



Roquet Ranch Specific Plan

**AIR TOXIC AND CRITERIA POLLUTANT HEALTH RISK ASSESSMENT
CITY OF COLTON**

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09435-04 HRA Report

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LIST OF ABBREVIATED TERMS

(1)	Reference
AADT	Annual Average Daily Traffic Volumes
ARB	Air Resources Board
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CPF	Cancer Potency Factor
EPA	Environmental Protection Agency
HRA	Health Risk Assessment
LDA	Light Duty Auto
LDT	Light Duty Truck
LHD	Light Heavy Duty
MCY	Motorcycle
MDV	Medium Duty Vehicle
NO ₂	Nitrogen Dioxide
OBUS	Other Bus
OLM	Ozone Limiting
PM ₁₀	Particulate Matter 10 microns in diameter or less
PM _{2.5}	Particulate Matter 2.5 microns in diameter or less
PPM	Parts per Million
Project	Roquet Ranch Specific Plan
PVMRM	Plume Volume Molar Ratio Methods
REL	Reference Exposure Level
RME	Reasonable Maximum Exposure
SBUS	School Bus
SCAQMD	South Coast Air Quality management District
TACs	Toxic Air Contaminants
UBUS	Urban Bus
URF	Unit Risk Factor
UTM	Universal Traverse Mercator

EXECUTIVE SUMMARY

In 2005, the California Air Resources Board (ARB) promulgated an advisory recommendation to avoid setting sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The ARB indicates that due to traffic-generated pollutants, there is an estimated increased cancer risk incidence of 300 to 1,700 per million in within this domain. At some point however, the increased cancer risk incidence due the effects of freeway/roadway corridor pollutants become indistinguishable from the ambient air quality condition. In this regard, the effects of freeway/roadway-source pollutants that may impact the Project site are already acknowledged and accounted for within the ambient air quality discussions presented within this Section. More specifically, the MATES-IV Study data for the Project site comprehensively reflects increased TAC-source cancer risks affecting the City and Project site, inclusive of increased cancer risks due to freeway, roadway, and rail line pollutant sources. It is however recognized that the effects of freeway traffic and rail road pollutants on the Project site would likely be more acute and discernible in those areas nearer freeway/roadway and rail line corridors.

The Project proposes residential land uses in Planning Area 8 and Planning Area 9 that would generally be located within 1,000 feet west of Interstate 215 (I-215).

The 2005 ARB guidance noted previously, information made available through the MATES-IV Study, and configuration and design of the Project would suggest that further assessment of freeway-source pollutant impacts is not warranted. Notwithstanding, this Off-Site Freeway-Source Air Toxic and Criteria Pollutant Health Risk Assessment has been prepared for the Project and is intended to:

- Comply with and support CEQA Section 15003 (i) policies addressing adequacy, completeness, and a good-faith effort at full disclosure;
- Disaggregate potential freeway-source air pollutant health effects from other background conditions identified in the MATES IV Study; and
- Identify means to reduce the specific effects of freeway-source pollutants at the Project site.

Findings and conclusions of this Assessment are summarized below.

SUMMARY OF FINDINGS

For carcinogenic exposures, the summation of risk for the maximum exposed residential receptor totaled 6.44 in one million for the 30 year and 1.93 in one million for the 9 year exposure scenarios. In comparison to the threshold level of ten in one million, carcinogenic risks will not exceed the applicable thresholds. Therefore, carcinogenic exposures will be less than significant and no mitigation is required.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the 30 and 9 year exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed the threshold of 1.0. Therefore, noncarcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

For the maximum exposed residential receptor, results of the analysis predicted freeway emissions will produce PM₁₀ concentrations of 0.85 µg/m³ and 0.53 µg/m³ for the 24-hour and annual averaging times. These values do not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively.

For PM_{2.5}, concentrations of 0.93 µg/m³ and 0.58 µg/m³ for the 24-hour and annual averaging times were predicted. These values do not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively

The maximum modeled 1-hour average concentration for CO of 0.12 ppm when added to an existing background concentration of 4.0 ppm totals 4.12 ppm and will not cause an exceedance of the CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 0.08 ppm when added to an existing background level of 2.4 ppm totals 2.48 ppm and does not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, a maximum one-hour concentration of 0.007 ppm was predicted. This concentration, when added to a background concentration of 0.073 ppm totals 0.08 ppm and will not cause an exceedance of the CAAQS of 0.18 ppm.

As noted, short duration (i.e., 1 and 8-hour) exposures associated with both toxic and criteria pollutants are within acceptable limits. As such, less than significant impacts are anticipated to residents who would access and utilize outdoor amenities.

MITIGATION MEASURES

No significant impacts would occur; thus no mitigation is required.

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1 INTRODUCTION

In 2005, the California Air Resources Board (ARB) promulgated an advisory recommendation to avoid setting sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day or rural roads with 50,000 vehicles per day. According to the ARB, the increased cancer risk is 300 to 1,700 per million within this domain. The strongest association of traffic related emissions with adverse health outcomes was seen within 300 feet of roadways with high truck densities. Notwithstanding, the ARB notes that a site specific analysis would be required to determine the actual risk near a particular land use and should consider factors such as prevailing wind direction, local topography and climate. The Project proposes residential land uses in Planning Area 8 and Planning Area 9 that would generally be located within 1,000 feet west of Interstate 215 (I-215).

Additionally, the California Code of Regulations, Title 14 (the CEQA Guidelines), Section 15126.2(a) recommends that significant environmental effects of a project be assessed when a project brings development and people into an affected area. However, CEQA case law has held that CEQA requires the lead agency to analyze the impacts of the project on the environment, not the impacts of the environment on the project¹. Although not required by CEQA, in an abundance of caution, the lead agency, the city of Colton, has requested the preparation of this assessment. Therefore, for the proposed project, adjoining freeway emissions are a potential concern and relevant thresholds and standards exist to determine the impact of vehicular emissions on an exposed population. As such, a health risk assessment was prepared to assess the impact of these emissions on individuals residing at the proposed project site.

In consideration of the above referenced ARB advisory recommendation, the assessment and dispersion modeling methodologies used in the preparation of this report were composed of all relevant and appropriate procedures presented by the U.S. Environmental Protection Agency, California Environmental Protection Agency and South Coast Air Quality Management District (SCAQMD). The methodologies and assumptions offered under this regulatory guidance were used to ensure that the assessment effectively quantified residential exposures associated with the generation of contaminant emissions from adjacent mobile source activity.

This report summarizes the protocol used to evaluate contaminant exposures and presents the results of the health risk assessment (HRA) prepared by Urban Crossroads, Inc., for the proposed Roquet Ranch Specific Plan development (referred to as “Project”).

1 CEQA’s role is not to evaluate the impacts of the environment on the Project, but to analyze the Project’s impacts on the environment. (Ballona Wetlands Land Trust v. City of Los Angeles (2011) 201 Cal.App.4th 455; South Orange County Wastewater Authority v. City of Dana Point (2011) 196 Cal.App.4th 1604, 1617.) Thus, proximity to the freeway is not a CEQA consideration, in this case assessment is concerned with protecting the future inhabitants of the project from health impacts as a result of proximity to the freeway—that consideration was expressly rejected in the aforementioned cases.

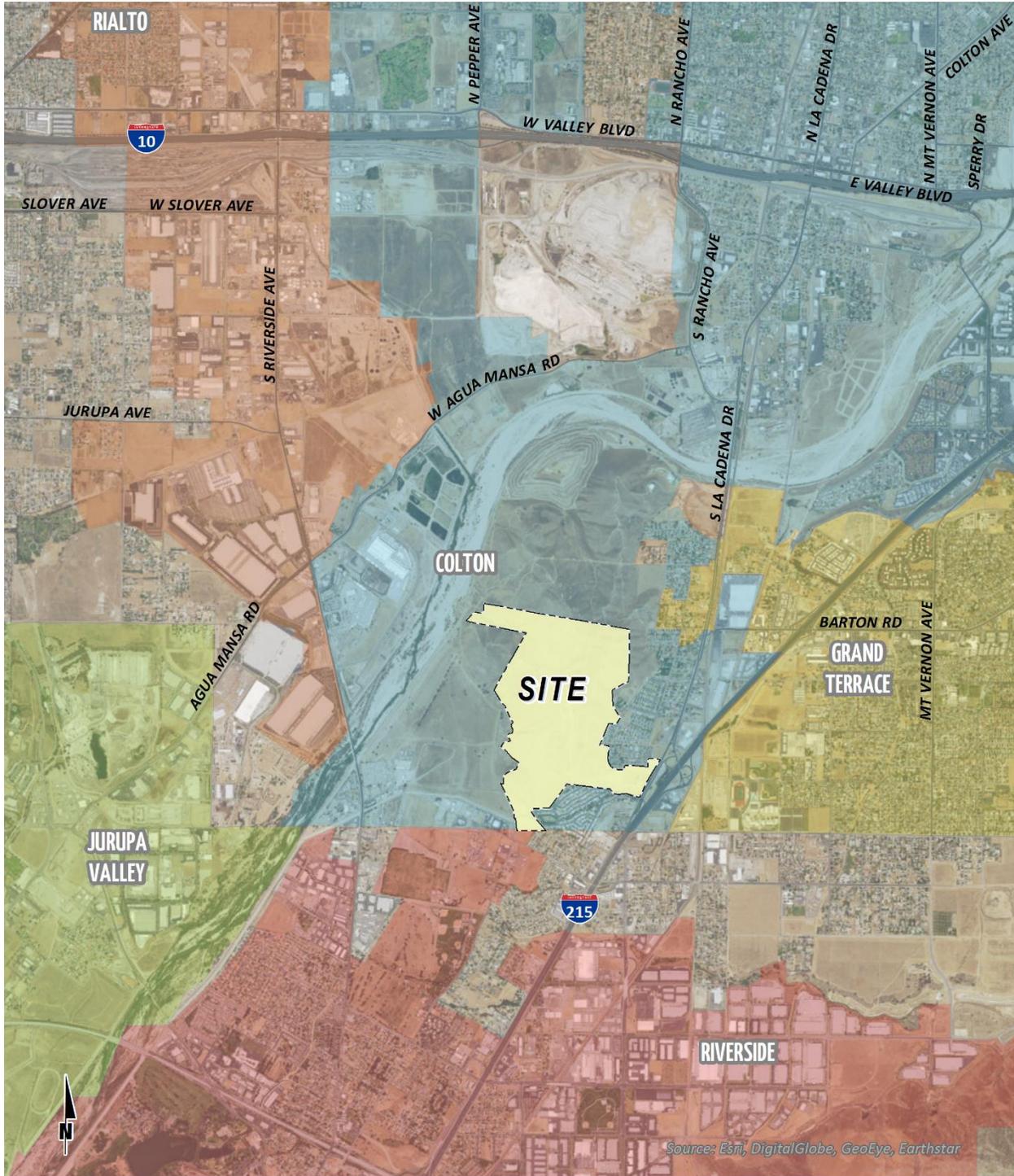
1.1 SITE LOCATION

The proposed Roquet Ranch Specific Plan Project is located west of La Cadena Drive and north of the future Pellissier Road in the City of Colton, as shown on Exhibit 1-A. Interstate 215 (I-215) is located roughly 300 feet east of the Project site. The existing surrounding land uses include open space to the north; residential and commercial to the east; residential, commercial, and industrial to the south; and vacant land to the west. The nearest airport to the proposed Project site is Flabob Airport, located approximately four miles southwest of the site.

1.2 PROJECT DESCRIPTION

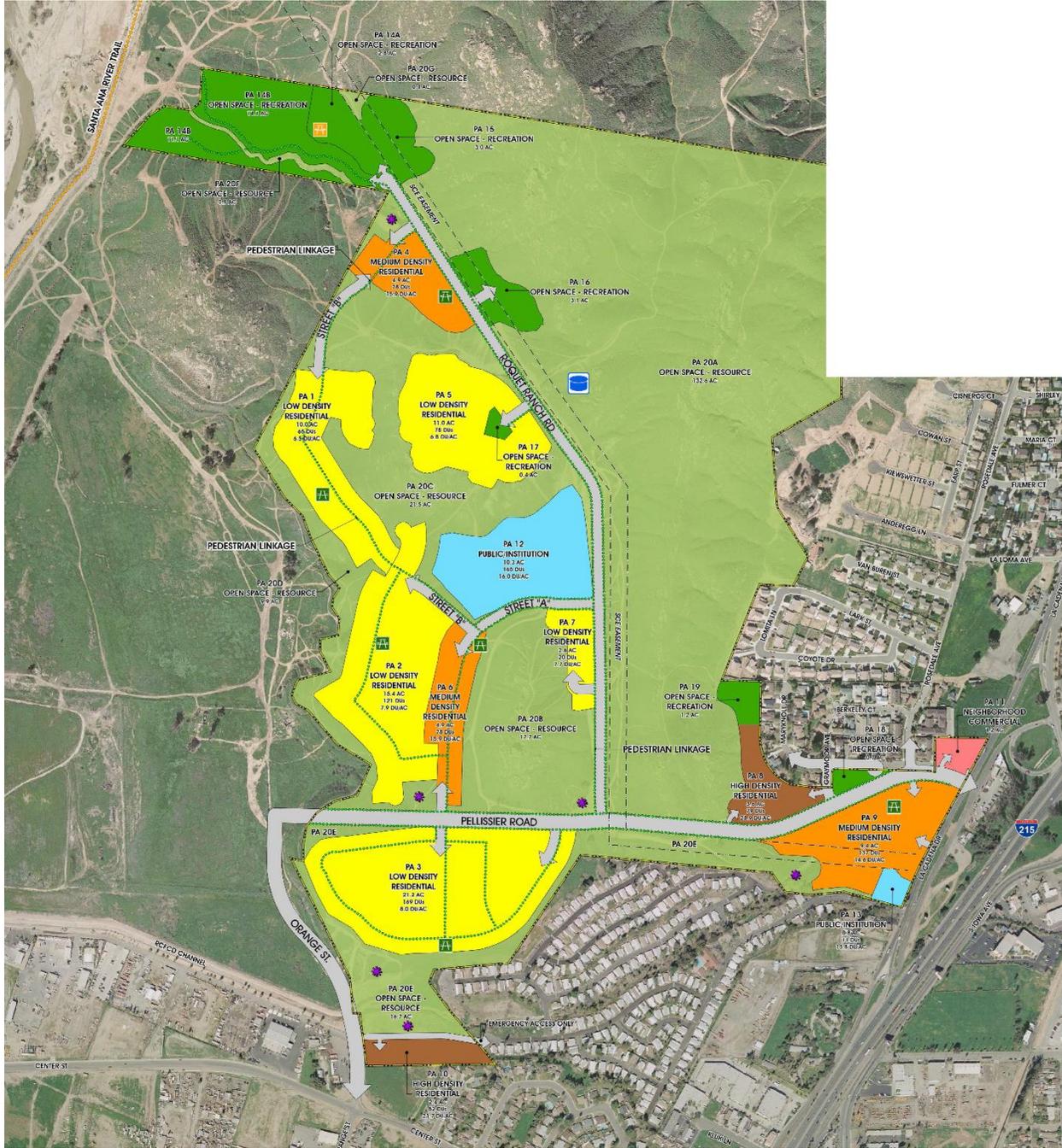
The Project is proposed to consist of 754 single-family residential units, 244 condo/townhomes, 52 active adult attached units, 6,500 square feet of commercial retail use, a 1,500 square foot coffee shop with drive-thru window, a 4,000 square foot fast-food restaurant with drive-thru window, an 11.1-acre community park, and 8.4 acres of passive parks, as shown on Exhibit 1-B. Planning Area 12 and Planning Area 13 both include public/institution uses, however, alternatives for both planning areas include medium density residential land use. The anticipated Opening Year for the proposed Project is 2020.

EXHIBIT 1-A: LOCATION MAP



LEGEND:

EXHIBIT 1-B: SITE PLAN



2 SOURCE IDENTIFICATION

As a conservative measure, to predict the future potential air toxic and criteria pollutant impacts at the Project site, the Horizon Year 2040 with Project ADT volumes were obtained from the *Traffic Impact Analysis* for the I-215 Freeway. Table 2-1 presents the annual average daily traffic volumes (AADT) for the I-215 Freeway segment considered in the assessment.

TABLE 2-1 FREEWAY TRAFFIC VOLUMES

Roadway Segment	Annual Average Daily Traffic (AADT)
I-215 Freeway	149,700

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3 SOURCE CHARACTERIZATION

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

Currently, emission factors are generated from a series of computer based programs to produce a composite emission rate for vehicles traveling at various speeds within a defined geographical area or along a discrete roadway segment. To account for the emission standards imposed on the California fleet, the ARB has developed the EMFAC2014 emission factor model. EMFAC2014 was utilized to identify pollutant emission rates for total organic gases (TOG), diesel particulates, particulates (PM10 and PM2.5), carbon monoxide (CO) and nitrogen oxide (NOx) compounds (1). To produce a representative vehicle fleet distribution, the assessment utilized ARB's San Bernardino County population estimates for the 2020 calendar year. This approach provides an estimate of vehicle mix associated with operational profiles at the link or intersection level. Table 3-1 lists the identified fleet mix considered in the assessment.

Based upon the freeway traffic volumes and population profiles noted above, discrete traffic counts were identified for each roadway segment. Diesel vehicles account for 3.6 percent of the total on-road mobile fleet. For chronic (long term) and acute (e.g., 1-hour) exposures, AADT values were averaged to produce representative hourly traffic volumes. Table 3-2 presents the hourly traffic volumes considered in the assessment.

TABLE 3-1: VEHICLE FLEET MIX PROFILE

Vehicle class	San Bernardino County		
	Fuel	Population	Percent
LDA	Diesel	28,725	0.44%
LDA	Gas	3,570,797	54.95%
LDT1	Diesel	480	0.01%
LDT1	Gas	314,311	4.84%
LDT2	Diesel	1,870	0.03%
LDT2	Gas	1,259,405	19.38%
LHD1	Diesel	43,038	0.66%
LHD1	Gas	76,637	1.18%
LHD2	Diesel	19,200	0.30%
LHD2	Gas	15,529	0.24%
MCY	Gas	156,381	2.41%
MDV	Diesel	11,000	0.17%
MDV	Gas	833,248	12.82%
MH	Diesel	4,264	0.07%
MH	Gas	20,253	0.31%
T6	Diesel	66,252	1.02%
T6	Gas	12,067	0.19%
T7	Diesel	46,832	0.72%
T7	Gas	480	0.01%
OBUS	Diesel	3,480	0.05%
OBUS	Gas	5,207	0.08%
SBUS	Diesel	2,727	0.04%
SBUS	Gas	1,107	0.02%
UBUS	Diesel	3,840	0.06%
UBUS	Gas	1,299	0.02%

Note: Vehicle category descriptions can be found on the California Air Resources Board website at <http://www.arb.ca.gov/msei/modeling.htm>.

TABLE 3-2: HOURLY FREEWAY TRAFFIC VOLUMES

Roadway Segment	Average Traffic Volume		
	All	Gas	Diesel
Interstate 215 Freeway Northbound	3,119	3,008	111
Interstate 215 Freeway Southbound	3,119	3,008	111

For particulates (PM10 and PM2.5), emissions were quantified through the reentrainment of paved roadway dust. The predictive emission equation developed by the U.S. Environmental Protection Agency (AP-42, Section 13.2.1) was utilized to generate particulate source strength (2). To account for the mass rate of emissions entrained from the roadway surface, the contribution from exhaust, break and tire wear were added to the AP-42 emission factor equation.

A list of compounds associated with mobile source emissions is presented in Table 3-3. Appendix 3.1 presents the on-road emission rate calculation worksheets for the freeway segments considered in the assessment.

TABLE 3-3: COMPOUNDS EMITTED FROM ON ROAD MOBILE SOURCE ACTIVITY

Source	Pollutant
Interstate 215	Benzene Formaldehyde 1,3-Butadiene Acetaldehyde Acrolein Diesel Particulates Reentrained Particulates (PM10, PM2.5) Carbon Monoxide Nitrogen Dioxide

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4 EXPOSURE QUANTIFICATION

In order to assess the impact of emitted compounds on individuals who reside at the proposed apartment complex, air quality modeling utilizing the AMS/EPA Regulatory Model AERMOD was performed to assess the downwind extent of mobile source emissions located within a ¼ mile radius of the project site. 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.

The model offers additional flexibility by allowing the user to assign initial vertical and lateral dispersion parameters for sources representative of a localized mobile fleet. For this assessment, the volume source algorithm was utilized to model the emissions generated from on-road mobile source activity. Although the freeway and rail line are located predominantly below grade, the assessment followed guidance promulgated by the U.S. Environmental Protection Agency (U.S. EPA, 2009) whereby the model was programmed to assume flat, level terrain (3). This was done to avoid underestimating pollutant concentrations for conditions involving low-level, non-buoyant sources in up-sloping terrain. Notwithstanding, to account for the discrepancy in terrain elevation, vertical (σ_z) dispersion parameters were developed for each source location by approximating mixing zone residence time and quantifying the initial vertical term as performed in the California Line Source Dispersion Model Caline3 (4). The horizontal (σ_y) parameters were generated by dividing the source separation distance by a standard deviation of 2.15.

The model incorporates two methodologies to perform the NO_x to NO₂ conversion. In a recent clarification memorandum (U.S. EPA, 2011), the Office of Air Quality Planning and Standards provides guidance on the use and performance of the two algorithms referred to as the ozone limiting (OLM) and plume volume molar ratio (PVMRM) methods. Based upon this guidance, the OLM algorithm with the OLMGROUP ALL option was identified as the preferred method to perform the analysis (5).

Air dispersion models require additional input parameters including pollutant emission data and local meteorology. Due to their sensitivity to individual meteorological parameters such as wind speed and direction, the U.S. Environmental Protection Agency recommends that meteorological data used as input into dispersion models be selected on the basis of relative spatial and temporal conditions that exist in the area of concern. In response to this recommendation, the nearest meteorological data available from the SCAQMD San Bernardino Meteorological Data Station (Source Receptor Area 34) was used to represent local weather conditions and prevailing winds. Five years (2007-2011) of available AERMOD meteorological data was utilized in the modeling.

The modeling analysis also considered the spatial distribution of mobile source activity traversing the freeway in relation to the proposed site. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the universal transverse mercator (UTM) coordinates for each volume source location. On-site receptors were placed to provide coverage across the identified project boundary. A ground level receptor height was

assumed as a conservative measure. A graphical representation of the source-receptor grid network is presented in Exhibit 4-A.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the OEHHA guidance document entitled Air Toxic Hot Spots Program Risk Assessment Guidelines, Part IV: Technical Support Document for Exposure Assessment and Stochastic Analysis (6) and guidance from SCAQMD.

A dispersion model input summary table is provided in Appendix 3.3. A complete listing of model input/output files are provided in electronic format in Appendix 3.4.

5 RISK CHARACTERIZATION

5.1 CARCINOGENIC CHEMICAL RISK

The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of toxic air contaminants (TACs) are considered significant if a HRA shows an increased risk of greater than ten in one million. Based on guidance from the SCAQMD in the document Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (7), for purposes of this analysis, ten (10) in one million is used as the cancer risk threshold for the proposed Project.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.

Guidance from CARB and the U.S. EPA recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day)⁻¹ to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$DOSE_{air} = (C_{air} \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$$

Where:

DOSE _{air}	=	chronic daily intake (mg/kg/day)
C _{air}	=	concentration of contaminant in air (ug/m ³)
[BR/BW] (L/kg BW-day)	=	daily breathing rate normalized to body weight
A	=	inhalation absorption factor
EF	=	exposure frequency (days/365 days)
BW	=	body weight (kg)
1 x 10 ⁻⁶	=	conversion factors (ug to mg, L to m ³)

$$\text{RISK}_{\text{air}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ED}/\text{AT}$$

Where:

DOSE _{air}	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

5.2 NON-CARCINOGENIC EXPOSURES

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

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

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

Appendix 3.2, summarizes the REL's and corresponding reference dose values used in the evaluation of chronic noncarcinogenic and acute exposures. The noncancer hazard quotient for identified compounds generated from each source and a summation for each toxicological endpoint are presented on this table.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than the threshold of 1.0 for all exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed the threshold of 1.0. Therefore, acute and chronic non-carcinogenic hazards were predicted to be within acceptable limits and are less than significant.

5.3 POTENTIAL CANCER RISKS

The summation of carcinogenic risk for the maximum exposed residential receptor totaled 6.44 in one million for the 30 year and 1.93 in one million for the 9-year exposure scenarios. In comparison to the threshold level of ten in one million, carcinogenic risks will not exceed the applicable thresholds. Therefore, carcinogenic exposures are calculated to be within acceptable limits and are less than significant. Cancer risks are summarized at Table 5-1.

TABLE 5-1: SUMMARY OF CANCER RISKS

Time Period	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	6.44	10	NO
9 Year Exposure	1.93	10	NO

5.4 NON-CARCINOGENIC HAZARDS

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

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

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

Appendix 3.2, Tables A1 and A2, columns i-j, present the REL's and corresponding reference dose values used in the evaluation of chronic noncarcinogenic exposures. The noncancer hazard quotient for identified compounds generated from each source and a summation for each toxicological endpoint are presented in columns k-r. Tables A3 and A4, column e present the REL's for the assessment of acute exposures. Columns f-m identify each compound's hazard quotient and corresponding index for each endpoint.

For chronic noncarcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one for the 30 and 9-year exposure scenarios. For acute exposures, the hazard indices for the identified averaging times did not exceed the threshold of 1.0. Therefore, noncarcinogenic hazards are calculated to be within acceptable limits and a less than significant impact would occur.

5.5 CRITERIA POLLUTANT EXPOSURES

The State of California has promulgated strict ambient air quality standards for various pollutants. These standards were established to safeguard the public's health and welfare with specific emphasis on protecting those individuals susceptible to respiratory distress, such as asthmatics, the young, the elderly and those with existing conditions which may be affected by increased pollutant concentrations. However, recent research has shown that unhealthful respiratory responses occur with exposures to pollutants at levels that only marginally exceed clean air standards. Table 5-2 presents the CAAQS for the criteria pollutants considered in the assessment.

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

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

For the CO 1 and 8-hour averaging times and NO₂ 1-hour averaging time, background concentrations are below the current air quality standards. As such, significance is achieved when pollutant concentrations add to existing levels and create an exceedance of the CAAQS. Table 5-3 shows the pollutant concentrations collected at the nearest available monitoring site to the Project for the last three years of available data. Table 5-4 outlines the relevant significance thresholds considered to affect local air quality.

TABLE 5-2: CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Standard	Health Effects
Particulates (PM10)	>50 µg/m ³ (24 hr avg.) >20 µg/m ³ (Annual)	1) Excess deaths from short-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory disease. 2) Excess seasonal declines in pulmonary function especially in children.
Particulates (PM2.5)	>12 µg/m ³ (Annual)	1) Excess deaths and illness from long-term exposures and the exacerbation of symptoms in sensitive individuals with respiratory and cardio pulmonary disease.
Carbon Monoxide (CO)	>9.0 ppm (8 hr avg.) >20.0 ppm (1 hr avg.)	1) Aggravation of angina pectoris and other aspects of coronary heart disease. 2) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease. 3) Impairment of central nervous system functions. 4) Possible increased risk to fetuses.
Nitrogen Dioxide (NO ₂)	>0.18 ppm (1 hr avg.)	1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups. 2) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes.

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

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

TABLE 5-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2012-2014²

Pollutant/ Averaging Time	Year			
	2012	2013	2014	Maximum
Particulates (PM ₁₀) 24-Hour	177.3	157.2	187.0	187.0
Particulates (PM _{2.5}) 24-Hour	55.3	32.2	53.5	55.3
Carbon Monoxide (CO) 1-Hour	--	4.0	--	4.0
8-Hour	1.7	2.4	--	2.4
Nitrogen Dioxide (NO ₂) 1-Hour	0.072	0.073	0.071	0.073

Note: PM₁₀ concentrations are expressed in micrograms per cubic meter (µg/m³). All others are expressed in parts per million (ppm).

Source: U.S. Environmental Protection Agency http://www.epa.gov/airdata/ad_rep_mon.html

² PM10 & PM2.5 data obtained from the Azusa monitoring station. CO and NO2 data obtained from the Pomona monitoring station.

TABLE 5-4: SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Averaging Time	Pollutant Concentration
Particulates (PM10) Particulates (PM2.5)	24-Hours	2.5 µg/m ³ (operation)
Particulates (PM10) Particulates (PM2.5)	Annual	1.0 µg/m ³
Carbon Monoxide (CO)	1/8-Hours	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standards 20 ppm (1-hour) and 9 ppm (8-hour).
Nitrogen Dioxide (NO ₂)	1-Hour	SCAQMD is in attainment; impacts are significant if they cause or contribute to an exceedance of the following attainment standard 0.18 ppm.

Abbreviations: ppm: parts per million; µg/m³: micrograms per cubic meter
 Source: South Coast Air Quality Management District.

For the maximum exposed residential receptor, results of the analysis predicted freeway emissions will produce PM₁₀ concentrations of 0.85 µg/m³ and 0.53 µg/m³ for the 24-hour and annual averaging times. These values do not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively.

For PM_{2.5}, concentrations of 0.93 µg/m³ and 0.58 µg/m³ for the 24-hour and annual averaging times were predicted. These values do not exceed the SCAQMD significance thresholds of 2.5 µg/m³ and 1.0 µg/m³, respectively

The maximum modeled 1-hour average concentration for CO of 0.12 ppm when added to an existing background concentration of 4.0 ppm totals 4.12 ppm and will not cause an exceedance of the CAAQS of 20 ppm. For the 8-hour averaging time, the maximum predicted concentration of 0.08 ppm when added to an existing background level of 2.4 ppm totals 2.48 ppm and does not cause an exceedance of the CAAQS of 9 ppm.

For NO₂, a maximum one-hour concentration of 0.007 ppm was predicted. This concentration, when added to a background concentration of 0.073 ppm totals 0.08 ppm and will not cause an exceedance of the CAAQS of 0.18 ppm.

Criteria pollutant concentrations are summarized on Table 5-5.

TABLE 5-5: CRITERIA POLLUTANT CONCENTRATIONS

Scenario	Background Concentration	Modeled Concentration	Total Concentration	Significance Threshold	Exceeds Significance Threshold
PM10 24-Hour	N/A	0.85 µg/m ³	0.85 µg/m³	2.5 µg/m ³	NO
PM10 Annual	N/A	0.53 µg/m ³	0.53 µg/m³	1.0 µg/m ³	NO
PM2.5 24-Hour	N/A	0.93 µg/m ³	0.13 µg/m³	2.5 µg/m ³	NO
PM2.5 Annual	N/A	0.58 µg/m ³	0.58 µg/m³	1.0 µg/m ³	NO
CO 1-Hour	4.0 ppm	0.12 ppm	4.12 ppm	20 ppm	NO
CO 8-Hour	2.4 ppm	0.08 ppm	2.48 ppm	9 ppm	NO
NO2 1-Hour	0.073 ppm	0.007 ppm	0.08 ppm	0.18 ppm	NO

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6 REFERENCES

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<http://www.epa.gov/ttnchie1/ap42/ch13/final/c13s0201.pdf>.
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8 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Roquet Ranch Specific Plan Project. The information contained in this health risk assessment is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:
EMISSION RATE CALCULATION WORKSHEETS

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Running Rate Emission Summary

Criteria	65 mph
CO	1.383
NOx	0.240
PM10	0.0029
PM2.5	0.0034
TOG GAS	0.1031
TOG DSL	0.0877
DSL Particulate	0.036

TW/BW Emission Summary

	Total
PM10	0.048
PM2.5	0.019

EMFAC2014 Worksheet
(65 mph)

EMFAC2014 Emission Rates
Region Type: County
Region: San Bernardino (SC)
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Pollutant Classification: Criteria

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	CO_RUNEX (gms/mile)	CO_RUNEX AVE (gms/mile)	NOX_RUNEX (gms/mile)	NOx_RUNEX AVE (gms/mile)	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)	PM10_PMTW (gms/mile)	PM10_PMTW_AVE (gms/mile)	PM10_PMBW (gms/mile)	PM10_PMBW_AVE (gms/mile)	
Los Angeles	2018	Annual	LDA	DSL	Aggregated	65	28724.63967	0.0044	0.176364279	0.00077957	0.186232011	0.00082319	0.001587831	0.00000702	0.008	0.00003536	0.03675	0.000162444	
Los Angeles	2018	Annual	LDA	GAS	Aggregated	65	3570796.792	0.5495	0.530690687	0.29160724	0.070827417	0.03891869	0.001587831	0.00087249	0.008	0.00439589	0.03675	0.020193620	
Los Angeles	2018	Annual	LDT1	DSL	Aggregated	65	479.5202334	0.0001	1.532419126	0.00011308	1.311267607	0.00009676	0.137359144	0.00001014	0.008	0.00000059	0.03675	0.000002712	
Los Angeles	2018	Annual	LDT1	GAS	Aggregated	65	314311.3734	0.0484	1.903970337	0.09208990	0.224803993	0.01087316	0.003116322	0.00015073	0.008	0.00038694	0.03675	0.001777498	
Los Angeles	2018	Annual	LDT2	DSL	Aggregated	65	1870.340771	0.0003	0.09116915	0.00002624	0.056642987	0.00001630	0.005491708	0.00000158	0.008	0.00000230	0.03675	0.000010577	
Los Angeles	2018	Annual	LDT2	GAS	Aggregated	65	1259404.873	0.1938	0.841312861	0.16304767	0.117614596	0.02279388	0.001613188	0.00031264	0.008	0.00155041	0.03675	0.007122204	
Los Angeles	2018	Annual	LHD1	DSL	Aggregated	65	43037.58623	0.0066	0.639651431	0.00423626	2.757428837	0.01826181	0.020530014	0.00013597	0.012	0.00007947	0.07644	0.000506244	
Los Angeles	2018	Annual	LHD1	GAS	Aggregated	65	76636.64197	0.0118	2.216615979	0.02614079	0.389551373	0.00459402	0.001475671	0.00001740	0.008	0.00009434	0.07644	0.000901465	
Los Angeles	2018	Annual	LHD2	DSL	Aggregated	65	19199.9091	0.0030	0.457420338	0.00135147	1.912759933	0.00565134	0.016363075	0.00004835	0.012	0.00003545	0.08918	0.000263486	
Los Angeles	2018	Annual	LHD2	GAS	Aggregated	65	15528.56064	0.0024	0.976706862	0.00233393	0.253059858	0.00060471	0.001027488	0.00000246	0.008	0.00001912	0.08918	0.000213103	
Los Angeles	2018	Annual	MCY	GAS	Aggregated	65	156381.2772	0.0241	22.31471754	0.53699205	1.102127717	0.02652213	0.001816894	0.00004372	0.004	0.00009626	0.01176	0.000282998	
Los Angeles	2018	Annual	MDV	DSL	Aggregated	65	11000.48562	0.0017	0.129139804	0.00021861	0.054856344	0.00009286	0.007481669	0.00001266	0.008	0.00001354	0.03675	0.000062210	
Los Angeles	2018	Annual	MDV	GAS	Aggregated	65	833247.5065	0.1282	1.71471181	0.21986539	0.224156935	0.02874206	0.001855733	0.00023795	0.008	0.00102578	0.03675	0.004712193	
Los Angeles	2018	Annual	MH	DSL	Aggregated	65	4263.551597	0.0007	0.284599101	0.00018672	3.886912685	0.00255016	0.154834869	0.00010159	0.016	0.00001050	0.13034	0.000085515	
Los Angeles	2018	Annual	MH	GAS	Aggregated	65	20253.15079	0.0031	8.429158013	0.02627051	0.725877282	0.00226229	0.002368958	0.00000738	0.012	0.00003740	0.13034	0.000406221	
Los Angeles	2018	Annual	MHDT	DSL	Aggregated	65	66252.09079	0.0102	0.386351946	0.00393889	2.617902727	0.02668977	0.057278667	0.00058396	0.012	0.00012234	0.13034	0.001328829	
Los Angeles	2018	Annual	MHDT	GAS	Aggregated	65	12066.85304	0.0019	2.715064097	0.00504157	0.708993562	0.00131652	0.000972004	0.00000180	0.012	0.00002228	0.13034	0.000242027	
Los Angeles	2018	Annual	HHDT	DSL	Aggregated	65	46831.58491	0.0072	0.217657924	0.00156857	3.870093862	0.02789023	0.013699415	0.00009873	0.036	0.00025944	0.06174	0.000444936	
Los Angeles	2018	Annual	HHDT	GAS	Aggregated	65	480.1351579	0.0001	24.18198628	0.00178668	3.011964975	0.00022254	0.000881696	0.00000007	0.020	0.00000148	0.06174	0.000004562	
Los Angeles	2018	Annual	OBUS	DSL	Aggregated	65	3480.005814	0.0005	0.138501669	0.00007417	3.345254729	0.00179143	0.019794146	0.00001060	0.012	0.00000643	0.13034	0.000069799	
Los Angeles	2018	Annual	OBUS	GAS	Aggregated	65	5207.399675	0.0008	1.14497464	0.00091751	0.364351546	0.00029197	0.000673282	0.00000054	0.012	0.00000962	0.13034	0.000104446	
Los Angeles	2018	Annual	SBUS	DSL	Aggregated	65	2727.078339	0.0004	0.146397182	0.00006144	6.479803128	0.00271926	0.037340619	0.00001564	0.012	0.00000504	0.7448	0.000312557	
Los Angeles	2018	Annual	SBUS	GAS	Aggregated	65	1107.35129	0.0002	1.525906186	0.00026002	0.509630373	0.00008684	0.000887074	0.00000015	0.008	0.00000136	0.7448	0.000126916	
Los Angeles	2018	Annual	UBUS	DSL	Aggregated	65	3840.343912	0.0006	4.012182971	0.00237106	26.57004685	0.01570197	0.422138176	0.00024947	0.012	0.00000709	0.84182	0.000497486	
Los Angeles	2018	Annual	UBUS	GAS	Aggregated	65	1298.67764	0.0002	8.265164039	0.00165175	1.600565392	0.00031986	0.001613021	0.00000032	0.012	0.00000240	0.13034	0.000026048	
							6498428	1.0			1.383		0.240		0.003		0.008		0.040

EMFAC2014 Emission Rates
Region Type: County
Region: San Bernardino (SC)
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Pollutant Classification: TOG GAS

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2018	Annual	LDA	GAS	Aggregated	65	3570796.792	0.5698	0.024406417	0.0139
Los Angeles	2018	Annual	LDT1	GAS	Aggregated	65	314311.3734	0.0502	0.067431055	0.0034
Los Angeles	2018	Annual	LDT2	GAS	Aggregated	65	1259404.873	0.2010	0.031269574	0.0063
Los Angeles	2018	Annual	LHD1	GAS	Aggregated	65	76636.64197	0.0122	0.108046457	0.0013
Los Angeles	2018	Annual	LHD2	GAS	Aggregated	65	15528.56064	0.0025	0.051064319	0.0001
Los Angeles	2018	Annual	MCY	GAS	Aggregated	65	156381.2772	0.0250	2.686289244	0.0670
Los Angeles	2018	Annual	MDV	GAS	Aggregated	65	833247.5065	0.1330	0.071332391	0.0095
Los Angeles	2018	Annual	MH	GAS	Aggregated	65	20253.15079	0.0032	0.283948133	0.0009
Los Angeles	2018	Annual	MHDT	GAS	Aggregated	65	12066.85304	0.0019	0.158358773	0.0003
Los Angeles	2018	Annual	HHDT	GAS	Aggregated	65	480.1351579	0.0001	0.659374718	0.0001
Los Angeles	2018	Annual	OBUS	GAS	Aggregated	65	5207.399675	0.0008	0.072200468	0.0001
Los Angeles	2018	Annual	SBUS	GAS	Aggregated	65	1107.35129	0.0002	0.10011230	0.0000
Los Angeles	2018	Annual	UBUS	GAS	Aggregated	65	1298.67764	0.0002	0.884330771	0.0002
							6266721	1.0		0.103

EMFAC2014 Worksheet
(65 mph)

PM2_5_RUNEX (gms/mile)	PM2_5_RUNEX_AVE (gms/mile)	PM2_5_PMTW (gms/mile)	PM2_5_PMTW_AVE (gms/mile)	PM2_5_PMBW (gms/mile)	PM2_5_PMBW_AVE (gms/mile)
0.02214447	0.000097884	0.002	0.000008840	0.01575	0.000069619
0.001519005	0.000834672	0.002	0.001098973	0.01575	0.008654409
0.131417048	0.000009697	0.002	0.000000148	0.01575	0.000001162
0.002868671	0.000138750	0.002	0.000096735	0.01575	0.000761785
0.005254139	0.000001512	0.002	0.000000576	0.01575	0.000004533
0.001484448	0.000287688	0.002	0.000387603	0.01575	0.003052373
0.019641895	0.000130084	0.003	0.000019868	0.03276	0.000216962
0.001359461	0.000016032	0.002	0.000023586	0.03276	0.000386342
0.015655216	0.000046254	0.003	0.000008864	0.03822	0.000112923
0.000945224	0.000002259	0.002	0.000004779	0.03822	0.000091330
0.001704449	0.000041017	0.001	0.000024064	0.00504	0.000121285
0.007158015	0.000012117	0.002	0.000003386	0.01575	0.000026661
0.00171248	0.000219579	0.002	0.000256446	0.01575	0.002019511
0.148136781	0.000097191	0.004	0.000002624	0.05586	0.000036649
0.002196205	0.000006845	0.003	0.000009350	0.05586	0.000174095
0.10491214	0.001069589	0.003	0.000030585	0.05586	0.000569498
0.000886086	0.000001645	0.003	0.000005571	0.05586	0.000103726
0.022425599	0.000161612	0.009	0.000064859	0.02646	0.000190687
0.000679697	0.000000050	0.005	0.000000369	0.02646	0.000001955
0.01893786	0.000010142	0.003	0.000001607	0.05586	0.000029914
0.000619455	0.000000496	0.003	0.000002404	0.05586	0.000044762
0.03572528	0.000014992	0.003	0.000001259	0.3192	0.000133953
0.000815632	0.000000139	0.002	0.000000341	0.3192	0.000054393
0.403876666	0.000238677	0.003	0.000001773	0.36078	0.000213208
0.001488331	0.000000297	0.003	0.000000600	0.05586	0.000011163
0.003		0.002		0.017	

EMFAC2014 Worksheet
(65 mph)

EMFAC2014 Emission Rates

Region Type: County

Region: San Bernardino (SC)

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: TOG DSL

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	TOG_RUNEX (gms/mile)	TOG_RUNEX AVE (gms/mile)
Los Angeles	2018	Annual	LDA	DSL	Aggregated	65	28724.63967	0.1240	0.035774154	0.0044
Los Angeles	2018	Annual	LDT1	DSL	Aggregated	65	479.5202334	0.0021	0.206826599	0.0004
Los Angeles	2018	Annual	LDT2	DSL	Aggregated	65	1870.340771	0.0081	0.011401303	0.0001
Los Angeles	2018	Annual	LHD1	DSL	Aggregated	65	43037.58623	0.1857	0.094616392	0.0176
Los Angeles	2018	Annual	LHD2	DSL	Aggregated	65	19199.9091	0.0829	0.071113416	0.0059
Los Angeles	2018	Annual	MDV	DSL	Aggregated	65	11000.48562	0.0475	0.012513203	0.0006
Los Angeles	2018	Annual	MH	DSL	Aggregated	65	4263.551597	0.0184	0.071568562	0.0013
Los Angeles	2018	Annual	MHDT	DSL	Aggregated	65	66252.09079	0.2859	0.113638441	0.0325
Los Angeles	2018	Annual	HHDT	DSL	Aggregated	65	46831.58491	0.2021	0.060327977	0.0122
Los Angeles	2018	Annual	OBUS	DSL	Aggregated	65	3480.005814	0.0150	0.043453641	0.0007
Los Angeles	2018	Annual	SBUS	DSL	Aggregated	65	2727.078339	0.0118	0.057251048	0.0007
Los Angeles	2018	Annual	UBUS	DSL	Aggregated	65	3840.343912	0.0166	0.682828791	0.0113
							231707	1.0		0.088

EMFAC2014 Emission Rates

Region Type: County

Region: San Bernardino (SC)

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Pollutant Classification: DSL Particulate

Region	CalYr	Season	Veh_Class	Fuel	MdlYr	Speed (miles/hr)	Population (vehicles)	Wt Frac	PM10_RUNEX (gms/mile)	PM10_RUNEX AVE (gms/mile)
Los Angeles	2018	Annual	LDA	DSL	Aggregated	65	28724.63967	0.1240	0.001587831	0.0002
Los Angeles	2018	Annual	LDT1	DSL	Aggregated	65	479.5202334	0.0021	0.137359144	0.0003
Los Angeles	2018	Annual	LDT2	DSL	Aggregated	65	1870.340771	0.0081	0.005491708	0.0000
Los Angeles	2018	Annual	LHD1	DSL	Aggregated	65	43037.58623	0.1857	0.020530014	0.0038
Los Angeles	2018	Annual	LHD2	DSL	Aggregated	65	19199.9091	0.0829	0.016363075	0.0014
Los Angeles	2018	Annual	MDV	DSL	Aggregated	65	11000.48562	0.0475	0.007481669	0.0004
Los Angeles	2018	Annual	MH	DSL	Aggregated	65	4263.551597	0.0184	0.154834869	0.0028
Los Angeles	2018	Annual	MHDT	DSL	Aggregated	65	66252.09079	0.2859	0.057278667	0.0164
Los Angeles	2018	Annual	HHDT	DSL	Aggregated	65	46831.58491	0.2021	0.013699415	0.0028
Los Angeles	2018	Annual	OBUS	DSL	Aggregated	65	3480.005814	0.0150	0.019794146	0.0003
Los Angeles	2018	Annual	SBUS	DSL	Aggregated	65	2727.078339	0.0118	0.037340619	0.0004
Los Angeles	2018	Annual	UBUS	DSL	Aggregated	65	3840.343912	0.0166	0.422138176	0.0070
							231707	1.0		0.036

Emission Factor Profile Worksheet Chronic Exposure

TOG -Toxic Emissions

Gasoline/Toxic Fractions/Hot Stabilized Exhaust

Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2004	0.028414	0.021422	0.006603	0.005511	0.001533
2005	0.028205	0.021200	0.006551	0.005450	0.001520
2006	0.027938	0.021000	0.006483	0.005350	0.001510
2007	0.027660	0.020700	0.006410	0.005250	0.001490
2008	0.027338	0.020300	0.006326	0.005120	0.001470
2009	0.026849	0.019800	0.006190	0.004870	0.001450
2010	0.026521	0.019400	0.006105	0.004750	0.001430
2011	0.026521	0.019400	0.006105	0.004750	0.001430
2012	0.025656	0.018500	0.005873	0.004370	0.001380
2013	0.025656	0.018500	0.005873	0.004370	0.001380
2014	0.025656	0.018500	0.005873	0.004370	0.001380
2015	0.024349	0.017100	0.005530	0.003850	0.001310
2016	0.024349	0.017100	0.005530	0.003850	0.001310
2017	0.024349	0.017100	0.005530	0.003850	0.001310
2018	0.022182	0.014700	0.004944	0.002860	0.001190
2019	0.022182	0.014700	0.004944	0.002860	0.001130
2020	0.021079	0.013600	0.004659	0.002450	0.001130
2021	0.021079	0.013600	0.004659	0.002450	0.001130
2022	0.021079	0.013600	0.004659	0.002450	0.001130
2023	0.021079	0.013600	0.004659	0.002450	0.001130
2024	0.021079	0.013600	0.004659	0.002450	0.001130
2025	0.021079	0.013600	0.004659	0.002450	0.001130
2026	0.021079	0.013600	0.004659	0.002450	0.001130
2027	0.021079	0.013600	0.004659	0.002450	0.001130
2028	0.021079	0.013600	0.004659	0.002450	0.001130
2029	0.021079	0.013600	0.004659	0.002450	0.001130
2030	0.021079	0.013600	0.004659	0.002450	0.001130

Analysis Year

2020	0.022182	0.014700	0.004944	0.002860	0.001190
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TOG Emission Rate - gr/mi
Speed (MPH)

Acceleration	0.199
Deceleration	0.924
65	0.103

Toxic Emission Rate - gr/mi
Speed (MPH)

Acceleration	0.009129
Deceleration	0.042389
65	0.004730

Weight Fraction / Speciation

Benzene	0.484
Formaldehyde	0.320
1,3-Butadiene	0.108
Acetaldehyde	0.062
Acrolein	0.026

Emission Factor Profile Worksheet

Chronic Exposure

Diesel Particulate Emissions - PM10

PM10 Emission Rate - gr/mi	Acceleration	0.105
Speed (MPH)	Deceleration	0.215
	65	0.055

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

Emission Factor Profile Worksheet Acute/8-Hour Exposure

TOG -Toxic Emissions

Gasoline/Toxic Fractions/Hot Stabilized Exhaust

Year	Benzene	Formaldehyde	1,3-Butadiene	Acetaldehyde	Acrolein
2004	0.028414	0.021422	0.006603	0.005511	0.001533
2005	0.028205	0.021200	0.006551	0.005450	0.001520
2006	0.027938	0.021000	0.006483	0.005350	0.001510
2007	0.027660	0.020700	0.006410	0.005250	0.001490
2008	0.027338	0.020300	0.006326	0.005120	0.001470
2009	0.026849	0.019800	0.006190	0.004870	0.001450
2010	0.026521	0.019400	0.006105	0.004750	0.001430
2011	0.026521	0.019400	0.006105	0.004750	0.001430
2012	0.025656	0.018500	0.005873	0.004370	0.001380
2013	0.025656	0.018500	0.005873	0.004370	0.001380
2014	0.025656	0.018500	0.005873	0.004370	0.001380
2015	0.024349	0.017100	0.005530	0.003850	0.001310
2016	0.024349	0.017100	0.005530	0.003850	0.001310
2017	0.024349	0.017100	0.005530	0.003850	0.001310
2018	0.022182	0.014700	0.004944	0.002860	0.001190
2019	0.022182	0.014700	0.004944	0.002860	0.001130
2020	0.021079	0.013600	0.004659	0.002450	0.001130
2021	0.021079	0.013600	0.004659	0.002450	0.001130
2022	0.021079	0.013600	0.004659	0.002450	0.001130
2023	0.021079	0.013600	0.004659	0.002450	0.001130
2024	0.021079	0.013600	0.004659	0.002450	0.001130
2025	0.021079	0.013600	0.004659	0.002450	0.001130
2026	0.021079	0.013600	0.004659	0.002450	0.001130
2027	0.021079	0.013600	0.004659	0.002450	0.001130
2028	0.021079	0.013600	0.004659	0.002450	0.001130
2029	0.021079	0.013600	0.004659	0.002450	0.001130
2030	0.021079	0.013600	0.004659	0.002450	0.001130

Analysis Year					
2020	0.022182	0.014700	0.004944	0.002860	0.001190

TOG Emission Rate - gr/mi
Speed (MPH)

Acceleration	0.199
Deceleration	0.924
65	0.103

Toxic Emission Rate - gr/mi
Speed (MPH)

Acceleration	0.009129
Deceleration	0.042389
65	0.004730

Weight Fraction / Speciation

Benzene	0.484
Formaldehyde	0.320
1,3-Butadiene	0.108
Acetaldehyde	0.062
Acrolein	0.026

Emission Factor Profile Worksheet Acute/8-Hour Exposure

TOG -Toxic Emissions

Diesel/Toxic Fractions/Hot Stabilized Exhaust

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

Analysis Year					
2020	0.020009	0.147133	0.001900	0.073526	0

TOG Emission Rate - gr/mi
Speed (MPH)

Acceleration 0.238
Deceleration 1.845
65 0.088

Toxic Emission Rate - gr/mi
Speed (MPH)

Acceleration **0.057731**
Deceleration **0.447538**
65 **0.021273**

Weight Fraction / Speciation

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

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

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

CO Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Pollutant Mass Emission Rate (gr/mi)	1.450

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

Pollutant Emission Rate (gr/sec)	0.59632
Pollutant Emission Rate (gr/sec/source)	2.39E-02

SB/I-215

CO Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Pollutant Mass Emission Rate (gr/mi)	1.450

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

Pollutant Emission Rate (gr/sec)	0.59632
Pollutant Emission Rate (gr/sec/source)	2.39E-02

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

NOx Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Pollutant Mass Emission Rate (gr/mi)	0.240

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

Pollutant Emission Rate (gr/sec)	0.09870
Pollutant Emission Rate (gr/sec/source)	3.95E-03

SB/I-215

NOx Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Pollutant Mass Emission Rate (gr/mi)	0.240

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

Pollutant Emission Rate (gr/sec)	0.09870
Pollutant Emission Rate (gr/sec/source)	3.95E-03

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

PM10 Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2014 Emissions Run (g/mi)	0.0037
Emfac2014 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.121

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

PM10 Reentrainment Emission Rate (gr/sec)	0.049829
PM10 Reentrainment Emission Rate (gr/sec/source)	1.99E-03

SB/I-215

PM10 Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Particle Size Multiplier (g/mi)	1.0
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2014 Emissions Run (g/mi)	0.0037
Emfac2014 Emissions TW/BW (g/mi)	0.048
PM10 Reentrainment Mass Emission Rate (gr/mi)	0.121

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

PM10 Reentrainment Emission Rate (gr/sec)	0.049829
PM10 Reentrainment Emission Rate (gr/sec/source)	1.99E-03

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

PM2.5 Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2014 Emissions Run (g/mi)	0.0034
Emfac2014 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.040

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

PM2.5 Reentrainment Emission Rate (gr/sec)	0.016354
PM2.5 Reentrainment Emission Rate (gr/sec/source)	6.54E-04

SB/I-215

PM2.5 Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3119
Particle Size Multiplier (g/mi)	0.25
Road Surface Silt Loading (g/m2)	0.02
Average Vehicle Weight (tons)	2.4
Emfac2014 Emissions Run (g/mi)	0.0034
Emfac2014 Emissions TW/BW (g/mi)	0.019
PM2.5 Reentrainment Mass Emission Rate (gr/mi)	0.040

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

PM2.5 Reentrainment Emission Rate (gr/sec)	0.016354
PM2.5 Reentrainment Emission Rate (gr/sec/source)	6.54E-04

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

TOG GAS Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3008
Pollutant Mass Emission Rate (gr/mi)	0.004730

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

Pollutant Emission Rate (gr/sec)	0.00188
Pollutant Emission Rate (gr/sec/source)	7.50E-05

SB/I-215

TOG GAS Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	3008
Pollutant Mass Emission Rate (gr/mi)	0.004730

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

Pollutant Emission Rate (gr/sec)	0.00188
Pollutant Emission Rate (gr/sec/source)	7.50E-05

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

TOG DSL Emissions

Number of Sources	1
Link Length (meters)	1.0
Volume/Baseline (VPH)	107
Pollutant Mass Emission Rate (gr/mi)	0.021273

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

Pollutant Emission Rate (gr/sec)	0.00000
Pollutant Emission Rate (gr/sec/source)	3.93E-07

SB/I-215

TOG DSL Emissions

Number of Sources	1
Link Length (meters)	1.0
Volume/Baseline (VPH)	109
Pollutant Mass Emission Rate (gr/mi)	0.021273

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

Pollutant Emission Rate (gr/sec)	0.00000
Pollutant Emission Rate (gr/sec/source)	4.00E-07

On-Road Mobile Sources
Emission Rate Computation

NB/I-215

DSL Particulate Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	111
Pollutant Mass Emission Rate (gr/mi)	0.036

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

Pollutant Emission Rate (gr/sec)	0.00053
Pollutant Emission Rate (gr/sec/source)	2.11E-05

SB/I-215

DSL Particulate Emissions

Number of Sources	25
Link Length (meters)	763.9
Volume/Baseline (VPH)	111
Pollutant Mass Emission Rate (gr/mi)	0.036

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

Pollutant Emission Rate (gr/sec)	0.00053
Pollutant Emission Rate (gr/sec/source)	2.11E-05

All
DSL

6498428
231707

Diesel Fleet Mix (weight fraction)

0.036

Link Counts	Sources	AADT	VPH all	VPH gas	VPH diesel
I-215 NB		74856	3119	3008	111
I-215 SB		74856	3119	3008	111

APPENDIX 3.2:
RISK CALCULATION WORKSHEETS

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Table A1
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
Residential Exposure Scenario (30 Year)

Source (a)	Concentration		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk			Noncarcinogenic Hazards / Toxicological Endpoints*									
	(ug/m3) (b)	(mg/m3) (c)			URF (ug/m3) (f)	CPF (mg/kg/day) (g)	RISK (h)	REL (ug/m3) (i)	RfD (mg/kg/day) (j)	RESP (k)	CNS/PNS (l)	CV/BL (m)	IMMUN (n)	KIDN (o)	GI/LV (p)	REPRO (q)	EYES (r)
	Freeway	0.13178			1.3E-04	4.60E-01	Benzene	2.9E-05	1.0E-01	7.2E-07	6.0E+01	1.7E-02		9.7E-04	9.7E-04		
			3.32E-01	Formaldehyde	6.0E-06	2.1E-02	1.1E-07	9.0E+00	2.6E-03	4.7E-03							
			1.05E-01	1,3-Butadiene	1.7E-04	6.0E-01	9.7E-07	2.0E+01	5.7E-03							6.6E-04	
			7.80E-02	Acetaldehyde	2.7E-06	1.0E-02	1.2E-08	1.4E+02	4.0E-02	7.0E-05							
			2.50E-02	Acrolein				3.5E-01	1.0E-04	9.0E-03							
	0.03758	3.8E-05	1.00E+00	Diesel Particulates	3.0E-04	1.1E+00	4.6E-06	5.0E+00	1.4E-03	7.2E-03							
Total							6.44E-06			2.1E-02	9.7E-04	9.7E-04	0.0E+00	0.0E+00	0.0E+00	1.6E-03	0.0E+00

* Key to Toxicological Endpoints

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

Note: Exposure factors used to calculate contaminant intake

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

Table A2
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
Residential Exposure Scenario (9 Year)

Source (a)	Concentration		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk			Noncarcinogenic Hazards / Toxicological Endpoints*									
	(ug/m3) (b)	(mg/m3) (c)			URF (ug/m3) (f)	CPF (mg/kg/day) (g)	RISK (h)	REL (ug/m3) (i)	RfD (mg/kg/day) (j)	RESP (k)	CNS/PNS (l)	CV/BL (m)	IMMUN (n)	KIDN (o)	GI/LV (p)	REPRO (q)	EYES (r)
	Freeway	0.13178			1.3E-04	4.60E-01	Benzene	2.9E-05	1.0E-01	2.2E-07	6.0E+01	1.7E-02		9.7E-04	9.7E-04		
			3.32E-01	Formaldehyde	6.0E-06	2.1E-02	3.2E-08	9.0E+00	2.6E-03	4.7E-03							
			1.05E-01	1,3-Butadiene	1.7E-04	6.0E-01	2.9E-07	2.0E+01	5.7E-03							6.6E-04	
			7.80E-02	Acetaldehyde	2.7E-06	1.0E-02	3.6E-09	1.4E+02	4.0E-02	7.0E-05							
			2.50E-02	Acrolein				3.5E-01	1.0E-04	9.0E-03							
	0.03758	3.8E-05	1.00E+00	Diesel Particulates	3.0E-04	1.1E+00	1.4E-06	5.0E+00	1.4E-03	7.2E-03							
Total							1.93E-06			2.1E-02	9.7E-04	9.7E-04	0.0E+00	0.0E+00	0.0E+00	1.6E-03	0.0E+00

* Key to Toxicological Endpoints

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

Note: Exposure factors used to calculate contaminant intake

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

Table A3
Quantification of Noncarcinogenic Acute Hazards
1-Hour Exposure / Average Traffic Scenario

Source (a)	Concentration (ug/m3) (b)	Weight Fraction (c)	Contaminant (d)	Noncarcinogenic Hazards / Toxicological Endpoints*								
				REL (ug/m3) (e)	RESP (f)	CNS/PNS (g)	CV/BL (h)	IMMUN (i)	KIDN (j)	GI/LV (k)	REPRO (l)	EYES (m)
Freeway TOG	1.06000	4.60E-01	Benzene	1.3E+03			3.8E-04	3.8E-04			3.8E-04	
			Formaldehyde	5.5E+01							6.4E-03	
			Acetaldehyde	4.7E+02	1.8E-04						1.8E-04	
Freeway Diesel/TOG	0.18014	8.20E-02	Acrolein	2.5E+00	1.1E-02							1.1E-02
			Benzene	1.3E+03			1.1E-05	1.1E-05			1.1E-05	
			Formaldehyde	5.5E+01							2.0E-03	
Freeway Diesel/TOG	0.18014	3.03E-01	Acetaldehyde	4.7E+02	1.2E-04							1.2E-04
			Acetaldehyde	4.7E+02	1.2E-04							1.2E-04
Total					1.1E-02	0.0E+00	3.9E-04	3.9E-04	0.0E+00	0.0E+00	3.9E-04	1.9E-02

* Key to Toxicological Endpoints

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

Table A4
Quantification of Noncarcinogenic Acute Hazards
8-Hour Exposure / Average Traffic Scenario

Source (a)	Concentration (ug/m3) (b)	Weight Fraction (c)	Contaminant (d)	Noncarcinogenic Hazards / Toxicological Endpoints*									
				REL (ug/m3) (e)	RESP (f)	CNS/PNS (g)	CV/BL (h)	IMMUN (i)	KIDN (j)	GI/LV (k)	REPRO (l)	EYES (m)	
Freeway TOG	0.63600	3.32E-01	Formaldehyde	9.0E+00	2.3E-02								
		7.80E-02	Acetaldehyde	3.0E+02	1.7E-04								
		2.50E-02	Acrolein	7.0E-01	2.3E-02								
Freeway Diesel/TOG	0.10350	6.07E-01	Formaldehyde	9.0E+00	7.0E-03								
		3.03E-01	Acetaldehyde	3.0E+02	1.0E-04								
Total				5.3E-02	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

* Key to Toxicological Endpoints

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

APPENDIX 3.3:
AERMOD MODEL OUTPUT SUMMARY FILE

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** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 9/1/2016
** File: C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.ADI
**

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*****
**
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*****

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** AERMOD Control Pathway
*****
**
**

```

```

CO STARTING
TITLEONE C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc
MODELOPT DFAULT CONC
AVERTIME ANNUAL
URBANOPT 2015355
POLLUTID DPM
RUNORNOT RUN
ERRORFIL RoquetRanch.err
CO FINISHED

```

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**
*****
** AERMOD Source Pathway
*****
**
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **

```

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** -----
** Line Source Represented by Separated Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC I-215 NB
** PREFIX
** Length of Side = 16.00
** Configuration = Separated
** Emission Rate = 0.00053
** Vertical Dimension = 6.02
** SZINIT = 2.80
** Nodes = 2
** 468775.347, 3764210.424, 279.00, 0.00, 14.49
** 469240.297, 3764816.541, 280.32, 0.00, 14.49
** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.	Emission Rate	Vertical Dimension
L0000285	468780.216	3764216.771	279.00	0.00053	6.02
L0000286	468799.183	3764241.497	278.28	0.00053	6.02
L0000287	468818.150	3764266.223	278.27	0.00053	6.02
L0000288	468837.117	3764290.949	278.57	0.00053	6.02
L0000289	468856.084	3764315.675	278.43	0.00053	6.02
L0000290	468875.052	3764340.401	278.17	0.00053	6.02
L0000291	468894.019	3764365.127	278.13	0.00053	6.02
L0000292	468912.986	3764389.853	278.15	0.00053	6.02
L0000293	468931.953	3764414.579	277.58	0.00053	6.02
L0000294	468950.920	3764439.305	277.39	0.00053	6.02
L0000295	468969.887	3764464.031	276.87	0.00053	6.02
L0000296	468988.854	3764488.757	276.04	0.00053	6.02
L0000297	469007.822	3764513.483	275.81	0.00053	6.02
L0000298	469026.789	3764538.209	276.23	0.00053	6.02
L0000299	469045.756	3764562.935	276.43	0.00053	6.02
L0000300	469064.723	3764587.660	276.98	0.00053	6.02
L0000301	469083.690	3764612.386	278.05	0.00053	6.02
L0000302	469102.657	3764637.112	278.53	0.00053	6.02

DPM

LOCATION	L0000303	VOLUME	469121.625	3764661.838	279.11
LOCATION	L0000304	VOLUME	469140.592	3764686.564	279.00
LOCATION	L0000305	VOLUME	469159.559	3764711.290	279.38
LOCATION	L0000306	VOLUME	469178.526	3764736.016	279.63
LOCATION	L0000307	VOLUME	469197.493	3764760.742	279.92
LOCATION	L0000308	VOLUME	469216.460	3764785.468	280.00
LOCATION	L0000309	VOLUME	469235.427	3764810.194	280.06

** End of LINE VOLUME Source ID = SLINE1

 ** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.00053

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468757.411, 3764220.808, 279.00, 0.00, 14.49

** 469222.361, 3764826.925, 280.00, 0.00, 14.49

LOCATION	L0000310	VOLUME	468762.280	3764227.155	278.76
LOCATION	L0000311	VOLUME	468781.247	3764251.881	277.94
LOCATION	L0000312	VOLUME	468800.214	3764276.607	277.71
LOCATION	L0000313	VOLUME	468819.181	3764301.333	278.09
LOCATION	L0000314	VOLUME	468838.148	3764326.059	277.97
LOCATION	L0000315	VOLUME	468857.116	3764350.785	277.85
LOCATION	L0000316	VOLUME	468876.083	3764375.511	277.85
LOCATION	L0000317	VOLUME	468895.050	3764400.237	277.83
LOCATION	L0000318	VOLUME	468914.017	3764424.963	277.17
LOCATION	L0000319	VOLUME	468932.984	3764449.689	276.44
LOCATION	L0000320	VOLUME	468951.951	3764474.415	276.38
LOCATION	L0000321	VOLUME	468970.919	3764499.141	275.70
LOCATION	L0000322	VOLUME	468989.886	3764523.867	275.00
LOCATION	L0000323	VOLUME	469008.853	3764548.593	275.63
LOCATION	L0000324	VOLUME	469027.820	3764573.318	275.48
LOCATION	L0000325	VOLUME	469046.787	3764598.044	275.83
LOCATION	L0000326	VOLUME	469065.754	3764622.770	276.62
LOCATION	L0000327	VOLUME	469084.721	3764647.496	277.31
LOCATION	L0000328	VOLUME	469103.689	3764672.222	278.67
LOCATION	L0000329	VOLUME	469122.656	3764696.948	279.52
LOCATION	L0000330	VOLUME	469141.623	3764721.674	279.72
LOCATION	L0000331	VOLUME	469160.590	3764746.400	279.62
LOCATION	L0000332	VOLUME	469179.557	3764771.126	279.57
LOCATION	L0000333	VOLUME	469198.524	3764795.852	280.00
LOCATION	L0000334	VOLUME	469217.491	3764820.578	280.00

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

SRCPARAM	L0000285	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000286	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000287	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000288	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000289	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000290	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000291	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000292	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000293	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000294	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000295	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000296	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000297	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000298	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000299	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000300	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000301	0.0000212	0.00	14.49	2.80

				DPM	
SRCPARAM	L0000302	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000303	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000304	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000305	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000306	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000307	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000308	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000309	0.0000212	0.00	14.49	2.80

** -----

** LINE VOLUME Source ID = SLINE2

SRCPARAM	L0000310	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000311	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000312	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000313	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000314	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000315	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000316	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000317	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000318	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000319	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000320	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000321	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000322	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000323	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000324	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000325	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000326	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000327	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000328	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000329	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000330	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000331	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000332	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000333	0.0000212	0.00	14.49	2.80
SRCPARAM	L0000334	0.0000212	0.00	14.49	2.80

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URBANSRC ALL
SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED RoquetRanch.rou
RE FINISHED
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE snbo8.sfc
  PROFILE snbo8.PFL
  SURFDATA 0 2007
  UAIRDATA 3190 2007
  SITEDATA 99999 2007
  PROFBASE 305.0 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**

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**

OU STARTING

** Auto-Generated Plotfiles

PLOTFILE ANNUAL ALL RoquetRanch.AD\AN00GALL.PLT 31

SUMMFILE RoquetRanch.sum

OU FINISHED

*** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
09/01/16
*** AERMET - VERSION 14134 *** ***
16:02:59 ***

PAGE 1

**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** 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 50 Source(s),
for Total of 1 Urban Area(s):

Urban Population = 2015355.0 ; 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:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

**Model Calculates ANNUAL Averages Only

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: RoquetRanch.err

**File for Summary of Results: RoquetRanch.sum

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000285	0	0.21200E-04	468780.2	3764216.8	279.0	0.00	14.49	2.80	YES	
L0000286	0	0.21200E-04	468799.2	3764241.5	278.3	0.00	14.49	2.80	YES	
L0000287	0	0.21200E-04	468818.1	3764266.2	278.3	0.00	14.49	2.80	YES	
L0000288	0	0.21200E-04	468837.1	3764290.9	278.6	0.00	14.49	2.80	YES	
L0000289	0	0.21200E-04	468856.1	3764315.7	278.4	0.00	14.49	2.80	YES	
L0000290	0	0.21200E-04	468875.1	3764340.4	278.2	0.00	14.49	2.80	YES	
L0000291	0	0.21200E-04	468894.0	3764365.1	278.1	0.00	14.49	2.80	YES	
L0000292	0	0.21200E-04	468913.0	3764389.9	278.2	0.00	14.49	2.80	YES	
L0000293	0	0.21200E-04	468932.0	3764414.6	277.6	0.00	14.49	2.80	YES	
L0000294	0	0.21200E-04	468950.9	3764439.3	277.4	0.00	14.49	2.80	YES	
L0000295	0	0.21200E-04	468969.9	3764464.0	276.9	0.00	14.49	2.80	YES	
L0000296	0	0.21200E-04	468988.9	3764488.8	276.0	0.00	14.49	2.80	YES	
L0000297	0	0.21200E-04	469007.8	3764513.5	275.8	0.00	14.49	2.80	YES	
L0000298	0	0.21200E-04	469026.8	3764538.2	276.2	0.00	14.49	2.80	YES	
L0000299	0	0.21200E-04	469045.8	3764562.9	276.4	0.00	14.49	2.80	YES	
L0000300	0	0.21200E-04	469064.7	3764587.7	277.0	0.00	14.49	2.80	YES	
L0000301	0	0.21200E-04	469083.7	3764612.4	278.1	0.00	14.49	2.80	YES	
L0000302	0	0.21200E-04	469102.7	3764637.1	278.5	0.00	14.49	2.80	YES	
L0000303	0	0.21200E-04	469121.6	3764661.8	279.1	0.00	14.49	2.80	YES	
L0000304	0	0.21200E-04	469140.6	3764686.6	279.0	0.00	14.49	2.80	YES	
L0000305	0	0.21200E-04	469159.6	3764711.3	279.4	0.00	14.49	2.80	YES	
L0000306	0	0.21200E-04	469178.5	3764736.0	279.6	0.00	14.49	2.80	YES	
L0000307	0	0.21200E-04	469197.5	3764760.7	279.9	0.00	14.49	2.80	YES	
L0000308	0	0.21200E-04	469216.5	3764785.5	280.0	0.00	14.49	2.80	YES	
L0000309	0	0.21200E-04	469235.4	3764810.2	280.1	0.00	14.49	2.80	YES	
L0000310	0	0.21200E-04	468762.3	3764227.2	278.8	0.00	14.49	2.80	YES	
L0000311	0	0.21200E-04	468781.2	3764251.9	277.9	0.00	14.49	2.80	YES	
L0000312	0	0.21200E-04	468800.2	3764276.6	277.7	0.00	14.49	2.80	YES	
L0000313	0	0.21200E-04	468819.2	3764301.3	278.1	0.00	14.49	2.80	YES	
L0000314	0	0.21200E-04	468838.1	3764326.1	278.0	0.00	14.49	2.80	YES	

										DPM
L0000315	0	0.21200E-04	468857.1	3764350.8	277.9	0.00	14.49	2.80	YES	
L0000316	0	0.21200E-04	468876.1	3764375.5	277.9	0.00	14.49	2.80	YES	
L0000317	0	0.21200E-04	468895.0	3764400.2	277.8	0.00	14.49	2.80	YES	
L0000318	0	0.21200E-04	468914.0	3764425.0	277.2	0.00	14.49	2.80	YES	
L0000319	0	0.21200E-04	468933.0	3764449.7	276.4	0.00	14.49	2.80	YES	
L0000320	0	0.21200E-04	468952.0	3764474.4	276.4	0.00	14.49	2.80	YES	
L0000321	0	0.21200E-04	468970.9	3764499.1	275.7	0.00	14.49	2.80	YES	
L0000322	0	0.21200E-04	468989.9	3764523.9	275.0	0.00	14.49	2.80	YES	
L0000323	0	0.21200E-04	469008.9	3764548.6	275.6	0.00	14.49	2.80	YES	
L0000324	0	0.21200E-04	469027.8	3764573.3	275.5	0.00	14.49	2.80	YES	

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
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 *** AERMET - VERSION 14134 *** ***
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 **MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000325	0	0.21200E-04	469046.8	3764598.0	275.8	0.00	14.49	2.80	YES	
L0000326	0	0.21200E-04	469065.8	3764622.8	276.6	0.00	14.49	2.80	YES	
L0000327	0	0.21200E-04	469084.7	3764647.5	277.3	0.00	14.49	2.80	YES	
L0000328	0	0.21200E-04	469103.7	3764672.2	278.7	0.00	14.49	2.80	YES	
L0000329	0	0.21200E-04	469122.7	3764696.9	279.5	0.00	14.49	2.80	YES	
L0000330	0	0.21200E-04	469141.6	3764721.7	279.7	0.00	14.49	2.80	YES	
L0000331	0	0.21200E-04	469160.6	3764746.4	279.6	0.00	14.49	2.80	YES	
L0000332	0	0.21200E-04	469179.6	3764771.1	279.6	0.00	14.49	2.80	YES	
L0000333	0	0.21200E-04	469198.5	3764795.9	280.0	0.00	14.49	2.80	YES	
L0000334	0	0.21200E-04	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
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 **MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL L0000292	L0000285 , L0000286 , L0000287 , L0000288 , L0000289 , L0000290 , L0000291 ,
L0000300	L0000293 , L0000294 , L0000295 , L0000296 , L0000297 , L0000298 , L0000299 ,
L0000308	L0000301 , L0000302 , L0000303 , L0000304 , L0000305 , L0000306 , L0000307 ,
L0000316	L0000309 , L0000310 , L0000311 , L0000312 , L0000313 , L0000314 , L0000315 ,
L0000324	L0000317 , L0000318 , L0000319 , L0000320 , L0000321 , L0000322 , L0000323 ,

DPM

L0000332 , L0000325 , L0000326 , L0000327 , L0000328 , L0000329 , L0000330 , L0000331 ,

L0000333 , L0000334 ,
 ♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
 09/01/16
 *** AERMET - VERSION 14134 *** ***
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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

URBAN ID	URBAN POP	SOURCE IDs
-----	-----	-----
L0000291 , L0000292 ,	2015355.	L0000285 , L0000286 , L0000287 , L0000288 , L0000289 , L0000290 ,
L0000300 ,	L0000293 , L0000294 , L0000295 , L0000296 , L0000297 , L0000298 , L0000299 ,	
L0000308 ,	L0000301 , L0000302 , L0000303 , L0000304 , L0000305 , L0000306 , L0000307 ,	
L0000316 ,	L0000309 , L0000310 , L0000311 , L0000312 , L0000313 , L0000314 , L0000315 ,	
L0000324 ,	L0000317 , L0000318 , L0000319 , L0000320 , L0000321 , L0000322 , L0000323 ,	
L0000332 ,	L0000325 , L0000326 , L0000327 , L0000328 , L0000329 , L0000330 , L0000331 ,	

L0000333 , L0000334 ,
 ♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\RoquetRanch.isc ***
 09/01/16
 *** AERMET - VERSION 14134 *** ***
 16:02:59 ***

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(468722.6, 3764442.7, 273.6, 739.0, 0.0);	(468749.3, 3764442.7, 274.0, 739.0,
0.0);	0.0);
(468775.9, 3764442.7, 274.5, 739.0, 0.0);	(468802.6, 3764442.7, 274.9, 739.0,
0.0);	0.0);
(468896.0, 3764459.6, 273.0, 739.0, 0.0);	(468722.6, 3764459.6, 273.1, 739.0,
0.0);	0.0);
(468749.3, 3764459.6, 274.0, 739.0, 0.0);	(468775.9, 3764459.6, 274.0, 739.0,
0.0);	0.0);
(468802.6, 3764459.6, 274.8, 739.0, 0.0);	(468829.2, 3764459.6, 275.0, 739.0,
0.0);	0.0);
(468722.6, 3764476.5, 273.0, 739.0, 0.0);	(468749.3, 3764476.5, 273.4, 739.0,
0.0);	0.0);
(468775.9, 3764476.5, 273.9, 739.0, 0.0);	(468802.6, 3764476.5, 274.3, 739.0,
0.0);	0.0);
(468829.2, 3764476.5, 274.4, 739.0, 0.0);	(468749.3, 3764493.5, 273.0, 739.0,
0.0);	0.0);

(468775.9, 3764493.5, 273.8, 739.0, 0.0);	(468802.6, 3764493.5, 274.0, 739.0, 0.0);
(468829.2, 3764493.5, 274.0, 739.0, 0.0);	(468749.3, 3764510.4, 273.0, 739.0, 0.0);
(468775.9, 3764510.4, 273.3, 739.0, 0.0);	(468802.6, 3764510.4, 273.8, 739.0, 0.0);
(468829.2, 3764510.4, 274.0, 739.0, 0.0);	(468775.9, 3764527.4, 273.0, 739.0, 0.0);
(468802.6, 3764527.4, 273.6, 739.0, 0.0);	(468829.2, 3764527.4, 273.9, 739.0, 0.0);
(468855.9, 3764527.4, 274.4, 739.0, 0.0);	(468775.9, 3764544.3, 273.1, 739.0, 0.0);
(468802.6, 3764544.3, 273.1, 739.0, 0.0);	(468829.2, 3764544.3, 273.7, 739.0, 0.0);
(468855.9, 3764544.3, 274.1, 739.0, 0.0);	(468802.6, 3764561.2, 273.1, 739.0, 0.0);
(468829.2, 3764561.2, 273.6, 739.0, 0.0);	(468855.9, 3764561.2, 274.0, 739.0, 0.0);
(468829.2, 3764578.2, 273.6, 739.0, 0.0);	(468855.9, 3764578.2, 274.0, 739.0, 0.0);
(468882.5, 3764578.2, 274.4, 739.0, 0.0);	(468829.2, 3764595.1, 273.6, 739.0, 0.0);
(468855.9, 3764595.1, 274.0, 739.0, 0.0);	(468882.5, 3764595.1, 274.4, 739.0, 0.0);
(468829.2, 3764612.1, 273.7, 739.0, 0.0);	(468855.9, 3764612.1, 274.0, 739.0, 0.0);
(468882.5, 3764612.1, 274.5, 739.0, 0.0);	(468855.9, 3764629.0, 274.3, 739.0, 0.0);
(468882.5, 3764629.0, 275.3, 739.0, 0.0);	(468909.2, 3764629.0, 276.4, 739.0, 0.0);
(468855.9, 3764645.9, 274.6, 739.0, 0.0);	(468882.5, 3764645.9, 275.9, 739.0, 0.0);
(468909.2, 3764645.9, 277.1, 739.0, 0.0);	(468882.5, 3764662.9, 276.3, 739.0, 0.0);

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

DPM
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,
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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

Surface file: snbo8.sfc Met Version:
 14134
 Profile file: snbo8.PFL
 Surface format: FREE
 Profile format: FREE
 Surface station no.: 0 Upper air station no.: 3190
 Name: UNKNOWN Name: UNKNOWN
 Year: 2007 Year: 2007

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

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA
07	01	01	1	01	-0.5	0.030	-9.000	-9.000	-999.	12.	4.4	0.32	1.00	1.00	0.50	27.	9.1	279.9	5.5
07	01	01	1	02	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	7.	9.1	279.2	5.5
07	01	01	1	03	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	97.	9.1	278.8	5.5
07	01	01	1	04	-0.7	0.030	-9.000	-9.000	-999.	12.	3.1	0.32	1.00	1.00	0.50	148.	9.1	278.1	5.5
07	01	01	1	05	-2.4	0.054	-9.000	-9.000	-999.	30.	5.5	0.32	1.00	1.00	0.90	87.	9.1	278.1	5.5
07	01	01	1	06	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	208.	9.1	277.0	5.5
07	01	01	1	07	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	156.	9.1	277.5	5.5
07	01	01	1	08	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	0.52	0.90	60.	9.1	277.5	5.5
07	01	01	1	09	34.6	0.390	0.621	0.005	241.	585.	-149.6	0.32	1.00	0.31	3.10	264.	9.1	282.5	5.5
07	01	01	1	10	78.0	0.267	1.066	0.005	541.	341.	-21.3	0.32	1.00	0.24	1.80	242.	9.1	289.2	5.5
07	01	01	1	11	112.9	0.612	1.395	0.019	839.	1149.	-176.9	0.32	1.00	0.21	4.90	82.	9.1	290.4	5.5
07	01	01	1	12	130.3	0.615	1.611	0.020	1120.	1158.	-155.8	0.32	1.00	0.20	4.90	74.	9.1	290.9	5.5
07	01	01	1	13	128.2	0.671	1.662	0.015	1250.	1315.	-204.9	0.32	1.00	0.20	5.40	59.	9.1	290.9	5.5
07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4	5.5
07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4	5.5
07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0	5.5
07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9	5.5
07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2	5.5
07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9	5.5

													DPM					
07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9
5.5																		
07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9
5.5																		
07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2
5.5																		
07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9
5.5																		
07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2
5.5																		

First hour of profile data
 YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
 07 01 01 01 5.5 0 -999. -99.00 279.9 99.0 -99.00 -99.00
 07 01 01 01 9.1 1 27. 0.50 -999.0 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
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 **MODELOPTs: RegDFAULT CONC ELEV URBAN
 *** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): L0000285 , L0000286 , L0000287 , L0000288 ,
 L0000289 , L0000290 , L0000291 , L0000292 , L0000293 , L0000294 , L0000295 , L0000296 ,
 L0000297 , L0000298 , L0000299 , L0000300 , L0000301 , L0000302 , L0000303 , L0000304 ,
 L0000305 , L0000306 , L0000307 , L0000308 , L0000309 , L0000310 , L0000311 , L0000312 ,
 . . . ,

*** 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		
468722.64	3764442.66	0.01876	468749.29	3764442.66	0.02223		
468775.94	3764442.66	0.02678	468802.59	3764442.66	0.03296		
468695.99	3764459.60	0.01535	468722.64	3764459.60	0.01780		
468749.29	3764459.60	0.02093	468775.94	3764459.60	0.02487		
468802.59	3764459.60	0.03020	468829.24	3764459.60	0.03758		
468722.64	3764476.54	0.01694	468749.29	3764476.54	0.01972		
468775.94	3764476.54	0.02324	468802.59	3764476.54	0.02782		
468829.24	3764476.54	0.03401	468749.29	3764493.48	0.01863		
468775.94	3764493.48	0.02178	468802.59	3764493.48	0.02577		
468829.24	3764493.48	0.03104	468749.29	3764510.42	0.01766		
468775.94	3764510.42	0.02045	468802.59	3764510.42	0.02400		
468829.24	3764510.42	0.02858	468775.94	3764527.36	0.01927		

DPM

468802.59	3764527.36	0.02242	468829.24	3764527.36	0.02644
468855.89	3764527.36	0.03180	468775.94	3764544.30	0.01822
468802.59	3764544.30	0.02100	468829.24	3764544.30	0.02456
468855.89	3764544.30	0.02918	468802.59	3764561.24	0.01975
468829.24	3764561.24	0.02290	468855.89	3764561.24	0.02693
468829.24	3764578.18	0.02143	468855.89	3764578.18	0.02497
468882.54	3764578.18	0.02960	468829.24	3764595.12	0.02011
468855.89	3764595.12	0.02324	468882.54	3764595.12	0.02727
468829.24	3764612.06	0.01891	468855.89	3764612.06	0.02170
468882.54	3764612.06	0.02524	468855.89	3764629.00	0.02032
468882.54	3764629.00	0.02347	468909.19	3764629.00	0.02748
468855.89	3764645.94	0.01907	468882.54	3764645.94	0.02187
468909.19	3764645.94	0.02536	468882.54	3764662.88	0.02042

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

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

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

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL	1ST HIGHEST VALUE IS	0.03758 AT (468829.24, 3764459.60, 275.01, 739.00, 0.00)	DC
	2ND HIGHEST VALUE IS	0.03401 AT (468829.24, 3764476.54, 274.45, 739.00, 0.00)	DC
	3RD HIGHEST VALUE IS	0.03296 AT (468802.59, 3764442.66, 274.90, 739.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.03180 AT (468855.89, 3764527.36, 274.40, 739.00, 0.00)	DC
	5TH HIGHEST VALUE IS	0.03104 AT (468829.24, 3764493.48, 274.00, 739.00, 0.00)	DC
	6TH HIGHEST VALUE IS	0.03020 AT (468802.59, 3764459.60, 274.76, 739.00, 0.00)	DC
	7TH HIGHEST VALUE IS	0.02960 AT (468882.54, 3764578.18, 274.42, 739.00, 0.00)	DC
	8TH HIGHEST VALUE IS	0.02918 AT (468855.89, 3764544.30, 274.10, 739.00, 0.00)	DC
	9TH HIGHEST VALUE IS	0.02858 AT (468829.24, 3764510.42, 274.00, 739.00, 0.00)	DC
	10TH HIGHEST VALUE IS	0.02782 AT (468802.59, 3764476.54, 274.34, 739.00, 0.00)	DC

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

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1086 Informational Message(s)
A Total of 43824 Hours Were Processed
A Total of 37 Calm Hours Identified
A Total of 1049 Missing Hours Identified (2.39 Percent)

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

***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

**

**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 9/7/2016
** File: C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.ADI
**

**
**

** AERMOD Control Pathway

**
**

CO STARTING
TITLEONE C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.isc
MODELOPT DFAULT CONC
AVERTIME 24 ANNUAL
URBANOPT 2015355
POLLUTID PM_10
RUNORNOT RUN
ERRORFIL PM10.err
CO FINISHED

**

** AERMOD Source Pathway

**
**

SO STARTING

** Source Location **
** Source ID - Type - X Coord. - Y Coord. **

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE1

** DESCRSRC I-215 NB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.049829

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468775.347, 3764210.424, 279.00, 0.00, 14.49

** 469240.297, 3764816.541, 280.32, 0.00, 14.49

LOCATION	L0000335	VOLUME	468780.216	3764216.771	279.00
LOCATION	L0000336	VOLUME	468799.183	3764241.497	278.28
LOCATION	L0000337	VOLUME	468818.150	3764266.223	278.27
LOCATION	L0000338	VOLUME	468837.117	3764290.949	278.57
LOCATION	L0000339	VOLUME	468856.084	3764315.675	278.43
LOCATION	L0000340	VOLUME	468875.052	3764340.401	278.17
LOCATION	L0000341	VOLUME	468894.019	3764365.127	278.13
LOCATION	L0000342	VOLUME	468912.986	3764389.853	278.15
LOCATION	L0000343	VOLUME	468931.953	3764414.579	277.58
LOCATION	L0000344	VOLUME	468950.920	3764439.305	277.39
LOCATION	L0000345	VOLUME	468969.887	3764464.031	276.87
LOCATION	L0000346	VOLUME	468988.854	3764488.757	276.04
LOCATION	L0000347	VOLUME	469007.822	3764513.483	275.81
LOCATION	L0000348	VOLUME	469026.789	3764538.209	276.23
LOCATION	L0000349	VOLUME	469045.756	3764562.935	276.43
LOCATION	L0000350	VOLUME	469064.723	3764587.660	276.98
LOCATION	L0000351	VOLUME	469083.690	3764612.386	278.05
LOCATION	L0000352	VOLUME	469102.657	3764637.112	278.53
LOCATION	L0000353	VOLUME	469121.625	3764661.838	279.11
LOCATION	L0000354	VOLUME	469140.592	3764686.564	279.00
LOCATION	L0000355	VOLUME	469159.559	3764711.290	279.38
LOCATION	L0000356	VOLUME	469178.526	3764736.016	279.63
LOCATION	L0000357	VOLUME	469197.493	3764760.742	279.92
LOCATION	L0000358	VOLUME	469216.460	3764785.468	280.00
LOCATION	L0000359	VOLUME	469235.427	3764810.194	280.06

** End of LINE VOLUME Source ID = SLINE1

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.049829

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468757.411, 3764220.808, 279.00, 0.00, 14.49

** 469222.361, 3764826.925, 280.00, 0.00, 14.49

LOCATION	L0000360	VOLUME	468762.280	3764227.155	278.76
LOCATION	L0000361	VOLUME	468781.247	3764251.881	277.94
LOCATION	L0000362	VOLUME	468800.214	3764276.607	277.71
LOCATION	L0000363	VOLUME	468819.181	3764301.333	278.09

DPM

LOCATION	L0000364	VOLUME	468838.148	3764326.059	277.97
LOCATION	L0000365	VOLUME	468857.116	3764350.785	277.85
LOCATION	L0000366	VOLUME	468876.083	3764375.511	277.85
LOCATION	L0000367	VOLUME	468895.050	3764400.237	277.83
LOCATION	L0000368	VOLUME	468914.017	3764424.963	277.17
LOCATION	L0000369	VOLUME	468932.984	3764449.689	276.44
LOCATION	L0000370	VOLUME	468951.951	3764474.415	276.38
LOCATION	L0000371	VOLUME	468970.919	3764499.141	275.70
LOCATION	L0000372	VOLUME	468989.886	3764523.867	275.00
LOCATION	L0000373	VOLUME	469008.853	3764548.593	275.63
LOCATION	L0000374	VOLUME	469027.820	3764573.318	275.48
LOCATION	L0000375	VOLUME	469046.787	3764598.044	275.83
LOCATION	L0000376	VOLUME	469065.754	3764622.770	276.62
LOCATION	L0000377	VOLUME	469084.721	3764647.496	277.31
LOCATION	L0000378	VOLUME	469103.689	3764672.222	278.67
LOCATION	L0000379	VOLUME	469122.656	3764696.948	279.52
LOCATION	L0000380	VOLUME	469141.623	3764721.674	279.72
LOCATION	L0000381	VOLUME	469160.590	3764746.400	279.62
LOCATION	L0000382	VOLUME	469179.557	3764771.126	279.57
LOCATION	L0000383	VOLUME	469198.524	3764795.852	280.00
LOCATION	L0000384	VOLUME	469217.491	3764820.578	280.00

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

SRCPARAM	L0000335	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000336	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000337	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000338	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000339	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000340	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000341	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000342	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000343	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000344	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000345	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000346	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000347	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000348	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000349	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000350	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000351	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000352	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000353	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000354	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000355	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000356	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000357	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000358	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000359	0.00199316	0.00	14.49	2.80

** LINE VOLUME Source ID = SLINE2

SRCPARAM	L0000360	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000361	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000362	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000363	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000364	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000365	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000366	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000367	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000368	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000369	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000370	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000371	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000372	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000373	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000374	0.00199316	0.00	14.49	2.80
SRCPARAM	L0000375	0.00199316	0.00	14.49	2.80

SRCPARAM	Value 1	Value 2	Value 3	Value 4	Value 5
L0000376	0.00199316	0.00	14.49	2.80	DPM
L0000377	0.00199316	0.00	14.49	2.80	
L0000378	0.00199316	0.00	14.49	2.80	
L0000379	0.00199316	0.00	14.49	2.80	
L0000380	0.00199316	0.00	14.49	2.80	
L0000381	0.00199316	0.00	14.49	2.80	
L0000382	0.00199316	0.00	14.49	2.80	
L0000383	0.00199316	0.00	14.49	2.80	
L0000384	0.00199316	0.00	14.49	2.80	

**-----
 URBANSRC ALL
 SRCGROUP ALL

SO FINISHED
 **

 ** AERMOD Receptor Pathway

 **
 **

RE STARTING
 INCLUDED PM10.rou
 RE FINISHED
 **

 ** AERMOD Meteorology Pathway

 **
 **

ME STARTING
 SURFFILE snbo8.sfc
 PROFFILE snbo8.PFL
 SURFDATA 0 2007
 UAIRDATA 3190 2007
 SITEDATA 99999 2007
 PROFBASE 305.0 METERS

ME FINISHED
 **

 ** AERMOD Output Pathway

 **
 **

OU STARTING
 RECTABLE ALLAVE 1ST
 RECTABLE 24 1ST
 ** Auto-Generated Plotfiles
 PLOTFILE 24 ALL 1ST PM10.AD\24H1GALL.PLT 31
 PLOTFILE ANNUAL ALL PM10.AD\AN00GALL.PLT 32
 SUMMFILE PM10.sum

OU FINISHED

 *** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.isc ***
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 *** AERMET - VERSION 14134 *** ***
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PAGE 1
 **MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

 - - - - -

DPM

**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 50 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 2015355.0 ; 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:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM₁₀

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates ANNUAL Averages

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: PM10.err

**File for Summary of Results: PM10.sum

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.isc

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000335	0	0.19932E-02	468780.2	3764216.8	279.0	0.00	14.49	2.80	YES	
L0000336	0	0.19932E-02	468799.2	3764241.5	278.3	0.00	14.49	2.80	YES	
L0000337	0	0.19932E-02	468818.1	3764266.2	278.3	0.00	14.49	2.80	YES	
L0000338	0	0.19932E-02	468837.1	3764290.9	278.6	0.00	14.49	2.80	YES	
L0000339	0	0.19932E-02	468856.1	3764315.7	278.4	0.00	14.49	2.80	YES	
L0000340	0	0.19932E-02	468875.1	3764340.4	278.2	0.00	14.49	2.80	YES	
L0000341	0	0.19932E-02	468894.0	3764365.1	278.1	0.00	14.49	2.80	YES	
L0000342	0	0.19932E-02	468913.0	3764389.9	278.2	0.00	14.49	2.80	YES	
L0000343	0	0.19932E-02	468932.0	3764414.6	277.6	0.00	14.49	2.80	YES	
L0000344	0	0.19932E-02	468950.9	3764439.3	277.4	0.00	14.49	2.80	YES	
L0000345	0	0.19932E-02	468969.9	3764464.0	276.9	0.00	14.49	2.80	YES	
L0000346	0	0.19932E-02	468988.9	3764488.8	276.0	0.00	14.49	2.80	YES	
L0000347	0	0.19932E-02	469007.8	3764513.5	275.8	0.00	14.49	2.80	YES	
L0000348	0	0.19932E-02	469026.8	3764538.2	276.2	0.00	14.49	2.80	YES	
L0000349	0	0.19932E-02	469045.8	3764562.9	276.4	0.00	14.49	2.80	YES	
L0000350	0	0.19932E-02	469064.7	3764587.7	277.0	0.00	14.49	2.80	YES	
L0000351	0	0.19932E-02	469083.7	3764612.4	278.1	0.00	14.49	2.80	YES	
L0000352	0	0.19932E-02	469102.7	3764637.1	278.5	0.00	14.49	2.80	YES	
L0000353	0	0.19932E-02	469121.6	3764661.8	279.1	0.00	14.49	2.80	YES	
L0000354	0	0.19932E-02	469140.6	3764686.6	279.0	0.00	14.49	2.80	YES	
L0000355	0	0.19932E-02	469159.6	3764711.3	279.4	0.00	14.49	2.80	YES	
L0000356	0	0.19932E-02	469178.5	3764736.0	279.6	0.00	14.49	2.80	YES	
L0000357	0	0.19932E-02	469197.5	3764760.7	279.9	0.00	14.49	2.80	YES	
L0000358	0	0.19932E-02	469216.5	3764785.5	280.0	0.00	14.49	2.80	YES	
L0000359	0	0.19932E-02	469235.4	3764810.2	280.1	0.00	14.49	2.80	YES	
L0000360	0	0.19932E-02	468762.3	3764227.2	278.8	0.00	14.49	2.80	YES	
L0000361	0	0.19932E-02	468781.2	3764251.9	277.9	0.00	14.49	2.80	YES	
L0000362	0	0.19932E-02	468800.2	3764276.6	277.7	0.00	14.49	2.80	YES	
L0000363	0	0.19932E-02	468819.2	3764301.3	278.1	0.00	14.49	2.80	YES	
L0000364	0	0.19932E-02	468838.1	3764326.1	278.0	0.00	14.49	2.80	YES	
L0000365	0	0.19932E-02	468857.1	3764350.8	277.9	0.00	14.49	2.80	YES	
L0000366	0	0.19932E-02	468876.1	3764375.5	277.9	0.00	14.49	2.80	YES	
L0000367	0	0.19932E-02	468895.0	3764400.2	277.8	0.00	14.49	2.80	YES	
L0000368	0	0.19932E-02	468914.0	3764425.0	277.2	0.00	14.49	2.80	YES	
L0000369	0	0.19932E-02	468933.0	3764449.7	276.4	0.00	14.49	2.80	YES	
L0000370	0	0.19932E-02	468952.0	3764474.4	276.4	0.00	14.49	2.80	YES	
L0000371	0	0.19932E-02	468970.9	3764499.1	275.7	0.00	14.49	2.80	YES	
L0000372	0	0.19932E-02	468989.9	3764523.9	275.0	0.00	14.49	2.80	YES	
L0000373	0	0.19932E-02	469008.9	3764548.6	275.6	0.00	14.49	2.80	YES	
L0000374	0	0.19932E-02	469027.8	3764573.3	275.5	0.00	14.49	2.80	YES	

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	DPM BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000375	0	0.19932E-02	469046.8	3764598.0	275.8	0.00	14.49	2.80	YES	
L0000376	0	0.19932E-02	469065.8	3764622.8	276.6	0.00	14.49	2.80	YES	
L0000377	0	0.19932E-02	469084.7	3764647.5	277.3	0.00	14.49	2.80	YES	
L0000378	0	0.19932E-02	469103.7	3764672.2	278.7	0.00	14.49	2.80	YES	
L0000379	0	0.19932E-02	469122.7	3764696.9	279.5	0.00	14.49	2.80	YES	
L0000380	0	0.19932E-02	469141.6	3764721.7	279.7	0.00	14.49	2.80	YES	
L0000381	0	0.19932E-02	469160.6	3764746.4	279.6	0.00	14.49	2.80	YES	
L0000382	0	0.19932E-02	469179.6	3764771.1	279.6	0.00	14.49	2.80	YES	
L0000383	0	0.19932E-02	469198.5	3764795.9	280.0	0.00	14.49	2.80	YES	
L0000384	0	0.19932E-02	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
L0000342	L0000335 , L0000336 , L0000337 , L0000338 , L0000339 , L0000340 , L0000341 ,
L0000350	L0000343 , L0000344 , L0000345 , L0000346 , L0000347 , L0000348 , L0000349 ,
L0000358	L0000351 , L0000352 , L0000353 , L0000354 , L0000355 , L0000356 , L0000357 ,
L0000366	L0000359 , L0000360 , L0000361 , L0000362 , L0000363 , L0000364 , L0000365 ,
L0000374	L0000367 , L0000368 , L0000369 , L0000370 , L0000371 , L0000372 , L0000373 ,
L0000382	L0000375 , L0000376 , L0000377 , L0000378 , L0000379 , L0000380 , L0000381 ,

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

URBAN ID	URBAN POP	SOURCE IDs
L0000341	2015355.	L0000335 , L0000336 , L0000337 , L0000338 , L0000339 , L0000340 ,

DPM

L0000342 ,
 L0000343 , L0000344 , L0000345 , L0000346 , L0000347 , L0000348 , L0000349 ,
 L0000350 ,
 L0000351 , L0000352 , L0000353 , L0000354 , L0000355 , L0000356 , L0000357 ,
 L0000358 ,
 L0000359 , L0000360 , L0000361 , L0000362 , L0000363 , L0000364 , L0000365 ,
 L0000366 ,
 L0000367 , L0000368 , L0000369 , L0000370 , L0000371 , L0000372 , L0000373 ,
 L0000374 ,
 L0000375 , L0000376 , L0000377 , L0000378 , L0000379 , L0000380 , L0000381 ,
 L0000382 ,

L0000383 , L0000384 ,
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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(468722.6, 3764442.7, 273.6, 739.0, 0.0); (468749.3, 3764442.7, 274.0, 739.0,
 0.0);
 (468775.9, 3764442.7, 274.5, 739.0, 0.0); (468802.6, 3764442.7, 274.9, 739.0,
 0.0);
 (468696.0, 3764459.6, 273.0, 739.0, 0.0); (468722.6, 3764459.6, 273.1, 739.0,
 0.0);
 (468749.3, 3764459.6, 274.0, 739.0, 0.0); (468775.9, 3764459.6, 274.0, 739.0,
 0.0);
 (468802.6, 3764459.6, 274.8, 739.0, 0.0); (468829.2, 3764459.6, 275.0, 739.0,
 0.0);
 (468722.6, 3764476.5, 273.0, 739.0, 0.0); (468749.3, 3764476.5, 273.4, 739.0,
 0.0);
 (468775.9, 3764476.5, 273.9, 739.0, 0.0); (468802.6, 3764476.5, 274.3, 739.0,
 0.0);
 (468829.2, 3764476.5, 274.4, 739.0, 0.0); (468749.3, 3764493.5, 273.0, 739.0,
 0.0);
 (468775.9, 3764493.5, 273.8, 739.0, 0.0); (468802.6, 3764493.5, 274.0, 739.0,
 0.0);
 (468829.2, 3764493.5, 274.0, 739.0, 0.0); (468749.3, 3764510.4, 273.0, 739.0,
 0.0);
 (468775.9, 3764510.4, 273.3, 739.0, 0.0); (468802.6, 3764510.4, 273.8, 739.0,
 0.0);
 (468829.2, 3764510.4, 274.0, 739.0, 0.0); (468775.9, 3764527.4, 273.0, 739.0,
 0.0);
 (468802.6, 3764527.4, 273.6, 739.0, 0.0); (468829.2, 3764527.4, 273.9, 739.0,
 0.0);
 (468855.9, 3764527.4, 274.4, 739.0, 0.0); (468775.9, 3764544.3, 273.1, 739.0,
 0.0);
 (468802.6, 3764544.3, 273.1, 739.0, 0.0); (468829.2, 3764544.3, 273.7, 739.0,
 0.0);
 (468855.9, 3764544.3, 274.1, 739.0, 0.0); (468802.6, 3764561.2, 273.1, 739.0,
 0.0);
 (468829.2, 3764561.2, 273.6, 739.0, 0.0); (468855.9, 3764561.2, 274.0, 739.0,
 0.0);
 (468829.2, 3764578.2, 273.6, 739.0, 0.0); (468855.9, 3764578.2, 274.0, 739.0,
 0.0);
 (468882.5, 3764578.2, 274.4, 739.0, 0.0); (468829.2, 3764595.1, 273.6, 739.0,

DPM

Name: UNKNOWN
Year: 2007

Name: UNKNOWN
Year: 2007

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
07	01	01	1	01	-0.5	0.030	-9.000	-9.000	-999.	12.	4.4	0.32	1.00	1.00	0.50	27.	9.1	279.9			
5.5																					
07	01	01	1	02	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	7.	9.1	279.2			
5.5																					
07	01	01	1	03	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	97.	9.1	278.8			
5.5																					
07	01	01	1	04	-0.7	0.030	-9.000	-9.000	-999.	12.	3.1	0.32	1.00	1.00	0.50	148.	9.1	278.1			
5.5																					
07	01	01	1	05	-2.4	0.054	-9.000	-9.000	-999.	30.	5.5	0.32	1.00	1.00	0.90	87.	9.1	278.1			
5.5																					
07	01	01	1	06	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	208.	9.1	277.0			
5.5																					
07	01	01	1	07	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	156.	9.1	277.5			
5.5																					
07	01	01	1	08	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	0.52	0.90	60.	9.1	277.5			
5.5																					
07	01	01	1	09	34.6	0.390	0.621	0.005	241.	585.	-149.6	0.32	1.00	0.31	3.10	264.	9.1	282.5			
5.5																					
07	01	01	1	10	78.0	0.267	1.066	0.005	541.	341.	-21.3	0.32	1.00	0.24	1.80	242.	9.1	289.2			
5.5																					
07	01	01	1	11	112.9	0.612	1.395	0.019	839.	1149.	-176.9	0.32	1.00	0.21	4.90	82.	9.1	290.4			
5.5																					
07	01	01	1	12	130.3	0.615	1.611	0.020	1120.	1158.	-155.8	0.32	1.00	0.20	4.90	74.	9.1	290.9			
5.5																					
07	01	01	1	13	128.2	0.671	1.662	0.015	1250.	1315.	-204.9	0.32	1.00	0.20	5.40	59.	9.1	290.9			
5.5																					
07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4			
5.5																					
07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4			
5.5																					
07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0			
5.5																					
07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9			
5.5																					
07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2			
5.5																					
07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9			
5.5																					
07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9			
5.5																					
07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9			
5.5																					
07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2			
5.5																					
07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9			
5.5																					
07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2			
5.5																					

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
07	01	01	01	9.1	1	27.	0.50	-999.0	99.0	-99.00	-99.00

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

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S):

L0000339 , L0000340 , L0000341 , L0000342 , L0000343 , L0000344 , L0000345 , L0000346 ,
L0000347 , L0000348 , L0000349 , L0000350 , L0000351 , L0000352 , L0000353 , L0000354 ,
L0000355 , L0000356 , L0000357 , L0000358 , L0000359 , L0000360 , L0000361 , L0000362 ,
. . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
468722.64	3764442.66	1.76372	468749.29	3764442.66	2.08999
468775.94	3764442.66	2.51805	468802.59	3764442.66	3.09921
468695.99	3764459.60	1.44306	468722.64	3764459.60	1.67310
468749.29	3764459.60	1.96770	468775.94	3764459.60	2.33839
468802.59	3764459.60	2.83960	468829.24	3764459.60	3.53285
468722.64	3764476.54	1.59267	468749.29	3764476.54	1.85368
468775.94	3764476.54	2.18479	468802.59	3764476.54	2.61565
468829.24	3764476.54	3.19712	468749.29	3764493.48	1.75108
468775.94	3764493.48	2.04775	468802.59	3764493.48	2.42284
468829.24	3764493.48	2.91838	468749.29	3764510.42	1.66055
468775.94	3764510.42	1.92274	468802.59	3764510.42	2.25636
468829.24	3764510.42	2.68700	468775.94	3764527.36	1.81167
468802.59	3764527.36	2.10804	468829.24	3764527.36	2.48587
468855.89	3764527.36	2.99006	468775.94	3764544.30	1.71288
468802.59	3764544.30	1.97428	468829.24	3764544.30	2.30887
468855.89	3764544.30	2.74331	468802.59	3764561.24	1.85662
468829.24	3764561.24	2.15338	468855.89	3764561.24	2.53210
468829.24	3764578.18	2.01499	468855.89	3764578.18	2.34807
468882.54	3764578.18	2.78332	468829.24	3764595.12	1.89033
468855.89	3764595.12	2.18521	468882.54	3764595.12	2.56396
468829.24	3764612.06	1.77742	468855.89	3764612.06	2.04001
468882.54	3764612.06	2.37258	468855.89	3764629.00	1.91057

			DPM			
468882.54	3764629.00	2.20629		468909.19	3764629.00	2.58381
468855.89	3764645.94	1.79292		468882.54	3764645.94	2.05587
468909.19	3764645.94	2.38398		468882.54	3764662.88	1.91946

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**MODELOPTs: RegDFault CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): L0000335 , L0000336 , L0000337 , L0000338 ,
 L0000339 , L0000340 , L0000341 , L0000342 , L0000343 , L0000344 , L0000345 , L0000346 ,
 L0000347 , L0000348 , L0000349 , L0000350 , L0000351 , L0000352 , L0000353 , L0000354 ,
 L0000355 , L0000356 , L0000357 , L0000358 , L0000359 , L0000360 , L0000361 , L0000362 ,
 . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

		** CONC OF PM_10	IN MICROGRAMS/M**3			
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
(YYMMDDHH)						
468722.64	3764442.66	2.87443c	(10122324)	468749.29	3764442.66	3.39575c
(10122324)						
468775.94	3764442.66	4.07308c	(10122324)	468802.59	3764442.66	4.98176c
(10122324)						
468695.99	3764459.60	2.35622c	(10122324)	468722.64	3764459.60	2.72765c
(10122324)						
468749.29	3764459.60	3.19690c	(10122324)	468775.94	3764459.60	3.78621c
(10122324)						
468802.59	3764459.60	4.57056c	(10122324)	468829.24	3764459.60	5.65112
(09010324)						
468722.64	3764476.54	2.59558c	(10122324)	468749.29	3764476.54	3.01337c
(10122324)						
468775.94	3764476.54	3.53847c	(10122324)	468802.59	3764476.54	4.21579c
(10122324)						
468829.24	3764476.54	5.12062c	(10122324)	468749.29	3764493.48	2.84752c
(10122324)						
468775.94	3764493.48	3.31755c	(10122324)	468802.59	3764493.48	3.90887c
(10122324)						
468829.24	3764493.48	4.68357c	(10122324)	468749.29	3764510.42	2.69934c
(10122324)						
468775.94	3764510.42	3.11692c	(10122324)	468802.59	3764510.42	3.64220c
(10122324)						
468829.24	3764510.42	4.31600c	(10122324)	468775.94	3764527.36	2.93745c
(10122324)						
468802.59	3764527.36	3.40476c	(10122324)	468829.24	3764527.36	3.99597c
(10122324)						
468855.89	3764527.36	4.77638c	(10122324)	468775.94	3764544.30	2.77643c
(10122324)						
468802.59	3764544.30	3.19089c	(10122324)	468829.24	3764544.30	3.71427c
(10122324)						
468855.89	3764544.30	4.38883c	(10122324)	468802.59	3764561.24	3.00096c
(10122324)						
468829.24	3764561.24	3.46586c	(10122324)	468855.89	3764561.24	4.05481c
(10122324)						

				DPM			
(10122324)	468829.24	3764578.18	3.24409c	(10122324)	468855.89	3764578.18	3.76267c
(10122324)	468882.54	3764578.18	4.43483c	(10122324)	468829.24	3764595.12	3.044404c
(10122324)	468855.89	3764595.12	3.50378c	(10122324)	468882.54	3764595.12	4.08941c
(10122324)	468829.24	3764612.06	2.86255c	(10122324)	468855.89	3764612.06	3.27240c
(10122324)	468882.54	3764612.06	3.78700c	(10122324)	468855.89	3764629.00	3.06511c
(10122324)	468882.54	3764629.00	3.52215c	(10122324)	468909.19	3764629.00	4.10277c
(10122324)	468855.89	3764645.94	2.87665c	(10122324)	468882.54	3764645.94	3.28320c
(10122324)	468909.19	3764645.94	3.78988c	(10122324)	468882.54	3764662.88	3.06680c

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

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

NETWORK GROUP ID GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL	1ST HIGHEST VALUE IS 3.53285 AT (468829.24, 3764459.60, 275.01, 739.00, 0.00)		DC
	2ND HIGHEST VALUE IS 3.19712 AT (468829.24, 3764476.54, 274.45, 739.00, 0.00)		DC
	3RD HIGHEST VALUE IS 3.09921 AT (468802.59, 3764442.66, 274.90, 739.00, 0.00)		DC
	4TH HIGHEST VALUE IS 2.99006 AT (468855.89, 3764527.36, 274.40, 739.00, 0.00)		DC
	5TH HIGHEST VALUE IS 2.91838 AT (468829.24, 3764493.48, 274.00, 739.00, 0.00)		DC
	6TH HIGHEST VALUE IS 2.83960 AT (468802.59, 3764459.60, 274.76, 739.00, 0.00)		DC
	7TH HIGHEST VALUE IS 2.78332 AT (468882.54, 3764578.18, 274.42, 739.00, 0.00)		DC
	8TH HIGHEST VALUE IS 2.74331 AT (468855.89, 3764544.30, 274.10, 739.00, 0.00)		DC
	9TH HIGHEST VALUE IS 2.68700 AT (468829.24, 3764510.42, 274.00, 739.00, 0.00)		DC
	10TH HIGHEST VALUE IS 2.61565 AT (468802.59, 3764476.54, 274.34, 739.00, 0.00)		DC

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

♀ *** AERMOD - VERSION 15181 *** ** C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.isc ***
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DPM

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

** CONC OF PM_10 IN MICROGRAMS/M**3 **

DATE

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

ALL HIGH 1ST HIGH VALUE IS 5.65112 ON 09010324: AT (468829.24, 3764459.60, 275.01, 739.00, 0.00) DC

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

♀ *** AERMOD - VERSION 15181 *** ** C:\Lakes\AERMOD View\RoquetRanch\PM10\PM10.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 0 Warning Message(s)
 A Total of 1086 Informational Message(s)
 A Total of 43824 Hours Were Processed
 A Total of 37 Calm Hours Identified
 A Total of 1049 Missing Hours Identified (2.39 Percent)

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

***** WARNING MESSAGES *****
 *** NONE ***

 *** AERMOD Finishes Successfully ***

**

 **
 ** AERMOD Input Produced by:
 ** AERMOD View Ver. 9.1.0
 ** Lakes Environmental Software Inc.
 ** Date: 9/7/2016
 ** File: C:\Lakes\AERMOD View\RoquetRanch\PM25\PM25.ADI
 **

**
**

** AERMOD Control Pathway

**
**

CO STARTING
TITLEONE C:\Lakes\AERMOD View\RoquetRanch\PM25\PM25.isc
MODELOPT DFAULT CONC
AVERTIME 24 ANNUAL
URBANOPT 2015355
POLLUTID PM_2.5
RUNORNOT RUN
ERRORFIL PM25.err

CO FINISHED
**

** AERMOD Source Pathway

**
**

SO STARTING

** Source Location **
** Source ID - Type - X Coord. - Y Coord. **

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE1
** DESCRSRC I-215 NB
** PREFIX
** Length of Side = 16.00
** Configuration = Separated
** Emission Rate = 0.016354
** Vertical Dimension = 6.02
** SZINIT = 2.80
** Nodes = 2

** 468775.347, 3764210.424, 279.00, 0.00, 14.49
** 469240.297, 3764816.541, 280.32, 0.00, 14.49
**

LOCATION	VOLUME	X Coord.	Y Coord.
L0000385	468780.216	3764216.771	279.00
L0000386	468799.183	3764241.497	278.28
L0000387	468818.150	3764266.223	278.27
L0000388	468837.117	3764290.949	278.57
L0000389	468856.084	3764315.675	278.43
L0000390	468875.052	3764340.401	278.17
L0000391	468894.019	3764365.127	278.13
L0000392	468912.986	3764389.853	278.15
L0000393	468931.953	3764414.579	277.58
L0000394	468950.920	3764439.305	277.39
L0000395	468969.887	3764464.031	276.87
L0000396	468988.854	3764488.757	276.04
L0000397	469007.822	3764513.483	275.81
L0000398	469026.789	3764538.209	276.23
L0000399	469045.756	3764562.935	276.43
L0000400	469064.723	3764587.660	276.98
L0000401	469083.690	3764612.386	278.05
L0000402	469102.657	3764637.112	278.53
L0000403	469121.625	3764661.838	279.11
L0000404	469140.592	3764686.564	279.00
L0000405	469159.559	3764711.290	279.38
L0000406	469178.526	3764736.016	279.63
L0000407	469197.493	3764760.742	279.92
L0000408	469216.460	3764785.468	280.00
L0000409	469235.427	3764810.194	280.06

** End of LINE VOLUME Source ID = SLINE1
**

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.016354

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468757.411, 3764220.808, 279.00, 0.00, 14.49

** 469222.361, 3764826.925, 280.00, 0.00, 14.49

**

LOCATION	VOLUME	468762.280	3764227.155	278.76
L0000410	VOLUME	468762.280	3764227.155	278.76
L0000411	VOLUME	468781.247	3764251.881	277.94
L0000412	VOLUME	468800.214	3764276.607	277.71
L0000413	VOLUME	468819.181	3764301.333	278.09
L0000414	VOLUME	468838.148	3764326.059	277.97
L0000415	VOLUME	468857.116	3764350.785	277.85
L0000416	VOLUME	468876.083	3764375.511	277.85
L0000417	VOLUME	468895.050	3764400.237	277.83
L0000418	VOLUME	468914.017	3764424.963	277.17
L0000419	VOLUME	468932.984	3764449.689	276.44
L0000420	VOLUME	468951.951	3764474.415	276.38
L0000421	VOLUME	468970.919	3764499.141	275.70
L0000422	VOLUME	468989.886	3764523.867	275.00
L0000423	VOLUME	469008.853	3764548.593	275.63
L0000424	VOLUME	469027.820	3764573.318	275.48
L0000425	VOLUME	469046.787	3764598.044	275.83
L0000426	VOLUME	469065.754	3764622.770	276.62
L0000427	VOLUME	469084.721	3764647.496	277.31
L0000428	VOLUME	469103.689	3764672.222	278.67
L0000429	VOLUME	469122.656	3764696.948	279.52
L0000430	VOLUME	469141.623	3764721.674	279.72
L0000431	VOLUME	469160.590	3764746.400	279.62
L0000432	VOLUME	469179.557	3764771.126	279.57
L0000433	VOLUME	469198.524	3764795.852	280.00
L0000434	VOLUME	469217.491	3764820.578	280.00

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

SRCPARAM	0.00065416	0.00	14.49	2.80
L0000385	0.00065416	0.00	14.49	2.80
L0000386	0.00065416	0.00	14.49	2.80
L0000387	0.00065416	0.00	14.49	2.80
L0000388	0.00065416	0.00	14.49	2.80
L0000389	0.00065416	0.00	14.49	2.80
L0000390	0.00065416	0.00	14.49	2.80
L0000391	0.00065416	0.00	14.49	2.80
L0000392	0.00065416	0.00	14.49	2.80
L0000393	0.00065416	0.00	14.49	2.80
L0000394	0.00065416	0.00	14.49	2.80
L0000395	0.00065416	0.00	14.49	2.80
L0000396	0.00065416	0.00	14.49	2.80
L0000397	0.00065416	0.00	14.49	2.80
L0000398	0.00065416	0.00	14.49	2.80
L0000399	0.00065416	0.00	14.49	2.80
L0000400	0.00065416	0.00	14.49	2.80
L0000401	0.00065416	0.00	14.49	2.80
L0000402	0.00065416	0.00	14.49	2.80
L0000403	0.00065416	0.00	14.49	2.80
L0000404	0.00065416	0.00	14.49	2.80
L0000405	0.00065416	0.00	14.49	2.80
L0000406	0.00065416	0.00	14.49	2.80
L0000407	0.00065416	0.00	14.49	2.80
L0000408	0.00065416	0.00	14.49	2.80
L0000409	0.00065416	0.00	14.49	2.80

**

DPM

```

** LINE VOLUME Source ID = SLINE2
SRCPARAM L0000410 0.00065416 0.00 14.49 2.80
SRCPARAM L0000411 0.00065416 0.00 14.49 2.80
SRCPARAM L0000412 0.00065416 0.00 14.49 2.80
SRCPARAM L0000413 0.00065416 0.00 14.49 2.80
SRCPARAM L0000414 0.00065416 0.00 14.49 2.80
SRCPARAM L0000415 0.00065416 0.00 14.49 2.80
SRCPARAM L0000416 0.00065416 0.00 14.49 2.80
SRCPARAM L0000417 0.00065416 0.00 14.49 2.80
SRCPARAM L0000418 0.00065416 0.00 14.49 2.80
SRCPARAM L0000419 0.00065416 0.00 14.49 2.80
SRCPARAM L0000420 0.00065416 0.00 14.49 2.80
SRCPARAM L0000421 0.00065416 0.00 14.49 2.80
SRCPARAM L0000422 0.00065416 0.00 14.49 2.80
SRCPARAM L0000423 0.00065416 0.00 14.49 2.80
SRCPARAM L0000424 0.00065416 0.00 14.49 2.80
SRCPARAM L0000425 0.00065416 0.00 14.49 2.80
SRCPARAM L0000426 0.00065416 0.00 14.49 2.80
SRCPARAM L0000427 0.00065416 0.00 14.49 2.80
SRCPARAM L0000428 0.00065416 0.00 14.49 2.80
SRCPARAM L0000429 0.00065416 0.00 14.49 2.80
SRCPARAM L0000430 0.00065416 0.00 14.49 2.80
SRCPARAM L0000431 0.00065416 0.00 14.49 2.80
SRCPARAM L0000432 0.00065416 0.00 14.49 2.80
SRCPARAM L0000433 0.00065416 0.00 14.49 2.80
SRCPARAM L0000434 0.00065416 0.00 14.49 2.80

```

** -----

URBANSRC ALL
SRCGROUP ALL

SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED PM25.rou

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE snbo8.sfc

PROFFILE snbo8.PFL

SURFDATA 0 2007

UAIRDATA 3190 2007

SITEDATA 99999 2007

PROFBASE 305.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 24 1ST

** Auto-Generated Plotfiles

PLOTFILE 24 ALL 1ST PM25.AD\24H1GALL.PLT 31

PLOTFILE ANNUAL ALL PM25.AD\AN00GALL.PLT 32

SUMMFILE PM25.sum

OU FINISHED

*** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\PM25\PM25.isc ***
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PAGE 1
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** 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 50 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 2015355.0 ; 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:
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM_2.5

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates ANNUAL Averages

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

DPM

**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) = 305.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: PM25.err

**File for Summary of Results: PM25.sum

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000385	0	0.65416E-03	468780.2	3764216.8	279.0	0.00	14.49	2.80	YES	
L0000386	0	0.65416E-03	468799.2	3764241.5	278.3	0.00	14.49	2.80	YES	
L0000387	0	0.65416E-03	468818.1	3764266.2	278.3	0.00	14.49	2.80	YES	
L0000388	0	0.65416E-03	468837.1	3764290.9	278.6	0.00	14.49	2.80	YES	
L0000389	0	0.65416E-03	468856.1	3764315.7	278.4	0.00	14.49	2.80	YES	
L0000390	0	0.65416E-03	468875.1	3764340.4	278.2	0.00	14.49	2.80	YES	
L0000391	0	0.65416E-03	468894.0	3764365.1	278.1	0.00	14.49	2.80	YES	
L0000392	0	0.65416E-03	468913.0	3764389.9	278.2	0.00	14.49	2.80	YES	
L0000393	0	0.65416E-03	468932.0	3764414.6	277.6	0.00	14.49	2.80	YES	
L0000394	0	0.65416E-03	468950.9	3764439.3	277.4	0.00	14.49	2.80	YES	
L0000395	0	0.65416E-03	468969.9	3764464.0	276.9	0.00	14.49	2.80	YES	
L0000396	0	0.65416E-03	468988.9	3764488.8	276.0	0.00	14.49	2.80	YES	
L0000397	0	0.65416E-03	469007.8	3764513.5	275.8	0.00	14.49	2.80	YES	
L0000398	0	0.65416E-03	469026.8	3764538.2	276.2	0.00	14.49	2.80	YES	
L0000399	0	0.65416E-03	469045.8	3764562.9	276.4	0.00	14.49	2.80	YES	
L0000400	0	0.65416E-03	469064.7	3764587.7	277.0	0.00	14.49	2.80	YES	
L0000401	0	0.65416E-03	469083.7	3764612.4	278.1	0.00	14.49	2.80	YES	
L0000402	0	0.65416E-03	469102.7	3764637.1	278.5	0.00	14.49	2.80	YES	
L0000403	0	0.65416E-03	469121.6	3764661.8	279.1	0.00	14.49	2.80	YES	
L0000404	0	0.65416E-03	469140.6	3764686.6	279.0	0.00	14.49	2.80	YES	
L0000405	0	0.65416E-03	469159.6	3764711.3	279.4	0.00	14.49	2.80	YES	
L0000406	0	0.65416E-03	469178.5	3764736.0	279.6	0.00	14.49	2.80	YES	
L0000407	0	0.65416E-03	469197.5	3764760.7	279.9	0.00	14.49	2.80	YES	
L0000408	0	0.65416E-03	469216.5	3764785.5	280.0	0.00	14.49	2.80	YES	
L0000409	0	0.65416E-03	469235.4	3764810.2	280.1	0.00	14.49	2.80	YES	
L0000410	0	0.65416E-03	468762.3	3764227.2	278.8	0.00	14.49	2.80	YES	
L0000411	0	0.65416E-03	468781.2	3764251.9	277.9	0.00	14.49	2.80	YES	
L0000412	0	0.65416E-03	468800.2	3764276.6	277.7	0.00	14.49	2.80	YES	
L0000413	0	0.65416E-03	468819.2	3764301.3	278.1	0.00	14.49	2.80	YES	
L0000414	0	0.65416E-03	468838.1	3764326.1	278.0	0.00	14.49	2.80	YES	
L0000415	0	0.65416E-03	468857.1	3764350.8	277.9	0.00	14.49	2.80	YES	
L0000416	0	0.65416E-03	468876.1	3764375.5	277.9	0.00	14.49	2.80	YES	
L0000417	0	0.65416E-03	468895.0	3764400.2	277.8	0.00	14.49	2.80	YES	
L0000418	0	0.65416E-03	468914.0	3764425.0	277.2	0.00	14.49	2.80	YES	

					DPM					
L0000419	0	0.65416E-03	468933.0	3764449.7	276.4	0.00	14.49	2.80	YES	
L0000420	0	0.65416E-03	468952.0	3764474.4	276.4	0.00	14.49	2.80	YES	
L0000421	0	0.65416E-03	468970.9	3764499.1	275.7	0.00	14.49	2.80	YES	
L0000422	0	0.65416E-03	468989.9	3764523.9	275.0	0.00	14.49	2.80	YES	
L0000423	0	0.65416E-03	469008.9	3764548.6	275.6	0.00	14.49	2.80	YES	
L0000424	0	0.65416E-03	469027.8	3764573.3	275.5	0.00	14.49	2.80	YES	

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000425	0	0.65416E-03	469046.8	3764598.0	275.8	0.00	14.49	2.80	YES	
L0000426	0	0.65416E-03	469065.8	3764622.8	276.6	0.00	14.49	2.80	YES	
L0000427	0	0.65416E-03	469084.7	3764647.5	277.3	0.00	14.49	2.80	YES	
L0000428	0	0.65416E-03	469103.7	3764672.2	278.7	0.00	14.49	2.80	YES	
L0000429	0	0.65416E-03	469122.7	3764696.9	279.5	0.00	14.49	2.80	YES	
L0000430	0	0.65416E-03	469141.6	3764721.7	279.7	0.00	14.49	2.80	YES	
L0000431	0	0.65416E-03	469160.6	3764746.4	279.6	0.00	14.49	2.80	YES	
L0000432	0	0.65416E-03	469179.6	3764771.1	279.6	0.00	14.49	2.80	YES	
L0000433	0	0.65416E-03	469198.5	3764795.9	280.0	0.00	14.49	2.80	YES	
L0000434	0	0.65416E-03	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL L0000392	L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 ,
L0000400	L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 ,
L0000408	L0000401 , L0000402 , L0000403 , L0000404 , L0000405 , L0000406 , L0000407 ,
L0000416	L0000409 , L0000410 , L0000411 , L0000412 , L0000413 , L0000414 , L0000415 ,
L0000424	L0000417 , L0000418 , L0000419 , L0000420 , L0000421 , L0000422 , L0000423 ,
L0000432	L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , L0000430 , L0000431 ,
	L0000433 , L0000434 ,

DPM

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

URBAN ID -----	URBAN POP -----	SOURCE IDs -----
L0000391 L0000392	2015355.	L0000385 , L0000386 , L0000387 , L0000388 , L0000389 , L0000390 ,
L0000400	L0000393 , L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 ,	
L0000408	L0000401 , L0000402 , L0000403 , L0000404 , L0000405 , L0000406 , L0000407 ,	
L0000416	L0000409 , L0000410 , L0000411 , L0000412 , L0000413 , L0000414 , L0000415 ,	
L0000424	L0000417 , L0000418 , L0000419 , L0000420 , L0000421 , L0000422 , L0000423 ,	
L0000432	L0000425 , L0000426 , L0000427 , L0000428 , L0000429 , L0000430 , L0000431 ,	
	L0000433 , L0000434 ,	

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(468722.6, 3764442.7, 273.6, 739.0, 0.0);	(468749.3, 3764442.7, 274.0, 739.0,
0.0);	0.0);
(468775.9, 3764442.7, 274.5, 739.0, 0.0);	(468802.6, 3764442.7, 274.9, 739.0,
0.0);	0.0);
(468696.0, 3764459.6, 273.0, 739.0, 0.0);	(468722.6, 3764459.6, 273.1, 739.0,
0.0);	0.0);
(468749.3, 3764459.6, 274.0, 739.0, 0.0);	(468775.9, 3764459.6, 274.0, 739.0,
0.0);	0.0);
(468802.6, 3764459.6, 274.8, 739.0, 0.0);	(468829.2, 3764459.6, 275.0, 739.0,
0.0);	0.0);
(468722.6, 3764476.5, 273.0, 739.0, 0.0);	(468749.3, 3764476.5, 273.4, 739.0,
0.0);	0.0);
(468775.9, 3764476.5, 273.9, 739.0, 0.0);	(468802.6, 3764476.5, 274.3, 739.0,
0.0);	0.0);
(468829.2, 3764476.5, 274.4, 739.0, 0.0);	(468749.3, 3764493.5, 273.0, 739.0,
0.0);	0.0);
(468775.9, 3764493.5, 273.8, 739.0, 0.0);	(468802.6, 3764493.5, 274.0, 739.0,
0.0);	0.0);
(468829.2, 3764493.5, 274.0, 739.0, 0.0);	(468749.3, 3764510.4, 273.0, 739.0,
0.0);	0.0);

(468775.9, 3764510.4,	273.3,	739.0,	DPM	(468802.6, 3764510.4,	273.8,	739.0,
0.0);			0.0);			
(468829.2, 3764510.4,	274.0,	739.0,	0.0);	(468775.9, 3764527.4,	273.0,	739.0,
0.0);						
(468802.6, 3764527.4,	273.6,	739.0,	0.0);	(468829.2, 3764527.4,	273.9,	739.0,
0.0);						
(468855.9, 3764527.4,	274.4,	739.0,	0.0);	(468775.9, 3764544.3,	273.1,	739.0,
0.0);						
(468802.6, 3764544.3,	273.1,	739.0,	0.0);	(468829.2, 3764544.3,	273.7,	739.0,
0.0);						
(468855.9, 3764544.3,	274.1,	739.0,	0.0);	(468802.6, 3764561.2,	273.1,	739.0,
0.0);						
(468829.2, 3764561.2,	273.6,	739.0,	0.0);	(468855.9, 3764561.2,	274.0,	739.0,
0.0);						
(468829.2, 3764578.2,	273.6,	739.0,	0.0);	(468855.9, 3764578.2,	274.0,	739.0,
0.0);						
(468882.5, 3764578.2,	274.4,	739.0,	0.0);	(468829.2, 3764595.1,	273.6,	739.0,
0.0);						
(468855.9, 3764595.1,	274.0,	739.0,	0.0);	(468882.5, 3764595.1,	274.4,	739.0,
0.0);						
(468829.2, 3764612.1,	273.7,	739.0,	0.0);	(468855.9, 3764612.1,	274.0,	739.0,
0.0);						
(468882.5, 3764612.1,	274.5,	739.0,	0.0);	(468855.9, 3764629.0,	274.3,	739.0,
0.0);						
(468882.5, 3764629.0,	275.3,	739.0,	0.0);	(468909.2, 3764629.0,	276.4,	739.0,
0.0);						
(468855.9, 3764645.9,	274.6,	739.0,	0.0);	(468882.5, 3764645.9,	275.9,	739.0,
0.0);						
(468909.2, 3764645.9,	277.1,	739.0,	0.0);	(468882.5, 3764662.9,	276.3,	739.0,
0.0);						

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 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,
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

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

Surface file: snbo8.sfc
14134

Met Version:

Profile file: snbo8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0
Name: UNKNOWN
Year: 2007

Upper air station no.: 3190
Name: UNKNOWN
Year: 2007

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
07	01	01	1	01	-0.5	0.030	-9.000	-9.000	-999.	12.	4.4	0.32	1.00	1.00	0.50	27.	9.1	279.9			
5.5																					
07	01	01	1	02	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	7.	9.1	279.2			
5.5																					
07	01	01	1	03	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	97.	9.1	278.8			
5.5																					
07	01	01	1	04	-0.7	0.030	-9.000	-9.000	-999.	12.	3.1	0.32	1.00	1.00	0.50	148.	9.1	278.1			
5.5																					
07	01	01	1	05	-2.4	0.054	-9.000	-9.000	-999.	30.	5.5	0.32	1.00	1.00	0.90	87.	9.1	278.1			
5.5																					
07	01	01	1	06	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	208.	9.1	277.0			
5.5																					
07	01	01	1	07	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	156.	9.1	277.5			
5.5																					
07	01	01	1	08	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	0.52	0.90	60.	9.1	277.5			
5.5																					
07	01	01	1	09	34.6	0.390	0.621	0.005	241.	585.	-149.6	0.32	1.00	0.31	3.10	264.	9.1	282.5			
5.5																					
07	01	01	1	10	78.0	0.267	1.066	0.005	541.	341.	-21.3	0.32	1.00	0.24	1.80	242.	9.1	289.2			
5.5																					
07	01	01	1	11	112.9	0.612	1.395	0.019	839.	1149.	-176.9	0.32	1.00	0.21	4.90	82.	9.1	290.4			
5.5																					
07	01	01	1	12	130.3	0.615	1.611	0.020	1120.	1158.	-155.8	0.32	1.00	0.20	4.90	74.	9.1	290.9			
5.5																					
07	01	01	1	13	128.2	0.671	1.662	0.015	1250.	1315.	-204.9	0.32	1.00	0.20	5.40	59.	9.1	290.9			
5.5																					
07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4			
5.5																					
07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4			
5.5																					
07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0			
5.5																					
07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9			
5.5																					
07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2			
5.5																					
07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9			
5.5																					
07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9			
5.5																					
07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9			
5.5																					

														DPM				
07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2
5.5																		
07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9
5.5																		
07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2
5.5																		

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
07	01	01	01	9.1	1	27.	0.50	-999.0	99.0	-99.00	-99.00

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

```

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\PM25\PM25.isc ***
09/07/16
*** AERMET - VERSION 14134 *** ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): L0000385 , L0000386 , L0000387 , L0000388 ,

L0000389 , L0000390 , L0000391 , L0000392 , L0000393 , L0000394 , L0000395 , L0000396 ,

L0000397 , L0000398 , L0000399 , L0000400 , L0000401 , L0000402 , L0000403 , L0000404 ,

L0000405 , L0000406 , L0000407 , L0000408 , L0000409 , L0000410 , L0000411 , L0000412 ,

. . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3						**
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	
468722.64	3764442.66	0.57886	468749.29	3764442.66	0.68594	
468775.94	3764442.66	0.82643	468802.59	3764442.66	1.01717	
468695.99	3764459.60	0.47362	468722.64	3764459.60	0.54911	
468749.29	3764459.60	0.64580	468775.94	3764459.60	0.76746	
468802.59	3764459.60	0.93196	468829.24	3764459.60	1.15949	
468722.64	3764476.54	0.52272	468749.29	3764476.54	0.60838	
468775.94	3764476.54	0.71705	468802.59	3764476.54	0.85846	
468829.24	3764476.54	1.04930	468749.29	3764493.48	0.57471	
468775.94	3764493.48	0.67208	468802.59	3764493.48	0.79518	
468829.24	3764493.48	0.95782	468749.29	3764510.42	0.54500	
468775.94	3764510.42	0.63105	468802.59	3764510.42	0.74054	
468829.24	3764510.42	0.88188	468775.94	3764527.36	0.59460	
468802.59	3764527.36	0.69186	468829.24	3764527.36	0.81587	
468855.89	3764527.36	0.98135	468775.94	3764544.30	0.56217	

DPM

468802.59	3764544.30	0.64796	468829.24	3764544.30	0.75778
468855.89	3764544.30	0.90036	468802.59	3764561.24	0.60935
468829.24	3764561.24	0.70675	468855.89	3764561.24	0.83104
468829.24	3764578.18	0.66132	468855.89	3764578.18	0.77064
468882.54	3764578.18	0.91349	468829.24	3764595.12	0.62041
468855.89	3764595.12	0.71719	468882.54	3764595.12	0.84150
468829.24	3764612.06	0.58335	468855.89	3764612.06	0.66954
468882.54	3764612.06	0.77869	468855.89	3764629.00	0.62705
468882.54	3764629.00	0.72411	468909.19	3764629.00	0.84801
468855.89	3764645.94	0.58844	468882.54	3764645.94	0.67474
468909.19	3764645.94	0.78243	468882.54	3764662.88	0.62997

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): L0000385 , L0000386 , L0000387 , L0000388 ,
 L0000389 , L0000390 , L0000391 , L0000392 , L0000393 , L0000394 , L0000395 , L0000396 ,
 L0000397 , L0000398 , L0000399 , L0000400 , L0000401 , L0000402 , L0000403 , L0000404 ,
 L0000405 , L0000406 , L0000407 , L0000408 , L0000409 , L0000410 , L0000411 , L0000412 ,
 . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M)		Y-COORD (M)		CONC (YYMMDDHH)		X-COORD (M)		Y-COORD (M)		CONC	
(YYMMDDHH)											
468722.64	3764442.66	0.94340c	(10122324)	468749.29	3764442.66	1.11449c					
(10122324)				468802.59	3764442.66	1.63502c					
468775.94	3764442.66	1.33679c	(10122324)	468722.64	3764459.60	0.89522c					
(10122324)				468775.94	3764459.60	1.24264c					
468695.99	3764459.60	0.77332c	(10122324)	468829.24	3764459.60	1.85471					
(10122324)				468722.64	3764476.54	0.98899c					
468749.29	3764459.60	1.04923c	(10122324)	468775.94	3764476.54	1.38363c					
(10122324)				468802.59	3764476.54	1.38363c					
468802.59	3764459.60	1.50007c	(10122324)	468829.24	3764493.48	0.93456c					
(09010324)				468749.29	3764493.48	0.93456c					
468722.64	3764476.54	0.85188c	(10122324)	468802.59	3764493.48	1.28290c					
(10122324)				468775.94	3764493.48	1.28290c					
468775.94	3764476.54	1.16133c	(10122324)								
(10122324)											
468829.24	3764476.54	1.68060c	(10122324)								
(10122324)											
468775.94	3764493.48	1.08883c	(10122324)								

DPM

(10122324)	468829.24	3764493.48	1.53716c (10122324)	468749.29	3764510.42	0.88593c
(10122324)	468775.94	3764510.42	1.02298c (10122324)	468802.59	3764510.42	1.19538c
(10122324)	468829.24	3764510.42	1.41652c (10122324)	468775.94	3764527.36	0.96408c
(10122324)	468802.59	3764527.36	1.11745c (10122324)	468829.24	3764527.36	1.31149c
(10122324)	468855.89	3764527.36	1.56762c (10122324)	468775.94	3764544.30	0.91123c
(10122324)	468802.59	3764544.30	1.04726c (10122324)	468829.24	3764544.30	1.21903c
(10122324)	468855.89	3764544.30	1.44042c (10122324)	468802.59	3764561.24	0.98492c
(10122324)	468829.24	3764561.24	1.13751c (10122324)	468855.89	3764561.24	1.33080c
(10122324)	468829.24	3764578.18	1.06472c (10122324)	468855.89	3764578.18	1.23492c
(10122324)	468882.54	3764578.18	1.45552c (10122324)	468829.24	3764595.12	0.99906c
(10122324)	468855.89	3764595.12	1.14995c (10122324)	468882.54	3764595.12	1.34216c
(10122324)	468829.24	3764612.06	0.93950c (10122324)	468855.89	3764612.06	1.07401c
(10122324)	468882.54	3764612.06	1.24290c (10122324)	468855.89	3764629.00	1.00598c
(10122324)	468882.54	3764629.00	1.15598c (10122324)	468909.19	3764629.00	1.34654c
(10122324)	468855.89	3764645.94	0.94412c (10122324)	468882.54	3764645.94	1.07755c
(10122324)	468909.19	3764645.94	1.24385c (10122324)	468882.54	3764662.88	1.00653c

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**MODELOPTs: RegDFault CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

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

ALL	1ST HIGHEST VALUE IS	1.15949 AT (468829.24, 3764459.60, 275.01, 739.00, 0.00)	DC
	2ND HIGHEST VALUE IS	1.04930 AT (468829.24, 3764476.54, 274.45, 739.00, 0.00)	DC
	3RD HIGHEST VALUE IS	1.01717 AT (468802.59, 3764442.66, 274.90, 739.00, 0.00)	DC
	4TH HIGHEST VALUE IS	0.98135 AT (468855.89, 3764527.36, 274.40, 739.00, 0.00)	DC
	5TH HIGHEST VALUE IS	0.95782 AT (468829.24, 3764493.48, 274.00, 739.00, 0.00)	DC
	6TH HIGHEST VALUE IS	0.93196 AT (468802.59, 3764459.60, 274.76, 739.00, 0.00)	DC
	7TH HIGHEST VALUE IS	0.91349 AT (468882.54, 3764578.18, 274.42, 739.00, 0.00)	DC

***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

**

**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 9/7/2016
** File: C:\Lakes\AERMOD View\RoquetRanch\CO\CO.ADI
**

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**

** AERMOD Control Pathway

**
**

CO STARTING
TITLEONE C:\Lakes\AERMOD View\RoquetRanch\CO\CO.isc
MODELOPT DFAULT CONC
AVERTIME 1 8
URBANOPT 2015355
POLLUTID CO
RUNORNOT RUN
ERRORFIL CO.err

CO FINISHED
**

** AERMOD Source Pathway

**
**

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----- **
** Line Source Represented by Separated Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC I-215 NB
** PREFIX
** Length of Side = 16.00
** Configuration = Separated
** Emission Rate = 0.59632
** Vertical Dimension = 6.02
** SZINIT = 2.80
** Nodes = 2
** 468775.347, 3764210.424, 279.00, 0.00, 14.49
** 469240.297, 3764816.541, 280.32, 0.00, 14.49
** ----- **

LOCATION	VOLUME	X Coord.	Y Coord.	Z
L0000435	468780.216	3764216.771	279.00	
L0000436	468799.183	3764241.497	278.28	
L0000437	468818.150	3764266.223	278.27	
L0000438	468837.117	3764290.949	278.57	
L0000439	468856.084	3764315.675	278.43	
L0000440	468875.052	3764340.401	278.17	
L0000441	468894.019	3764365.127	278.13	
L0000442	468912.986	3764389.853	278.15	
L0000443	468931.953	3764414.579	277.58	
L0000444	468950.920	3764439.305	277.39	

DPM

LOCATION L0000445	VOLUME	468969.887	3764464.031	276.87
LOCATION L0000446	VOLUME	468988.854	3764488.757	276.04
LOCATION L0000447	VOLUME	469007.822	3764513.483	275.81
LOCATION L0000448	VOLUME	469026.789	3764538.209	276.23
LOCATION L0000449	VOLUME	469045.756	3764562.935	276.43
LOCATION L0000450	VOLUME	469064.723	3764587.660	276.98
LOCATION L0000451	VOLUME	469083.690	3764612.386	278.05
LOCATION L0000452	VOLUME	469102.657	3764637.112	278.53
LOCATION L0000453	VOLUME	469121.625	3764661.838	279.11
LOCATION L0000454	VOLUME	469140.592	3764686.564	279.00
LOCATION L0000455	VOLUME	469159.559	3764711.290	279.38
LOCATION L0000456	VOLUME	469178.526	3764736.016	279.63
LOCATION L0000457	VOLUME	469197.493	3764760.742	279.92
LOCATION L0000458	VOLUME	469216.460	3764785.468	280.00
LOCATION L0000459	VOLUME	469235.427	3764810.194	280.06

** End of LINE VOLUME Source ID = SLINE1

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.59632

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468757.411, 3764220.808, 279.00, 0.00, 14.49

** 469222.361, 3764826.925, 280.00, 0.00, 14.49

LOCATION L0000460	VOLUME	468762.280	3764227.155	278.76
LOCATION L0000461	VOLUME	468781.247	3764251.881	277.94
LOCATION L0000462	VOLUME	468800.214	3764276.607	277.71
LOCATION L0000463	VOLUME	468819.181	3764301.333	278.09
LOCATION L0000464	VOLUME	468838.148	3764326.059	277.97
LOCATION L0000465	VOLUME	468857.116	3764350.785	277.85
LOCATION L0000466	VOLUME	468876.083	3764375.511	277.85
LOCATION L0000467	VOLUME	468895.050	3764400.237	277.83
LOCATION L0000468	VOLUME	468914.017	3764424.963	277.17
LOCATION L0000469	VOLUME	468932.984	3764449.689	276.44
LOCATION L0000470	VOLUME	468951.951	3764474.415	276.38
LOCATION L0000471	VOLUME	468970.919	3764499.141	275.70
LOCATION L0000472	VOLUME	468989.886	3764523.867	275.00
LOCATION L0000473	VOLUME	469008.853	3764548.593	275.63
LOCATION L0000474	VOLUME	469027.820	3764573.318	275.48
LOCATION L0000475	VOLUME	469046.787	3764598.044	275.83
LOCATION L0000476	VOLUME	469065.754	3764622.770	276.62
LOCATION L0000477	VOLUME	469084.721	3764647.496	277.31
LOCATION L0000478	VOLUME	469103.689	3764672.222	278.67
LOCATION L0000479	VOLUME	469122.656	3764696.948	279.52
LOCATION L0000480	VOLUME	469141.623	3764721.674	279.72
LOCATION L0000481	VOLUME	469160.590	3764746.400	279.62
LOCATION L0000482	VOLUME	469179.557	3764771.126	279.57
LOCATION L0000483	VOLUME	469198.524	3764795.852	280.00
LOCATION L0000484	VOLUME	469217.491	3764820.578	280.00

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

SRCPARAM L0000435	0.0238528	0.00	14.49	2.80
SRCPARAM L0000436	0.0238528	0.00	14.49	2.80
SRCPARAM L0000437	0.0238528	0.00	14.49	2.80
SRCPARAM L0000438	0.0238528	0.00	14.49	2.80
SRCPARAM L0000439	0.0238528	0.00	14.49	2.80
SRCPARAM L0000440	0.0238528	0.00	14.49	2.80
SRCPARAM L0000441	0.0238528	0.00	14.49	2.80
SRCPARAM L0000442	0.0238528	0.00	14.49	2.80
SRCPARAM L0000443	0.0238528	0.00	14.49	2.80

				DPM	
SRCPARAM	L0000444	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000445	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000446	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000447	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000448	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000449	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000450	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000451	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000452	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000453	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000454	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000455	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000456	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000457	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000458	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000459	0.0238528	0.00	14.49	2.80

** -----

** LINE VOLUME Source ID = SLINE2

SRCPARAM	L0000460	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000461	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000462	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000463	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000464	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000465	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000466	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000467	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000468	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000469	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000470	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000471	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000472	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000473	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000474	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000475	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000476	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000477	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000478	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000479	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000480	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000481	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000482	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000483	0.0238528	0.00	14.49	2.80
SRCPARAM	L0000484	0.0238528	0.00	14.49	2.80

** -----

URBANSRC ALL
 CONCUNIT 873.2 G/S PPM
 SRCGROUP ALL

SO FINISHED
 **

** AERMOD Receptor Pathway

**

RE STARTING
 INCLUDED CO.rou
 RE FINISHED

**

** AERMOD Meteorology Pathway

**

ME STARTING
 SURFFILE snbo8.sfc
 PROFFILE snbo8.PFL
 SURFDATA 0 2007

UAIRDATA 3190 2007
SITEDATA 99999 2007
PROFBASE 305.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
RECTABLE 8 1ST
** Auto-Generated Plotfiles
PLOTFILE 1 ALL 1ST CO.AD\01H1GALL.PLT 31
PLOTFILE 8 ALL 1ST CO.AD\08H1GALL.PLT 32
SUMMFILE CO.sum

OU FINISHED

*** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\CO\CO.isc ***
09/07/16
*** AERMET - VERSION 14134 *** ***
10:29:34 ***

PAGE 1
**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** 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 50 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 2015355.0 ; 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:
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: CO

**Model Calculates 2 Short Term Average(s) of: 1-HR 8-HR

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

DPM

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0

Emission Units = G/S ; Emission Rate Unit Factor = 873.20
Output Units = PPM

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: CO.err

**File for Summary of Results: CO.sum

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

Table with columns: SOURCE ID, NUMBER PART. CATS., EMISSION RATE (USER UNITS), X (METERS), Y (METERS), BASE ELEV. (METERS), RELEASE HEIGHT (METERS), INIT. SY (METERS), INIT. SZ (METERS), URBAN SOURCE, EMISSION RATE SCALAR VARY BY. Contains 17 rows of source data.

										DPM
L0000452	0	0.23853E-01	469102.7	3764637.1	278.5	0.00	14.49	2.80	YES	
L0000453	0	0.23853E-01	469121.6	3764661.8	279.1	0.00	14.49	2.80	YES	
L0000454	0	0.23853E-01	469140.6	3764686.6	279.0	0.00	14.49	2.80	YES	
L0000455	0	0.23853E-01	469159.6	3764711.3	279.4	0.00	14.49	2.80	YES	
L0000456	0	0.23853E-01	469178.5	3764736.0	279.6	0.00	14.49	2.80	YES	
L0000457	0	0.23853E-01	469197.5	3764760.7	279.9	0.00	14.49	2.80	YES	
L0000458	0	0.23853E-01	469216.5	3764785.5	280.0	0.00	14.49	2.80	YES	
L0000459	0	0.23853E-01	469235.4	3764810.2	280.1	0.00	14.49	2.80	YES	
L0000460	0	0.23853E-01	468762.3	3764227.2	278.8	0.00	14.49	2.80	YES	
L0000461	0	0.23853E-01	468781.2	3764251.9	277.9	0.00	14.49	2.80	YES	
L0000462	0	0.23853E-01	468800.2	3764276.6	277.7	0.00	14.49	2.80	YES	
L0000463	0	0.23853E-01	468819.2	3764301.3	278.1	0.00	14.49	2.80	YES	
L0000464	0	0.23853E-01	468838.1	3764326.1	278.0	0.00	14.49	2.80	YES	
L0000465	0	0.23853E-01	468857.1	3764350.8	277.9	0.00	14.49	2.80	YES	
L0000466	0	0.23853E-01	468876.1	3764375.5	277.9	0.00	14.49	2.80	YES	
L0000467	0	0.23853E-01	468895.0	3764400.2	277.8	0.00	14.49	2.80	YES	
L0000468	0	0.23853E-01	468914.0	3764425.0	277.2	0.00	14.49	2.80	YES	
L0000469	0	0.23853E-01	468933.0	3764449.7	276.4	0.00	14.49	2.80	YES	
L0000470	0	0.23853E-01	468952.0	3764474.4	276.4	0.00	14.49	2.80	YES	
L0000471	0	0.23853E-01	468970.9	3764499.1	275.7	0.00	14.49	2.80	YES	
L0000472	0	0.23853E-01	468989.9	3764523.9	275.0	0.00	14.49	2.80	YES	
L0000473	0	0.23853E-01	469008.9	3764548.6	275.6	0.00	14.49	2.80	YES	
L0000474	0	0.23853E-01	469027.8	3764573.3	275.5	0.00	14.49	2.80	YES	

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000475	0	0.23853E-01	469046.8	3764598.0	275.8	0.00	14.49	2.80	YES	
L0000476	0	0.23853E-01	469065.8	3764622.8	276.6	0.00	14.49	2.80	YES	
L0000477	0	0.23853E-01	469084.7	3764647.5	277.3	0.00	14.49	2.80	YES	
L0000478	0	0.23853E-01	469103.7	3764672.2	278.7	0.00	14.49	2.80	YES	
L0000479	0	0.23853E-01	469122.7	3764696.9	279.5	0.00	14.49	2.80	YES	
L0000480	0	0.23853E-01	469141.6	3764721.7	279.7	0.00	14.49	2.80	YES	
L0000481	0	0.23853E-01	469160.6	3764746.4	279.6	0.00	14.49	2.80	YES	
L0000482	0	0.23853E-01	469179.6	3764771.1	279.6	0.00	14.49	2.80	YES	
L0000483	0	0.23853E-01	469198.5	3764795.9	280.0	0.00	14.49	2.80	YES	
L0000484	0	0.23853E-01	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

 ALL L0000435 , L0000436 , L0000437 , L0000438 , L0000439 , L0000440 , L0000441 ,
 L0000442 ,

DPM

L0000450 , L0000443 , L0000444 , L0000445 , L0000446 , L0000447 , L0000448 , L0000449 ,
 L0000458 , L0000451 , L0000452 , L0000453 , L0000454 , L0000455 , L0000456 , L0000457 ,
 L0000466 , L0000459 , L0000460 , L0000461 , L0000462 , L0000463 , L0000464 , L0000465 ,
 L0000474 , L0000467 , L0000468 , L0000469 , L0000470 , L0000471 , L0000472 , L0000473 ,
 L0000482 , L0000475 , L0000476 , L0000477 , L0000478 , L0000479 , L0000480 , L0000481 ,

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

URBAN ID	URBAN POP	SOURCE IDs						
-----	-----	-----						
L0000441	2015355.	L0000435	, L0000436	, L0000437	, L0000438	, L0000439	, L0000440	,
L0000442								
L0000450	L0000443	, L0000444	, L0000445	, L0000446	, L0000447	, L0000448	, L0000449	,
L0000458	L0000451	, L0000452	, L0000453	, L0000454	, L0000455	, L0000456	, L0000457	,
L0000466	L0000459	, L0000460	, L0000461	, L0000462	, L0000463	, L0000464	, L0000465	,
L0000474	L0000467	, L0000468	, L0000469	, L0000470	, L0000471	, L0000472	, L0000473	,
L0000482	L0000475	, L0000476	, L0000477	, L0000478	, L0000479	, L0000480	, L0000481	,

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(468722.6, 3764442.7, 273.6, 739.0, 0.0); (468749.3, 3764442.7, 274.0, 739.0,
 0.0);
 (468775.9, 3764442.7, 274.5, 739.0, 0.0); (468802.6, 3764442.7, 274.9, 739.0,

DPM

5.5	07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4
5.5	07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4
5.5	07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0
5.5	07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9
5.5	07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2
5.5	07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9
5.5	07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9
5.5	07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9
5.5	07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2
5.5	07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9
5.5	07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
07	01	01	01	9.1	1	27.	0.50	-999.0	99.0	-99.00	-99.00

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

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): L0000435 , L0000436 , L0000437 , L0000438 ,
 L0000439 , L0000440 , L0000441 , L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
 L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
 L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
 . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

		** CONC OF CO		IN PPM		**	
X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	
(YYMMDDHH)							
468722.64	3764442.66	0.05922	(10120516)	468749.29	3764442.66	0.07205	
(10120516)							
468775.94	3764442.66	0.08827	(10120516)	468802.59	3764442.66	0.10916	
(10120516)							
468695.99	3764459.60	0.04360	(10120516)	468722.64	3764459.60	0.05307	
(10120516)							
468749.29	3764459.60	0.06473	(10120516)	468775.94	3764459.60	0.07928	
(10120516)							
468802.59	3764459.60	0.09785	(10120516)	468829.24	3764459.60	0.12155	

DPM

(10120516)							
468722.64	3764476.54	0.04716	(10120516)	468749.29	3764476.54	0.05775	
(10120516)							
468775.94	3764476.54	0.07090	(10120516)	468802.59	3764476.54	0.08750	
(10120516)							
468829.24	3764476.54	0.10878	(10120516)	468749.29	3764493.48	0.05109	
(10120516)							
468775.94	3764493.48	0.06298	(10120516)	468802.59	3764493.48	0.07787	
(10120516)							
468829.24	3764493.48	0.09683	(10120516)	468749.29	3764510.42	0.04579	
(08022117)							
468775.94	3764510.42	0.05733	(08022117)	468802.59	3764510.42	0.06943	
(08022117)							
468829.24	3764510.42	0.08582	(10120516)	468775.94	3764527.36	0.05455	
(08022117)							
468802.59	3764527.36	0.06561	(08022117)	468829.24	3764527.36	0.07719	
(08022117)							
468855.89	3764527.36	0.09496	(10120516)	468775.94	3764544.30	0.05204	
(08022117)							
468802.59	3764544.30	0.06213	(08022117)	468829.24	3764544.30	0.07276	
(08022117)							
468855.89	3764544.30	0.08419	(08022117)	468802.59	3764561.24	0.05899	
(08022117)							
468829.24	3764561.24	0.06872	(08022117)	468855.89	3764561.24	0.07923	
(08022117)							
468829.24	3764578.18	0.06504	(08022117)	468855.89	3764578.18	0.07465	
(08022117)							
468882.54	3764578.18	0.08539	(08022117)	468829.24	3764595.12	0.06168	
(08022117)							
468855.89	3764595.12	0.07048	(08022117)	468882.54	3764595.12	0.08035	
(08022117)							
468829.24	3764612.06	0.05860	(08022117)	468855.89	3764612.06	0.06666	
(08022117)							
468882.54	3764612.06	0.07570	(08022117)	468855.89	3764629.00	0.06319	
(08022117)							
468882.54	3764629.00	0.07142	(08022117)	468909.19	3764629.00	0.08114	
(08022117)							
468855.89	3764645.94	0.06000	(08022117)	468882.54	3764645.94	0.06746	
(08022117)							
468909.19	3764645.94	0.07693	(08022117)	468882.54	3764662.88	0.06383	

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): L0000435 , L0000436 , L0000437 , L0000438 ,
L0000439 , L0000440 , L0000441 , L0000442 , L0000443 , L0000444 , L0000445 , L0000446 ,
L0000447 , L0000448 , L0000449 , L0000450 , L0000451 , L0000452 , L0000453 , L0000454 ,
L0000455 , L0000456 , L0000457 , L0000458 , L0000459 , L0000460 , L0000461 , L0000462 ,
. . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	IN PPM	X-COORD (M)	Y-COORD (M)	CONC
---	---	---	---	---	---	---

DPM

(11081508)	468722.64	3764442.66	0.04130m (11081508)	468749.29	3764442.66	0.04864m
(11081508)	468775.94	3764442.66	0.05811m (11081508)	468802.59	3764442.66	0.07071m
(11081508)	468695.99	3764459.60	0.03401m (11081508)	468722.64	3764459.60	0.03927m
(11081508)	468749.29	3764459.60	0.04589m (11081508)	468775.94	3764459.60	0.05416m
(11081508)	468802.59	3764459.60	0.06509m (11081508)	468829.24	3764459.60	0.07990m
(11081508)	468722.64	3764476.54	0.03744m (11081508)	468749.29	3764476.54	0.04335m
(11081508)	468775.94	3764476.54	0.05074m (11081508)	468802.59	3764476.54	0.06021m
(11081508)	468829.24	3764476.54	0.07275m (11081508)	468749.29	3764493.48	0.04104m
(11081508)	468775.94	3764493.48	0.04768m (11081508)	468802.59	3764493.48	0.05598m
(11081508)	468829.24	3764493.48	0.06675m (11081508)	468749.29	3764510.42	0.03898m
(11081508)	468775.94	3764510.42	0.04489m (11081508)	468802.59	3764510.42	0.05229m
(11081508)	468829.24	3764510.42	0.06170m (11081508)	468775.94	3764527.36	0.04239m
(11081508)	468802.59	3764527.36	0.04899m (11081508)	468829.24	3764527.36	0.05728m
(11081508)	468855.89	3764527.36	0.06815m (11081508)	468775.94	3764544.30	0.04014m
(11081508)	468802.59	3764544.30	0.04600m (11081508)	468829.24	3764544.30	0.05338m
(11081508)	468855.89	3764544.30	0.06280m (11081508)	468802.59	3764561.24	0.04335m
(11081508)	468829.24	3764561.24	0.04992m (11081508)	468855.89	3764561.24	0.05818m
(11081508)	468829.24	3764578.18	0.04682m (11081508)	468855.89	3764578.18	0.05413m
(11081508)	468882.54	3764578.18	0.06352m (11081508)	468829.24	3764595.12	0.04402m
(11081508)	468855.89	3764595.12	0.05052m (11081508)	468882.54	3764595.12	0.05874m
(11081508)	468829.24	3764612.06	0.04147m (11081508)	468855.89	3764612.06	0.04728m
(11081508)	468882.54	3764612.06	0.05453m (11081508)	468855.89	3764629.00	0.04437m
(11081508)	468882.54	3764629.00	0.05084m (11081508)	468909.19	3764629.00	0.05901m
(11081508)	468855.89	3764645.94	0.04172m (11081508)	468882.54	3764645.94	0.04749m
(11081508)	468909.19	3764645.94	0.05465m (11081508)	468882.54	3764662.88	0.04444m

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

** CONC OF CO IN PPM **
 DATE
 NETWORK
 GROUP ID AVERAGE CONC (YYMMDDHH) RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)

OF TYPE GRID-ID

ALL HIGH 1ST HIGH VALUE IS 0.12155 ON 10120516: AT (468829.24, 3764459.60, 275.01, 739.00, 0.00) DC

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

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

** CONC OF CO IN PPM **

DATE

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

ALL HIGH 1ST HIGH VALUE IS 0.07990m ON 11081508: AT (468829.24, 3764459.60, 275.01, 739.00, 0.00) DC

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

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\CO\CO.isc ***
09/07/16
*** AERMET - VERSION 14134 *** ***
10:29:34 ***

PAGE 13
**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1086 Informational Message(s)
A Total of 43824 Hours Were Processed
A Total of 37 Calm Hours Identified
A Total of 1049 Missing Hours Identified (2.39 Percent)

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

***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

**

**

** AERMOD Input Produced by:
** AERMOD View Ver. 9.1.0
** Lakes Environmental Software Inc.
** Date: 9/7/2016
** File: C:\Lakes\AERMOD View\RoquetRanch\NO2\NO2.ADI
**

**

**

** AERMOD Control Pathway

**

CO STARTING

TITLEONE C:\Lakes\AERMOD View\RoquetRanch\NO2\NO2.isc
MODELOPT CONC OLM
AVERTIME 1
URBANOPT 2015355
POLLUTID NO2
RUNORNOT RUN

** NO2 Conversion Options

NO2STACK 0.100
NO2EQUIL 0.900

** Hourly Ozone Data File: C:\Lakes\AERMOD View\RoquetRanch\NO2\..\SNBO_Ozone\03SNBO2007.prn

OZONEFIL ..\SNBO_Ozone\03SNBO2007.prn PPB
ERRORFIL NO2.err

CO FINISHED

**

** AERMOD Source Pathway

**

SO STARTING

** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE1

** DESCRSRC I-215 NB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.0987

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468775.347, 3764210.424, 279.00, 0.00, 14.49

** 469240.297, 3764816.541, 280.32, 0.00, 14.49
** -----

LOCATION	VOLUME	X Coord.	Y Coord.	Z Coord.
L0000485	468780.216	3764216.771	279.00	
L0000486	468799.183	3764241.497	278.28	
L0000487	468818.150	3764266.223	278.27	
L0000488	468837.117	3764290.949	278.57	
L0000489	468856.084	3764315.675	278.43	

DPM

LOCATION	VOLUME	468875.052	3764340.401	278.17
LOCATION L0000490	VOLUME	468875.052	3764340.401	278.17
LOCATION L0000491	VOLUME	468894.019	3764365.127	278.13
LOCATION L0000492	VOLUME	468912.986	3764389.853	278.15
LOCATION L0000493	VOLUME	468931.953	3764414.579	277.58
LOCATION L0000494	VOLUME	468950.920	3764439.305	277.39
LOCATION L0000495	VOLUME	468969.887	3764464.031	276.87
LOCATION L0000496	VOLUME	468988.854	3764488.757	276.04
LOCATION L0000497	VOLUME	469007.822	3764513.483	275.81
LOCATION L0000498	VOLUME	469026.789	3764538.209	276.23
LOCATION L0000499	VOLUME	469045.756	3764562.935	276.43
LOCATION L0000500	VOLUME	469064.723	3764587.660	276.98
LOCATION L0000501	VOLUME	469083.690	3764612.386	278.05
LOCATION L0000502	VOLUME	469102.657	3764637.112	278.53
LOCATION L0000503	VOLUME	469121.625	3764661.838	279.11
LOCATION L0000504	VOLUME	469140.592	3764686.564	279.00
LOCATION L0000505	VOLUME	469159.559	3764711.290	279.38
LOCATION L0000506	VOLUME	469178.526	3764736.016	279.63
LOCATION L0000507	VOLUME	469197.493	3764760.742	279.92
LOCATION L0000508	VOLUME	469216.460	3764785.468	280.00
LOCATION L0000509	VOLUME	469235.427	3764810.194	280.06

** End of LINE VOLUME Source ID = SLINE1

**

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.0987

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468757.411, 3764220.808, 279.00, 0.00, 14.49

** 469222.361, 3764826.925, 280.00, 0.00, 14.49

**

LOCATION L0000510	VOLUME	468762.280	3764227.155	278.76
LOCATION L0000511	VOLUME	468781.247	3764251.881	277.94
LOCATION L0000512	VOLUME	468800.214	3764276.607	277.71
LOCATION L0000513	VOLUME	468819.181	3764301.333	278.09
LOCATION L0000514	VOLUME	468838.148	3764326.059	277.97
LOCATION L0000515	VOLUME	468857.116	3764350.785	277.85
LOCATION L0000516	VOLUME	468876.083	3764375.511	277.85
LOCATION L0000517	VOLUME	468895.050	3764400.237	277.83
LOCATION L0000518	VOLUME	468914.017	3764424.963	277.17
LOCATION L0000519	VOLUME	468932.984	3764449.689	276.44
LOCATION L0000520	VOLUME	468951.951	3764474.415	276.38
LOCATION L0000521	VOLUME	468970.919	3764499.141	275.70
LOCATION L0000522	VOLUME	468989.886	3764523.867	275.00
LOCATION L0000523	VOLUME	469008.853	3764548.593	275.63
LOCATION L0000524	VOLUME	469027.820	3764573.318	275.48
LOCATION L0000525	VOLUME	469046.787	3764598.044	275.83
LOCATION L0000526	VOLUME	469065.754	3764622.770	276.62
LOCATION L0000527	VOLUME	469084.721	3764647.496	277.31
LOCATION L0000528	VOLUME	469103.689	3764672.222	278.67
LOCATION L0000529	VOLUME	469122.656	3764696.948	279.52
LOCATION L0000530	VOLUME	469141.623	3764721.674	279.72
LOCATION L0000531	VOLUME	469160.590	3764746.400	279.62
LOCATION L0000532	VOLUME	469179.557	3764771.126	279.57
LOCATION L0000533	VOLUME	469198.524	3764795.852	280.00
LOCATION L0000534	VOLUME	469217.491	3764820.578	280.00

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

** LINE VOLUME Source ID = SLINE1

SRCPARAM L0000485	0.003948	0.00	14.49	2.80
SRCPARAM L0000486	0.003948	0.00	14.49	2.80
SRCPARAM L0000487	0.003948	0.00	14.49	2.80
SRCPARAM L0000488	0.003948	0.00	14.49	2.80

				DPM	
SRCPARAM	L0000489	0.003948	0.00	14.49	2.80
SRCPARAM	L0000490	0.003948	0.00	14.49	2.80
SRCPARAM	L0000491	0.003948	0.00	14.49	2.80
SRCPARAM	L0000492	0.003948	0.00	14.49	2.80
SRCPARAM	L0000493	0.003948	0.00	14.49	2.80
SRCPARAM	L0000494	0.003948	0.00	14.49	2.80
SRCPARAM	L0000495	0.003948	0.00	14.49	2.80
SRCPARAM	L0000496	0.003948	0.00	14.49	2.80
SRCPARAM	L0000497	0.003948	0.00	14.49	2.80
SRCPARAM	L0000498	0.003948	0.00	14.49	2.80
SRCPARAM	L0000499	0.003948	0.00	14.49	2.80
SRCPARAM	L0000500	0.003948	0.00	14.49	2.80
SRCPARAM	L0000501	0.003948	0.00	14.49	2.80
SRCPARAM	L0000502	0.003948	0.00	14.49	2.80
SRCPARAM	L0000503	0.003948	0.00	14.49	2.80
SRCPARAM	L0000504	0.003948	0.00	14.49	2.80
SRCPARAM	L0000505	0.003948	0.00	14.49	2.80
SRCPARAM	L0000506	0.003948	0.00	14.49	2.80
SRCPARAM	L0000507	0.003948	0.00	14.49	2.80
SRCPARAM	L0000508	0.003948	0.00	14.49	2.80
SRCPARAM	L0000509	0.003948	0.00	14.49	2.80

** -----

** LINE VOLUME Source ID = SLINE2

SRCPARAM	L0000510	0.003948	0.00	14.49	2.80
SRCPARAM	L0000511	0.003948	0.00	14.49	2.80
SRCPARAM	L0000512	0.003948	0.00	14.49	2.80
SRCPARAM	L0000513	0.003948	0.00	14.49	2.80
SRCPARAM	L0000514	0.003948	0.00	14.49	2.80
SRCPARAM	L0000515	0.003948	0.00	14.49	2.80
SRCPARAM	L0000516	0.003948	0.00	14.49	2.80
SRCPARAM	L0000517	0.003948	0.00	14.49	2.80
SRCPARAM	L0000518	0.003948	0.00	14.49	2.80
SRCPARAM	L0000519	0.003948	0.00	14.49	2.80
SRCPARAM	L0000520	0.003948	0.00	14.49	2.80
SRCPARAM	L0000521	0.003948	0.00	14.49	2.80
SRCPARAM	L0000522	0.003948	0.00	14.49	2.80
SRCPARAM	L0000523	0.003948	0.00	14.49	2.80
SRCPARAM	L0000524	0.003948	0.00	14.49	2.80
SRCPARAM	L0000525	0.003948	0.00	14.49	2.80
SRCPARAM	L0000526	0.003948	0.00	14.49	2.80
SRCPARAM	L0000527	0.003948	0.00	14.49	2.80
SRCPARAM	L0000528	0.003948	0.00	14.49	2.80
SRCPARAM	L0000529	0.003948	0.00	14.49	2.80
SRCPARAM	L0000530	0.003948	0.00	14.49	2.80
SRCPARAM	L0000531	0.003948	0.00	14.49	2.80
SRCPARAM	L0000532	0.003948	0.00	14.49	2.80
SRCPARAM	L0000533	0.003948	0.00	14.49	2.80
SRCPARAM	L0000534	0.003948	0.00	14.49	2.80

** -----

URBANSRC ALL
 CONCUNIT 531.5 G/S PPM
 SRCGROUP ALL

SO FINISHED

**

** AERMOD Receptor Pathway

**
 **

RE STARTING
 INCLUDED NO2.rou

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING
SURFFILE snbo8.sfc
PROFFILE snbo8.PFL
SURFDATA 0 2007
UAIRDATA 3190 2007
SITEDATA 99999 2007
PROFBASE 305.0 METERS
STARTEND 2007 1 1 1 2007 12 31 24

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

RECTABLE ALLAVE 1ST

RECTABLE 1 1ST

** Auto-Generated Plotfiles

PLOTFILE 1 ALL 1ST NO2.AD\01H1GALL.PLT 31

SUMMFILE NO2.sum

OU FINISHED

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

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

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 0 Informational Message(s)

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

***** WARNING MESSAGES *****
CO W271 31 COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

*** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\NO2\NO2.isc ***
09/07/16
*** AERMET - VERSION 14134 *** ***
10:39:12

PAGE 1
**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** 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 50 Source(s),
for Total of 1 Urban Area(s):

DPM

Urban Population = 2015355.0 ; Urban Roughness Length = 1.000 m

**Model Allows User-Specified 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. Ozone Limiting Method (OLM) Used for NO2 Conversion with an Equilibrium NO2/NOx Ratio of 0.900 and with NO OLMGROUPs
7. Urban Roughness Length of 1.0 Meter Used.

**Other Options Specified:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: NO2

**Note that special processing requirements apply for the 1-hour NO2 NAAQS - check available guidance.

Model will process user-specified ranks of daily maximum 1-hour values averaged across the number of years modeled.

For annual NO2 NAAQS modeling, the multi-year maximum of PERIOD values can be simulated using the MULTYEAR keyword.

Multi-year PERIOD and 1-hour values should only be done in a single model run using the MULTYEAR option with a single multi-year meteorological data file using STARTEND keyword.

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

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

**This Run Includes OZONE Values for a Single Sector
HOURLY OZONE Values are Available

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0

Emission Units = G/S ; Emission Rate Unit Factor = 531.50
Output Units = PPM

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Detailed Error/Message File: NO2.err

**File for Summary of Results: NO2.sum

DPM

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
09/07/16
*** AERMET - VERSION 14134 ***
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PAGE 2
**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** VOLUME SOURCE DATA ***

Table with columns: SOURCE ID, NUMBER PART. CATS., EMISSION RATE (USER UNITS), X (METERS), Y (METERS), BASE ELEV. (METERS), RELEASE HEIGHT (METERS), INIT. SY (METERS), INIT. SZ (METERS), URBAN SOURCE, EMISSION RATE SCALAR VARY BY. Contains 24 rows of data for source IDs L0000485 through L0000524.

♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

DPM
*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000525	0	0.39480E-02	469046.8	3764598.0	275.8	0.00	14.49	2.80	YES	
L0000526	0	0.39480E-02	469065.8	3764622.8	276.6	0.00	14.49	2.80	YES	
L0000527	0	0.39480E-02	469084.7	3764647.5	277.3	0.00	14.49	2.80	YES	
L0000528	0	0.39480E-02	469103.7	3764672.2	278.7	0.00	14.49	2.80	YES	
L0000529	0	0.39480E-02	469122.7	3764696.9	279.5	0.00	14.49	2.80	YES	
L0000530	0	0.39480E-02	469141.6	3764721.7	279.7	0.00	14.49	2.80	YES	
L0000531	0	0.39480E-02	469160.6	3764746.4	279.6	0.00	14.49	2.80	YES	
L0000532	0	0.39480E-02	469179.6	3764771.1	279.6	0.00	14.49	2.80	YES	
L0000533	0	0.39480E-02	469198.5	3764795.9	280.0	0.00	14.49	2.80	YES	
L0000534	0	0.39480E-02	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
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 **MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL L0000492	L0000485 , L0000486 , L0000487 , L0000488 , L0000489 , L0000490 , L0000491 ,
L0000500	L0000493 , L0000494 , L0000495 , L0000496 , L0000497 , L0000498 , L0000499 ,
L0000508	L0000501 , L0000502 , L0000503 , L0000504 , L0000505 , L0000506 , L0000507 ,
L0000516	L0000509 , L0000510 , L0000511 , L0000512 , L0000513 , L0000514 , L0000515 ,
L0000524	L0000517 , L0000518 , L0000519 , L0000520 , L0000521 , L0000522 , L0000523 ,
L0000532	L0000525 , L0000526 , L0000527 , L0000528 , L0000529 , L0000530 , L0000531 ,

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
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 **MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

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

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

DPM

L0000491 , 2015355. L0000485 , L0000486 , L0000487 , L0000488 , L0000489 , L0000490 ,
L0000492 , ,

L0000500 , L0000493 , L0000494 , L0000495 , L0000496 , L0000497 , L0000498 , L0000499 , ,

L0000508 , L0000501 , L0000502 , L0000503 , L0000504 , L0000505 , L0000506 , L0000507 , ,

L0000516 , L0000509 , L0000510 , L0000511 , L0000512 , L0000513 , L0000514 , L0000515 , ,

L0000524 , L0000517 , L0000518 , L0000519 , L0000520 , L0000521 , L0000522 , L0000523 , ,

L0000532 , L0000525 , L0000526 , L0000527 , L0000528 , L0000529 , L0000530 , L0000531 , ,

L0000533 , L0000534 ,
♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** IN-STACK NO2 RATIOS FOR OLM/PVMRM OPTIONS ***

SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO	SOURCE_ID	NO2_RATIO
L0000485	0.100	L0000486	0.100	L0000487	0.100	L0000488	0.100
L0000489	0.100	L0000490	0.100	L0000491	0.100	L0000492	0.100
L0000493	0.100	L0000494	0.100	L0000495	0.100	L0000496	0.100
L0000497	0.100	L0000498	0.100	L0000499	0.100	L0000500	0.100
L0000501	0.100	L0000502	0.100	L0000503	0.100	L0000504	0.100
L0000505	0.100	L0000506	0.100	L0000507	0.100	L0000508	0.100
L0000509	0.100	L0000510	0.100	L0000511	0.100	L0000512	0.100
L0000513	0.100	L0000514	0.100	L0000515	0.100	L0000516	0.100
L0000517	0.100	L0000518	0.100	L0000519	0.100	L0000520	0.100
L0000521	0.100	L0000522	0.100	L0000523	0.100	L0000524	0.100
L0000525	0.100	L0000526	0.100	L0000527	0.100	L0000528	0.100
L0000529	0.100	L0000530	0.100	L0000531	0.100	L0000532	0.100
L0000533	0.100	L0000534	0.100				

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\N02\N02.isc ***
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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

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

(468722.6, 3764442.7, 273.6, 739.0, 0.0); (468749.3, 3764442.7, 274.0, 739.0,
0.0);
(468775.9, 3764442.7, 274.5, 739.0, 0.0); (468802.6, 3764442.7, 274.9, 739.0,
0.0);
(468696.0, 3764459.6, 273.0, 739.0, 0.0); (468722.6, 3764459.6, 273.1, 739.0,
0.0);
(468749.3, 3764459.6, 274.0, 739.0, 0.0); (468775.9, 3764459.6, 274.0, 739.0,
0.0);

(468802.6, 3764459.6,	274.8,	739.0,	DPM	(468829.2, 3764459.6,	275.0,	739.0,
0.0);			0.0);			
(468722.6, 3764476.5,	273.0,	739.0,	0.0);	(468749.3, 3764476.5,	273.4,	739.0,
0.0);						
(468775.9, 3764476.5,	273.9,	739.0,	0.0);	(468802.6, 3764476.5,	274.3,	739.0,
0.0);						
(468829.2, 3764476.5,	274.4,	739.0,	0.0);	(468749.3, 3764493.5,	273.0,	739.0,
0.0);						
(468775.9, 3764493.5,	273.8,	739.0,	0.0);	(468802.6, 3764493.5,	274.0,	739.0,
0.0);						
(468829.2, 3764493.5,	274.0,	739.0,	0.0);	(468749.3, 3764510.4,	273.0,	739.0,
0.0);						
(468775.9, 3764510.4,	273.3,	739.0,	0.0);	(468802.6, 3764510.4,	273.8,	739.0,
0.0);						
(468829.2, 3764510.4,	274.0,	739.0,	0.0);	(468775.9, 3764527.4,	273.0,	739.0,
0.0);						
(468802.6, 3764527.4,	273.6,	739.0,	0.0);	(468829.2, 3764527.4,	273.9,	739.0,
0.0);						
(468855.9, 3764527.4,	274.4,	739.0,	0.0);	(468775.9, 3764544.3,	273.1,	739.0,
0.0);						
(468802.6, 3764544.3,	273.1,	739.0,	0.0);	(468829.2, 3764544.3,	273.7,	739.0,
0.0);						
(468855.9, 3764544.3,	274.1,	739.0,	0.0);	(468802.6, 3764561.2,	273.1,	739.0,
0.0);						
(468829.2, 3764561.2,	273.6,	739.0,	0.0);	(468855.9, 3764561.2,	274.0,	739.0,
0.0);						
(468829.2, 3764578.2,	273.6,	739.0,	0.0);	(468855.9, 3764578.2,	274.0,	739.0,
0.0);						
(468882.5, 3764578.2,	274.4,	739.0,	0.0);	(468829.2, 3764595.1,	273.6,	739.0,
0.0);						
(468855.9, 3764595.1,	274.0,	739.0,	0.0);	(468882.5, 3764595.1,	274.4,	739.0,
0.0);						
(468829.2, 3764612.1,	273.7,	739.0,	0.0);	(468855.9, 3764612.1,	274.0,	739.0,
0.0);						
(468882.5, 3764612.1,	274.5,	739.0,	0.0);	(468855.9, 3764629.0,	274.3,	739.0,
0.0);						
(468882.5, 3764629.0,	275.3,	739.0,	0.0);	(468909.2, 3764629.0,	276.4,	739.0,
0.0);						
(468855.9, 3764645.9,	274.6,	739.0,	0.0);	(468882.5, 3764645.9,	275.9,	739.0,
0.0);						
(468909.2, 3764645.9,	277.1,	739.0,	0.0);	(468882.5, 3764662.9,	276.3,	739.0,
0.0);						

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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

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

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

DPM

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

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007 1 1 1
AND END DATE: 2007 12 31 24

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

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

1.54, 3.09, 5.14, 8.23, 10.80,
♀ *** AERMOD - VERSION 15181 *** C:\Lakes\AERMOD View\RoquetRanch\NO2\NO2.isc ***
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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

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

Surface file: snbo8.sfc Met Version:
14134
Profile file: snbo8.PFL
Surface format: FREE

Profile format: FREE

Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2007 Year: 2007

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
07	01	01	1	01	-0.5	0.030	-9.000	-9.000	-999.	12.	4.4	0.32	1.00	1.00	0.50	27.	9.1	279.9			
5.5																					
07	01	01	1	02	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	7.	9.1	279.2			
5.5																					
07	01	01	1	03	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	97.	9.1	278.8			
5.5																					
07	01	01	1	04	-0.7	0.030	-9.000	-9.000	-999.	12.	3.1	0.32	1.00	1.00	0.50	148.	9.1	278.1			
5.5																					
07	01	01	1	05	-2.4	0.054	-9.000	-9.000	-999.	30.	5.5	0.32	1.00	1.00	0.90	87.	9.1	278.1			
5.5																					
07	01	01	1	06	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	208.	9.1	277.0			
5.5																					
07	01	01	1	07	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	156.	9.1	277.5			
5.5																					
07	01	01	1	08	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	0.52	0.90	60.	9.1	277.5			
5.5																					
07	01	01	1	09	34.6	0.390	0.621	0.005	241.	585.	-149.6	0.32	1.00	0.31	3.10	264.	9.1	282.5			
5.5																					
07	01	01	1	10	78.0	0.267	1.066	0.005	541.	341.	-21.3	0.32	1.00	0.24	1.80	242.	9.1	289.2			
5.5																					
07	01	01	1	11	112.9	0.612	1.395	0.019	839.	1149.	-176.9	0.32	1.00	0.21	4.90	82.	9.1	290.4			
5.5																					
07	01	01	1	12	130.3	0.615	1.611	0.020	1120.	1158.	-155.8	0.32	1.00	0.20	4.90	74.	9.1	290.9			
5.5																					
07	01	01	1	13	128.2	0.671	1.662	0.015	1250.	1315.	-204.9	0.32	1.00	0.20	5.40	59.	9.1	290.9			
5.5																					
07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4			

DPM

5.5	07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4
5.5	07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0
5.5	07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9
5.5	07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2
5.5	07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9
5.5	07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9
5.5	07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9
5.5	07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2
5.5	07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9
5.5	07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
07	01	01	01	9.1	1	27.	0.50	-999.0	99.0	-99.00	-99.00

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

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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** THE 1ST-HIGHEST MAX DAILY 1-HR AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP:
 ALL ***
 INCLUDING SOURCE(S): L0000485 , L0000486 , L0000487 , L0000488 ,
 L0000489 , L0000490 , L0000491 , L0000492 , L0000493 , L0000494 , L0000495 , L0000496 ,
 L0000497 , L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 , L0000504 ,
 L0000505 , L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 , L0000512 ,
 . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

		** CONC OF NO2		IN PPM			
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC		
468722.64	3764442.66	0.00380	468749.29	3764442.66	0.00448		
468775.94	3764442.66	0.00535	468802.59	3764442.66	0.00651		
468695.99	3764459.60	0.00313	468722.64	3764459.60	0.00361		
468749.29	3764459.60	0.00422	468775.94	3764459.60	0.00498		
468802.59	3764459.60	0.00599	468829.24	3764459.60	0.00735		
468722.64	3764476.54	0.00345	468749.29	3764476.54	0.00399		

			DPM			
468775.94	3764476.54	0.00467	468802.59	3764476.54	0.00554	
468829.24	3764476.54	0.00669	468749.29	3764493.48	0.00378	
468775.94	3764493.48	0.00439	468802.59	3764493.48	0.00515	
468829.24	3764493.48	0.00614	468749.29	3764510.42	0.00359	
468775.94	3764510.42	0.00413	468802.59	3764510.42	0.00481	
468829.24	3764510.42	0.00568	468775.94	3764527.36	0.00390	
468802.59	3764527.36	0.00451	468829.24	3764527.36	0.00527	
468855.89	3764527.36	0.00627	468775.94	3764544.30	0.00369	
468802.59	3764544.30	0.00423	468829.24	3764544.30	0.00491	
468855.89	3764544.30	0.00578	468802.59	3764561.24	0.00399	
468829.24	3764561.24	0.00459	468855.89	3764561.24	0.00535	
468829.24	3764578.18	0.00431	468855.89	3764578.18	0.00498	
468882.54	3764578.18	0.00585	468829.24	3764595.12	0.00405	
468855.89	3764595.12	0.00465	468882.54	3764595.12	0.00541	
468829.24	3764612.06	0.00382	468855.89	3764612.06	0.00435	
468882.54	3764612.06	0.00502	468855.89	3764629.00	0.00408	
468882.54	3764629.00	0.00468	468909.19	3764629.00	0.00543	
468855.89	3764645.94	0.00384	468882.54	3764645.94	0.00437	
468909.19	3764645.94	0.00503	468882.54	3764662.88	0.00409	

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**MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

*** THE SUMMARY OF MAXIMUM 1ST-HIGHEST MAX DAILY 1-HR RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF NO2 IN PPM **

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

ALL	1ST HIGHEST VALUE IS	0.00735 AT (	468829.24,	3764459.60,	275.01,	739.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00669 AT (	468829.24,	3764476.54,	274.45,	739.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00651 AT (	468802.59,	3764442.66,	274.90,	739.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00627 AT (	468855.89,	3764527.36,	274.40,	739.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00614 AT (	468829.24,	3764493.48,	274.00,	739.00,	0.00)	DC

DPM

6TH HIGHEST VALUE IS	0.00599	AT (	468802.59,	3764459.60,	274.76,	739.00,	0.00)	DC
7TH HIGHEST VALUE IS	0.00585	AT (	468882.54,	3764578.18,	274.42,	739.00,	0.00)	DC
8TH HIGHEST VALUE IS	0.00578	AT (	468855.89,	3764544.30,	274.10,	739.00,	0.00)	DC
9TH HIGHEST VALUE IS	0.00568	AT (	468829.24,	3764510.42,	274.00,	739.00,	0.00)	DC
10TH HIGHEST VALUE IS	0.00554	AT (468802.59,	3764476.54,	274.34,	739.00,	0.00)	DC

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

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 **MODELOPTs: NonDEFAULT CONC ELEV OLM URBAN

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 1 Warning Message(s)
 A Total of 256 Informational Message(s)
 A Total of 8760 Hours Were Processed
 A Total of 25 Calm Hours Identified
 A Total of 231 Missing Hours Identified (2.64 Percent)

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

***** WARNING MESSAGES *****
 CO W271 31 COCARD: 03FILE w/o 03VALs; full conv for hrs with miss 03

 *** AERMOD Finishes Successfully ***

**

 **
 ** AERMOD Input Produced by:
 ** AERMOD View Ver. 9.1.0
 ** Lakes Environmental Software Inc.
 ** Date: 9/1/2016
 ** File: C:\Lakes\AERMOD View\RoquetRanch\TOG Gas\TOG Gas.ADI
 **

 **
 **

 ** AERMOD Control Pathway

 **

```

**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\RoquetRanch\TOG Gas\TOG Gas.isc
  MODELOPT DFAULT CONC
  AVERTIME ANNUAL
  URBANOPT 2015355
  POLLUTID DPM
  RUNORNOT RUN
  ERRORFIL "TOG Gas.err"

```

CO FINISHED

```

**
*****

```

```

** AERMOD Source Pathway
*****

```

```

**
**

```

SO STARTING

```

** Source Location **
** Source ID - Type - X Coord. - Y Coord. **

```

```

** -----
```

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE1

** DESCRSRC I-215 NB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.00188

** Vertical Dimension = 6.02

** SZINIT = 2.80

** Nodes = 2

** 468775.347, 3764210.424, 279.00, 0.00, 14.49

** 469240.297, 3764816.541, 280.32, 0.00, 14.49

```

** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.
L0000285	468780.216	3764216.771	279.01
L0000286	468799.183	3764241.497	279.07
L0000287	468818.150	3764266.223	279.12
L0000288	468837.117	3764290.949	279.18
L0000289	468856.084	3764315.675	279.23
L0000290	468875.052	3764340.401	279.28
L0000291	468894.019	3764365.127	279.34
L0000292	468912.986	3764389.853	279.39
L0000293	468931.953	3764414.579	279.44
L0000294	468950.920	3764439.305	279.50
L0000295	468969.887	3764464.031	279.55
L0000296	468988.854	3764488.757	279.61
L0000297	469007.822	3764513.483	279.66
L0000298	469026.789	3764538.209	279.71
L0000299	469045.756	3764562.935	279.77
L0000300	469064.723	3764587.660	279.82
L0000301	469083.690	3764612.386	279.88
L0000302	469102.657	3764637.112	279.93
L0000303	469121.625	3764661.838	279.98
L0000304	469140.592	3764686.564	280.04
L0000305	469159.559	3764711.290	280.09
L0000306	469178.526	3764736.016	280.14
L0000307	469197.493	3764760.742	280.20
L0000308	469216.460	3764785.468	280.25
L0000309	469235.427	3764810.194	280.31

** End of LINE VOLUME Source ID = SLINE1

```

** -----

```

** Line Source Represented by Separated Volume Sources

** LINE VOLUME Source ID = SLINE2

** DESCRSRC I-215 SB

** PREFIX

** Length of Side = 16.00

** Configuration = Separated

** Emission Rate = 0.00188

** Vertical Dimension = 6.02
 ** SZINIT = 2.80
 ** Nodes = 2
 ** 468757.411, 3764220.808, 279.00, 0.00, 14.49
 ** 469222.361, 3764826.925, 280.00, 0.00, 14.49
 **

LOCATION	VOLUME				
L0000310	468762.280	3764227.155	279.01		
L0000311	468781.247	3764251.881	279.05		
L0000312	468800.214	3764276.607	279.09		
L0000313	468819.181	3764301.333	279.13		
L0000314	468838.148	3764326.059	279.17		
L0000315	468857.116	3764350.785	279.21		
L0000316	468876.083	3764375.511	279.26		
L0000317	468895.050	3764400.237	279.30		
L0000318	468914.017	3764424.963	279.34		
L0000319	468932.984	3764449.689	279.38		
L0000320	468951.951	3764474.415	279.42		
L0000321	468970.919	3764499.141	279.46		
L0000322	468989.886	3764523.867	279.50		
L0000323	469008.853	3764548.593	279.54		
L0000324	469027.820	3764573.318	279.58		
L0000325	469046.787	3764598.044	279.62		
L0000326	469065.754	3764622.770	279.66		
L0000327	469084.721	3764647.496	279.70		
L0000328	469103.689	3764672.222	279.74		
L0000329	469122.656	3764696.948	279.79		
L0000330	469141.623	3764721.674	279.83		
L0000331	469160.590	3764746.400	279.87		
L0000332	469179.557	3764771.126	279.91		
L0000333	469198.524	3764795.852	279.95		
L0000334	469217.491	3764820.578	279.99		

** End of LINE VOLUME Source ID = SLINE2

** Source Parameters **

LINE	VOLUME	Source	ID		
** LINE VOLUME Source ID = SLINE1					
SRCPARAM	L0000285	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000286	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000287	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000288	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000289	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000290	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000291	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000292	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000293	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000294	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000295	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000296	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000297	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000298	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000299	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000300	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000301	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000302	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000303	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000304	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000305	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000306	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000307	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000308	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000309	0.0000752	0.00	14.49	2.80

LINE	VOLUME	Source	ID		
** LINE VOLUME Source ID = SLINE2					
SRCPARAM	L0000310	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000311	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000312	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000313	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000314	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000315	0.0000752	0.00	14.49	2.80

				DPM	
SRCPARAM	L0000316	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000317	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000318	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000319	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000320	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000321	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000322	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000323	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000324	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000325	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000326	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000327	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000328	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000329	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000330	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000331	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000332	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000333	0.0000752	0.00	14.49	2.80
SRCPARAM	L0000334	0.0000752	0.00	14.49	2.80

** -----

URBANSRC ALL
SRCGROUP ALL

SO FINISHED

**

** AERMOD Receptor Pathway

**

**

RE STARTING

INCLUDED "TOG Gas.rou"

RE FINISHED

**

** AERMOD Meteorology Pathway

**

**

ME STARTING

SURFFILE snbo8.sfc
PROFFILE snbo8.PFL
SURFDATA 0 2007
UAIRDATA 3190 2007
SITEDATA 99999 2007
PROFBASE 305.0 METERS

ME FINISHED

**

** AERMOD Output Pathway

**

**

OU STARTING

** Auto-Generated Plotfiles

PLOTFILE ANNUAL ALL "TOG GAS.AD\AN00GALL.PLT" 31

SUMMFILE "TOG Gas.sum"

OU FINISHED

*** SETUP Finishes Successfully ***

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\TOG Gas\TOG Gas.isc ***
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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** 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 50 Source(s),
for Total of 1 Urban Area(s):
Urban Population = 2015355.0 ; 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:

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

**Model Calculates ANNUAL Averages Only

**This Run Includes: 50 Source(s); 1 Source Group(s); and 50 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 50 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)

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

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 305.00 ; 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 = 3.5 MB of RAM.

**Detailed Error/Message File: TOG Gas.err

**File for Summary of Results: TOG Gas.sum

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**MODELOPTs: RegDEFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

Table with columns: SOURCE ID, NUMBER PART. CATS., EMISSION RATE (GRAMS/SEC), X (METERS), Y (METERS), BASE ELEV. (METERS), RELEASE HEIGHT (METERS), INIT. SY (METERS), INIT. SZ (METERS), URBAN SOURCE, EMISSION RATE SCALAR VARY BY. Contains 32 rows of data for sources L0000285 through L0000324.

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000325	0	0.75200E-04	469046.8	3764598.0	279.6	0.00	14.49	2.80	YES	
L0000326	0	0.75200E-04	469065.8	3764622.8	279.7	0.00	14.49	2.80	YES	
L0000327	0	0.75200E-04	469084.7	3764647.5	279.7	0.00	14.49	2.80	YES	
L0000328	0	0.75200E-04	469103.7	3764672.2	279.7	0.00	14.49	2.80	YES	
L0000329	0	0.75200E-04	469122.7	3764696.9	279.8	0.00	14.49	2.80	YES	
L0000330	0	0.75200E-04	469141.6	3764721.7	279.8	0.00	14.49	2.80	YES	
L0000331	0	0.75200E-04	469160.6	3764746.4	279.9	0.00	14.49	2.80	YES	
L0000332	0	0.75200E-04	469179.6	3764771.1	279.9	0.00	14.49	2.80	YES	
L0000333	0	0.75200E-04	469198.5	3764795.9	279.9	0.00	14.49	2.80	YES	
L0000334	0	0.75200E-04	469217.5	3764820.6	280.0	0.00	14.49	2.80	YES	

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL L0000292	L0000285 , L0000286 , L0000287 , L0000288 , L0000289 , L0000290 , L0000291 ,
L0000300	L0000293 , L0000294 , L0000295 , L0000296 , L0000297 , L0000298 , L0000299 ,
L0000308	L0000301 , L0000302 , L0000303 , L0000304 , L0000305 , L0000306 , L0000307 ,
L0000316	L0000309 , L0000310 , L0000311 , L0000312 , L0000313 , L0000314 , L0000315 ,
L0000324	L0000317 , L0000318 , L0000319 , L0000320 , L0000321 , L0000322 , L0000323 ,
L0000332	L0000325 , L0000326 , L0000327 , L0000328 , L0000329 , L0000330 , L0000331 ,

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

URBAN ID	URBAN POP	SOURCE IDs
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DPM

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L0000291      2015355.  L0000285  , L0000286  , L0000287  , L0000288  , L0000289  , L0000290  ,
L0000292      ,
L0000300      L0000293  , L0000294  , L0000295  , L0000296  , L0000297  , L0000298  , L0000299  ,
L0000308      L0000301  , L0000302  , L0000303  , L0000304  , L0000305  , L0000306  , L0000307  ,
L0000316      L0000309  , L0000310  , L0000311  , L0000312  , L0000313  , L0000314  , L0000315  ,
L0000324      L0000317  , L0000318  , L0000319  , L0000320  , L0000321  , L0000322  , L0000323  ,
L0000332      L0000325  , L0000326  , L0000327  , L0000328  , L0000329  , L0000330  , L0000331  ,

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L0000333      , L0000334      ,
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**MODELOPTs:  RegDFAULT CONC      ELEV      URBAN

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

```

( 468722.6, 3764442.7, 273.6, 739.0, 0.0); ( 468749.3, 3764442.7, 274.0, 739.0,
0.0);
( 468775.9, 3764442.7, 274.5, 739.0, 0.0); ( 468802.6, 3764442.7, 274.9, 739.0,
0.0);
( 468696.0, 3764459.6, 273.0, 739.0, 0.0); ( 468722.6, 3764459.6, 273.1, 739.0,
0.0);
( 468749.3, 3764459.6, 274.0, 739.0, 0.0); ( 468775.9, 3764459.6, 274.0, 739.0,
0.0);
( 468802.6, 3764459.6, 274.8, 739.0, 0.0); ( 468829.2, 3764459.6, 275.0, 739.0,
0.0);
( 468722.6, 3764476.5, 273.0, 739.0, 0.0); ( 468749.3, 3764476.5, 273.4, 739.0,
0.0);
( 468775.9, 3764476.5, 273.9, 739.0, 0.0); ( 468802.6, 3764476.5, 274.3, 739.0,
0.0);
( 468829.2, 3764476.5, 274.4, 739.0, 0.0); ( 468749.3, 3764493.5, 273.0, 739.0,
0.0);
( 468775.9, 3764493.5, 273.8, 739.0, 0.0); ( 468802.6, 3764493.5, 274.0, 739.0,
0.0);
( 468829.2, 3764493.5, 274.0, 739.0, 0.0); ( 468749.3, 3764510.4, 273.0, 739.0,
0.0);
( 468775.9, 3764510.4, 273.3, 739.0, 0.0); ( 468802.6, 3764510.4, 273.8, 739.0,
0.0);
( 468829.2, 3764510.4, 274.0, 739.0, 0.0); ( 468775.9, 3764527.4, 273.0, 739.0,
0.0);
( 468802.6, 3764527.4, 273.6, 739.0, 0.0); ( 468829.2, 3764527.4, 273.9, 739.0,
0.0);
( 468855.9, 3764527.4, 274.4, 739.0, 0.0); ( 468775.9, 3764544.3, 273.1, 739.0,
0.0);
( 468802.6, 3764544.3, 273.1, 739.0, 0.0); ( 468829.2, 3764544.3, 273.7, 739.0,
0.0);
( 468855.9, 3764544.3, 274.1, 739.0, 0.0); ( 468802.6, 3764561.2, 273.1, 739.0,
0.0);

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(468829.2, 3764561.2, 273.6, 739.0, 0.0);	(468855.9, 3764561.2, 274.0, 739.0, 0.0);
(468829.2, 3764578.2, 273.6, 739.0, 0.0);	(468855.9, 3764578.2, 274.0, 739.0, 0.0);
(468882.5, 3764578.2, 274.4, 739.0, 0.0);	(468829.2, 3764595.1, 273.6, 739.0, 0.0);
(468855.9, 3764595.1, 274.0, 739.0, 0.0);	(468882.5, 3764595.1, 274.4, 739.0, 0.0);
(468829.2, 3764612.1, 273.7, 739.0, 0.0);	(468855.9, 3764612.1, 274.0, 739.0, 0.0);
(468882.5, 3764612.1, 274.5, 739.0, 0.0);	(468855.9, 3764629.0, 274.3, 739.0, 0.0);
(468882.5, 3764629.0, 275.3, 739.0, 0.0);	(468909.2, 3764629.0, 276.4, 739.0, 0.0);
(468855.9, 3764645.9, 274.6, 739.0, 0.0);	(468882.5, 3764645.9, 275.9, 739.0, 0.0);
(468909.2, 3764645.9, 277.1, 739.0, 0.0);	(468882.5, 3764662.9, 276.3, 739.0, 0.0);

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1
1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 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 15181 *** C:\Lakes\AERMOD View\RoquetRanch\TOG Gas\TOG Gas.isc ***
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**MODELOPTs: RegDFAULT CONC ELEV URBAN

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

Surface file: snbo8.sfc
14134
Profile file: snbo8.PFL

Met Version:

DPM

Surface format: FREE

Profile format: FREE

Surface station no.: 0
 Name: UNKNOWN
 Year: 2007

Upper air station no.: 3190
 Name: UNKNOWN
 Year: 2007

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
07	01	01	1	01	-0.5	0.030	-9.000	-9.000	-999.	12.	4.4	0.32	1.00	1.00	0.50	27.	9.1	279.9			
5.5																					
07	01	01	1	02	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	7.	9.1	279.2			
5.5																					
07	01	01	1	03	-0.5	0.030	-9.000	-9.000	-999.	12.	4.3	0.32	1.00	1.00	0.50	97.	9.1	278.8			
5.5																					
07	01	01	1	04	-0.7	0.030	-9.000	-9.000	-999.	12.	3.1	0.32	1.00	1.00	0.50	148.	9.1	278.1			
5.5																					
07	01	01	1	05	-2.4	0.054	-9.000	-9.000	-999.	30.	5.5	0.32	1.00	1.00	0.90	87.	9.1	278.1			
5.5																					
07	01	01	1	06	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	208.	9.1	277.0			
5.5																					
07	01	01	1	07	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	1.00	0.90	156.	9.1	277.5			
5.5																					
07	01	01	1	08	-1.7	0.054	-9.000	-9.000	-999.	30.	7.8	0.32	1.00	0.52	0.90	60.	9.1	277.5			
5.5																					
07	01	01	1	09	34.6	0.390	0.621	0.005	241.	585.	-149.6	0.32	1.00	0.31	3.10	264.	9.1	282.5			
5.5																					
07	01	01	1	10	78.0	0.267	1.066	0.005	541.	341.	-21.3	0.32	1.00	0.24	1.80	242.	9.1	289.2			
5.5																					
07	01	01	1	11	112.9	0.612	1.395	0.019	839.	1149.	-176.9	0.32	1.00	0.21	4.90	82.	9.1	290.4			
5.5																					
07	01	01	1	12	130.3	0.615	1.611	0.020	1120.	1158.	-155.8	0.32	1.00	0.20	4.90	74.	9.1	290.9			
5.5																					
07	01	01	1	13	128.2	0.671	1.662	0.015	1250.	1315.	-204.9	0.32	1.00	0.20	5.40	59.	9.1	290.9			
5.5																					
07	01	01	1	14	107.5	0.712	1.575	0.007	1267.	1439.	-292.1	0.32	1.00	0.22	5.80	58.	9.1	291.4			
5.5																					
07	01	01	1	15	68.1	0.602	1.356	0.021	1277.	1137.	-279.3	0.32	1.00	0.25	4.90	40.	9.1	291.4			
5.5																					
07	01	01	1	16	18.1	0.438	0.872	0.021	1278.	724.	-405.7	0.32	1.00	0.34	3.60	312.	9.1	292.0			
5.5																					
07	01	01	1	17	-25.8	0.263	-9.000	-9.000	-999.	353.	61.6	0.32	1.00	0.63	2.70	342.	9.1	290.9			
5.5																					
07	01	01	1	18	-4.9	0.077	-9.000	-9.000	-999.	114.	8.1	0.32	1.00	1.00	1.30	256.	9.1	289.2			
5.5																					
07	01	01	1	19	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	191.	9.1	289.9			
5.5																					
07	01	01	1	20	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	197.	9.1	289.9			
5.5																					
07	01	01	1	21	-4.9	0.077	-9.000	-9.000	-999.	52.	8.1	0.32	1.00	1.00	1.30	190.	9.1	289.9			
5.5																					
07	01	01	1	22	-2.4	0.054	-9.000	-9.000	-999.	30.	5.6	0.32	1.00	1.00	0.90	188.	9.1	289.2			
5.5																					
07	01	01	1	23	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	162.	9.1	289.9			
5.5																					
07	01	01	1	24	-9.5	0.107	-9.000	-9.000	-999.	84.	11.3	0.32	1.00	1.00	1.80	42.	9.1	289.2			
5.5																					

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
07	01	01	01	5.5	0	-999.	-99.00	279.9	99.0	-99.00	-99.00
07	01	01	01	9.1	1	27.	0.50	-999.0	99.0	-99.00	-99.00

DPM

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

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**MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL

 INCLUDING SOURCE(S): L0000285 , L0000286 , L0000287 , L0000288 ,
 L0000289 , L0000290 , L0000291 , L0000292 , L0000293 , L0000294 , L0000295 , L0000296 ,
 L0000297 , L0000298 , L0000299 , L0000300 , L0000301 , L0000302 , L0000303 , L0000304 ,
 L0000305 , L0000306 , L0000307 , L0000308 , L0000309 , L0000310 , L0000311 , L0000312 ,
 . . . ,

*** 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
468722.64	3764442.66	0.06607	468749.29	3764442.66	0.07824
468775.94	3764442.66	0.09421	468802.59	3764442.66	0.11582
468695.99	3764459.60	0.05408	468722.64	3764459.60	0.06264
468749.29	3764459.60	0.07368	468775.94	3764459.60	0.08743
468802.59	3764459.60	0.10613	468829.24	3764459.60	0.13178
468722.64	3764476.54	0.05964	468749.29	3764476.54	0.06936
468775.94	3764476.54	0.08170	468802.59	3764476.54	0.09771
468829.24	3764476.54	0.11914	468749.29	3764493.48	0.06550
468775.94	3764493.48	0.07657	468802.59	3764493.48	0.09047
468829.24	3764493.48	0.10869	468749.29	3764510.42	0.06213
468775.94	3764510.42	0.07186	468802.59	3764510.42	0.08426
468829.24	3764510.42	0.10015	468775.94	3764527.36	0.06770
468802.59	3764527.36	0.07872	468829.24	3764527.36	0.09269
468855.89	3764527.36	0.11132	468775.94	3764544.30	0.06404
468802.59	3764544.30	0.07369	468829.24	3764544.30	0.08610
468855.89	3764544.30	0.10213	468802.59	3764561.24	0.06933
468829.24	3764561.24	0.08034	468855.89	3764561.24	0.09433
468829.24	3764578.18	0.07523	468855.89	3764578.18	0.08755
468882.54	3764578.18	0.10363	468829.24	3764595.12	0.07062
468855.89	3764595.12	0.08155	468882.54	3764595.12	0.09558

DPM

468829.24	3764612.06	0.06644	468855.89	3764612.06	0.07620
468882.54	3764612.06	0.08856	468855.89	3764629.00	0.07146
468882.54	3764629.00	0.08262	468909.19	3764629.00	0.09699
468855.89	3764645.94	0.06715	468882.54	3764645.94	0.07717
468909.19	3764645.94	0.08978	468882.54	3764662.88	0.07214

♀ *** AERMOD - VERSION 15181 *** *** C:\Lakes\AERMOD View\RoquetRanch\TOG Gas\TOG Gas.isc ***
 09/01/16
 *** AERMET - VERSION 14134 *** ***
 15:45:30

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

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

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

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE
ALL	1ST HIGHEST VALUE IS 0.13178 AT (468829.24, 3764459.60, 275.01, 739.00, 0.00)		DC
	2ND HIGHEST VALUE IS 0.11914 AT (468829.24, 3764476.54, 274.45, 739.00, 0.00)		DC
	3RD HIGHEST VALUE IS 0.11582 AT (468802.59, 3764442.66, 274.90, 739.00, 0.00)		DC
	4TH HIGHEST VALUE IS 0.11132 AT (468855.89, 3764527.36, 274.40, 739.00, 0.00)		DC
	5TH HIGHEST VALUE IS 0.10869 AT (468829.24, 3764493.48, 274.00, 739.00, 0.00)		DC
	6TH HIGHEST VALUE IS 0.10613 AT (468802.59, 3764459.60, 274.76, 739.00, 0.00)		DC
	7TH HIGHEST VALUE IS 0.10363 AT (468882.54, 3764578.18, 274.42, 739.00, 0.00)		DC
	8TH HIGHEST VALUE IS 0.10213 AT (468855.89, 3764544.30, 274.10, 739.00, 0.00)		DC
	9TH HIGHEST VALUE IS 0.10015 AT (468829.24, 3764510.42, 274.00, 739.00, 0.00)		DC
	10TH HIGHEST VALUE IS 0.09771 AT (468802.59, 3764476.54, 274.34, 739.00, 0.00)		DC

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

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 09/01/16
 *** AERMET - VERSION 14134 *** ***
 15:45:30

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 **MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 1086 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 37 Calm Hours Identified

A Total of 1049 Missing Hours Identified (2.39 Percent)

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

***** WARNING MESSAGES *****
*** NONE ***

*** AERMOD Finishes Successfully ***

APPENDIX 3.4:

**AERMOD MODEL INPUT/OUTPUT FILES
(ELECTRONIC FORMAT, AVAILABLE ON REQUEST)**