10

PM10 Emission Rate - gr/mi	Acceleration	0.024
Speed (MPH)	Deceleration	0.035
55		0.012

Source: TOG/toxic fractions from UC Davis-Caltrans Air Quality Project, *Estimating Mobile Source Air Toxic Emissions: A Step-by-Step Project Analysis Methodology*. Task Order No. 61.

Emission Factor Profile Worksheet

Acute/8-Hour Exposure

TOG -Toxic Emissions

Gasoline/Toxic Fractions/Hot Stabilized Exhaust

Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2004	0.028414	0.021422	0.006603	0.005511	0.001533
2005	0.028205	0.021200	0.006551	0.005450	0.001520
2006	0.027938	0.021000	0.006483	0.005350	0.001510
2007	0.027660	0.020700	0.006410	0.005250	0.001490
2008	0.027338	0.020300	0.006326	0.005120	0.001470
2009	0.026849	0.019800	0.006190	0.004870	0.001450
2010	0.026521	0.019400	0.006105	0.004750	0.001430
2011	0.026521	0.019400	0.006105	0.004750	0.001430
2012	0.025656	0.018500	0.005873	0.004370	0.001380
2013	0.025656	0.018500	0.005873	0.004370	0.001380
2014	0.025656	0.018500	0.005873	0.004370	0.001380
2015	0.024349	0.017100	0.005530	0.003850	0.001310
2016	0.024349	0.017100	0.005530	0.003850	0.001310
2017	0.024349	0.017100	0.005530	0.003850	0.001310
2018	0.022182	0.014700	0.004944	0.002860	0.001130
2019	0.022182	0.014700	0.004944	0.002860	0.001130
2020	0.021079	0.013600	0.004659	0.002450	0.001130
2021	0.021079	0.013600	0.004659	0.002450	0.001130
2022	0.021079	0.013600	0.004659	0.002450	0.001130
2023	0.021079	0.013600	0.004659	0.002450	0.001130
2024	0.021079	0.013600	0.004659	0.002450	0.001130
2025	0.021079	0.013600	0.004659	0.002450	0.001130
2026	0.021079	0.013600	0.004659	0.002450	0.001130
2027	0.021079	0.013600	0.004659	0.002450	0.001130
2028	0.021079	0.013600	0.004659	0.002450	0.001130
2029	0.021079	0.013600	0.004659	0.002450	0.001130
2030	0.021079	0.013600	0.004659	0.002450	0.001130

Analysis Year

2025	0.021079	0.013600	0.004659	0.002450	0.001130
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TOG Emission Rate - gr/mi

Speed (MPH)	Acceleration	0.157
	Deceleration	0.758
	20	0.160
	55	0.067

Toxic Emission Rate - gr/mi

Speed (MPH)	Acceleration	0.006738
	Deceleration	0.032532
	20	0.006867
	55	0.002876

Weight Fraction / Speciation

Benzene	0.491
Formaldehyde	0.317
1,3-Butadiene	0.109
Acetaldehyde	0.057
Acrolein	0.026

Emission Factor Profile Worksheet

Acute/8-Hour Exposure

TOG -Toxic Emissions

Diesel/Toxic Fractions/Hot Stabilized Exhaust

Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2004	0.020009	0.147133	0.001900	0.073526	0
2005	0.020009	0.147133	0.001900	0.073526	0
2006	0.020009	0.147133	0.001900	0.073526	0
2007	0.020009	0.147133	0.001900	0.073526	0
2008	0.020009	0.147133	0.001900	0.073526	0
2009	0.020009	0.147133	0.001900	0.073526	0
2010	0.020009	0.147133	0.001900	0.073526	0
2011	0.020009	0.147133	0.001900	0.073526	0
2012	0.020009	0.147133	0.001900	0.073526	0
2013	0.020009	0.147133	0.001900	0.073526	0
2014	0.020009	0.147133	0.001900	0.073526	0
2015	0.020009	0.147133	0.001900	0.073526	0
2016	0.020009	0.147133	0.001900	0.073526	0
2017	0.020009	0.147133	0.001900	0.073526	0
2018	0.020009	0.147133	0.001900	0.073526	0
2019	0.020009	0.147133	0.001900	0.073526	0
2020	0.020009	0.147133	0.001900	0.073526	0
2021	0.020009	0.147133	0.001900	0.073526	0
2022	0.020009	0.147133	0.001900	0.073526	0
2023	0.020009	0.147133	0.001900	0.073526	0
2024	0.020009	0.147133	0.001900	0.073526	0
2025	0.020009	0.147133	0.001900	0.073526	0
2026	0.020009	0.147133	0.001900	0.073526	0
2027	0.020009	0.147133	0.001900	0.073526	0
2028	0.020009	0.147133	0.001900	0.073526	0
2029	0.020009	0.147133	0.001900	0.073526	0
2030	0.020009	0.147133	0.001900	0.073526	0

Analysis Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2025	0.020009	0.147133	0.001900	0.073526	0

TOG Emisson Rate - gr/mi

Speed (MPH)	Acceleration	0.052
	Deceleration	0.581
	20	0.068
	55	0.021

Toxic Emission Rate - gr/mi	Acceleration	0.012614
Speed (MPH)	Deceleration	0.140932
	20	0.016495
	55	0.005094

Weight Fraction / Speciation

Benzene	0.082
Formaldehyde	0.607
1,3-Butadiene	0.008
Acetaldehyde	0.303
Acrolein	0.000

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

CO Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	5269
Pollutant Mass Emission Rate (gr/mi)	0.897

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.60043
Pollutant Emission Rate (gr/sec/source)	2.86E-02

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

CO Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	4438
Pollutant Mass Emission Rate (gr/mi)	0.897

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.50710
Pollutant Emission Rate (gr/sec/source)	2.31E-02

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

CO Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	975
Pollutant Mass Emission Rate (gr/mi)	0.897

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.05314
Pollutant Emission Rate (gr/sec/source)	2.53E-03

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

CO Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1835
Pollutant Mass Emission Rate (gr/mi)	0.897

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.19746
Pollutant Emission Rate (gr/sec/source)	5.20E-03

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

CO Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1155
Pollutant Mass Emission Rate (gr/mi)	3.479

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.25385
Pollutant Emission Rate (gr/sec/source)	1.27E-02

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

CO Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	726
Pollutant Mass Emission Rate (gr/mi)	2.245

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.07708
Pollutant Emission Rate (gr/sec/source)	2.57E-03

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

CO Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	635
Pollutant Mass Emission Rate (gr/mi)	2.245

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.06373
Pollutant Emission Rate (gr/sec/source)	3.75E-03

On-Road Mobile Sources
Emission Rate Computation

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

CO Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1629
Pollutant Mass Emission Rate (gr/mi)	0.897

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.14452
Pollutant Emission Rate (gr/sec/source)	3.07E-03

Minimum Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

CO Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	4934
Pollutant Mass Emission Rate (gr/mi)	1.428

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.89509
Pollutant Emission Rate (gr/sec/source)	4.26E-02

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

CO Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	6096
Pollutant Mass Emission Rate (gr/mi)	1.428

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	1.10889
Pollutant Emission Rate (gr/sec/source)	5.04E-02

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

CO Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	975
Pollutant Mass Emission Rate (gr/mi)	1.428

On-Road Mobile Sources Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.08459
Pollutant Emission Rate (gr/sec/source)	4.03E-03

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

CO Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1835
Pollutant Mass Emission Rate (gr/mi)	1.428

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.31435
Pollutant Emission Rate (gr/sec/source)	8.27E-03

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

CO Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1155
Pollutant Mass Emission Rate (gr/mi)	3.479

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.25385
Pollutant Emission Rate (gr/sec/source)	1.27E-02

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

CO Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	726
Pollutant Mass Emission Rate (gr/mi)	2.245

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.07708
Pollutant Emission Rate (gr/sec/source)	2.57E-03

On-Road Mobile Sources
Emission Rate Computation

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

CO Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	635
Pollutant Mass Emission Rate (gr/mi)	2.245

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.06373
Pollutant Emission Rate (gr/sec/source)	3.75E-03

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

CO Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1629
Pollutant Mass Emission Rate (gr/mi)	1.428

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.23007
Pollutant Emission Rate (gr/sec/source)	4.90E-03

On-Road Mobile Sources
Emission Rate Computation

Minimum Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

NOx Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	4934
Pollutant Mass Emission Rate (gr/mi)	0.167

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.10468
Pollutant Emission Rate (gr/sec/source)	4.98E-03

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

NOx Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	6096
Pollutant Mass Emission Rate (gr/mi)	0.167

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.12968
Pollutant Emission Rate (gr/sec/source)	5.89E-03

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

NOx Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	975
Pollutant Mass Emission Rate (gr/mi)	0.167

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00989
Pollutant Emission Rate (gr/sec/source)	4.71E-04

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

NOx Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1835
Pollutant Mass Emission Rate (gr/mi)	0.167

On-Road Mobile Sources Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.03676
Pollutant Emission Rate (gr/sec/source)	9.67E-04

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

NOx Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1155
Pollutant Mass Emission Rate (gr/mi)	0.461

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.03364
Pollutant Emission Rate (gr/sec/source)	1.68E-03

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

NOx Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	726
Pollutant Mass Emission Rate (gr/mi)	0.226

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00776
Pollutant Emission Rate (gr/sec/source)	2.59E-04

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

NOx Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	635
Pollutant Mass Emission Rate (gr/mi)	0.226

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00642
Pollutant Emission Rate (gr/sec/source)	3.77E-04

On-Road Mobile Sources
Emission Rate Computation

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

NOx Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1629
Pollutant Mass Emission Rate (gr/mi)	0.167

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.02691
Pollutant Emission Rate (gr/sec/source)	5.72E-04

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

PM10 Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	5269
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0015
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.119

*For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)*

PM10 Reentrainment Emission Rate (gr/sec)	0.079630
PM10 Reentrainment Emission Rate (gr/sec/source)	3.79E-03

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

PM10 Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	4438
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0015
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.119

*For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)*

PM10 Reentrainment Emission Rate (gr/sec)	0.067254
PM10 Reentrainment Emission Rate (gr/sec/source)	3.06E-03

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

PM10 Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	975
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02

On-Road Mobile Sources Emission Rate Computation

Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0015
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.119

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.007047
PM10 Reentrainment Emission Rate (gr/sec/source)	3.36E-04

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

PM10 Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1835
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0015
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.119

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.026187
PM10 Reentrainment Emission Rate (gr/sec/source)	6.89E-04

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

PM10 Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1155
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.015
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.132

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.009665
PM10 Reentrainment Emission Rate (gr/sec/source)	4.83E-04

On-Road Mobile Sources
Emission Rate Computation

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

PM10 Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	726
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m ²)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0033
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.121

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.004146
PM10 Reentrainment Emission Rate (gr/sec/source)	1.38E-04

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

PM10 Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	635
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m ²)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0033
Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.121

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.003428
PM10 Reentrainment Emission Rate (gr/sec/source)	2.02E-04

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

PM10 Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1629
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m ²)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0015

On-Road Mobile Sources
Emission Rate Computation

Emfac2017 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.119

For PM10 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM10 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM10 Reentrainment Emission Rate (gr/sec)	0.019167
PM10 Reentrainment Emission Rate (gr/sec/source)	4.08E-04

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

PM2.5 Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	5269
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0014
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.038

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.025279
PM2.5 Reentrainment Emission Rate (gr/sec/source)	1.20E-03

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

PM2.5 Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	4438
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0014
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.038

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.021350
PM2.5 Reentrainment Emission Rate (gr/sec/source)	9.70E-04

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

PM2.5 Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	975
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02

On-Road Mobile Sources Emission Rate Computation

Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0014
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.038

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.002237
PM2.5 Reentrainment Emission Rate (gr/sec/source)	1.07E-04

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

PM2.5 Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1835
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0014
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.038

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.008313
PM2.5 Reentrainment Emission Rate (gr/sec/source)	2.19E-04

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

PM2.5 Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1155
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.014
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.050

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.003675
PM2.5 Reentrainment Emission Rate (gr/sec/source)	1.84E-04

On-Road Mobile Sources
Emission Rate Computation

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

PM2.5 Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	726
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0031
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.039

For PM2.5 Reentrainment: $\text{Mass Emission Rate (gr/mile)} = ((\text{Particulate PM2.5 Base Emission Factor}) \times (\text{Road Surface Silt Loading})^{0.91} \times (\text{Gross Vehicle Weight})^{1.02}) + (\text{Emfac2014 Emissions Emission Rate (gr/sec)} = ((\text{Mass Emission Rate} \times \text{Volume/Baseline}) / (1609.3 \text{ m/mile}) \times (3600 \text{ sec/hr})) \times (\text{Link Length})$

PM2.5 Reentrainment Emission Rate (gr/sec)	0.001355
PM2.5 Reentrainment Emission Rate (gr/sec/source)	4.52E-05

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

PM2.5 Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	635
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0031
Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.039

For PM2.5 Reentrainment: $\text{Mass Emission Rate (gr/mile)} = ((\text{Particulate PM2.5 Base Emission Factor}) \times (\text{Road Surface Silt Loading})^{0.91} \times (\text{Gross Vehicle Weight})^{1.02}) + (\text{Emfac2014 Emissions Emission Rate (gr/sec)} = ((\text{Mass Emission Rate} \times \text{Volume/Baseline}) / (1609.3 \text{ m/mile}) \times (3600 \text{ sec/hr})) \times (\text{Link Length})$

PM2.5 Reentrainment Emission Rate (gr/sec)	0.001120
PM2.5 Reentrainment Emission Rate (gr/sec/source)	6.59E-05

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

PM2.5 Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1629
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2017 Emissions Run (g/mi)	0.0014

On-Road Mobile Sources
Emission Rate Computation

Emfac2017 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.038

For PM2.5 Reentrainment: Mass Emission Rate (gr/mile) = ((Particulate PM2.5 Base Emission Factor) x (Road Surface Silt Loading)^{0.91} x (Gross Vehicle Weight)^{1.02}) + (Emfac2014 Emissions)
Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

PM2.5 Reentrainment Emission Rate (gr/sec)	0.006085
PM2.5 Reentrainment Emission Rate (gr/sec/source)	1.29E-04

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

TOG GAS Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	5042
Pollutant Mass Emission Rate (gr/mi)	0.002876

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00184
Pollutant Emission Rate (gr/sec/source)	8.77E-05

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

TOG GAS Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	4247
Pollutant Mass Emission Rate (gr/mi)	0.002876

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00156
Pollutant Emission Rate (gr/sec/source)	7.07E-05

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

TOG GAS Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	933
Pollutant Mass Emission Rate (gr/mi)	0.002876

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00016
Pollutant Emission Rate (gr/sec/source)	7.76E-06

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

TOG GAS Emissions

Number of Sources	38
Link Length (meters)	1756
Volume/Baseline (VPH)	323
Pollutant Mass Emission Rate (gr/mi)	0.002876

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00028
Pollutant Emission Rate (gr/sec/source)	7.41E-06

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

TOG GAS Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1105
Pollutant Mass Emission Rate (gr/mi)	0.032532

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00227
Pollutant Emission Rate (gr/sec/source)	1.14E-04

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

TOG GAS Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	694
Pollutant Mass Emission Rate (gr/mi)	0.006738

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00022
Pollutant Emission Rate (gr/sec/source)	7.37E-06

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

TOG GAS Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	607
Pollutant Mass Emission Rate (gr/mi)	0.006738

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00018
Pollutant Emission Rate (gr/sec/source)	1.08E-05

On-Road Mobile Sources
Emission Rate Computation

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

TOG GAS Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1559
Pollutant Mass Emission Rate (gr/mi)	0.002876

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00044
Pollutant Emission Rate (gr/sec/source)	9.44E-06

Minimum Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

TOG GAS Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	4721
Pollutant Mass Emission Rate (gr/mi)	0.006867

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00412
Pollutant Emission Rate (gr/sec/source)	1.96E-04

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

TOG GAS Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	5833
Pollutant Mass Emission Rate (gr/mi)	0.006867

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00510
Pollutant Emission Rate (gr/sec/source)	2.32E-04

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

TOG GAS Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	933
Pollutant Mass Emission Rate (gr/mi)	0.006867

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00039
Pollutant Emission Rate (gr/sec/source)	1.85E-05

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

TOG GAS Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	1756
Pollutant Mass Emission Rate (gr/mi)	0.006867

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00145
Pollutant Emission Rate (gr/sec/source)	3.81E-05

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

TOG GAS Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	1105
Pollutant Mass Emission Rate (gr/mi)	0.032532

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00227
Pollutant Emission Rate (gr/sec/source)	1.14E-04

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

TOG GAS Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	694
Pollutant Mass Emission Rate (gr/mi)	0.006738

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00022
Pollutant Emission Rate (gr/sec/source)	7.37E-06

On-Road Mobile Sources
Emission Rate Computation

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

TOG GAS Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	607
Pollutant Mass Emission Rate (gr/mi)	0.006738

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00018
Pollutant Emission Rate (gr/sec/source)	1.08E-05

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

TOG GAS Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	1559
Pollutant Mass Emission Rate (gr/mi)	0.006867

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00106
Pollutant Emission Rate (gr/sec/source)	2.25E-05

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

TOG DSL Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	227
Pollutant Mass Emission Rate (gr/mi)	0.005094

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00015
Pollutant Emission Rate (gr/sec/source)	7.00E-06

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

TOG DSL Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	191
Pollutant Mass Emission Rate (gr/mi)	0.005094

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00012
Pollutant Emission Rate (gr/sec/source)	5.63E-06

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

TOG DSL Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	42
Pollutant Mass Emission Rate (gr/mi)	0.005094

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00001
Pollutant Emission Rate (gr/sec/source)	6.19E-07

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

TOG DSL Emissions

Number of Sources	38
Link Length (meters)	1756
Volume/Baseline (VPH)	79
Pollutant Mass Emission Rate (gr/mi)	0.005094

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00012
Pollutant Emission Rate (gr/sec/source)	3.21E-06

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

TOG DSL Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	50
Pollutant Mass Emission Rate (gr/mi)	0.140932

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00045
Pollutant Emission Rate (gr/sec/source)	2.23E-05

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

TOG DSL Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	31
Pollutant Mass Emission Rate (gr/mi)	0.012614

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00002
Pollutant Emission Rate (gr/sec/source)	6.16E-07

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

TOG DSL Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	27
Pollutant Mass Emission Rate (gr/mi)	0.012614

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00002
Pollutant Emission Rate (gr/sec/source)	8.96E-07

On-Road Mobile Sources
Emission Rate Computation

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

TOG DSL Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	70
Pollutant Mass Emission Rate (gr/mi)	0.005094

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00004
Pollutant Emission Rate (gr/sec/source)	7.50E-07

Minimum Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

TOG DSL Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	213
Pollutant Mass Emission Rate (gr/mi)	0.016495

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00045
Pollutant Emission Rate (gr/sec/source)	2.13E-05

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

TOG DSL Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	263
Pollutant Mass Emission Rate (gr/mi)	0.016495

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00055
Pollutant Emission Rate (gr/sec/source)	2.51E-05

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

TOG DSL Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	42
Pollutant Mass Emission Rate (gr/mi)	0.016495

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00004
Pollutant Emission Rate (gr/sec/source)	2.00E-06

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

TOG DSL Emissions

Number of Sources	38
Link Length (meters)	695
Volume/Baseline (VPH)	79
Pollutant Mass Emission Rate (gr/mi)	0.016495

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00016
Pollutant Emission Rate (gr/sec/source)	4.11E-06

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

TOG DSL Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	50
Pollutant Mass Emission Rate (gr/mi)	0.140932

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00045
Pollutant Emission Rate (gr/sec/source)	2.23E-05

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

TOG DSL Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	31
Pollutant Mass Emission Rate (gr/mi)	0.012614

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00002
Pollutant Emission Rate (gr/sec/source)	6.16E-07

On-Road Mobile Sources
Emission Rate Computation

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

TOG DSL Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	27
Pollutant Mass Emission Rate (gr/mi)	0.012614

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00002
Pollutant Emission Rate (gr/sec/source)	8.96E-07

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

TOG DSL Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	70
Pollutant Mass Emission Rate (gr/mi)	0.016495

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00011
Pollutant Emission Rate (gr/sec/source)	2.43E-06

On-Road Mobile Sources
Emission Rate Computation

Average Speed Scenario

EB/INTERSTATE 10 (Sources E_M_1 to E_M_21)

DSL Particulate Emissions

Number of Sources	21
Link Length (meters)	736
Volume/Baseline (VPH)	227
Pollutant Mass Emission Rate (gr/mi)	0.012

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00035
Pollutant Emission Rate (gr/sec/source)	1.65E-05

WB/INTERSTATE 10 (Sources W_M_1 to W_M_22)

DSL Particulate Emissions

Number of Sources	22
Link Length (meters)	738
Volume/Baseline (VPH)	191
Pollutant Mass Emission Rate (gr/mi)	0.012

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00029
Pollutant Emission Rate (gr/sec/source)	1.33E-05

EB ON FROM NB ROUTE 110 (E_ON_110_1 to E_ON_110_21)

DSL Particulate Emissions

Number of Sources	21
Link Length (meters)	352
Volume/Baseline (VPH)	42
Pollutant Mass Emission Rate (gr/mi)	0.012

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00003
Pollutant Emission Rate (gr/sec/source)	1.46E-06

EB FROM VERMONT TO GRAND (E_VMT_GND_1 to E_VMT_GND_38)

DSL Particulate Emissions

Number of Sources	38
Link Length (meters)	1756
Volume/Baseline (VPH)	79
Pollutant Mass Emission Rate (gr/mi)	0.012

On-Road Mobile Sources
Emission Rate Computation

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00029
Pollutant Emission Rate (gr/sec/source)	7.56E-06

EB OFF TO GRAND (E_OFF_GND_1 to E_OFF_GND_20)

DSL Particulate Emissions

Number of Sources	20
Link Length (meters)	366
Volume/Baseline (VPH)	50
Pollutant Mass Emission Rate (gr/mi)	0.035

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00011
Pollutant Emission Rate (gr/sec/source)	5.53E-06

WB ON FROM GRAND (W_ON_GND_1 to W_ON_GND_30)

DSL Particulate Emissions

Number of Sources	30
Link Length (meters)	274
Volume/Baseline (VPH)	31
Pollutant Mass Emission Rate (gr/mi)	0.024

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00004
Pollutant Emission Rate (gr/sec/source)	1.17E-06

EB ON FROM FLOWER (E_ON_FLR_1 to E_ON_FLR_17)

DSL Particulate Emissions

Number of Sources	17
Link Length (meters)	259
Volume/Baseline (VPH)	27
Pollutant Mass Emission Rate (gr/mi)	0.024

Emission Rate (gr/sec) = ((Mass Emission Rate x Volume/Baseline)/(1609.3 m/mile) x (3600 sec/hr)) x (Link Length)

Pollutant Emission Rate (gr/sec)	0.00003
Pollutant Emission Rate (gr/sec/source)	1.70E-06

On-Road Mobile Sources
Emission Rate Computation

WB OFF TO ROUTE 110 (W_OFF_110_1 to W_OFF_110_47)

DSL Particulate Emissions

Number of Sources	47
Link Length (meters)	573
Volume/Baseline (VPH)	70
Pollutant Mass Emission Rate (gr/mi)	0.012

$$\text{Emission Rate (gr/sec)} = ((\text{Mass Emission Rate} \times \text{Volume/Baseline}) / (1609.3 \text{ m/mile}) \times (3600 \text{ sec/hr})) \times (\text{Link Length})$$

Pollutant Emission Rate (gr/sec)	0.00008
Pollutant Emission Rate (gr/sec/source)	1.77E-06

APPENDIX C
Dispersion Model Input Table

Dispersion Model Input Table

ID	X	Y	ZS	RH	SY	SZ	CO 1	CO 8	NOx 1	PM10 24 A	PM2.5 24	TOG Gas 1	TOG Gas 8 C	TOG DSL 1	TOG DSL 8	DPM C
E_M_1	382578.3	3767051.9	75.6	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_2	382608.6	3767033.7	75.4	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_3	382637.3	3767013.7	75.2	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_4	382665.9	3766993.0	75.0	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_5	382693.2	3766970.9	74.9	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_6	382720.1	3766948.4	74.7	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_7	382746.0	3766925.2	74.5	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_8	382772.7	3766902.4	74.3	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_9	382799.1	3766878.6	74.1	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_10	382825.3	3766855.4	73.9	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_11	382851.4	3766833.1	73.8	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_12	382880.8	3766809.8	73.6	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_13	382908.1	3766788.6	73.4	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_14	382934.5	3766767.4	73.2	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_15	382961.8	3766747.9	73.0	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_16	382992.6	3766725.8	72.8	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_17	383021.0	3766706.0	72.7	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_18	383048.7	3766685.6	72.5	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_19	383076.9	3766667.1	72.3	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_20	383105.6	3766647.8	72.1	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
E_M_21	383133.3	3766628.1	71.9	0	16.31	2.94	4.26E-02	2.86E-02	4.98E-03	3.79E-03	1.20E-03	1.96E-04	8.77E-05	2.13E-05	7.00E-06	1.65E-05
W_M_1	383154.0	3766642.3	71.9	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_2	383127.0	3766660.9	71.8	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_3	383097.6	3766680.5	71.7	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_4	383070.3	3766698.8	71.6	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_5	383043.0	3766715.8	71.5	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_6	383011.9	3766735.3	71.4	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_7	382987.2	3766753.0	71.3	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_8	382956.2	3766774.7	71.2	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_9	382930.6	3766793.5	71.1	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_10	382903.7	3766814.9	71.0	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_11	382878.4	3766835.7	70.9	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_12	382853.1	3766856.1	70.8	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_13	382828.7	3766877.3	70.7	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_14	382802.7	3766899.3	70.6	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_15	382777.4	3766921.6	70.5	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_16	382752.0	3766943.4	70.4	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_17	382726.6	3766955.5	70.3	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_18	382701.2	3766986.9	70.2	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_19	382674.6	3767008.0	70.1	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_20	382647.6	3767027.9	70.0	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_21	382619.8	3767046.9	69.9	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
W_M_22	382591.8	3767064.5	69.8	0	15.59	2.90	5.04E-02	2.31E-02	5.89E-03	3.06E-03	9.70E-04	2.32E-04	7.07E-05	2.51E-05	5.63E-06	1.33E-05
E_ON_110_1	382575.0	3767025.3	68.3	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_2	382589.1	3767019.4	68.5	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_3	382603.3	3767012.3	68.8	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_4	382618.5	3767004.9	69.1	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_5	382632.9	3766996.7	69.4	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_6	382647.0	3766987.5	69.6	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_7	382660.3	3766977.6	69.9	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_8	382673.6	3766967.4	70.2	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_9	382687.3	3766956.9	70.5	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_10	382700.3	3766946.6	70.7	0	7.80	2.48	4.03E-03	2.53E-03	4.71E-04	3.36E-04	1.07E-04	1.85E-05	7.76E-06	2.00E-06	6.19E-07	1.46E-06
E_ON_110_11																

W_OFF_110_35	382768.3	3766960.7	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_36	382758.9	3766968.3	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_37	382749.2	3766976.0	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_38	382739.5	3766983.4	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_39	382729.8	3766991.0	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_40	382720.3	3766998.6	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_41	382710.7	3767006.3	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_42	382701.2	3767013.4	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_43	382691.9	3767021.3	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_44	382681.8	3767028.5	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_45	382672.1	3767035.9	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_46	382662.3	3767043.1	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06
W_OFF_110_47	382652.4	3767050.4	71.9	0	5.67	2.67	4.90E-03	3.07E-03	5.72E-04	4.08E-04	1.29E-04	2.25E-05	9.44E-06	2.43E-06	7.50E-07	1.77E-06

APPENDIX D
Exposure Duration and Residency

Exposure Duration and Residency

In Section 6.0 of the health risk assessment (HRA), exposure duration is discussed relative to residential occupancy. As noted, the HRA employed the USEPA's guidance to develop viable dose estimates based upon reasonable maximum exposures, defined as the "highest exposure that is reasonably expected to occur." According to the USEPA,

Reasonableness refers to the findings of the risk assessment in the context of the state-of-the science, the default assumptions and the science policy choices made in the risk assessment. It demonstrates that the risk assessment process followed an acceptable, overt logic path and retained common sense in applying relevant guidance. The assessment is based on sound judgment. Reasonableness is achieved when: a) the risk characterization is determined to be sound by the scientific community, EPA risk managers, and the lay public, because the components of the risk characterization are well integrated into an overall conclusion of risk which is complete, informative, well balanced and useful for decision making b) the characterization is based on the best available scientific information c) the policy judgments required to carry out the risk analyses use common sense given the statutory requirements and Agency guidance d) the assessment uses generally accepted scientific knowledge e) appropriate plausible alternative estimates of risk under various candidate risk management alternatives are identified and explained.

As such, the USEPA (*Risk Assessment Guidance for Superfund -Volume 1: Human Health Evaluation Manual*) introduced the concept of reasonable maximum exposures (RME's). This approach was intended to estimate a conservative exposure case (i.e., well above the average case) that is representative of the range of possible exposures. Activity patterns for population mobility are specifically addressed in the *Exposure Factors Handbook* (U.S. EPA, 1997) whereby lifetime risk values for residents account for an exposure duration of 30 years (95th percentile).

Additionally, population residency times utilizing Integrated Public Use Microdata Series (IPUMS-USA) census data was reviewed to validate the use of a 30 year exposure duration. The IPUMS-USA database consists of more than fifty samples of the American population drawn from fifteen federal censuses and from the American Community Surveys (ACS). ACS is a nationwide survey that collects and produces population and housing information every year from three million selected housing unit addresses across every county in the nation. IPUMS-USA samples, which draw on every surviving census from 1850 to 2000 and the 2000 to 2009 ACS samples, collectively constitute the quantitative information on long term changes in the American population. Based upon this review, the most recent IPUMS-USA ACS data (2006 to 2009) show that the percentage of California households with a residency period of 30 years or greater is less than 9%. As such, over 91% of California residence had lived in their current location for less than 30 years. The data also show that over 63% of Californians have lived at their current residence for 9 years or less.

Furthermore, in a study prepared by the Real Estate Research Institute (*Duration of Residence in the Rental Housing Market, January 2002*) the duration of residency in rental housing was evaluated. The study utilized data from the Bureau of Labor Statistics' (BLS) Consumer Price Index (CPI) to construct the duration of rental occupancy for metropolitan areas from 1987-1998. American Housing Survey and related metropolitan economic data were additionally employed to proxy time-varying covariates of duration of residence. Results of the study showed that the duration of residency across individual units and market segments for 3, 5

and 10 years were 62.6, 78.6 and 96.7 percent, respectively. As such, 30 years is a reasonable estimate of the 90th or 95th percentile of residency duration within a population.

The California Environmental Quality Act (CEQA) requires an impact analyses to consider reasonably foreseeable factors and not to speculate beyond what is reasonable. There is no evidence that any recognizable portion of residents remain within a specific residence for 70 years. To assume they would remain for 70 years is not reasonably foreseeable. Furthermore, CEQA prohibits mitigation measures that are not rationally related to foreseeable impacts. Therefore, no mitigation would rationally be related to a speculative impact of a 70 year exposure because an exposure time of such length is neither reasonable nor supported by any evidence. CEQA's purpose is to provide public disclosure of likely and reasonably foreseeable impacts. A conservative 30 year exposure is reasonable and is supported by substantial evidence.

APPENDIX E
Dispersion Model Output Summary Files

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.0	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmAA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Carbon Monoxide (CO) / Minimum Speed Scenario

*** 04/05/19
 *** 12:03:05
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 371.57064 ON 14041207: AT (382869.00, 3766911.00, 66.10, 66.10, 0.00) DC				

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Carbon Monoxide (CO) / Minimum Speed Scenario

*** 04/05/19
 *** 12:03:05
 PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed
 A Total of 5012 Calm Hours Identified
 A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 612 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 612 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

* *** AERMOD - VERSION 18081 *** *** South Park Towers
* *** ARMET - VERSION 16216 *** *** Carbon Monoxide (CO) / Average Speed Scenario
*** MODELOPTS: RegDefault CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

**Model Is Setup For Calculation of Average CONCetration values.

```
-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model USES NO DRY DEPLETION. DRYDPLT = F
**Model USES NO WET DEPLETION. WETDPLT = F
```

**Model Uses URBAN Dispersion Algorithm for the SBL for 216 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 9818605.0 : Urban Roughness Length = 1.000 m

***Model uses Regulatory DEFAULT Options:

- 1. Stack-tip Downwash.
 - 2. Model Accounts for ELEVATED Terrain Effects.
 - 3. Use Calms Processing Routine.
 - 4. Use Missing Data Processing Routine.
 - 5. No Exponential Decay.
 - 6. Urban Roughness Length of 1.0 Meter Assumed.

****Other Options Specified:**

ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates 1 Short Term Average(s) of: 8-HR

ludes: 216 Source(s); 1 Source Group(s); and
with: 0 POINT(s), including 0 POINTCAP(s) and 0 POINTHOR(s)
and: 216 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 16216

****Output Options Selected:**

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 55.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/MM³

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: SPTC_CO_8_FIRST.DTA
**Output Print File: SPTC_CO_8_FIRST.LST

**File for Summary of Results: F:\WD\Passport\south park towers\model\SPTC_CO_8_FIRST.SUM
 *** AERMOD - VERSION 18081 *** *** South Park Towers ***
 *** AERMET - VERSION 16216 *** *** Carbon Monoxide (CO) / Average Speed Scenario ***
 **** MODELSPTC1 - PCGPDEAUFL - CONC ELEV ELCPL NODYDPLT NOHETDPLT URBAN ADL H*

**** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

***# METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,
*** South Park Towers
*** Carbon Monoxide (CO) / Average Speed Scenario

*** MODELOPTS: ReadFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: KCQT_V9.SFC
Profile file: KCQT_V9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN, LA /USC CAMPUS, CA Name: UNKNOWN

Met Version: 16216

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0			
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV

12 01 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** South Park Towers

*** AERMET - VERSION 16216 *** Carbon Monoxide (CO) / Average Speed Scenario

04/05/19

15:40:09

PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	192.44312c	ON 12020808: AT (382869.00, 3766911.00,	66.10,	66.10,	0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOL

DC = DISCCART

DP = DISCPOLR

*** AERMOD - VERSION 18081 *** South Park Towers

*** AERMET - VERSION 16216 *** Carbon Monoxide (CO) / Average Speed Scenario

04/05/19

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****
ME W186 612 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME W187 612 MEOPEN: ADJ_U* Option for Stable Low winds used in AERMET

0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

* *** AERMOD - VERSION 18081 *** *** South Park Towers
 * *** AERMET - VERSION 16216 *** *** Nitrogen Dioxide (NO2) / Minimum Speed Scenario
 *** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT ARM2 URBAN ADJ_U*

*** 04/07/19
 *** 09:23:03
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*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: KCQT_v9.SFC
 Profile file: KCQT_v9.PFL
 Surface format: FREE
 Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

Met Version: 16216

First 24 hours of scalar data											
YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8
12	01	01	1	12	191.0	0.223	1.516	0.005	660.	257.	-5.4
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-99999.0	-99999.0
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1

First hour of profile data
 YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaMw sigmaMv
 12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Nitrogen Dioxide (NO2) / Minimum Speed Scenario
 *** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT ARM2 URBAN ADJ_U*

*** 04/07/19
 *** 09:23:03
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*** THE SUMMARY OF MAXIMUM 1ST-HIGHEST MAX DAILY 1-HR RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF NO2 IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 39.01582 AT (382869.00, 3766911.00,	66.10, 66.10, 0.00)	DC	
	2ND HIGHEST VALUE IS 38.25912 AT (382863.00, 3766917.00,	66.10, 66.10, 0.00)	DC	
	3RD HIGHEST VALUE IS 37.45764 AT (382857.00, 3766923.00,	66.10, 66.10, 0.00)	DC	
	4TH HIGHEST VALUE IS 37.27693 AT (382881.00, 3766905.00,	66.10, 66.10, 0.00)	DC	
	5TH HIGHEST VALUE IS 36.60811 AT (382875.00, 3766911.00,	66.10, 66.10, 0.00)	DC	
	6TH HIGHEST VALUE IS 35.98402 AT (382869.00, 3766917.00,	66.10, 66.10, 0.00)	DC	
	7TH HIGHEST VALUE IS 35.71343 AT (382898.90, 3766894.00,	66.10, 66.10, 0.00)	DC	
	8TH HIGHEST VALUE IS 35.68668 AT (382893.00, 3766899.00,	66.10, 66.10, 0.00)	DC	
	9TH HIGHEST VALUE IS 35.31153 AT (382863.00, 3766923.00,	66.10, 66.10, 0.00)	DC	
	10TH HIGHEST VALUE IS 35.14401 AT (382887.00, 3766905.00,	66.10, 66.10, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOL
 DC = DISCCART
 DP = DISCPOL
 *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Nitrogen Dioxide (NO2) / Minimum Speed Scenario
 *** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT ARM2 URBAN ADJ_U*

*** 04/07/19
 *** 09:23:03
 PAGE 5

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 4176 Informational Message(s)
 A Total of 8760 Hours Were Processed
 A Total of 616 Calm Hours Identified
 A Total of 173 Missing Hours Identified (1.97 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****
 ME W186 614 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
 ME W187 614 MEOPEN: ADJ_U* Option for Stable Low winds used in AERMOD

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

Surface file: KCQT_V9.SFC Met Version: 16216
Profile file: KCQT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: DOWNTOWN L A /USC CAMPUS CA Name: UNKNOWN

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmAA	sigmaw	sigmav
12	01	01	1	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

12:18:24

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 11.47609c ON 12010824: AT (382898.90, 3766894.00,		66.10,	66.10,	13.90) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLL

DC = DISCCART

DP = DISCPOLL

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

12:18:24

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

0.50

ME W186 512 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 512 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.23	44.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	0.82	7.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.55	282.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/07/19
*** 13:00:35
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	8.40621c ON 12120224: AT (382905.00, 3766893.00,	66.10,	66.10,	17.40) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR† *** AERMOD - VERSION 18081 *** *** South Park Towers
*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario*** 04/07/19
*** 13:00:35
PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ******** WARNING MESSAGES *****
ME W186 503 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME W187 503 MOPEN: ADJ_U* Option for Stable Low Winds used in AERMET 0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

Surface file: KCQT_v9.SFC Met Version: 16216
Profile file: KCQT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: DOWNTOWN L A /USC CAMPUS Name: UNKNOWN
CA

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmav		
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario*** 04/07/19
*** 13:27:21
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 6.38760c ON 12120224: AT (382905.00, 3766893.00,		66.10, 66.10, 20.40) DC		

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOL
DC = DISCCART
DP = DISCPOLR*** AERMOD - VERSION 18081 *** *** South Park Towers
*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario*** 04/07/19
*** 13:27:21
PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ******** WARNING MESSAGES *****
ME w186 503 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME w187 503 MEOPEN: ADJ_U* Option for Stable Low winds used in AERMET

0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

Surface file: KCQT_v9.SFC Met Version: 16216
Profile file: KCQT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmAA	sigmaw	sigmav	
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

14:54:18

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	4.66090c ON 12120224: AT (382905.00, 3766899.00,	66.10,	66.10,	23.50) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLL

DC = DISCCART

DP = DISCPOLL

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

14:54:18

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 503 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 503 MOPEN: ADJ_U* Option for Stable Low winds used in AERMET

0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

Surface file: KCQT_V9.SFC Met Version: 16216
Profile file: KCQT_V9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: DOWNTOWN L A /USC CAMPUS CA Name: UNKNOWN

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1	20	-999.	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

15:04:46

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 3.52959c ON 12120224: AT (382917.00, 3766917.00, 66.10, 66.10, 26.50) DC				

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOL

DC = DISCCART

DP = DISCPOL

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

15:04:46

PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

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A Total of 2 Warning Message(s)

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A Total of 43848 Hours Were Processed

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***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 503 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 503 MEOPEN: ADJ_U* Option for Stable Low winds used in AERMET

0.50

*** UPPER BOUND OF FIRST THROUGH FIFTIETH WIND SPEED CATEGORIES ***

Surface file: KCQT_V9.SFC Met Version: 16216
Profile file: KCQT_V9.PFL
Surface format: FREF

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR	MO	DY	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmaV
12	01	01	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

* *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/08/19

18:03:58

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	2.61956c ON 12120224: AT (382935.00, 3766911.00,	66.10,	66.10,	29.60) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

* *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/08/19

18:03:58

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 1054 Calm Hours Identified

A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 504 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

0.50

ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-9999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaaw sigmaV
 12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 13:53:21
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 7.71376 AT (382898.90, 3766894.00,	66.10, 66.10, 13.90)	DC	
	2ND HIGHEST VALUE IS 7.53924 AT (382911.00, 3766887.00,	66.10, 66.10, 13.90)	DC	
	3RD HIGHEST VALUE IS 7.49647 AT (382905.00, 3766893.00,	66.10, 66.10, 13.90)	DC	
	4TH HIGHEST VALUE IS 7.47919 AT (382917.00, 3766883.00,	66.10, 66.10, 13.90)	DC	
	5TH HIGHEST VALUE IS 7.45133 AT (382899.00, 3766899.00,	66.10, 66.10, 13.90)	DC	
	6TH HIGHEST VALUE IS 7.28118 AT (382917.00, 3766887.00,	66.10, 66.10, 13.90)	DC	
	7TH HIGHEST VALUE IS 7.27459 AT (382923.50, 3766881.50,	66.10, 66.10, 13.90)	DC	
	8TH HIGHEST VALUE IS 7.26029 AT (382929.00, 3766877.00,	66.10, 66.10, 13.90)	DC	
	9TH HIGHEST VALUE IS 7.24014 AT (382911.00, 3766893.00,	66.10, 66.10, 13.90)	DC	
	10TH HIGHEST VALUE IS 7.19691 AT (382905.00, 3766899.00,	66.10, 66.10, 13.90)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOL
 DC = DISCCART
 DP = DISCPOL

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 13:53:21
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----
 A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 513 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 513 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET 0.50

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*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

† *** AERMOD - VERSION 18081 ***   *** South Park Towers           ***
*** AERMET - VERSION 16216 ***   *** Particulates (PM10) / Average Speed Scenario   ***
*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*   ***
*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: KCQT_v9.SFC      Met Version: 16216
Profile file: KCQT_v9.PFL

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Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIF WSPD AMB_TMP sigmaA sigmaaw sigmav

12 01 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19

*** 13:58:21

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*** MODELOPTS: RegDFault CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 5.48254 AT (	382905.00, 3766893.00,	66.10, 66.10, 17.40)	DC
	2ND HIGHEST VALUE IS 5.38470 AT (	382917.00, 3766887.00,	66.10, 66.10, 17.40)	DC
	3RD HIGHEST VALUE IS 5.37080 AT (	382911.00, 3766893.00,	66.10, 66.10, 17.40)	DC
	4TH HIGHEST VALUE IS 5.35464 AT (	382905.00, 3766899.00,	66.10, 66.10, 17.40)	DC
	5TH HIGHEST VALUE IS 5.28349 AT (	382929.00, 3766881.00,	66.10, 66.10, 17.40)	DC
	6TH HIGHEST VALUE IS 5.27161 AT (	382923.00, 3766887.00,	66.10, 66.10, 17.40)	DC
	7TH HIGHEST VALUE IS 5.25762 AT (	382917.00, 3766893.00,	66.10, 66.10, 17.40)	DC
	8TH HIGHEST VALUE IS 5.25263 AT (	382935.00, 3766877.00,	66.10, 66.10, 17.40)	DC
	9TH HIGHEST VALUE IS 5.24143 AT (	382911.00, 3766899.00,	66.10, 66.10, 17.40)	DC
	10TH HIGHEST VALUE IS 5.18529 AT (	382907.00, 3766905.00,	66.10, 66.10, 17.40)	DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

04/09/19

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

13:58:21

*** MODELOPTS: RegDFault CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 504 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDTR WSPD AMB_TMP sigmaA sigmaaw sigmav

12 01 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19

14:00:47

PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 3.99096 AT (382905.00, 3766893.00,	66.10, 66.10, 20.40)	DC	
	2ND HIGHEST VALUE IS 3.94790 AT (382917.00, 3766887.00,	66.10, 66.10, 20.40)	DC	
	3RD HIGHEST VALUE IS 3.94626 AT (382911.00, 3766893.00,	66.10, 66.10, 20.40)	DC	
	4TH HIGHEST VALUE IS 3.94281 AT (382905.00, 3766899.00,	66.10, 66.10, 20.40)	DC	
	5TH HIGHEST VALUE IS 3.90103 AT (382929.00, 3766881.00,	66.10, 66.10, 20.40)	DC	
	6TH HIGHEST VALUE IS 3.90083 AT (382923.00, 3766887.00,	66.10, 66.10, 20.40)	DC	
	7TH HIGHEST VALUE IS 3.89884 AT (382917.00, 3766893.00,	66.10, 66.10, 20.40)	DC	
	8TH HIGHEST VALUE IS 3.89505 AT (382911.00, 3766899.00,	66.10, 66.10, 20.40)	DC	
	9TH HIGHEST VALUE IS 3.88422 AT (382935.00, 3766877.00,	66.10, 66.10, 20.40)	DC	
	10TH HIGHEST VALUE IS 3.87304 AT (382907.00, 3766905.00,	66.10, 66.10, 20.40)	DC	

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

*** 04/09/19

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** 14:00:47

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 504 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 504 MOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaw sigmav
 12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:14:13
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 2.79554 AT (382905.00, 3766893.00, 66.10, 66.10, 23.50) DC			
	2ND HIGHEST VALUE IS 2.78560 AT (382905.00, 3766899.00, 66.10, 66.10, 23.50) DC			
	3RD HIGHEST VALUE IS 2.78376 AT (382911.00, 3766893.00, 66.10, 66.10, 23.50) DC			
	4TH HIGHEST VALUE IS 2.78057 AT (382917.00, 3766887.00, 66.10, 66.10, 23.50) DC			
	5TH HIGHEST VALUE IS 2.77123 AT (382911.00, 3766899.00, 66.10, 66.10, 23.50) DC			
	6TH HIGHEST VALUE IS 2.76964 AT (382917.00, 3766893.00, 66.10, 66.10, 23.50) DC			
	7TH HIGHEST VALUE IS 2.76671 AT (382923.00, 3766887.00, 66.10, 66.10, 23.50) DC			
	8TH HIGHEST VALUE IS 2.76620 AT (382907.00, 3766905.00, 66.10, 66.10, 23.50) DC			
	9TH HIGHEST VALUE IS 2.76244 AT (382929.00, 3766881.00, 66.10, 66.10, 23.50) DC			
	10TH HIGHEST VALUE IS 2.75496 AT (382911.00, 3766905.00, 66.10, 66.10, 23.50) DC			

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:14:13
 PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 504 MEOPEN: THRESH_LMIN 1-min ASOS wind speed threshold used
 ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	99.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaaw sigmav

12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/09/19

14:16:33

PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 1.97858 AT (382905.00, 3766899.00, 66.10, 66.10, 26.50) DC			
	2ND HIGHEST VALUE IS 1.97741 AT (382907.00, 3766905.00, 66.10, 66.10, 26.50) DC			
	3RD HIGHEST VALUE IS 1.97695 AT (382911.00, 3766899.00, 66.10, 66.10, 26.50) DC			
	4TH HIGHEST VALUE IS 1.97611 AT (382911.00, 3766893.00, 66.10, 66.10, 26.50) DC			
	5TH HIGHEST VALUE IS 1.97579 AT (382905.00, 3766893.00, 66.10, 66.10, 26.50) DC			
	6TH HIGHEST VALUE IS 1.97506 AT (382911.00, 3766905.00, 66.10, 66.10, 26.50) DC			
	7TH HIGHEST VALUE IS 1.97473 AT (382906.00, 3766911.00, 66.10, 66.10, 26.50) DC			
	8TH HIGHEST VALUE IS 1.97461 AT (382917.00, 3766893.00, 66.10, 66.10, 26.50) DC			
	9TH HIGHEST VALUE IS 1.97377 AT (382917.00, 3766899.00, 66.10, 66.10, 26.50) DC			
	10TH HIGHEST VALUE IS 1.97268 AT (382917.00, 3766887.00, 66.10, 66.10, 26.50) DC			

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOL

DC = DISCCART

DP = DISCPOL

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 504 MEOPEN: THRESH_IMIN 1-min ASOS wind speed threshold used
 ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

* *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario
 *** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*
 *** MODEL SETUP OPTIONS SUMMARY ***

*** 04/09/19
 *** 14:18:43
 PAGE 1

**Model Is Setup For Calculation of Average CONcentration Values.

-- DEPOSITION LOGIC --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION. DRYDPLT = F
 **Model Uses NO WET DEPLETION. WETDPLT = F
 **Model Uses URBAN Dispersion Algorithm for the SBL for 216 Source(s),
 for Total of 1 Urban Area(s):
 Urban Population = 9818605.0 ; Urban Roughness Length = 1.000 m

**Model Uses Regulatory DEFAULT Options:
 1. Stack-tip Downwash.
 2. Model Accounts for Elevated Terrain Effects.
 3. Use Calms Processing Routine.
 4. Use Missing Data Processing Routine.
 5. No Exponential Decay.
 6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
 ADJ_U* - Use ADJ_U* option for SBL in AERMET
 CCVR_Sub - Meteorological data includes CCVR substitutions
 TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates ANNUAL Averages Only

**This Run Includes: 216 Source(s); 1 Source Group(s); and 38 Receptor(s)
 with: 0 POINT(s), including 0 POINTCAP(s) and 0 POINTHOR(s)
 and: 216 VOLUME source(s)
 and: 0 AREA type source(s)
 and: 0 LINE source(s)
 and: 0 OPENPIT source(s)
 and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 16216

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor
 Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
 Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
 m for Missing Hours
 b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 55.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
 Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: SPTR_PM10_A_TENTH.DTA
 **Output Print File: SPTR_PM10_A_TENTH.LST

**File for Summary of Results: D:\WD_Passport\south park towers\model\SPTR_PM10_A_TENTH.SUM
 * *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario
 *** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** 04/09/19
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*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
 (1=YES; 0=NO)

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2013 1 1
 AND END DATE: 2013 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
 (METERS/SEC)

* *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario
 *** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** 04/09/19
 *** 14:18:43
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*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: KCQT_v9.SFC
 Profile file: KCQT_v9.PFL
 Surface format: FREE

Met Version: 16216

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.518	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	999.	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaxa sigmaxw sigmaxv
 12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:18:43
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 1.41997 AT (382911.00, 3766905.00, 66.10, 66.10, 29.60) DC			
	2ND HIGHEST VALUE IS 1.41976 AT (382906.00, 3766911.00, 66.10, 66.10, 29.60) DC			
	3RD HIGHEST VALUE IS 1.41973 AT (382907.00, 3766905.00, 66.10, 66.10, 29.60) DC			
	4TH HIGHEST VALUE IS 1.41956 AT (382917.00, 3766899.00, 66.10, 66.10, 29.60) DC			
	5TH HIGHEST VALUE IS 1.41954 AT (382917.00, 3766905.00, 66.10, 66.10, 29.60) DC			
	6TH HIGHEST VALUE IS 1.41928 AT (382911.00, 3766911.00, 66.10, 66.10, 29.60) DC			
	7TH HIGHEST VALUE IS 1.41917 AT (382923.00, 3766899.00, 66.10, 66.10, 29.60) DC			
	8TH HIGHEST VALUE IS 1.41893 AT (382911.00, 3766899.00, 66.10, 66.10, 29.60) DC			
	9TH HIGHEST VALUE IS 1.41851 AT (382923.00, 3766893.00, 66.10, 66.10, 29.60) DC			
	10TH HIGHEST VALUE IS 1.41827 AT (382923.00, 3766905.00, 66.10, 66.10, 29.60) DC			

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOL
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:18:43
 PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 504 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Surface file: KCQT_V9.SFC Met Version: 16216
Profile file: KCQT_V9.PFL
Surface format: FREE

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-9999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:20:55
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 1.07079 AT (382929.00, 3766893.00, 66.10, 66.10, 32.60) DC			
	2ND HIGHEST VALUE IS 1.07069 AT (382923.00, 3766893.00, 66.10, 66.10, 32.60) DC			
	3RD HIGHEST VALUE IS 1.07058 AT (382923.00, 3766899.00, 66.10, 66.10, 32.60) DC			
	4TH HIGHEST VALUE IS 1.07057 AT (382935.00, 3766887.00, 66.10, 66.10, 32.60) DC			
	5TH HIGHEST VALUE IS 1.07054 AT (382917.00, 3766899.00, 66.10, 66.10, 32.60) DC			
	6TH HIGHEST VALUE IS 1.07040 AT (382929.00, 3766887.00, 66.10, 66.10, 32.60) DC			
	7TH HIGHEST VALUE IS 1.07013 AT (382935.00, 3766893.00, 66.10, 66.10, 32.60) DC			
	8TH HIGHEST VALUE IS 1.06996 AT (382941.00, 3766887.00, 66.10, 66.10, 32.60) DC			
	9TH HIGHEST VALUE IS 1.06995 AT (382911.00, 3766905.00, 66.10, 66.10, 32.60) DC			
	10TH HIGHEST VALUE IS 1.06993 AT (382917.00, 3766905.00, 66.10, 66.10, 32.60) DC			

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOL
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/09/19
 *** 14:20:55
 PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 3388 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 1828 Calm Hours Identified

A Total of 309 Missing Hours Identified (3.53 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****
 ME W186 504 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	999.0	9.000	9.000	9.000	-999.	999.	99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaw sigmaV

12 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** 04/09/19

*** 14:27:42

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	3.67065c ON 12010824: AT (382898.90, 3766894.00,	66.10,	66.10, 13.90) DC	

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

*** 04/09/19

*** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** 14:27:42

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 1054 Calm Hours Identified

A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 513 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

0.50

ME W187 513 MOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1 01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0				
12	01	01	1 02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0				
12	01	01	1 03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0				
12	01	01	1 04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0				
12	01	01	1 05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0				
12	01	01	1 06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0				
12	01	01	1 07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0				
12	01	01	1 08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0				
12	01	01	1 09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0				
12	01	01	1 10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0				
12	01	01	1 11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0				
12	01	01	1 12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0				
12	01	01	1 13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0				
12	01	01	1 14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0				
12	01	01	1 15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0				
12	01	01	1 16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0				
12	01	01	1 17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0				
12	01	01	1 18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0				
12	01	01	1 19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0				
12	01	01	1 20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0				
12	01	01	1 21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0				
12	01	01	1 22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0				
12	01	01	1 23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0				
12	01	01	1 24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0				

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmA	sigmaw	sigmav
12	01	01	5	8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** 04/09/19
 *** 14:32:19
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	2.69159c ON 12120224: AT (382905.00, 3766893.00,	66.10,	66.10,	17.40) DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** 04/09/19
 *** 14:32:19
 PAGE 5

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 1054 Calm Hours Identified

A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 504 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 504 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Year: 2012

Year: 2012

First 24 hours of scalar data												
YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-99999.0	0.27	2.83
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmAA	sigmaw	sigmav	
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

10:03:02

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 8.25491c ON 12010224: AT (382863.00, 3766917.00,	66.10,	66.10,	18.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

10:03:02

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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 498 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 498 MOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0			
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** South Park Towers

*** AERMET - VERSION 16216 *** Particulates (PM10) / Average Speed Scenario

04/07/19

10:25:39

PAGE 4

*** MODELOPTS: RegFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	-------------------------	------	--	---------	-----------------

ALL HIGH 1ST HIGH VALUE IS 6.11934c ON 12120224: AT (382863.00, 3766917.00, 66.10, 66.10, 21.00) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLL

DC = DISCCART

DP = DISCPOLL

† *** AERMOD - VERSION 18081 *** South Park Towers

*** AERMET - VERSION 16216 *** Particulates (PM10) / Average Speed Scenario

04/07/19

10:25:39

PAGE 5

*** MODELOPTS: RegFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 498 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 498 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

Surface file: KCQT_v9.SFC
Profile file: KCQT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN LA / USC CAMPUS CA Name: UNKNOWN

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.00	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	9.000	9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

*** 04/07/19
 *** 10:33:38
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	4.40642c ON 12120224: AT (382881.00, 3766929.00,	66.10,	66.10,	24.10) DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOL
 DC = DISCCART
 DP = DISCPOLR

*** 04/07/19
 *** 10:33:38
 PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 498 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 498 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Surface file: KCQT_v9.SFC Met Version: 16216
Profile file: KCQT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: DOWNTOWN L.A. /USC CAMPUS CA Name: UNKNOWN

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.0	0.179	1.806	0.005	1122.	183	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426	150	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0			
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
12 01 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

04/07/19

10:41:59

PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC (YYMMDDHH)	DATE	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
----------	-------------------------	------	--	---------	-----------------

ALL HIGH 1ST HIGH VALUE IS 3.31810c ON 12120224: AT (382892.00, 3766947.00, 66.10, 66.10, 27.10) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLL
DC = DISCCART
DP = DISCPOLL

04/07/19

♀ *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM10) / Average Speed Scenario

10:41:59

PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

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A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ******** WARNING MESSAGES *****
ME W186 498 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME W187 498 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET 0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1 01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0		
12	01	01	1 02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1 03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0		
12	01	01	1 04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0		
12	01	01	1 05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0		
12	01	01	1 06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0		
12	01	01	1 07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0		
12	01	01	1 08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0		
12	01	01	1 09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0		
12	01	01	1 10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0		
12	01	01	1 11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0		
12	01	01	1 12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0		
12	01	01	1 13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0		
12	01	01	1 14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0		
12	01	01	1 15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0		
12	01	01	1 16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0		
12	01	01	1 17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0		
12	01	01	1 18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0		
12	01	01	1 19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0		
12	01	01	1 20	-999.0	-9.000	-9.000	-9.000	-999.	999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0		
12	01	01	1 21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0		
12	01	01	1 22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0		
12	01	01	1 23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0		
12	01	01	1 24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmamA	sigmaw	sigmav
12	01	01	1	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

* *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** 04/07/19
*** 11:03:25
PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	2.64200c ON 12010224: AT (382863.00, 3766917.00,	66.10,	66.10,	18.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

* *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (PM2.5) / Average Speed Scenario

*** 04/07/19
*** 11:03:25
PAGE 5

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 1054 Calm Hours Identified

A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
ME W186 499 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
ME W187 499 MEOPEN: ADJ_U* Option for Stable Low winds used in AERMET 0.50

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,
 *** South Park Towers ***
 *** AERMOD - VERSION 18081 *** *** Total Organic Gases (Gasoline) / Minimum Speed Scenario ***
 *** AERMET - VERSION 16216 *** *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***
 *** MODELOPTS: RegDefault Conc ELEV FlgPol NodryDplt NowetDplt Urban Adj_U* ***
 *** 04/07/19
 *** 08:11:29
 PAGE 3

Surface file: KCQT_v9.SFC Profile file: KCQT_v9.PFL Surface format: FREE Profile format: FREE Surface station no.: 93134 Upper air station no.: 3190 Name: DOWNTOWN LA /USC CAMPUS CA Name: UNKNOWN Met Version: 16216

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0		
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmawA	sigmaw	sigmav	
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Minimum Speed Scenario

*** 04/07/19

08:11:29

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*** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NDRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 1.78447	ON 14041207: AT (382869.00, 3766911.00,	66.10,	66.10,	0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Minimum Speed Scenario

*** 04/07/19

08:11:29

PAGE 5

*** MODELOPTS: RegDFAULT CONC ELEV FLGPOL NDRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 612 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 612 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

```
*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)
1.54,   3.09,   5.14,   8.23,   10.80,
*** AERMOD - VERSION 18081 ***   *** South Park Towers
*** AERMET - VERSION 16216 ***   *** Total Organic Gases (diesel) / Minimum Speed Scenario
*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*
*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***
Surface file: KCQT_v9.SFC Met Version: 16216
Profile file: KCQT_v9.PFL
Surface format: FREE
```

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data
 YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaw sigmaV
 12 01 01 01 5.8 1 306. 0.64 283.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
 * *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (diesel) / Minimum Speed Scenario

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3				**	
GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.21461 ON 14041207: AT (382869.00, 3766911.00,	66.10,	66.10,	0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

* *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (diesel) / Minimum Speed Scenario

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 4176 Informational Message(s)

A Total of 8760 Hours Were Processed

A Total of 616 Calm Hours Identified

A Total of 173 Missing Hours Identified (1.97 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 613 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 613 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET 0.50

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-9999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0				
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmA	sigmaw	sigmav
12	01	01	5	8	1	306.	0.64	283.2	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Average Speed Scenario

*** 04/07/19
 *** 08:46:58
 PAGE 4

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3			**		
GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.68547c ON 12020808: AT (382869.00, 3766911.00,	66.10,	66.10,	0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Average Speed Scenario

*** 04/07/19
 *** 08:46:58
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*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)
 A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed
 A Total of 1054 Calm Hours Identified
 A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 613 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
 ME W187 613 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

Profile format: FREE
 Surface station no.: 93134 Upper air station no.: 3190
 Name: DOWNTOWN L.A./USC CAMPUS, CA Name: UNKNOWN
 Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	HO	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	ZO	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0	
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0	
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0	
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0	
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0	
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0	
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0	
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0	
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0	
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0	
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0	
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0	
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0	
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0	
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0	
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0	
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0	
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0	
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0	
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0	
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0	
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0	
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0	
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0	

First hour of profile data

YR	MO	DY	HR	HEIGHT F	WDIR	WSPD	AMB_TMP	sigmAA	sigmaw	sigmav
12	01	01	5	8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)
 ? *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (Diesel) / Average Speed Scenario

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3

GROUP ID	AVERAGE CONC	DATE (YMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.08246c ON 12020808: AT (382869.00, 3766911.00,	66.10,	66.10,	0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

? *** AERMOD - VERSION 18081 *** *** South Park Towers
 *** AERMET - VERSION 16216 *** *** Total Organic Gases (Diesel) / Average Speed Scenario

*** MODELOPTS: RegDEFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 2 Warning Message(s)

A Total of 1251 Informational Message(s)

A Total of 8784 Hours Were Processed

A Total of 1054 Calm Hours Identified

A Total of 196 Missing Hours Identified (2.23 Percent)

***** FATAL ERROR MESSAGES *****
 *** NONE ***

***** WARNING MESSAGES *****
 ME W186 613 MOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
 ME W187 613 MOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.9	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0			
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Average Speed Scenario

04/09/19

14:45:12

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*** MODELOPTS: RegDFault CONC ELEV FlgPol NodryDplt NowetDplt URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 0.23941 AT (382898.90, 3766894.00, 66.10, 66.10, 13.90) DC			
	2ND HIGHEST VALUE IS 0.23360 AT (382911.00, 3766887.00, 66.10, 66.10, 13.90) DC			
	3RD HIGHEST VALUE IS 0.23284 AT (382905.00, 3766893.00, 66.10, 66.10, 13.90) DC			
	4TH HIGHEST VALUE IS 0.23194 AT (382899.00, 3766899.00, 66.10, 66.10, 13.90) DC			
	5TH HIGHEST VALUE IS 0.23144 AT (382917.00, 3766883.00, 66.10, 66.10, 13.90) DC			
	6TH HIGHEST VALUE IS 0.22591 AT (382917.00, 3766887.00, 66.10, 66.10, 13.90) DC			
	7TH HIGHEST VALUE IS 0.22523 AT (382923.50, 3766881.50, 66.10, 66.10, 13.90) DC			
	8TH HIGHEST VALUE IS 0.22517 AT (382911.00, 3766893.00, 66.10, 66.10, 13.90) DC			
	9TH HIGHEST VALUE IS 0.22437 AT (382929.00, 3766877.00, 66.10, 66.10, 13.90) DC			
	10TH HIGHEST VALUE IS 0.22430 AT (382905.00, 3766899.00, 66.10, 66.10, 13.90) DC			

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Total Organic Gases (Gasoline) / Average Speed Scenario

04/09/19

14:45:12

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*** MODELOPTS: RegDFault CONC ELEV FlgPol NodryDplt NowetDplt URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 512 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 512 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50

Year: 2012

Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
12	01	01	1	01	-4.2	0.081	-9.000	-9.000	-999.	56.	11.6	0.27	2.83	1.00	0.64	306.	5.8	283.1	2.0			
12	01	01	1	02	-5.0	0.089	-9.000	-9.000	-999.	63.	12.6	0.27	2.83	1.00	0.70	334.	5.8	283.1	2.0			
12	01	01	1	03	-10.7	0.131	-9.000	-9.000	-999.	114.	19.1	0.27	2.83	1.00	1.01	357.	5.8	283.1	2.0			
12	01	01	1	04	-18.5	0.186	-9.000	-9.000	-999.	192.	38.0	0.27	2.83	1.00	1.40	15.	5.8	285.4	2.0			
12	01	01	1	05	-16.0	0.162	-9.000	-9.000	-999.	157.	28.9	0.27	2.83	1.00	1.23	44.	5.8	284.2	2.0			
12	01	01	1	06	-6.9	0.104	-9.000	-9.000	-999.	82.	14.9	0.27	2.83	1.00	0.82	7.	5.8	282.5	2.0			
12	01	01	1	07	-3.2	0.071	-9.000	-9.000	-999.	46.	10.4	0.27	2.83	1.00	0.55	282.	5.8	281.4	2.0			
12	01	01	1	08	-7.9	0.119	-9.000	-9.000	-999.	99.	19.4	0.27	2.83	0.55	0.92	359.	5.8	282.5	2.0			
12	01	01	1	09	38.2	0.213	0.345	0.006	39.	237.	-23.0	0.27	2.83	0.32	1.38	8.	5.8	290.4	2.0			
12	01	01	1	10	112.7	0.212	0.730	0.006	125.	235.	-7.7	0.27	2.83	0.24	1.18	14.	5.8	294.9	2.0			
12	01	01	1	11	164.8	0.219	1.173	0.005	355.	246.	-5.8	0.27	2.83	0.21	1.16	6.	5.8	297.5	2.0			
12	01	01	1	12	191.0	0.225	1.516	0.005	660.	257.	-5.4	0.27	2.83	0.20	1.18	34.	5.8	299.2	2.0			
12	01	01	1	13	189.9	0.179	1.806	0.005	1122.	183.	-2.7	0.27	2.83	0.20	0.82	117.	5.8	299.9	2.0			
12	01	01	1	14	162.6	0.158	1.858	0.005	1426.	150.	-2.2	0.27	2.83	0.21	0.69	144.	5.8	300.4	2.0			
12	01	01	1	15	109.2	0.201	1.670	0.005	1541.	216.	-6.7	0.27	2.83	0.25	1.09	202.	5.8	299.9	2.0			
12	01	01	1	16	32.0	0.301	1.113	0.005	1557.	395.	-76.6	0.27	2.83	0.33	2.15	275.	5.8	295.4	2.0			
12	01	01	1	17	-16.0	0.187	-9.000	-9.000	-999.	200.	38.3	0.27	2.83	0.60	1.40	287.	5.8	291.4	2.0			
12	01	01	1	18	-15.4	0.159	-9.000	-9.000	-999.	153.	27.9	0.27	2.83	1.00	1.21	295.	5.8	288.8	2.0			
12	01	01	1	19	-5.2	0.091	-9.000	-9.000	-999.	67.	13.0	0.27	2.83	1.00	0.72	286.	5.8	287.5	2.0			
12	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999.0	0.27	2.83	1.00	0.00	0.	5.8	286.4	2.0			
12	01	01	1	21	-2.9	0.069	-9.000	-9.000	-999.	44.	10.3	0.27	2.83	1.00	0.53	319.	5.8	285.9	2.0			
12	01	01	1	22	-6.0	0.098	-9.000	-9.000	-999.	73.	14.0	0.27	2.83	1.00	0.77	336.	5.8	285.4	2.0			
12	01	01	1	23	-13.5	0.148	-9.000	-9.000	-999.	137.	24.1	0.27	2.83	1.00	1.13	293.	5.8	285.4	2.0			
12	01	01	1	24	-8.8	0.118	-9.000	-9.000	-999.	98.	17.1	0.27	2.83	1.00	0.92	315.	5.8	284.9	2.0			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmA	sigmaw	sigmav
12	01	01	1	01	5.8	1	306.	0.64	283.2	99.0	-99.00

F indicates top of profile (=1) or below (=0)

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (Diesel) / Average Speed Scenario

*** 04/09/19

16:04:51

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*** MODELOPTS: RegDefault Conc Elev Flgpol Nodrydplt Nowetdplt Urban Adj_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS 0.04152 AT (382898.90, 3766894.00,	66.10, 66.10, 13.90)	DC	
	2ND HIGHEST VALUE IS 0.04065 AT (382911.00, 3766887.00,	66.10, 66.10, 13.90)	DC	
	3RD HIGHEST VALUE IS 0.04043 AT (382905.00, 3766893.00,	66.10, 66.10, 13.90)	DC	
	4TH HIGHEST VALUE IS 0.04035 AT (382917.00, 3766883.00,	66.10, 66.10, 13.90)	DC	
	5TH HIGHEST VALUE IS 0.04018 AT (382899.00, 3766899.00,	66.10, 66.10, 13.90)	DC	
	6TH HIGHEST VALUE IS 0.03934 AT (382917.00, 3766887.00,	66.10, 66.10, 13.90)	DC	
	7TH HIGHEST VALUE IS 0.03931 AT (382923.50, 3766881.50,	66.10, 66.10, 13.90)	DC	
	8TH HIGHEST VALUE IS 0.03924 AT (382929.00, 3766877.00,	66.10, 66.10, 13.90)	DC	
	9TH HIGHEST VALUE IS 0.03912 AT (382911.00, 3766893.00,	66.10, 66.10, 13.90)	DC	
	10TH HIGHEST VALUE IS 0.03889 AT (382905.00, 3766899.00,	66.10, 66.10, 13.90)	DC	

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCART

DP = DISCPOLR

† *** AERMOD - VERSION 18081 *** *** South Park Towers

*** AERMET - VERSION 16216 *** *** Particulates (Diesel) / Average Speed Scenario

*** 04/09/19

16:04:51

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*** MODELOPTS: RegDefault Conc Elev Flgpol Nodrydplt Nowetdplt Urban Adj_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 2 Warning Message(s)

A Total of 6278 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 5012 Calm Hours Identified

A Total of 1266 Missing Hours Identified (2.89 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 512 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used

ME W187 512 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

0.50