Appendix B Health Risk Assessment

Appendix

This page intentionally left blank.

1. Construction Health Risk Assessment

1.1 INTRODUCTION

Core Spaces, the project applicant, is proposing the development of a six- story, 420-unit (1,251-bed) student-oriented housing project with neighborhood-supporting commercial space (proposed project or project). The 3.55-acre project site is bounded by multifamily residential uses to the north, State Route 57 to the east, E. Chapman Avenue to the south, and N. Commonwealth Avenue to the west, in the City of Fullerton, Orange County, California. The project is a mixed-use project that would result in demolition of the offices and surface parking spaces in addition to the subsequent development of a new six-story residential building, retail space, and parking garage. The proposed project would involve demolition, site preparation, grading, trenching, building construction, architectural coating, paving, and finishing and landscaping. The following provides the background methodology used for the construction health risk assessment for the proposed project.

Project construction is anticipated to take place starting at the beginning of January 2022 and be completed by March 2024 (approximately 582 workdays). The nearest sensitive receptors to the project site include the multifamily residences to the north along College Place. Guidance from the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA), California Air Pollution Control Officers Association (CAPCOA), and the South Coast Air Quality Management District (South Coast AQMD) recommend the completion of health risk assessments (HRA) to determine the impacts of hazardous air emissions upon sensitive receptors in the vicinity of the project. As a result, a site-specific construction health risk assessment (HRA) has been prepared for the proposed project. This HRA considers the health impact to sensitive receptors (adults and children in the nearby residences) of construction emissions at the project site from diesel equipment exhaust (diesel particulate matter or DPM).

It should be noted that these health impacts are based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA, 2005) and the Office of Environmental Health Hazard Assessment (OEHHA, 2015) note that conservative assumptions used in a risk assessment are intended to ensure that the estimated risks do not underestimate the actual risks. Therefore, the estimated risks may not necessarily represent actual risks experienced by populations at or near a site. The use of conservative assumptions tends to produce upper-bound estimates of exposure and thus risk.

For residential-based receptors, the following conservative assumptions were used:

- It was assumed that maximum-exposed off-site residential receptors (both children and adults) stood outdoors and are subject to DPM at their residence for 8 hours per day, and approximately 260 construction days per year. In reality, California residents typically will spend on average 2 hours per day outdoors at their residences (USEPA, 2011). This would result in lower exposures to construction related DPM emissions and lower estimated risk values.

- The calculated risk for infants from third trimester to age 2 is multiplied by a factor of 10 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

1.2 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

For this HRA, the South Coast AQMD significance thresholds were deemed to be appropriate and the thresholds that were used for this project are shown below:

- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0

The methodology used in this HRA is consistent with the following South Coast AQMD and the OEHHA guidance documents:

- OEHHA. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* February, 2015.

Potential exposures to DPM from proposed project construction were evaluated for off-site sensitive receptors in close proximity to the site. Pollutant concentrations were estimated using an air dispersion model, and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds adopted for this HRA.

1.3 CONSTRUCTION EMISSIONS

Construction emissions were calculated as average daily emissions in pounds per day, using the proposed construction schedule and the latest version of California Emissions Estimation Model, known as CalEEMod Version 2016.3.2.25 (CAPCOA, 2017). DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day.

The project was assumed to take place over 27 months (582 workdays or 2.24 years) from the beginning of January 2022 through March 2024. The average daily emission rates from construction equipment used during the proposed project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2022, 2023, and 2024). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 0.51-mile haul route within 1,000 feet of the project site. The CalEEMod construction emissions output and emission rate calculations are provided in Appendix A of the HRA.

1.4 DISPERSION MODELING

Air quality modeling was performed using the AERMOD atmospheric dispersion model to assess the impact of emitted compounds on sensitive receptors near the project. The model is a steady state Gaussian plume model and is an approved model by South Coast AQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. The on-site construction emissions for the project were modeled as poly-area sources. The off-site mobile sources were modeled as adjacent line volume sources. The model requires additional input parameters, including chemical emission data and local meteorology. Inputs for the construction emission rates are those described in Section 1.3. Meteorological data obtained from the South Coast AQMD for the nearest representative meteorological station (Fullerton Airport) with the five latest available years (2012 to 2016) of record were used to represent local weather conditions and prevailing winds. The prevailing wind direction at the Fullerton Airport meteorological station is to the northeast, and the wind rose is provided in Appendix A.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. To accommodate the model's Cartesian grid format, direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. In addition, digital elevation model (DEM) data for the area were obtained and included in the model runs to account for complex terrain. An emission release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and diesel truck traffic, and an initial vertical dispersion parameter of 1.93 m was used, per California Air Resources Board (CARB) guidance (2000).

To determine contaminant impacts during construction hours, the model's Hour-By-Day-of-Week (HRDOW) scalar option was invoked to predict flagpole-level concentrations (0 m for ground-floor receptors, 6.1 m for 2nd-floor, and 9.1 m for 3rd-floor) for construction emissions generated between the hours of 7:00 AM and 4:00 PM with a 1-hour lunch break.

A unit emission rate of 1 gram per second was used for all modeling runs. The unit emission rates were proportioned over the poly-area sources for on-site construction emissions and divided between the volume sources for off-site hauling emissions. The maximum modeled concentrations from the output files were then multiplied by the emission rates calculated in Appendix A to obtain the maximum flagpole-level concentrations at the off-site maximum exposed receptor (MER). As shown in Figure 1, the MER is the multifamily residence north of the site along College Place. The MER location is the receptor location associated with the maximum AERMOD predicted DPM concentrations from the on-site emission source because the calculated on-site emission rates are approximately 2 orders of magnitude higher than the calculated off-site emission rates (see Appendix A). Therefore, the maximum concentrations associated with the on-site emission sources produce the highest overall ground-level MER concentrations and, consequently, highest calculated health risks.

The air dispersion model output for the emission sources is presented in Appendix B. The model output DPM concentrations from the construction emission sources are provided in Appendix C.

1.5 RISK CHARACTERIZATION

1.5.1 Carcinogenic Chemical Risk

Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Therefore, any exposure will have some associated risk. The South Coast AQMD has established a maximum incremental cancer risk of 10 in a million (1×10^{-5} or 10×10^{-6}) for CEQA projects and the OEHHA also sets a typical risk management level as 10 in a million (OEHHA, 2015).

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its cancer potency factor (CPF), a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It is an upper-limit estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$), averaged over a lifetime of 70 years.

Recent guidance from OEHHA recommends a refinement to the standard point estimate approach with the use of age-specific breathing rates and age sensitivity factors (ASFs) 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 for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, the following dose algorithm was used to accommodate the unique exposures associated with each receptor type.

$$\text{Dose}_{\text{AIR,per age group}} = \left(C_{\text{air}} \times \text{EF} \times \left[\frac{\text{BR}}{\text{BW}}\right] \times \text{A} \times \text{CF}\right)$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
C_{air}	=	concentration of contaminant in air ($\mu g/m^3$)
EF	=	exposure frequency (number of days/365 days)
BR/BW	=	daily breathing rate normalized to body weight (L/kg-day)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor ($1x10^{-6}$, µg to mg, L to m^3)

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor included a correction for absorption across the lung. The default value of 1 was used for this assessment. For residential receptors, the exposure frequency (EF) of 0.96 is used to represent 350 days per year to allow for a two-week period away from home each year (OEHHA, 2015). The 95th percentile daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASFs), and fraction of time at home (FAH) for the various age groups are provided herein:

Age Groups	BR/BW (L/kg-day)	ED	ASF	FAH
Third trimester	361	0.25	10	0.85
0-2 age group	1,090	2	10	0.85
2-9 age group	861	7	3	0.72
2-16 age group	745	14	3	0.72
16-30 age group	335	14	1	0.73
16-70 age group	290	54	1	0.73

For construction analysis, the exposure duration spans the length of construction (e.g., 582 workdays, approximately 2.24 years). In addition, the construction duration each year was considered in the risk calculations to account for the number of days residents are exposed to construction emissions in 2022, 2023 and 2024. As the length of construction is less than 2.25 years, the third trimester and 0-2 age bins apply to the construction analysis for the off-site residential receptors.

To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times \text{CPF} \times \text{ASF} \times \text{FAH} \times \frac{\text{ED}}{AT}$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
CPF	=	cancer potency factor, chemical-specific $(\text{mg/kg-day})^{-1}$
ASF	=	age sensitivity factor, per age group
FAH	=	fraction of time at home, per age group (for residential receptors only)
ED	=	exposure duration (years)
AT	=	averaging time period over which exposure duration is averaged (70 years)

The CPFs used in the assessment were obtained from OEHHA guidance. The excess lifetime cancer risks during the construction period to the maximally exposed resident were calculated based on the factors provided above. The cancer risks for each age group are summed to estimate the total cancer risk for each toxic chemical species. The final step converts the cancer risk in scientific notation to a whole number that expresses the cancer risk in "chances per million" by multiplying the cancer risk by a factor of $1x10^6$ (i.e., 1 million).

The calculated results are provided in Appendix C.

1.5.2 Non-Carcinogenic Hazards

An evaluation was also conducted of the potential non-cancer effects of chronic chemical exposures. Adverse health effects are evaluated by comparing the annual receptor level (flagpole) concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by OEHHA were considered in the assessment.

The hazard index approach was used to quantify non-carcinogenic impacts. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). Target organs presented in regulatory guidance were used for each discrete chemical exposure. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. This ratio is summed for compounds affecting the same toxicological endpoint. A health hazard is presumed to exist where the total equals or exceeds one.

The chronic hazard analysis for DPM is provided in Appendix C. The calculations contain the relevant exposure concentrations and corresponding reference dose values used in the evaluation of non-carcinogenic exposures.

1.6 CONSTRUCTION HRA RESULTS

The calculated results are provided in Appendix C and the results are summarized in Table 1.

TABLE 1. CONSTRUCTION RISK SUMMARY - UNMITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Receptor - Resident	11.0	0.034
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	**Yes**	**No**

Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

Cancer risk for the maximum exposed receptor from project-related construction emissions was calculated to be 11.0 in a million, which would exceed the 10 in a million significance threshold. In accordance with the latest 2015 OEHHA guidance, the calculated total cancer risk conservatively assumes that the risk for the MER consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 27-month construction period; therefore, all calculated risk values were multiplied by a factor of 10. In addition, it was conservatively assumed that the residents were outdoors 8 hours a day and exposed to all of the daily construction emissions. For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for all the off-site sensitive receptors. Therefore, chronic non-carcinogenic hazards are less than significant.

Because cancer risk for the MER would exceed South Coast AQMD significance threshold due to construction activities associated with the proposed project, the following mitigation measure is proposed:

> **Mitigation Measure AQ-1:** The proposed project's construction contractors shall use equipment that meets the United States Environmental Protection Agency Tier 4 interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated that such equipment is not available. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Tier 4 interim emissions standard for a similarly sized engine, as defined by the California Air Resources

Board's regulations. The requirement to use Tier 4 interim equipment for engines over 50 horsepower shall be identified in construction bids.

- Have engines that meet either US EPA or California Air Resources Board (CARB) Tier 4 Interim emission standards. Ensure that all construction plans clearly show the selected emission reduction strategy for construction equipment over 50 horsepower.

- Maintain a list of all operating equipment in use on the project site for verification by the City of Fullerton Building and Safety Department. The construction equipment list shall state the makes, models, horsepower, US EPA tier rating, and number of construction equipment on-site. If an emissions control device is used in lieu of Tier 4 interim equipment, the construction equipment list shall also document the emissions control device used and control efficiency. Ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations

- Communicate with all sub-contractors in contracts and construction documents that all non-essential idling of construction equipment is restricted to 5 minutes or less in compliance with California Air Resources Board Rule 2449 and is responsible for ensuring that this requirement is met.

Mitigation Measure AQ-1 would reduce the project's localized construction emissions, as shown in the following table. The results indicate that, with mitigation, cancer risk and the maximum annual $PM_{2.5}$ concentration would be less than the South Coast AQMD's significance thresholds for residential-based receptors. Therefore, the project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions during construction and impacts would be *less than significant* with mitigation.

TABLE 2. CONSTRUCTION RISK SUMMARY - MITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Receptor - Resident	1.9	0.005
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	**No**	**No**

Risks incorporate Mitigation Measure AQ-1, which includes using construction equipment which meets USEPA Tier 4 Interim engine requirements for equipment over 50 horsepower.
Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

2. References

California Air Pollution Control Officers Association (CAPCOA). 2017. California Emissions Estimator Model (CalEEMod). Version 2016.3.2.25. Prepared by: BREEZE Software, A Division of Trinity Consultants in collaboration with South Coast Air Quality Management District and the California Air Districts.

California Air Resources Board (CARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.*

Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* Dated February 2015.

South Coast Air Quality Management District (South Coast AQMD). 2021, May 20 (accessed). 2012-2016. Meteorological Data Set for Fullerton Airport Meteorological Station. http://www.aqmd.gov/home/air-quality/meteorological-data/data-for-aermod.

United States Environmental Protection Agency (USEPA). 2011. *Exposure Factors Handbook 2011 Edition (Final).* EPA/600/R-09/052F, 2011.

_____. 2005. *Guideline on Air Quality Models* (Revised). EPA-450/2-78-027R.

Figure 1 - Project Site and Off-Site Receptor Locations

Source: Nearmap, 2021

Appendix A. Emission Rate Calculations

Construction Emissions - DPM
Input to Risk Tables

Onsite Construction PM10 Exhaust Emissions - Unmitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Workdays/ Year	Construction Duration[2]
2022	0.0290	58.02	260	0.22	2.79E-02	3.51E-03	260	1.00
2023	0.0000	0.00	260	0.00	0.00E+00	0.00E+00	260	1.00
2024	0.0100	19.90	62	0.32	4.01E-02	5.06E-03	262	0.24

Offsite Construction PM10 Exhaust Emissions - Unmitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	Emission Rate (lbs/hr)	Emission Rate (g/s)
2022	0.0033	6.62	260	0.03	6.43E-04	8.04E-05	1.01E-05
2023	0.0045	8.94	260	0.03	8.69E-04	1.09E-04	1.37E-05
2024	0.0010	2.00	62	0.03	8.15E-04	1.02E-04	1.28E-05

Note: Emissions evenly distributed over 38 modeled volume sources.

Hauling Length (miles) [3]	20.0	miles
Haul Length within 1,000 ft of Site (mile) [4]	0.51	miles
Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [5]	8	hours

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

[3] Based on CalEEMod default 20 mile hauling distance.

[4] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances , are adjusted to evaluate emissions from the 0.51-mile route within 1,000 of the project site.

[5] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App C - Air Dispersion Model Output Files).

3.3 Building and Asphalt Demolition and Demolition Reprocessing - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.02	0.18	0.17	0.00		0.01	0.01		0.01	0.01
Total		0.02	0.18	0.17	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Building Demolition Haul - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.01	0.00	0.01	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Asphalt Demolition Haul - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.02	0.00	0.02	0.00	0.00	0.00
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Site Preparation - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.02	0.04	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Rough Grading - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.02	0.00	0.02	0.01	0.00	0.01
Off-Road		0.02	0.23	0.15	0.00		0.01	0.01		0.01	0.01
Total		0.02	0.23	0.15	0.00	0.02	0.01	0.03	0.01	0.01	0.02

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Rough Grading Soil Haul - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.12	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.12	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.8 Ground/Soil Improvement - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.01	0.08	0.09	0.00		0.00	0.00		0.00	0.00
Total		0.01	0.08	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9 Fine Grading - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.01	0.07	0.04	0.00		0.00	0.00		0.00	0.00
Total		0.01	0.07	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10 Fine Grading Soil Haul - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust						0.00	0.00	0.00	0.00	0.00	0.00
Off-Road		0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11 Utility Trenching - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.01	0.11	0.12	0.00		0.00	0.00		0.00	0.00
Total		0.01	0.11	0.12	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12 Building Construction - 2022

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.01	0.45	0.13	0.00	0.03	0.00	0.03	0.01	0.00	0.01
Worker		0.08	0.05	0.65	0.00	0.25	0.00	0.25	0.07	0.00	0.07
Total		0.10	0.51	0.78	0.00	0.28	0.00	0.28	0.07	0.00	0.08

3.12 Building Construction - 2023

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.02	0.72	0.25	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker		0.17	0.10	1.28	0.00	0.52	0.00	0.52	0.14	0.00	0.14
Total		0.19	0.83	1.54	0.01	0.58	0.00	0.59	0.16	0.00	0.16

3.12 Building Construction - 2024

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.14	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker		0.03	0.02	0.24	0.00	0.10	0.00	0.10	0.03	0.00	0.03
Total		0.04	0.16	0.29	0.00	0.12	0.00	0.12	0.03	0.00	0.03

3.16 Finishing/Landscaping - 2024

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.00	0.04	0.09	0.00		0.00	0.00		0.00	0.00
Total		0.00	0.04	0.09	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14 Paving - 2024

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road		0.02	0.14	0.21	0.00		0.01	0.01		0.01	0.01
Paving		0.00					0.00	0.00		0.00	0.00
Total		0.02	0.14	0.21	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15 Architectural Coating - 2024

Unmitigated Construction On-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Architectural Coating		2.40					0.00	0.00		0.00	0.00
Off Road		0.00	0.02	0.03	0.00		0.00	0.00		0.00	0.00
Total		2.40	0.02	0.03	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker		0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total		0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction Emissions - DPM
Input to Risk Tables

Onsite Construction PM10 Exhaust Emissions - Mitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Workdays/ Year	Construction Duration[2]
2022	0.0053	10.50	260	0.04	5.05E-03	6.36E-04	260	1.00
2023	0.0000	0.00	260	0.00	0.00E+00	0.00E+00	260	1.00
2024, Phase 1	0.0014	2.82	62	0.05	5.69E-03	7.16E-04	262	0.24

Offsite Construction PM10 Exhaust Emissions - Mitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	Emission Rate (lbs/hr)	Emission Rate (g/s)
2022	0.0048	9.64	260	0.04	9.37E-04	1.17E-04	1.48E-05
2023	0.0049	9.70	260	0.04	9.42E-04	1.18E-04	1.48E-05
2024, Phase 1	0.0011	2.10	62	0.03	8.56E-04	1.07E-04	1.35E-05

Note: Emissions evenly distributed over 38 modeled volume sources.

Hauling Length (miles) [3]	20.0	miles
Haul Length within 1,000 ft of Site (mile) [4]	0.51	miles
Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [5]	8	hours

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

[3] Based on CalEEMod default 20 mile hauling distance.

[4] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances , are adjusted to evaluate emissions from the 0.51-mile route within 1,000 of the project site.

[5] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App C - Air Dispersion Model Output Files).

3.2 Building and Asphalt Demolition and Demolition Reprocessing - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.18	0.34	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.18	0.34	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Building Demolition Haul - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Asphalt Demolition Haul - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.05	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Rough Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.02	0.00	0.02	0.01	0.00	0.01
Off-Road	0.01	0.08	0.16	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.08	0.16	0.00	0.02	0.00	0.02	0.01	0.00	0.01

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Rough Grading Soil Haul - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.06	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.08	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.08	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.8 Ground/Soil Improvement - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.08	0.15	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.08	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9 Fine Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.03	0.06	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10 Fine Grading Soil Haul - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11 Utility Trenching - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.10	0.17	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.10	0.17	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.24	0.08	0.00	0.03	0.00	0.03	0.01	0.00	0.01
Worker	0.07	0.06	0.76	0.00	0.25	0.00	0.25	0.07	0.00	0.07
Total	0.08	0.29	0.84	0.00	0.28	0.00	0.28	0.07	0.00	0.08

3.12 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.39	0.16	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker	0.15	0.10	1.50	0.00	0.52	0.00	0.52	0.14	0.00	0.14
Total	0.16	0.50	1.65	0.01	0.58	0.00	0.59	0.16	0.00	0.16

3.12 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.08	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker	0.03	0.02	0.28	0.00	0.10	0.00	0.10	0.03	0.00	0.03
Total	0.03	0.10	0.31	0.00	0.12	0.00	0.12	0.03	0.00	0.03

3.16 Finishing/Landscaping - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.06	0.11	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.06	0.11	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.15	0.24	0.00		0.00	0.00		0.00	0.00
Paving	0.00					0.00	0.00		0.00	0.00
Total	0.01	0.15	0.24	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	1.21					0.00	0.00		0.00	0.00
Off-Road	0.00	0.02	0.03	0.00		0.00	0.00		0.00	0.00
Total	1.21	0.02	0.03	0.00		0.00	0.00		0.00	0.00

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00

Phase Name	Start Date	End Date	CalEEMod Days	Total Days
Building and Asphalt Demolition and Demolition Reprocessing	1/1/2022	3/4/2022	45	**62**
Building Demolition Debris Haul 2022	1/1/2022	3/4/2022	45	**62**
Asphalt Demolition Debris Haul 2022	1/1/2022	3/4/2022	45	**62**
Site Preparation	3/24/2022	4/6/2022	10	**13**
Rough Grading	4/7/2022	4/20/2022	10	**13**
Rough Grading Soil Haul	4/7/2022	4/20/2022	10	**13**
Ground/Soil Improvement	4/13/2022	6/7/2022	40	**55**
Fine Grading	5/31/2022	6/13/2022	10	**13**
Fine Grading Soil Haul	5/31/2022	6/13/2022	10	**13**
Utility Trenching	6/14/2022	7/12/2022	21	**28**
Building Construction 2022	7/13/2022	12/31/2022	123	**171**
Building Construction 2023	1/1/2023	12/31/2023	260	**364**
Building Construction 2024	1/1/2024	1/9/2024	7	**8**
Paving	1/24/2024	3/12/2024	35	**48**
Architectural Coating	1/24/2024	3/12/2024	35	**48**
Finishing/Landscaping	1/10/2024	3/26/2024	55	**76**

Number of Construction Days Per Year			
2022	1/1/2022	12/31/2022	260
2023	1/1/2023	12/31/2023	260
2024	1/1/2024	3/26/2024	62
		CONSTRUCTION DAYS	582

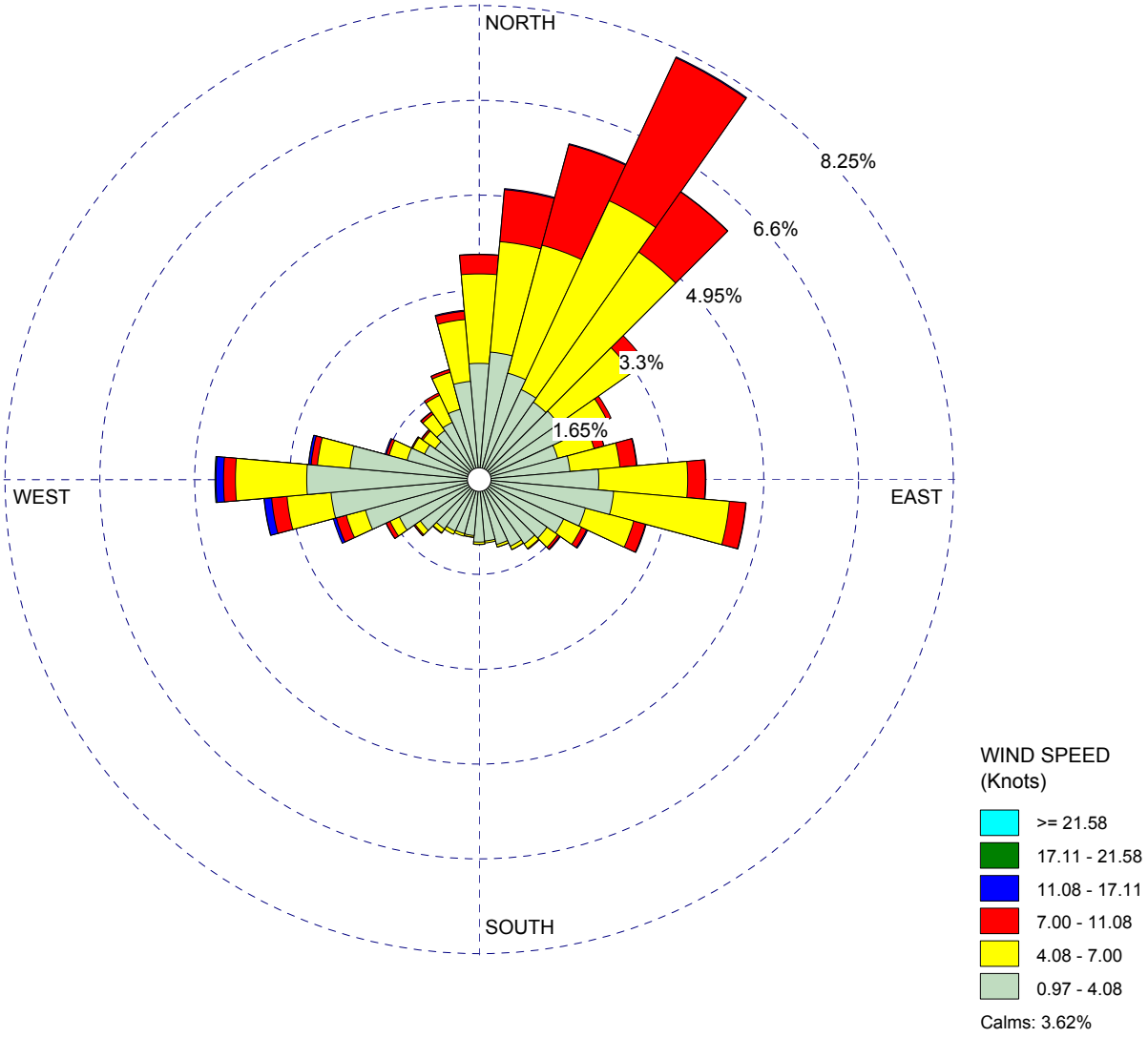
Total Construction Days Per Year		
1/1/2022	12/31/2022	260
1/1/2023	12/31/2023	260
1/1/2024	12/31/2024	262
	TOTAL DAYS	782

WIND ROSE PLOT:

Station #3166

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2012 - 00:00** **End Date: 12/31/2016 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **3.62%**	TOTAL COUNT: **43471 hrs.**	
	AVG. WIND SPEED: **3.93 Knots**	DATE: **5/18/2021**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Appendix B. Air Dispersion Model Output

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

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

**Model Uses URBAN Dispersion Algorithm for the SBL for   39 Source(s),
  for Total of   1 Urban Area(s):
  Urban Population =   3176000.0 ; Urban Roughness Length = 1.000 m

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

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

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates PERIOD Averages Only

**This Run Includes: 39 Source(s);   2 Source Group(s); and   594 Receptor(s)

               with: 0 POINT(s), including
                          0 POINTCAP(s) and   0 POINTHOR(s)
                and: 38 VOLUME source(s)
                and: 1 AREA type source(s)
                and: 0 LINE source(s)
                and: 0 RLINE/RLINEXT source(s)
                and: 0 OPENPIT source(s)
                and: 0 BUOYANT LINE source(s) with   0 line(s)

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

**The AERMET Input Meteorological Data Version Date:  16216

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

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

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    29.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

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

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   FUL-07.err
**File for Summary of Results:   FUL-07.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** 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
L0000001	0	0.26316E-01	418617.6	3748551.3	70.6	4.15	9.90	3.26	YES	HRDOW
L0000002	0	0.26316E-01	418596.7	3748555.6	72.5	4.15	9.90	3.26	YES	HRDOW
L0000003	0	0.26316E-01	418575.9	3748560.0	73.1	4.15	9.90	3.26	YES	HRDOW
L0000004	0	0.26316E-01	418555.0	3748564.3	72.3	4.15	9.90	3.26	YES	HRDOW
L0000005	0	0.26316E-01	418534.2	3748568.7	70.7	4.15	9.90	3.26	YES	HRDOW
L0000006	0	0.26316E-01	418513.3	3748572.7	69.6	4.15	9.90	3.26	YES	HRDOW
L0000007	0	0.26316E-01	418492.0	3748572.6	69.1	4.15	9.90	3.26	YES	HRDOW
L0000008	0	0.26316E-01	418470.7	3748572.6	69.0	4.15	9.90	3.26	YES	HRDOW
L0000009	0	0.26316E-01	418449.5	3748572.6	68.9	4.15	9.90	3.26	YES	HRDOW
L0000010	0	0.26316E-01	418428.2	3748572.6	68.9	4.15	9.90	3.26	YES	HRDOW
L0000011	0	0.26316E-01	418406.9	3748572.6	68.8	4.15	9.90	3.26	YES	HRDOW
L0000012	0	0.26316E-01	418385.6	3748572.5	68.8	4.15	9.90	3.26	YES	HRDOW
L0000013	0	0.26316E-01	418364.3	3748572.5	68.7	4.15	9.90	3.26	YES	HRDOW
L0000014	0	0.26316E-01	418343.0	3748572.5	68.7	4.15	9.90	3.26	YES	HRDOW
L0000015	0	0.26316E-01	418321.7	3748572.5	68.7	4.15	9.90	3.26	YES	HRDOW
L0000016	0	0.26316E-01	418300.4	3748572.4	68.7	4.15	9.90	3.26	YES	HRDOW
L0000017	0	0.26316E-01	418279.1	3748572.4	68.7	4.15	9.90	3.26	YES	HRDOW
L0000018	0	0.26316E-01	418257.8	3748572.4	68.6	4.15	9.90	3.26	YES	HRDOW
L0000019	0	0.26316E-01	418236.6	3748572.4	68.6	4.15	9.90	3.26	YES	HRDOW
L0000020	0	0.26316E-01	418215.3	3748572.3	68.5	4.15	9.90	3.26	YES	HRDOW
L0000021	0	0.26316E-01	418194.0	3748572.3	68.4	4.15	9.90	3.26	YES	HRDOW
L0000022	0	0.26316E-01	418172.7	3748572.3	68.3	4.15	9.90	3.26	YES	HRDOW
L0000023	0	0.26316E-01	418151.4	3748572.3	68.3	4.15	9.90	3.26	YES	HRDOW
L0000024	0	0.26316E-01	418130.1	3748572.2	68.3	4.15	9.90	3.26	YES	HRDOW
L0000025	0	0.26316E-01	418108.8	3748572.2	68.3	4.15	9.90	3.26	YES	HRDOW
L0000026	0	0.26316E-01	418087.5	3748572.2	68.4	4.15	9.90	3.26	YES	HRDOW
L0000027	0	0.26316E-01	418066.2	3748572.2	68.5	4.15	9.90	3.26	YES	HRDOW
L0000028	0	0.26316E-01	418044.9	3748572.1	68.6	4.15	9.90	3.26	YES	HRDOW
L0000029	0	0.26316E-01	418023.7	3748572.1	68.5	4.15	9.90	3.26	YES	HRDOW
L0000030	0	0.26316E-01	418002.4	3748572.1	68.3	4.15	9.90	3.26	YES	HRDOW
L0000031	0	0.26316E-01	417981.1	3748572.1	68.1	4.15	9.90	3.26	YES	HRDOW
L0000032	0	0.26316E-01	417959.8	3748572.1	68.2	4.15	9.90	3.26	YES	HRDOW
L0000033	0	0.26316E-01	417938.5	3748572.0	68.0	4.15	9.90	3.26	YES	HRDOW
L0000034	0	0.26316E-01	417917.2	3748572.0	67.8	4.15	9.90	3.26	YES	HRDOW
L0000035	0	0.26316E-01	417895.9	3748572.0	67.8	4.15	9.90	3.26	YES	HRDOW
L0000036	0	0.26316E-01	417874.6	3748572.0	67.6	4.15	9.90	3.26	YES	HRDOW
L0000037	0	0.26316E-01	417853.3	3748571.9	67.5	4.15	9.90	3.26	YES	HRDOW
L0000038	0	0.26316E-01	417832.0	3748571.9	67.3	4.15	9.90	3.26	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
1	0	0.62498E-04	418237.5	3748636.0	68.8	4.15	6	1.93	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ONSITE	1 ,
OFFSITE	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
	L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
	L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
	L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
	L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

URBAN ID	URBAN POP	SOURCE IDs
	3176000.	1 , L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 ,
		L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 ,
		L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 ,
		L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 ,
		L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = 1   ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						DAY OF WEEK = WEEKDAY									
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						DAY OF WEEK = SATURDAY									
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
						DAY OF WEEK = SUNDAY									
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000001 TO L0000038   ; SOURCE TYPE = VOLUME   :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
							DAY OF WEEK = WEEKDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000020	418208.9	3748584.5	-7.51
L0000020	418208.9	3748584.5	-7.51
L0000021	418188.9	3748584.5	-8.04
L0000021	418208.9	3748584.5	-1.99
L0000021	418188.9	3748584.5	-8.04
L0000021	418208.9	3748584.5	-1.99
L0000022	418168.9	3748584.5	-8.45
L0000022	418188.9	3748584.5	-0.96
L0000022	418168.9	3748584.5	-8.45
L0000022	418188.9	3748584.5	-0.96
L0000023	418148.9	3748584.5	-8.75
L0000023	418168.9	3748584.5	0.09
L0000023	418148.9	3748584.5	-8.75
L0000023	418168.9	3748584.5	0.09
L0000024	418128.9	3748584.5	-8.92
L0000024	418128.9	3748584.5	-8.92
L0000025	418108.9	3748584.5	-8.95
L0000025	418108.9	3748584.5	-8.95
L0000026	418078.4	3748586.0	-4.79
L0000026	418078.4	3748586.0	-4.79
L0000026	418088.9	3748584.5	-8.86
L0000026	418078.4	3748586.0	-4.79
L0000026	418088.9	3748584.5	-8.86
L0000027	418062.6	3748586.0	-7.03
L0000027	418078.4	3748586.0	-2.88
L0000027	418062.6	3748586.0	-7.03
L0000027	418078.4	3748586.0	-2.88
L0000027	418062.6	3748586.0	-7.03
L0000027	418078.4	3748586.0	-2.88
L0000028	418042.6	3748586.0	-7.28
L0000028	418042.6	3748586.0	-7.28
L0000028	418042.6	3748586.0	-7.28
L0000029	418022.6	3748586.0	-7.41
L0000029	418022.6	3748586.0	-7.41
L0000029	418022.6	3748586.0	-7.41
L0000030	418005.5	3748586.0	-7.08
L0000030	418005.5	3748586.0	-7.08
L0000030	418005.5	3748586.0	-7.08

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 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,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

Surface file: ..\metdata-29m\KFUL_v9.SFC Met Version: 16216
Profile file: ..\metdata-29m\KFUL_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 3166 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-4.8	0.098	-9.000	-9.000	-999.	74.	18.0	0.26	2.61	1.00	0.96	322.	10.1	283.8	2.0
12	01	01	1	02	-1.9	0.072	-9.000	-9.000	-999.	47.	18.0	0.26	2.61	1.00	0.52	13.	10.1	283.1	2.0
12	01	01	1	03	-3.1	0.083	-9.000	-9.000	-999.	57.	16.3	0.26	2.61	1.00	0.75	73.	10.1	282.0	2.0
12	01	01	1	04	-4.3	0.094	-9.000	-9.000	-999.	69.	17.3	0.26	2.61	1.00	0.91	98.	10.1	281.4	2.0
12	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.26	2.61	1.00	0.00	0.	10.1	280.9	2.0
12	01	01	1	06	-2.1	0.074	-9.000	-9.000	-999.	48.	17.6	0.26	2.61	1.00	0.55	80.	10.1	280.4	2.0
12	01	01	1	07	-2.8	0.080	-9.000	-9.000	-999.	54.	16.3	0.26	2.61	1.00	0.69	201.	10.1	280.4	2.0
12	01	01	1	08	-1.5	0.066	-9.000	-9.000	-999.	41.	17.0	0.26	2.61	0.54	0.52	72.	10.1	280.9	2.0
12	01	01	1	09	37.4	-9.000	-9.000	-9.000	38.	-999.	-99999.0	0.26	2.61	0.31	0.00	0.	10.1	285.9	2.0
12	01	01	1	10	109.1	0.151	0.713	0.008	121.	141.	-2.9	0.26	2.61	0.24	0.79	268.	10.1	289.9	2.0
12	01	01	1	11	160.5	0.148	1.143	0.005	338.	136.	-1.8	0.26	2.61	0.21	0.70	273.	10.1	294.2	2.0
12	01	01	1	12	186.9	0.156	1.483	0.005	634.	148.	-1.8	0.26	2.61	0.20	0.74	230.	10.1	297.5	2.0
12	01	01	1	13	187.4	0.210	1.777	0.005	1088.	231.	-4.5	0.26	2.61	0.20	1.20	227.	10.1	300.4	2.0
12	01	01	1	14	160.3	0.235	1.833	0.005	1395.	274.	-7.4	0.26	2.61	0.21	1.47	233.	10.1	300.9	2.0
12	01	01	1	15	109.1	0.197	1.662	0.005	1527.	210.	-6.3	0.26	2.61	0.25	1.20	233.	10.1	302.0	2.0
12	01	01	1	16	33.3	0.243	1.125	0.005	1548.	288.	-39.2	0.26	2.61	0.33	1.91	229.	10.1	298.1	2.0
12	01	01	1	17	-9.1	0.141	-9.000	-9.000	-999.	132.	28.3	0.26	2.61	0.60	1.37	212.	10.1	294.2	2.0
12	01	01	1	18	-4.3	0.094	-9.000	-9.000	-999.	69.	17.5	0.26	2.61	1.00	0.91	190.	10.1	292.0	2.0
12	01	01	1	19	-2.8	0.079	-9.000	-9.000	-999.	54.	16.3	0.26	2.61	1.00	0.70	302.	10.1	289.2	2.0
12	01	01	1	20	-4.0	0.091	-9.000	-9.000	-999.	65.	17.0	0.26	2.61	1.00	0.87	338.	10.1	288.1	2.0
12	01	01	1	21	-6.3	0.113	-9.000	-9.000	-999.	91.	20.5	0.26	2.61	1.00	1.11	304.	10.1	287.0	2.0
12	01	01	1	22	-3.1	0.082	-9.000	-9.000	-999.	57.	16.3	0.26	2.61	1.00	0.75	76.	10.1	285.4	2.0
12	01	01	1	23	-2.4	0.076	-9.000	-9.000	-999.	50.	16.7	0.26	2.61	1.00	0.62	306.	10.1	284.9	2.0
12	01	01	1	24	-3.6	0.087	-9.000	-9.000	-999.	62.	16.6	0.26	2.61	1.00	0.82	318.	10.1	283.8	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	10.1	1	322.	0.96	283.8	99.0	-99.00	-99.00

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

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ONSITE   ***

INCLUDING SOURCE(S):   1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	
418271.36	3748662.15	14.07710	418286.24	3748661.63	16.22382	
418306.24	3748661.63	17.90182	418326.24	3748661.63	18.92965	
418346.24	3748661.63	19.56924	418361.39	3748661.63	20.03056	MER LOCATION
418271.61	3748673.46	10.12737	418286.50	3748672.95	11.79428	
418306.50	3748672.95	13.26769	418326.50	3748672.95	14.22219	
418346.50	3748672.95	14.83435	418361.64	3748672.95	15.22527	
418271.87	3748699.59	5.52100	418286.76	3748699.08	6.46702	
418306.76	3748699.08	7.46747	418326.76	3748699.08	8.21468	
418346.76	3748699.08	8.73971	418361.90	3748699.08	9.04708	
418271.87	3748712.18	4.36272	418286.76	3748711.67	5.10025	
418306.76	3748711.67	5.92239	418326.76	3748711.67	6.56990	
418346.76	3748711.67	7.04813	418361.90	3748711.67	7.32169	
418411.90	3748685.81	11.90182	418423.21	3748685.91	11.80461	
418443.21	3748685.91	11.66460	418463.21	3748685.91	11.42043	
418479.63	3748686.68	10.91558	418411.90	3748705.81	8.41473	
418423.21	3748705.91	8.38426	418463.21	3748705.91	8.18545	
418479.63	3748706.68	7.86776	418407.55	3748732.76	5.71688	
418463.21	3748725.91	6.20628	418479.63	3748726.68	5.99616	
418407.55	3748746.68	4.80052	418423.21	3748745.91	4.89997	
418443.21	3748745.91	4.92501	418463.21	3748745.91	4.88296	
418479.63	3748746.68	4.74200	418407.04	3748762.08	4.00789	
418422.70	3748761.31	4.10671	418442.70	3748761.31	4.14688	
418462.70	3748761.31	4.12807	418479.12	3748762.08	4.02724	
418083.53	3748701.46	0.73658	418103.53	3748701.46	0.83198	
418123.53	3748701.46	0.95124	418005.47	3748585.96	0.61455	
418022.60	3748585.96	0.67792	418042.60	3748585.96	0.76669	
418062.60	3748585.96	0.87649	418078.43	3748585.96	0.98335	
418005.47	3748605.96	0.62259	418022.60	3748605.96	0.68798	
418042.60	3748605.96	0.78009	418062.60	3748605.96	0.89473	
418078.43	3748605.96	1.00705	418005.47	3748625.96	0.61631	
418022.60	3748625.96	0.68067	418042.60	3748625.96	0.77121	
418062.60	3748625.96	0.88376	418078.43	3748625.96	0.99387	
418005.47	3748645.96	0.59653	418022.60	3748645.96	0.65701	
418042.60	3748645.96	0.74153	418062.60	3748645.96	0.84574	
418078.43	3748645.96	0.94679	418005.47	3748665.96	0.56549	
418022.60	3748665.96	0.61991	418042.60	3748665.96	0.69519	
418062.60	3748665.96	0.78685	418078.43	3748665.96	0.87427	
418005.47	3748685.96	0.52621	418022.60	3748685.96	0.57335	
418042.60	3748685.96	0.63786	418062.60	3748685.96	0.71513	
418005.47	3748705.96	0.48193	418022.60	3748705.96	0.52116	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418042.60	3748705.96	0.57468	418062.60	3748705.96	0.63825
418271.36	3748662.15	9.68398	418286.24	3748661.63	11.27922
418306.24	3748661.63	12.60258	418326.24	3748661.63	13.42868
418346.24	3748661.63	13.94547	418361.39	3748661.63	14.32233
418271.61	3748673.46	7.46743	418286.50	3748672.95	8.80419
418306.50	3748672.95	10.02832	418326.50	3748672.95	10.82553
418346.50	3748672.95	11.33748	418361.64	3748672.95	11.67111
418271.87	3748699.59	4.44368	418286.76	3748699.08	5.28522
418306.76	3748699.08	6.19168	418326.76	3748699.08	6.86695
418346.76	3748699.08	7.33888	418361.90	3748699.08	7.61559
418271.87	3748712.18	3.58309	418286.76	3748711.67	4.25556
418306.76	3748711.67	5.02058	418326.76	3748711.67	5.62275
418346.76	3748711.67	6.06498	418361.90	3748711.67	6.31724
418411.90	3748685.81	9.66617	418423.21	3748685.91	9.58912
418443.21	3748685.91	9.48819	418463.21	3748685.91	9.31836
418479.63	3748686.68	8.97961	418411.90	3748705.81	7.21679
418423.21	3748705.91	7.19732	418463.21	3748705.91	7.06637
418479.63	3748706.68	6.83868	418407.55	3748732.76	5.09802
418463.21	3748725.91	5.53098	418479.63	3748726.68	5.37386
418407.55	3748746.68	4.33460	418423.21	3748745.91	4.42892
418443.21	3748745.91	4.46154	418463.21	3748745.91	4.43746
418479.63	3748746.68	4.32928	418407.04	3748762.08	3.65586
418422.70	3748761.31	3.75090	418442.70	3748761.31	3.79611
418462.70	3748761.31	3.79008	418479.12	3748762.08	3.71193
418083.53	3748701.46	0.67135	418103.53	3748701.46	0.74722
418123.53	3748701.46	0.84115	418005.47	3748585.96	0.63980
418022.60	3748585.96	0.70341	418042.60	3748585.96	0.79173
418062.60	3748585.96	0.89996	418078.43	3748585.96	1.00443
418005.47	3748605.96	0.64692	418022.60	3748605.96	0.71234
418042.60	3748605.96	0.80372	418062.60	3748605.96	0.91646
418078.43	3748605.96	1.02628	418005.47	3748625.96	0.63489
418022.60	3748625.96	0.69825	418042.60	3748625.96	0.78670
418062.60	3748625.96	0.89559	418078.43	3748625.96	1.00117
418005.47	3748645.96	0.60563	418022.60	3748645.96	0.66336
418042.60	3748645.96	0.74351	418062.60	3748645.96	0.84108
418078.43	3748645.96	0.93440	418005.47	3748665.96	0.56307
418022.60	3748665.96	0.61290	418042.60	3748665.96	0.68139
418062.60	3748665.96	0.76352	418078.43	3748665.96	0.84038
418005.47	3748685.96	0.51221	418022.60	3748685.96	0.55339
418042.60	3748685.96	0.60946	418062.60	3748685.96	0.67549

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418005.47	3748705.96	0.45757	418022.60	3748705.96	0.49031
418042.60	3748705.96	0.53485	418062.60	3748705.96	0.58726
418088.89	3748584.55	1.08112	418108.89	3748584.55	1.26759
418128.89	3748584.55	1.51390	418148.89	3748584.55	1.85035
418168.89	3748584.55	2.32942	418188.89	3748584.55	3.04485
418208.89	3748584.55	4.19082	418088.11	3748600.64	1.10320
418108.11	3748600.64	1.30137	418128.11	3748600.64	1.56780
418148.11	3748600.64	1.94087	418168.11	3748600.64	2.49078
418188.11	3748600.64	3.35603	418208.11	3748600.64	4.85950
418088.11	3748620.64	1.08929	418188.11	3748620.64	3.32021
418208.11	3748620.64	4.84453	418088.11	3748640.64	1.02428
418188.11	3748640.64	2.84207	418208.11	3748640.64	3.94731
418088.11	3748660.64	0.92391	418188.11	3748660.64	2.24258
418208.11	3748660.64	2.93539	418088.11	3748680.64	0.80668
418108.11	3748680.64	0.91317	418128.11	3748680.64	1.04742
418148.11	3748680.64	1.21832	418168.11	3748680.64	1.44130
418188.11	3748680.64	1.74665	418208.11	3748680.64	2.20987
418168.11	3748700.64	1.15919	418188.11	3748700.64	1.37889
418208.11	3748700.64	1.71063	418168.11	3748712.30	1.02503
418188.11	3748712.30	1.21140	418208.11	3748712.30	1.49074
418271.36	3748662.15	7.46079	418286.24	3748661.63	8.71328
418306.24	3748661.63	9.82199	418326.24	3748661.63	10.53678
418346.24	3748661.63	10.99181	418361.39	3748661.63	11.31786
418271.61	3748673.46	6.05793	418286.50	3748672.95	7.15706
418306.50	3748672.95	8.21010	418326.50	3748672.95	8.91365
418346.50	3748672.95	9.37295	418361.64	3748672.95	9.67229
418271.87	3748699.59	3.87940	418286.76	3748699.08	4.62309
418306.76	3748699.08	5.44325	418326.76	3748699.08	6.06279
418346.76	3748699.08	6.50021	418361.90	3748699.08	6.75947
418271.87	3748712.18	3.19442	418286.76	3748711.67	3.80232
418306.76	3748711.67	4.50669	418326.76	3748711.67	5.06701
418346.76	3748711.67	5.48163	418361.90	3748711.67	5.71988
418411.90	3748685.81	8.36165	418083.53	3748701.46	0.62988
418103.53	3748701.46	0.69779	418123.53	3748701.46	0.78191
418005.47	3748585.96	0.62661	418022.60	3748585.96	0.68610
418042.60	3748585.96	0.76844	418062.60	3748585.96	0.86919
418078.43	3748585.96	0.96623	418005.47	3748605.96	0.63151
418022.60	3748605.96	0.69239	418042.60	3748605.96	0.77742
418062.60	3748605.96	0.88198	418078.43	3748605.96	0.98377
418005.47	3748625.96	0.61797	418022.60	3748625.96	0.67682

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418042.60	3748625.96	0.75905	418062.60	3748625.96	0.85973
418078.43	3748625.96	0.95691	418005.47	3748645.96	0.58697
418022.60	3748645.96	0.64027	418042.60	3748645.96	0.71435
418062.60	3748645.96	0.80394	418078.43	3748645.96	0.88905
418005.47	3748665.96	0.54292	418022.60	3748665.96	0.58851
418042.60	3748665.96	0.65123	418062.60	3748665.96	0.72606
418078.43	3748665.96	0.79545	418005.47	3748685.96	0.49113
418022.60	3748685.96	0.52849	418042.60	3748685.96	0.57945
418062.60	3748685.96	0.63918	418005.47	3748705.96	0.43629
418022.60	3748705.96	0.46578	418042.60	3748705.96	0.50608
418062.60	3748705.96	0.55350	418088.89	3748584.55	1.03707
418108.89	3748584.55	1.20786	418128.89	3748584.55	1.42907
418148.89	3748584.55	1.72302	418168.89	3748584.55	2.12487
418188.89	3748584.55	2.68548	418208.89	3748584.55	3.48745
418088.11	3748600.64	1.05550	418108.11	3748600.64	1.23771
418128.11	3748600.64	1.47842	418148.11	3748600.64	1.80680
418168.11	3748600.64	2.27120	418188.11	3748600.64	2.95198
418208.11	3748600.64	3.99868	418088.11	3748620.64	1.03906
418188.11	3748620.64	2.91704	418208.11	3748620.64	3.99219
418088.11	3748640.64	0.97278	418188.11	3748640.64	2.50878
418208.11	3748640.64	3.32206	418088.11	3748660.64	0.87298
418188.11	3748660.64	1.99998	418208.11	3748660.64	2.54404
418088.11	3748680.64	0.75835	418108.11	3748680.64	0.85322
418128.11	3748680.64	0.97234	418148.11	3748680.64	1.12257
418168.11	3748680.64	1.31619	418188.11	3748680.64	1.57691
418208.11	3748680.64	1.96156	418168.11	3748700.64	1.06520
418188.11	3748700.64	1.25833	418208.11	3748700.64	1.54440
418168.11	3748712.30	0.94547	418188.11	3748712.30	1.11146
418208.11	3748712.30	1.35635	418083.26	3748293.36	0.14303
418143.26	3748293.36	0.15735	418163.26	3748293.36	0.16322
418183.26	3748293.36	0.16967	418203.26	3748293.36	0.17665
418223.26	3748293.36	0.18417	418243.26	3748293.36	0.19216
418263.26	3748293.36	0.20057	418283.26	3748293.36	0.20930
418303.26	3748293.36	0.21810	418323.26	3748293.36	0.22680
418343.26	3748293.36	0.23523	418363.26	3748293.36	0.24323
418383.26	3748293.36	0.25053	418403.26	3748293.36	0.25700
418423.26	3748293.36	0.26250	418443.26	3748293.36	0.26687
418463.26	3748293.36	0.26998	418483.26	3748293.36	0.27175
418503.26	3748293.36	0.27214	418523.26	3748293.36	0.27118
418063.26	3748313.36	0.15569	418083.26	3748313.36	0.16008

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418103.26	3748313.36	0.16490	418163.26	3748313.36	0.18279
418183.26	3748313.36	0.19016	418203.26	3748313.36	0.19820
418223.26	3748313.36	0.20695	418243.26	3748313.36	0.21632
418263.26	3748313.36	0.22622	418283.26	3748313.36	0.23648
418303.26	3748313.36	0.24689	418343.26	3748313.36	0.26732
418363.26	3748313.36	0.27681	418383.26	3748313.36	0.28545
418403.26	3748313.36	0.29303	418423.26	3748313.36	0.29937
418443.26	3748313.36	0.30427	418463.26	3748313.36	0.30757
418483.26	3748313.36	0.30915	418503.26	3748313.36	0.30900
418043.26	3748333.36	0.17079	418063.26	3748333.36	0.17547
418083.26	3748333.36	0.18058	418103.26	3748333.36	0.18614
418123.26	3748333.36	0.19223	418183.26	3748333.36	0.21508
418203.26	3748333.36	0.22445	418223.26	3748333.36	0.23473
418243.26	3748333.36	0.24583	418263.26	3748333.36	0.25761
418283.26	3748333.36	0.26981	418303.26	3748333.36	0.28226
418343.26	3748333.36	0.30678	418363.26	3748333.36	0.31810
418383.26	3748333.36	0.32837	418403.26	3748333.36	0.33728
418423.26	3748333.36	0.34459	418443.26	3748333.36	0.35006
418463.26	3748333.36	0.35346	418483.26	3748333.36	0.35468
418503.26	3748333.36	0.35368	418023.26	3748353.36	0.18825
418063.26	3748353.36	0.19925	418083.26	3748353.36	0.20533
418103.26	3748353.36	0.21194	418123.26	3748353.36	0.21914
418143.26	3748353.36	0.22709	418203.26	3748353.36	0.25686
418223.26	3748353.36	0.26910	418243.26	3748353.36	0.28244
418263.26	3748353.36	0.29666	418283.26	3748353.36	0.31139
418363.26	3748353.36	0.36967	418383.26	3748353.36	0.38192
418403.26	3748353.36	0.39243	418423.26	3748353.36	0.40085
418443.26	3748353.36	0.40688	418463.26	3748353.36	0.41025
418483.26	3748353.36	0.41079	418503.26	3748353.36	0.40848
418003.26	3748373.36	0.20748	418023.26	3748373.36	0.21410
418043.26	3748373.36	0.22090	418083.26	3748373.36	0.23545
418103.26	3748373.36	0.24351	418123.26	3748373.36	0.25225
418143.26	3748373.36	0.26184	418163.26	3748373.36	0.27244
418223.26	3748373.36	0.31231	418243.26	3748373.36	0.32860
418263.26	3748373.36	0.34606	418283.26	3748373.36	0.36425
418323.26	3748373.36	0.40130	418343.26	3748373.36	0.41906
418363.26	3748373.36	0.43549	417983.26	3748393.36	0.22736
418003.26	3748393.36	0.23586	418023.26	3748393.36	0.24453
418043.26	3748393.36	0.25346	418063.26	3748393.36	0.26266
418103.26	3748393.36	0.28242	418123.26	3748393.36	0.29337

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418143.26	3748393.36	0.30530	418163.26	3748393.36	0.31841
418183.26	3748393.36	0.33295	418243.26	3748393.36	0.38796
418263.26	3748393.36	0.40992	418283.26	3748393.36	0.43285
418303.26	3748393.36	0.45620	418323.26	3748393.36	0.47922
418343.26	3748393.36	0.50110	418363.26	3748393.36	0.52111
418383.26	3748393.36	0.53859	418403.26	3748393.36	0.55300
418423.26	3748393.36	0.56379	418443.26	3748393.36	0.57050
418463.26	3748393.36	0.57266	418483.26	3748393.36	0.57003
418503.26	3748393.36	0.56250	418003.26	3748413.36	0.26848
418023.26	3748413.36	0.28010	418043.26	3748413.36	0.29207
418063.26	3748413.36	0.30441	418083.26	3748413.36	0.31725
418123.26	3748413.36	0.34480	418143.26	3748413.36	0.36015
418163.26	3748413.36	0.37698	418183.26	3748413.36	0.39551
418203.26	3748413.36	0.41626	418243.26	3748413.36	0.46591
418263.26	3748413.36	0.49437	418283.26	3748413.36	0.52413
418303.26	3748413.36	0.55417	418323.26	3748413.36	0.58339
418343.26	3748413.36	0.61073	418363.26	3748413.36	0.63524
418383.26	3748413.36	0.65613	418403.26	3748413.36	0.67277
418423.26	3748413.36	0.68454	418443.26	3748413.36	0.69089
418463.26	3748413.36	0.69127	418483.26	3748413.36	0.68528
418503.26	3748413.36	0.67274	417943.26	3748433.36	0.26344
417963.26	3748433.36	0.27671	418023.26	3748433.36	0.32108
418043.26	3748433.36	0.33734	418063.26	3748433.36	0.35431
418083.26	3748433.36	0.37193	418103.26	3748433.36	0.39025
418143.26	3748433.36	0.42999	418163.26	3748433.36	0.45236
418183.26	3748433.36	0.47689	418203.26	3748433.36	0.50435
418243.26	3748433.36	0.57055	418263.26	3748433.36	0.60886
418283.26	3748433.36	0.64879	418303.26	3748433.36	0.68870
418323.26	3748433.36	0.72680	418343.26	3748433.36	0.76155
418363.26	3748433.36	0.79177	418383.26	3748433.36	0.81655
418403.26	3748433.36	0.83526	418423.26	3748433.36	0.84737
418443.26	3748433.36	0.85224	418463.26	3748433.36	0.84922
418483.26	3748433.36	0.83772	418503.26	3748433.36	0.81732
417943.26	3748453.36	0.29246	417963.26	3748453.36	0.30930
417983.26	3748453.36	0.32743	418003.26	3748453.36	0.34679
418043.26	3748453.36	0.38962	418063.26	3748453.36	0.41313
418083.26	3748453.36	0.43780	418103.26	3748453.36	0.46376
418143.26	3748453.36	0.51966	418163.26	3748453.36	0.55070
418183.26	3748453.36	0.58458	418203.26	3748453.36	0.62250
418243.26	3748453.36	0.71483	418263.26	3748453.36	0.76885

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***
** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418283.26	3748453.36	0.82500	418303.26	3748453.36	0.88025
418323.26	3748453.36	0.93162	418343.26	3748453.36	0.97682
418363.26	3748453.36	1.01434	418383.26	3748453.36	1.04333
418403.26	3748453.36	1.06330	418423.26	3748453.36	1.07405
418443.26	3748453.36	1.07514	418463.26	3748453.36	1.06578
418483.26	3748453.36	1.04501	418503.26	3748453.36	1.01194
417983.26	3748473.36	0.36641	418003.26	3748473.36	0.39150
418063.26	3748473.36	0.48099	418083.26	3748473.36	0.51588
418103.26	3748473.36	0.55329	418123.26	3748473.36	0.59316
418143.26	3748473.36	0.63552	418163.26	3748473.36	0.68079
418183.26	3748473.36	0.72991	418203.26	3748473.36	0.78462
418243.26	3748473.36	0.92030	418263.26	3748473.36	1.00103
418283.26	3748473.36	1.08447	418303.26	3748473.36	1.16485
418323.26	3748473.36	1.23701	418343.26	3748473.36	1.29753
418363.26	3748473.36	1.34458	418383.26	3748473.36	1.37758
418403.26	3748473.36	1.39667	418423.26	3748473.36	1.40240
418443.26	3748473.36	1.39499	418463.26	3748473.36	1.37378
418483.26	3748473.36	1.33710	418503.26	3748473.36	1.28299
418003.26	3748493.36	0.43824	418023.26	3748493.36	0.47355
418063.26	3748493.36	0.55690	418083.26	3748493.36	0.60583
418103.26	3748493.36	0.65999	418123.26	3748493.36	0.71943
418143.26	3748493.36	0.78412	418163.26	3748493.36	0.85388
418183.26	3748493.36	0.92942	418203.26	3748493.36	1.01306
418243.26	3748493.36	1.22493	418263.26	3748493.36	1.35427
418283.26	3748493.36	1.48674	418303.26	3748493.36	1.61040
418323.26	3748493.36	1.71646	418343.26	3748493.36	1.80024
418363.26	3748493.36	1.86009	418383.26	3748493.36	1.89633
418403.26	3748493.36	1.91023	418423.26	3748493.36	1.90353
418443.26	3748493.36	1.87794	418463.26	3748493.36	1.83385
418483.26	3748493.36	1.76876	418503.26	3748493.36	1.67805
418003.26	3748513.36	0.48490	418023.26	3748513.36	0.52930
418063.26	3748513.36	0.63814	418083.26	3748513.36	0.70512
418103.26	3748513.36	0.78217	418123.26	3748513.36	0.87052
418143.26	3748513.36	0.97091	418163.26	3748513.36	1.08340
418183.26	3748513.36	1.20778	418203.26	3748513.36	1.34581
418243.26	3748513.36	1.70370	418263.26	3748513.36	1.92901
418283.26	3748513.36	2.15539	418303.26	3748513.36	2.35698
418323.26	3748513.36	2.51949	418343.26	3748513.36	2.63899
418363.26	3748513.36	2.71646	418383.26	3748513.36	2.75461
418403.26	3748513.36	2.75616	418423.26	3748513.36	2.72402

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418443.26	3748513.36	2.66144	418463.26	3748513.36	2.57121
418483.26	3748513.36	2.45178	418503.26	3748513.36	2.29281
418003.26	3748533.36	0.52878	418023.26	3748533.36	0.58266
418083.26	3748533.36	0.80803	418103.26	3748533.36	0.91364
418123.26	3748533.36	1.04080	418143.26	3748533.36	1.19430
418163.26	3748533.36	1.37870	418183.26	3748533.36	1.59664
418203.26	3748533.36	1.84920	418243.26	3748533.36	2.52745
418263.26	3748533.36	2.96591	418283.26	3748533.36	3.38736
418303.26	3748533.36	3.73266	418323.26	3748533.36	3.98898
418343.26	3748533.36	4.16169	418363.26	3748533.36	4.26288
418383.26	3748533.36	4.30181	418403.26	3748533.36	4.28281
418423.26	3748533.36	4.20757	418443.26	3748533.36	4.07620
418463.26	3748533.36	3.89018	418483.26	3748533.36	3.65313
418503.26	3748533.36	3.35044	418771.30	3748539.09	0.40625
418777.07	3748560.70	0.40922	418769.86	3748621.93	0.45632
418788.59	3748686.04	0.41350	418789.31	3748616.89	0.40386
418785.31	3748530.96	0.37059	417978.15	3748446.64	0.31045

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418271.36	3748662.15	3.18121	418286.24	3748661.63	3.19941
418306.24	3748661.63	3.19425	418326.24	3748661.63	3.18777
418346.24	3748661.63	3.17965	418361.39	3748661.63	3.17093
418271.61	3748673.46	2.77433	418286.50	3748672.95	2.78785
418306.50	3748672.95	2.78299	418326.50	3748672.95	2.77679
418346.50	3748672.95	2.76896	418361.64	3748672.95	2.76106
418271.87	3748699.59	2.10910	418286.76	3748699.08	2.11731
418306.76	3748699.08	2.11330	418326.76	3748699.08	2.10787
418346.76	3748699.08	2.10083	418361.90	3748699.08	2.09415
418271.87	3748712.18	1.87810	418286.76	3748711.67	1.88508
418306.76	3748711.67	1.88154	418326.76	3748711.67	1.87647
418346.76	3748711.67	1.86984	418361.90	3748711.67	1.86353
418411.90	3748685.81	2.35971	418423.21	3748685.91	2.34649
418443.21	3748685.91	2.32281	418463.21	3748685.91	2.29166
418479.63	3748686.68	2.23957	418411.90	3748705.81	1.93464
418423.21	3748705.91	1.92322	418463.21	3748705.91	1.87759
418479.63	3748706.68	1.83758	418407.55	3748732.76	1.53782
418463.21	3748725.91	1.57564	418479.63	3748726.68	1.54406
418407.55	3748746.68	1.38200	418423.21	3748745.91	1.38009
418443.21	3748745.91	1.36537	418463.21	3748745.91	1.34731
418479.63	3748746.68	1.32184	418407.04	3748762.08	1.23814
418422.70	3748761.31	1.23598	418442.70	3748761.31	1.22301
418462.70	3748761.31	1.20731	418479.12	3748762.08	1.18569
418083.53	3748701.46	1.99448	418103.53	3748701.46	2.01210
418123.53	3748701.46	2.02759	418005.47	3748585.96	9.97893
418022.60	3748585.96	10.00513	418042.60	3748585.96	10.12336
418062.60	3748585.96	10.27841	418078.43	3748585.96	6.48935
418005.47	3748605.96	8.45756	418022.60	3748605.96	8.48935
418042.60	3748605.96	8.50655	418062.60	3748605.96	8.51678
418078.43	3748605.96	8.52751	418005.47	3748625.96	5.35847
418022.60	3748625.96	5.39332	418042.60	3748625.96	5.41869
418062.60	3748625.96	5.43543	418078.43	3748625.96	5.44769
418005.47	3748645.96	3.77939	418022.60	3748645.96	3.81466
418042.60	3748645.96	3.84428	418062.60	3748645.96	3.86568

418078.43	3748645.96	3.88012	418005.47	3748665.96	2.84078
418022.60	3748665.96	2.87616	418042.60	3748665.96	2.90811
418062.60	3748665.96	2.93231	418078.43	3748665.96	2.94818
418005.47	3748685.96	2.22482	418022.60	3748685.96	2.26013
418042.60	3748685.96	2.29322	418062.60	3748685.96	2.31901
418005.47	3748705.96	1.79228	418022.60	3748705.96	1.82691

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418042.60	3748705.96	1.86065	418062.60	3748705.96	1.88783
418271.36	3748662.15	2.87514	418286.24	3748661.63	2.88531
418306.24	3748661.63	2.87751	418326.24	3748661.63	2.87200
418346.24	3748661.63	2.86662	418361.39	3748661.63	2.87078
418271.61	3748673.46	2.53113	418286.50	3748672.95	2.53808
418306.50	3748672.95	2.53210	418326.50	3748672.95	2.52690
418346.50	3748672.95	2.52156	418361.64	3748672.95	2.52362
418271.87	3748699.59	1.95199	418286.76	3748699.08	1.95722
418306.76	3748699.08	1.95310	418326.76	3748699.08	1.94855
418346.76	3748699.08	1.94299	418361.90	3748699.08	1.94159
418271.87	3748712.18	1.74842	418286.76	3748711.67	1.75345
418306.76	3748711.67	1.74980	418326.76	3748711.67	1.74524
418346.76	3748711.67	1.73983	418361.90	3748711.67	1.73610
418411.90	3748685.81	2.17299	418423.21	3748685.91	2.15624
418443.21	3748685.91	2.13645	418463.21	3748685.91	2.11627
418479.63	3748686.68	2.08096	418411.90	3748705.81	1.79484
418423.21	3748705.91	1.78181	418463.21	3748705.91	1.74837
418479.63	3748706.68	1.72038	418407.55	3748732.76	1.43757
418463.21	3748725.91	1.47681	418479.63	3748726.68	1.45355
418407.55	3748746.68	1.29569	418423.21	3748745.91	1.29351
418443.21	3748745.91	1.28206	418463.21	3748745.91	1.26894
418479.63	3748746.68	1.24914	418407.04	3748762.08	1.16346
418422.70	3748761.31	1.16119	418442.70	3748761.31	1.15075
418462.70	3748761.31	1.13863	418479.12	3748762.08	1.12103
418083.53	3748701.46	1.84976	418103.53	3748701.46	1.86643
418123.53	3748701.46	1.88322	418005.47	3748585.96	7.01139
418022.60	3748585.96	7.08861	418042.60	3748585.96	7.18015
418062.60	3748585.96	7.32608	418078.43	3748585.96	4.90526
418005.47	3748605.96	6.47417	418022.60	3748605.96	6.47646
418042.60	3748605.96	6.49794	418062.60	3748605.96	6.52472
418078.43	3748605.96	6.56310	418005.47	3748625.96	4.52086
418022.60	3748625.96	4.54081	418042.60	3748625.96	4.57202
418062.60	3748625.96	4.59905	418078.43	3748625.96	4.62137
418005.47	3748645.96	3.35176	418022.60	3748645.96	3.37786

418042.60	3748645.96	3.41050	418062.60	3748645.96	3.43703
418078.43	3748645.96	3.45470	418005.47	3748665.96	2.58479
418022.60	3748665.96	2.61354	418042.60	3748665.96	2.64544
418062.60	3748665.96	2.67221	418078.43	3748665.96	2.68811
418005.47	3748685.96	2.05240	418022.60	3748685.96	2.08290
418042.60	3748685.96	2.11524	418062.60	3748685.96	2.14186

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418005.47	3748705.96	1.66452	418022.60	3748705.96	1.69541
418042.60	3748705.96	1.72775	418062.60	3748705.96	1.75653
418088.89	3748584.55	7.23489	418108.89	3748584.55	7.33344
418128.89	3748584.55	7.44043	418148.89	3748584.55	7.56012
418168.89	3748584.55	5.09459	418188.89	3748584.55	5.05933
418208.89	3748584.55	5.04852	418088.11	3748600.64	7.38417
418108.11	3748600.64	7.47145	418128.11	3748600.64	7.54446
418148.11	3748600.64	7.60165	418168.11	3748600.64	7.63150
418188.11	3748600.64	7.62487	418208.11	3748600.64	7.63610
418088.11	3748620.64	5.05037	418188.11	3748620.64	5.19321
418208.11	3748620.64	5.20399	418088.11	3748640.64	3.72563
418188.11	3748640.64	3.82031	418208.11	3748640.64	3.83108
418088.11	3748660.64	2.87267	418188.11	3748660.64	2.94620
418208.11	3748660.64	2.95590	418088.11	3748680.64	2.28519
418108.11	3748680.64	2.30120	418128.11	3748680.64	2.31988
418148.11	3748680.64	2.33632	418168.11	3748680.64	2.34849
418188.11	3748680.64	2.35624	418208.11	3748680.64	2.36371
418168.11	3748700.64	1.92741	418188.11	3748700.64	1.93452
418208.11	3748700.64	1.94148	418168.11	3748712.30	1.73303
418188.11	3748712.30	1.74072	418208.11	3748712.30	1.74827
418271.36	3748662.15	2.63109	418286.24	3748661.63	2.63619
418306.24	3748661.63	2.62816	418326.24	3748661.63	2.62271
418346.24	3748661.63	2.61754	418361.39	3748661.63	2.62371
418271.61	3748673.46	2.34181	418286.50	3748672.95	2.34550
418306.50	3748672.95	2.33939	418326.50	3748672.95	2.33425
418346.50	3748672.95	2.32910	418361.64	3748672.95	2.33264
418271.87	3748699.59	1.83718	418286.76	3748699.08	1.84072
418306.76	3748699.08	1.83619	418326.76	3748699.08	1.83167
418346.76	3748699.08	1.82622	418361.90	3748699.08	1.82527
418271.87	3748712.18	1.65464	418286.76	3748711.67	1.65868
418306.76	3748711.67	1.65481	418326.76	3748711.67	1.65008
418346.76	3748711.67	1.64443	418361.90	3748711.67	1.64087
418411.90	3748685.81	2.02550	418083.53	3748701.46	1.74247
418103.53	3748701.46	1.75840	418123.53	3748701.46	1.77524

418005.47	3748585.96	5.16291	418022.60	3748585.96	5.22780
418042.60	3748585.96	5.28304	418062.60	3748585.96	5.37553
418078.43	3748585.96	3.92438	418005.47	3748605.96	5.07804
418022.60	3748605.96	5.07945	418042.60	3748605.96	5.09949
418062.60	3748605.96	5.12524	418078.43	3748605.96	5.16159
418005.47	3748625.96	3.84798	418022.60	3748625.96	3.86549

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418042.60	3748625.96	3.89500	418062.60	3748625.96	3.92148
418078.43	3748625.96	3.94358	418005.47	3748645.96	2.99216
418022.60	3748645.96	3.01571	418042.60	3748645.96	3.04689
418062.60	3748645.96	3.07277	418078.43	3748645.96	3.09012
418005.47	3748665.96	2.37302	418022.60	3748665.96	2.39946
418042.60	3748665.96	2.42989	418062.60	3748665.96	2.45585
418078.43	3748665.96	2.47114	418005.47	3748685.96	1.91642
418022.60	3748685.96	1.94491	418042.60	3748685.96	1.97584
418062.60	3748685.96	2.00154	418005.47	3748705.96	1.57062
418022.60	3748705.96	1.59939	418042.60	3748705.96	1.63076
418062.60	3748705.96	1.65877	418088.89	3748584.55	5.33242
418108.89	3748584.55	5.41480	418128.89	3748584.55	5.48918
418148.89	3748584.55	5.56121	418168.89	3748584.55	4.05397
418188.89	3748584.55	4.03690	418208.89	3748584.55	4.03644
418088.11	3748600.64	5.62825	418108.11	3748600.64	5.70440
418128.11	3748600.64	5.76830	418148.11	3748600.64	5.81791
418168.11	3748600.64	5.84316	418188.11	3748600.64	5.83553
418208.11	3748600.64	5.84426	418088.11	3748620.64	4.23692
418188.11	3748620.64	4.36817	418208.11	3748620.64	4.37753
418088.11	3748640.64	3.29973	418188.11	3748640.64	3.38983
418208.11	3748640.64	3.40021	418088.11	3748660.64	2.62556
418188.11	3748660.64	2.69580	418208.11	3748660.64	2.70546
418088.11	3748680.64	2.12681	418108.11	3748680.64	2.14263
418128.11	3748680.64	2.16112	418148.11	3748680.64	2.17740
418168.11	3748680.64	2.18924	418188.11	3748680.64	2.19650
418208.11	3748680.64	2.20327	418168.11	3748700.64	1.81729
418188.11	3748700.64	1.82391	418208.11	3748700.64	1.83026
418168.11	3748712.30	1.64145	418188.11	3748712.30	1.64873
418208.11	3748712.30	1.65612	418083.26	3748293.36	0.32284
418143.26	3748293.36	0.33385	418163.26	3748293.36	0.33647
418183.26	3748293.36	0.33856	418203.26	3748293.36	0.34013
418223.26	3748293.36	0.34120	418243.26	3748293.36	0.34177
418263.26	3748293.36	0.34185	418283.26	3748293.36	0.34144
418303.26	3748293.36	0.34053	418323.26	3748293.36	0.33910

418343.26	3748293.36	0.33715	418363.26	3748293.36	0.33467
418383.26	3748293.36	0.33163	418403.26	3748293.36	0.32802
418423.26	3748293.36	0.32381	418443.26	3748293.36	0.31898
418463.26	3748293.36	0.31349	418483.26	3748293.36	0.30733
418503.26	3748293.36	0.30047	418523.26	3748293.36	0.29290
418063.26	3748313.36	0.36092	418083.26	3748313.36	0.36635

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418103.26	3748313.36	0.37111	418163.26	3748313.36	0.38160
418183.26	3748313.36	0.38391	418203.26	3748313.36	0.38563
418223.26	3748313.36	0.38679	418243.26	3748313.36	0.38738
418263.26	3748313.36	0.38742	418283.26	3748313.36	0.38691
418303.26	3748313.36	0.38583	418343.26	3748313.36	0.38196
418363.26	3748313.36	0.37912	418383.26	3748313.36	0.37566
418403.26	3748313.36	0.37154	418423.26	3748313.36	0.36674
418443.26	3748313.36	0.36121	418463.26	3748313.36	0.35492
418483.26	3748313.36	0.34781	418503.26	3748313.36	0.33985
418043.26	3748333.36	0.40616	418063.26	3748333.36	0.41316
418083.26	3748333.36	0.41934	418103.26	3748333.36	0.42471
418123.26	3748333.36	0.42933	418183.26	3748333.36	0.43895
418203.26	3748333.36	0.44083	418223.26	3748333.36	0.44207
418243.26	3748333.36	0.44267	418263.26	3748333.36	0.44266
418283.26	3748333.36	0.44202	418303.26	3748333.36	0.44074
418343.26	3748333.36	0.43628	418363.26	3748333.36	0.43304
418383.26	3748333.36	0.42909	418403.26	3748333.36	0.42439
418423.26	3748333.36	0.41891	418443.26	3748333.36	0.41259
418463.26	3748333.36	0.40536	418483.26	3748333.36	0.39716
418503.26	3748333.36	0.38791	418023.26	3748353.36	0.46070
418063.26	3748353.36	0.47776	418083.26	3748353.36	0.48477
418103.26	3748353.36	0.49084	418123.26	3748353.36	0.49602
418143.26	3748353.36	0.50036	418203.26	3748353.36	0.50869
418223.26	3748353.36	0.51000	418243.26	3748353.36	0.51060
418263.26	3748353.36	0.51050	418283.26	3748353.36	0.50972
418363.26	3748353.36	0.49936	418383.26	3748353.36	0.49485
418403.26	3748353.36	0.48949	418423.26	3748353.36	0.48323
418443.26	3748353.36	0.47601	418463.26	3748353.36	0.46772
418483.26	3748353.36	0.45826	418503.26	3748353.36	0.44752
418003.26	3748373.36	0.52748	418023.26	3748373.36	0.53934
418043.26	3748373.36	0.54981	418083.26	3748373.36	0.56691
418103.26	3748373.36	0.57375	418123.26	3748373.36	0.57956
418143.26	3748373.36	0.58437	418163.26	3748373.36	0.58827
418223.26	3748373.36	0.59483	418243.26	3748373.36	0.59541

418263.26	3748373.36	0.59520	418283.26	3748373.36	0.59424
418323.26	3748373.36	0.58992	418343.26	3748373.36	0.58652
418363.26	3748373.36	0.58228	417983.26	3748393.36	0.61090
418003.26	3748393.36	0.62665	418023.26	3748393.36	0.64050
418043.26	3748393.36	0.65259	418063.26	3748393.36	0.66307
418103.26	3748393.36	0.67974	418123.26	3748393.36	0.68621

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418143.26	3748393.36	0.69155	418163.26	3748393.36	0.69581
418183.26	3748393.36	0.69908	418243.26	3748393.36	0.70335
418263.26	3748393.36	0.70300	418283.26	3748393.36	0.70181
418303.26	3748393.36	0.69973	418323.26	3748393.36	0.69676
418343.26	3748393.36	0.69285	418363.26	3748393.36	0.68800
418383.26	3748393.36	0.68214	418403.26	3748393.36	0.67519
418423.26	3748393.36	0.66709	418443.26	3748393.36	0.65771
418463.26	3748393.36	0.64693	418483.26	3748393.36	0.63453
418503.26	3748393.36	0.62022	418003.26	3748413.36	0.75766
418023.26	3748413.36	0.77380	418043.26	3748413.36	0.78774
418063.26	3748413.36	0.79969	418083.26	3748413.36	0.80987
418123.26	3748413.36	0.82558	418143.26	3748413.36	0.83146
418163.26	3748413.36	0.83611	418183.26	3748413.36	0.83962
418203.26	3748413.36	0.84207	418243.26	3748413.36	0.84396
418263.26	3748413.36	0.84345	418283.26	3748413.36	0.84197
418303.26	3748413.36	0.83952	418323.26	3748413.36	0.83607
418343.26	3748413.36	0.83159	418363.26	3748413.36	0.82604
418383.26	3748413.36	0.81938	418403.26	3748413.36	0.81152
418423.26	3748413.36	0.80236	418443.26	3748413.36	0.79178
418463.26	3748413.36	0.77964	418483.26	3748413.36	0.76568
418503.26	3748413.36	0.74947	417943.26	3748433.36	0.85850
417963.26	3748433.36	0.88840	418023.26	3748433.36	0.95484
418043.26	3748433.36	0.97083	418063.26	3748433.36	0.98439
418083.26	3748433.36	0.99580	418103.26	3748433.36	1.00530
418143.26	3748433.36	1.01952	418163.26	3748433.36	1.02460
418183.26	3748433.36	1.02835	418203.26	3748433.36	1.03089
418243.26	3748433.36	1.03264	418263.26	3748433.36	1.03193
418283.26	3748433.36	1.03013	418303.26	3748433.36	1.02726
418323.26	3748433.36	1.02329	418343.26	3748433.36	1.01818
418363.26	3748433.36	1.01186	418383.26	3748433.36	1.00430
418403.26	3748433.36	0.99542	418423.26	3748433.36	0.98512
418443.26	3748433.36	0.97331	418463.26	3748433.36	0.95986
418483.26	3748433.36	0.94448	418503.26	3748433.36	0.92680
417943.26	3748453.36	1.09512	417963.26	3748453.36	1.13182

417983.26	3748453.36	1.16263	418003.26	3748453.36	1.18850
418043.26	3748453.36	1.22843	418063.26	3748453.36	1.24369
418083.26	3748453.36	1.25636	418103.26	3748453.36	1.26681
418143.26	3748453.36	1.28209	418163.26	3748453.36	1.28757
418183.26	3748453.36	1.29155	418203.26	3748453.36	1.29413
418243.26	3748453.36	1.29563	418263.26	3748453.36	1.29466

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418283.26	3748453.36	1.29250	418303.26	3748453.36	1.28914
418323.26	3748453.36	1.28457	418343.26	3748453.36	1.27873
418363.26	3748453.36	1.27156	418383.26	3748453.36	1.26301
418403.26	3748453.36	1.25301	418423.26	3748453.36	1.24154
418443.26	3748453.36	1.22856	418463.26	3748453.36	1.21406
418483.26	3748453.36	1.19790	418503.26	3748453.36	1.18002
417983.26	3748473.36	1.53412	418003.26	3748473.36	1.56429
418063.26	3748473.36	1.62652	418083.26	3748473.36	1.64043
418103.26	3748473.36	1.65178	418123.26	3748473.36	1.66092
418143.26	3748473.36	1.66821	418163.26	3748473.36	1.67390
418183.26	3748473.36	1.67800	418203.26	3748473.36	1.68047
418243.26	3748473.36	1.68146	418263.26	3748473.36	1.68021
418283.26	3748473.36	1.67757	418303.26	3748473.36	1.67363
418323.26	3748473.36	1.66834	418343.26	3748473.36	1.66165
418363.26	3748473.36	1.65348	418383.26	3748473.36	1.64379
418403.26	3748473.36	1.63256	418423.26	3748473.36	1.61984
418443.26	3748473.36	1.60582	418463.26	3748473.36	1.59084
418483.26	3748473.36	1.57536	418503.26	3748473.36	1.56049
418003.26	3748493.36	2.16397	418023.26	3748493.36	2.19167
418063.26	3748493.36	2.23258	418083.26	3748493.36	2.24777
418103.26	3748493.36	2.26008	418123.26	3748493.36	2.26989
418143.26	3748493.36	2.27755	418163.26	3748493.36	2.28331
418183.26	3748493.36	2.28732	418203.26	3748493.36	2.28929
418243.26	3748493.36	2.28927	418263.26	3748493.36	2.28785
418283.26	3748493.36	2.28464	418303.26	3748493.36	2.27996
418323.26	3748493.36	2.27377	418343.26	3748493.36	2.26599
418363.26	3748493.36	2.25657	418383.26	3748493.36	2.24548
418403.26	3748493.36	2.23274	418423.26	3748493.36	2.21852
418443.26	3748493.36	2.20341	418463.26	3748493.36	2.18871
418483.26	3748493.36	2.17650	418503.26	3748493.36	2.17162
418003.26	3748513.36	3.22177	418023.26	3748513.36	3.25161
418063.26	3748513.36	3.29406	418083.26	3748513.36	3.31126
418103.26	3748513.36	3.32544	418123.26	3748513.36	3.33636
418143.26	3748513.36	3.34431	418163.26	3748513.36	3.34968

418183.26	3748513.36	3.35296	418203.26	3748513.36	3.35323
418243.26	3748513.36	3.35071	418263.26	3748513.36	3.34974
418283.26	3748513.36	3.34584	418303.26	3748513.36	3.34021
418323.26	3748513.36	3.33273	418343.26	3748513.36	3.32336
418363.26	3748513.36	3.31216	418383.26	3748513.36	3.29915
418403.26	3748513.36	3.28424	418423.26	3748513.36	3.26760

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
418443.26	3748513.36	3.25046	418463.26	3748513.36	3.23575
418483.26	3748513.36	3.22946	418503.26	3748513.36	3.24795
418003.26	3748533.36	5.40903	418023.26	3748533.36	5.43640
418083.26	3748533.36	5.49693	418103.26	3748533.36	5.51529
418123.26	3748533.36	5.52830	418143.26	3748533.36	5.53604
418163.26	3748533.36	5.53970	418183.26	3748533.36	5.54012
418203.26	3748533.36	5.53661	418243.26	3748533.36	5.52740
418263.26	3748533.36	5.52520	418283.26	3748533.36	5.52002
418303.26	3748533.36	5.51273	418323.26	3748533.36	5.50339
418343.26	3748533.36	5.49169	418363.26	3748533.36	5.47776
418383.26	3748533.36	5.46156	418403.26	3748533.36	5.44212
418423.26	3748533.36	5.42074	418443.26	3748533.36	5.39857
418463.26	3748533.36	5.37925	418483.26	3748533.36	5.37453
418503.26	3748533.36	5.43405	418771.30	3748539.09	0.44325
418777.07	3748560.70	0.43993	418769.86	3748621.93	0.49537
418788.59	3748686.04	0.41834	418789.31	3748616.89	0.41903
418785.31	3748530.96	0.38966	417978.15	3748446.64	1.06158

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

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

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ONSITE	1ST HIGHEST VALUE IS	20.03056 AT (418361.39, 3748661.63, 69.50, 69.50, 0.00)	DC	
	2ND HIGHEST VALUE IS	19.56924 AT (418346.24, 3748661.63, 69.73, 69.73, 0.00)	DC	
	3RD HIGHEST VALUE IS	18.92965 AT (418326.24, 3748661.63, 69.76, 69.76, 0.00)	DC	
	4TH HIGHEST VALUE IS	17.90182 AT (418306.24, 3748661.63, 69.75, 69.75, 0.00)	DC	
	5TH HIGHEST VALUE IS	16.22382 AT (418286.24, 3748661.63, 69.66, 69.66, 0.00)	DC	
	6TH HIGHEST VALUE IS	15.22527 AT (418361.64, 3748672.95, 69.52, 69.52, 0.00)	DC	
	7TH HIGHEST VALUE IS	14.83435 AT (418346.50, 3748672.95, 69.74, 69.74, 0.00)	DC	
	8TH HIGHEST VALUE IS	14.32233 AT (418361.39, 3748661.63, 69.50, 69.50, 6.10)	DC	
	9TH HIGHEST VALUE IS	14.22219 AT (418326.50, 3748672.95, 69.77, 69.77, 0.00)	DC	
	10TH HIGHEST VALUE IS	14.07710 AT (418271.36, 3748662.15, 69.51, 69.51, 0.00)	DC	
OFFSITE	1ST HIGHEST VALUE IS	10.27841 AT (418062.60, 3748585.96, 68.92, 68.92, 0.00)	DC	
	2ND HIGHEST VALUE IS	10.12336 AT (418042.60, 3748585.96, 68.92, 68.92, 0.00)	DC	
	3RD HIGHEST VALUE IS	10.00513 AT (418022.60, 3748585.96, 68.79, 68.79, 0.00)	DC	
	4TH HIGHEST VALUE IS	9.97893 AT (418005.47, 3748585.96, 68.62, 68.62, 0.00)	DC	
	5TH HIGHEST VALUE IS	8.52751 AT (418078.43, 3748605.96, 69.28, 69.28, 0.00)	DC	
	6TH HIGHEST VALUE IS	8.51678 AT (418062.60, 3748605.96, 69.38, 69.38, 0.00)	DC	
	7TH HIGHEST VALUE IS	8.50655 AT (418042.60, 3748605.96, 69.36, 69.36, 0.00)	DC	
	8TH HIGHEST VALUE IS	8.48935 AT (418022.60, 3748605.96, 69.25, 69.25, 0.00)	DC	
	9TH HIGHEST VALUE IS	8.45756 AT (418005.47, 3748605.96, 69.05, 69.05, 0.00)	DC	
	10TH HIGHEST VALUE IS	7.63610 AT (418208.11, 3748600.64, 68.60, 68.60, 6.10)	DC	

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

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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

A Total of   0 Fatal Error Message(s)
A Total of   2 Warning Message(s)
A Total of   2285 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   1588 Calm Hours Identified

A Total of   697 Missing Hours Identified (1.59 Percent)

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

   ********   WARNING MESSAGES   ********
ME W186   647   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   647   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

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

Appendix C. Construction Risk Calculations

Table C1
Residential MER Concentrations for Risk Calculations

Contaminant	Source		Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MEIR Conc. ($\mu g/m^3$)	Total MEIR Conc. Annual Average ($\mu g/m^3$)
(a)	(b)		(c)	(d)	(e)	(f)
Residential Receptors - Unmitigated						
DPM	2022	On-Site Emissions	20.03	3.51E-03	7.04E-02	7.04E-02
		Truck Route	3.17	1.01E-05	3.21E-05	
	2023	On-Site Emissions	20.03	0.00E+00	0.00E+00	4.34E-05
		Truck Route	3.17	1.37E-05	4.34E-05	
	2024	On-Site Emissions	20.03	5.06E-03	1.01E-01	1.01E-01
		Truck Route	3.17	1.28E-05	4.07E-05	
					Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations	
Residential Receptors - Mitigated Run: Tier 4 Interim Engines for Equipment > 50HP						
DPM	2022	On-Site Emissions	20.03	6.36E-04	1.27E-02	1.28E-02
		Truck Route	3.17	1.48E-05	4.68E-05	
	2023	On-Site Emissions	20.03	0.00E+00	0.00E+00	4.71E-05
		Truck Route	3.17	1.48E-05	4.71E-05	
	2024	On-Site Emissions	20.03	7.16E-04	1.43E-02	1.44E-02
		Truck Route	3.17	1.35E-05	4.27E-05	
					Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations	

Maximum Exposed Individual Resident (MEIR) UTM coordinates: 418361.39 E, 3748661.63 N

[1] Model Output at the MEIR based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2
Residential MER Health Risk Calculations

Source		MEIR	Weight	Contaminant			Dose (by age bin)		Carcinogenic Risks (by age bin)		**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc. ($\mu g/m^3$)	Fraction		URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	3rd Trimester (mg/kg-day)	0 < 2 years (mg/kg-day)	3rd Trimester per million	0 < 2 years per million	per million	REL ($\mu g/m^3$)	RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(j)	(k)	(m)	(n)	(o)
Residential Receptors - Unmitigated													
2022	On & Off-	7.04E-02	1.0E+00	DPM	3.0E-04	1.1E+00	2.44E-05	7.36E-05	7.77E-01	7.04E+00	7.8	5.0E+00	1.41E-02
2023	Site	4.34E-05						4.53E-08		5.78E-03	0.0		8.68E-06
2024	Emissions	1.01E-01						1.06E-04		3.19E+00	3.2		2.03E-02
										Total	**11.0**		**0.034**
Residential Receptors - Mitigated Run: Tier 4 Interim Engines for Equipment > 50HP													
2022	On & Off-	1.28E-02	1.0E+00	DPM	3.0E-04	1.1E+00	4.43E-06	1.34E-05	1.41E-01	1.28E+00	1.4	5.0E+00	2.56E-03
2023	Site	4.71E-05						4.92E-08		6.27E-03	0.0		9.41E-06
2024	Emissions	1.44E-02						1.50E-05		4.54E-01	0.5		2.88E-03
										Total	**1.9**		**0.005**

Maximum Exposed Individual Resident (MEIR) UTM coordinates: 418361.39 E, 3748661.63 N

		3rd Trimester	0 < 2 years
	OEHHA age bin		
	exposure year(s)	2022	2022-2024
Dose Exposure Factors:	exposure frequency (days/year)	350	350
	inhalation rate (L/kg-day) [1]	361	1090
	inhalation absorption factor	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10	10
	averaging time (years)	70	70
	per million	1.0E+06	1.0E+06
	fraction of time at home	0.85	0.85

exposure durations per age bin		exposure durations (year)	
Construction Year	Const Duration [2]	3rd Trimester	0 < 2 years
2022	1.00	0.25	0.75
2023	1.00		1.00
2024	0.24		0.24
Total	2.24	0.25	1.99

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015)

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint