Appendix FEIR-2

Construction Health Risk Assessment
for Informational Purposes Only

HEALTH RISK ASSESSMENT

8th, Grand and Hope Project

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TABLE OF CONTENTS

LIST OF TABLES

1.0 Executive Summary

1.1 Findings

This report provides an analysis of potential health risk impacts related to the proposed construction and operation of the 8th, Grand and Hope Project (Project) in the City of Los Angeles, California. The analysis identified the baseline condition around the Project and evaluated the incremental change in health risk concentration exposure from diesel exhaust/diesel particulate matter (DPM) emitted by heavy-duty construction equipment during construction and limited heavy-duty delivery trucks during operation[1] of the Project. The findings of the analysis are as follows:

- For carcinogenic exposures, the increase in risk is calculated to be 3.9 in one million, which is less than the applicable threshold of 10 in one million for sensitive receptors in close proximity to the Project Site, resulting in a less than significant impact.
- For chronic non-carcinogenic exposures, the increase in the respiratory hazard index was estimated to be less than the applicable threshold of one for sensitive receptors in close proximity to the Project Site, resulting in a less than significant impact.

[1] *The Project would not support any land uses or activities that would involve the use, storage, or processing of carcinogenic toxic air contaminants. In addition, the proposed land uses would not generally involve the use of heavy-duty diesel trucks with the exception of occasional moving trucks, trash trucks or delivery trucks.*

2.0 Introduction

The Project is a mixed-use development that contains residential dwelling units, retail, and restaurant uses. To be clear, this is not the type of project that the regulatory agencies, or the applicable regulatory laws, at the time the Draft Environmental Impact Report (Draft EIR) was prepared, require to produce a Health Risk Assessment (HRA) for adequate disclosure of potential air quality impacts pursuant to the California Environmental Quality Act (CEQA).

The California Air Pollution Control Officers Association (CAPCOA) Guidance Document for Health Risk Assessments for Proposed Land Use Projects (2009) (CAPCOA HRA Guidance) provides lead agencies with guidance regarding when and how an HRA should be prepared. It bases the risk assessment methodology on the procedures developed by the California Office of Environmental Health Hazard Assessment (OEHHA) to meet the mandates of the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588). The CAPCOA HRA Guidance states that

> "[t]here are basically two types of land use projects that have the potential to cause long-term public health risk impacts: Type A – land use projects with toxic emissions that impact receptors; and Type B land use projects that will place receptors in the vicinity of existing toxic sources. Type A project examples are combustion related power plants, gasoline dispensing facilities, asphalt batch plants, warehouse distribution centers, quarry operations, and other stationary sources that emit toxic substances. Type B project examples are project that place receptors near stationary sources, high traffic roads, freeways, rail yards, and ports."

Note that the Project does not qualify as either a Type A or Type B project. Therefore, per the CAPCOA HRA Guidance in effect when the Draft EIR for the Project was prepared, the lead agency did not include an HRA in the Draft EIR. Accordingly, this HRA was done voluntarily for informational purposes only to supplement the administrative record and respond to comments, and further demonstrates that even if an HRA was necessary (which it was not) the Project would not have a significant air quality impact.

The OEHHA adopted the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (2003 Guidance Manual) in October of 2003. The Guidance Manual was developed by OEHHA, in conjunction with the California Air Resources Board (CARB), for use in implementing the Air Toxics “Hot Spots” Program (Health and Safety Code Section 44360 et. seq.). The Air Toxics “Hot Spots” Program

requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Program are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

OEHHA adopted a new version of the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (2015 Guidance Manual) in March of 2015.[2] CARB acknowledges that the Guidance Manual does not include guidance for projects prepared under the auspices of CEQA and that it would be "handled by individual [Air Pollution Control] Districts."[3] As noted by CARB,

> "The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in September 1987. Under this, stationary sources are required to report the types and quantities of certain substances their facilities routinely release into the air. Emissions of interest are those that result from the routine operation of a facility or that are predictable, including but not limited to continuous and intermittent releases and process upsets or leaks…
>
> The Act requires that toxic air emissions from stationary sources (facilities) be quantified and compiled into an inventory according to criteria and guidelines developed by the ARB, that each facility be prioritized to determine whether a risk assessment must be conducted, that the risk assessments be conducted according to methods developed by OEHHA..."[4]

As reported above, applicability is associated with 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)

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[2] *Office of Environmental Health Hazard Assessment, Air Toxicology and Epidemiology, Adoption of Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. March 6, 2015, www.oehha.ca.gov/air/hot_spots/hotspots2015.html, accessed November 29, 2021.*

[3] *CARB, Risk Management Guidance for Stationary Sources of Air Toxics, July 23, 2015, p. 19, www.arb.ca.gov/toxics/rma/rmgssat.pdf.*

[4] *CARB, Overview of the Air Toxics "Hot Spots" Information and Assessment Act https://ww2.arb.ca.gov/overview-air-toxics-hot-spots-information-and-assessment-act, accessed October 13, 2021.*

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). It is apparent that the emissions generated from the construction and subsequent occupancy of a mixed-use development project are not classified as core operations nor subject to industry-wide source evaluation.

The intent in developing the 2015 Guidance Manual was to provide HRA procedures for use in the Air Toxics Hot Spots Program or for the permitting of new or modified stationary sources. As noted above, the Project is not a new or modified stationary source that requires air quality permits to construct or operate. Air districts are to determine which facilities will prepare an HRA based on a prioritization process. The 2015 Guidance Manual provides recommendations related to cancer risk evaluation of short-term projects. As discussed in Section 8.2.10 of the 2015 Guidance Manual, "[t]he local air pollution control districts sometimes use the risk assessment guidelines for the Hot Spots program in permitting decisions for short-term projects such as construction or waste site remediation." Thus, to be conservative, this HRA was prepared in part to analyze potential construction impacts, even though short-term projects that would require a permitting decision by South Coast Air Quality Management District (SCAQMD) typically would be limited to site remediation (e.g., stationary soil vapor extractors) and would not be applicable to the Project. The 2015 Guidance Manual does not provide specific recommendations for evaluation of short-term use of mobile sources (e.g., heavy-duty diesel construction equipment). In addition, potential operational impacts, despite the fact that no considered stationary source is part of the Project's land uses, were assessed for informational purposes given the limited use of heavy-duty trucks associated with occasional moving trucks, trash trucks and delivery trucks.

OEHHA's 2015 Guidance Manual provides Age Sensitivity Factors (ASFs) to account for potential increased sensitivity of early-in-life exposure to carcinogens. For risk assessments conducted under the auspices of AB 2588, a weighting factor is applied to all carcinogens regardless of purported mechanism of action. 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 (New Source Review of Toxic Air Contaminants), use of the 2015 OEHHA guidelines and their applicability for projects subject to CEQA, as they relate to the incorporation of early-life exposure adjustments, 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.

The SCAQMD, as a commenting agency, has not conducted public workshops nor developed policy relating to the applicability of applying the 2015 OEHHA guidance for projects prepared by other public/lead agencies subject to CEQA.

To emphasize variability in methodology for conducting HRAs, regulatory agencies throughout the State of California including the 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 have adopted the U.S. Environmental Protection Agency's (USEPA's) policy in the application of early-life exposure adjustments.

Specifically, USEPA guidance relating to the use of early life exposure adjustments (*Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens, EPA/630/R-003F*) are considered when carcinogens act "through the mutagenic mode of action." As reported:

> The Agency considered both the advantages and disadvantages of extending the recommended, age dependent adjustment factors for carcinogenic potency to carcinogenic agents for which the mode of action remains unknown. EPA recommends these factors only for carcinogens acting through a mutagenic mode of action based on a combination of analysis of available data and long-standing science policy positions that set out the Agency's overall approach to carcinogen risk assessment, e.g., the use of a linear, no threshold extrapolation procedure in the absence of data in order to be health protective. In general, the Agency prefers to rely on analyses of data rather than on general defaults. When data are available for a susceptible lifestage, they should be used directly to evaluate risks for that chemical and that lifestage on a case-by-case basis. In the case of nonmutagenic carcinogens, when the mode of action is unknown, the data were judged by EPA to be too limited and the modes of action too diverse to use this as a category for which a general default adjustment factor approach can be applied. In this situation per the Agency's *Guidelines for Carcinogen Risk Assessment*, a linear low-dose extrapolation methodology is

> recommended. It is the Agency's long-standing science policy position that use of the linear low-dose extrapolation approach (without further adjustment) provides adequate public health conservatism in the absence of chemical-specific data indicating differential early-life susceptibility or when the mode of action is not mutagenicity.

In 2006, the USEPA published a memorandum which provides guidance regarding the preparation of health risk assessments should carcinogenic compounds elicit a mutagenic mode of action.[5] As presented in the technical memorandum, numerous compounds were identified as having a mutagenic mode of action. For diesel particulates, polycyclic aromatic hydrocarbons (PAHs) and their derivatives, which are known to exhibit a mutagenic mode of action, comprise less than one percent of the exhaust particulate mass. To date, the USEPA reports that whole diesel engine exhaust has not been shown to elicit a mutagenic mode of action. [6]

Based on a review of relevant guidance on the applicability of the use of early life exposure adjustments to identified carcinogens, the use of these factors would not be applicable to this HRA as neither the Lead Agency nor SCAQMD have developed recommendations on whether these factors should be used for CEQA analyses of potential DPM construction or operational impacts. For this assessment, the HRA relied upon USEPA 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." Therefore, early life exposure adjustments were not considered in this HRA.

In addition, the *L.A. City CEQA Thresholds Guide* (Thresholds Guide) states that "impacts from toxic air contaminants can occur during either the construction or operational phases of a project. During certain construction activities, potential releases of toxic air contaminants could occur during site remediation activities or during building demolition. Toxic air contaminants may also be released during industrial or manufacturing processes, or other activities that involve the use, storage, processing, or disposal of toxic materials."[7]

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[5] *United States Environmental Protection Agency, 2006. Memorandum - Implementation of the Cancer Guidelines and Accompanying Supplemental Guidance - Science Policy Council Cancer Guidelines Implementation Workgroup Communication II: Performing Risk Assessments that include Carcinogens Described in the Supplemental Guidance as having a Mutagenic Mode of Action.*

[6] *United States Environmental Protection Agency, National Center for Environmental Assessment, 2018. Integrated Risk Information System (IRIS). Diesel Engine Exhaust.*

[7] *City of Los Angeles, CEQA Thresholds Guide, 2006, p. B.3-2.*

Importantly, note that, the Thresholds Guide does not specifically recommend an HRA for short-term DPM emissions from construction activities or for operational activities when land uses are not "industrial or manufacturing processes, or other activities that involve the use, storage, processing, or disposal of toxic materials." The Thresholds Guide also sets forth the following factors for consideration on a case-by-case basis in making a determination of significance with regard to toxic air contaminants: the regulatory framework for the toxic material(s) and process(es) involved; the proximity of the toxic air contaminants to sensitive receptors; the quantity, volume, and toxicity of the contaminants expected to be emitted; the likelihood and potential level of exposure; and the degree to which project design will reduce the risk of exposure. Based on this information, the methodology utilized in the Draft EIR remains consistent with City of Los Angeles guidance, which indicates that preparation of an HRA was not required for the Project.

Also, CARB published and adopted the *Air Quality and Land Use Handbook: A Community Health Perspective*, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[8] SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.[9] Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to Toxic Air Contaminates (TAC) sources and the addition of new TAC sources in proximity to existing sensitive land uses. When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. Both CARB and SCAQMD guidelines recommend conducting an HRA when siting new sensitive land uses (e.g., residential uses) within 500 feet of a freeway. Applied here, the Project does not site new sensitive land uses near existing sources of air toxic emissions since the Project Site is more than 500 feet from the US-101 freeway. However, the Project Site is within an area subject to Los Angeles' ZI File No. 2427, which addresses the siting of sensitive land uses within 1,000 feet of freeways.[10] The advisory does not require that a Project conduct an HRA, but does require project features (e.g., requiring all new mechanically ventilated buildings located within 1,000 feet of the freeway to install air filtration media that provides a Minimum Efficiency Reporting Value (MERV) of 13 (Ordinance 184245) to be implemented to reduce air pollution exposure and associated health risks.

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[8] *CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

[9] *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.*

[10] *ZI 2427, Freeway Adjacent Advisory Notice for Sensitive Uses, addresses air pollution caused by freeway proximity.*

The primary sources of potential air toxics associated with Project operations include DPM from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets associated with occasional moving trucks, trash trucks and delivery trucks). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions based on review of the air toxic sources listed in SCAQMD's and CARB's guidelines. It should be noted that the SCAQMD recommends that HRAs be conducted for substantial individual sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[11] Based on this guidance, the Project is not considered these types of land uses and is not considered to be a substantial source of operational DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than 5 minutes at any given time, which would further limit diesel particulate emissions.

Although a construction and operational HRA is not required for the reasons discussed above, for informational purposes only, this HRA has been prepared to provide a good faith and reasoned response to public comments and to provide the City with additional substantial evidence that demonstrates that the Project would not create a significant health risk impact.

[11] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2003.*

3.0 Health Risk Assessment

3.1 Project Description

The Project proposes to construct a 50-story mixed-use development comprised of 580 residential units and up to 7,499 square feet of ground floor commercial/retail/ restaurant space on a 34,679-square-foot site. The Project would provide 636 vehicle parking spaces within three subterranean levels and eight above-grade levels and four vehicle parking spaces on the ground floor. To accommodate the Project, an existing surface parking lot and four-story parking structure would be demolished. Upon completion, the total building floor area would be 554,927 square feet with a maximum height of 592 feet and a Floor Area Ratio (FAR) of approximately 9.25:1.

Certain activities would emit DPM from heavy-duty trucks and heavy-duty equipment used during construction and, to a lesser extent, heavy-duty delivery trucks accessing the Project Site during operation of the Project. CARB and OEHHA have classified DPM as a carcinogen. Existing nearby sensitive receptors consist of residential uses located east of the Project Site, across Hope Street and west of the Project Site across Grand Avenue.

3.2 The Assessment Process

The risk assessment process provided in OEHHA's 2003 Guidance Manual consists of four basic steps: (1) hazard identification; (2) exposure assessment; (3) dose-response assessment; and (4) risk characterization.[12] In the first step, hazard identification involves determining the potential health effect which may be associated with emitted pollutants. The purpose is to identify qualitatively whether a pollutant is a potential human carcinogen or is associated with other types of adverse health effects. Depending on the chemical, these health effects may include short-term ailments or chronic diseases. The dose-response assessment is designed to characterize the relationship between the amount or dose of a chemical and its toxicological effect on the human body. Responses to toxic chemicals will vary depending on the amount and length of exposure. For example, short-term exposure to low concentrations of chemicals may produce no noticeable effect, but continued exposure to the same levels of chemicals over a long period of time may eventually cause harm. The purpose of the exposure assessment is to estimate the extent

[12] *Office of Environmental Health Hazard Assessment, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, August 2003, Page 1-6.*

of exposure to each substance for which risk will be evaluated. This involves emission quantification, modeling of environmental transport, identification of chemicals of concern, identification of exposure routes, identification of exposed populations, and estimation of long-term exposure levels. Risk characterization is an integration of the health effects and public exposure information developed for emitted pollutants to provide a quantitative probability of adverse health effects.

3.3 Source Identification and Characterization

3.3.1 Source Identification

As indicated above, the primary source of potential air toxics associated with the Project is DPM from heavy-duty trucks and heavy-duty construction equipment used during construction and to a lesser extent heavy-duty trucks accessing the Project Site during operation of the Project associated with occasional moving trucks, trash trucks and delivery trucks and an emergency generator. The SCAQMD recommends that an HRA be conducted for substantial sources of long-term DPM operational sources (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[13] While Project construction and operation would not represent a long-term source of DPM emissions[14], the SCAQMD Guidance was used for purposes of modeling parameters and assumptions.

3.3.2 Source Characterization

Construction

Project construction would commence with demolition of the existing uses, followed by grading and excavation for the subterranean parking garages. Building foundations would then be placed, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to occur over approximately 36 months. It is estimated that approximately 89,750 cubic yards (cy) of soil would be hauled from the Project Site during the grading and excavation phase.

Total DPM emissions over the duration of Project construction were calculated using the SCAQMD recommended California Emissions Estimator Model (CalEEMod) and consistent with the methodology for calculating criteria pollutant emissions provided in Section IV.A, Air Quality, of the Draft EIR. The calculations of the emissions generated

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[13] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, August 2003.*

[14] *Project construction is short term—36 months. Moreover, the Project is residential, retail and commercial uses, none of which are associated with significant heavy-duty truck use or significant DPM emissions.*

during Project construction activities reflect the types and quantities of construction equipment and haul trucks that would be used to complete the proposed construction activities. As the assumptions used in the air quality analysis were developed to characterize a worst-case peak day of construction by phase, equipment usage assumptions were modified to reflect average daily use.

CalEEMod calculates annual emissions based on worst-case conditions occurring on a daily basis. This scenario would not represent real world conditions as construction activities and equipment would not be expected to operate at 100 percent on an average daily basis. Construction surveys prepared for CARB have documented that on a typical construction site, daily average equipment hours range from 2 to 7.5 hours depending on the type of equipment.[15] Therefore, an adjustment was taken into account which assumes that annual average emissions would conservatively represent 80 percent of a worst-case day.

DPM emissions were calculated using the 8th, Grand and Hope Mixed-Use CalEEMod output file provided in Appendix B, Air Quality and Greenhouse Gas Emissions, of the Draft EIR. It was assumed that all on-site (e.g., off-road equipment) equipment would be diesel and, therefore, on-site exhaust PM_{10} emissions provided in the Draft EIR CalEEMod output file were included in this HRA as DPM. The Draft EIR CalEEMod output file is provided in Appendix A of this HRA.

Operation

As discussed above, the Project would include a 50-story mixed-use development comprised of 580 residential units and up to 7,499 square feet of ground floor commercial/ retail/restaurant space on a 34,679-square-foot site. Upon completion, the total building floor area would be 554,927 square feet with a maximum height of 592 feet and a Floor Area Ratio (FAR) of approximately 9.25:1. A conservative estimate of the number of daily truck trips is provided below based on the National Cooperative Highway Research Program (NCHRP) Truck Trip Generation Data.[16]

- Table D-2c of the NCHRP data (Trip Generation Summary—Daily Commercial Vehicle Trips per 1,000 sf of Building Space for Retail (includes restaurants)) provides an average of 0.324 truck trips per 1,000 sf or approximately 2.4 truck trips per day for the Project's retail/restaurant uses. This assumes that all trucks would be diesel even though many retail/restaurant truck deliveries are from smaller gasoline or alternative energy source trucks (e.g., UPS or FedEx). It was

[15] *California Air Resources Board, Characterization of the Off-Road Equipment Population, December 2008.*

[16] National Cooperative Highway Research Program (NCHRP) *Synthesis 298 Truck Trip Generation Data*, 2001.

assumed that one of the trucks per day would be equipped with transportation refrigeration units (TRUs) related to the restaurant use.

- Table D-2e of the NCHRP data (Trip Generation Summary—Daily Commercial Vehicle Trips per 1,000 sf of Building Space for Other Land Uses (includes housing)) provides a rate of 0.011 truck trips per 1,000 sf or approximately 6.0 truck trips per day for the Project's residential uses. It is conservatively assumed that all of these delivery trucks would be heavy-duty diesel trucks even though many residential truck deliveries are from smaller gasoline or alternative energy source trucks (e.g., UPS or FedEx).

Accordingly, the Project is conservatively estimated to generate approximately 8 trucks per day during operation.

Emissions from transportation refrigeration units (TRUs) were estimated using the CARB Draft 2019 Emissions Inventory for Transportation Refrigeration Units.[17] Emissions from delivery trucks travelling to and from the Project Site as well as idling were estimated using the CARB EMFAC2021 model. Trucks travelling to/from the loading docks generate emissions through truck engine idling, TRU operation and travelling.

Importantly, note that, with respect to truck emissions associated with the operation of projects, the SCAQMD recommends that HRAs be conducted for substantial sources of DPM for developments that include truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating TRUs. In other words, SCAQMD has identified an amount of truck trips per day that could warrant conducting an HRA to analyze emissions and health risks. Projects with truck trips below the aforementioned amounts should not be considered a substantial source of DPM and HRAs are neither recommended nor required by the applicable regulatory documents.

Specifically, the Project is not considered to be a substantial source of operational DPM warranting an HRA because there are only 8 daily truck trips to the Project Site, which is far below the either more-than-100-trucks-per-day or more-than-40-TRU-trucks-per-day that indicate when a project could be considered a substantial DPM source. Nonetheless, operational health risks from use of operational delivery trucks for the Project was evaluated for informational purposes and included in this HRA.

Note also that, based on SCAQMD guidance, there is no quantitative analysis required for future cancer risk within the vicinity of the Project because it is consistent with the recommendations regarding the siting of new sensitive land uses near potential

[17] *California Air Resources Board, Draft 2019 Update to Emissions Inventory for Transportation Refrigeration Units, October 2019.*

sources of TAC emissions provided in the SCAQMD Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.

3.3.3 Baseline and Identification of Chemicals of Concern

The Draft EIR identified the baseline of conditions around the Project Site and the ambient levels of TACs. The SCAQMD released the fourth round of its Basin-wide Multiple Air Toxics Exposure Study (MATES IV – Final Report) in May 2015.[18] MATES IV estimated the cancer risk from TAC emissions throughout the Basin by conducting a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize health risks in the air basin. As part of MATES IV, the SCAQMD prepared an interactive map that shows estimates of cancer risks in the Basin from ambient levels of TACs based on the modeling effort to provide insight into relative risks. The map reports estimated cancer risks for discrete two-kilometer-by-two-kilometer grid cells. The cancer risk estimates reported there should not be interpreted as actual rates of disease in the exposed population, but rather as estimates of potential risk, based on a number of conservative assumptions. In general, MATES IV indicates that the highest cancer risks from TACs are found near shipping ports, goods movement sources, and near freeways and other transportation corridors. The central portion of Los Angeles falls in an estimated range of 1,001 to 1,200 risks per one million. The Project Site falls in an estimated range of >1,200 risks per one million. A figure in Appendix E to this HRA shows the MATES IV Total Cancer Risk around Project Site. Compared to previous studies of air toxics in the Basin, the MATES IV study found decreasing air toxics exposure from the analysis done in the MATES III time period.

This HRA identifies the baseline condition and also identifies the actual additional risks due to certain emissions associated with the Project. Note that, as discussed above, the CAPCOA regulatory guidance adopted at the time the Draft EIR was prepared indicates that HRAs should assess Type A (toxic emissions) and Type B (placing receptors near existing toxic sources) projects with within the CEQA context. This HRA presents the incremental health risks analysis even though the Project does not squarely qualify as either a Type A or Type B project. Accordingly, this voluntary HRA analysis is informational, and further informs the public and decision makers, but is not required pursuant to the laws in effect when the Draft EIR was prepared. Nonetheless, this HRA quantitatively evaluated DPM as a chemical of concern for potential health effects in two categories, carcinogenic and non-carcinogenic.

3.4 Exposure Quantification

Consistent with SCAQMD's Localized Significance Threshold Methodology (LST Guidelines), this HRA used USEPA's Regulatory Model AERMOD to assess the downwind

extent of DPM concentrations from proposed construction and operational activities.[18] AERMOD accounts for a variety of refined, site-specific conditions that facilitate an accurate assessment of Project impacts. AERMOD's air dispersion algorithms are based upon a planetary boundary layer turbulence structure and scaling concepts, including the treatment of surface and elevated sources in simple and complex terrain.

Exhaust emissions from construction and operational equipment were treated as a set of side-by-side elevated volume sources. The release height was assumed to be 12 feet. This represents the mid-range of the expected plume rise from frequently used construction equipment and operational heavy-duty trucks during daytime atmospheric conditions. All construction exhaust emissions were assumed to take place over a 48-month (4 year) duration on weekdays between 7 A.M. to 3 P.M. (8-hour period). Operational exhaust emissions were assumed to take place 6-days per week between 7 A.M. to 3 P.M. (8-hour period) and included 15 minutes of idle time to account for ingress, egress, and travel on-site. [19]

Emergency generator emissions were assumed to take place for up to 200 hours per year. Operating hours were assumed to occur at any time of the year (24-hours a day). The release height was assumed to be 15 feet high, with a stack diameter of 6 inches, and an exit temperature of 852°F or 455°C.

Air dispersion models require additional input parameters including local meteorology and receptors. Due to the sensitivity to individual meteorological parameters such as wind speed and direction, the USEPA 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 Downtown Los Angeles monitoring station (Source Receptor Area 1) were used to represent local weather conditions and prevailing winds.

Cartesian receptor grids were used to represent adjacent and nearby sensitive land uses. The Cartesian receptor grids were placed at each sensitive use with a built in 10 meter spacing for the nearby residential uses. All receptors were placed at ground level, which is recommended by SCAQMD for AERMOD modeling. Elevations for both sources and receptors were provided by the U.S. Geological Survey (USGS) and included using the AERMOD terrain processor AERMAP.

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[18] *SCAQMD, Final-Localized Significance Threshold Methodology, 2008.*

[19] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2003, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.*

DPM modeled concentrations were used to calculate cancer risk and chronic hazard index at each relevant receptor. A graphical representation of the source-receptor grid network is presented in Appendix C.

3.5 Risk Characterization

3.5.1 Carcinogenic Chemical Risk

Health risks associated with exposure to carcinogenic compounds at sensitive land uses in close proximity to the Project 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). 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 ($\mu g/m^3$) over a 70-year lifetime. The SCAQMD recommends a threshold of ten in one million cancer risk for evaluating carcinogenic impacts at sensitive receptors.[20]

The equation used to calculate the potential excess cancer risk is:

$$Risk_i = C_i \times CP_i \times DBR \times EVF$$

Where:

$Risk_i$ = Lifetime Excess Cancer Risk from exposure to $chemical_i$
C_i = Representative Air Concentration for $chemical_i$ ($\mu g/m^3$)
CP_i = Cancer $Potency_i$ $(mg/kg\text{-}day)^{-1}$
DBR = Daily Breathing Rate (L/kg body weight-day)
EVF = Exposure Value Factor (unitless)

An estimate of an individual's incremental excess cancer risk from exposure to Project construction and operational DPM emissions is calculated by summing the chemical-specific excess cancer risks. In addition, cancer risk is evaluated based on the duration on which a sensitive receptor is exposed to DPM (exposure duration). Based on OEHHA guidelines, it is recommended that cancer risk analyses assume an exposure duration of 70-years for residential receptors.[21] The exposure duration takes into account

[20] *South Coast Air Quality Management District, Air Quality Significance Thresholds, April 2019.*

[21] *Office of Environmental Health and Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines, August 2003*

the construction duration of 36 months during construction, and operational emissions occurring each year.

3.5.2 Non-Carcinogenic Chemical Risk

The potential for chronic non-carcinogenic health effects is evaluated by calculating the total hazard index (HI) for the Project construction and operational DPM emissions. This HI represents the sum of the hazard quotients (HQs) developed for each individual project-related chemical, where a HQ is the ratio of the representative air concentration of the chemical to the chemical specific non-cancer Reference Exposure Level (REL). The non-cancer RELs represent the daily average exposure concentration at (or below) which no adverse health effects are anticipated.

The equations used to calculate the chemical-specific HQs and HIs are:

$HQ_i = C_i/REL_i$
$HI = \Sigma HQi$

Where:

HQ_i = Hazard Quotient for $chemical_i$
C_i = Average Daily Air Concentration for $chemical_i$ ($\mu g/m^3$)
REL_i = Noncancer Reference Exposure Level for $chemical_i$ ($\mu g/m^3$)
HI = Hazard Index

The SCAQMD recommends that the non-carcinogenic hazards of toxic air contaminants should not exceed a hazard index of 1.0 for either chronic or acute effects.[22] Acute effects are due to short-term exposure, while chronic effects are due to long-term exposure to a substance. For chronic and acute risks, the hazard index is calculated as the summation of the hazard quotients for all chemicals to which an individual would be exposed. The acute hazard index was not quantified since an inhalation REL has not been determined by the OEHHA for DPM at the time of preparation of this HRA or the Draft EIR.

3.6 Conclusions

The results from the health risk calculations provide an estimate of the potential risks and hazards to individuals through inhalation of Project construction DPM emissions over a 36-month duration. Consistent with OEHHA guidelines, health risk impacts from Project operational DPM emissions were assessed over a 70-year exposure duration for residential

[22] *South Coast Air Quality Management District, Air Quality Significance Thresholds, April 2019.*

receptors. The estimated risks and hazards include: lifetime excess cancer risk estimates, and cumulative chronic HI estimates for the receptor locations of concern.

As shown in Appendix B and in Table 1 on page 18, the results of the HRA yields a maximum off-site individual cancer risk of 3.9 in a million for residential uses located east of the Project site. The maximum chronic risk of 0.043 occurs within this same residential receptor area. As the Project would not emit carcinogenic or toxic air contaminants that result in impacts which exceed the maximum individual cancer risk of ten in one million or the chronic index of 1.0, Project-related toxic emission impacts would be less than significant.

Table 1
Health Risk Assessment (Combined Construction and Operational Emissions)

Risk	Significance Threshold	Calculated Risk	Significant Impact
Cancer Risk (Resident)	10 in 1 Million	3.88E-06 which denotes excess cases of cancer of 3.9 in one million	No
Non-Carcinogenic Risk (Maximum)	Chronic Index (HI) of 1.0	4.3E-02 which denotes an HI of 0.043	No

4.0 Uncertainty Assessment

Evaluating carcinogenic pollutant concentrations based on OEHHA methodology and SCAQMD Guidance has an implied uncertainty. These methodologies were developed to provide a conservative health risk estimate. The conservative nature of this methodology relies on a number of inputs designed to prevent an underestimation of risk. The following discusses the conservative nature of the risk assessment analysis assumptions utilized in this analysis.

The cancer risk from DPM occurs mainly through inhalation. Output from the dispersion analysis was used to estimate the DPM concentrations. The cancer risk estimate is then calculated based on those estimated DPM concentrations using the risk methodology promulgated by OEHHA. The risk assessment guidelines established by SCAQMD and included in the analysis are designed to produce conservative (high) estimates of the risk posed by DPM, due to the following factors:

- As a conservative measure, the SCAQMD does not recognize indoor adjustments for residential uses. However, studies have shown that the typical person spends approximately 87 percent of their time indoors, 5 percent of their time outdoors, and 7 percent of their time in vehicles. A DPM exposure assessment showed that an average indoor concentration was 2.0 $\mu g/m^3$, compared with an outdoor concentration of 3.0 $\mu g/m^3$.[23]

- OEHHA has a toxicity database that lists TACs and their URFs. A URF describes the cancer potency of a particular TAC and is used to estimate cancer risk.[4] Most of these URFs are extrapolated from animal studies based on continuous exposure to particular toxin. This method can have some significant uncertainties. For example, a chemical that is carcinogenic by one route of exposure is considered to be carcinogenic for all routes of exposure at its maximum potency. Also, it is not realistic for a receptor to be exposed to a continuous concentration of TACs over time. In reality, receptors are exposed to constantly changing concentration levels that would expose receptors to lower levels of TACs over time than analyzed in this analysis.

- The use of the SCAQMD meteorological data set and conservative exposure assumptions (e.g., assumes receptor would be located outside in the same location 24 hours per day for the entire construction duration) amongst others, likely also lead to overestimated risks.

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[23] *South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, 2002.*

As such, uncertainty in the health risk analysis is conservative in nature and is designed to prevent undisclosed impacts to human health. Concentrations reported in this report represent a conservative scenario that is likely an over estimation of actual pollutant concentrations.

Appendix A

Emissions Calculations

8th, Grand and Hope

Construction Emissions (Annual Diesel Particulate Matter)

CalEEMod Output (tons/year)

Phase No.	Phase	Year	Mitigated	On/Off Site	Category	Exhaust PM10
2	Demolition	2022	Unmitigate	On-site	Off-Road	0.0182
3	Grading	2022	Mitigated	On-site	Off-Road	0.0208
4	Foundation	2022	Mitigated	On-site	Off-Road	0.0145
4	Foundation	2023	Unmitigate	On-site	Off-Road	0.0214
5	Building Construction	2023	Unmitigate	On-site	Off-Road	0.0934
5	Building Construction	2024	Unmitigate	On-site	Off-Road	0.1173
5	Building Construction	2025	Unmitigate	On-site	Off-Road	0.0427
6	Architectural Coating	2025	Unmitigate	On-site	Off-Road	0.00446
7	Paving/Landscaping	2025	Unmitigate	On-site	Off-Road	0.0131

Annual Totals (tons)

Daily Max to Annual Ratio	80%
Year	**Totals (tons/year)**
2022	0.0428
2023	0.0918
2024	0.0938
2025	0.0482
Total	0.2767
Construction Duration (years)	3
Hours per Day	8
Seconds per Day	28,800
Construction Duration (seconds)	31,536,000
Annual Average Emission Rate (g/s)	**0.0080**

8th, Grand and Hope - Construction and Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	1.00	0
Enclosed Parking with Elevator	198.00	Space	0.00	79,200.00	0
Unenclosed Parking with Elevator	438.00	Space	0.00	175,200.00	0
Apartments High Rise	580.00	Dwelling Unit	0.83	548,960.00	1404
Strip Mall	7.50	1000sqft	0.00	7,499.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	616	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SB100 Renewable Portfolio Standards - Year 2025 = 616 lbs/MWh

Land Use - Project specific land use sq ft; total of 0.83 acres; User Defined is for purposes of running LADOT VMT data instead of CalEEMod default.

Construction Phase - Consistent with Project Description

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Project Specific Equipment List

Off-road Equipment - Site Specific

Off-road Equipment - Project Specific Equipment List

Trips and VMT - Number of hauls reflect total amount of material requiring transport; Haul length reflects round trip to Irwindale Landfill. Foundation vehicle class changed to HHDT to reflect concrete trucks

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - LADOT VMT Calculator

Woodstoves - No Wood Stoves; Reflects PDF AQ-2

Area Coating -

Energy Use - Consistency with Section 120.6(c) CBS, Mandatory Requirements for Enclosed Parking Garages

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation - City of LA Waste Diversion Rate

Fleet Mix -

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	130.00
tblConstructionPhase	NumDays	100.00	666.00
tblConstructionPhase	NumDays	10.00	52.00
tblConstructionPhase	NumDays	2.00	79.00
tblConstructionPhase	NumDays	5.00	79.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	LightingElect	1.75	2.33
tblEnergyUse	LightingElect	1.75	2.33
tblEnergyUse	T24E	3.92	0.46
tblFireplaces	FireplaceDayYear	25.00	100.00
tblFireplaces	FireplaceHourDay	3.00	6.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	493.00	15.00
tblFireplaces	NumberNoFireplace	58.00	0.00
tblFireplaces	NumberWood	29.00	0.00
tblGrading	MaterialExported	0.00	89,750.00
tblLandUse	LandUseSquareFeet	0.00	1.00
tblLandUse	LandUseSquareFeet	580,000.00	548,960.00
tblLandUse	LandUseSquareFeet	7,500.00	7,499.00
tblLandUse	LotAcreage	1.78	0.00
tblLandUse	LotAcreage	3.94	0.00
tblLandUse	LotAcreage	9.35	0.83
tblLandUse	LotAcreage	0.17	0.00
tblLandUse	Population	1,659.00	1,404.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00

tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	616
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	50.00
tblTripsAndVMT	HaulingTripNumber	1,780.00	0.00
tblTripsAndVMT	HaulingTripNumber	11,219.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	13.80
tblTripsAndVMT	VendorTripNumber	105.00	0.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	527.00	0.00
tblTripsAndVMT	WorkerTripNumber	105.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblVehicleTrips	CC_TL	8.40	5.68
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	PB_TP	0.00	37.45
tblVehicleTrips	PR_TP	0.00	62.55
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	0.00	2,398.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.00	2,398.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	0.00	2,398.00
tblWoodstoves	NumberCatalytic	29.00	0.00
tblWoodstoves	NumberNoncatalytic	29.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022						0.0535	0.2512									
2023						0.1148	0.1148									
2024						0.1173	0.1173									
2025						0.0603	0.0603									
Maximum						**0.1173**	**0.2512**									

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022						0.0535	0.1306									
2023						0.1148	0.1148									
2024						0.1173	0.1173									
2025						0.0603	0.0603									
Maximum						**0.1173**	**0.1306**									

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**22.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	7/31/2022	6	52	
2	Grading	Grading	8/1/2022	10/31/2022	6	79	
3	Foundation	Trenching	11/1/2022	4/15/2023	6	143	
4	Building Construction	Building Construction	4/16/2023	6/1/2025	6	666	
5	Architectural Coating	Architectural Coating	1/1/2025	6/1/2025	6	130	
6	Paving/Landscaping	Paving	3/1/2025	6/1/2025	6	79	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,111,644; Residential Outdoor: 370,548; Non-Residential Indoor: 11,250; Non-Residential Outdoor: 3,750; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Bore/Drill Rigs	3	8.00	221	0.50
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Plate Compactors	2	8.00	8	0.43
Foundation	Pumps	2	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundation	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Air Compressors	2	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	2	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Building Construction	Signal Boards	2	8.00	6	0.82
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	1	8.00	78	0.48
Paving/Landscaping	Cement and Mortar Mixers	1	8.00	9	0.56
Paving/Landscaping	Pavers	0	8.00	130	0.42
Paving/Landscaping	Paving Equipment	1	8.00	132	0.36
Paving/Landscaping	Plate Compactors	1	8.00	8	0.43
Paving/Landscaping	Rollers	1	8.00	80	0.38
Paving/Landscaping	Skid Steer Loaders	2	8.00	65	0.37
Paving/Landscaping	Surfacing Equipment	1	8.00	263	0.30
Paving/Landscaping	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	14.70	6.90	50.00	LD_Mix	HDT_Mix	HHDT
Grading	7	0.00	0.00	0.00	14.70	6.90	50.00	LD_Mix	HDT_Mix	HHDT
Foundation	7	0.00	0.00	0.00	14.70	13.80	20.00	LD_Mix	HHDT	HHDT
Building Construction	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Paving/Landscaping	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1926									
Off-Road						0.0182	0.0182									
Total						**0.0182**	**0.2108**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.0751									
Off-Road						0.0182	0.0182									
Total						**0.0182**	**0.0933**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	5.0700e-003									
Off-Road						0.0208	0.0208									
Total						**0.0208**	**0.0259**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	1.9800e-003									
Off-Road						0.0208	0.0208									
Total						**0.0208**	**0.0228**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.4 Foundation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0145	0.0145									
Total						**0.0145**	**0.0145**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0145	0.0145									
Total						**0.0145**	**0.0145**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.4 Foundation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0214	0.0214									
Total						**0.0214**	**0.0214**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0214	0.0214									

Total						**0.0214**	**0.0214**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0934	0.0934									
Total						**0.0934**	**0.0934**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Off-Road						0.0934	0.0934									
Total						**0.0934**	**0.0934**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.1173	0.1173									
Total						**0.1173**	**0.1173**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.1173	0.1173									
Total						**0.1173**	**0.1173**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0427	0.0427									
Total						**0.0427**	**0.0427**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0427	0.0427									
Total						**0.0427**	**0.0427**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating						0.0000	0.0000									
Off-Road						4.4600e-003	4.4600e-003									
Total						**4.4600e-003**	**4.4600e-003**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									

Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating						0.0000	0.0000									
Off-Road						4.4600e-003	4.4600e-003									
Total						**4.4600e-003**	**4.4600e-003**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

3.7 Paving/Landscaping - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0131	0.0131									
Paving						0.0000	0.0000									
Total						**0.0131**	**0.0131**									

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0131	0.0131									
Paving						0.0000	0.0000									
Total						**0.0131**	**0.0131**									

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000									
Vendor						0.0000	0.0000									
Worker						0.0000	0.0000									
Total						**0.0000**	**0.0000**									

8th, Grand and Hope

Emergency Generator - Emissions Calculations

CalEEMod Output

Equipment Type	Exhaust PM10 (lbs/day)	
Emergency Generator - Diesel (300 - 600 HP)	0.0113	Based on 0.02 g/bhp-hr included in CalEEMod
Total	**0.00565**	Adjusted based on new SCAQMD Rule 1470 st
Hours per Day	1	
Hours per year	200	Likley permitted hours (SCAQMD Rule 1470)
Emissions per Year (lbs)	1.13	
Days per Year	365	
Hours per Day	8	
Seconds per Year	10512000	
Emission Rate (g/s)	4.87538E-05	

Concentration Calculations

	East	
Scaler Concentration (ug/m3)	2.19	Not the max for emergency generator, but ma
Emission Rate (g/s)	4.88E-05	
Actual Concentration (ug/m3)	1.07E-04	

Note: SCAQMD Rule 1470 was amended on October 1, 2021. Table 1 in SCAQMD Rule 1470 provides new PM emission standards for emergency generators located at sensitive receptors (e.g., residences) or within 50 meters from a sensiteve receptor.
Engines between 175 hp and 750 hp have a limit of 0.01 g/bhp-hr. Therefore, the emission rate for the emergency generator was updated to account for the amended rule.

8th, Grand and Hope

Operational HRA - On-site Truck Emissions

Diesel Particulate Emission Factors - T7 Single Truck (EMFAC2014 - Year 2023)

Speed	g/mi	
5	0.0148	Idle emission factor
15	0.0099	On-site travel emission factor. T8 Tractor

Emissions Calculations (Loading Docks)

Land Use	TSF	Truck Trips/TSF	Truck Trips
Multi-Family (580 du)	547.428	0.011	6.0
Commercial	7.499	0.324	2.4
Total	554.927		8.5

National Cooperative Highway Research Program (NCHRP) Synthesis 298 Truck Trip Generation Data, 2001, http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_298.pdf.

Transportation Northwest, Truck Trip Generation by Grocery Stores, Final Report TNW2010-04,

Parameter	Loading Dock	
Average Trucks per Day	**8**	
Days per Year	312	6 days per week
Trucks per Year	2,637	
Idle time per Truck (min)	15	5 minutes x 3 (enter, loadi
Idle time per Truck (hrs)	0.25	
Idle time per year (hrs)	659	
Idle Emission Factor (g/hr)	0.0148	
Idle emissions per year (g)	9.77	
Annual Idle emission rate (g/s)	**9.30E-07**	8-hour operation

Transportation Refrigeration Unit (TRU)

Emission Rate (g/hr)	0.43	See TRU Emission Factor C
TRU Operation Time per Truck (hrs)	2	Duration of time at loading
Daily Number of Trucks with TRU	**1**	
Total Annual TRU Hours	626	6 days per week operation
Total Annual TRU Emissions (g)	266.7	
Annual TRU Emission Rate (g/s)	**2.54E-05**	8-hour operation
Total Emission Rate (g/s)	**2.63E-05**	AERMOD Input - Idle + Tra

Concentration Calculations

Residential Loading Dock	East
Scaler Concentration (ug/m3)	19.89
Emission Rate (g/s)	9.30E-07
Actual Concentration (ug/m3)	1.85E-05

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: Air Basin
Region: South Coast
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	PM2.5_RUNEX	PM10_RUNEX
South Coast	2025	HHDT	Aggregate	5	Diesel	0.014	0.015
South Coast	2025	HHDT	Aggregate	15	Diesel	0.010	0.010

CARB Draft 2019 TRU Emissions Inventory Output

Scenario	Calendar Year	Equipment Sector	Air Basin	Equipment Type	Horsepower Group	Population	Activity	PM10
Existing ATCM	2026	trailgc	SC	genca	GE23LT25	1,225	1000	0.00452042
Existing ATCM	2026	trailgc	SC	genca	GE25	309	1000	0.00034038
Existing ATCM	2026	trailgc	SC	genca	LT23	0	1000	0
Existing ATCM	2026	trailgc	SC	genoos	GE23LT25	4,852	1000	0.00284239
Existing ATCM	2026	trailgc	SC	genoos	GE25	1,247	1000	0.00023449
Existing ATCM	2026	trailgc	SC	genoos	LT23	0	1000	0
Existing ATCM	2026	trailgc	SC	truca	GE23LT25	4,759	2201	0.05028656
Existing ATCM	2026	trailgc	SC	truca	GE25	7,661	2201	0.0386712
Existing ATCM	2026	trailgc	SC	truoos	GE23LT25	38,162	2201	0.06491366
Existing ATCM	2026	trailgc	SC	truoos	GE25	11,037	2201	0.00877818
Existing ATCM	2026	truck	SC	truca	LT23	2,616	1360	0.0184196
Existing ATCM	2026	truck	SC	truoos	LT23	19	1360	1.4908E-05

Total TRU Hours (Annual)	146,840,338	All TRUs in South Coast Air Basin
Total PM10 Emissions (tons/year)	68.99	Total tons per day x 365
Emission Rate (tons/hour)	4.70E-07	
Emission Rate (lbs/hr)	0.0009	
Emission Rate (g/hr)	**0.43**	

Units
All population is one TRU unit
All activity is in hours per year of run time
All emissions are in standard tons per day
All fuel consumption is gallons per year

Source: https://ww3.arb.ca.gov/msei/ordiesel/draft2019truei.pdf

Appendix B

Carcinogenic and Non-Carcinogenic Risk Calculations

8th, Hope and Grand - Construction Health Risk Assessment

Cancer Risk Calculations

Residential Receptor - 70 year Exposure Duration

Diesel Particulate Matter Emission Rate Calculation / Scaler		Construction	Operations
	Year -->	**2022-2025**	**2025-2092**
Average Annual Emission Rate (g/s)[a]		7.96E-03	-
Scaler Concentration (ug/m3)[b]		27.10	-
Diesel Particulate Concentration (ug/m3)		0.216	0.0001

Cancer Risk Calculations - DPM

Parameter	**2022-2025**	**2026-2092**	**Total**
Breathing Rate	393	393	
Exposure Frequency (EF)	350	350	
Exposure Duration (ED) (years)	**3.00**	**67.00**	**70**
AT	25550	25550	
70-Year (Lifetime) Concentration (ug/m3)	2.16E-01	1.25E-04	
70-Year (Lifetime) Dose (mg/kg-d)	8.13E-05	4.72E-08	
Carcinogen Potency (CPF) $(mg/kg\text{-}d)^{-1}$			
- Diesel Particulate Matter	1.1	1.1	
Cancer Risk	3.83E-06	4.97E-08	3.88E-06
Risk per Million (DPM)	**3.8**	**0.05**	**3.9**

[a] Emissions based on a 4-year average

[b] Scaler concentration based on an AERMOD emission rate of 1 g/s, 8-hours per day

Chronic Risk Calculations - DPM

Receptor	**Annual Concentration (ug/m3)**	**Chronic Inhalation REL (ug/m3)**	**Chronic Risk (HI)**
Residential	2.2E-01	5	4.3E-02

Appendix C

AERMOD Source Receptor Configuration and Output File

PROJECT TITLE:

Hope and 8th - Source Receptor Diagram
Construction

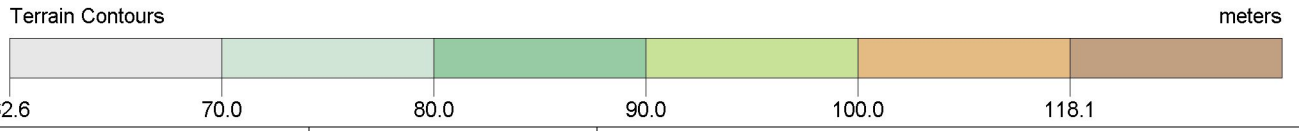
Terrain Contours meters

62.6 70.0 80.0 90.0 100.0 118.1

COMMENTS:	SOURCES: **3**	COMPANY NAME:	
	RECEPTORS: **190**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:1,379 0 0.05 km	
	MAX: **27.1 ug/m^3**	DATE: **2/10/2022**	PROJECT NO.:

PROJECT TITLE:

Hope and 8th - Source Receptor Diagram
Emergency Generator



COMMENTS:	SOURCES: **3**	COMPANY NAME:	
	RECEPTORS: **190**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:1,379 (0 — 0.05 km)	
	MAX: **6.91 ug/m^3**	DATE: **2/10/2022**	PROJECT NO.:

PROJECT TITLE:

Hope and 8th - Source Receptor Diagram
Loading Dock

Terrain Contours — meters

62.6 | 70.0 | 80.0 | 90.0 | 100.0 | 118.1

COMMENTS:	SOURCES: **3**	COMPANY NAME:	
	RECEPTORS: **190**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:1,379 — 0 — 0.05 km	
	MAX: **19.9 ug/m^3**	DATE: **2/10/2022**	PROJECT NO.:

```
** Lakes Environmental AERMOD MPI
**
**********************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.1
** Lakes Environmental Software Inc.
** Date: 2/10/2022
** File: C:\AERMOD\Hope and 8th\Hope and 8th.ADI
**
**********************************************
**
**
**********************************************
** AERMOD Control Pathway
**********************************************
**
**
CO STARTING
   TITLEONE S:\Active Projects\Hope & 8th\Technical Reports and
Info\Air Quality
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "Hope and 8th.err"
CO FINISHED
**
**********************************************
** AERMOD Source Pathway
**********************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = CONST
** DESCRSRC Project Site
** PREFIX
** Length of Side = 5.00
** Configuration = Adjacent
** Emission Rate = 1.0
** Elevated
** Vertical Dimension = 5.00
** SZINIT = 1.16
** Nodes = 22
** 383831.570, 3768055.905, 79.88, 3.66, 2.33
** 383813.787, 3768034.025, 79.12, 3.66, 2.33
** 383823.936, 3768026.075, 79.18, 3.66, 2.33
** 383838.964, 3768047.593, 79.88, 3.66, 2.33
** 383847.525, 3768040.756, 79.78, 3.66, 2.33
** 383830.254, 3768020.958, 79.57, 3.66, 2.33
** 383840.221, 3768013.505, 79.42, 3.66, 2.33
** 383856.072, 3768034.786, 80.02, 3.66, 2.33
** 383863.217, 3768028.078, 80.14, 3.66, 2.33
** 383846.928, 3768007.115, 79.24, 3.66, 2.33
** 383857.474, 3767999.421, 79.59, 3.66, 2.33
** 383869.447, 3768019.413, 80.09, 3.66, 2.33
** 383878.706, 3768012.402, 80.32, 3.66, 2.33
** 383875.539, 3768009.940, 80.30, 3.66, 2.33
** 383865.682, 3767993.089, 79.75, 3.66, 2.33
** 383873.912, 3767986.286, 79.71, 3.66, 2.33
** 383885.465, 3768007.534, 80.27, 3.66, 2.33
** 383889.363, 3768003.885, 80.24, 3.66, 2.33
** 383895.706, 3767999.109, 80.22, 3.66, 2.33
** 383881.062, 3767980.339, 79.81, 3.66, 2.33
** 383884.265, 3767977.206, 79.73, 3.66, 2.33
** 383898.788, 3767996.130, 80.18, 3.66, 2.33
** ------------------------------------------------------------------------
   LOCATION L0000001    VOLUME   383829.993 3768053.965 79.70
   LOCATION L0000002    VOLUME   383826.840 3768050.085 79.58
   LOCATION L0000003    VOLUME   383823.686 3768046.205 79.45
   LOCATION L0000004    VOLUME   383820.533 3768042.325 79.33
   LOCATION L0000005    VOLUME   383817.379 3768038.445 79.21
   LOCATION L0000006    VOLUME   383814.226 3768034.565 79.15
   LOCATION L0000007    VOLUME   383817.176 3768031.370 79.12
   LOCATION L0000008    VOLUME   383821.112 3768028.287 79.18
   LOCATION L0000009    VOLUME   383824.745 3768027.234 79.26
   LOCATION L0000010    VOLUME   383827.608 3768031.334 79.35
   LOCATION L0000011    VOLUME   383830.471 3768035.433 79.47
   LOCATION L0000012    VOLUME   383833.334 3768039.532 79.59
   LOCATION L0000013    VOLUME   383836.197 3768043.631 79.71
   LOCATION L0000014    VOLUME   383839.095 3768047.488 79.84
   LOCATION L0000015    VOLUME   383843.002 3768044.368 79.88
   LOCATION L0000016    VOLUME   383846.909 3768041.248 79.91
   LOCATION L0000017    VOLUME   383844.757 3768037.583 79.82
   LOCATION L0000018    VOLUME   383841.470 3768033.815 79.69
   LOCATION L0000019    VOLUME   383838.183 3768030.047 79.56
   LOCATION L0000020    VOLUME   383834.896 3768026.279 79.45
   LOCATION L0000021    VOLUME   383831.609 3768022.511 79.35
   LOCATION L0000022    VOLUME   383832.608 3768019.198 79.34
   LOCATION L0000023    VOLUME   383836.612 3768016.204 79.35
   LOCATION L0000024    VOLUME   383840.516 3768013.901 79.36
   LOCATION L0000025    VOLUME   383843.503 3768017.911 79.47
   LOCATION L0000026    VOLUME   383846.489 3768021.921 79.60
   LOCATION L0000027    VOLUME   383849.476 3768025.931 79.73
   LOCATION L0000028    VOLUME   383852.463 3768029.941 79.85
   LOCATION L0000029    VOLUME   383855.449 3768033.951 79.97
   LOCATION L0000030    VOLUME   383858.957 3768032.077 80.01
   LOCATION L0000031    VOLUME   383862.603 3768028.654 80.03
   LOCATION L0000032    VOLUME   383860.666 3768024.795 79.94
   LOCATION L0000033    VOLUME   383857.598 3768020.847 79.83
   LOCATION L0000034    VOLUME   383854.530 3768016.899 79.70
   LOCATION L0000035    VOLUME   383851.462 3768012.950 79.57
   LOCATION L0000036    VOLUME   383848.395 3768009.002 79.44
   LOCATION L0000037    VOLUME   383849.036 3768005.577 79.40
   LOCATION L0000038    VOLUME   383853.075 3768002.630 79.46
   LOCATION L0000039    VOLUME   383857.115 3767999.683 79.52
   LOCATION L0000040    VOLUME   383859.814 3768003.330 79.64
   LOCATION L0000041    VOLUME   383862.383 3768007.619 79.76
   LOCATION L0000042    VOLUME   383864.952 3768011.909 79.87
   LOCATION L0000043    VOLUME   383867.521 3768016.198 79.98
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   LOCATION L0000045    VOLUME   383874.431 3768015.639 80.09
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   LOCATION L0000051    VOLUME   383866.533 3767992.385 79.68
   LOCATION L0000052    VOLUME   383870.387 3767989.200 79.69
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   LOCATION L0000065    VOLUME   383881.581 3767981.004 79.70
   LOCATION L0000066    VOLUME   383884.033 3767977.433 79.66
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   LOCATION L0000068    VOLUME   383890.156 3767984.882 79.89
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   LOCATION L0000069     VOLUME   383893.200 3767988.849 80.02
   LOCATION L0000070     VOLUME   383896.244 3767992.815 80.10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = TRUCKS
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** PREFIX
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** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 5.00
** SZINIT = 2.33
** Nodes = 2
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** 383867.679, 3768013.985, 79.98, 3.66, 2.33
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   LOCATION L0004724     VOLUME   383862.758 3768007.742 79.77
   LOCATION L0004725     VOLUME   383865.853 3768011.669 79.89
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79.390
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   SRCPARAM L0000012    0.0142857143    3.66    2.33    1.16
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   SRCPARAM L0000015    0.0142857143    3.66    2.33    1.16
   SRCPARAM L0000016    0.0142857143    3.66    2.33    1.16
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   SRCPARAM L0000022    0.0142857143    3.66    2.33    1.16
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   SRCPARAM L0000070    0.0142857143    3.66    2.33    1.16
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   SRCPARAM L0004725        0.5    3.66    2.33    2.33
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   SRCPARAM EMGEN           1.0    4.572   728.150  58.38920
0.152
   URBANSRC ALL

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** Variable Emission Scenario: "Scenario 2"
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  SRCGROUP Const   L0000001 L0000002 L0000003 L0000004
L0000005 L0000006
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L0000011 L0000012
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L0000059 L0000060
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L0000065 L0000066
  SRCGROUP Const   L0000067 L0000068 L0000069 L0000070
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   SRCGROUP Trucks   L0004724 L0004725
   SRCGROUP EMGEN    EMGEN
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED "Hope and 8th.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "Met\CentralLAADJU (1)\CELA_V9_ADJU\CELA_v9.SFC"
   PROFFILE "Met\CentralLAADJU (1)\CELA_V9_ADJU\CELA_v9.PFL"
   SURFDATA 93134 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 87.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD Const "HOPE AND 8TH.AD\PE00G001.PLT" 31
   PLOTFILE PERIOD Trucks "HOPE AND 8TH.AD\PE00G002.PLT" 32
   PLOTFILE PERIOD EMGEN "HOPE AND 8TH.AD\PE00G003.PLT" 33
   SUMMFILE "Hope and 8th.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

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

 A Total of           0 Fatal Error Message(s)
 A Total of           3 Warning Message(s)
 A Total of           0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 SO W320     237       PPARM: Input Parameter May Be Out-of-Range
for Parameter            VS
 ME W186     571       MEOPEN: THRESH_1MIN 1-min ASOS wind
speed threshold used          0.50
 ME W187     571       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

 ************************************
 *** SETUP Finishes Successfully ***
 ************************************
```

```
 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                              ***    MODEL SETUP OPTIONS SUMMARY
***
 ------------------------------------------------------------
----------

 **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    73
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
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates PERIOD Averages Only

 **This Run Includes:     73 Source(s);       3 Source Group(s); and     190
Receptor(s)

               with:      1 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:     72 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     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 PERIOD 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) =    87.00 ;
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:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Hope and 8th.err
 **File for Summary of Results:   Hope and 8th.sum
```

```
 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***         02/10/22
 *** AERMET - VERSION  16216 ***   ***
***         10:08:04

PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                  BASE     STACK
STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X       Y      ELEV.    HEIGHT
TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS)
(DEG.K)  (M/SEC)  (METERS)                   VARY BY
 ----------------------------------------------------------
------------

 EMGEN           0   0.10000E+01  383822.3 3768044.3    79.4     4.57
728.15    58.39     0.15    NO      YES   NO  HROFDY
```

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 3
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE BASE RELEASE INIT. INIT. URBAN EMISSION RATE
SOURCE PART. (GRAMS/SEC) X Y ELEV. HEIGHT SY SZ SOURCE SCALAR VARY
ID CATS. (METERS) (METERS) (METERS) (METERS) (METERS) (METERS) BY
- -

L0000001 0 0.14286E-01 383830.0 3768054.0 79.7 3.66 2.33 1.16 YES HROFDY
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L0000032 0 0.14286E-01 383860.7 3768024.8 79.9 3.66 2.33 1.16 YES HROFDY
L0000033 0 0.14286E-01 383857.6 3768020.8 79.8 3.66 2.33 1.16 YES HROFDY
L0000034 0 0.14286E-01 383854.5 3768016.9 79.7 3.66 2.33 1.16 YES HROFDY
L0000035 0 0.14286E-01 383851.5 3768012.9 79.6 3.66 2.33 1.16 YES HROFDY
L0000036 0 0.14286E-01 383848.4 3768009.0 79.4 3.66 2.33 1.16 YES HROFDY
L0000037 0 0.14286E-01 383849.0 3768005.6 79.4 3.66 2.33 1.16 YES HROFDY
L0000038 0 0.14286E-01 383853.1 3768002.6 79.5 3.66 2.33 1.16 YES HROFDY
L0000039 0 0.14286E-01 383857.1 3767999.7 79.5 3.66 2.33 1.16 YES HROFDY
L0000040 0 0.14286E-01 383859.8 3768003.3 79.6 3.66 2.33 1.16 YES HROFDY

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                  *** VOLUME SOURCE DATA ***

            NUMBER EMISSION RATE                  BASE    RELEASE
INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X       Y      ELEV.   HEIGHT
SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS)
(METERS) (METERS)            BY
 ----------------------------------------------------------------
--------

 L0000041       0  0.14286E-01  383862.4 3768007.6   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000042       0  0.14286E-01  383865.0 3768011.9   79.9     3.66
2.33     1.16    YES   HROFDY
 L0000043       0  0.14286E-01  383867.5 3768016.2   80.0     3.66
2.33     1.16    YES   HROFDY
 L0000044       0  0.14286E-01  383870.4 3768018.7   80.1     3.66
2.33     1.16    YES   HROFDY
 L0000045       0  0.14286E-01  383874.4 3768015.6   80.1     3.66
2.33     1.16    YES   HROFDY
 L0000046       0  0.14286E-01  383878.4 3768012.6   80.1     3.66
2.33     1.16    YES   HROFDY
 L0000047       0  0.14286E-01  383875.2 3768009.4   80.0     3.66
2.33     1.16    YES   HROFDY
 L0000048       0  0.14286E-01  383872.7 3768005.1   79.9     3.66
2.33     1.16    YES   HROFDY
 L0000049       0  0.14286E-01  383870.2 3768000.8   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000050       0  0.14286E-01  383867.6 3767996.5   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000051       0  0.14286E-01  383866.5 3767992.4   79.7     3.66
2.33     1.16    YES   HROFDY
 L0000052       0  0.14286E-01  383870.4 3767989.2   79.7     3.66
2.33     1.16    YES   HROFDY
 L0000053       0  0.14286E-01  383874.1 3767986.7   79.7     3.66
2.33     1.16    YES   HROFDY
 L0000054       0  0.14286E-01  383876.5 3767991.1   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000055       0  0.14286E-01  383878.9 3767995.4   79.9     3.66
2.33     1.16    YES   HROFDY
 L0000056       0  0.14286E-01  383881.3 3767999.8   80.0     3.66
2.33     1.16    YES   HROFDY
 L0000057       0  0.14286E-01  383883.7 3768004.2   80.1     3.66
2.33     1.16    YES   HROFDY
 L0000058       0  0.14286E-01  383886.4 3768006.7   80.2     3.66
2.33     1.16    YES   HROFDY
 L0000059       0  0.14286E-01  383890.1 3768003.3   80.2     3.66
2.33     1.16    YES   HROFDY
 L0000060       0  0.14286E-01  383894.1 3768000.3   80.2     3.66
2.33     1.16    YES   HROFDY
 L0000061       0  0.14286E-01  383893.9 3767996.8   80.2     3.66
2.33     1.16    YES   HROFDY
 L0000062       0  0.14286E-01  383890.8 3767992.8   80.1     3.66
2.33     1.16    YES   HROFDY
 L0000063       0  0.14286E-01  383887.7 3767988.9   79.9     3.66
2.33     1.16    YES   HROFDY
 L0000064       0  0.14286E-01  383884.7 3767984.9   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000065       0  0.14286E-01  383881.6 3767981.0   79.7     3.66
2.33     1.16    YES   HROFDY
 L0000066       0  0.14286E-01  383884.0 3767977.4   79.7     3.66
2.33     1.16    YES   HROFDY
 L0000067       0  0.14286E-01  383887.1 3767980.9   79.8     3.66
2.33     1.16    YES   HROFDY
 L0000068       0  0.14286E-01  383890.2 3767984.9   79.9     3.66
2.33     1.16    YES   HROFDY
 L0000069       0  0.14286E-01  383893.2 3767988.8   80.0     3.66
2.33     1.16    YES   HROFDY
 L0000070       0  0.14286E-01  383896.2 3767992.8   80.1     3.66
2.33     1.16    YES   HROFDY
 L0004724       0  0.50000E+00  383862.8 3768007.7   79.8     3.66
2.33     2.33    YES   HROFDY
 L0004725       0  0.50000E+00  383865.9 3768011.7   79.9     3.66
2.33     2.33    YES   HROFDY
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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
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 *** AERMET - VERSION  16216 ***   ***
***        10:08:04

PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                              *** SOURCE IDs DEFINING SOURCE
GROUPS ***

 SRCGROUP ID                              SOURCE IDs
 -----------                          ----------


  CONST     L0000001    , L0000002    , L0000003    , L0000004    ,
L0000005    , L0000006    , L0000007    , L0000008    ,

          L0000009    , L0000010    , L0000011    , L0000012    ,
L0000013    , L0000014    , L0000015    , L0000016    ,

          L0000017    , L0000018    , L0000019    , L0000020    ,
L0000021    , L0000022    , L0000023    , L0000024    ,

          L0000025    , L0000026    , L0000027    , L0000028    ,
L0000029    , L0000030    , L0000031    , L0000032    ,

          L0000033    , L0000034    , L0000035    , L0000036    ,
L0000037    , L0000038    , L0000039    , L0000040    ,

          L0000041    , L0000042    , L0000043    , L0000044    ,
L0000045    , L0000046    , L0000047    , L0000048    ,

          L0000049    , L0000050    , L0000051    , L0000052    ,
L0000053    , L0000054    , L0000055    , L0000056    ,

          L0000057    , L0000058    , L0000059    , L0000060    ,
L0000061    , L0000062    , L0000063    , L0000064    ,

          L0000065    , L0000066    , L0000067    , L0000068    ,
L0000069    , L0000070    ,

  TRUCKS    L0004724    , L0004725    ,

  EMGEN     EMGEN       ,
```

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
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 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                              *** SOURCE IDs DEFINED AS URBAN
SOURCES ***

  URBAN ID   URBAN POP                          SOURCE IDs
  --------   ---------                         ----------


           9818605.   L0000001    , L0000002    , L0000003    , L0000004
, L0000005    , L0000006    , L0000007    ,
 L0000008    ,

          L0000009    , L0000010    , L0000011    , L0000012    ,
L0000013    , L0000014    , L0000015    , L0000016    ,

          L0000017    , L0000018    , L0000019    , L0000020    ,
L0000021    , L0000022    , L0000023    , L0000024    ,

          L0000025    , L0000026    , L0000027    , L0000028    ,
L0000029    , L0000030    , L0000031    , L0000032    ,

          L0000033    , L0000034    , L0000035    , L0000036    ,
L0000037    , L0000038    , L0000039    , L0000040    ,

          L0000041    , L0000042    , L0000043    , L0000044    ,
L0000045    , L0000046    , L0000047    , L0000048    ,

          L0000049    , L0000050    , L0000051    , L0000052    ,
L0000053    , L0000054    , L0000055    , L0000056    ,

          L0000057    , L0000058    , L0000059    , L0000060    ,
L0000061    , L0000062    , L0000063    , L0000064    ,

          L0000065    , L0000066    , L0000067    , L0000068    ,
L0000069    , L0000070    , L0004724    , L0004725    ,

          EMGEN       ,
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*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 7
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

SOURCE ID = L0000001 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000002 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000003 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000004 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000005 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY
FOR EACH HOUR OF THE DAY *

   HOUR    SCALAR     HOUR    SCALAR     HOUR    SCALAR
HOUR    SCALAR     HOUR    SCALAR     HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - -


 SOURCE ID = L0000006     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000007     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000008     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000009     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000010     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00
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*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 9
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

SOURCE ID = L0000011 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000012 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000013 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000014 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000015 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 10
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY
FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR
HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - -

SOURCE ID = L0000016 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4
.00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10
.10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16
.00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22
.00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000017 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4
.00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10
.10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16
.00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22
.00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000018 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4
.00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10
.10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16
.00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22
.00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000019 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4
.00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10
.10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16
.00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22
.00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000020 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4
.00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10
.10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16
.00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22
.00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 11
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

SOURCE ID = L0000021 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000022 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000023 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000024 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000025 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 12
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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SOURCE ID = L0000026 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000027 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000028 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000029 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000030 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 13
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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SOURCE ID = L0000031 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000032 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000033 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000034 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000035 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 14
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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SOURCE ID = L0000036 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000037 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000038 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000039 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000040 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 15
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
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SOURCE ID = L0000041 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000042 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000043 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000044 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000045 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY
FOR EACH HOUR OF THE DAY *

   HOUR   SCALAR     HOUR   SCALAR     HOUR   SCALAR
HOUR   SCALAR     HOUR   SCALAR     HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - -


 SOURCE ID = L0000046    ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000047    ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000048    ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000049    ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0000050    ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00
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*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 17
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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SOURCE ID = L0000051 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000052 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000053 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000054 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000055 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 18
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

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SOURCE ID = L0000056 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000057 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000058 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000059 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000060 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 19
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

SOURCE ID = L0000061 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000062 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000063 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000064 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000065 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 20
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = L0000066 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000067 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000068 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000069 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = L0000070 ; SOURCE TYPE = VOLUME :
1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .00000E+00 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .00000E+00 17 .00000E+00 18 .00000E+00
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      * SOURCE EMISSION RATE SCALARS WHICH VARY
FOR EACH HOUR OF THE DAY *

   HOUR    SCALAR     HOUR    SCALAR     HOUR    SCALAR
HOUR    SCALAR     HOUR    SCALAR     HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - -


 SOURCE ID = L0004724     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = L0004725     ; SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00


 SOURCE ID = EMGEN        ; SOURCE TYPE = POINT    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4
.00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .10000E+01     9   .10000E+01    10
.10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16
.00000E+00    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22
.00000E+00    23   .00000E+00    24   .00000E+00
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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***         02/10/22
 *** AERMET - VERSION  16216 ***   ***
***         10:08:04

PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** DISCRETE CARTESIAN RECEPTORS
***
                               (X-COORD, Y-COORD, ZELEV, ZHILL,
ZFLAG)
                                        (METERS)

    ( 383978.7, 3767890.2,     79.7,     79.7,     0.0);       ( 383988.7,
3767890.2,     79.8,     79.8,     0.0);
    ( 383968.7, 3767900.2,     79.7,     79.7,     0.0);       ( 383978.7,
3767900.2,     79.8,     79.8,     0.0);
    ( 383988.7, 3767900.2,     79.8,     79.8,     0.0);       ( 383998.7,
3767900.2,     79.8,     79.8,     0.0);
    ( 383958.7, 3767910.2,     79.7,     79.7,     0.0);       ( 383968.7,
3767910.2,     79.8,     79.8,     0.0);
    ( 383978.7, 3767910.2,     79.8,     79.8,     0.0);       ( 383988.7,
3767910.2,     79.8,     79.8,     0.0);
    ( 383998.7, 3767910.2,     79.9,     79.9,     0.0);       ( 384008.7,
3767910.2,     79.8,     79.8,     0.0);
    ( 383948.7, 3767920.2,     79.7,     79.7,     0.0);       ( 383958.7,
3767920.2,     79.8,     79.8,     0.0);
    ( 383968.7, 3767920.2,     79.8,     79.8,     0.0);       ( 383978.7,
3767920.2,     79.9,     79.9,     0.0);
    ( 383988.7, 3767920.2,     79.9,     79.9,     0.0);       ( 383998.7,
3767920.2,     79.9,     79.9,     0.0);
    ( 384008.7, 3767920.2,     79.9,     79.9,     0.0);       ( 383928.7,
3767930.2,     79.7,     79.7,     0.0);
    ( 383938.7, 3767930.2,     79.7,     79.7,     0.0);       ( 383948.7,
3767930.2,     79.7,     79.7,     0.0);
    ( 383958.7, 3767930.2,     79.8,     79.8,     0.0);       ( 383968.7,
3767930.2,     79.9,     79.9,     0.0);
    ( 383978.7, 3767930.2,     79.9,     79.9,     0.0);       ( 383988.7,
3767930.2,     80.0,     80.0,     0.0);
    ( 383998.7, 3767930.2,     80.0,     80.0,     0.0);       ( 384008.7,
3767930.2,     80.0,     80.0,     0.0);
    ( 384018.7, 3767930.2,     80.0,     80.0,     0.0);       ( 383918.7,
3767940.2,     79.5,     79.5,     0.0);
    ( 383928.7, 3767940.2,     79.6,     79.6,     0.0);       ( 383938.7,
3767940.2,     79.7,     79.7,     0.0);
    ( 383948.7, 3767940.2,     79.8,     79.8,     0.0);       ( 383958.7,
3767940.2,     79.9,     79.9,     0.0);
    ( 383968.7, 3767940.2,     79.9,     79.9,     0.0);       ( 383978.7,
3767940.2,     80.0,     80.0,     0.0);
    ( 383988.7, 3767940.2,     80.0,     80.0,     0.0);       ( 383998.7,
3767940.2,     80.1,     80.1,     0.0);
    ( 384008.7, 3767940.2,     80.1,     80.1,     0.0);       ( 384018.7,
3767940.2,     80.2,     80.2,     0.0);
    ( 384028.7, 3767940.2,     80.2,     80.2,     0.0);       ( 383908.7,
3767950.2,     79.6,     79.6,     0.0);
    ( 383918.7, 3767950.2,     79.6,     79.6,     0.0);       ( 383928.7,
3767950.2,     79.7,     79.7,     0.0);
    ( 383938.7, 3767950.2,     79.8,     79.8,     0.0);       ( 383948.7,
3767950.2,     79.9,     79.9,     0.0);
    ( 383958.7, 3767950.2,     79.9,     79.9,     0.0);       ( 383968.7,
3767950.2,     80.0,     80.0,     0.0);
    ( 383978.7, 3767950.2,     80.0,     80.0,     0.0);       ( 383988.7,
3767950.2,     80.1,     80.1,     0.0);
    ( 383998.7, 3767950.2,     80.1,     80.1,     0.0);       ( 384008.7,
3767950.2,     80.3,     80.3,     0.0);
    ( 384018.7, 3767950.2,     80.4,     80.4,     0.0);       ( 384028.7,
3767950.2,     80.3,     80.3,     0.0);
    ( 384038.7, 3767950.2,     80.3,     80.3,     0.0);       ( 383908.7,
3767960.2,     79.6,     79.6,     0.0);
    ( 383918.7, 3767960.2,     79.7,     79.7,     0.0);       ( 383928.7,
3767960.2,     79.8,     79.8,     0.0);
    ( 383938.7, 3767960.2,     79.9,     79.9,     0.0);       ( 383948.7,
3767960.2,     80.0,     80.0,     0.0);
    ( 383958.7, 3767960.2,     80.0,     80.0,     0.0);       ( 383968.7,
3767960.2,     80.1,     80.1,     0.0);
    ( 383978.7, 3767960.2,     80.1,     80.1,     0.0);       ( 383988.7,
3767960.2,     80.1,     80.1,     0.0);
    ( 383998.7, 3767960.2,     80.2,     80.2,     0.0);       ( 384008.7,
3767960.2,     80.4,     80.4,     0.0);
    ( 384018.7, 3767960.2,     80.5,     80.5,     0.0);       ( 384028.7,
3767960.2,     80.5,     80.5,     0.0);
    ( 384038.7, 3767960.2,     80.4,     80.4,     0.0);       ( 384048.7,
3767960.2,     80.3,     80.3,     0.0);
    ( 383918.7, 3767970.2,     79.7,     79.7,     0.0);       ( 383928.7,
3767970.2,     79.8,     79.8,     0.0);
    ( 383938.7, 3767970.2,     80.0,     80.0,     0.0);       ( 383948.7,
3767970.2,     80.0,     80.0,     0.0);
    ( 383958.7, 3767970.2,     80.1,     80.1,     0.0);       ( 383968.7,
3767970.2,     80.1,     80.1,     0.0);
    ( 383978.7, 3767970.2,     80.2,     80.2,     0.0);       ( 383988.7,
3767970.2,     80.2,     80.2,     0.0);
    ( 383998.7, 3767970.2,     80.3,     80.3,     0.0);       ( 384008.7,
3767970.2,     80.5,     80.5,     0.0);
    ( 384018.7, 3767970.2,     80.7,     80.7,     0.0);       ( 384028.7,
3767970.2,     80.7,     80.7,     0.0);
    ( 384038.7, 3767970.2,     80.6,     80.6,     0.0);       ( 384048.7,
3767970.2,     80.5,     80.5,     0.0);
    ( 383928.7, 3767980.2,     79.9,     79.9,     0.0);       ( 383938.7,
3767980.2,     80.0,     80.0,     0.0);
    ( 383948.7, 3767980.2,     80.1,     80.1,     0.0);       ( 383958.7,
3767980.2,     80.2,     80.2,     0.0);
    ( 383968.7, 3767980.2,     80.3,     80.3,     0.0);       ( 383978.7,
3767980.2,     80.3,     80.3,     0.0);
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*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 23
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(383988.7, 3767980.2, 80.4, 80.4, 0.0); (383998.7, 3767980.2, 80.5, 80.5, 0.0);
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(384028.7, 3767980.2, 80.8, 80.8, 0.0); (384038.7, 3767980.2, 80.8, 80.8, 0.0);
(384048.7, 3767980.2, 80.8, 80.8, 0.0); (383938.7, 3767990.2, 80.1, 80.1, 0.0);
(383948.7, 3767990.2, 80.2, 80.2, 0.0); (383958.7, 3767990.2, 80.3, 80.3, 0.0);
(383968.7, 3767990.2, 80.4, 80.4, 0.0); (383978.7, 3767990.2, 80.4, 80.4, 0.0);
(383988.7, 3767990.2, 80.5, 80.5, 0.0); (383998.7, 3767990.2, 80.6, 80.6, 0.0);
(384008.7, 3767990.2, 80.8, 80.8, 0.0); (384018.7, 3767990.2, 80.9, 80.9, 0.0);
(384028.7, 3767990.2, 80.9, 80.9, 0.0); (384038.7, 3767990.2, 81.0, 81.0, 0.0);
(384048.7, 3767990.2, 81.0, 81.0, 0.0); (383938.7, 3768000.2, 80.2, 80.2, 0.0);
(383948.7, 3768000.2, 80.3, 80.3, 0.0); (383958.7, 3768000.2, 80.4, 80.4, 0.0);
(383968.7, 3768000.2, 80.4, 80.4, 0.0); (383978.7, 3768000.2, 80.5, 80.5, 0.0);
(383988.7, 3768000.2, 80.7, 80.7, 0.0); (383998.7, 3768000.2, 80.8, 80.8, 0.0);
(384008.7, 3768000.2, 80.9, 80.9, 0.0); (384018.7, 3768000.2, 81.0, 81.0, 0.0);
(384028.7, 3768000.2, 81.0, 81.0, 0.0); (384038.7, 3768000.2, 81.0, 81.0, 0.0);
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(383968.7, 3768010.2, 80.5, 80.5, 0.0); (383978.7, 3768010.2, 80.6, 80.6, 0.0);
(383988.7, 3768010.2, 80.8, 80.8, 0.0); (383998.7, 3768010.2, 80.9, 80.9, 0.0);
(384008.7, 3768010.2, 81.0, 81.0, 0.0); (384018.7, 3768010.2, 81.1, 81.1, 0.0);
(384028.7, 3768010.2, 80.9, 80.9, 0.0); (383958.7, 3768020.2, 80.5, 80.5, 0.0);
(383968.7, 3768020.2, 80.6, 80.6, 0.0); (383978.7, 3768020.2, 80.7, 80.7, 0.0);
(383988.7, 3768020.2, 80.8, 80.8, 0.0); (383998.7, 3768020.2, 81.0, 81.0, 0.0);
(384008.7, 3768020.2, 81.1, 81.1, 0.0); (384018.7, 3768020.2, 81.2, 81.2, 0.0);
(383968.7, 3768030.2, 80.6, 80.6, 0.0); (383978.7, 3768030.2, 80.8, 80.8, 0.0);
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(384008.7, 3768030.2, 81.2, 81.2, 0.0); (384018.7, 3768030.2, 81.3, 81.3, 0.0);
(383978.7, 3768040.2, 80.8, 80.8, 0.0); (383988.7, 3768040.2, 81.0, 81.0, 0.0);
(383998.7, 3768040.2, 81.1, 81.1, 0.0); (384008.7, 3768040.2, 81.2, 81.2, 0.0);
(384018.7, 3768040.2, 81.3, 81.3, 0.0); (383988.7, 3768050.2, 81.0, 81.0, 0.0);
(383998.7, 3768050.2, 81.1, 81.1, 0.0); (384008.7, 3768050.2, 81.2, 81.2, 0.0);
(383988.7, 3768060.2, 81.1, 81.1, 0.0); (383998.7, 3768060.2, 81.2, 81.2, 0.0);
(383720.5, 3767987.6, 78.4, 78.4, 0.0); (383730.5, 3767987.6, 78.4, 78.4, 0.0);
(383710.5, 3767997.6, 78.5, 78.5, 0.0); (383720.5, 3767997.6, 78.5, 78.5, 0.0);
(383730.5, 3767997.6, 78.5, 78.5, 0.0); (383740.5, 3767997.6, 78.5, 78.5, 0.0);
(383700.5, 3768007.6, 78.6, 78.6, 0.0); (383710.5, 3768007.6, 78.7, 78.7, 0.0);
(383720.5, 3768007.6, 78.7, 78.7, 0.0); (383730.5, 3768007.6, 78.7, 78.7, 0.0);
(383740.5, 3768007.6, 78.7, 78.7, 0.0); (383750.5, 3768007.6, 78.7, 78.7, 0.0);
(383700.5, 3768017.6, 78.8, 78.8, 0.0); (383710.5, 3768017.6, 78.9, 78.9, 0.0);
(383720.5, 3768017.6, 78.9, 78.9, 0.0); (383730.5, 3768017.6, 78.8, 78.8, 0.0);
(383740.5, 3768017.6, 78.8, 78.8, 0.0); (383750.5, 3768017.6, 78.8, 78.8, 0.0);
(383760.5, 3768017.6, 78.8, 78.8, 0.0); (383710.5, 3768027.6, 79.1, 79.1, 0.0);
(383720.5, 3768027.6, 79.1, 79.1, 0.0); (383730.5, 3768027.6, 79.0, 79.0, 0.0);
(383740.5, 3768027.6, 78.9, 78.9, 0.0); (383750.5, 3768027.6, 78.9, 78.9, 0.0);
(383760.5, 3768027.6, 78.9, 78.9, 0.0); (383770.5, 3768027.6, 78.9, 78.9, 0.0);
(383720.5, 3768037.6, 79.2, 79.2, 0.0); (383730.5, 3768037.6, 79.1, 79.1, 0.0);

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***         02/10/22
 *** AERMET - VERSION  16216 ***   ***
***         10:08:04

PAGE  24
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                *** DISCRETE CARTESIAN RECEPTORS
***
                               (X-COORD, Y-COORD, ZELEV, ZHILL,
ZFLAG)
                                          (METERS)

    ( 383740.5, 3768037.6,     79.1,     79.1,      0.0);       ( 383750.5,
3768037.6,     79.0,     79.0,      0.0);
    ( 383760.5, 3768037.6,     79.0,     79.0,      0.0);       ( 383770.5,
3768037.6,     79.0,     79.0,      0.0);
    ( 383730.5, 3768047.6,     79.3,     79.3,      0.0);       ( 383740.5,
3768047.6,     79.2,     79.2,      0.0);
    ( 383750.5, 3768047.6,     79.1,     79.1,      0.0);       ( 383760.5,
3768047.6,     79.0,     79.0,      0.0);
    ( 383730.5, 3768057.6,     79.4,     79.4,      0.0);       ( 383740.5,
3768057.6,     79.3,     79.3,      0.0);
```

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 25
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** 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
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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,

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 26
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

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

Surface file: Met\CentralLAADJU (1)\CELA_V9_ADJU\CELA_v9.SFC
Met Version: 16216
Profile file: Met\CentralLAADJU (1)\CELA_V9_ADJU\CELA_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93134 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2010 Year: 2010

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
- -
10 01 01 1 01 -33.0 0.331 -9.000 -9.000 -999. 456. 120.2 0.56 0.86 1.00 3.10 38. 21.3 284.9 17.7
10 01 01 1 02 -26.9 0.285 -9.000 -9.000 -999. 367. 89.6 0.56 0.86 1.00 2.70 38. 21.3 284.2 17.7
10 01 01 1 03 -38.6 0.387 -9.000 -9.000 -999. 577. 164.6 0.56 0.86 1.00 3.60 35. 21.3 284.2 17.7
10 01 01 1 04 -33.0 0.331 -9.000 -9.000 -999. 458. 120.2 0.56 0.86 1.00 3.10 34. 21.3 283.8 17.7
10 01 01 1 05 -33.1 0.331 -9.000 -9.000 -999. 456. 120.2 0.56 0.86 1.00 3.10 37. 21.3 283.1 17.7
10 01 01 1 06 -38.7 0.387 -9.000 -9.000 -999. 577. 164.5 0.56 0.86 1.00 3.60 24. 21.3 283.1 17.7
10 01 01 1 07 -38.6 0.387 -9.000 -9.000 -999. 577. 164.5 0.56 0.86 1.00 3.60 35. 21.3 283.8 17.7
10 01 01 1 08 -29.6 0.435 -9.000 -9.000 -999. 688. 251.8 0.56 0.86 0.55 4.00 35. 21.3 283.8 17.7
10 01 01 1 09 30.0 0.426 0.367 0.008 59. 666. -232.0 0.56 0.86 0.32 3.60 38. 21.3 286.4 17.7
10 01 01 1 10 72.3 0.359 0.629 0.008 124. 519. -57.8 0.56 0.86 0.24 2.70 34. 21.3 290.4 17.7
10 01 01 1 11 104.4 0.321 0.998 0.008 344. 437. -28.6 0.56 0.86 0.21 2.20 43. 21.3 292.5 17.7
10 01 01 1 12 115.1 0.283 1.156 0.008 484. 363. -17.9 0.56 0.86 0.20 1.80 62. 21.3 295.9 17.7
10 01 01 1 13 91.4 0.406 1.130 0.008 568. 622. -66.2 0.56 0.86 0.20 3.10 263. 21.3 294.2 17.7
10 01 01 1 14 89.3 0.316 1.168 0.008 642. 432. -31.9 0.56 0.86 0.21 2.20 259. 21.3 294.9 17.7
10 01 01 1 15 42.6 0.295 0.928 0.008 675. 384. -54.0 0.56 0.86 0.25 2.20 267. 21.3 294.9 17.7
10 01 01 1 16 12.0 0.359 0.609 0.008 680. 516. -347.9 0.56 0.86 0.33 3.10 264. 21.3 292.5 17.7
10 01 01 1 17 -15.7 0.231 -9.000 -9.000 -999. 276. 70.7 0.56 0.86 0.60 2.20 288. 21.3 290.9 17.7
10 01 01 1 18 -6.1 0.135 -9.000 -9.000 -999. 124. 36.7 0.56 0.86 1.00 1.30 344. 21.3 289.2 17.7
10 01 01 1 19 -11.4 0.184 -9.000 -9.000 -999. 190. 49.2 0.56 0.86 1.00 1.80 2. 21.3 288.8 17.7
10 01 01 1 20 -17.4 0.229 -9.000 -9.000 -999. 263. 62.1 0.56 0.86 1.00 2.20 22. 21.3 288.1 17.7
10 01 01 1 21 -17.4 0.229 -9.000 -9.000 -999. 263. 61.9 0.56 0.86 1.00 2.20 40. 21.3 287.0 17.7
10 01 01 1 22 -11.5 0.184 -9.000 -9.000 -999. 190. 49.1 0.56 0.86 1.00 1.80 306. 21.3 287.0 17.7
10 01 01 1 23 -11.5 0.184 -9.000 -9.000 -999. 190. 49.0 0.56 0.86 1.00 1.80 45. 21.3 286.4 17.7
10 01 01 1 24 -11.5 0.184 -9.000 -9.000 -999. 190. 49.0 0.56 0.86 1.00 1.80 67. 21.3 286.4 17.7

First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
10 01 01 01 17.7 0 -999. -99.00 284.9 99.0 -99.00 -99.00
10 01 01 01 21.3 1 38. 3.10 -999.0 99.0 -99.00 -99.00

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

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 27
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CONST ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
383978.66	3767890.19	2.50199	383988.66	3767890.19	2.27891
383968.66	3767900.19	3.10408	383978.66	3767900.19	2.80158
383988.66	3767900.19	2.53188	383998.66	3767900.19	2.29275
383958.66	3767910.19	3.94143	383968.66	3767910.19	3.51710
383978.66	3767910.19	3.14370	383988.66	3767910.19	2.81698
383998.66	3767910.19	2.53181	384008.66	3767910.19	2.28340
383948.66	3767920.19	5.15275	383958.66	3767920.19	4.53139
383968.66	3767920.19	3.99384	383978.66	3767920.19	3.53187
383988.66	3767920.19	3.13554	383998.66	3767920.19	2.79574
384008.66	3767920.19	2.50396	383928.66	3767930.19	8.11435
383938.66	3767930.19	6.99813	383948.66	3767930.19	6.03507
383958.66	3767930.19	5.22097	383968.66	3767930.19	4.53841
383978.66	3767930.19	3.96674	383988.66	3767930.19	3.48722
383998.66	3767930.19	3.08335	384008.66	3767930.19	2.74169
384018.66	3767930.19	2.45076	383918.66	3767940.19	11.92585
383928.66	3767940.19	10.01393	383938.66	3767940.19	8.40041
383948.66	3767940.19	7.08057	383958.66	3767940.19	6.01248
383968.66	3767940.19	5.14767	383978.66	3767940.19	4.44439
383988.66	3767940.19	3.86773	383998.66	3767940.19	3.39108
384008.66	3767940.19	2.99334	384018.66	3767940.19	2.65885
384028.66	3767940.19	2.37697	383908.66	3767950.19	19.16166
383918.66	3767950.19	15.46804	383928.66	3767950.19	12.44151
383938.66	3767950.19	10.08817	383948.66	3767950.19	8.28266
383958.66	3767950.19	6.89219	383968.66	3767950.19	5.80874
383978.66	3767950.19	4.95365	383988.66	3767950.19	4.26851
383998.66	3767950.19	3.71201	384008.66	3767950.19	3.25313
384018.66	3767950.19	2.87077	384028.66	3767950.19	2.55507
384038.66	3767950.19	2.28839	383908.66	3767960.19	27.10346
383918.66	3767960.19	20.28335	383928.66	3767960.19	15.42679
383938.66	3767960.19	12.02226	383948.66	3767960.19	9.59631
383958.66	3767960.19	7.82383	383968.66	3767960.19	6.49475
383978.66	3767960.19	5.47484	383988.66	3767960.19	4.67557
383998.66	3767960.19	4.03601	384008.66	3767960.19	3.51416
384018.66	3767960.19	3.08302	384028.66	3767960.19	2.73251
384038.66	3767960.19	2.44005	384048.66	3767960.19	2.19055
383918.66	3767970.19	26.44624	383928.66	3767970.19	18.80799
383938.66	3767970.19	14.05635	383948.66	3767970.19	10.92147
383958.66	3767970.19	8.74284	383968.66	3767970.19	7.16355
383978.66	3767970.19	5.98007	383988.66	3767970.19	5.06860
383998.66	3767970.19	4.34936	384008.66	3767970.19	3.76811

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 28
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: CONST ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
384018.66	3767970.19	3.29223	384028.66	3767970.19	2.90659
384038.66	3767970.19	2.58721	384048.66	3767970.19	2.31660
383928.66	3767980.19	22.08249	383938.66	3767980.19	15.91693
383948.66	3767980.19	12.10965	383958.66	3767980.19	9.56449
383968.66	3767980.19	7.76494	383978.66	3767980.19	6.43836
383988.66	3767980.19	5.42782	383998.66	3767980.19	4.63808
384008.66	3767980.19	4.00564	384018.66	3767980.19	3.49212
384028.66	3767980.19	3.07361	384038.66	3767980.19	2.72655
384048.66	3767980.19	2.43492	383938.66	3767990.19	17.26053
383948.66	3767990.19	12.99928	383958.66	3767990.19	10.20621
383968.66	3767990.19	8.25280	383978.66	3767990.19	6.82163
383988.66	3767990.19	5.73663	383998.66	3767990.19	4.89163
384008.66	3767990.19	4.21906	384018.66	3767990.19	3.67432
384028.66	3767990.19	3.22790	384038.66	3767990.19	2.85741
384048.66	3767990.19	2.54692	383938.66	3768000.19	17.83248
383948.66	3768000.19	13.47955	383958.66	3768000.19	10.60807
383968.66	3768000.19	8.58915	383978.66	3768000.19	7.10711
383988.66	3768000.19	5.98060	383998.66	3768000.19	5.10087
384008.66	3768000.19	4.39986	384018.66	3768000.19	3.83128
384028.66	3768000.19	3.36438	384038.66	3768000.19	2.97705
383948.66	3768010.19	13.52822	383958.66	3768010.19	10.74677
383968.66	3768010.19	8.75539	383978.66	3768010.19	7.27858
383988.66	3768010.19	6.14672	383998.66	3768010.19	5.25550
384008.66	3768010.19	4.53961	384018.66	3768010.19	3.95708
384028.66	3768010.19	3.47420	383958.66	3768020.19	10.64283
383968.66	3768020.19	8.75478	383978.66	3768020.19	7.33402
383988.66	3768020.19	6.23026	383998.66	3768020.19	5.34898
384008.66	3768020.19	4.63323	384018.66	3768020.19	4.04734
383968.66	3768030.19	8.60954	383978.66	3768030.19	7.27991
383988.66	3768030.19	6.23043	383998.66	3768030.19	5.37722
384008.66	3768030.19	4.67649	384018.66	3768030.19	4.09775
383978.66	3768040.19	7.13085	383988.66	3768040.19	6.14668
383998.66	3768040.19	5.33804	384008.66	3768040.19	4.66493
384018.66	3768040.19	4.10497	383988.66	3768050.19	5.99396
383998.66	3768050.19	5.24025	384008.66	3768050.19	4.60645
383988.66	3768060.19	5.78618	383998.66	3768060.19	5.09432
383720.51	3767987.61	3.99240	383730.51	3767987.61	4.70158
383710.51	3767997.61	3.54231	383720.51	3767997.61	4.15304
383730.51	3767997.61	4.92962	383740.51	3767997.61	5.93436
383700.51	3768007.61	3.11323	383710.51	3768007.61	3.62551

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***        10:08:04

PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      *** THE PERIOD ( 43824 HRS) AVERAGE
CONCENTRATION   VALUES FOR SOURCE GROUP: CONST    ***
                        INCLUDING SOURCE(S):     L0000001    ,
L0000002    , L0000003    , L0000004    , L0000005    ,
             L0000006    , L0000007    , L0000008    , L0000009    ,
L0000010    , L0000011    , L0000012    , L0000013    ,
             L0000014    , L0000015    , L0000016    , L0000017    ,
L0000018    , L0000019    , L0000020    , L0000021    ,
             L0000022    , L0000023    , L0000024    , L0000025    ,
L0000026    , L0000027    , L0000028    , . . .      ,

                                  *** DISCRETE CARTESIAN RECEPTOR
POINTS ***

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

      X-COORD (M)   Y-COORD (M)        CONC                  X-COORD
(M)   Y-COORD (M)        CONC
 ------------------------------------------------------------
------------
       383720.51    3768007.61       4.27259                383730.51
3768007.61       5.10505
       383740.51    3768007.61       6.19841                383750.51
3768007.61       7.66895
       383700.51    3768017.61       3.14298                383710.51
3768017.61       3.67049
       383720.51    3768017.61       4.34128                383730.51
3768017.61       5.21173
       383740.51    3768017.61       6.36824                383750.51
3768017.61       7.94865
       383760.51    3768017.61      10.18406                 383710.51
3768027.61       3.67306
       383720.51    3768027.61       4.35196                383730.51
3768027.61       5.23710
       383740.51    3768027.61       6.42070                383750.51
3768027.61       8.05350
       383760.51    3768027.61      10.39691                 383770.51
3768027.61      13.93704
       383720.51    3768037.61       4.30182                383730.51
3768037.61       5.17517
       383740.51    3768037.61       6.34335                383750.51
3768037.61       7.95650
       383760.51    3768037.61      10.27691                 383770.51
3768037.61      13.79861
       383730.51    3768047.61       5.02873                383740.51
3768047.61       6.13953
       383750.51    3768047.61       7.66098                383760.51
3768047.61       9.82428
       383730.51    3768057.61       4.80910                383740.51
3768057.61       5.82854
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*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 30
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUCKS ***
INCLUDING SOURCE(S): L0004724 , L0004725 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
383978.66	3767890.19	2.53689	383988.66	3767890.19	2.31752
383968.66	3767900.19	3.12086	383978.66	3767900.19	2.82815
383988.66	3767900.19	2.56589	383998.66	3767900.19	2.33191
383958.66	3767910.19	3.91378	383968.66	3767910.19	3.51419
383978.66	3767910.19	3.15902	383988.66	3767910.19	2.84506
383998.66	3767910.19	2.56866	384008.66	3767910.19	2.32554
383948.66	3767920.19	5.02297	383958.66	3767920.19	4.45891
383968.66	3767920.19	3.96422	383978.66	3767920.19	3.53291
383988.66	3767920.19	3.15730	383998.66	3767920.19	2.83086
384008.66	3767920.19	2.54718	383928.66	3767930.19	7.57859
383938.66	3767930.19	6.63232	383948.66	3767930.19	5.80414
383958.66	3767930.19	5.08949	383968.66	3767930.19	4.47624
383978.66	3767930.19	3.95174	383988.66	3767930.19	3.50322
383998.66	3767930.19	3.11841	384008.66	3767930.19	2.78813
384018.66	3767930.19	2.50373	383918.66	3767940.19	10.56349
383928.66	3767940.19	9.07826	383938.66	3767940.19	7.79948
383948.66	3767940.19	6.71757	383958.66	3767940.19	5.81019
383968.66	3767940.19	5.05121	383978.66	3767940.19	4.41496
383988.66	3767940.19	3.88046	383998.66	3767940.19	3.42923
384008.66	3767940.19	3.04634	384018.66	3767940.19	2.72033
384028.66	3767940.19	2.44115	383908.66	3767950.19	15.51596
383918.66	3767950.19	13.02001	383928.66	3767950.19	10.91248
383938.66	3767950.19	9.17803	383948.66	3767950.19	7.76610
383958.66	3767950.19	6.61821	383968.66	3767950.19	5.68305
383978.66	3767950.19	4.91659	383988.66	3767950.19	4.28392
383998.66	3767950.19	3.75834	384008.66	3767950.19	3.31779
384018.66	3767950.19	2.94229	384028.66	3767950.19	2.62911
384038.66	3767950.19	2.36217	383908.66	3767960.19	19.89117
383918.66	3767960.19	16.10613	383928.66	3767960.19	13.10429
383938.66	3767960.19	10.76094	383948.66	3767960.19	8.93243
383958.66	3767960.19	7.49618	383968.66	3767960.19	6.35675
383978.66	3767960.19	5.44388	383988.66	3767960.19	4.70362
383998.66	3767960.19	4.09758	384008.66	3767960.19	3.59165
384018.66	3767960.19	3.16172	384028.66	3767960.19	2.81402
384038.66	3767960.19	2.52249	384048.66	3767960.19	2.27014
383918.66	3767970.19	19.83009	383928.66	3767970.19	15.60580
383938.66	3767970.19	12.49202	383948.66	3767970.19	10.16894
383958.66	3767970.19	8.40621	383968.66	3767970.19	7.04446
383978.66	3767970.19	5.97595	383988.66	3767970.19	5.12413
383998.66	3767970.19	4.43398	384008.66	3767970.19	3.86099

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 31
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUCKS ***
INCLUDING SOURCE(S): L0004724 , L0004725 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
384018.66	3767970.19	3.38571	384028.66	3767970.19	3.00023
384038.66	3767970.19	2.67871	384048.66	3767970.19	2.40398
383928.66	3767980.19	18.23964	383938.66	3767980.19	14.24540
383948.66	3767980.19	11.38939	383958.66	3767980.19	9.28978
383968.66	3767980.19	7.70609	383978.66	3767980.19	6.48416
383988.66	3767980.19	5.52295	383998.66	3767980.19	4.75199
384008.66	3767980.19	4.12227	384018.66	3767980.19	3.60627
384028.66	3767980.19	3.18370	384038.66	3767980.19	2.83046
384048.66	3767980.19	2.53166	383938.66	3767990.19	15.82501
383948.66	3767990.19	12.47538	383958.66	3767990.19	10.07315
383968.66	3767990.19	8.29511	383978.66	3767990.19	6.94060
383988.66	3767990.19	5.88431	383998.66	3767990.19	5.04498
384008.66	3767990.19	4.36704	384018.66	3767990.19	3.81347
384028.66	3767990.19	3.35719	384038.66	3767990.19	2.97594
384048.66	3767990.19	2.65529	383938.66	3768000.19	17.00594
383948.66	3768000.19	13.29992	383958.66	3768000.19	10.68848
383968.66	3768000.19	8.77135	383978.66	3768000.19	7.32215
383988.66	3768000.19	6.19533	383998.66	3768000.19	5.30215
384008.66	3768000.19	4.58361	384018.66	3768000.19	3.99803
384028.66	3768000.19	3.51529	384038.66	3768000.19	3.11303
383948.66	3768010.19	13.77851	383958.66	3768010.19	11.07937
383968.66	3768010.19	9.09617	383978.66	3768010.19	7.59904
383988.66	3768010.19	6.43346	383998.66	3768010.19	5.50708
384008.66	3768010.19	4.76081	384018.66	3768010.19	4.15205
384028.66	3768010.19	3.64741	383958.66	3768020.19	11.21874
383968.66	3768020.19	9.24580	383978.66	3768020.19	7.75260
383988.66	3768020.19	6.58335	383998.66	3768020.19	5.64798
384008.66	3768020.19	4.88957	384018.66	3768020.19	4.26856
383968.66	3768030.19	9.21835	383978.66	3768030.19	7.77564
383988.66	3768030.19	6.63738	383998.66	3768030.19	5.71575
384008.66	3768030.19	4.96225	384018.66	3768030.19	4.34093
383978.66	3768040.19	7.67471	383988.66	3768040.19	6.58880
383998.66	3768040.19	5.70341	384008.66	3768040.19	4.97088
384018.66	3768040.19	4.36355	383988.66	3768050.19	6.44984
383998.66	3768050.19	5.61727	384008.66	3768050.19	4.92174
383988.66	3768060.19	6.23513	383998.66	3768060.19	5.46786
383720.51	3767987.61	3.50227	383730.51	3767987.61	4.09074
383710.51	3767997.61	3.07165	383720.51	3767997.61	3.56022
383730.51	3767997.61	4.17140	383740.51	3767997.61	4.94736
383700.51	3768007.61	2.68296	383710.51	3768007.61	3.08413

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 32
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TRUCKS ***
INCLUDING SOURCE(S): L0004724 , L0004725 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
383720.51	3768007.61	3.57951	383730.51	3768007.61	4.20039
383740.51	3768007.61	4.99079	383750.51	3768007.61	6.01808
383700.51	3768017.61	2.66748	383710.51	3768017.61	3.06640
383720.51	3768017.61	3.55882	383730.51	3768017.61	4.17549
383740.51	3768017.61	4.95988	383750.51	3768017.61	5.97772
383760.51	3768017.61	7.32829	383710.51	3768027.61	3.01926
383720.51	3768027.61	3.49930	383730.51	3768027.61	4.09833
383740.51	3768027.61	4.85706	383750.51	3768027.61	5.83577
383760.51	3768027.61	7.12511	383770.51	3768027.61	8.86443
383720.51	3768037.61	3.40456	383730.51	3768037.61	3.97413
383740.51	3768037.61	4.69036	383750.51	3768037.61	5.60541
383760.51	3768037.61	6.79648	383770.51	3768037.61	8.37794
383730.51	3768047.61	3.81090	383740.51	3768047.61	4.47209
383750.51	3768047.61	5.30648	383760.51	3768047.61	6.37516
383730.51	3768057.61	3.61829	383740.51	3768057.61	4.21685

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 33
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EMGEN ***
INCLUDING SOURCE(S): EMGEN ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
383978.66	3767890.19	0.72713	383988.66	3767890.19	0.68684
383968.66	3767900.19	0.82723	383978.66	3767900.19	0.77885
383988.66	3767900.19	0.73390	383998.66	3767900.19	0.69221
383958.66	3767910.19	0.94815	383968.66	3767910.19	0.88976
383978.66	3767910.19	0.83562	383988.66	3767910.19	0.78551
383998.66	3767910.19	0.73932	384008.66	3767910.19	0.69676
383948.66	3767920.19	1.09617	383958.66	3767920.19	1.02460
383968.66	3767920.19	0.95869	383978.66	3767920.19	0.89813
383988.66	3767920.19	0.84168	383998.66	3767920.19	0.78952
384008.66	3767920.19	0.74302	383928.66	3767930.19	1.37650
383938.66	3767930.19	1.27987	383948.66	3767930.19	1.19094
383958.66	3767930.19	1.10953	383968.66	3767930.19	1.03521
383978.66	3767930.19	0.96608	383988.66	3767930.19	0.90225
383998.66	3767930.19	0.84429	384008.66	3767930.19	0.79208
384018.66	3767930.19	0.74432	383918.66	3767940.19	1.63315
383928.66	3767940.19	1.51089	383938.66	3767940.19	1.39889
383948.66	3767940.19	1.29698	383958.66	3767940.19	1.20452
383968.66	3767940.19	1.11858	383978.66	3767940.19	1.04036
383988.66	3767940.19	0.96951	383998.66	3767940.19	0.90508
384008.66	3767940.19	0.84605	384018.66	3767940.19	0.79234
384028.66	3767940.19	0.74540	383908.66	3767950.19	1.96175
383918.66	3767950.19	1.80520	383928.66	3767950.19	1.66249
383938.66	3767950.19	1.53312	383948.66	3767950.19	1.41649
383958.66	3767950.19	1.30820	383968.66	3767950.19	1.21037
383978.66	3767950.19	1.12347	383988.66	3767950.19	1.04455
383998.66	3767950.19	0.97269	384008.66	3767950.19	0.90554
384018.66	3767950.19	0.84449	384028.66	3767950.19	0.79364
384038.66	3767950.19	0.74783	383908.66	3767960.19	2.18569
383918.66	3767960.19	2.00076	383928.66	3767960.19	1.83461
383938.66	3767960.19	1.68564	383948.66	3767960.19	1.54722
383958.66	3767960.19	1.42386	383968.66	3767960.19	1.31368
383978.66	3767960.19	1.21612	383988.66	3767960.19	1.12886
383998.66	3767960.19	1.04785	384008.66	3767960.19	0.97149
384018.66	3767960.19	0.90253	384028.66	3767960.19	0.84644
384038.66	3767960.19	0.79709	384048.66	3767960.19	0.75094
383918.66	3767970.19	2.22517	383928.66	3767970.19	2.03188
383938.66	3767970.19	1.85385	383948.66	3767970.19	1.69406
383958.66	3767970.19	1.55398	383968.66	3767970.19	1.42936
383978.66	3767970.19	1.31875	383988.66	3767970.19	1.22020
383998.66	3767970.19	1.12976	384008.66	3767970.19	1.04432

*** AERMOD - VERSION 21112 *** *** S:\Active Projects\Hope & 8th\Technical Reports and Info\Air Quality *** 02/10/22
*** AERMET - VERSION 16216 *** ***
*** 10:08:04

PAGE 34
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EMGEN ***
INCLUDING SOURCE(S): EMGEN ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
384018.66	3767970.19	0.96782	384028.66	3767970.19	0.90494
384038.66	3767970.19	0.84988	384048.66	3767970.19	0.79892
383928.66	3767980.19	2.25549	383938.66	3767980.19	2.04505
383948.66	3767980.19	1.86100	383958.66	3767980.19	1.70014
383968.66	3767980.19	1.55704	383978.66	3767980.19	1.43130
383988.66	3767980.19	1.31872	383998.66	3767980.19	1.21763
384008.66	3767980.19	1.12374	384018.66	3767980.19	1.04013
384028.66	3767980.19	0.96912	384038.66	3767980.19	0.90586
384048.66	3767980.19	0.84853	383938.66	3767990.19	2.26305
383948.66	3767990.19	2.04960	383958.66	3767990.19	1.86386
383968.66	3767990.19	1.69968	383978.66	3767990.19	1.55550
383988.66	3767990.19	1.42731	383998.66	3767990.19	1.31299
384008.66	3767990.19	1.21021	384018.66	3767990.19	1.11839
384028.66	3767990.19	1.03801	384038.66	3767990.19	0.96613
384048.66	3767990.19	0.90186	383938.66	3768000.19	2.50595
383948.66	3768000.19	2.25951	383958.66	3768000.19	2.04439
383968.66	3768000.19	1.85707	383978.66	3768000.19	1.69094
383988.66	3768000.19	1.54502	383998.66	3768000.19	1.41670
384008.66	3768000.19	1.30241	384018.66	3768000.19	1.20103
384028.66	3768000.19	1.11320	384038.66	3768000.19	1.03528
383948.66	3768010.19	2.48737	383958.66	3768010.19	2.24019
383968.66	3768010.19	2.02623	383978.66	3768010.19	1.83685
383988.66	3768010.19	1.67117	383998.66	3768010.19	1.52642
384008.66	3768010.19	1.39948	384018.66	3768010.19	1.28698
384028.66	3768010.19	1.19408	383958.66	3768020.19	2.44326
383968.66	3768020.19	2.20046	383978.66	3768020.19	1.98652
383988.66	3768020.19	1.80023	383998.66	3768020.19	1.63843
384008.66	3768020.19	1.49791	384018.66	3768020.19	1.37395
383968.66	3768030.19	2.37181	383978.66	3768030.19	2.13414
383988.66	3768030.19	1.92763	383998.66	3768030.19	1.74981
384008.66	3768030.19	1.59573	384018.66	3768030.19	1.46063
383978.66	3768040.19	2.27247	383988.66	3768040.19	2.04946
383998.66	3768040.19	1.85698	384008.66	3768040.19	1.69068
384018.66	3768040.19	1.54469	383988.66	3768050.19	2.15826
383998.66	3768050.19	1.95374	384008.66	3768050.19	1.77648
383988.66	3768060.19	2.24858	383998.66	3768060.19	2.03532
383720.51	3767987.61	2.78672	383730.51	3767987.61	3.14424
383710.51	3767997.61	2.58190	383720.51	3767997.61	2.93171
383730.51	3767997.61	3.33952	383740.51	3767997.61	3.81375
383700.51	3768007.61	2.34383	383710.51	3768007.61	2.66780

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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***        10:08:04

PAGE  35
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                      *** THE PERIOD ( 43824 HRS) AVERAGE
CONCENTRATION   VALUES FOR SOURCE GROUP: EMGEN    ***
                        INCLUDING SOURCE(S):     EMGEN      ,

                                *** DISCRETE CARTESIAN RECEPTOR
POINTS ***

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

      X-COORD (M)   Y-COORD (M)       CONC                  X-COORD
(M)   Y-COORD (M)       CONC
 -----------------------------------------------------------
------------
       383720.51    3768007.61       3.05103               383730.51
3768007.61       3.50464
       383740.51    3768007.61       4.04107               383750.51
3768007.61       4.67625
       383700.51    3768017.61       2.38407               383710.51
3768017.61       2.72602
       383720.51    3768017.61       3.13432               383730.51
3768017.61       3.62328
       383740.51    3768017.61       4.21136               383750.51
3768017.61       4.91507
       383760.51    3768017.61       5.74568               383710.51
3768027.61       2.75283
       383720.51    3768027.61       3.17620               383730.51
3768027.61       3.68607
       383740.51    3768027.61       4.30377               383750.51
3768027.61       5.04716
       383760.51    3768027.61       5.94235               383770.51
3768027.61       6.90703
       383720.51    3768037.61       3.17263               383730.51
3768037.61       3.68843
       383740.51    3768037.61       4.31291               383750.51
3768037.61       5.06757
       383760.51    3768037.61       5.97543               383770.51
3768037.61       6.90998
       383730.51    3768047.61       3.63153               383740.51
3768047.61       4.24360
       383750.51    3768047.61       4.97750               383760.51
3768047.61       5.85882
       383730.51    3768057.61       3.51966               383740.51
3768057.61       4.10249
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 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***        02/10/22
 *** AERMET - VERSION  16216 ***   ***
***       10:08:04

PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE SUMMARY OF MAXIMUM PERIOD (
43824 HRS) RESULTS ***


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


NETWORK
GROUP ID                AVERAGE CONC             RECEPTOR  (XR,
YR, ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - -

CONST    1ST HIGHEST VALUE IS     27.10346 AT (  383908.66,
3767960.19,   79.61,   79.61,   0.00)  DC
       2ND HIGHEST VALUE IS     26.44624 AT (  383918.66,
3767970.19,   79.73,   79.73,   0.00)  DC
       3RD HIGHEST VALUE IS     22.08249 AT (  383928.66,
3767980.19,   79.92,   79.92,   0.00)  DC
       4TH HIGHEST VALUE IS     20.28335 AT (  383918.66,
3767960.19,   79.66,   79.66,   0.00)  DC
       5TH HIGHEST VALUE IS     19.16166 AT (  383908.66,
3767950.19,   79.58,   79.58,   0.00)  DC
       6TH HIGHEST VALUE IS     18.80799 AT (  383928.66,
3767970.19,   79.84,   79.84,   0.00)  DC
       7TH HIGHEST VALUE IS     17.83248 AT (  383938.66,
3768000.19,   80.18,   80.18,   0.00)  DC
       8TH HIGHEST VALUE IS     17.26053 AT (  383938.66,
3767990.19,   80.09,   80.09,   0.00)  DC
       9TH HIGHEST VALUE IS     15.91693 AT (  383938.66,
3767980.19,   80.02,   80.02,   0.00)  DC
      10TH HIGHEST VALUE IS     15.46804 AT (  383918.66,
3767950.19,   79.60,   79.60,   0.00)  DC

TRUCKS   1ST HIGHEST VALUE IS     19.89117 AT (  383908.66,
3767960.19,   79.61,   79.61,   0.00)  DC
       2ND HIGHEST VALUE IS     19.83009 AT (  383918.66,
3767970.19,   79.73,   79.73,   0.00)  DC
       3RD HIGHEST VALUE IS     18.23964 AT (  383928.66,
3767980.19,   79.92,   79.92,   0.00)  DC
       4TH HIGHEST VALUE IS     17.00594 AT (  383938.66,
3768000.19,   80.18,   80.18,   0.00)  DC
       5TH HIGHEST VALUE IS     16.10613 AT (  383918.66,
3767960.19,   79.66,   79.66,   0.00)  DC
       6TH HIGHEST VALUE IS     15.82501 AT (  383938.66,
3767990.19,   80.09,   80.09,   0.00)  DC
       7TH HIGHEST VALUE IS     15.60580 AT (  383928.66,
3767970.19,   79.84,   79.84,   0.00)  DC
       8TH HIGHEST VALUE IS     15.51596 AT (  383908.66,
3767950.19,   79.58,   79.58,   0.00)  DC
       9TH HIGHEST VALUE IS     14.24540 AT (  383938.66,
3767980.19,   80.02,   80.02,   0.00)  DC
      10TH HIGHEST VALUE IS     13.77851 AT (  383948.66,
3768010.19,   80.35,   80.35,   0.00)  DC

EMGEN    1ST HIGHEST VALUE IS      6.90998 AT (  383770.51,
3768037.61,   78.97,   78.97,   0.00)  DC
       2ND HIGHEST VALUE IS      6.90703 AT (  383770.51,
3768027.61,   78.93,   78.93,   0.00)  DC
       3RD HIGHEST VALUE IS      5.97543 AT (  383760.51,
3768037.61,   78.98,   78.98,   0.00)  DC
       4TH HIGHEST VALUE IS      5.94235 AT (  383760.51,
3768027.61,   78.92,   78.92,   0.00)  DC
       5TH HIGHEST VALUE IS      5.85882 AT (  383760.51,
3768047.61,   79.02,   79.02,   0.00)  DC
       6TH HIGHEST VALUE IS      5.74568 AT (  383760.51,
3768017.61,   78.83,   78.83,   0.00)  DC
       7TH HIGHEST VALUE IS      5.06757 AT (  383750.51,
3768037.61,   79.03,   79.03,   0.00)  DC
       8TH HIGHEST VALUE IS      5.04716 AT (  383750.51,
3768027.61,   78.93,   78.93,   0.00)  DC
       9TH HIGHEST VALUE IS      4.97750 AT (  383750.51,
3768047.61,   79.11,   79.11,   0.00)  DC
      10TH HIGHEST VALUE IS      4.91507 AT (  383750.51,
3768017.61,   78.82,   78.82,   0.00)  DC


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

```
 *** AERMOD - VERSION 21112  ***   *** S:\Active Projects\Hope &
8th\Technical Reports and Info\Air Quality ***         02/10/22
 *** AERMET - VERSION  16216 ***   ***
***         10:08:04

PAGE  37
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

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

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

 A Total of           0 Fatal Error Message(s)
 A Total of           5 Warning Message(s)
 A Total of         808 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of           4 Calm Hours Identified

 A Total of         804 Missing Hours Identified (  1.83 Percent)


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


    ********   WARNING MESSAGES   ********
 SO W320     237        PPARM: Input Parameter May Be Out-of-Range
for Parameter            VS
 ME W186     571       MEOPEN: THRESH_1MIN 1-min ASOS wind
speed threshold used           0.50
 ME W187     571       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET
 MX W450   17521       CHKDAT: Record Out of Sequence in
Meteorological File at:       14010101
 MX W450   17521       CHKDAT: Record Out of Sequence in
Meteorological File at:    2 year gap

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

Appendix D

MATES IV Cancer Risk

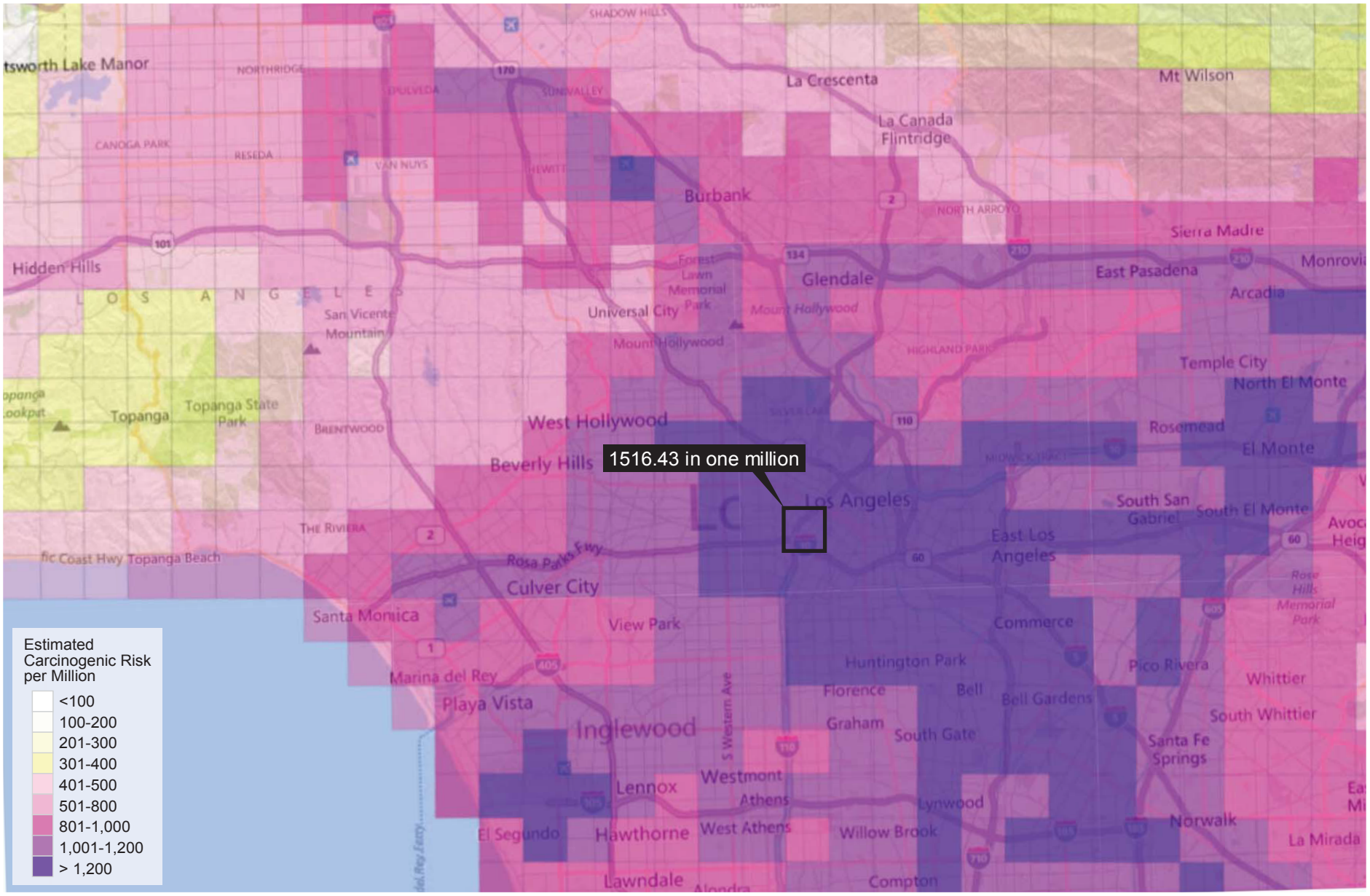

Figure IV.A-3
MATES Cancer Risk

Source: South Coast AQMD, 2016.