AB-2588 HEALTH RISK ASSESSMENT FOR AMERICAN BRASS AND IRON FOUNDRY 7825 SAN LEANDRO STREET OAKLAND, CALIFORNIA

SEPTEMBER 10, 1993

AB-2588 HEALTH RISK ASSESSMENT

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EXECUTIVE SUMMARY

This document contains the health risk assessment prepared for American Brass and Iron Foundry (AB&I) as mandated by California Assembly Bill 2588, the Toxic "Hot Spots" Information and Assessment Act of 1987. AB&I operates a foundry located at 7825 San Leandro Street, Oakland, California ("the Facility"). Figure 1 shows the facility location.

Emissions of toxic air contaminants from the Facility have been identified, and the resulting ambient air concentrations have been calculated. These concentrations have been used to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime. In similar fashion, concentrations of compounds with noncarcinogenic adverse health effects were used to calculate hazard indices (the ratio of expected exposure to acceptable exposure).

The maximum risk calculated for this facility is 1.2E-05 (12 in a million). The point of maximum impact is located approximately 10 feet from the Facility in a railroad right of way. This area is designated for industrial land use and is typically unoccupied. This point will be referred to throughout this document at the Maximum Exposed Industrial (MEI). The maximum risk calculated for a residential area was 4.0E-6 (4.0 in a million) and occurred approximately 400 feet southwest of the Facility. This point will be referred to throughout this document at the Maximum Exposed Residence (MER). Most of the calculated risk from this Facility is contributed by the following compounds: arsenic, cadmium, hexavalent chromium, and dioxins.

Carcinogenic risks and hazard indices were calculated at the site of maximum impact and in the neighborhood around the Facility. The maximum increased number of cancer cases (cancer burden or population risk) that might be expected to occur at these sites was also calculated. A summary of results is given in Table 1. Figure 6 shows the zone of impact.. The zone of impact is the area within which the cancer risk is greater than 10E-6 (1 in a million). Figure 3 shows the location of facility, MEI, and MER.

The methods of calculating carcinogenic risk, hazard indices, and cancer burden used here are based on a "worst-plausible" situation and are health-conservative in nature. They predict the upper limits of risk. That is to say, the real risks are not expected to be any higher than the predicted numbers and may well be substantially lower, even approaching zero. This health-conservative approach to assessing risk is one chosen by the California Environmental Protection Agency and the Air Resources Board. The Bay Area Air Quality Management District has requested that all facilities use this approach in preparing their health risk assessment. This standardized approach allows comparison of the relative impacts of various facilities on their surroundings. The risks calculated for this Facility, shown in Table 1, reflect this approach.

AB-2588 HEALTH RISK ASSESSMENT

I. INTRODUCTION

Assembly Bill 2588, the Toxic "Hot Spots" Information and Assessment Act, was enacted by the California state legislature in 1987. The intent of AB-2588 is to gather information on substances which may pose a chronic or acute threat to public health when present in the ambient air. The legislation requires that each Air District prepare a Toxic Air Contaminant Emission Inventory that reflects significant sources of toxic air emissions in the district. A mechanism by which affected facilities could report their emissions was developed by the California Air Resources Board (CARB) and the individual districts.

AB-2588 further dictates that the districts must evaluate air emissions from all reporting facilities and identify those which are "high priority." A high-priority facility is one whose emissions might have an impact on the area which surrounds it. Facilities that are so identified are required to perform a health risk assessment.

This document is the health risk assessment for the American Brass and Iron Foundry (AB&I) ("the Facility"). Sections II and III are the health risk assessment proper. They contain the usual elements of a health risk assessment, i.e., hazard identification, dose-response considerations, exposure assessment, and risk characterization. Discussions of interpretation of results, risk management policy, and/or control measures are found in Section IV.

II. FACILITY DESCRIPTION

a. This document contains a risk assessment for:

Plant Name: American Brass and Iron Foundry

Plant #: 62

Location: 7825 San Leandro Street

Oakland, CA 94621

Type of operation: Iron foundry

Principal product(s): Seamless cast iron pipe

b. The Facility consists of several buildings and processes. The two sources of air toxic emissions are the baghouse emissions from the iron cupola and the emissions from the pipe coating operation. A drawn-to-scale plot plan of the Facility, which includes the location of all sources of toxic air emissions, the plant boundaries, and the surrounding neighborhood, is shown in Figure 2.

III. HAZARD AND EXPOSURE ASSESSMENT

a. Hazard Assessment

Table 2 lists carcinogens emitted by the Facility. Carcinogen emissions from this site occur from the baghouse. Listed in Table 3 are all noncarcinogens emitted by the Facility and their associated sources. The only emittant from the pipe coating operation is methyl chloroform, which has the common name 1,1,1-trichloroethane. The emission rates (pounds per year) are also included in the tables. Compounds that must be reported were identified by comparison with Appendix A-1 (Substances For Which Emission Must Be Quantified) of the AB-2588 Emission Inventory Criteria and Guidelines Regulation (CCR, Title 17, 93300-93347).

A brief description of the adverse health effects attributed to these compounds is found in Appendix A.

b. Exposure Assessment

The emission rates in Tables 2 and 3 were used in the calculation of annual average ambient air concentrations of the contaminants. The emission rates were developed using the information collected during the emission tests performed in November 1991 and May 1993. A brief discussion of the emission tests is included in Appendix E. All emittants from the baghouse were included in the test. These emission rates were converted to grams per second for use in the dispersion model. Two gram per second emission rates were calculated: the first assuming 365 days of 24 hours' operation for estimating ambient concentration to determine the potential for cancer or chronic health effects; the second assuming 2,000 hours of operation per year for determining potential acute health effects. A sample spreadsheet calculation for the emission rates is shown in Appendix B-1. The emission factor for methyl chloroform was determined in a similar manner using the annual solvent inventory shown in Appendix B-1.

The Industrial Source Complex Short Term (ISCST) program was used to predict air concentrations using

5 years of hourly meteorological data from the Alameda Naval Air Station (1985-1989). Meteorological data from Oakland Airport were also evaluated for use in this risk assessment. Due to both the Oakland Airport and Alameda Naval Air Station being in close proximity, the choice of which meteorological dataset to use was made by picking the set which produced the maximum concentration for one of the five years of data. The model provided concentrations at the site of maximum impact (wherever that may be) and at the various sensitive receptor locations, some of which are shown in Table 4. The census tracts and population estimates which were included in the modeling are shown in Table 5. This population count is estimated at the centroid location where the calculated ambient concentration is assumed to represent the entire census tract.

The modeling was performed using a unit emission rate of 0.5 gram per second for each of the two area sources which represented the baghouse. This resulted in the model providing partial contribution factors which were then converted to the predicted ambient concentration for each chemical by multiplying by the appropriate emission factor for each pollutant shown in Appendix B-1. The pipe coating operation was modeled as a single area source using an emission rate of 1 gram per second. Sample calculations for determining ambient concentrations can be found in Appendix B-2.

The resulting ambient concentrations of each air toxic is shown in Tables 6 (a) and (b) for the MEI and MER and Tables 7 (a),(b), (c) and (d) for sensitive receptors within the impact zone. Figure 4 shows the areas surrounding the Facility which are industrial or residential. Concentrations of the individual chemical at census tract centroids within the impact zone are shown in Tables 8 (a), (b), (c) and (d). Figures 5 (a) through (d) show the location of the zone of impact (10E-6 isopleth) for the Facility. The computer printouts for the modeling runs are found in Appendix C. The model input files are listed in Appendix C-1. The input file is shown for one year only; other years are identical except for the meteorological dataset. The model output files are shown in Appendix C-2.

The exposure from noninhalation pathways has been calculated at the MEI (residential) and MEI (worker) locations. The pathways of exposure included soil ingestion, dermal exposure, and ingestion of mother's milk and garden produce. The exposures from relevant noninhalation pathways at the receptors of interest were estimated using the Air Resources Board model ARB/OEHHA HRA92, V1.1 3/13/92. The exposures are shown in Tables 9 (a) and (b) for the MEI and MER locations. The output files for the HRA92 computer model are included in Appendix D.

c. Risk Characterization

1. Carcinogenic Risk

The possible risks that might be expected to arise from these exposures are presented in this section. Tables 10 (a) and (b) contain the carcinogenic risks attributable to inhalation and noninhalation exposures from the baghouse source at the Facility for the MEI and MER location. In each instance, the risk at the site of maximum impact and at the receptor locations are calculated. Sample calculations of risk are found in Appendix B-2 with the associated unit risk factors. These estimates of risk are based on a worst-plausible situation.

Table 11 shows the inhalation and noninhalation risk at each sensitive receptor site.

Figure 6 shows the zones of impact which radiated out from the Facility. The zones (or isopleths) are expressed as levels of carcinogen risk from the highest level calculated for the Facility out to a level of 1.0E-06 (1 in a million) risk.

2. Noncancer Health Effects

The possible occurrence of adverse health effects other than cancer as a result of exposure to toxic air emissions has also been evaluated. Tables 12 (a) and (b) contain the chronic hazard indices attributable to inhalation exposure at the MEI (worker) and MER (residential) locations. The hazard index is the calculated exposure level of each contaminant compared to its acceptable level for noncancer effects, or expected exposure/acceptable exposure. (A hazard index of less than one is considered to be a nonsignificant risk). In each instance, the hazard index at the site of maximum impact and at the receptor locations is calculated. In those situations where there is more than one pollutant per source, the hazard indices for those pollutants that affect the same target organ are summed together. Sample calculations for arriving at the hazard indices are found in Appendix B-3. The hazard indices that are calculated from exposure via noninhalation pathways were found to be insignificant and are shown in Appendix D.

The potential for acute health effects was evaluated by comparing the 1-hour maximum concentrations with the acceptable exposure levels. Tables 13 (a) and (b) show the acute hazard indices. The comparison was made at the location of the MEI and MER.

3. Excess Cancer Burden

The excess cancer burden for a population is an estimate of the possible increased number of cancer cases in a population as a result of a given exposure to emitted carcinogens. For any population unit, the cancer burden is the product of the exposed population and the calculated individual risk from inhalation exposure and other pathways, where appropriate. Because of the conservative nature of the calculation of individual risk used in this document, this cancer burden is an upper limit estimate. In other words, the number of predicted excess cancer cases is not expected to be higher than the calculated number and may very well be lower or even zero. Table 14 gives the excess cancer burden for each census tract within the 10E-6 inhalation isopleth.

4.0 30 Day Average Concentrations

The state of California has established and ambient concentration standard for lead during a 30 day averaging period of 1.5 micrograms per cubic meter. To determine if there is potential for emissions from the Site to exceed this standard the 30 average concentrations were estimated. The maximum 30 day average concentrations are shown in Table 15.

5.0 24 Hour Maximum Lead Concentrations

The maximum 24 hour lead concentrations were estimated at the MEI and MER locations. These data are presented in Table 16.

IV. INTERPRETATION OF RESULTS, DISCUSSION OF UNCERTAINTY, POSSIBLE CONTROL MEASURES, RISK MANAGEMENT DECISIONS, ETC.

The results of the risk assessment can be found in Table 1, Executive Summary, which is based upon the emissions rate, type of emissions, and meteorological data and air dispersion modeling results.

The maximum risk of cancer in a residential area was 4.0 in a million. The Maximum Exposed Individual occurred in an unoccupied industrial area. However, the risk in some of the neighboring occupied industrial areas is between 10 and 14 in a million. The primary chemicals which contribute to the risk are arsenic, cadmium, chromium, and dioxins.

The most serious potential health effect identified was due to chronic exposure to 1,1,1-TCA near the Facility fenceline. Measures are outlined below which will eventually reduce or eliminate this exposure.

The acute exposure to lead emissions was identified as a potential health risk. This is primarily due to using the state standard of 1.5 ug/m^3 to estimate potential health effects. Although the modeling shows that there is the likelihood of the hourly downwind concentrations exceeding 1.5 ug/m^3, there is little likelihood of adverse acute health effects for exposure of this short duration. However, measures taken at the Facility are expected to lower lead emissions.

It is the intention of American Brass and Iron to continue to reduce emissions from this facility with an ultimate goal of becoming a nonpolluter in the near future. To accomplish this goal, American Brass and Iron is currently developing a water-based coating to replace the current coating, which will virtually eliminate the emissions of methyl chloroform. The Facility has also been testing higher efficiency filter bags which may lead to substantial emission reductions of arsenic, cadmium, lead, and chromium from the cupola baghouse filter.

Table 1:

EXECUTIVE SUMMARY
CARCINOGENS AND NON-CARCINOGENIC RISKS

	MEI	MER
Maximum Cancer Risk	1.2E-05	4.0E-06
Chronic		
RESP	0.36	0.12
CV/BL	0.01	0.003
CNS	0.05	0.02
SKIN	0.3	0.1
REPRO	0.01	0.005
KIDN	0.01	0.003
GI/LV	0.02	0.01
IMMUN	0.01	0.01
Acute		
RESP	2.1	0.08
CV/BL	-	-
CNS	4.3	0.2
EYE	-	-
REPRO	-	-
KIDN	0.00	0.00
GI/LV	0.00	0.00
IMMUN	0.9	0.03

Table 2:

ANNUAL CARCINOGEN EMISSION RATES

CONTAMINANT	ANNUAL AMOUNT (lb/year)	METHOD OF ESTIMATION	EMITTING SOURCES
Arsenic	6.1	Source Test	Cupola/Baghouse
Berylium	0.3	Source Test	Cupola/Baghouse
Cadmium	1.6	Source Test	Cupola/Baghouse
Chromium	0.15	Source Test	Cupola/Baghouse
Formaldehyde	78.7	Source Test	Cupola/Baghouse
Nickel	5.4	Source Test	Cupola/Baghouse
PAH	0.2	Source Test	Cupola/Baghouse
TCDD	0.0006	Source Test	Cupola/Baghouse

Table 3:

ANNUAL NON-CARCINOGEN EMISSION RATES

CONTAMINANT	ANNUAL AMOUNT (lb/year)	METHOD OF ESTIMATION	EMITTING SOURCES
Copper	30.3	Source Test	Cupola/Baghouse
Hydrogen Chloride	28505	Source Test	Cupola/Baghouse
Lead	42	Source Test	Cupola/Baghouse
Manganese	232.5	Source Test	Cupola/Baghouse
Mercury	1.2	Source Test	Cupola/Baghouse
Selenium	0.3	Source Test	Cupola/Baghouse
Zinc	3587.4	Source Test	Cupola/Baghouse
1,1,1-TCA	588258	Mass Balance	Pipe Coating

Table 4:

RECEPTOR SITES

DESCRIPTION OF SITE	LOCATION (UTM Coordinates, meters)
Maximum Impact Location (MEI) (occurs in industrial location)	4178000N 571125E
Maximum Residential Receptor (MER)	4178150N 572000E
Sensitive Receptors (schools, hospitals, parks, ect.)	
Markham School	4178000N 572550E
Webster School	4179480N 572850E
Greenman School	4179300N 571400E
Whittier School	4179900N 571100E
Fremont High School	4181000N 569800E
Melrose School	4180200N 570000E
Elmhurst School	4177850N 573800E
Stonehurst School	4176900N 573000E
Brookfield Village School	4176600N 571600E
DagHammarskjold School	4176200N 571200E
Madison Jr. High School	4175700N 572500E
Sobrante Park School	4175900N 572700E
Grover Cleveland School	4175450N 572450E
Coliseum Complex	4178100N 570950E
Arroyo Viejo Rec. Center	4179600N 572800E

Table 5:

CENSUS TRACTS AND POPULATION

Census Tract #	1990 Population (estimate)**
4061.00	2754
4070.00	5030
4071.00	6438
4072.00	4708
4073.00	1516
4074.00	2893
4075.00	3095
4076.00	5513
4077.00	4620
4078.00	2585
4079.00	2853
4081.00	6402
4082.00	4038
4083.00	4402
4084.00	3198
4085.00	4198
4086.00	4359
4087.00	5868
4088.00	4289
4089.00	2811
4090.00	3115
4091.00	1961
4092.00	2452
4093.00	4173
4094.00	3070
4095.00	2195
4096.00	4029
4097.00	4012
4098.00	3097
4099.00	4584
4100.00	3009
4101.00	2472
4102.00	2728
4103.00	2746
4104.00	2878
4271.00	3533
4281.00	4130
4282.00	5860
4283.00	11212
4321.00	3309
4322.00	3446
4323.00	2686
4324.00	4596
4325.00	6866
4326.00	5184

** Population estimated for centroid location (location at which calculation ambient concentration is assumed to represent the entire census tract).

Table 6a:

CONCENTRATION OF CARCINOGENS
AT MEI AND MER (ug/m3)

CONTAMINANT	MEI	MER
Arsenic	4.3E-04	1.5E-04
Berylium	1.9E-05	6.7E-06
Cadmium	1.2E-04	4.0E-05
Chromium	1.1E-05	3.7E-06
Formaldehyde	5.7E-03	1.9E-03
Nickel	3.9E-04	1.3E-04
PAH	1.8E-05	6.1E-06
TCDD	3.9E-08	1.3E-08

Table 6b:

CONCENTRATION OF NON-CARCINOGENS AT MEI AND MER (ug/m3)

CONTAMINANT	MEI	MER
Copper	2.2E-03	7.5E-04
Hydrogen Chloride	2.0E+00	7.1E-01
Lead	3.0E-03	1.0E-03
Manganese	1.7E-02	5.8E-03
Mercury	8.8E-05	3.0E-05
Selenium	2.0E-05	6.7E-06
Zinc	2.6E-01	8.9E-02
1,1,1-TCA	6.3E+02	1.1E+02

Table 7a:

CONCENTRATION OF CARCINOGENS AT SENSITIVE RECEPTORS (ug/m3)

DESCRIPTION OF SITE	ARSENIC	BERYLLIUM	CADMIUM	CHROMIUM
Markham School	1.5E-05	6.9E-07	4.0E-06	3.9E-07
Webster School	2.7E-05	1.2E-06	7.2E-06	6.8E-07
Greenman School	3.2E-05	1.4E-06	8.5E-06	7.9E-07
Whittier School	1.1E-05	4.9E-07	2.8E-06	2.7E-07
Fremont High School	5.0E-05	2.3E-07	1.3E-06	1.3E-07
Melrose School	7.6E-05	3.4E-07	2.0E-06	1.9E-07
Elmhurst School	5.0E-05	2.2E-07	1.3E-05	1.3E-06
Stonehurst School	2.2E-05	9.8E-07	5.7E-06	5.5E-07
Brookfield Village School	4.8E-05	2.2E-06	1.3E-05	1.2E-06
DagHammarskjold School	1.9E-05	8.3E-07	4.8E-06	4.6E-07
Madison Jr. High School	2.3E-05	1.0E-06	5.9E-06	5.6E-07
Sobrante Park School	2.2E-05	9.9E-07	5.8E-06	5.6E-07
Grover Cleveland School	2.0E-05	9.2E-07	5.4E-06	5.2E-07
Coliseum Complex	8.9E-05	4.0E-06	2.3E-05	2.2E-06
Arroyo Viejo Rec. Center	2.4E-05	1.1E-06	6.2E-06	6.0E-07

Table 7b:

CONCENTRATION OF CARCINOGENS AT SENSITIVE RECEPTORS (ug/m3)

DESCRIPTION OF SITE	FORMALDEHYDE	NICKEL	PAH	TCDD
Markham School	2.0E-04	1.6E-05	2.7E-06	1.5E-09
Webster School	3.5E-04	2.8E-05	4.8E-06	2.6E-09
Greenman School	4.1E-04	3.2E-05	5.6E-06	3.0E-09
Whittier School	1.4E-04	1.1E-05	1.9E-06	1.0E-09
Fremont High School	6.5E-05	5.1E-06	9.0E-07	5.0E-10
Melrose School	9.8E-05	7.7E-06	1.4E-06	7.0E-10
Elmhurst School	6.5E-04	5.0E-05	8.9E-06	4.7E-09
Stonehurst School	2.9E-04	2.2E-05	3.9E-06	2.1E-09
Brookfield Village School	6.3E-04	4.9E-05	8.7E-06	4.6E-09
DagHammarskjold School	2.4E-04	1.9E-05	3.3E-06	1.8E-09
Madison Jr. High School	2.9E-04	2.3E-05	4.0E-06	2.2E-09
Sobrante Park School	2.9E-04	2.3E-05	4.0E-06	2.1E-09
Grover Cleveland School	2.7E-04	2.1E-05	3.7E-06	2.0E-09
Coliseum Complex	1.2E-03	9.0E-05	1.6E-05	8.5E-09
Arroyo Viejo Rec. Center	3.1E-04	2.4E-05	4.6E-06	2.3E-09

Table 7c:

CONCENTRATION OF NON-CARCINOGENS AT SENSITIVE RECEPTORS (ug/m3)

DESCRIPTION OF SITE	COPPER	HCL	LEAD	MANGANESE
Markham School	7.7E-05	7.2E-02	1.1E-04	6.0E-04
Webster School	1.4E-04	1.3E-01	1.9E-04	1.1E-03
Greenman School	1.6E-04	1.5E-01	2.2E-04	1.2E-03
Whittier School	5.4E-05	5.1E-02	7.7E-05	4.2E-04
Fremont High School	2.5E-05	2.4E-02	3.5E-05	2.0E-04
Melrose School	3.8E-05	4.0E-02	5.3E-05	3.0E-04
Elmhurst School	2.5E-04	2.3E-01	3.5E-04	1.9E-03
Stonehurst School	1.1E-04	1.0E-01	1.5E-04	8.6E-04
Brookfield Village School	2.4E-04	2.3E-01	3.4E-04	1.9E-03
DagHammarskjold School	9.2E-05	9.0E-02	1.3E-04	7.2E-04
Madison Jr. High School	1.1E-04	1.1E-01	1.6E-04	8.8E-04
Sobrante Park School	1.1E-04	1.0E-01	1.5E-04	8.7E-04
Grover Cleveland School	1.0E-04	1.0E-01	1.4E-04	8.0E-04
Coliseum Complex	4.5E-04	4.2E-01	6.2E-04	3.5E-03
Arroyo Viejo Rec. Center	1.2E-04	1.1E-01	1.7E-04	9.7E-04

Table 7d:

CONCENTRATION OF NON-CARCINOGENS AT SENSITIVE RECEPTORS (ug/m3)

DESCRIPTION OF SITE	MERCURY	SELENIUM	ZINC	1,1,1-TCA
Markham School	3.1E-06	1.1E-05	8.8E-03	1.5E+00
Webster School	5.5E-06	1.9E-05	1.6E-02	2.6E+00
Greenman School	6.5E-06	2.3E-05	1.9E-02	3.1E+00
Whittier School	2.2E-06	7.7E-06	6.2E-03	1.1E+00
Fremont High School	1.0E-06	3.6E-06	3.0E-03	4.9E-01
Melrose School	1.6E-06	5.4E-06	4.5E-03	7.4E-01
Elmhurst School	1.0E-05	3.5E-05	3.0E-02	4.9E+00
Stonehurst School	4.5E-06	1.6E-05	1.3E-02	2.1E+00
Brookfield Village School	9.9E-06	3.4E-05	2.9E-02	4.7E+00
DagHammarskjold School	3.8E-06	1.3E-05	1.1E-02	1.8E+00
Madison Jr. High School	4.6E-06	1.6E-05	1.3E-02	2.2E+00
Sobrante Park School	4.5E-06	1.6E-05	1.3E-02	2.2E+00
Grover Cleveland School	4.2E-06	1.5E-05	1.2E-02	2.0E+00
Coliseum Complex	1.8E-05	6.3E-05	5.3E-02	8.7E+00
Arroyo Viejo Rec. Center	4.9E-06	1.7E-05	1.4E-02	2.3E+00

Table 8a:

CONCENTRATION OF CARCINOGENS AT CENSUS TRACT CENTROIDS (ug/m3)

CENSUS TRACT	Arsenic	Beryllium	Cadmium	Chromium	Formaldehyde	Nickel	PAH	TCDD
4061	7.8E-06	3.5E-07	2.1E-06	2.0E-07	9.8E-05	7.0E-06	3.1E-07	6.9E-10
4070	6.4E-06	2.8E-07	1.7E-06	1.6E-07	8.0E-05	5.7E-06	2.6E-07	5.6E-10
4071	3.5E-05	1.6E-06	9.2E-06	8.8E-07	4.4E-04	3.1E-05	1.4E-06	3.1E-09
4072	2.0E-05	9.0E-07	5.3E-06	5.1E-07	2.5E-04	1.8E-05	8.1E-07	1.8E-09
4073	1.1E-05	5.1E-07	3.0E-06	2.9E-07	1.5E-04	1.0E-05	4.6E-07	1.0E-09
4074	2.0E-05	9.0E-07	5.3E-06	5.1E-07	2.5E-04	1.8E-05	8.1E-07	1.8E-09
4075	9.4E-05	4.2E-06	2.5E-05	2.4E-06	1.2E-03	8.4E-05	3.8E-06	8.3E-09
4076	2.8E-05	1.3E-06	7.5E-06	7.2E-07	3.6E-04	2.5E-05	1.1E-06	2.5E-09
4077	3.4E-05	1.5E-06	8.9E-06	8.5E-07	4.2E-04	3.0E-05	1.4E-06	3.0E-09
4078	2.1E-05	9.2E-07	5.4E-06	5.2E-07	2.6E-04	1.8E-05	8.3E-07	1.8E-09
4079	5.9E-05	2.6E-06	1.6E-05	1.5E-06	7.4E-04	5.3E-05	2.4E-06	5.2E-09
4081	1.3E-04	5.6E-06	3.3E-05	3.2E-06	1.6E-03	1.1E-04	5.1E-06	1.1E-08
4082	5.1E-05	2.3E-06	1.3E-05	1.3E-06	6.4E-04	4.5E-05	2.0E-06	4.5E-09
4083	6.7E-06	3.0E-07	1.8E-06	1.7E-07	8.5E-05	6.0E-06	2.7E-07	5.9E-10
4084	3.9E-06	1.8E-07	1.0E-06	1.00E-07	5.0E-05	3.5E-06	1.6E-07	3.5E-10
4085	3.7E-06	1.7E-07	9.8E-07	9.4E-08	4.7E-05	3.3E-06	1.5E-07	3.3E-10
4086	4.7E-06	2.1E-07	1.2E-06	1.2E-07	5.9E-05	4.2E-06	1.9E-07	4.1E-10
4087	2.0E-06	9.0E-08	5.3E-07	5.1E-08	2.5E-05	1.8E-06	8.1E-08	1.8E-10
4088	2.2E-06	9.7E-08	5.7E-07	5.5E-08	2.7E-05	1.9E-06	8.7E-08	1.9E-10
4089	2.6E-06	1.2E-07	6.9E-07	6.6E-08	3.3E-05	2.3E-06	1.0E-07	2.3E-10
4090	3.1E-06	1.4E-07	8.2E-07	7.8E-08	3.9E-05	2.8E-06	1.2E-07	2.7E-10
4091	3.7E-06	1.7E-07	9.8E-07	9.4E-08	4.7E-05	3.3E-06	1.5E-07	3.3E-10
4092	4.9E-06	2.2E-07	1.3E-06	1.2E-07	6.2E-05	4.4E-06	2.0E-07	4.4E-10

Table 8b:

CONCENTRATION OF CARCINOGENS
AT CENSUS TRACT CENTROIDS (ug/m3)

CENSUS TRACT	Arsenic	Beryllium	Cadmium	Chromium	Formaldehyde	Nickel	PAH	TCDD
4093	5.8E-06	2.6E-07	1.5E-06	1.5E-07	7.4E-05	5.2E-06	2.3E-07	5.2E-10
4094	5.2E-06	2.3E-07	1.4E-06	1.3E-07	6.6E-05	4.7E-06	2.1E-07	4.6E-10
4095	2.0E-06	9.0E-08	5.3E-07	5.1E-08	2.5E-05	1.8E-06	8.1E-08	1.8E-10
4096	3.4E-05	1.5E-06	9.0E-06	8.6E-07	4.3E-04	3.1E-05	1.4E-06	3.0E-09
4097	9.2E-06	4.1E-07	2.4E-06	2.3E-07	1.2E-04	8.2E-06	3.7E-07	8.1E-10
4098	6.7E-06	3.0E-07	1.8E-06	1.7E-07	8.4E-05	6.0E-06	2.7E-07	5.9E-10
4099	2.2E-05	1.0E-06	5.9E-06	5.7E-07	2.8E-04	2.0E-05	9.0E-07	2.0E-09
4100	1.3E-05	5.8E-07	3.4E-06	3.3E-07	1.6E-04	1.2E-05	5.2E-07	1.2E-09
4101	1.2E-05	5.4E-07	3.2E-06	3.0E-07	1.5E-04	1.1E-05	4.8E-07	1.1E-09
4102	1.0E-05	4.5E-07	2.7E-06	2.6E-07	1.3E-04	9.1E-06	4.1E-07	8.9E-10
4103	6.8E-06	3.0E-07	1.8E-06	1.7E-07	8.6E-05	6.1E-06	2.7E-07	6.0E-10
4104	1.1E-05	4.7E-07	2.8E-06	2.7E-07	1.3E-04	9.5E-06	4.2E-07	9.3E-10
4271	2.2E-05	9.8E-07	5.8E-06	5.5E-07	2.8E-04	2.0E-05	8.8E-07	1.9E-09
4281	1.2E-05	5.4E-07	3.2E-06	3.1E-07	1.5E-04	1.1E-05	4.9E-07	1.1E-09
4282	1.1E-05	5.0E-07	2.9E-06	2.8E-07	1.4E-04	9.9E-06	4.5E-07	9.8E-10
4283	2.0E-05	9.0E-07	5.3E-06	5.1E-07	2.5E-04	1.8E-05	8.1E-07	1.8E-09
4321	3.1E-05	1.4E-06	8.2E-06	7.9E-07	3.9E-04	2.8E-05	1.2E-06	2.7E-09
4322	3.6E-05	1.6E-06	9.5E-06	9.1E-07	4.5E-04	3.2E-05	1.4E-06	3.2E-09
4623	2.3E-05	1.0E-06	6.1E-06	5.9E-07	2.9E-04	2.1E-05	9.3E-07	2.1E-09
4624	2.1E-05	9.4E-07	5.5E-06	5.3E-07	2.6E-04	1.9E-05	8.4E-07	1.9E-09
4625	1.9E-05	8.6E-07	5.0E-06	4.8E-07	2.4E-04	1.7E-05	7.7E-07	1.7E-09
4326	1.3E-05	5.7E-07	3.3E-06	3.2E-07	1.6E-04	1.1E-05	5.1E-07	1.1E-09

Table 8c:

CONCENTRATION OF NON-CARCINOGENS AT CENSUS TRACT CENTROIDS (ug/m3)

CENSUS TRACT	Copper	HCL	Lead	Manganese	Mercury	Selenium	Zinc	1,1,-TCA
4093	2.5E-05	2.3E-02	3.4E-05	1.9E-04	1.0E-06	2.2E-07	2.9E-03	4.8E-01
4094	2.9E-05	2.7E-02	4.0E-05	2.2E-04	1.2E-06	2.6E-07	3.4E-03	5.7E-01
4095	2.6E-05	2.4E-02	3.5E-05	2.0E-04	1.1E-06	2.3E-07	3.1E-03	5.1E-01
4096	1.0E-05	9.4E-03	1.4E-05	7.8E-05	4.1E-07	9.0E-08	1.2E-03	1.9E-01
4097	1.7E-04	1.6E-01	2.3E-04	1.3E-03	7.0E-06	1.5E-06	2.0E-02	3.3E+00
4098	4.6E-05	4.3E-02	6.3E-05	3.6E-04	1.9E-06	4.1E-07	5.5E-03	8.9E-01
4099	3.4E-05	3.1E-02	4.6E-05	2.6E-04	1.4E-06	3.0E-07	4.0E-03	6.5E-01
4100	1.1E-04	1.1E-01	1.5E-04	8.8E-04	4.6E-06	1.0E-06	1.3E-02	2.2E+00
4101	6.6E-05	6.1E-02	9.0E-05	5.1E-04	2.7E-06	5.8E-07	7.8E-03	1.2E+00
4102	6.1E-05	5.6E-02	8.3E-05	4.7E-04	2.5E-06	5.4E-07	7.2E-03	1.1E+00
4103	5.1E-05	4.8E-02	7.0E-05	3.9E-04	2.1E-06	4.5E-07	6.0E-03	9.8E-01
4104	3.4E-05	3.2E-02	4.7E-05	2.7E-04	1.4E-06	3.0E-07	4.1E-03	6.6E-01
4271	5.3E-05	5.0E-02	7.3E-05	4.1E-04	2.2E-06	4.7E-07	6.3E-03	1.0E+00
4281	1.1E-04	1.0E-01	1.5E-04	8.6E-04	4.5E-06	9.8E-07	1.3E-02	2.1E+00
4282	6.1E-05	5.7E-02	8.3E-05	4.7E-04	2.5E-06	5.4E-07	7.2E-03	1.1E+00
4283	5.6E-05	5.2E-02	7.6E-05	4.3E-04	2.3E-06	5.0E-07	6.6E-03	1.0E+00
4321	1.0E-04	9.5E-02	1.4E-04	7.9E-04	4.2E-06	9.0E-07	1.2E-02	1.9E+00
4322	1.6E-04	1.5E-01	2.1E-04	1.2E-03	6.4E-06	1.4E-06	1.9E-02	3.0E+00
4623	1.8E-04	1.7E-01	2.5E-04	1.4E-03	7.4E-06	1.6E-06	2.1E-02	3.5E+00
4624	1.2E-04	1.1E-01	1.6E-04	9.1E-04	4.8E-06	1.0E-06	1.4E-02	2.2E+00
4625	1.1E-04	9.9E-02	1.4E-04	8.2E-04	4.3E-06	9.4E-07	1.3E-02	2.0E+00
4326	9.7E-05	9.0E-02	1.3E-04	7.5E-04	4.0E-06	8.6E-07	1.1E-02	1.9E+00

Table 8d:

CONCENTRATION OF NON-CARCINOGENS AT CENSUS TRACT CENTROIDS (ug/m3)

CENSUS TRACT	Copper	HCL	Lead	Manganese	Mercury	Selenium	Zinc	1,1,-TCA
4061	4.4E-04	4.1E-01	5.9E-04	3.4E-03	1.8E-05	3.9E-06	5.2E-02	8.4E+00
4070	3.9E-05	3.6E-02	5.3E-05	3.0E-04	1.6E-06	3.4E-07	4.6E-03	7.5E-01
4071	3.2E-05	3.0E-02	4.4E-05	2.5E-04	1.3E-06	2.8E-07	3.8E-03	6.2E-01
4072	1.8E-04	1.6E-01	2.4E-04	1.4E-03	7.2E-06	1.6E-06	2.1E-02	3.4E+00
4073	1.0E-04	9.5E-02	1.4E-04	7.9E-04	4.2E-06	9.0E-07	1.2E-02	1.9E+00
4074	5.8E-05	5.4E-02	7.9E-05	4.5E-04	2.4E-06	5.1E-07	6.9E-03	1.1E+00
4075	1.0E-04	9.4E-02	1.4E-04	7.8E-04	4.1E-06	9.0E-07	1.2E-02	1.9E+00
4076	4.8E-04	4.4E-01	6.5E-04	3.7E-03	1.9E-05	4.2E-06	5.6E-02	9.1E+00
4077	1.4E-04	1.3E-01	2.0E-04	1.1E-03	5.9E-06	1.3E-06	1.7E-02	2.7E+00
4078	1.7E-04	1.6E-01	2.3E-04	1.3E-03	6.9E-06	1.5E-06	2.0E-02	3.2E+00
4079	1.0E-04	9.7E-02	1.4E-04	8.0E-04	4.3E-06	9.2E-07	1.2E-02	2.0E+00
4081	3.0E-04	2.8E-01	4.1E-04	2.3E-03	1.2E-05	2.6E-06	3.5E-02	5.7E+00
4082	6.4E-04	5.9E-01	8.7E-04	4.9E-03	2.6E-05	5.6E-06	7.5E-02	1.2E+01
4083	2.6E-04	2.4E-01	3.5E-04	2.0E-03	1.0E-05	2.3E-06	3.0E-02	4.9E+00
4084	3.4E-05	3.1E-02	4.6E-05	2.6E-04	1.4E-06	3.0E-07	4.0E-03	6.5E-01
4085	2.0E-05	1.9E-02	2.7E-05	1.5E-04	8.2E-07	1.8E-07	2.4E-03	3.8E-01
4086	1.9E-05	1.7E-02	2.6E-05	1.4E-04	7.7E-07	1.7E-07	2.2E-03	3.6E-01
4087	2.4E-05	2.2E-02	3.2E-05	1.8E-04	9.6E-07	2.1E-07	2.8E-03	4.5E-01
4088	1.0E-05	9.5E-03	1.4E-05	7.9E-05	4.2E-07	9.0E-08	1.2E-03	1.9E-01
4089	1.1E-05	1.0E-02	1.5E-05	8.4E-05	4.5E-07	9.7E-08	1.3E-03	2.1E-01
4090	1.3E-05	1.2E-02	1.8E-05	1.0E-04	5.4E-07	1.2E-07	1.6E-03	2.5E-01
4091	1.6E-05	1.5E-02	2.1E-05	1.2E-04	6.4E-07	1.4E-07	1.9E-03	3.0E-01
4092	1.9E-05	1.7E-02	2.6E-05	1.4E-04	7.7E-07	1.7E-07	2.2E-03	6.9E-01

Table 9a:

NON-INHALATION PATHWAY EXPOSURES
AT MEI (dose = mg/kg/day)

POLLUTANT	NONINHALATION PATHWAY EXPOSURE				
	SOIL	SKIN	GARDEN	MMILK	TOTAL
Arsenic	1.1E+00	2.4E-02	0.0E+00	0.0E+00	1.1E+00
Beryllium	5.1E-02	1.1E-03	0.0E+00	0.0E+00	5.2E-02
Chromium (+6)	2.9E-02	5.9E-03	0.0E+00	0.0E+00	3.5E-02
Dioxins	1.7E-05	1.7E-05	0.0E+00	0.0E+00	3.4E-05
PAH as Benzene	2.4E-03	1.6E-03	0.0E+00	0.0E+00	4.0E-03
Route Total	1.2E+00	3.3E-02	0.0E+00	0.0E+00	1.2E+00

Table 9b:

NON-INHALATION PATHWAY EXPOSURES
AT MER (dose = mg/kg/day)

POLLUTANT	NONINHALATION PATHWAY EXPOSURE				
	SOIL	SKIN	GARDEN	MMILK	TOTAL
Arsenic	3.9E-01	8.2E-03	0.0E+00	0.0E+00	4.0E-01
Beryllium	1.7E-02	3.5E-04	0.0E+00	0.0E+00	1.7E-02
Chromium (+6)	9.7E-03	2.1E-03	0.0E+00	0.0E+00	1.2E-02
Dioxins	6.0E-06	5.8E-06	0.0E+00	0.0E+00	1.2E-05
PAH as Benzene	8.3E-04	5.3E-04	0.0E+00	0.0E+00	1.4E-03
Route Total	4.2E-01	1.1E-02	0.0E+00	0.0E+00	4.3E-01

Table 10a:

INDIVIDUAL CANCER RISK AT MEI

POLLUTANT	70 YEAR INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE					
	AIR	SOIL	SKIN	GARDEN	MMILK	TOTAL
Arsenic	1.4E-06	1.9E-06	4.1E-08	0.0E+00	0.0E+00	3.3E-06
Beryllium	4.7E-08	2.2E-07	4.6E-09	0.0E+00	0.0E+00	2.7E-07
Cadmium	4.8E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.8E-07
Chromium (+6)	1.5E-06	1.2E-08	2.5E-09	0.0E+00	0.0E+00	1.5E-06
Dioxins	1.5E-06	2.1E-06	2.1E-06	0.0E+00	0.0E+00	5.7E-06
Formaldehyde	7.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.3E-08
Nickel	1.0E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-07
PAH as Benzene	3.0E-08	2.8E-08	1.8E-08	0.0E+00	0.0E+00	7.6E-08
Route Total	5.1E-06	4.3E-06	2.2E-06	0.0E+00	0.0E+00	1.2E-05

Table 10b:

INDIVIDUAL CANCER RISK AT MER

POLLUTANT	70 YEAR INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE					
	AIR	SOIL	SKIN	GARDEN	MMILK	TOTAL
Arsenic	4.9E-07	6.6E-07	1.4E-08	0.0E+00	0.0E+00	1.2E-06
Beryllium	1.6E-08	7.5E-08	1.6E-09	0.0E+00	0.0E+00	9.3E-08
Cadmium	1.7E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.7E-07
Chromium (+6)	5.2E-07	4.1E-09	8.7E-10	0.0E+00	0.0E+00	5.2E-07
Dioxins	5.0E-07	7.4E-07	7.3E-07	0.0E+00	0.0E+00	2.0E-06
Formaldehyde	2.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.5E-08
Nickel	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.5E-08
PAH as Benzene	1.0E-08	9.6E-09	6.2E-09	0.0E+00	0.0E+00	2.6E-08
Route Total	1.8E-06	1.5E-06	7.5E-07	0.0E+00	0.0E+00	4.0E-06

Table 11:

CANCER RISK AT SENSITIVE RECEPTORS

DESCRIPTION OF SITE	INHALATION	NONINHALATION	TOTAL
Markham School	1.8E-07	2.4E-07	4.2E-07
Webster School	3.2E-07	4.4E-07	7.6E-07
Greenman School	3.8E-07	5.1E-07	8.9E-07
Whittier School	1.3E-07	1.7E-07	3.0E-07
Fremont High School	5.9E-08	8.1E-08	1.4E-07
Melrose School	9.0E-08	1.2E-07	2.1E-07
Elmhurst School	5.9E-07	8.0E-07	1.4E-06
Stonehurst School	2.6E-07	3.5E-07	6.1E-07
Brookfield Village School	5.8E-07	7.8E-07	1.4E-06
DagHammarskjold School	2.2E-07	2.9E-07	5.1E-07
Madison Jr. High School	2.7E-07	3.6E-07	6.3E-07
Sobrante Park School	2.6E-07	3.6E-07	6.2E-07
Grover Cleveland School	2.4E-07	3.3E-07	5.7E-07
Coliseum Complex	1.1E-06	1.4E-06	2.5E-06
Arroyo Viejo Rec. Center	2.8E-07	3.8E-07	6.6E-07

Table 12a:

CHRONIC HAZARD INDICES (HI)
RESULTING FROM INHALATION EXPOSURE AT MEI

POLLUTANT	CHRONIC INHALATION HAZARD INDEX							
	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
Arsenic	0.0009	-	0.0009	0.0009	-	-	-	-
Beryllium	0.0041	-	-	-	-	-	-	-
Cadmium	0.0001	-	-	-	-	0.0001	-	-
Chromium (+6)	0.0055	-	-	-	-	0.0055	0.0055	-
Copper	0.0009	-	-	-	-	-	-	-
Dioxins	-	-	-	0.0110	0.0110	-	0.0110	0.0110
Formaldehyde	0.0016	-	-	-	-	-	-	-
Hydrochloric Acid	0.2929	-	-	0.2929	-	-	-	-
Lead	-	0.0020	0.0020	-	0.0020	0.0020	-	0.0020
Manganese	0.0424	-	0.0424	-	-	-	-	-
Mercury	0.0003	0.0003	0.0003	-	-	0.0003	0.0003	-
Methyl Chloroform	-	-	1.9900	-	1.9900	-	1.9900	-
Nickel	0.0016	-	-	-	-	0.0016	-	0.0016
Selenium	0.0001	-	-	-	-	-	-	-
Zinc	0.0074	0.0074	-	-	-	-	-	-
Total Chronic	0.357	0.0097	2.0356	0.3048	2.0030	0.0095	2.0068	0.0146

Table 12b:

CHRONIC HAZARD INDICES (HI)
RESULTING FROM INHALATION EXPOSURE AT MER

POLLUTANT	CHRONIC INHALATION HAZARD INDEX							
	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
Arsenic	0.0003	-	0.0003	0.0003	-	-	-	-
Beryllium	0.0014	-	-	-	-	-	-	-
Cadmium	0.0001	-	-	-	-	0.0001	-	-
Chromium (+6)	0.0019	-	-	-	-	0.0019	0.0019	-
Copper	0.0003	-	-	-	-	-	-	-
Dioxins	-	-	-	0.0038	0.0038	-	0.0038	0.0038
Formaldehyde	0.0005	-	-	-	-	-	-	-
Hydrochloric Acid	0.1007	-	-	0.1007	-	-	-	-
Lead	-	0.0007	0.0007	-	0.0007	0.0007	-	0.0007
Manganese	0.0146	-	0.0146	-	-	-	-	-
Mercury	0.0001	0.0001	0.0001	-	-	0.0001	0.0001	-
Methyl Chloroform	-	-	0.3360	-	0.3360	-	0.3360	-
Nickel	0.0006	-	-	-	-	0.0006	-	0.0006
Selenium	0.0001	-	-	-	-	-	-	-
Zinc	0.0025	0.0025	-	-	-	-	-	-
Total Chronic	0.1231	0.0033	0.3517	0.1048	0.3405	0.0034	0.3418	0.0051

Table 13a:

ACUTE HAZARD INDICES (HI)
RESULTING FROM INHALATION EXPOSURE AT MEI

POLLUTANT	ACUTE INHALATION HAZARD INDEX							
	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
Copper	0.5000	-	-	-	-	-	-	-
Formaldehyde	0.0340	-	-	-	-	-	-	-
Hydrochloric Acid	1.4920	-	-	-	-	-	-	-
Lead	-	-	4.3400	-	-	-	-	-
Mercury	-	-	0.0060	-	-	0.0060	0.0060	-
Methyl Chloroform	-	-	1.7170	-	-	-	-	-
Nickel	-	-	-	-	-	-	-	0.8850
Selenium	0.0260	-	-	-	-	-	-	-
Total Acute	2.0520	0.0000	6.0630	0.0000	0.0000	0.0060	0.0060	0.8850

Table 13b:

ACUTE HAZARD INDICES (HI)
RESULTING FROM INHALATION EXPOSURE AT MER

POLLUTANT	ACUTE INHALATION HAZARD INDEX							
	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
Copper	0.0188	-	-	-	-	-	-	-
Formaldehyde	0.0013	-	-	-	-	-	-	-
Hydrochloric Acid	0.0461	-	-	-	-	-	-	-
Lead	-	-	0.1629	-	-	-	-	-
Mercury	-	-	0.0002	-	-	0.0002	0.0002	-
Methyl Chloroform	-	-	0.0186	-	-	-	-	-
Nickel	-	-	-	-	-	-	-	0.0321
Selenium	0.0008	-	-	-	-	-	-	-
Total Acute	0.0670	0.0000	0.1817	0.0000	0.0000	0.0002	0.0002	0.0321

Table 14:

CENSUS TRACTS AND CANCER BURDEN

CENSUS TRACT	CANCER BURDEN	CENSUS TRACT	CANCER BURDEN
4061	0.0007	4092	0.0004
4070	0.0010	4093	0.0007
4071	0.0071	4094	0.0005
4072	0.0030	4095	0.0001
4073	0.0006	4096	0.0044
4074	0.0018	4097	0.0012
4075	0.0094	4098	0.0007
4076	0.0050	4099	0.0032
4077	0.0049	4100	0.0013
4078	0.0017	4101	0.0009
4079	0.0054	4102	0.0009
4081	0.0259	4103	0.0006
4082	0.0066	4104	0.0010
4083	0.0009	4271	0.0024
4084	0.0004	4281	0.0015
4085	0.0005	4282	0.0021
4086	0.0006	4283	0.0072
4087	0.0004	4321	0.0032
4088	0.0003	4322	0.0040
4089	0.0002	4623	0.0020
4090	0.0003	4624	0.0030
4091	0.0002	4625	0.0042
		4326	0.0021
		Total	0.1245

Table 15:

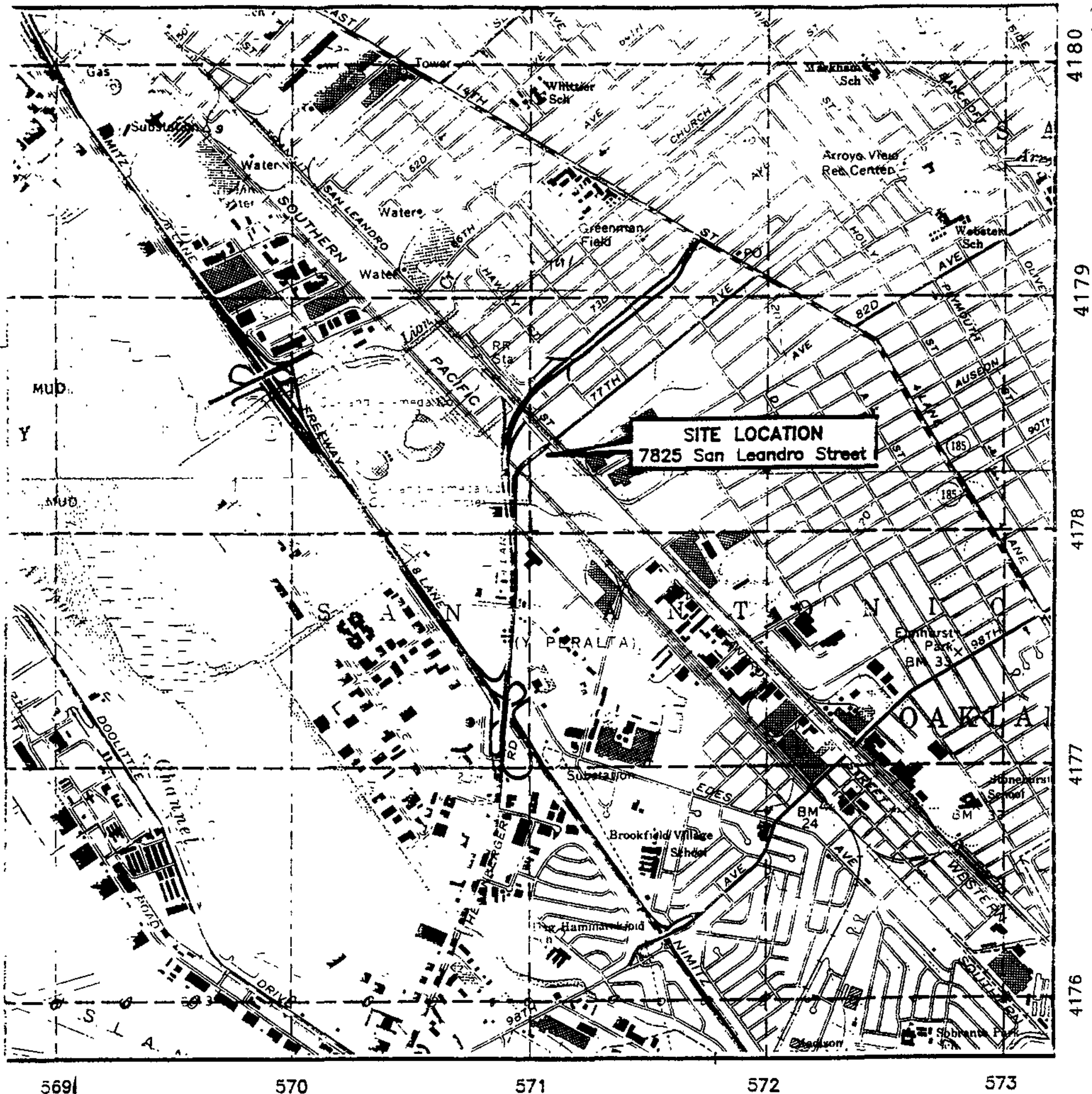
30 DAY AVERAGE CONCENTRATIONS

MONTH	30 DAY AVERAGE CONCENTRATION (ug/m3)
January	0.050
Feburary	0.068
March	0.048
April	0.052
May	0.053
June	0.050
July	0.084
August	0.046
September	0.071
October	0.059
November	0.075
December	0.089

Table 16:

MAXIMUM 24 HOUR LEAD CONCENTRATIONS AT MEI AND MER (ug/m3)

Location	Maximum 24 Hour Concentration (ug/m3)
MEI	30.3
MER	1.4



MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 1 : SITE VICINITY

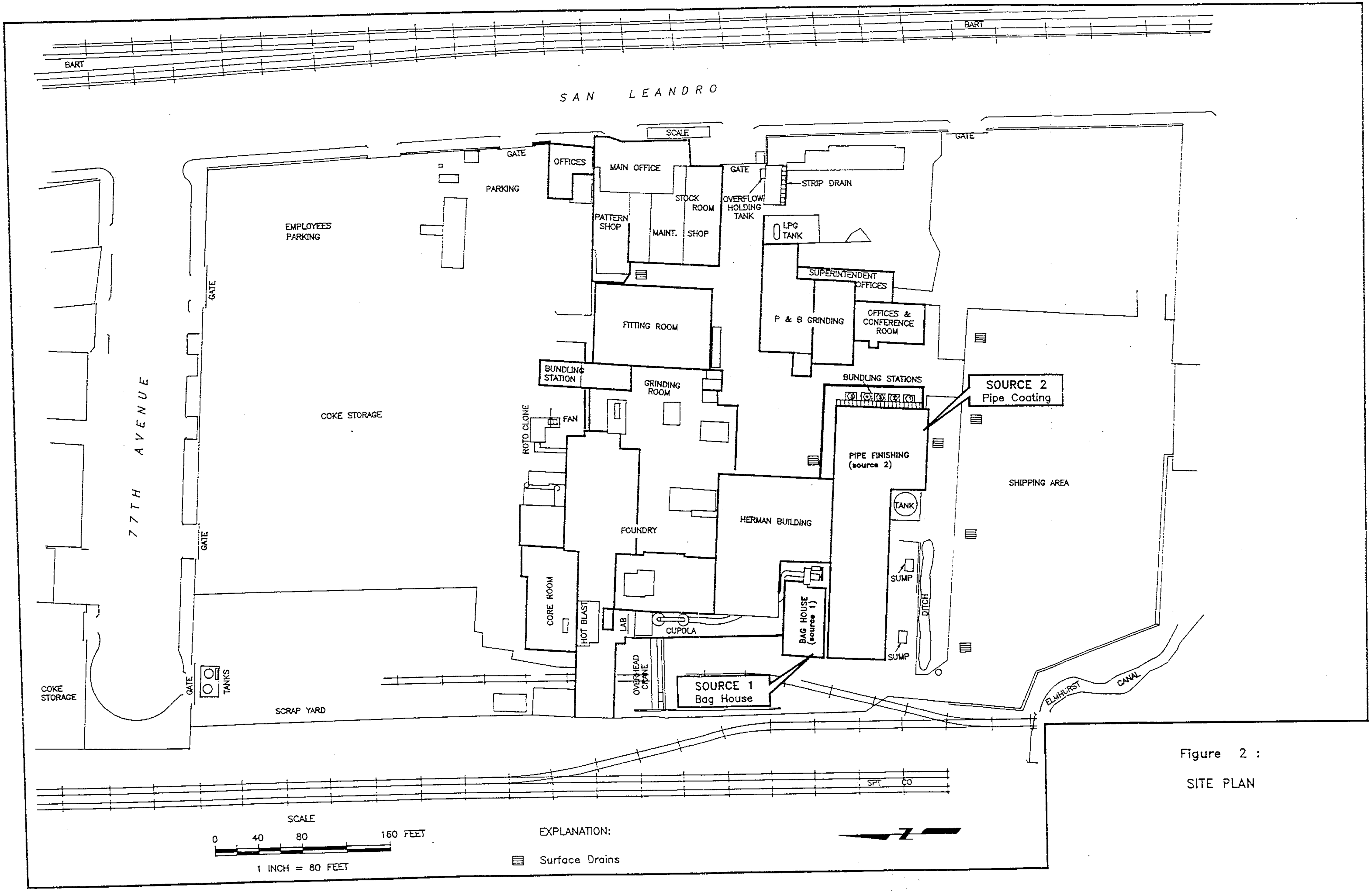
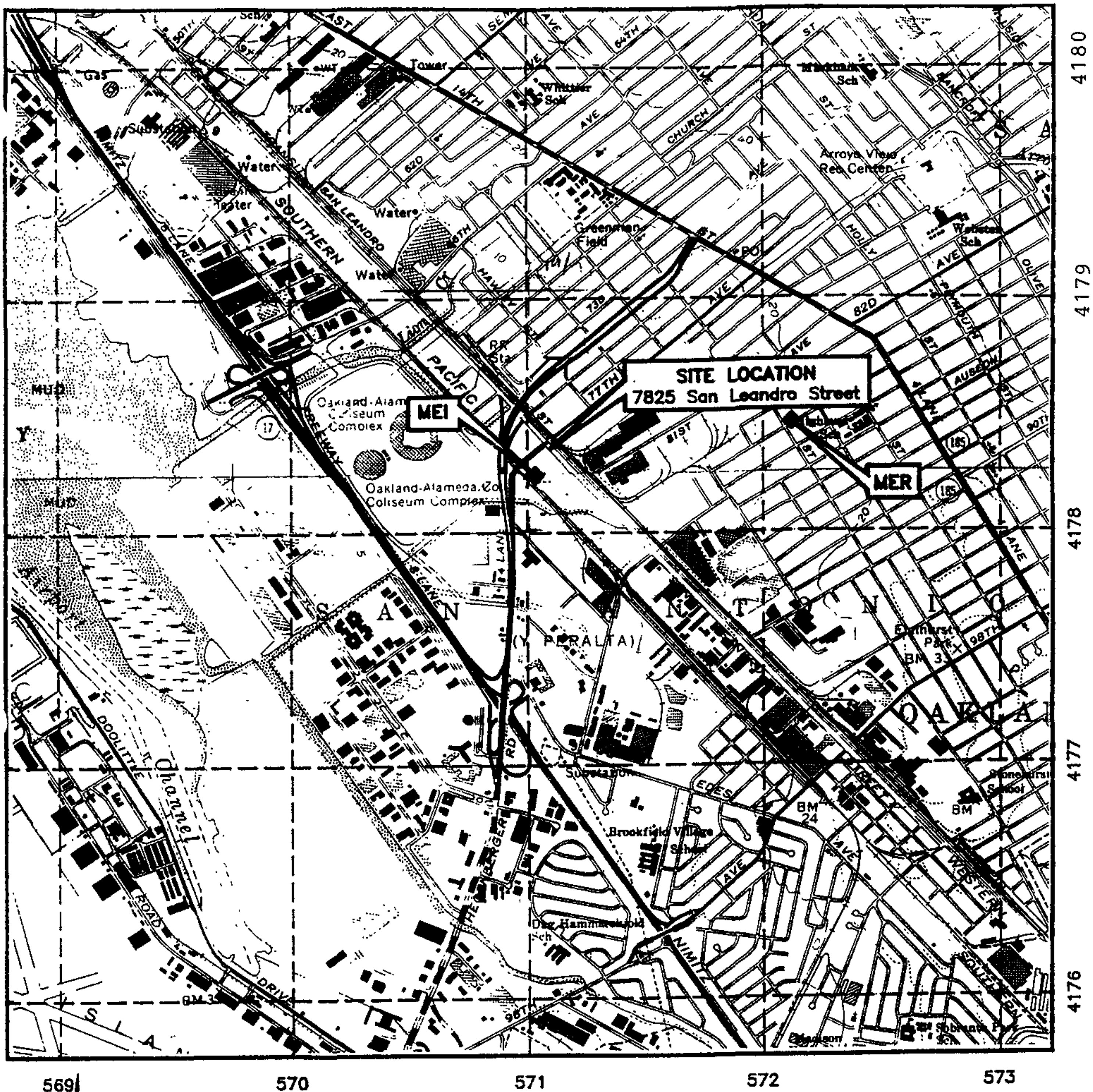


Figure 2 :

SITE PLAN



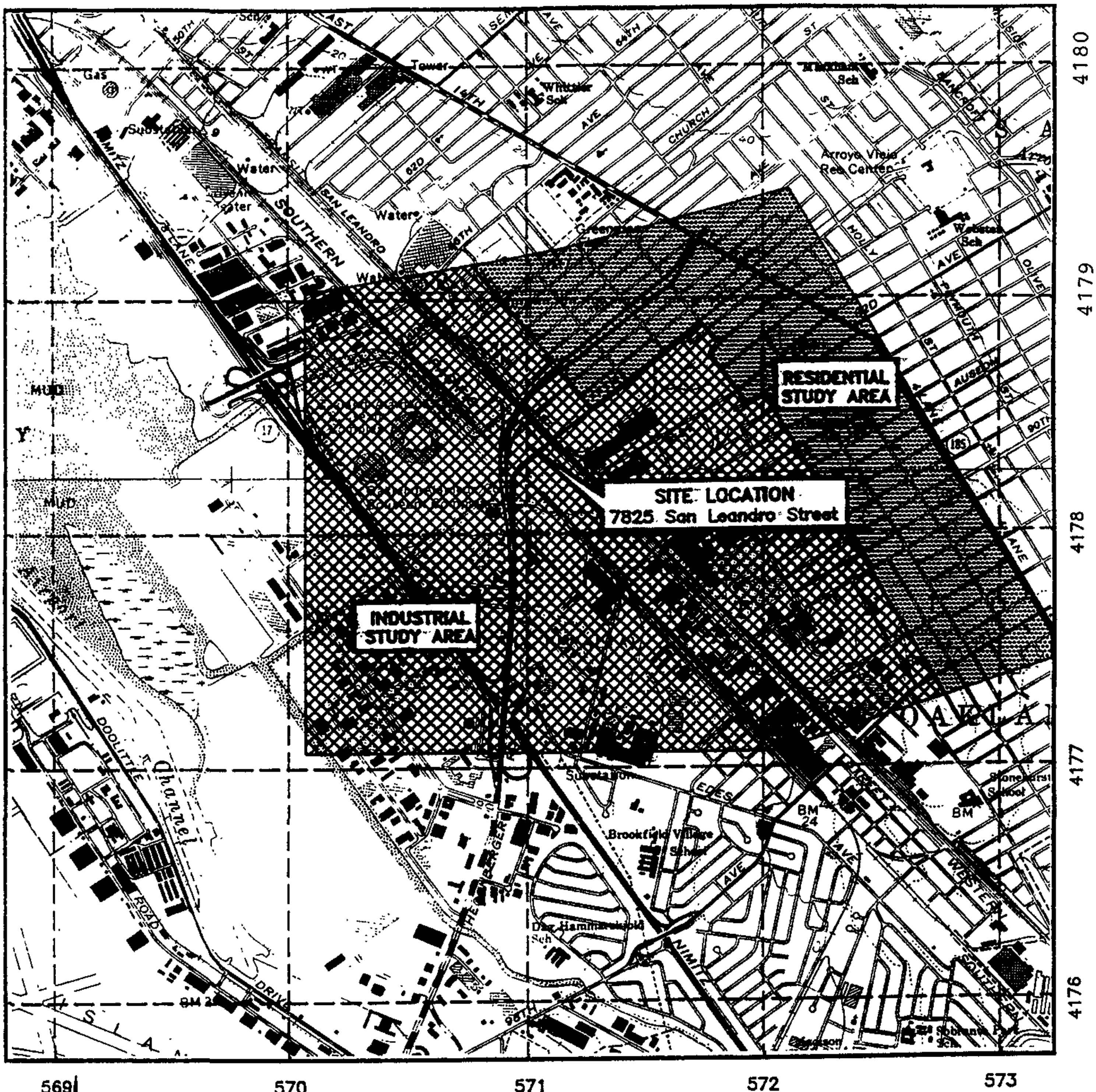
MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 3 : MEI AND MER RECEPTOR LOCATIONS



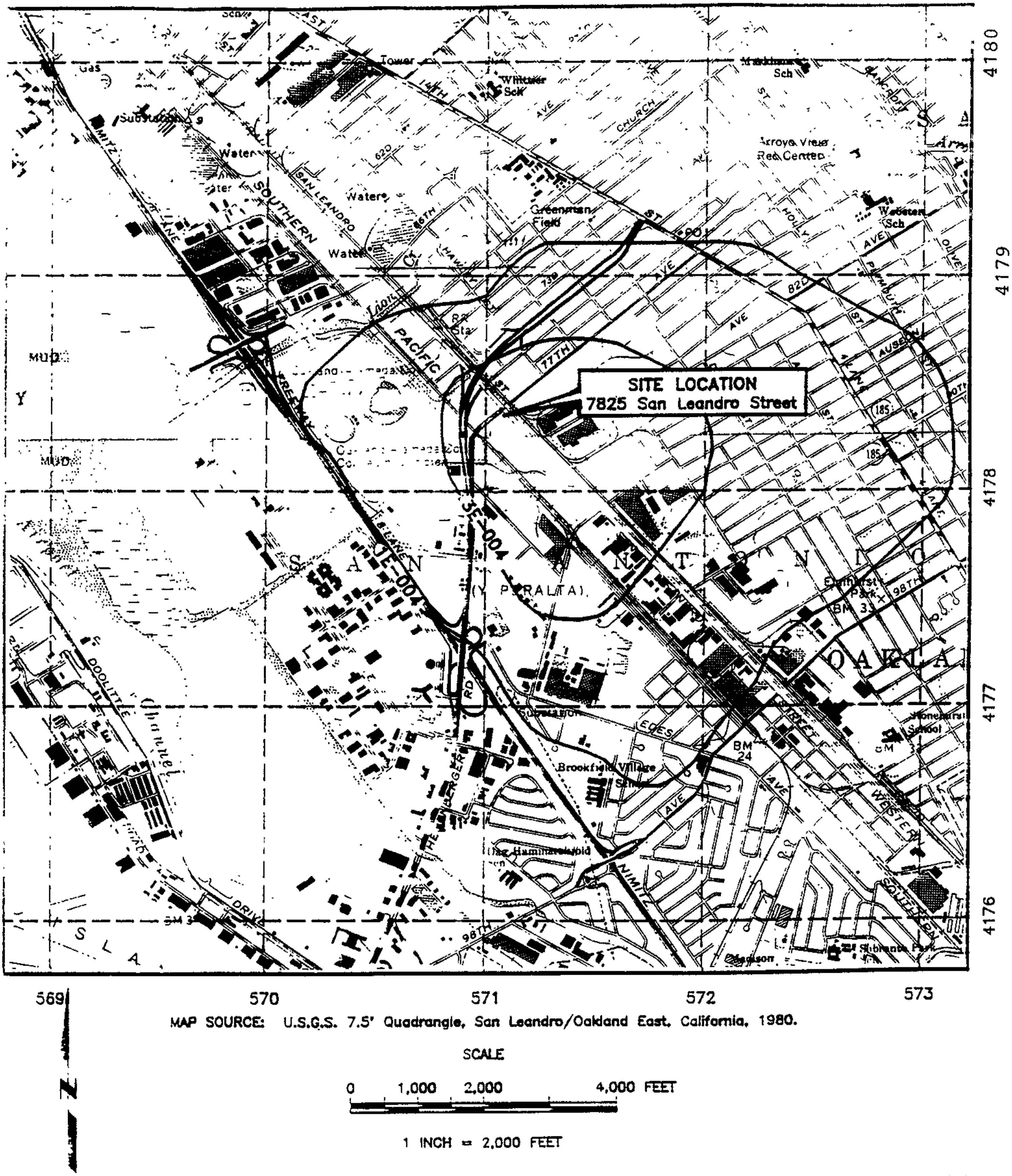
MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 4 : IDENTIFICATION OF RESIDENTIAL AND INDUSTRIAL MODELING AREAS



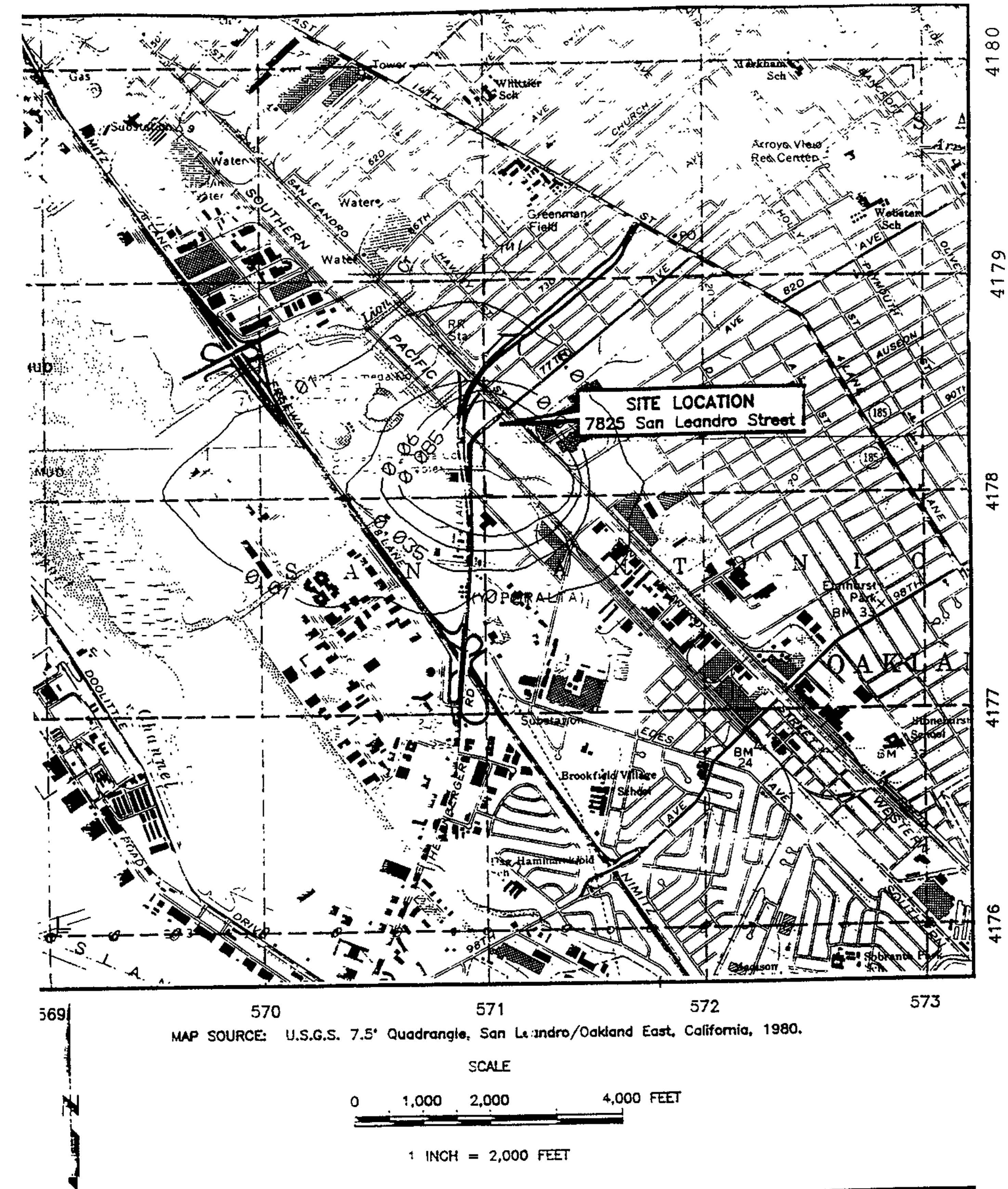
MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 5A : ARSENIC CONCENTRATION ISOPLETHS (ug/m3)



MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 5B : CADMIUM CONCENTRATION ISOPLETHS (ug/m3)

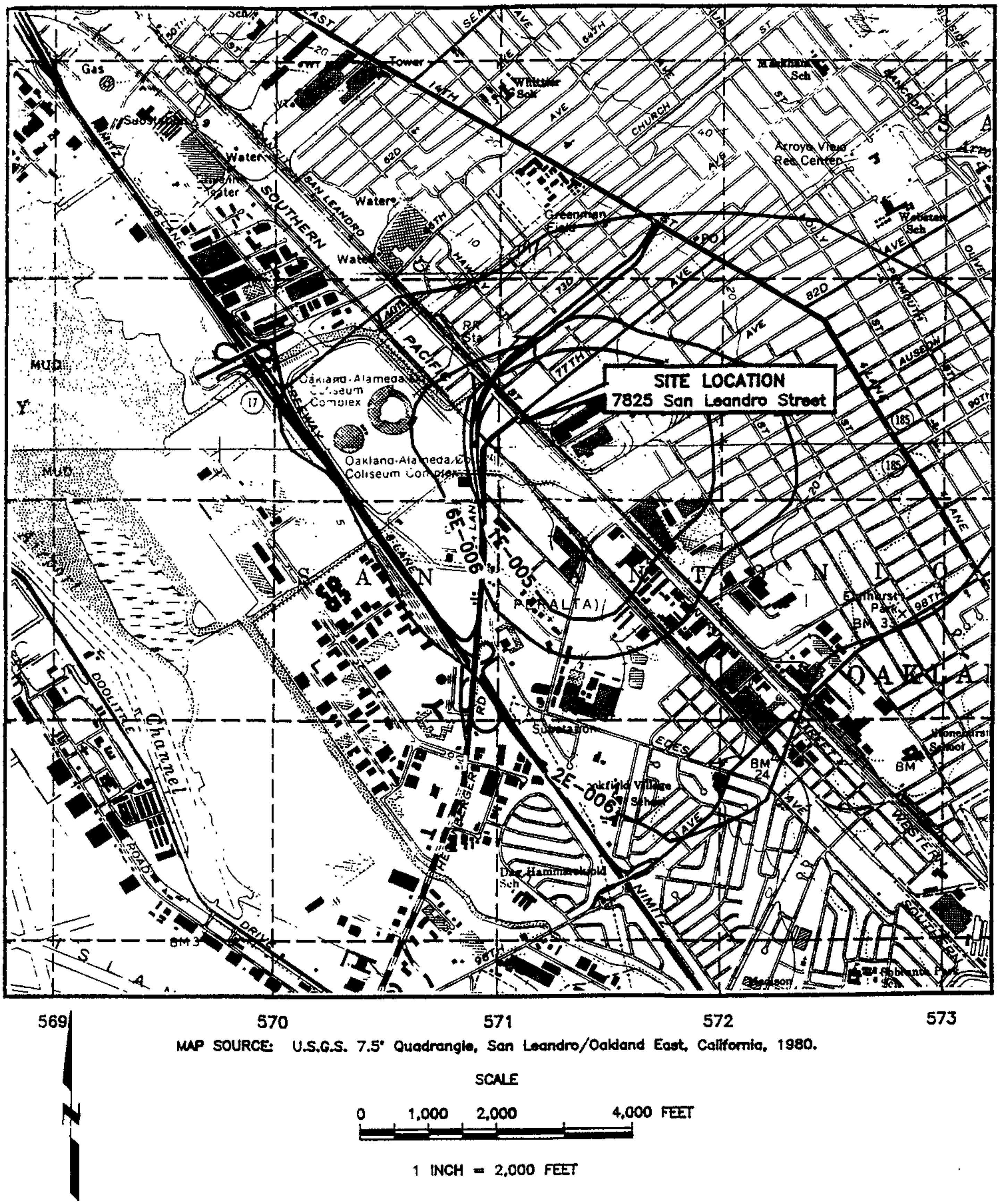
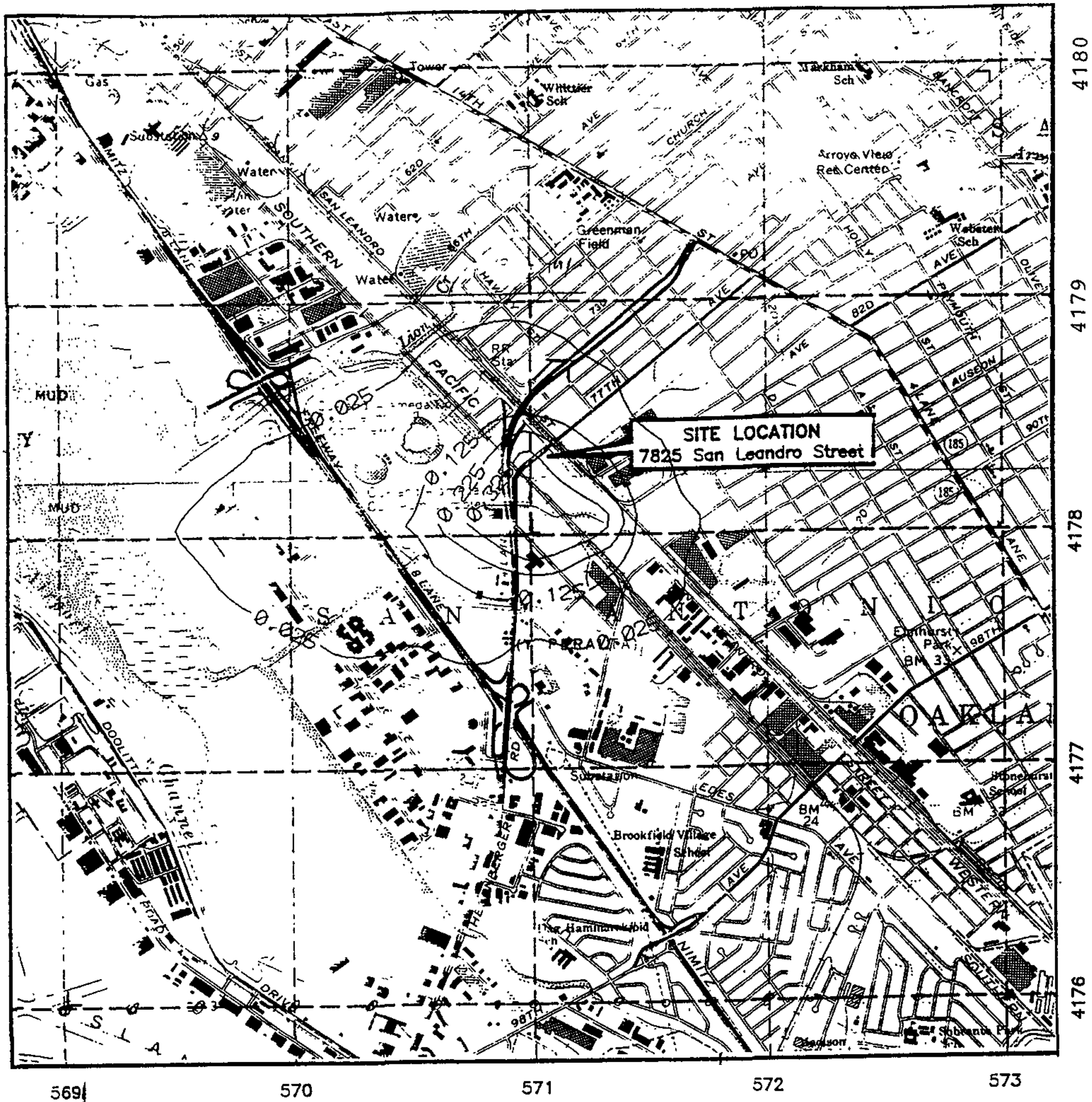


Figure 5C : CHROMIUM (VI) CONCENTRATION ISOPLETHS (ug/m3)



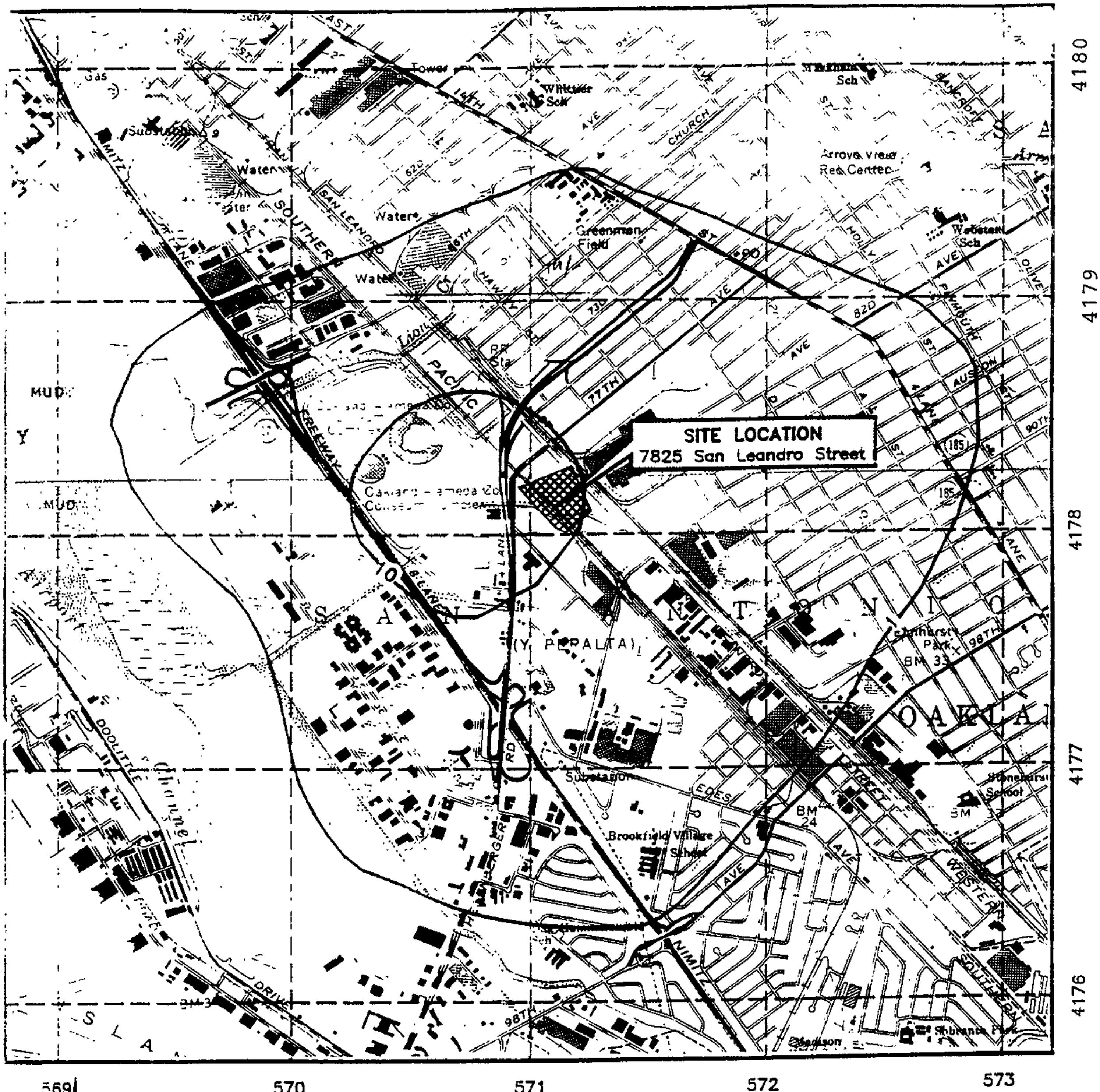
MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 5D : LEAD CONCENTRATION ISOPLETHS (ug/m3)



MAP SOURCE: U.S.G.S. 7.5' Quadrangle, San Leandro/Oakland East, California, 1980.

SCALE

0 1,000 2,000 4,000 FEET

1 INCH = 2,000 FEET

Figure 6 : CANCER RISK ISOPLETHS

APPENDIX A

Adverse Health Effects of Air Contaminants

INORGANIC COMPOUNDS

Arsenic

Soluble inorganic arsenic is rapidly and almost completely absorbed from the gastrointestinal tract in rats (Coulson et al., 1935). Estimates by Coulson et al. (1935) and Ray-Bettley and O'Shea (1975) indicate that greater than 95 percent of inorganic arsenic ingested by man is absorbed. Absorption of inhaled arsenic, in the form of an aerosol or a dust, is dependent upon particle size. Particles smaller than 5 to 7 microns in diameter may be deposited deep in the lungs and absorbed by the respiratory epithelium. Larger particles are deposited primarily in the upper airways, cleared from the lung by retrociliary action, and swallowed (U.S. EPA, 1984a). The overall absorption of arsenic via inhalation is 30 percent (U.S. EPA, 1984b).

Once absorbed, arsenic is widely distributed in the human body. Acute exposure of humans to arsenic has been associated with gastrointestinal effects, hemolysis, and neuropathy. Chronic exposure of humans to this inorganic chemical can produce toxic effects on both the peripheral and central nervous systems, keratosis, hyperpigmentation, precancerous dermal lesions, and cardiovascular damage (U.S. EPA, 1984a, 1984b). Arsenic is embryotoxic, fetotoxic, and teratogenic in several animal species (U.S. EPA, 1984b).

Arsenic is a known human carcinogen. Epidemiological studies of workers in smelters and in plants manufacturing arsenical pesticides have shown that inhalation of arsenic is strongly associated with lung cancer and perhaps with hepatic angiosarcoma (U.S. EPA, 1984a). Ingestion of arsenic has been linked to a form of skin cancer and more recently to bladder, liver, and lung cancer (Tseng et al., 1968; Chen et al., 1986).

For the purposes of evaluating noncarcinogenic effects, U.S. EPA (1989a) reported an oral reference dose (RfD) of 0.001 mg/kg/day based on the study by Tseng (1977) in which blackfoot disease was observed in humans exposed to arsenic in drinking water. An uncertainty factor of 1 was used to develop the RfD. In the absence of other toxicity data, the oral RfD of 0.001 mg/kg/day was used as a surrogate inhalation reference dose.

U.S. EPA (1987a) has classified arsenic in Group A--Human Carcinogen and has developed an inhalation cancer slope factor

(CSF) of 50 $(mg/kg/day)^{-1}$. The inhalation slope factor is the geometric mean value of potency factors derived from four occupational exposure studies on two different populations (U.S. EPA, 1984a). The slope factor in terms of mg absorbed dose/kg bw/day was calculated assuming a 70 kg human body weight, 20 m^3 air inhaled/day, and 30 percent absorption of inhaled arsenic. The U.S. EPA (1990b) recently reevaluated the role of ingested arsenic in the production of skin cancer in humans and derived an oral CSF of 2 $(mg/kg/day)^{-1}$. The oral CSF was based on an epidemiological study in Taiwan, which indicated an increased incidence of skin cancer in individuals exposed to arsenic in drinking water (U.S. EPA, 1984a). The increase in internal cancers recently associated with arsenic exposure is under active review by the U.S. EPA. The U.S. EPA has established a maximum contaminant level (MCL) of 0.05 mg/l and has proposed a maximum contaminant level goal (MCLG) of 0 for arsenic in drinking water.

Cadmium

Cadmium is primarily used in electroplating and galvanizing factories due to its noncorrosive properties. Cadmium is also used as a color pigment for paints and plastics, and cathode material for nickel-cadmium batteries.

Respiratory absorption of cadmium is approximately 15 to 30 percent. Most of the airborne cadmium is respirable (Dorn, 1976). Toxicity to the respiratory system is proportional to the time and level of exposure. Chronic inhalation of cadmium has resulted in chronic bronchitis, progressive fibrosis of the lower airways, and accompanying alveolar damage leading to emphysema (Chowdbury and Louria, 1976). Gastrointestinal absorption is less than respiratory absorption and is in the range of 5 to 8 percent. The gastrointenstinal absorption rate is enhanced by dietary deficiencies of calcium and iron, and diets low in protein. Ingestion of cadmium dust may cause nausea, vomiting, diarrhea, and abdominal cramps (Dorn, 1976).

There have been numerous experimental studies supporting the potential carcinogenicity of cadmium. Metallic cadmium administered subcutaneously will induce sacomata at the site of injection. The tumors have been found to be malignant and will metastasize to lymph nodes and lungs (Piscator, 1981).

The EPA classified cadmium as a Group B1 Carcinogen - Probable Human Carcinogen - based on inadequate evidence in humans and on sufficient evidence of carcinogenicity from animal studies (EPA, 1989b). EPA derived an inhalation CSF factor of 6.1 $(mg/kg/day)^{-1}$. An oral cancer slope factor was not given for

cadmium based on inadequate evidence via the oral route. The EPA derived an oral Rfd for cadmium of 1×10^{-3} mg/kg/day (EPA, 1989b).
The current MCL in drinking water for cadmium set by the U.S. EPA is 0.005 parts per million (ppm).

Chromium (VI)

Chromium (VI) is widely distributed in the environment and the bulk of exposure is thought to come from sources other than inhalation. Chromium is considered to be an essential element in both animals and humans; deficiency of chromium may result in abnormal glucose tolerance, correctable by dietary supplementation.

Occupational and case studies of workers in the chrome industry have indicated that exposure to some chromate compounds can result in pneumoconiosis, bronchitis, chronic lung congestion, liver and kidney damage, perforation of the nasal septum, and irritation of the respiratory tract. In the criteria document for chromium (VI) compounds, NIOSH (1975) indicated that the available data are insufficient to conclusively define any chromium (VI) compounds as not being capable of inducing the above effects. Chromium dermatitis and allergic contact dermatitis are associated with exposure to chromium (VI) compounds in several areas of the chrome industry, including plating, leather tanning, and pigment manufacture (U.S. EPA, 1984). The American Conference of Governmental Industrial Hygienists (ACGIH) has recommended a threshold limit value-time weighted average (TLV-TWA) of 0.05 mg/m^3 for water-soluble chromium (VI) compounds. Occupational Safety and Health Administration (OSHA) has established a permissible exposure limit (PEL) 1 mg/ 10 m^3 ceiling for chromic acid and chromates, and PEL-TWA of 1 mg/m^3 for chromium metal and insoluble salts.

Epidemiologic studies of workers in the chromate, chrome-plating, and chrome pigment industries in Japan, the United States, Great Britain, and West Germany have demonstrated an association between exposure to chromium and lung cancer. Several chromium (VI) compounds -- lead chromate and its oxide, calcium chromate, sintered chromium trioxide, sodium dichromate, strontium chromate, and zinc chromate -- have been shown to produce local sarcomas or lung tumors in rats at the intramuscular, subcutaneous, or intraperitoneal injection sites, or when given intratracheally or intrabronchially. Of all these compounds, only calcium chromate has consistently produced tumors in rats by several routes of administration. Chromium (VI) has been classified in Group A - Human carcinogen based on the EPA weight-of-evidence classification (U.S. EPA, 1984). In the Integrated Risk Information System (IRIS) database, the recommended inhalation CSF of 4.1×10^{1} $(mg/kg/day)^{-1}$ is based on the linearized multistage model with extra risk applied to the data of Mancuso (1951) (cited in U.S. EPA, 1984). U.S. EPA (1984) has also established an inhalation RfC of 2×10^{-6} mg/m^3 and an oral RfD of 5×10^{-3} mg/kg/day for chromium (VI).

Under the National Interim Primary Drinking Water Regulations, the current MCL for total chromium in 0.05 mg/L. An MCLG of 0.12 mg/l has been proposed for total chromium.

Copper

Copper is an essential element for human health. A daily copper intake of 2 mg is considered to be adequate for normal health and nutrition; the minimum daily requirement is 10 µg/kg (U.S. EPA, 1985b). Adverse effects in humans resulting from acute exposure to high concentrations of copper by ingestion include salivation, gastrointestinal irritation, nausea, vomiting, hemorrhagic gastritis, and diarrhea (ACGIH, 1986). Dermal or ocular exposure of humans to copper salts can produce irritation (ACGIH, 1986). Acute inhalation of dusts or mists of copper salts by humans may produce irritation of the mucous membranes and pharynx, ulceration of the nasal septum, and metal fume fever. The latter condition is characterized by chills, fever, headache, and muscle pain. Limited data are available on the chronic toxicity of copper; however, chronic overexposure of humans to copper has been associated with anemia (ACGIH, 1986). Results of several animal bioassays suggest that copper compounds are not carcinogenic by oral administration; however, some copper compounds can induce injection-site tumors in mice (U.S. EPA, 1985b).

U.S. EPA (1985b) concluded that the toxicity data for copper were inadequate for derivation of an RfD. In U.S. EPA's July 1990 Health Effects Assessment Summary Table (HEAST) (U.S. EPA, 1990b), the drinking water standard of 1.3 mg/l is listed in the oral RfD column and described in a footnote. This value is based on the observation that 5.3 mg/day represents a human lowest-observed-adverse-effect level (LOAEL) and that higher doses may cause gastrointestinal disturbances and other acute toxic effects. The drinking water standard (1.3 mg/l) can be converted to an RfD of 0.037 mg/kg/day by assuming that an individual weighing 70 kilograms ingests 2 liters of water a day over a lifetime. In the absence of other toxicity data, the oral RfD of 0.037 mg/kg/day was used as a surrogate for the inhalation RfD. The U.S. EPA has proposed an MCL and MCLG of 1.3 mg/l for copper in drinking water.

Hydrochloric Acid (HCl)

Data on the systemic effects of repeated exposure to HCl are very limited in both man and experimental animals. In most animal lethality studies, death has been attributed to respiratory injury, e.g., pulmonary edema, emphysema, and atelectasis, with secondary changes such as passive congestion of the liver, intestine, and kidneys (International Program on Chemical Safety, 1982). The major effects of HCl in both human and laboratory animals are those of local irritation. In laboratory animals, HCl has been shown to cause irritation of the conjunctiva and corneal injury, as well as irritation of the skin and upper and lower respiratory tract (International Program on Chemical Safety, 1982). It has been reported that exposure to 50-100 ppm HCl for 1 hour was barely tolerable to workers and 35 ppm caused irritation of the throat in a short time period (Henderson et al., 1943). Both ACGIH and OSHA has determined a TLV and PEL, respectively, of 5 ppm ceiling. In the TLV documentation (ACGIH, 1986), it is stated that the ceiling limit is "sufficiently low to prevent toxic injury from exposure to HCl, but on the borderline of severe irritation."

No data were found implicating HCl as a carcinogen. In a report cited in Registry of Toxic Effects of Chemical Substances (RTECS) and unavailable in translation, exposure of rats to 302 ppm HCl on day 1 of gestation resulted in fetoxicity and specific developmental abnormalities (NIOSH, 1988). No drinking water limits were found for HCl. Chlorine (usually in the form of hypochlorite or hydrochloric acid in the United States) is used for water disinfection and treatment of sewage effluent.

Lead

Lead is widely used in industry in paint pigments, solders, and storage batteries. Organic lead in the form of tetraethyl lead is an antiknock component of gasoline.

Lead is readily absorbed into the bloodstream, lungs, and other organs through oral and inhalation exposures. Lead accumulates in bone, teeth, and kidneys (U.S. EPA, 1984c).

The major adverse health effects in humans caused by lead include alterations in the hematopoietic and nervous systems. Blood concentration levels of over 80 µg/dl in children and over 100 μg/dl in sensitive adults can cause severe, irreversible brain damage, encephalopathy, and possibly death. Lower blood concentrations of lead in humans (30 to 40 μg/dl) have been associated with altered nerve conduction, altered testicular function, renal dysfunction, and anemia.

Blood lead concentrations at and around the background levels for the general population (10-15 μg/dl) have been shown to result in cognitive deficits (e.g., reduced intelligence quotient) in children (Bellinger and Needleman, 1983). Lead exposure has also been associated with spontaneous abortions, premature delivery, and early membrane rupture in humans; however, reliable exposure estimates are lacking in these cases. Decreased fertility, fetotoxic effects, and skeletal malformations have been observed in experimental animals exposed to lead (U.S. EPA, 1984c).

The U.S. EPA (1986d) has classified lead in Group B2--Probable Human Carcinogen on the basis of epidemiologic studies by Dingwell-Fordyce and Lane (1963) and other studies. No CSF is presently available for lead from the U.S. EPA.

The current MCL for lead is 15 μg/l. An MCLG of 0 has been proposed by the U.S. EPA Office of Drinking Water based on lead's suspected carcinogenic effects. DTSC has promulgated an MCL drinking water standard of 50 μg/l.

Manganese

Manganese is a natural component in the environment. Exposure occurs via inhalation, dermal contact, or oral ingestion. The most significant exposure pathway for the general population is mainly via the diet, with an average daily intake of 3.8 mg/day (U.S. EPA, 1984a). Manganese is believed to be important in maintaining health. The amount of manganese in a normal diet (about 2,500-5,000 ug/day) is sufficient enough to meet daily needs.

Manganese is used primarily as an alloy with other metals and in the manufacture of steel to impart hardness. In the workplace, exposure to manganese is most likely to occur by inhalation of manganese fumes or manganese-containing dusts. Inhalation exposure to manganese dusts often leads to increased incidence of cough and bronchitis (Lloyd Davies, 1946) and mild to moderate injury to lung tissue (Lloyd Davies, 1946), along with minor decreases in lung function (Adkins et al., 1980b). The ACGIH set a TLV-TWA of 5 $mg(Mn)/m^3$ for manganese dust and compounds, and a TLV-TWA of 1

$mg(Mn)/m^3$ for manganese fume. The occupational limits are based on protection against chronic manganism, a disease affecting the central nervous system and characterized by languor, weakness in the legs, masklike face, slow and monotonous voice, muscular twitching, and parkinsonian gait. OSHA adopted the ACGIH TLVs for its PEL of manganese in the workplace.

Data on the carcinogenicity of manganese to humans are lacking, and studies in animals are generally limited to parenteral routes of administration. The U.S. EPA (1988) classifies manganese and its compounds as Group D -- Nonclassifiable as to Human Carcinogenicity. U.S. EPA (1984a) determined a chronic inhalation RfC of 4×10^{-4} mg/m^3 and a chronic oral RfD of 1×10^{-1} mg/kg/day for manganese. A MCL of 0.05 mg/L in drinking water (U.S. EPA, 1991) was set for manganese due more to undesirable taste and discoloration rather than toxicity. Such problems are thought to arise at concentrations greater that 0.05 mg/L.

Mercury

Mercury is the only heavy metal that normally exists in the liquid state. This characteristic has allowed mercury to be employed in a wide variety of applications: in thermometers, electrical instruments, amalgams, cells for caustic and chlorine production, and boilers and turbines for electrical generation. Mercury compounds have been used extensively in industry and agriculture in fungicides, preservatives, catalysts, and pigments. Alkyl mercury has been used as a seed disinfectant and fungicide.

Vapors of elemental and methylated mercury can be readily absorbed into the blood after inhalation (ACGIH, 1986). Unlike inorganic mercury, alkyl mercury can pass rapidly into the brain and placenta. The major target organs of alkyl mercury are the central and peripheral nervous systems and the kidneys. Elemental mercury and the salts of mercury that enter the body orally are only slowly absorbed through the gastrointestinal tract (Klaassen et al., 1986).

Elemental mercury is not highly toxic as an acute poison, although inhalation of high concentrations can result in pneumonitis, bronchitis, chest pains, dyspnea, and coughing (National Institute of Occupational Safety and Health [NIOSH], 1973). Inhalation of alkyl mercury is highly toxic and can cause gastro-, pancreo-, hepato-, cardio-, and gonadotoxic effects. For the ingestion of mercuric salts, a lethal dose 50 (LD_{50}) of 1 to 18 mg/kg has been derived, but human deaths have resulted from much lower dosages (National Toxicology Information System [NTIS], 1989). Acute exposure to mercuric salts can result in a variety of gastrointestinal symptoms and severe anuria with uremia.

Mercury is not known to be a carcinogen. The U.S. EPA (1985d) has derived an oral RfD for inorganic and alkyl mercury of 0.0003 mg/kg/day. Under the Safe Drinking Water Act, the U.S. EPA established an MCL of 2 μg/l and has recently proposed an MCLG of 2 μg/l for mercury in the drinking water.

Nickel

Nickel is used in industry for the production of high temperature and corrosion-resistant alloys in welding, in electroplating, in the production of catalysts, and in storage batteries.

The inhalation of nickel, nickel oxides, and nickel sulfides can result in asthma, pulmonary fibrosis and pulmonary edema (ACGIH, 1986). Nickel and its various inorganic compounds are only slowly absorbed through the gastrointestinal tract (Klaasen, 1986). Upon oral ingestion, the nickel metal and its salts are a low order of toxicity on both acute and chronic bases (ACGIH, 1986).

Airborne nickel refinery dusts and nickel subsulfide are classified by the U.S. EPA as a Group A known carcinogen (U.S. EPA, 1986e). The inhalation cancer slope factor for nickel refinery dusts is 8.4×10^{-1} $(mg/kg/day)^{-1}$, and for nickel subsulfide, 1.7 $(mg/kg/day)^{-1}$. The TLV-TWA for nickel metal, dust, and fume has been set at 1.0 mg/m^3 for water-insoluble compounds and at 0.1 mg/m^3 for water-soluble compounds by the TLV Committee of the ACGIH (ACGIH, 1986). The U.S. EPA (1987h) derived an oral RfD for nickel of 2×10^{-2} mg/kg/day. Under the Safe Drinking Water Act, the U.S. EPA (1980f) proposed an MCL and MCLG of 100 μg/L for nickel in drinking water.

Selenium

Selenium is principally obtained as a by-product of copper refining. It is used in the electronics industry for rectifiers, photo cells, solar batteries, in glass and ceramic manufacturing, as a vulcanizing agent for rubber, in steel manufacturing and in paints and varnishes. Selenium has also been used in fungicides and insecticides. It is used medicinally as an antidandruff agent.

Selenium is an essential trace element necessary for normal human health and metabolism. Cereals, meat, and fish products are the main dietary sources of selenium. Elemental selenium and selenium salts are poorly absorbed. After absorption, selenium appears to be rapidly distributed to most organs. The relative selenium concentrations among human tissues seem to be constant, with the kidney and liver as the main accumulation points. The water-soluble form of selenium is readily absorbed in the gastrointestinal tract. However, selenium can also induce toxic responses in large doses. Acute selenium poisoning produces central nervous system effects. Acute oral exposures can produce gastrointestinal disorders, liver and spleen damage, anemia, and nervousness. Chronic effects include discolor or decay of the teeth, skin eruptions, gastrointestinal distress and loss of hair and nails.

Selenium was once considered to be carcinogenic, but this assumption was based on faulty data. Two studies on mice have reported no increase or decrease in tumors occurring after selenium exposure. (Seiler, 1988). Epidemiological data have indicated that selenium reduces tumor rates in chronically exposed individuals (Casarett and Doull, 1975). The U.S. EPA does not currently consider selenium to be carcinogenic. The noncarcinogenic effects are well documented and the U.S. EPA has assigned a chronic oral RfD of 3×10^{-3} mg/kg/day (EPA, 1989b). The U.S. EPA and the DHS have promulgated an MCL of 10 ug/l. The ACGIH has recommended a TWA-TLV of 0.2 mg/m^3.

Zinc

Zinc is absorbed in humans following oral exposure; however, insufficient data are available to evaluate absorption following inhalation exposure (U.S. EPA, 1984j). Zinc is an essential trace element necessary for normal health and metabolism and is nontoxic in trace quantities (Hammond and Beliles, 1980). However, exposure to high concentrations of zinc has been associated with a variety of adverse effects. Chronic and subchronic inhalation exposure to zinc in humans has been associated with gastrointestinal disturbances, dermatitis, and metal fume fever, a condition characterized by fever, chills, coughing, dyspnea, and muscle pain (U.S. EPA, 1984j). Chronic oral exposure of humans to zinc may cause anemia and altered hematological parameters. Reduced body weights have been observed in rats administered zinc in the diet. There is no evidence that zinc is teratogenic or carcinogenic (U.S. EPA, 1984j).

U.S. EPA (1989a) has derived an oral RfD of 0.2 mg/kg/day for zinc based on studies in which anemia and reduced blood copper were observed in humans exposed to oral zinc doses of approximately 2 mg/kg/day (Porter et al., 1977; Prasad et al., 1975). An uncertainty factor of 10 was used in developing the RfD.

The Santa Clara Valley Integrated Environmental Management Project (U.S. EPA, 1986c) produced a report that compared health risks of cancer and other chronic toxic effects from toxic pollutants across all media in the environment. In this document, Integrated Environmental Management Division (IEMD) toxicologists and consultants, using existing literature and following U.S. EPA procedures, developed a presumed human threshold of 1,540 $\mu g/m^3$ based on reproductive effects. Using U.S. EPA-approved standard exposure parameters of 20 m^3/day and 70 kg body weight, an inhalation RfD of 440 mg/kg/day was calculated.

The U.S. EPA has set a current MCL for zinc in drinking water of 5 ppm and a MCLG of 0 ppm.

ORGANIC COMPOUNDS

Formaldehyde

Formaldehyde is used in the manufacture of a variety of resins and other chemicals, as a preservative, hardening and reducing agent, corrosion inhibitor, sterilizing agent, and in embalming fluid. Since formaldehyde occurs as a gas at room temperature and undergoes rapid biodegradation in water and soil, 80 percent of the contribution to total exposure will be allowed from air. In humans, formaldehyde is a primary skin sensitizing agent inducing allergic contact dermatitis. It was concluded in the EPA document (1987) that "there is no convincing evidence in experimental animals that inhalation exposure causes significant primary toxicologic effects in organs other than the upper respiratory tract." Formaldehyde is irritating to the eyes, nose, and throat, and although no clear thresholds have been established, most people experience these effects in the range of 0.1 to 3 ppm. Slightly higher concentrations (around 5 ppm) will result in coughing and possibly a feeling of chest tightness. Concentrations in excess of 50 ppm can cause severe injury to the airways and alveoli, producing pneumonia and pulmonary edema. ACGIH recommended a TLV-TWA of 1 ppm. It is stated in the TLV documentation (ACGIH, 1986) that the "TLV of 1 ppm is adequate and no serious or persistent adverse effects should develop";

however, it is acknowledged that hypersensitive individuals may experience irritant effects.

Results of multiple epidemiologic studies were reviewed in the document "Assessment of Health Risks to Garment Workers and Certain Home Residents from Exposure to Formaldehyde." Results from nine of the studies suggest that lung, nasopharyngeal, sinonasal, and oro-hypo-pharyngeal cancers are associated with formaldehyde exposure (U.S. EPA, 1987). Sufficient evidence exists that formaldehyde is carcinogenic via the inhalation route in experimental animals based on the occurrence of nasal squamous cell carcinomas in both sexes of F344 rats, multiple rat strains, and mice (Kerns et al., 1983). U.S. EPA classified formaldehyde in Group B1 - Probable Human Carcinogen. The inhalation CSF is 4.5×10^{-2} $(mg/kg/day)^{-1}$ (U.S. EPA, 1990). The oral CSF is 3.0×10^{-2} $(mg/kg/day)^{-1}$ (U.S. EPA, 1985).

No drinking water limits were found for this substance.

<u>Polycyclic Aromatic Hydrocarbons (PAHs)</u>

Polycyclic aromatic hydrocarbons (PAHs) are ubiquitous in the environment and may be found in the atmosphere, marine and fresh water, soils, and foods. PAHs include compounds such as anthracene, phenanthracene, fluoranthene, and pyrene. PAHs are a product of incomplete combustion of organic substances and may be introduced into the environment via natural means (e.g., forest fires or volcanos) or human activities (e.g., combustion of fuels and oils for heating and transportation, and agricultural fires).

The greatest sources of exposure to PAHs for people residing in the United States are through active or passive inhalation of tobacco smoke, wood smoke, contaminated air, and ingestion of PAHs in foods. The amount of PAHs in food depends a great deal on the manner in which it was prepared. Cooking meat or other foods at high temperatures during grilling or charring increases the amount of PAHs in the food.

Background levels of PAHs in the air range from 0.02 to 1.2 mg/m^3 in rural areas to 0.15 to 19.3 mg/m^3 in urban areas. Drinking water may contain between 4 and 24 ng/L. Food groups that typically comprise the diet of U.S. citizens generally contain less than 2 parts per billion (ppb).

PAHs are readily absorbed via all routes of exposure (i.e., inhalation, ingestion, dermal absorption). They partition into the body fat and tend to be stored primarily in the kidneys and liver, with smaller amounts in the spleen, adrenal glands, and ovaries. The half-life for most PAHs in the body is only a few days. PAHs are excreted in the feces and urine.

PAHs may be broken down into two groups: those that exhibit carcinogenicity and those that are noncarcinogenic. Carcinogenic PAHs are generally higher in molecular weight and have lower vapor pressures than the noncarcinogenic PAHs.

The PAHs that have been detected at this Site in media which have a complete human exposure pathway are noncarcinogenic. These include low molecular weight compounds (152 to 178 g/mol), anthracene and phenanthracene, and medium molecular weight compounds (202 g/mol) fluoranthene and pyrene.

Because most of the toxicological work has been directed toward development of health criteria for carcinogenic PAHs, there are little data on the noncarcinogenic health effects of these compounds. However, the California Department of Health Services (DHS) has developed health criteria for some of the noncarcinogenic polycyclic aromatic hydrocarbons, including fluoranthene and phenanthrene.

In 1985 the DHS conducted a study of residual soil contaminants underlying a hazardous waste site (CDHS, 1985). In its report, the DHS included data on health-based criteria (i.e., presumed human threshold values) which are similar to acceptable daily intakes (ADIs) and reference doses. Presumed human oral thresholds of 70 $\mu g/l$ and 20 $\mu g/l$ were given for fluoranthene and phenanthrene, respectively. Presumed human inhalation thresholds of 700 $\mu g/m^3$ and 250 $\mu g/m^3$ were given for fluoranthene and phenanthrene, respectively. Using a 70 kg body weight, and an oral ingestion rate of 2 l/day the oral RfDs for fluoranthene and phenanthrene were calculated to be 2.0×10^{-2} mg/kg/day and 7.14×10^{-3} mg/kg/day, respectively. The same values were calculated for the inhalation RfDs using an inhalation rate of 20 m^3/day.

In addition to the health criteria developed by the DHS, the U.S. EPA designated an oral ADI of 6.12 mg/kg/day for fluoranthene (U.S. EPA, 1980e).

<u>2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)</u>

TCDD is a contaminant that can be formed during the manufacturing of trichlorophenol. The route of exposure to humans to TCDD may vary considerably, depending on the source of the contaminated material. While dermal absorption may be the primary route for industrial workers and individuals exposed in the spraying of herbicides, oral intake and inhalation may occur for those consuming contaminated foodstuff and living or working in areas where high concentrations of the chemical in dust or generated aerosols may exist. Toxic effects in animals include anorexia, severe weight loss, hepatoxicity, hepatoporphyria, vascular lesions, chloracne, gastric ulcers, teratogenicity, and delayed death (Carter et al., 1975; cited in The Merck Index, 1989). The most commonly observed feature resulting from TCDD exposure in humans is chloracne (Jersen, 1971). Hyperpigmentation, hirsutism, porphyria cutanea tarda, and liver dysfunction has also been observed in exposed workers (Poland et al., 1971; Jones and Chelsky, 1986; and Jirasek et al., 1973).

The available evidence indicates that TCDD acts as a tumor promoter rather than an initiator. Pitot et al. (1980) showed TCDD to be a potent tumor promotor in a two-stage model of carcinogenesis in rat liver. In female rats, TCDD produced significant increases of hepatocellular carcinomas, hepatocellur adenomas, fibrosarcoma, histiocytic lymphoma, thyroid follicular cell adenoma, and cortical adenoma or carcinoma in the high-dosage group (NTP, 1980a). U.S. EPA (1984) has classified TCDD in Group B2-Probable Human Carcinogen, with sufficient evidence of carcinogenicity in animals and with inadequate or lack of evidence in humans. The oral CSF and the inhalation CSF established by the U.S. EPA (1984) for TCDD are both determined to be 1.5×10^5 $(mg/kg/day)^{-1}$.

The proposed MCL for TCDD in drinking water set by the U.S. EPA is 5×10^{-2} ppm. The proposed MCLG for TCDD in drinking water is 0 ppm.

<u>1,1,1-Trichloroethane (1,1,1-TCA)</u>

1,1,1-TCA is used widely as an industrial solvent and is found in consumer products such as spot removers.

1,1,1-TCA is rapidly and completely absorbed by both the oral and pulmonary routes. The toxic effects of 1,1,1-TCA are generally seen at concentrations well above those likely in an ambient environment. The most notable toxic effects of 1,1,1-TCA in humans and animals are central nervous system depression, including anesthesia at very high concentrations, and impairment of coordination, equilibrium, and judgment at lower concentration (350 ppm and above).

Several bioassays have investigated the carcinogenic potential of 1,1,1-TCA in experimental animals. NTP (1984) reported preliminary results of a repeat bioassay in rats and mice, indicating that 1,1,1-TCA increased the incidence of hepatocellular carcinomas in female mice when administered by gavage. NTP (1984) further concluded that 1,1,1-TCA was not carcinogenic for male rats, but the study was inadequate to evaluate carcinogenicity in female rats and male mice. These results have been questioned and the study was audited (Birnbaum, 1986). Currently, the U.S. EPA classifies 1,1,1-TCA in Group D - Not Classifiable as to Human Carcinogenicity (U.S. EPA, 1985g). This category applies to agents for which there is inadequate evidence of carcinogenicity from animal studies.

The U.S. EPA calculated an oral RfD for 1,1,1-TCA based on an inhalation study by Torkelson et al. (1958). At 500 ppm, groups of eight male and eight female guinea pigs showed no evidence of adverse effects compared with unexposed and air-exposed controls after exposure for 7 hours per day, 5 days per week for 6 months. A no-observed adverse-effect level (NOAEL) of 500 ppm (2,730 mg/m^3 or 90 mg/kg/day) in guinea pigs was observed in this study. Using a NOAEL of 90 mg/kg/day and an uncertainty factor of 1,000, an oral reference dose of 9 x 10^{-2} mg/kg/day was derived (IRIS, 1989i). An inhalation RfD of 0.3 mg/kg/day for 1,1,1-TCA has also been determined by the U.S. EPA based on the same study by Torkelson et al. (1958; U.S. EPA, 1989b).

Under the Safe Drinking Water Act, the U.S. EPA promulgated an MCLG and a final MCL of 200 ug/l for 1,1,1-TCA in drinking water (U.S. EPA, 1987d).

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1,1,1-TCA is used widely as an industrial solvent and is found in consumer products such as spot removers.

1,1,1-TCA is rapidly and completely absorbed by both the oral and inhalation exposure routes. Toxic effects of 1,1,1-TCA are generally seen at concentrations well above those likely in an ambient environment. Its most notable toxic effects in humans and animals are central nervous system depression, including anesthesia at very high concentrations, and impairment of coordination, equilibrium, and judgment at lower concentrations (350 ppm and above).

Several bioassays have investigated the carcinogenic potential of 1,1,1-TCA in experimental animals. NTP (1984) reported

preliminary results of a repeat bioassay in rats and mice in which 1,1,1-TCA administered by gavage to female mice led to increased incidence of hepatocellular carcinomas. NTP (1984) further concluded that 1,1,1-TCA was not carcinogenic for male rats, but the study was inadequate to evaluate carcinogenicity in female rats and male mice. These results have been questioned and the study audited (Birnbaum, 1986). Currently, the U.S. EPA classifies 1,1,1-TCA as a Group D carcinogen (not classifiable as to human carcinogenicity because of inadequate or no evidence [U.S. EPA, 1985g]).

The U.S. EPA has calculated an oral RfD for 1,1,1-TCA based on an inhalation study by Torkelson et al. (1958). At 500 ppm, groups of eight male and eight female guinea pigs showed no evidence of adverse effects compared with unexposed and air-exposed controls after exposure for 7 hours per day, 5 days per week for 6 months. A no-observed adverse-effect level (NOAEL) of 500 ppm (2,730 mg/m^3 or 90 mg/kg/day) in guinea pigs was observed in this study. Using an NOAEL of 90 mg/kg/day and an uncertainty factor of 1,000, an oral reference dose (RfD) of 9×10^{-2} mg/kg/day has been derived (IRIS 1989i). U.S. EPA (1989b) has determined an inhalation RfD of 0.3 mg/kg/day for 1,1,1-TCA also based on Torkelson's study (1958).

Under the Safe Drinking Water Act, the U.S. EPA has promulgated an MCLG and a final MCL of 200 µg/l for 1,1,1-TCA in drinking water (U.S. EPA, 1987d).

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APPENDIX B

Calculations

APPENDIX B-1

Emissions Estimates

AMERICAN BRASS AND IRON EMISSION RATES

	AVERAGE TEST (LB/HR)	DILUTION FACTOR	HOURLY EMISSIONS (LB/HR)	ANNUAL EMISSIONS (LB/YR)	CHRONIC EMISSIONS (LB/HR)	ACUTE EMISSIONS (LB/HR)
ARSENIC	3.0E-04	10.09	3.0E-03	6.0E+00	8.7E-05	3.8E-04
BERYLLIUM	1.3E-05	10.09	1.4E-04	2.7E-01	3.9E-06	1.7E-05
CADMIUM	8.1E-04	1	8.1E-04	1.6E+00	2.3E-05	1.0E-04
CHROMIUM +6	1.3E-04	9.42	7.6E-05	1.5E-01	2.2E-06	9.6E-06
COPPER	1.5E-03	10.09	1.5E-02	3.0E+01	4.4E-04	1.9E-03
LEAD	2.1E-02	1	2.1E-02	4.2E+01	6.0E-04	2.6E-03
MANGANESE	1.0E-02	10.09	1.0E-01	2.1E+02	3.0E-03	1.3E-02
MERCURY	6.1E-05	10.09	6.1E-04	1.2E+00	1.8E-05	7.7E-05
NICKEL	2.7E-04	10.09	2.7E-03	5.4E+00	7.8E-05	3.4E-04
SELENIUM	1.3E-05	10.09	1.4E-04	2.7E-01	3.9E-06	1.7E-05
ZINC	1.8E-01	10.09	1.8E+00	3.6E+03	5.2E-02	2.3E-01
111, TRICHLOROETHYLENE				5.9E+05	8.5E+00	3.7E+01
HCL	1.5E+00	9.42	1.5E+00	3.0E+03	4.3E-02	1.9E-01
FORMALDEHYDE	3.6E-03	11.09	3.9E-02	7.9E+01	1.1E-03	5.0E-03
PAH'S						
BENZO(a)ANTHRACENE	4.1E-06	8.06	3.3E-05	6.6E-02	9.5E-07	4.2E-06
BENZO(b)FLOURANTHENE	5.7E-06	8.06	4.6E-05	9.2E-02	1.3E-06	5.8E-06
BENZO(k)FOURANTHENE	2.0E-06	8.06	1.6E-05	3.2E-02	4.6E-07	2.0E-06
BENZO(a)PYRENE	1.2E-06	8.06	9.8E-06	2.0E-02	2.8E-07	1.2E-06
DIBENZO(ah)ANTHRACENE	2.3E-07	8.06	1.9E-06	3.7E-03	5.3E-08	2.3E-07
INDENO(123cd)PYRENE	2.0E-06	8.06	1.6E-05	3.3E-02	4.7E-07	2.1E-06
				TOTAL PAH	3.5E-06	1.6E-05

AMERICAN BRASS AND IRON DIOXIN EMISSION RATES

AVERAGE (lb/hr)	TOXIC EQ. FACTOR	DILUTION FACTOR	HOURLY EMISSION (lb/hr)	ANNUAL EMISSION (lb/year)	CHRONIC EMISSION (gram/sec)
TCDD					
8.9E-10	1	8.06	7.2E-09	1.4E-05	4.6E-13
2.8E-09	1	8.06	2.3E-08	4.5E-05	1.4E-12
2.3E-09	0.03	8.06	5.6E-10	1.1E-06	3.5E-14
4.8E-09	0.03	8.06	1.2E-09	2.3E-06	7.4E-14
2.9E-09	0.03	8.06	7.0E-10	1.4E-06	4.5E-14
4.3E-08	0.03	8.06	1.0E-08	2.1E-05	6.6E-13
TCDF					
6.6E-09	1	8.06	5.3E-08	1.1E-04	3.4E-12
9.3E-09	1	8.06	7.5E-08	1.5E-04	4.8E-12
7.2E-09	1	8.06	5.8E-08	1.2E-04	3.7E-12
1.3E-08	0.03	8.06	3.1E-09	6.3E-06	2.0E-13
1.8E-08	0.03	8.06	4.4E-09	8.7E-06	2.8E-13
2.7E-08	0.03	8.06	6.5E-09	1.3E-05	4.1E-13
7.3E-09	0.03	8.06	1.8E-09	3.5E-06	1.1E-13
1.52E-07	0.03	8.06	3.7E-08	7.4E-05	2.3E-12
2.5E-08	0.03	8.06	6.0E-09	1.2E-05	3.8E-13
		TOTALS	2.9E-07	5.7E-04	1.8E-11

APPENDIX B-2

Estimation Methodology of Carcinogenic Risk
(unit risk factors and/or potency slopes included)

Appendix B-2

Estimation Methodology of Carcinogenic Risk

The actual carcinogenic risk was estimated by providing the ARB HRA92 model with the CHI over Q (unit concentration) estimated by the ISCST model and the actual gram per second emission rate. The estimation of the cancer risk due to pathways other than inhalation is discussed in the CAPCOA document "Air Toxics 'Hot Spots' Program, Risk Assessment Guidelines," January 1992. An example of how to determine the estimated risk of inhalation exposure to arsenic at the MER location is shown below.

The CHI over Q (CHI/Q) is determined from Appendix C-2 for the model run labeled Model Output File for Location of the MEI in the Industrial Area Surrounding the Facility. For the location 571125, 4178000, the average of the 5 years of data is 35.7. The average is then multiplied by 0.14 to adjust for industrial exposure. This adjustment is not necessary for residential exposures. This results in a estimate of CHI/Q of 5.0.

The ambient concentration of arsenic at the MEI is determined by multiplying the CHI/Q by the actual gram per second emission rate shown in Appendix B-1 (Chronic Emissions, GR/SEC).

Conc. = [8.71E-5 g/s][(5 ug/m3)/(g/s)] = 4.36E-04 ug/m3.

The estimated ambient concentration is multiplied by the unit factor risk for each chemical to obtain the inhalation risk.

Cancer Risk = (4.36E-04 ug/m3)(3.3E-3 m3/ug) = 1.4E-6.

Cancer Potency Factors used in the HRA Program, Version 1.1:

	Unit Risk $(ug/m^3)^{-1}$
Arsenic	3.3E-03
Beryllium	2.4E-03
Cadmium	4.2E-03
Chromium	1.4E-01
Dioxins and Furans	3.8E+01
Formaldehyde	1.3E-05
Nickel Compounds	2.6E-04
PAHs	1.4E-03
Lead (screening)	8.0E-05
Selenium (screening)	1.4E-04

APPENDIX B-3

Estimation Methodology of Hazard Index
(acceptable exposure levels included)

Appendix B-3

Estimation Methodology of Hazard Index

The Hazard Index (HI) is a measure of how far below or above the acceptable ambient concentration a chemical exposure has been estimated. To determine the HI the estimated ambient concentration is divided by the Noncancer Acceptable Exposure Levels. An HI of less than 1 signifies an acceptable exposure level. The HIs for chronic and acute exposure were determined using the ARB HRA92 model in a similar manner as described for cancer risk. A CHI/Q and an emission factor were provided for each point of estimation. The program then made the necessary calculations to estimate the hazard index. An example calculation is shown below for the acute exposure at the MEI to lead.

The actual ambient concentration for chronic exposure is estimated as shown in Appendix C-2. The ambient acute exposure is determined by using the 1-hour maximum concentration provided in Appendix C-2 in the file called Model Output Files for Determination of Acute Exposures. The maximum 1 hour off-site concentration occurred at the point 571075, 4178050. The average CHI/Q at this point was 2546. The 1-hour ambient concentration is estimated by multiplying the CHI/Q by the actual emission rate (Acute Emissions).

Conc. = [5.5E-02 g/s][2546 ug/m3)/(g/s)] = 140.0 ug/m3.

The HI is determined by dividing the calculated ambient concentration with the acceptable exposure level (AEL) for each chemical.

Acute HI = (140.0 ug/m3)/(1.5 ug/m3) = 93.3

Noncancer Acceptable Exposure Levels for Acute and Chronic Exposures:

	Chronic (ug/m^3)	Acute (ug/m^3)
Arsenic	5.0E-01	
Beryllium	4.8E-03	
Cadmium	3.5E+00	
Copper	2.4E+00	1.0E+01
Chromium(+6)	2.0E-03	
Dioxin	3.5E-06	
Formaldehyde	3.6E+00	3.7E+02
Hydrochloric Acid	7.0E+00	3.0E+03
Lead	1.5E+00	1.5E+00
Manganese	4.0E-01	
Mercury	3.0E-01	3.0E+01
Methyl Chloroform	3.2E+02	1.9E+05
Nickel	2.4E-01	1.0E+01
PAH	2.0E+00	
Selenium	5.0E-01	2.0E+00
Zinc	3.5E+01	

APPENDIX C

Air Quality Modeling

APPENDIX C-1

Model Input Data

MODEL INPUT FILE FOR LOCATION OF MEI IN THE INDUSTRIAL AREA

SURROUNDING THE FACILITY

```
1                ISCST               (DATED 90346)
                BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96



                         SESSION INFORMATION

                 INPUT DATA FILE NAME :  b:abi25m85.dta
                 OUTPUT LIST FILE NAME : b:ABI25M85.LST
                 MET DATA FILE NAME : lanas85.bin
                 MASTER GRAPHICS FILE NAME : b:abi25m85.GRF
```

```
          *** American Brass and Iron, LF 2421, MEI-1985                    ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)                              ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)               ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                      ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                              ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                         ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                      ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                 ISW(7) =   0
  2-HOUR (YES=1,NO=0)                                                 ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                 ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                               ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                               ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                  ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                          ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                       ISW(17) =   0
  MAXIMUM 50 TABLES (YES=1,NO=0)                                     ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)            ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)    ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)            ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)     ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                    ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)          ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)              ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                              ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                     ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                     ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                  ISW(31) =   0

NUMBER OF INPUT SOURCES                                               NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                              NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                  IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                       NXPNTS =  16
NUMBER OF Y (THETA) GRID VALUES                                       NYPNTS =  16
NUMBER OF DISCRETE RECEPTORS                                          NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                              TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                      ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                              IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                   DECAY =0.000000E+00
SURFACE STATION NO.                                                      ISS = 23239
```

```
      YEAR OF SURFACE DATA                                                  ISY = 85
      UPPER AIR STATION NO.                                                 IUS = 23239
      YEAR OF UPPER AIR DATA                                                IUY = 85
      ALLOCATED DATA STORAGE                                              LIMIT =160000 WORDS
      REQUIRED DATA STORAGE FOR THIS PROBLEM RUN                          MIMIT =  1374 WORDS
1
               *** American Brass and Iron, LF 2421, MEI-1985                  ***

                         *** METEOROLOGICAL DAYS TO BE PROCESSED ***
                                           (IF=1)

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

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

                            10.00,   9.00,   5.00,   5.00,   5.00,

                                 *** WIND PROFILE EXPONENTS ***
```

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

570900.0, 570925.0, 570950.0, 570975.0, 571000.0, 571025.0, 571050.0, 571075.0, 571100.0, 571125.0,
571150.0, 571175.0, 571200.0, 571225.0, 571250.0, 571275.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4177975.0, 4178000.0, 4178025.0, 4178050.0, 4178075.0, 4178100.0, 4178125.0, 4178150.0, 4178175.0, 4178200.0,
4178225.0, 4178250.0, 4178275.0, 4178300.0, 4178325.0, 4178350.0,

1

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.44500E-02	571076.0	4178092.0	1.5	10.00	0.00	10.60	0.00	0.00	0.00	0.00
2	2	0	0	0.47130E-02	571080.0	4178096.0	1.5	10.00	0.00	10.30	0.00	0.00	0.00	0.00

1

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING
HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	RECEPTOR LOCATION X OR RANGE (METERS)	RECEPTOR LOCATION Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	571075.0	4178100.0	0.91

```
* CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
* CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
* CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

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* CALM HOURS (=1) FOR DAY  7 * 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY  8 * 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  9 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 10 * 0 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 11 * 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 12 * 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 13 * 0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 14 * 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 15 * 0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 16 * 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 17 * 0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 18 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0
* CALM HOURS (=1) FOR DAY 19 * 1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 20 * 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 21 * 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 22 * 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 23 * 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 24 * 0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 25 * 0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 26 * 0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 27 * 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 28 * 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0
* CALM HOURS (=1) FOR DAY 29 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY 30 * 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 33 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 34 * 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 35 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0
* CALM HOURS (=1) FOR DAY 36 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 37 * 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 40 * 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY 41 * 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0
* CALM HOURS (=1) FOR DAY 42 * 0 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY 43 * 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 45 * 1 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 46 * 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 47 * 0 0 0 0 0 0 0 1 1 1 0 0 1 0 1 0 0 0 0 1 1 0 1 1
* CALM HOURS (=1) FOR DAY 48 * 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 49 * 1 1 1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 50 * 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 53 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 54 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 55 * 1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 56 * 0 1 1 1 1 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 57 * 1 1 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 58 * 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 59 * 0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 64 * 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 66 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 67 * 1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 68 * 0 0 0 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 69 * 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 70 * 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

```
* CALM HOURS (=1) FOR DAY  71 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  72 *  1 0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  73 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  76 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  77 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  78 *  1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  81 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  82 *  0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  83 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  88 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY  89 *  0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  90 *  1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  91 *  1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  92 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  93 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  94 *  0 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  95 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  96 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  98 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 101 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 102 *  0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 103 *  0 0 0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 104 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 112 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 113 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 117 *  0 0 0 1 1 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 120 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 121 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 124 *  0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 125 *  0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 129 *  1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 131 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 132 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 134 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 135 *  1 0 0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 137 *  0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 142 *  0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 149 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 150 *  1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 153 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 156 *  0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 157 *  0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 158 *  0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 159 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 161 *  0 1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 162 *  1 0 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 164 *  0 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 167 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 176 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 177 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 178 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 181 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 1
```

* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 283 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 284 *	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 285 *	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 286 *	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 287 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 289 *	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 290 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 292 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 293 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 295 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 296 *	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
* CALM HOURS (=1) FOR DAY 298 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 299 *	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 300 *	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 301 *	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 303 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 304 *	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 305 *	0	0	0	1	0	0	1	1	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 306 *	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 307 *	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 308 *	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 309 *	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 310 *	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 311 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 316 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 317 *	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1
* CALM HOURS (=1) FOR DAY 318 *	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 319 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 323 *	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 324 *	1	0	1	0	1	0	1	1	1	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 325 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 326 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1).FOR DAY 327 *	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 329 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 330 *	1	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 331 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 332 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 333 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 334 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 335 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 337 *	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 338 *	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 339 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 340 *	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 341 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0

```
* CALM HOURS (=1) FOR DAY 342 *  0  0  0  1  1  1  1  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 343 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 344 *  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 345 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1
* CALM HOURS (=1) FOR DAY 346 *  0  0  0  1  1  1  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 347 *  1  0  0  0  1  0  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1
* CALM HOURS (=1) FOR DAY 348 *  1  1  1  1  1  0  0  1  1  1  0  0  0  0  0  0  0  0  0  1  1  1  1  0
* CALM HOURS (=1) FOR DAY 349 *  0  1  1  0  0  0  0  0  0  1  0  0  1  1  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 350 *  0  0  0  0  1  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 351 *  0  0  0  0  0  0  1  0  1  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 357 *  0  0  0  0  0  0  1  1  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 358 *  0  0  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 360 *  0  0  0  0  0  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 362 *  0  0  0  0  1  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 363 *  0  0  1  0  0  0  1  1  1  0  0  0  0  0  0  0  0  0  1  1  0  0  0  0
* CALM HOURS (=1) FOR DAY 364 *  0  0  0  0  1  0  0  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY 365 *  0  1  1  1  1  1  1  0  0  0  0  0  0  0  0  1  0  0  1  1  1  1  1  1
```

MODEL INPUT FILE TO LOCATE THE RESIDENTIAL AREA USING 100 METER SPACING

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:abiresid.dta
OUTPUT LIST FILE NAME : b:abiresid.lst
MET DATA FILE NAME : lanas85.bin

*** American Brass and Iron, LF 2421, Location of Residential ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)                                ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)                 ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                        ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                                ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                           ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                        ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                   ISW(7) =   0
  2-HOUR (YES=1,NO=0)                                                   ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                   ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                  ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                  ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                  ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                                 ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                                 ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                    ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                            ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                         ISW(17) =   0
  MAXIMUM 50 TABLES (YES=1,NO=0)                                       ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)              ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)      ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)              ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)       ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                      ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                  ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)            ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                  ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)                ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                                ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                       ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                       ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                    ISW(31) =   0

NUMBER OF INPUT SOURCES                                                 NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                                NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                    IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                         NXPNTS =  20
NUMBER OF Y (THETA) GRID VALUES                                         NYPNTS =  16
NUMBER OF DISCRETE RECEPTORS                                            NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                                TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                        ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                                IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                     DECAY =0.000000E+00
SURFACE STATION NO.                                                        ISS = 23239
```

YEAR OF SURFACE DATA ISY = 85
UPPER AIR STATION NO. IUS = 23239
YEAR OF UPPER AIR DATA IUY = 85
ALLOCATED DATA STORAGE LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN MIMIT = 1570 WORDS

1

*** American Brass and Iron, LF 2421, Location of Residential ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** American Brass and Iron, LF 2421, Location of Residential ***

```
                    *** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
                                       (METERS)

  570500.0,  570600.0,  570700.0,  570800.0,  570900.0,  571000.0,  571100.0,  571200.0,  571300.0,  571400.0,
  571500.0,  571600.0,  571700.0,  571800.0,  571900.0,  572000.0,  572100.0,  572200.0,  572300.0,  572400.0,

                    *** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
                                       (METERS)

 4177500.0, 4177600.0, 4177700.0, 4177800.0, 4177900.0, 4178000.0, 4178100.0, 4178200.0, 4178300.0, 4178400.0,
 4178500.0, 4178600.0, 4178700.0, 4178800.0, 4178900.0, 4179000.0,

               *** American Brass and Iron, LF 2421, Location of Residential    ***

                                   *** SOURCE DATA ***

                 EMISSION RATE                                          TEMP.    EXIT VEL.
                    TYPE=0,1                                            TYPE=0    TYPE=0
         T W     (GRAMS/SEC)                                          (DEG.K);  (M/SEC);            BLDG.     BLDG.     BLDG.
         Y A NUMBER  TYPE=2                             BASE           VERT.DIM  HORZ.DIM DIAMETER  HEIGHT    LENGTH    WIDTH
 SOURCE  P K  PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT  TYPE=1   TYPE=1,2  TYPE=0   TYPE=0    TYPE=0    TYPE=0
 NUMBER  E E  CATS. *PER METER**2 (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

      1  2 0    0   0.44500E-02  571076.0 4178092.0     1.5     10.00      0.00      10.60     0.00      0.00      0.00      0.00
      2  2 0    0   0.47130E-02  571080.0 4178096.0     1.5     10.00      0.00      10.30     0.00      0.00      0.00      0.00
 * CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1
 * CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
 * CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
 * CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY   7 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
 * CALM HOURS (=1) FOR DAY   8 *  1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY   9 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
 * CALM HOURS (=1) FOR DAY  10 *  0 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
 * CALM HOURS (=1) FOR DAY  11 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 * CALM HOURS (=1) FOR DAY  12 *  0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
 * CALM HOURS (=1) FOR DAY  13 *  0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1
 * CALM HOURS (=1) FOR DAY  14 *  0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  15 *  0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
 * CALM HOURS (=1) FOR DAY  16 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  17 *  0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  18 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0
 * CALM HOURS (=1) FOR DAY  19 *  1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  20 *  1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  21 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  22 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 1
 * CALM HOURS (=1) FOR DAY  23 *  0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0
 * CALM HOURS (=1) FOR DAY  24 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
 * CALM HOURS (=1) FOR DAY  25 *  0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 * CALM HOURS (=1) FOR DAY  26 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
```

* CALM HOURS (=1) FOR DAY 27	*	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 28	*	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 29	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 30	*	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 33	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 34	*	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 35	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
* CALM HOURS (=1) FOR DAY 36	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 37	*	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 40	*	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 41	*	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 42	*	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
* CALM HOURS (=1) FOR DAY 43	*	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 45	*	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 46	*	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 47	*	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	1
* CALM HOURS (=1) FOR DAY 48	*	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 49	*	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 50	*	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 53	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 54	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 55	*	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 56	*	0	1	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 57	*	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 58	*	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 59	*	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 64	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 66	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 67	*	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 68	*	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 69	*	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 70	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 71	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 72	*	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 73	*	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 76	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 77	*	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 78	*	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 81	*	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 82	*	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 83	*	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 88	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 89	*	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 90	*	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 91	*	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 92	*	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 93	*	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 94	*	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 95	*	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 96	*	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 98	*	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 101	*	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

* CALM HOURS (=1) FOR DAY 102 *	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 103 *	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 104 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 112 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 113 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 117 *	0	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 120 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 121 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 124 *	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 125 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 129 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 131 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 132 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 134 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 135 *	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 137 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 142 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 149 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 150 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 153 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 156 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 157 *	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 158 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 159 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 161 *	0	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 162 *	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 164 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 167 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 283 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 284 *	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 285 *	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 286 *	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 287 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 289 *	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 290 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 292 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 293 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 295 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 296 *	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
* CALM HOURS (=1) FOR DAY 298 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 299 *	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1

* CALM HOURS (=1) FOR DAY 300 *	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 301 *	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 303 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 304 *	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 305 *	0	0	0	1	0	0	1	1	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 306 *	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 307 *	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 308 *	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 309 *	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 310 *	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 311 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 316 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 317 *	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1
* CALM HOURS (=1) FOR DAY 318 *	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 319 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 323 *	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 324 *	1	0	1	0	1	0	1	1	1	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 325 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 326 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 327 *	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 329 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 330 *	1	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 331 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 332 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 333 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 334 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 335 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 337 *	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 338 *	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 339 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 340 *	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 341 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 342 *	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 343 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 344 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 345 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 346 *	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 347 *	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 348 *	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 349 *	0	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 350 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 351 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 357 *	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 358 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 360 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 362 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 363 *	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 364 *	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 365 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1

'N'-DAY
365 DAYS

MODEL INPUT FILE FOR LOCATION OF THE MEI AT THE RESIDENTIAL AREAS

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:abires85.dta
OUTPUT LIST FILE NAME : b:abires85.lst
MET DATA FILE NAME : lanas85.bin
MASTER GRAPHICS FILE NAME : b:abires85.GRF

*** American Brass and Iron, LF 2421, Residential Exposure 1985 ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)                              ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)               ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                      ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                              ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                         ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                      ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                 ISW(7) =   0
  2-HOUR (YES=1,NO=0)                                                 ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                 ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                               ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                               ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                  ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                          ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                       ISW(17) =   0
  MAXIMUM 50 TABLES (YES=1,NO=0)                                     ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)            ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)    ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)            ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)     ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                    ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)          ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)              ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                              ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                     ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                     ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                  ISW(31) =   0

NUMBER OF INPUT SOURCES                                               NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                              NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                  IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                       NXPNTS =   6
NUMBER OF Y (THETA) GRID VALUES                                       NYPNTS =  11
NUMBER OF DISCRETE RECEPTORS                                          NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                              TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                      ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                              IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                   DECAY =0.000000E+00
SURFACE STATION NO.                                                      ISS = 23239
YEAR OF SURFACE DATA                                                     ISY = 85
```

```
     UPPER AIR STATION NO.                                        IUS = 23239
     YEAR OF UPPER AIR DATA                                       IUY = 85
     ALLOCATED DATA STORAGE                                     LIMIT =160000 WORDS
     REQUIRED DATA STORAGE FOR THIS PROBLEM RUN                 MIMIT =    789 WORDS
1
             *** American Brass and Iron, LF 2421, Residential Exposure 1985  ***

                         *** METEOROLOGICAL DAYS TO BE PROCESSED ***
                                          (IF=1)

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

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

                          10.00,   9.00,   5.00,   5.00,   5.00,

                               *** WIND PROFILE EXPONENTS ***
```

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** American Brass and Iron, LF 2421, Residential Exposure 1985 ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

571800.0, 571850.0, 571900.0, 571950.0, 572000.0, 572050.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4177800.0, 4177850.0, 4177900.0, 4177950.0, 4178000.0, 4178050.0, 4178100.0, 4178150.0, 4178200.0, 4178250.0,
4178300.0,

1

*** American Brass and Iron, LF 2421, Residential Exposure 1985 ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.44500E-02	571076.0	4178092.0	1.5	10.00	0.00	10.60	0.00	0.00	0.00	0.00
2	2	0	0	0.47130E-02	571080.0	4178096.0	1.5	10.00	0.00	10.30	0.00	0.00	0.00	0.00

```
* CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
* CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
* CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   7 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY   8 *  1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   9 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  10 *  0 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY  11 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  12 *  0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  13 *  0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  14 *  0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  15 *  0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  16 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  17 *  0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  18 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0
* CALM HOURS (=1) FOR DAY  19 *  1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  20 *  1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  21 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  22 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  23 *  0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  24 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  25 *  0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  26 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
```

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* CALM HOURS (=1) FOR DAY  27 *  0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY  28 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0
* CALM HOURS (=1) FOR DAY  29 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  30 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  33 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY  34 *  0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  35 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0
* CALM HOURS (=1) FOR DAY  36 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  37 *  0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  40 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  41 *  0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0
* CALM HOURS (=1) FOR DAY  42 *  0 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY  43 *  0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  45 *  1 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY  46 *  0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  47 *  0 0 0 0 0 0 0 1 1 1 0 0 1 0 1 0 0 0 0 1 1 0 1 1
* CALM HOURS (=1) FOR DAY  48 *  1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  49 *  1 1 1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  50 *  1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  53 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  54 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  55 *  1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY  56 *  0 1 1 1 1 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  57 *  1 1 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  58 *  0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY  59 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  64 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  66 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  67 *  1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  68 *  0 0 0 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  69 *  0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  70 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  71 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  72 *  1 0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  73 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  76 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  77 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  78 *  1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  81 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  82 *  0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  83 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  88 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY  89 *  0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  90 *  1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  91 *  1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  92 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  93 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  94 *  0 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  95 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  96 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  98 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 101 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
```

* CALM HOURS (=1) FOR DAY 102 *	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 103 *	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 104 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 112 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 113 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 117 *	0	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 120 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 121 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 124 *	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 125 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 129 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 131 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 132 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 134 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 135 *	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 137 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 142 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 149 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 150 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 153 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 156 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 157 *	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 158 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 159 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 161 *	0	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 162 *	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 164 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 167 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 283 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 284 *	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 285 *	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 286 *	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 287 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 289 *	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 290 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 292 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 293 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 295 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 296 *	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
* CALM HOURS (=1) FOR DAY 298 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 299 *	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1

```
* CALM HOURS (=1) FOR DAY 300 *  1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 301 *  1 1 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 303 *  0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 304 *  0 0 0 1 0 1 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 305 *  0 0 0 1 0 0 1 1 1 1 0 1 0 0 0 0 1 1 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 306 *  1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 307 *  0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 308 *  1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 309 *  0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 310 *  0 1 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 311 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 316 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 317 *  0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 1 1
* CALM HOURS (=1) FOR DAY 318 *  1 1 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 319 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 0
* CALM HOURS (=1) FOR DAY 323 *  0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 324 *  1 0 1 0 1 0 1 1 1 0 0 0 0 0 1 1 0 1 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 325 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 326 *  0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 327 *  0 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 0 0 0 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 329 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 330 *  1 0 0 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 331 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 332 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 333 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 334 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY 335 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 337 *  1 1 1 1 0 1 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 338 *  1 1 1 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 339 *  0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 340 *  1 0 1 1 1 1 0 0 0 0 0 0 0 0 1 1 0 0 1 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 341 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 342 *  0 0 0 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 343 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 344 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 345 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 346 *  0 0 0 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 347 *  1 0 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 348 *  1 1 1 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1 0
* CALM HOURS (=1) FOR DAY 349 *  0 1 1 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 350 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 351 *  0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 357 *  0 0 0 0 0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 358 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 360 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 362 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 363 *  0 0 1 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 364 *  0 0 0 0 1 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 365 *  0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 1
```

MODEL INPUT FILE TO DETERMINE LOCATION OF RISK ISOPLETHS

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:s1-2iso.dta
OUTPUT LIST FILE NAME : b:s1-2iso.lst
MET DATA FILE NAME : lanas89.bin
MASTER GRAPHICS FILE NAME : b:s1-2iso.GRF

```
                *** American Brass and Iron, LF 2421, RISK AND CONC. ISOPLETHS   ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)                                 ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)                  ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                         ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                                 ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                            ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                         ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                    ISW(7) =   0
  2-HOUR (YES=1,NO=0)                                                    ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                    ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                   ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                   ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                   ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                                  ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                                  ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                     ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                             ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                          ISW(17) =   0
  MAXIMUM 50 TABLES (YES=1,NO=0)                                        ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)               ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)       ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)               ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)        ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                       ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                   ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)             ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                   ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)                 ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                                 ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                        ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                        ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                     ISW(31) =   0

NUMBER OF INPUT SOURCES                                                  NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                                 NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                     IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                          NXPNTS =  24
NUMBER OF Y (THETA) GRID VALUES                                          NYPNTS =  24
NUMBER OF DISCRETE RECEPTORS                                             NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                                 TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                         ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                                 IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                      DECAY =0.000000E+00
SURFACE STATION NO.                                                         ISS = 23239
```

YEAR OF SURFACE DATA ISY = 89
UPPER AIR STATION NO. IUS = 23239
YEAR OF UPPER AIR DATA IUY = 89
ALLOCATED DATA STORAGE LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN MIMIT = 2350 WORDS

1

*** American Brass and Iron, LF 2421, RISK AND CONC. ISOPLETHS ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

566000.0, 566500.0, 567000.0, 567500.0, 568000.0, 568500.0, 569000.0, 569500.0, 570000.0, 570500.0,
571000.0, 571500.0, 572000.0, 572500.0, 573000.0, 573500.0, 574000.0, 574500.0, 575000.0, 575500.0,
576000.0, 576500.0, 577000.0, 577500.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4172000.0, 4172500.0, 4173000.0, 4173500.0, 4174000.0, 4174500.0, 4175000.0, 4175500.0, 4176000.0, 4176500.0,
4177000.0, 4177500.0, 4178000.0, 4178500.0, 4179000.0, 4179500.0, 4180000.0, 4180500.0, 4181000.0, 4181500.0,
4182000.0, 4182500.0, 4183000.0, 4183500.0,

1

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.89000E-02	571076.0	4178092.0	1.5	10.00	0.00	10.60	0.00	0.00	0.00	0.00
2	2	0	0	0.94260E-02	571080.0	4178096.0	1.5	10.00	0.00	10.30	0.00	0.00	0.00	0.00

* CALM HOURS (=1) FOR DAY 9 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 15 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 16 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 17 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 20 *	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 21 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 24 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 27 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 28 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 41 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 43 *	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 44 *	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 47 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 48 *	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 52 *	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 54 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 56 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 57 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 58 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 67 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 78 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 94 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 95 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 96 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 98 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 123 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 126 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 173 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 183 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 197 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 207 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 225 *	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 246 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 256 *	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 265 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 276 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 277 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 321 *	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 323 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 325 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 326 *	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 328 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 332 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1
* CALM HOURS (=1) FOR DAY 333 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

MODEL INPUT FILE TO DETERMINE ACUTE EXPOSURE
IN THE RESIDENTIAL AREA

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:abiresa.dta
OUTPUT LIST FILE NAME : b:abiresa.lst
MET DATA FILE NAME : lanas85.bin

*** American Brass and Iron, LF 2421, Residential Acute Exposure ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)                            ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)             ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                    ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                            ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                       ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                    ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                               ISW(7) =   1
  2-HOUR (YES=1,NO=0)                                               ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                               ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                              ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                              ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                              ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                             ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                             ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                ISW(15) =   0

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                        ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                     ISW(17) =   1
  MAXIMUM 50 TABLES (YES=1,NO=0)                                   ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)          ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR: MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)  ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)          ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)   ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                  ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)              ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)         ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)              ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)            ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                            ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                   ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                   ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                ISW(31) =   0

NUMBER OF INPUT SOURCES                                             NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                            NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                     NXPNTS =   6
NUMBER OF Y (THETA) GRID VALUES                                     NYPNTS =  11
NUMBER OF DISCRETE RECEPTORS                                        NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                            TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                    ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                            IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                 DECAY =0.000000E+00
SURFACE STATION NO.                                                    ISS = 23239
```

YEAR OF SURFACE DATA	ISY = 85
UPPER AIR STATION NO.	IUS = 23239
YEAR OF UPPER AIR DATA	IUY = 85
ALLOCATED DATA STORAGE	LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 1053 WORDS

1

*** American Brass and Iron, LF 2421, Residential Acute Exposure ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

```
                    *** American Brass and Iron, LF 2421, Residential Acute Exposure ***

                              *** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
                                                  (METERS)

      571800.0,  571850.0,  571900.0,  571950.0,  572000.0,  572050.0,

                              *** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
                                                  (METERS)

     4177800.0, 4177850.0, 4177900.0, 4177950.0, 4178000.0, 4178050.0, 4178100.0, 4178150.0, 4178200.0, 4178250.0,
     4178300.0,
1
                    *** American Brass and Iron, LF 2421, Residential Acute Exposure ***

                                        *** SOURCE DATA ***

                   EMISSION RATE                                                TEMP.    EXIT VEL.
                     TYPE=0,1                                                   TYPE=0    TYPE=0
          T W      (GRAMS/SEC)                                                 (DEG.K);  (M/SEC);            BLDG.    BLDG.    BLDG.
          Y A NUMBER   TYPE=2                             BASE                 VERT.DIM  HORZ.DIM DIAMETER  HEIGHT   LENGTH   WIDTH
  SOURCE  P K  PART.  (GRAMS/SEC)      X         Y        ELEV.     HEIGHT     TYPE=1    TYPE=1,2  TYPE=0   TYPE=0   TYPE=0   TYPE=0
  NUMBER  E E  CATS. *PER METER**2  (METERS)  (METERS)  (METERS)  (METERS)   (METERS)   (METERS)  (METERS) (METERS) (METERS) (METERS)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

       1  2 0    0   0.44500E-02  571076.0 4178092.0      1.5      10.00       0.00      10.60      0.00     0.00     0.00     0.00
       2  2 0    0   0.47130E-02  571080.0 4178096.0      1.5      10.00       0.00      10.30      0.00     0.00     0.00     0.00
 * CALM HOURS (=1) FOR DAY   1 *  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY   2 *  0  0  1  1  0  0  1  0  0  0  0  0  0  0  0  0  0  1  1  0  0  0  1  1
 * CALM HOURS (=1) FOR DAY   3 *  1  1  0  1  1  1  0  0  0  0  0  0  0  0  1  0  0  1  1  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY   4 *  1  0  0  1  0  1  1  0  0  0  0  0  0  0  0  1  0  1  1  1  0  1  0  0
 * CALM HOURS (=1) FOR DAY   5 *  0  0  1  1  0  0  1  1  1  1  1  0  0  0  1  0  1  0  0  1  1  0  0  1
 * CALM HOURS (=1) FOR DAY   6 *  1  1  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY   7 *  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  0
 * CALM HOURS (=1) FOR DAY   8 *  1  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY   9 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0
 * CALM HOURS (=1) FOR DAY  10 *  0  1  1  1  0  0  1  1  0  0  0  0  0  0  0  0  0  1  0  0  0  0  1  1
 * CALM HOURS (=1) FOR DAY  11 *  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
 * CALM HOURS (=1) FOR DAY  12 *  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  0  0  0  0
 * CALM HOURS (=1) FOR DAY  13 *  0  0  1  1  1  1  1  1  1  0  0  1  0  0  0  0  0  0  1  0  0  0  0  1
 * CALM HOURS (=1) FOR DAY  14 *  0  0  1  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  15 *  0  0  0  0  0  1  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0
 * CALM HOURS (=1) FOR DAY  16 *  0  0  0  1  1  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  17 *  0  0  0  0  0  0  0  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  18 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1  1  1  1  0  0
 * CALM HOURS (=1) FOR DAY  19 *  1  0  0  0  0  1  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  20 *  1  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  21 *  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 * CALM HOURS (=1) FOR DAY  22 *  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  1  0  0  0  0  1
 * CALM HOURS (=1) FOR DAY  23 *  0  0  0  0  0  1  0  0  0  0  0  1  0  0  0  0  0  0  0  1  0  0  0  0
 * CALM HOURS (=1) FOR DAY  24 *  0  0  0  0  0  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1
```

* CALM HOURS (=1) FOR DAY 25 *	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 26 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 27 *	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 28 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 29 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 30 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 33 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 34 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 35 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
* CALM HOURS (=1) FOR DAY 36 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 37 *	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 40 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 41 *	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 42 *	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
* CALM HOURS (=1) FOR DAY 43 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 45 *	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 46 *	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 47 *	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	1
* CALM HOURS (=1) FOR DAY 48 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 49 *	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 50 *	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 53 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 54 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 55 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 56 *	0	1	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 57 *	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 58 *	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 59 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 64 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 66 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 67 *	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 68 *	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 69 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 70 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 71 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 72 *	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 73 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 76 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 77 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 78 *	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 81 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 82 *	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 83 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 88 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 89 *	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 90 *	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 91 *	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 92 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 93 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 94 *	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 95 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 96 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
* CALM HOURS (=1) FOR DAY  98 * 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 101 * 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 102 * 0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 103 * 0 0 0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 104 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 112 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 113 * 0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 117 * 0 0 0 1 1 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 120 * 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 121 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 124 * 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 125 * 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 129 * 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 131 * 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 132 * 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 134 * 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 135 * 1 0 0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 137 * 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 142 * 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 149 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 150 * 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 153 * 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 156 * 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 157 * 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 158 * 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 159 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 161 * 0 1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 162 * 1 0 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 164 * 0 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 167 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 176 * 0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 177 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 178 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 181 * 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 1
* CALM HOURS (=1) FOR DAY 182 * 1 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 183 * 1 0 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 184 * 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 185 * 0 1 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 187 * 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 188 * 0 1 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 189 * 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1
* CALM HOURS (=1) FOR DAY 190 * 0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0
* CALM HOURS (=1) FOR DAY 191 * 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 194 * 0 1 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 198 * 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 214 * 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 215 * 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 216 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 218 * 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 220 * 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 221 * 1 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 222 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 283 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 284 *	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 285 *	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 286 *	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 287 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 289 *	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 290 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 292 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 293 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 295 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 296 *	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1

```
* CALM HOURS (=1) FOR DAY 298 *  1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 299 *  0 0 1 0 1 1 0 1 0 0 0 0 1 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 300 *  1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 301 *  1 1 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 303 *  0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 304 *  0 0 0 1 0 1 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 305 *  0 0 0 1 0 0 1 1 1 1 0 1 0 0 0 0 1 1 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 306 *  1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 307 *  0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 308 *  1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 309 *  0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 310 *  0 1 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 311 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 316 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 317 *  0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 1 1
* CALM HOURS (=1) FOR DAY 318 *  1 1 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 319 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 0
* CALM HOURS (=1) FOR DAY 323 *  0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 324 *  1 0 1 0 1 0 1 1 1 0 0 0 0 0 1 1 0 1 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 325 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 326 *  0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 327 *  0 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 0 0 0 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 329 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 330 *  1 0 0 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 331 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 332 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 333 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 334 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY 335 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 337 *  1 1 1 1 0 1 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 338 *  1 1 1 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 339 *  0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 340 *  1 0 1 1 1 1 0 0 0 0 0 0 0 0 1 1 0 0 1 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 341 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 342 *  0 0 0 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 343 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 344 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 345 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 346 *  0 0 0 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 347 *  1 0 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 348 *  1 1 1 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 1 1 0
* CALM HOURS (=1) FOR DAY 349 *  0 1 1 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 350 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 351 *  0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 357 *  0 0 0 0 0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 358 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 360 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 362 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 363 *  0 0 1 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 364 *  0 0 0 0 1 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 365 *  0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 1
```

MODEL INPUT FILE TO DETERMINE THE ACUTE EXPOSURES IN THE INDUSTRIAL AREA

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:abi25a85.dta
OUTPUT LIST FILE NAME : b:ABI25a85.LST
MET DATA FILE NAME : lanas85.bin

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)                             ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)              ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                     ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                             ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                        ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                     ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                ISW(7) =   1
  2-HOUR (YES=1,NO=0)                                                ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                               ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                               ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                               ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                              ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                              ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                 ISW(15) =   0

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                         ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                      ISW(17) =   1
  MAXIMUM 50 TABLES (YES=1,NO=0)                                    ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)           ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)   ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)           ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)    ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                   ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)               ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)         ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)               ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)             ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                             ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                    ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                    ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                 ISW(31) =   0

NUMBER OF INPUT SOURCES                                              NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                             NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                 IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                      NXPNTS =  16
NUMBER OF Y (THETA) GRID VALUES                                      NYPNTS =  16
NUMBER OF DISCRETE RECEPTORS                                         NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                             TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                     ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                             IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                  DECAY =0.000000E+00
SURFACE STATION NO.                                                     ISS = 23239
YEAR OF SURFACE DATA                                                    ISY = 85
```

UPPER AIR STATION NO. IUS = 23239
YEAR OF UPPER AIR DATA IUY = 85
ALLOCATED DATA STORAGE LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN MIMIT = 2398 WORDS

1

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

570900.0, 570925.0, 570950.0, 570975.0, 571000.0, 571025.0, 571050.0, 571075.0, 571100.0, 571125.0,
571150.0, 571175.0, 571200.0, 571225.0, 571250.0, 571275.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4177975.0, 4178000.0, 4178025.0, 4178050.0, 4178075.0, 4178100.0, 4178125.0, 4178150.0, 4178175.0, 4178200.0,
4178225.0, 4178250.0, 4178275.0, 4178300.0, 4178325.0, 4178350.0,

1

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.44500E-02	571076.0	4178092.0	1.5	10.00	0.00	10.60	0.00	0.00	0.00	0.00
2	2	0	0	0.47130E-02	571080.0	4178096.0	1.5	10.00	0.00	10.30	0.00	0.00	0.00	0.00

1

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	571075.0	4178100.0	0.91

```
* CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
* CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
* CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   7 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY   8 *  1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

* CALM HOURS (=1) FOR DAY 9 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 10 *	0	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 11 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 12 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 13 *	0	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 14 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 15 *	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 16 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 17 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 18 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 19 *	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 20 *	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 21 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 22 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 23 *	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 24 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 25 *	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 26 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 27 *	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 28 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 29 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 30 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 33 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 34 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 35 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
* CALM HOURS (=1) FOR DAY 36 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 37 *	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 40 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 41 *	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 42 *	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0
* CALM HOURS (=1) FOR DAY 43 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 45 *	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 46 *	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 47 *	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	0	0	0	0	1	1	0	1	1
* CALM HOURS (=1) FOR DAY 48 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 49 *	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 50 *	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 53 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 54 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 55 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 56 *	0	1	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 57 *	1	1	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 58 *	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 59 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 64 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 66 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 67 *	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 68 *	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 69 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 70 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 71 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 72 *	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 73 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 76 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 77 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 78 *	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 81 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 82 *	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 83 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 88 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 89 *	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 90 *	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 91 *	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 92 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 93 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 94 *	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 95 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 96 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 98 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 101 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 102 *	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 103 *	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 104 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 112 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 113 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 117 *	0	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 120 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 121 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 124 *	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 125 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 129 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 131 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 132 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 134 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 135 *	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 137 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 142 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 149 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 150 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 153 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 156 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 157 *	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 158 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 159 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 161 *	0	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 162 *	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 164 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 167 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	
* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0

```
* CALM HOURS (=1) FOR DAY 281 *  0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 282 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 283 *  1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 284 *  1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 285 *  0 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 286 *  1 1 1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 287 *  1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1 1
* CALM HOURS (=1) FOR DAY 288 *  1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 289 *  0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 290 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 291 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 292 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 293 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 295 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 296 *  0 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 297 *  0 0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1
* CALM HOURS (=1) FOR DAY 298 *  1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 299 *  0 0 1 0 1 1 0 1 0 0 0 0 1 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 300 *  1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 301 *  1 1 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 303 *  0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 304 *  0 0 0 1 0 1 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 305 *  0 0 0 1 0 0 1 1 1 1 0 1 0 0 0 0 1 1 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 306 *  1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 307 *  0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 308 *  1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 309 *  0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 310 *  0 1 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 311 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 316 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 317 *  0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 1 1
* CALM HOURS (=1) FOR DAY 318 *  1 1 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 319 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 0
* CALM HOURS (=1) FOR DAY 323 *  0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 324 *  1 0 1 0 1 0 1 1 1 0 0 0 0 0 1 1 0 1 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 325 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 326 *  0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 327 *  0 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 0 0 0 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 329 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 330 *  1 0 0 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 331 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 332 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 333 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 334 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY 335 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 337 *  1 1 1 1 0 1 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 338 *  1 1 1 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 339 *  0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 340 *  1 0 1 1 1 1 0 0 0 0 0 0 0 0 1 1 0 0 1 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 341 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 342 *  0 0 0 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 343 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
```

* CALM HOURS (=1) FOR DAY 344 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 345 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 346 *	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 347 *	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 348 *	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 349 *	0	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 350 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 351 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 357 *	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 358 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 360 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 362 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 363 *	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 364 *	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 365 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1

MODEL INPUT FILE TO DETERMINE 111,TCA CONCENTRATIONS
IN RESIDENTIAL AREAS

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:tcares.dta
OUTPUT LIST FILE NAME : b:tcares.lst
MET DATA FILE NAME : lanas85.bin

```
               *** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)                               ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)                ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                       ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                               ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                          ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                       ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                  ISW(7) =   1
  2-HOUR (YES=1,NO=0)                                                  ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                  ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                 ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                 ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                 ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                                ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                                ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                   ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                           ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                        ISW(17) =   1
  MAXIMUM 50 TABLES (YES=1,NO=0)                                      ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)             ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)     ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)             ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)      ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                     ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                 ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)           ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                 ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)               ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                               ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                      ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                      ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                   ISW(31) =   0

NUMBER OF INPUT SOURCES                                                NSOURC =   1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                               NGROUP =   1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                   IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                        NXPNTS =   6
NUMBER OF Y (THETA) GRID VALUES                                        NYPNTS =  11
NUMBER OF DISCRETE RECEPTORS                                           NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                               TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                       ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                               IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                    DECAY =0.000000E+00
SURFACE STATION NO.                                                       ISS = 23239
```

YEAR OF SURFACE DATA	ISY = 85
UPPER AIR STATION NO.	IUS = 23239
YEAR OF UPPER AIR DATA	IUY = 85
ALLOCATED DATA STORAGE	LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN	MIMIT = 832 WORDS

1

*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

0 *** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

0 *** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

1

*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

571800.0, 571850.0, 571900.0, 571950.0, 572000.0, 572050.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4177800.0, 4177850.0, 4177900.0, 4177950.0, 4178000.0, 4178050.0, 4178100.0, 4178150.0, 4178200.0, 4178250.0,
4178300.0,

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*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	-2	0	0	0.20348E-01	571125.0	4178095.0	0.0	1.00	0.00	7.01	0.00	0.00	0.00	0.00

```
* CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
* CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
* CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   7 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY   8 *  1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   9 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  10 *  0 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY  11 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  12 *  0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  13 *  0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  14 *  0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  15 *  0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  16 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
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* CALM HOURS (=1) FOR DAY  17 *  0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  18 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0
* CALM HOURS (=1) FOR DAY  19 *  1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  20 *  1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  21 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  22 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  23 *  0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  24 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  25 *  0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  26 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  27 *  0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY  28 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0
* CALM HOURS (=1) FOR DAY  29 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  30 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  33 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY  34 *  0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  35 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0
* CALM HOURS (=1) FOR DAY  36 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  37 *  0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  40 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  41 *  0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0
* CALM HOURS (=1) FOR DAY  42 *  0 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY  43 *  0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  45 *  1 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY  46 *  0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  47 *  0 0 0 0 0 0 0 1 1 1 0 0 1 0 1 0 0 0 0 1 1 0 1 1
* CALM HOURS (=1) FOR DAY  48 *  1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  49 *  1 1 1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  50 *  1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  53 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  54 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  55 *  1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY  56 *  0 1 1 1 1 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  57 *  1 1 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  58 *  0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY  59 *  0 0 0 0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  64 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  66 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  67 *  1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  68 *  0 0 0 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  69 *  0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  70 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  71 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  72 *  1 0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  73 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  76 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  77 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  78 *  1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  81 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  82 *  0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  83 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  88 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
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* CALM HOURS (=1) FOR DAY 89 *	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 90 *	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 91 *	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 92 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 93 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 94 *	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 95 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 96 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 98 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 101 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 102 *	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 103 *	0	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 104 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 112 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 113 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 117 *	0	0	0	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 120 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 121 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 124 *	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 125 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 129 *	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 131 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 132 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 134 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 135 *	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 137 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 142 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 149 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 150 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 153 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 156 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 157 *	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 158 *	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 159 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 161 *	0	1	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 162 *	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 164 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 167 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 271 *	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 273 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 274 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 275 *	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 276 *	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 277 *	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 278 *	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 280 *	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0
* CALM HOURS (=1) FOR DAY 281 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 282 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 283 *	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 284 *	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 285 *	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 286 *	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 287 *	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1
* CALM HOURS (=1) FOR DAY 288 *	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 289 *	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 290 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 291 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 292 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 293 *	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 295 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 296 *	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 297 *	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1
* CALM HOURS (=1) FOR DAY 298 *	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 299 *	0	0	1	0	1	1	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 300 *	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 301 *	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 303 *	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 304 *	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 305 *	0	0	0	1	0	0	1	1	1	1	0	1	0	0	0	0	1	1	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 306 *	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 307 *	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 308 *	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 309 *	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 310 *	0	1	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 311 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 316 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
* CALM HOURS (=1) FOR DAY 317 *	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1
* CALM HOURS (=1) FOR DAY 318 *	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 319 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
* CALM HOURS (=1) FOR DAY 323 *	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 324 *	1	0	1	0	1	0	1	1	1	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 325 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 326 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 327 *	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	0	0	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 329 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
* CALM HOURS (=1) FOR DAY 330 *	1	0	0	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 331 *	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 332 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 333 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
* CALM HOURS (=1) FOR DAY 334 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
* CALM HOURS (=1) FOR DAY 335 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 337 *	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 338 *	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 339 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 340 *	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 341 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 342 *	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 343 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 344 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 345 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 346 *	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 347 *	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 348 *	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 349 *	0	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 350 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 351 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

* CALM HOURS (=1) FOR DAY 357 *	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 358 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 360 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 362 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 363 *	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 364 *	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 365 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1

MODEL INPUT FILES TO DETERMINE 111, TCA CONCENTRATIONS

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : b:tca.dta
OUTPUT LIST FILE NAME : b:tca.lst
MET DATA FILE NAME : lanas85.bin

```
            *** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year   ***

CALCULATE (CONCENTRATION=1,DEPOSITION=2)                                ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)                 ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                        ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                                ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                           ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                        ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                                   ISW(7) =   1
  2-HOUR (YES=1,NO=0)                                                   ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                                   ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                                  ISW(10) =   0
  6-HOUR (YES=1,NO=0)                                                  ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                                  ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                                 ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                                 ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                                    ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                            ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                         ISW(17) =   1
  MAXIMUM 50 TABLES (YES=1,NO=0)                                       ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)              ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3)      ISW(20) =   3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)              ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3)       ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                      ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)                  ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)            ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)                  ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)                ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                                ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                       ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                       ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)                    ISW(31) =   0

NUMBER OF INPUT SOURCES                                                 NSOURC =   1
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                                NGROUP =   1
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)                    IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                         NXPNTS =  16
NUMBER OF Y (THETA) GRID VALUES                                         NYPNTS =  16
NUMBER OF DISCRETE RECEPTORS                                            NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                                TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                        ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                                IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION                     DECAY =0.000000E+00
SURFACE STATION NO.                                                        ISS = 23239
```

YEAR OF SURFACE DATA ISY = 85
UPPER AIR STATION NO. IUS = 23239
YEAR OF UPPER AIR DATA IUY = 85
ALLOCATED DATA STORAGE LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN MIMIT = 2367 WORDS

1 *** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

0 *** NUMBER OF SOURCE NUMBERS REQUIRED TO DEFINE SOURCE GROUPS ***
(NSOGRP)

1,

0 *** SOURCE NUMBERS DEFINING SOURCE GROUPS ***
(IDSOR)

1,

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

1 *** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

570900.0, 570925.0, 570950.0, 570975.0, 571000.0, 571025.0, 571050.0, 571075.0, 571100.0, 571125.0,
571150.0, 571175.0, 571200.0, 571225.0, 571250.0, 571275.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4177850.0, 4177875.0, 4177900.0, 4177925.0, 4177950.0, 4177975.0, 4178000.0, 4178025.0, 4178050.0, 4178075.0,
4178100.0, 4178125.0, 4178150.0, 4178175.0, 4178200.0, 4178225.0,

1

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.20348E-01	571125.0	4178095.0	0.0	1.00	0.00	7.01	0.00	0.00	0.00	0.00

1

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 001 METERS OR THREE BUILDING
HEIGHTS IN DISTANCE. NO AVERAGE CONCENTRATION IS CALCULATED *

SOURCE NUMBER	- - RECEPTOR LOCATION - - X OR RANGE (METERS)	Y (METERS) OR DIRECTION (DEGREES)	DISTANCE BETWEEN (METERS)
1	571125.0	4178100.0	-0.15

```
* CALM HOURS (=1) FOR DAY   1 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   2 *  0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY   3 *  1 1 0 1 1 1 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   4 *  1 0 0 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 1 0 1 0 0
* CALM HOURS (=1) FOR DAY   5 *  0 0 1 1 0 0 1 1 1 1 1 0 0 0 1 0 1 0 0 1 1 0 0 1
* CALM HOURS (=1) FOR DAY   6 *  1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   7 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY   8 *  1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY   9 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  10 *  0 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY  11 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  12 *  0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  13 *  0 0 1 1 1 1 1 1 1 0 0 1 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  14 *  0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  15 *  0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  16 *  0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY ·17 *  0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  18 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0 0
* CALM HOURS (=1) FOR DAY  19 *  1 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  20 *  1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  21 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  22 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  23 *  0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  24 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  25 *  0 0 0 0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  26 *  0 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  27 *  0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY  28 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0
* CALM HOURS (=1) FOR DAY  29 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  30 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  33 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY  34 *  0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  35 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0
* CALM HOURS (=1) FOR DAY  36 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY  37 *  0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  40 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1
* CALM HOURS (=1) FOR DAY  41 *  0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 0
* CALM HOURS (=1) FOR DAY  42 *  0 0 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0
* CALM HOURS (=1) FOR DAY  43 *  0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY  45 *  1 0 0 0 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY  46 *  0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  47 *  0 0 0 0 0 0 0 1 1 1 0 0
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* CALM HOURS (=1) FOR DAY  48 *  1  1  1  1  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY  49 *  1  1  1  1  1  0  1  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  1
* CALM HOURS (=1) FOR DAY  50 *  1  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0
* CALM HOURS (=1) FOR DAY  53 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  0  0
* CALM HOURS (=1) FOR DAY  54 *  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1
* CALM HOURS (=1) FOR DAY  55 *  1  0  0  0  1  1  1  1  1  0  0  0  0  0  0  0  0  0  0  1  1  0  0  0
* CALM HOURS (=1) FOR DAY  56 *  0  1  1  1  1  0  0  1  0  1  0  1  0  0  0  0  0  0  0  0  0  0  0  1
* CALM HOURS (=1) FOR DAY  57 *  1  1  1  1  1  1  0  1  1  1  0  0  0  0  0  0  0  0  1  0  0  0  0  1
* CALM HOURS (=1) FOR DAY  58 *  0  0  0  1  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  1  1
* CALM HOURS (=1) FOR DAY  59 *  0  0  0  0  1  0  1  1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
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* CALM HOURS (=1) FOR DAY  64 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  66 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  67 *  1 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  68 *  0 0 0 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  69 *  0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  70 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  71 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  72 *  1 0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  73 *  0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  76 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  77 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  78 *  1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  81 *  0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  82 *  0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  83 *  0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  88 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY  89 *  0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  90 *  1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  91 *  1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY  92 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY  93 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  94 *  0 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY  95 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  96 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY  98 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 101 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 102 *  0 0 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 103 *  0 0 0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 104 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 112 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 113 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 117 *  0 0 0 1 1 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 120 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 121 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 124 *  0 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 125 *  0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 129 *  1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 131 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 132 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 134 *  1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 135 *  1 0 0 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 137 *  0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 142 *  0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 149 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 150 *  1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 153 *  1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 156 *  0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 157 *  0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 158 *  0 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 159 *  0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 161 *  0 1 1 0 1 1 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 162 *  1 0 1 1 1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

* CALM HOURS (=1) FOR DAY 164 *	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 167 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 176 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 177 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 178 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 181 *	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
* CALM HOURS (=1) FOR DAY 182 *	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 183 *	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 184 *	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 185 *	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 187 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 188 *	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 189 *	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 190 *	0	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 191 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 194 *	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 198 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 214 *	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 215 *	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 216 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 218 *	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 220 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 221 *	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 222 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 223 *	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 232 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 234 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 235 *	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
* CALM HOURS (=1) FOR DAY 236 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 241 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
* CALM HOURS (=1) FOR DAY 242 *	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 243 *	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 245 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
* CALM HOURS (=1) FOR DAY 246 *	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 248 *	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 249 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 253 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 254 *	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 255 *	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 256 *	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 257 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
* CALM HOURS (=1) FOR DAY 258 *	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 259 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 261 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
* CALM HOURS (=1) FOR DAY 262 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 263 *	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 264 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
* CALM HOURS (=1) FOR DAY 265 *	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 266 *	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 267 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 268 *	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
* CALM HOURS (=1) FOR DAY 269 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

```
* CALM HOURS (=1) FOR DAY 271 *  0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 273 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 274 *  0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 275 *  0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 276 *  0 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 277 *  1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 278 *  0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 280 *  0 0 0 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 1 1 0 0 1 0
* CALM HOURS (=1) FOR DAY 281 *  0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 282 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 283 *  1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0
* CALM HOURS (=1) FOR DAY 284 *  1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 285 *  0 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 286 *  1 1 1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1
* CALM HOURS (=1) FOR DAY 287 *  1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1 1
* CALM HOURS (=1) FOR DAY 288 *  1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 289 *  0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 290 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 291 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 292 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 293 *  1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 295 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 296 *  0 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 297 *  0 0 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1
* CALM HOURS (=1) FOR DAY 298 *  1 0 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 299 *  0 0 1 0 1 1 0 1 0 0 0 0 1 0 0 0 0 1 1 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 300 *  1 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 301 *  1 1 0 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 303 *  0 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 304 *  0 0 0 1 0 1 1 0 1 1 0 0 0 0 0 0 0 0 1 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 305 *  0 0 0 1 0 0 1 1 1 1 0 1 0 0 0 0 1 1 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 306 *  1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 307 *  0 1 0 1 0 0 1 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0 1
* CALM HOURS (=1) FOR DAY 308 *  1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 309 *  0 0 0 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1
* CALM HOURS (=1) FOR DAY 310 *  0 1 0 0 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 311 *  0 1 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 316 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1
* CALM HOURS (=1) FOR DAY 317 *  0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 1 1
* CALM HOURS (=1) FOR DAY 318 *  1 1 0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 319 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 0 0
* CALM HOURS (=1) FOR DAY 323 *  0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 324 *  1 0 1 0 1 0 1 1 1 0 0 0 0 0 1 1 0 1 0 0 0 0 1 0
* CALM HOURS (=1) FOR DAY 325 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 326 *  0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0
* CALM HOURS (=1) FOR DAY 327 *  0 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 0 0 0 1 1 0 0 0
* CALM HOURS (=1) FOR DAY 329 *  0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1
* CALM HOURS (=1) FOR DAY 330 *  1 0 0 1 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1
* CALM HOURS (=1) FOR DAY 331 *  0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 332 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 333 *  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0
* CALM HOURS (=1) FOR DAY 334 *  0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 1
```

* CALM HOURS (=1) FOR DAY 335 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 337 *	1	1	1	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 338 *	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 339 *	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
* CALM HOURS (=1) FOR DAY 340 *	1	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0
* CALM HOURS (=1) FOR DAY 341 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
* CALM HOURS (=1) FOR DAY 342 *	0	0	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 343 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 344 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 345 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
* CALM HOURS (=1) FOR DAY 346 *	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 347 *	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
* CALM HOURS (=1) FOR DAY 348 *	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0
* CALM HOURS (=1) FOR DAY 349 *	0	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 350 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 351 *	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 357 *	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 358 *	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 360 *	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 362 *	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 363 *	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 364 *	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
* CALM HOURS (=1) FOR DAY 365 *	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1

MODEL INPUT FILE FOR DETERMINATION OF 30 DAY AVERAGE CONCENTRATIONS

ISCST (DATED 90346)
BOWMAN ENVIRONMENTAL ENGINEERING REV.6.96

SESSION INFORMATION

INPUT DATA FILE NAME : lead30d.dta
OUTPUT LIST FILE NAME : lead30d.LST
MET DATA FILE NAME : lanas89.bin

*** 30Day Average Lead Concentrations ***

```
CALCULATE (CONCENTRATION=1,DEPOSITION=2)                          ISW(1) =   1
RECEPTOR GRID SYSTEM (RECTANGULAR=1 OR 3, POLAR=2 OR 4)           ISW(2) =   3
DISCRETE RECEPTOR SYSTEM (RECTANGULAR=1,POLAR=2)                  ISW(3) =   1
TERRAIN ELEVATIONS ARE READ (YES=1,NO=0)                          ISW(4) =   0
CALCULATIONS ARE WRITTEN TO TAPE (YES=1,NO=0)                     ISW(5) =   0
LIST ALL INPUT DATA (NO=0,YES=1,MET DATA ALSO=2)                  ISW(6) =   1

COMPUTE AVERAGE CONCENTRATION (OR TOTAL DEPOSITION)
WITH THE FOLLOWING TIME PERIODS:
  HOURLY (YES=1,NO=0)                                             ISW(7) =   0
  2-HOUR (YES=1,NO=0)                                             ISW(8) =   0
  3-HOUR (YES=1,NO=0)                                             ISW(9) =   0
  4-HOUR (YES=1,NO=0)                                            ISW)10) =   0
  6-HOUR (YES=1,NO=0)                                            ISW(11) =   0
  8-HOUR (YES=1,NO=0)                                            ISW(12) =   0
  12-HOUR (YES=1,NO=0)                                           ISW(13) =   0
  24-HOUR (YES=1,NO=0)                                           ISW(14) =   0
PRINT 'N'-DAY TABLE(S) (YES=1,NO=0)                              ISW(15) =   1

PRINT THE FOLLOWING TYPES OF TABLES WHOSE TIME PERIODS ARE
SPECIFIED BY ISW(7) THROUGH ISW(14):
  DAILY TABLES (YES=1,NO=0)                                      ISW(16) =   0
  HIGHEST & SECOND HIGHEST TABLES (YES=1,NO=0)                   ISW(17) =   0
  MAXIMUM 50 TABLES (YES=1,NO=0)                                 ISW(18) =   0
METEOROLOGICAL DATA INPUT METHOD (PRE-PROCESSED=1,CARD=2)        ISW(19) =   1
RURAL-URBAN OPTION (RU.=0,UR. MODE 1=1,UR. MODE 2=2,UR. MODE 3=3) ISW(20) =  3
WIND PROFILE EXPONENT VALUES (DEFAULTS=1,USER ENTERS=2,3)        ISW(21) =   1
VERTICAL POT. TEMP. GRADIENT VALUES (DEFAULTS=1,USER ENTERS=2,3) ISW(22) =   1
SCALE EMISSION RATES FOR ALL SOURCES (NO=0,YES>0)                ISW(23) =   0
PROGRAM CALCULATES FINAL PLUME RISE ONLY (YES=1,NO=2)            ISW(24) =   1
PROGRAM ADJUSTS ALL STACK HEIGHTS FOR DOWNWASH (YES=2,NO=1)      ISW(25) =   2
PROGRAM USES BUOYANCY INDUCED DISPERSION (YES=1,NO=2)            ISW(26) =   1
CONCENTRATIONS DURING CALM PERIODS SET = 0 (YES=1,NO=2)          ISW(27) =   1
REG. DEFAULT OPTION CHOSEN (YES=1,NO=2)                          ISW(28) =   1
TYPE OF POLLUTANT TO BE MODELLED (1=SO2,2=OTHER)                 ISW(29) =   2
DEBUG OPTION CHOSEN (YES=1,NO=2)                                 ISW(30) =   2
ABOVE GROUND (FLAGPOLE) RECEPTORS USED (YES=1,NO=0)              ISW(31) =   0

NUMBER OF INPUT SOURCES                                           NSOURC =   2
NUMBER OF SOURCE GROUPS (=0,ALL SOURCES)                          NGROUP =   0
TIME PERIOD INTERVAL TO BE PRINTED (=0,ALL INTERVALS)              IPERD =   0
NUMBER OF X (RANGE) GRID VALUES                                   NXPNTS =  17
NUMBER OF Y (THETA) GRID VALUES                                   NYPNTS =  17
NUMBER OF DISCRETE RECEPTORS                                      NXWYPT =   0
SOURCE EMISSION RATE UNITS CONVERSION FACTOR                          TK =.10000E+07
HEIGHT ABOVE GROUND AT WHICH WIND SPEED WAS MEASURED                  ZR =  10.00  METERS
LOGICAL UNIT NUMBER OF METEOROLOGICAL DATA                          IMET =   9
DECAY COEFFICIENT FOR PHYSICAL OR CHEMICAL DEPLETION               DECAY =0.000000E+00
SURFACE STATION NO.                                                  ISS = 23239
```

```
YEAR OF SURFACE DATA                              ISY = 89
UPPER AIR STATION NO.                             IUS = 23239
YEAR OF UPPER AIR DATA                            IUY = 89
ALLOCATED DATA STORAGE                          LIMIT =160000 WORDS
REQUIRED DATA STORAGE FOR THIS PROBLEM RUN      MIMIT =  1475 WORDS
```

1

*** 30Day Average Lead Concentrations ***

*** METEOROLOGICAL DAYS TO BE PROCESSED ***
(IF=1)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0   0 0 0 0 0 0
```

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

10.00, 9.00, 5.00, 5.00, 5.00,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

1

*** 30Day Average Lead Concentrations ***

*** X-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

569000.0, 569250.0, 569500.0, 569750.0, 570000.0, 570250.0, 570500.0, 570750.0, 571000.0, 571250.0,
571500.0, 571750.0, 572000.0, 572250.0, 572500.0, 572750.0, 573000.0,

*** Y-COORDINATES OF RECTANGULAR GRID SYSTEM ***
(METERS)

4176000.0, 4176250.0, 4176500.0, 4176750.0, 4177000.0, 4177250.0, 4177500.0, 4177750.0, 4178000.0, 4178250.0,
4178500.0, 4178750.0, 4179000.0, 4179250.0, 4179500.0, 4179750.0, 4180000.0,

1

*** 30Day Average Lead Concentrations ***

*** SOURCE DATA ***

SOURCE NUMBER	TYPE	WAKE	NUMBER PART. CATS.	EMISSION RATE TYPE=0,1 (GRAMS/SEC) TYPE=2 (GRAMS/SEC) *PER METER**2	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP. TYPE=0 (DEG.K); VERT.DIM TYPE=1 (METERS)	EXIT VEL. TYPE=0 (M/SEC); HORZ.DIM TYPE=1,2 (METERS)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. LENGTH TYPE=0 (METERS)	BLDG. WIDTH TYPE=0 (METERS)
1	2	0	0	0.12000E-04	571076.0	4178092.0	1.5	10.00	0.00	10.60	0.00	0.00	0.00	0.00
2	2	0	0	0.12700E-04	571080.0	4178096.0	1.5	10.00	0.00	10.30	0.00	0.00	0.00	0.00

```
* CALM HOURS (=1) FOR DAY  9 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0
* CALM HOURS (=1) FOR DAY 15 * 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 16 * 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 17 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 20 * 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 21 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 24 * 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 27 * 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
* CALM HOURS (=1) FOR DAY 28 * 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

```
**BEE-Line Software: Standard ISCST2 data input file
**                   Date:  8/28/93  Time: 15:31
NO ECHO


 BEE-Line BEEST Version 1.3

 Input File - ABI24G.DTA
Output File - ABI24G.LST
   Met File - D:\ABI\LANAS88.BIN


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

```
 *** ISCST2 - VERSION 93109 ***     *** Lead Emission Modeled as Gas
                                    *** Including Area Emission Source

 *** MODELING OPTIONS USED:  CONC   RURAL  FLAT          DFAULT

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

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

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

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

**This Run Includes:    3 Source(s);      4 Source Group(s); and      2 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

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

**Output Options Selected:
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE 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:  Anem. Hgt. (m) =    10.00 ;    Decay Coef. =   0.0000     ;    Rot. Angle =   180.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
```

Output Units = MICROGRAMS/M**3

**Input Runstream File: ABI24G.DTA ; **Output Print File: ABI24G.LST

*** ISCST2 - VERSION 93109 ***   *** Lead Emission Modeled as Gas
*** Including Area Emission Source

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	WIDTH OF AREA (METERS)	EMISSION RATE SCALAR VARY BY
BAGHOUSE	0	0.66250E-05	571076.0	4178092.0	0.0	10.00	20.00	HROFDY
CLEAN	0	0.62500E-04	571076.0	4178092.0	0.0	0.00	20.00	HROFDY
AREA	0	0.25000E-05	571075.0	4178025.0	0.0	0.00	100.00	HROFDY

```
*** ISCST2 - VERSION 93109 ***     *** Lead Emission Modeled as Gas
                                   *** Including Area Emission Source

*** MODELING OPTIONS USED:  CONC   RURAL  FLAT         DFAULT


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID                                                 SOURCE IDs


 ALL        BAGHOUSE, CLEAN   , AREA    ,

 BAGHOUSE   BAGHOUSE,

 CLEAN      CLEAN   ,

 AREA       AREA    ,
```

*** ISCST2 - VERSION 93109 ***   *** Lead Emission Modeled as Gas
*** Including Area Emission Source

*** MODELING OPTIONS USED: CONC   RURAL   FLAT   DFAULT

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

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HO
SOURCE ID = BAGHOUSE ;	SOURCE TYPE = AREA :									
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	1
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	1
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	2
SOURCE ID = CLEAN ;	SOURCE TYPE = AREA :									
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	
7	.00000E+00	8	.00000E+00	9	.00000E+00	10	.00000E+00	11	.00000E+00	1
13	.00000E+00	14	.00000E+00	15	.00000E+00	16	.00000E+00	17	.00000E+00	1
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.10000E+01	23	.10000E+01	2
SOURCE ID = AREA ;	SOURCE TYPE = AREA :									
1	.10000E+01	2	.10000E+01	3	.10000E+01	4	.10000E+01	5	.10000E+01	
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	1
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	1
19	.10000E+01	20	.10000E+01	21	.10000E+01	22	.10000E+01	23	.10000E+01	2

```
*** ISCST2 - VERSION 93109 ***    *** Lead Emission Modeled as Gas
                                  *** Including Area Emission Source

*** MODELING OPTIONS USED:  CONC   RURAL  FLAT         DFAULT

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

   ( 571125.0, 4178000.0,       0.0,       0.0);         ( 572000.0, 4178150.0,       0.0,       0.0);
```

*** ISCST2 - VERSION 93109 ***   *** Lead Emission Modeled as Gas
*** Including Area Emission Source

*** MODELING OPTIONS USED: CONC   RURAL   FLAT   DFAULT

*** 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
```

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

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

1.54,   3.09,   5.14,   8.23,   10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.7
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.7
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.1
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.1
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.3
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.5

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.0
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.0
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.0
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.0
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.2
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.3

*** ISCST2 - VERSION 93109 ***   *** Lead Emission Modeled as Gas
*** Including Area Emission Source

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

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

FILE: D:\ABI\LANAS88.BIN   FORMAT: UNFORM
SURFACE STATION NO.: 23239   UPPER AIR STATION NO.: 23239
NAME: UNKNOWN   NAME: UNKNOWN
YEAR: 1988   YEAR: 1988

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
88	1	1	1	296.0	1.00	278.7	7	4029.4	10551.0
88	1	1	2	336.0	1.54	278.2	7	4028.8	10551.0
88	1	1	3	347.0	1.00	277.6	7	4028.3	10551.0
88	1	1	4	3.0	1.00	277.6	7	4027.7	10551.0
88	1	1	5	207.0	1.00	277.6	6	4027.1	10551.0
88	1	1	6	285.0	1.54	278.2	6	4026.6	10551.0
88	1	1	7	4.0	2.57	278.2	5	4026.0	10551.0
88	1	1	8	359.0	1.00	279.3	4	311.6	10045.1
88	1	1	9	270.0	2.57	280.4	4	930.0	9041.3
88	1	1	10	324.0	2.57	280.4	4	1548.4	8037.4
88	1	1	11	317.0	1.00	282.0	3	2166.8	7033.6
88	1	1	12	322.0	1.00	282.6	3	2785.2	6029.7
88	1	1	13	258.0	2.06	283.2	4	3403.6	5025.9
88	1	1	14	358.0	4.12	282.6	4	4022.0	4022.0
88	1	1	15	27.0	2.57	280.9	4	4022.0	4022.0
88	1	1	16	97.0	2.06	281.5	4	4022.0	4022.0
88	1	1	17	263.0	2.57	281.5	5	4033.3	4094.4
88	1	1	18	213.0	1.54	281.5	6	4176.3	5010.2
88	1	1	19	268.0	1.03	281.5	6	4319.4	5926.0
88	1	1	20	2.0	1.00	280.9	6	4462.4	6841.8
88	1	1	21	309.0	1.00	280.4	6	4605.4	7757.6
88	1	1	22	355.0	1.54	279.8	6	4748.5	8673.4
88	1	1	23	360.0	1.00	280.4	6	4891.5	9589.2
88	1	1	24	36.0	1.00	280.4	6	5034.5	10505.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

APPENDIX C-2

Modeling Results

MODEL OUTPUT FILES FOR LOCATION OF THE MEI IN THE INDUSTRIAL AREA
SURROUNDING THE FACILITY

FILE NAMES: ABI25M85.LST, ABI25M86.LST, ABI25M87.LST, ABI25M88.LST, ABI25M89.LST

*** American Brass and Iron, LF 2421, MEI-1985 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 140.16000 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178350.0 /	2.56975	2.76581	3.00413	3.19823	3.30299	3.32441	3.46521	3.85008	4.33383
4178325.0 /	2.98715	3.13891	3.42861	3.72326	3.91677	3.97308	4.11279	4.60249	5.24414
4178300.0 /	3.61385	3.67451	3.93817	4.35244	4.68815	4.82902	4.96532	5.59657	6.47343
4178275.0 /	4.48500	4.51958	4.64442	5.10298	5.65651	5.96979	6.11869	6.94102	8.18290
4178250.0 /	5.50933	5.75812	5.80950	6.07922	6.85274	7.49239	7.72587	8.80479	10.64047
4178225.0 /	6.35445	7.20089	7.63593	7.71263	8.32245	9.49700	10.02109	11.44620	14.30137
4178200.0 /	6.76719	8.18350	9.68211	10.49154	10.61014	11.97868	13.28941	15.22209	19.92540
4178175.0 /	7.46169	8.69178	10.64003	13.22875	14.79220	15.03253	17.55083	20.40450	28.60335
4178150.0 /	9.21227	10.58405	12.00435	13.91674	17.27175	19.83425	20.92116	25.98944	41.19568
4178125.0 /	9.25399	11.58155	14.47771	17.47742	18.84827	17.03888	16.83580	21.71403	53.46961
4178100.0 /	6.67154	8.18653	10.13193	12.43600	14.33325	12.97757	6.74512	0.19879	55.50368
4178075.0 /	4.72769	5.57462	6.59925	7.77704	8.82913	8.17119	5.80036	7.08247	53.76751
4178050.0 /	3.78384	4.46284	5.16530	5.47952	5.18540	6.73650	9.36159	17.78806	48.10451
4178025.0 /	3.08430	3.24834	3.25522	3.63240	5.45571	8.07980	13.08950	21.07787	38.39014
4178000.0 /	2.11897	2.22775	2.77435	4.07901	5.81442	8.32571	13.71857	18.99237	28.46648
4177975.0 /	1.70042	2.19257	3.07323	4.17750	5.58119	8.30311	12.17702	15.70225	21.17159

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1985 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 140.16000 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178350.0 /	4.85129	5.29568	5.51664	5.42527	5.15187	5.05887	5.26991
4178325.0 /	5.91791	6.44054	6.59190	6.32261	6.06346	6.23423	6.64711
4178300.0 /	7.36683	7.95610	7.92462	7.49061	7.51781	8.05264	8.44067
4178275.0 /	9.38646	9.97673	9.59797	9.30868	9.95466	10.57136	10.47711
4178250.0 /	12.27482	12.65591	11.98121	12.60301	13.62602	13.51084	12.73855
4178225.0 /	16.48989	16.24395	16.42632	18.17628	18.07316	16.88305	15.66549
4178200.0 /	22.63757	22.25303	25.19730	25.29075	23.43297	21.49450	19.48742
4178175.0 /	31.63523	36.07838	37.29496	34.54002	31.10604	27.25560	23.52928
4178150.0 /	50.78948	57.61074	54.79563	47.62924	39.62507	32.77567	27.32604
4178125.0 /	88.64192	92.21445	76.81046	60.66663	47.78159	38.09617	30.87638
4178100.0 /	140.16000	117.87990	88.89310	66.42400	50.57093	39.46586	31.54558
4178075.0 /	63.02694	70.95744	65.72520	54.45053	43.77761	35.28024	28.79489
4178050.0 /	61.69746	46.77296	41.19522	37.14568	32.74214	28.36662	24.35950
4178025.0 /	56.28927	45.27492	32.81104	27.01062	23.84759	21.29734	19.03513
4178000.0 /	43.69491	41.07028	31.34197	23.36592	19.07189	16.69957	15.02852
4177975.0 /	31.68817	34.01173	28.83968	22.32877	17.25637	14.21798	12.42749

'N'-DAY

365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1986 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 116.07790 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178350.0 /	3.90076	4.10378	4.24498	4.29960	4.13755	3.71017	3.21989	2.98010	3.13860
4178325.0 /	4.45226	4.76364	5.00280	5.14235	5.06421	4.59638	3.94186	3.59256	3.81887
4178300.0 /	5.10483	5.53699	5.94207	6.21226	6.26925	5.81330	4.93993	4.41359	4.74960
4178275.0 /	5.91166	6.45670	7.07434	7.59282	7.84843	7.51377	6.36900	5.54559	6.06905
4178250.0 /	6.90608	7.60669	8.42762	9.33498	9.95734	9.91418	8.49691	7.15709	8.02252
4178225.0 /	7.96500	9.02541	10.12700	11.43364	12.77902	13.30753	11.79343	9.53158	11.07220
4178200.0 /	8.86644	10.43882	12.17914	14.02035	16.23628	18.09452	17.04157	13.14220	16.13301
4178175.0 /	8.89622	11.23482	13.91048	16.85937	20.10081	24.07808	25.21762	18.68181	24.95237
4178150.0 /	7.68400	10.01226	13.36370	17.84284	22.72838	28.17581	35.10452	26.49197	39.14718
4178125.0 /	6.02727	7.73930	10.15003	13.48943	17.72155	21.43847	26.71053	27.10575	49.68289
4178100.0 /	4.37898	5.37929	6.66935	8.21323	9.53920	8.83258	4.64745	0.04525	39.97379
4178075.0 /	3.56080	4.24085	5.03583	5.83230	6.25081	5.62929	4.16309	5.53434	47.66805
4178050.0 /	2.61684	2.87368	3.06516	3.20408	3.67132	5.53403	10.41502	15.83403	43.45555
4178025.0 /	1.71035	1.83138	2.12177	2.87883	4.78545	9.17516	15.87531	19.34670	35.66353
4178000.0 /	1.31456	1.64005	2.29784	3.67945	6.44885	10.72265	15.96725	17.23219	26.61859
4177975.0 /	1.33727	1.85218	2.81187	4.53114	7.09038	10.69565	13.62972	14.07862	19.67273

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1986 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 116.07790 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178350.0 /	3.66407	4.34552	4.78516	4.85863	4.83318	4.97199	5.23589
4178325.0 /	4.56366	5.42659	5.82758	5.81880	5.90115	6.22220	6.54699
4178300.0 /	5.83367	6.88679	7.16196	7.16169	7.51399	7.98796	8.21120
4178275.0 /	7.68512	8.86386	8.95773	9.25501	9.94966	10.33364	10.13443
4178250.0 /	10.46166	11.54951	11.70801	12.68631	13.39214	13.10758	12.13733
4178225.0 /	14.67820	15.40110	16.58679	17.97762	17.58644	15.99200	14.21489
4178200.0 /	20.95535	22.22244	25.10984	24.68335	21.94365	19.12710	16.80076
4178175.0 /	30.46403	36.25172	36.49197	31.71185	27.15438	23.33981	20.00210
4178150.0 /	50.95904	56.34022	49.08541	41.23468	33.79990	27.42426	22.31942
4178125.0 /	84.57404	81.31920	64.66238	48.73038	36.93794	28.64744	22.77652
4178100.0 /	116.07790	94.62084	68.86697	50.34855	37.81593	29.24767	23.23060
4178075.0 /	67.72227	71.17025	59.16589	46.08684	35.82764	28.27878	22.74761
4178050.0 /	55.85308	51.70808	45.16785	37.89800	30.93108	25.20836	20.75594
4178025.0 /	47.47165	43.16759	36.58008	30.63815	25.94085	21.97755	18.58285
4178000.0 /	37.34982	35.31860	30.70487	25.98921	21.94035	18.76820	16.26374
4177975.0 /	28.00705	28.51694	25.50333	22.22071	19.10108	16.41174	14.23056

365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1987 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 122.52010 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178350.0 /	3.57075	3.45635	3.33349	3.28737	3.33577	3.48243	3.65551	3.76519	3.92295
4178325.0 /	4.30466	4.24655	4.08173	3.95963	3.97019	4.12350	4.35717	4.51174	4.72473
4178300.0 /	5.10037	5.25816	5.13007	4.91001	4.83344	4.96986	5.27962	5.50646	5.80270
4178275.0 /	5.78034	6.40640	6.55983	6.31225	6.06637	6.12952	6.52010	6.86750	7.29384
4178250.0 /	6.20649	7.38354	8.28524	8.37994	7.95070	7.79752	8.23212	8.78516	9.42250
4178225.0 /	6.52754	7.93392	9.74081	11.08900	10.97877	10.36666	10.67256	11.56781	12.55883
4178200.0 /	7.00153	8.38728	10.42035	13.31953	15.40083	14.73369	14.31417	15.69129	17.28193
4178175.0 /	7.60773	9.10556	11.08678	13.99527	18.74156	21.95244	20.16968	21.69732	24.29359
4178150.0 /	8.10448	9.90259	12.13346	14.90930	18.58444	25.47673	29.87960	28.91797	34.00987
4178125.0 /	7.72280	9.63550	12.20577	15.50645	18.96986	20.58714	23.57724	24.61920	43.95213
4178100.0 /	6.44499	7.89374	9.75273	11.95257	13.77528	12.63441	6.99681	0.09592	40.58276
4178075.0 /	4.50985	5.19069	5.91192	6.54673	6.83539	6.07989	3.95813	6.25156	36.64957
4178050.0 /	3.07602	3.50398	4.03605	4.52969	4.66406	5.83451	8.96113	20.27133	38.20550
4178025.0 /	2.46767	2.76085	2.98983	3.44603	5.02372	8.07582	14.36705	23.85321	34.49267
4178000.0 /	1.93818	2.13369	2.65250	3.83030	5.84590	8.76976	16.38902	20.93045	27.39787
4177975.0 /	1.64469	2.09225	2.90837	4.18767	5.85561	9.23800	15.01729	17.01303	21.13217

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1987 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 122.52010 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178350.0 /	4.10480	4.13921	4.11049	4.16872	4.26194	4.30650	4.27335
4178325.0 /	4.94772	4.95792	4.95748	5.07401	5.16981	5.16097	5.04995
4178300.0 /	6.07074	6.05385	6.13387	6.30434	6.35284	6.23493	6.01239
4178275.0 /	7.60184	7.59124	7.81820	7.98958	7.89316	7.60186	7.21270
4178250.0 /	9.74958	9.88264	10.27886	10.29418	9.92080	9.35754	8.70405
4178225.0 /	12.90234	13.49489	13.88631	13.46318	12.62393	11.60369	10.57133
4178200.0 /	17.94981	19.33421	19.14642	17.89602	16.22287	14.56621	13.14907
4178175.0 /	26.98660	28.57067	26.98461	24.18351	21.43947	19.05124	16.90843
4178150.0 /	42.91859	43.57724	39.64001	34.76967	29.83503	25.32867	21.46339
4178125.0 /	73.66467	75.47153	63.25717	49.78050	38.86882	30.71864	24.71534
4178100.0 /	122.52010	101.26960	74.14462	54.38070	40.93082	31.70769	25.21837
4178075.0 /	53.72182	62.03303	56.35439	46.03024	36.68616	29.37380	23.84342
4178050.0 /	39.43406	38.75622	36.53413	33.17393	28.77664	24.48196	20.73849
4178025.0 /	32.11950	29.39038	26.53184	23.45129	21.34232	19.16726	16.98614
4178000.0 /	28.29369	21.91950	20.76544	18.58292	16.24799	14.74771	13.52324
4177975.0 /	22.98052	18.88691	15.65101	15.02418	13.56175	11.94633	10.82462

'N'-DAY
366 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1988 ***

* 366-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 116.55110 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178350.0 /	2.81181	2.94601	3.02525	3.07227	3.19797	3.43034	3.77322	4.32560	4.79512
4178325.0 /	3.24363	3.40452	3.56758	3.64616	3.76360	4.03389	4.45037	5.14703	5.73596
4178300.0 /	3.85244	3.97868	4.21532	4.39841	4.51667	4.81749	5.33160	6.22228	6.97022
4178275.0 /	4.71175	4.80401	5.01212	5.35211	5.55262	5.86305	6.50537	7.65884	8.61759
4178250.0 /	5.77766	6.02524	6.16409	6.52523	6.98135	7.31271	8.10830	9.61743	10.84824
4178225.0 /	6.90182	7.55573	7.96569	8.18443	8.83107	9.41532	10.35159	12.33077	13.88979
4178200.0 /	8.17811	9.16496	10.22487	10.93112	11.29358	12.41989	13.55000	16.09288	18.02279
4178175.0 /	9.50230	11.02895	12.61970	14.27908	15.45839	16.09285	18.04970	21.08271	23.78036
4178150.0 /	10.00661	12.31562	14.98655	17.70249	19.89001	21.05864	22.36584	26.44446	33.39810
4178125.0 /	8.63321	10.95543	14.13517	18.20708	22.05170	21.98226	18.63179	20.66119	40.78796
4178100.0 /	6.84374	8.38645	10.36071	12.68407	14.55788	13.03826	5.83153	0.02934	35.30272
4178075.0 /	5.62085	6.72062	8.07316	9.62050	10.94767	10.19167	5.08326	6.56696	36.41983
4178050.0 /	4.85656	5.79305	6.92733	7.96998	8.15061	8.52486	10.65403	19.41637	36.52332
4178025.0 /	4.31334	4.91088	5.36959	5.99718	7.35055	9.09420	17.49811	23.39333	32.65369
4178000.0 /	3.50310	3.84077	4.52972	5.54038	6.61993	11.58417	17.21456	20.54090	25.85190
4177975.0 /	2.93764	3.49840	4.16756	4.84144	7.19474	11.80752	15.14211	16.58692	19.73453

'N'-DAY
366 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1988 ***

* 366-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 116.55110 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178350.0 /	4.48715	3.91576	3.92283	4.32079	4.64489	4.79266	4.80604
4178325.0 /	5.23503	4.63699	4.90000	5.42143	5.71246	5.78225	5.71902
4178300.0 /	6.18397	5.70042	6.31615	6.88178	7.07753	7.02895	6.92103
4178275.0 /	7.44449	7.36765	8.33986	8.82295	8.84109	8.70655	8.64026
4178250.0 /	9.27039	10.05538	11.18657	11.42100	11.27596	11.21399	11.12905
4178225.0 /	12.29072	14.28769	15.18117	15.12036	15.12571	14.97414	14.22538
4178200.0 /	17.88760	20.64109	21.08077	21.41615	21.10436	19.50649	17.41271
4178175.0 /	27.73979	30.32416	32.15921	31.43745	27.96985	24.08036	20.56506
4178150.0 /	42.18055	51.05817	49.75069	42.34483	34.78019	28.48720	23.53325
4178125.0 /	79.99029	83.47539	68.03896	52.65094	40.83843	32.21894	25.92675
4178100.0 /	116.55110	100.99160	76.05631	56.64564	43.00924	33.49065	26.71888
4178075.0 /	51.39657	59.11449	55.15456	46.29119	37.58951	30.46192	24.92048
4178050.0 /	41.12891	38.77969	35.05322	31.22796	27.40965	23.77272	20.50827
4178025.0 /	35.65757	30.90598	27.02106	23.32327	20.26360	17.90007	15.92048
4178000.0 /	28.86453	25.65617	21.78079	18.99706	16.53855	14.39162	12.74111
4177975.0 /	22.79050	21.02576	18.23280	15.70170	13.86291	12.27287	10.82117

*** American Brass and Iron, LF 2421, MEI-1989 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 100.16460 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178350.0 /	3.37429	3.48512	3.61268	3.80337	4.05714	4.46687	4.89447	4.95695	4.94918
4178325.0 /	3.93042	4.08475	4.23488	4.44143	4.73743	5.20159	5.79584	5.93112	5.94307
4178300.0 /	4.62445	4.83790	5.04806	5.27383	5.62205	6.14633	6.95372	7.22237	7.27633
4178275.0 /	5.46667	5.79753	6.10046	6.39789	6.78922	7.40336	8.46182	8.97520	9.11967
4178250.0 /	6.37775	6.98775	7.47112	7.91595	8.38094	9.12526	10.45606	11.41440	11.76008
4178225.0 /	7.21441	8.25441	9.20872	9.93769	10.62004	11.50578	13.14888	14.88085	15.69655
4178200.0 /	8.13952	9.38936	10.98472	12.53045	13.65338	14.81407	16.87458	19.82523	21.79505
4178175.0 /	9.47325	10.88409	12.61126	14.92494	17.37367	19.08490	21.76769	26.48643	31.33288
4178150.0 /	10.67235	12.77187	15.09315	17.45474	19.91680	22.53145	25.51970	33.17177	44.43628
4178125.0 /	10.25646	12.76106	16.03181	19.92418	23.04290	21.75449	18.10175	25.13335	53.09893
4178100.0 /	9.01484	11.02750	13.59424	16.59834	18.99283	17.04253	8.73154	0.12934	35.59982
4178075.0 /	8.50535	10.25979	12.35058	14.46661	15.50148	13.10425	6.47673	6.87177	44.38228
4178050.0 /	7.23929	8.30027	9.42461	10.38312	10.63585	10.81454	14.30375	22.39188	47.49587
4178025.0 /	5.75986	6.40586	7.01248	7.80516	9.35301	13.26670	22.15171	30.45342	44.24377
4178000.0 /	4.57338	5.04084	5.81156	7.08044	9.62518	15.58006	22.76670	28.54271	36.59429
4177975.0 /	3.83114	4.44129	5.34179	6.93563	10.36136	15.26281	20.18484	23.97841	29.11583

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, MEI-1989 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 100.16460 AND OCCURRED AT (571125.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178350.0 /	5.39263	6.14421	6.81086	7.01962	6.62704	6.10036	5.81596
4178325.0 /	6.60218	7.60303	8.32964	8.22395	7.53868	7.05898	6.90503
4178300.0 /	8.27925	9.60737	10.22034	9.57285	8.77837	8.49995	8.36120
4178275.0 /	10.68248	12.38551	12.44284	11.26256	10.72120	10.54151	10.06203
4178250.0 /	14.24788	16.13319	15.02097	13.93219	13.69009	12.99793	11.85801
4178225.0 /	19.68901	20.74650	18.78504	18.42443	17.40645	15.62704	13.90595
4178200.0 /	27.84012	26.46174	25.82655	24.36372	21.48098	18.81534	16.55813
4178175.0 /	38.10391	37.52751	35.89675	31.20321	26.85892	23.00719	19.59589
4178150.0 /	53.56511	55.37197	48.78858	40.83711	33.16578	26.76777	21.76631
4178125.0 /	85.13448	81.71737	63.70930	47.69480	36.12709	28.01982	22.26590
4178100.0 /	100.16460	83.54180	61.98556	45.84600	34.68365	26.95312	21.47813
4178075.0 /	55.94101	57.26654	49.30323	39.66189	31.44025	25.10121	20.33559
4178050.0 /	50.58566	45.12883	39.27895	32.53432	26.56244	21.87653	18.23042
4178025.0 /	48.41840	38.67613	32.05341	27.09432	22.92018	19.23551	16.17535
4178000.0 /	40.53697	34.31435	27.38526	22.79862	19.39437	16.72682	14.46574
4177975.0 /	31.39983	29.84925	24.00177	19.76980	16.77205	14.47861	12.67878

MODEL OUTPUT FILE TO DETERMINE RESIDENTIAL AREA

FILENAME:ABIRESID.LST

4/18/90
5/21/90

*** American Brass and Iron, LF 2421, Location of Residential ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 66.42400 AND OCCURRED AT (571200.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570500.0	570600.0	570700.0	570800.0	570900.0	571000.0	571100.0	571200.0	571300.0
4179000.0 /	0.29614	0.33139	0.35652	0.36033	0.34477	0.36337	0.41745	0.49064	0.57172
4178900.0 /	0.33603	0.37857	0.42169	0.44142	0.42704	0.44274	0.51555	0.61572	0.71877
4178800.0 /	0.40849	0.43645	0.50118	0.54808	0.54537	0.55453	0.65604	0.79876	0.92766
4178700.0 /	0.53856	0.53603	0.59816	0.68979	0.72067	0.72054	0.86824	1.08168	1.23244
4178600.0 /	0.72292	0.73757	0.74716	0.87834	0.98686	0.98581	1.21226	1.54979	1.67837
4178500.0 /	0.89700	1.04620	1.08721	1.14491	1.40115	1.45659	1.82801	2.39195	2.31913
4178400.0 /	0.97826	1.28965	1.66342	1.79646	2.05577	2.42016	3.10536	4.04758	3.74504
4178300.0 /	1.22344	1.48887	2.01368	3.04167	3.61385	4.68815	6.47343	7.49061	8.36849
4178200.0 /	1.46257	2.03220	2.89007	4.09424	6.76719	10.61014	19.92540	25.29075	17.45494
4178100.0 /	0.97468	1.35126	2.01674	3.36404	6.67154	14.33325	55.50368	66.42400	25.75846
4178000.0 /	0.63133	0.82142	1.14424	1.71125	2.11897	5.81442	28.46648	23.36592	13.62639
4177900.0 /	0.51534	0.62059	0.66749	0.82336	1.88343	4.81023	10.12991	16.35243	8.43927
4177800.0 /	0.33629	0.35232	0.50793	0.91624	1.57236	3.25337	5.02168	8.83337	7.10676
4177700.0 /	0.24224	0.35484	0.55180	0.80258	1.36351	2.17396	3.00996	4.83110	5.24537
4177600.0 /	0.26518	0.37508	0.49939	0.71384	1.15532	1.55613	2.02067	2.92600	3.73773
4177500.0 /	0.27528	0.34643	0.44883	0.65165	0.94864	1.17767	1.46071	1.95137	2.63969

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, Location of Residential ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 66.42400 AND OCCURRED AT (571200.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571400.0	571500.0	571600.0	571700.0	571800.0	571900.0	572000.0	572100.0	572200.0
4179000.0 /	0.62616	0.62832	0.58032	0.56063	0.59382	0.63879	0.65199	0.62837	0.59480
4178900.0 /	0.76878	0.73256	0.68130	0.70963	0.77083	0.79003	0.75720	0.71381	0.68166
4178800.0 /	0.94970	0.86679	0.87090	0.95518	0.98478	0.93695	0.87873	0.83578	0.79914
4178700.0 /	1.17339	1.11156	1.22495	1.27404	1.20000	1.11769	1.05511	0.99781	0.94160
4178600.0 /	1.51494	1.64483	1.73427	1.61005	1.48434	1.38257	1.28540	1.18889	1.09154
4178500.0 /	2.35693	2.54062	2.30770	2.09095	1.90127	1.71577	1.53300	1.36093	1.20858
4178400.0 /	4.17299	3.65782	3.20202	2.77527	2.37033	2.01677	1.72952	1.50186	1.32022
4178300.0 /	6.86263	5.51237	4.31507	3.40789	2.76076	2.29072	1.93776	1.66510	1.44968
4178200.0 /	10.96058	7.37562	5.31600	4.02815	3.17044	2.57064	2.13448	1.80699	1.55445
4178100.0 /	13.45720	8.34377	5.73871	4.22675	3.26725	2.61759	2.15560	1.81416	1.55393
4178000.0 /	9.46781	6.72211	4.92805	3.75652	2.96575	2.41028	2.00556	1.70123	1.46623
4177900.0 /	5.40082	4.26980	3.49827	2.92675	2.47135	2.09976	1.79823	1.55468	1.35756
4177800.0 /	4.34538	3.01979	2.47181	2.13319	1.86488	1.65233	1.47880	1.32955	1.19779
4177700.0 /	3.93359	2.68572	1.98528	1.64742	1.45446	1.30914	1.18425	1.07969	0.99314
4177600.0 /	3.27478	2.51855	1.84751	1.42870	1.20135	1.06721	0.97652	0.90077	0.83202
4177500.0 /	2.64125	2.23192	1.76786	1.36251	1.08966	0.92857	0.82762	0.76093	0.71095

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, Location of Residential ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 66.42400 AND OCCURRED AT (571200.0, 4178100.0) *

X-AXIS (METERS)

Y-AXIS / (METERS) /	572300.0	572400.0
4179000.0 /	0.56915	0.55065
4178900.0 /	0.65654	0.63251
4178800.0 /	0.76335	0.72809
4178700.0 /	0.88534	0.82769
4178600.0 /	0.99558	0.90542
4178500.0 /	1.07917	0.97096
4178400.0 /	1.17275	1.05087
4178300.0 /	1.27635	1.13471
4178200.0 /	1.35529	1.19519
4178100.0 /	1.35048	1.18802
4178000.0 /	1.28061	1.13116
4177900.0 /	1.19689	1.06470
4177800.0 /	1.08117	0.97853
4177700.0 /	0.91906	0.85286
4177600.0 /	0.77178	0.72082
4177500.0 /	0.66631	0.62412

MODEL OUTPUT FILES FOR THE LOCATION OF THE MEI IN A RESIDENTIAL LOCATION

OUTPUT FILES FOR THE YEARS 1985, 1986, 9187, 1988, AND 1989

FILE NAMES: ABIRES85.LST, ABIRES86.LST, ABIRES87.LST, ABIRES88.LST, ABIRES89.LST

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, Residential Exposure 1985 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3.28962 AND OCCURRED AT (571800.0, 4178150.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	2.76076	2.50802	2.29072	2.10233	1.93776	1.79307
4178250.0 /	2.97218	2.68533	2.44016	2.22894	2.04562	1.88547
4178200.0 /	3.17044	2.84542	2.57064	2.33619	2.13448	1.95962
4178150.0 /	3.28962	2.93614	2.64039	2.39025	2.17665	1.99269
4178100.0 /	3.26725	2.91311	2.61759	2.36819	2.15560	1.97272
4178050.0 /	3.13577	2.80425	2.52623	2.29060	2.08898	1.91500
4178000.0 /	2.96575	2.66493	2.41028	2.19281	2.00556	1.84313
4177950.0 /	2.75538	2.49847	2.27576	2.08206	1.91290	1.76451
4177900.0 /	2.47135	2.27605	2.09976	1.94099	1.79823	1.66995
4177850.0 /	2.14796	2.00720	1.87843	1.75962	1.64964	1.54781
4177800.0 /	1.86488	1.75253	1.65233	1.56181	1.47880	1.40172

2.18
1.71
1.71
1.77
2.1 1.44
Y = 1.722

'N'-DAY

572100
2.312

*** American Brass and Iron, LF 2421, Residential Exposure 1986 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2.36132 AND OCCURRED AT (571800.0, 4178050.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	2.23965	2.01111	1.81407	1.64379	1.49617	1.36779
4178250.0 /	2.27913	2.02877	1.81889	1.64159	1.49064	1.36115
4178200.0 /	2.27054	2.02082	1.81330	1.63882	1.49057	1.36343
4178150.0 /	2.29152	2.04318	1.83608	1.66137	1.51249	1.38446
4178100.0 /	2.34294	2.08783	1.87515	1.69580	1.54302	1.41168
4178050.0 /	2.36132	2.10598	1.89264	1.71242	1.55869	1.42639
4178000.0 /	2.30714	2.06661	1.86401	1.69167	1.54377	1.41583
4177950.0 /	2.20131	1.98172	1.79559	1.63630	1.49879	1.37919
4177900.0 /	2.08647	1.88506	1.71367	1.56652	1.43914	1.32804
4177850.0 /	1.97628	1.79214	1.63398	1.49739	1.37867	1.27482
4177800.0 /	1.86256	1.70003	1.55690	1.43128	1.32100	1.22393

*** American Brass and Iron, LF 2421, Residential Exposure 1987 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2.59138 AND OCCURRED AT (571800.0, 4178150.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	2.14989	1.98334	1.83349	1.69855	1.57698	1.46736
4178250.0 /	2.39561	2.17486	1.98274	1.81498	1.66795	1.53856
4178200.0 /	2.54528	2.28359	2.06217	1.87323	1.71073	1.56996
4178150.0 /	2.59138	2.31336	2.08093	1.88448	1.71679	1.57240
4178100.0 /	2.58185	2.30304	2.07037	1.87401	1.70660	1.56257
4178050.0 /	2.54718	2.27515	2.04748	1.85487	1.69033	1.54856
4178000.0 /	2.46163	2.20925	1.99591	1.81393	1.65741	1.52175
4177950.0 /	2.31987	2.09743	1.90656	1.74174	1.59851	1.47330
4177900.0 /	2.14177	1.95590	1.79233	1.64822	1.52098	1.40831
4177850.0 /	1.93600	1.78982	1.65775	1.53836	1.43039	1.33276
4177800.0 /	1.72664	1.61342	1.50936	1.41390	1.32624	1.24556

366 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, Residential Exposure 1988 ***

* 366-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2.70945 AND OCCURRED AT (571800.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	2.33402	2.11365	1.92414	1.75993	1.61669	1.49101
4178250.0 /	2.47861	2.23004	2.01862	1.83735	1.68079	1.54464
4178200.0 /	2.59772	2.32490	2.09533	1.90024	1.73298	1.58842
4178150.0 /	2.68051	2.39034	2.14781	1.94285	1.76795	1.61739
4178100.0 /	2.70945	2.41285	2.16554	1.95700	1.77935	1.62665
4178050.0 /	2.66949	2.38220	2.14162	1.93800	1.76406	1.61418
4178000.0 /	2.53276	2.27710	2.05961	1.87316	1.71215	1.57217
4177950.0 /	2.30031	2.09314	1.91255	1.75448	1.61554	1.49287
4177900.0 /	2.02506	1.86682	1.72545	1.59890	1.48539	1.38338
4177850.0 /	1.76082	1.63981	1.53088	1.43213	1.34219	1.26006
4177800.0 /	1.54125	1.44217	1.35394	1.27459	1.20255	1.13662

*** American Brass and Iron, LF 2421, Residential Exposure 1989 ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2.24317 AND OCCURRED AT (571800.0, 4178200.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	2.16296	1.94576	1.75933	1.59855	1.45921	1.33784
4178250.0 /	2.22843	1.98988	1.78898	1.61836	1.47229	1.34630
4178200.0 /	2.24317	1.99627	1.79024	1.61647	1.46847	1.34132
4178150.0 /	2.21692	1.97143	1.76710	1.59507	1.44874	1.32315
4178100.0 /	2.16778	1.92975	1.73135	1.56408	1.42164	1.29924
4178050.0 /	2.12943	1.89791	1.70447	1.54107	1.40170	1.28177
4178000.0 /	2.07793	1.85910	1.67462	1.51766	1.38300	1.26658
4177950.0 /	1.97276	1.77825	1.61202	1.46884	1.34462	1.23619
4177900.0 /	1.83973	1.66806	1.52107	1.39385	1.28277	1.18509
4177850.0 /	1.72496	1.56485	1.42934	1.31317	1.21234	1.12390
4177800.0 /	1.63968	1.48726	1.35686	1.24531	1.14937	1.06610

MODEL OUTPUT FILE FOR DETERMINATION OF RISK ISOPLETHS

FILENAME: S1-2ISO.LST

365 DAYS

'N'-DAY
'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, RISK AND CONC. ISOPLETHS ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 19.25035 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 566000.0	566500.0	567000.0	567500.0	568000.0	568500.0	569000.0	569500.0	570000.0
4183500.0 /	0.03941	0.03459	0.03663	0.04085	0.03758	0.04518	0.05237	0.05400	0.06187
4183000.0 /	0.04455	0.04522	0.04032	0.04467	0.04621	0.04594	0.05811	0.06066	0.06882
4182500.0 /	0.04822	0.05221	0.05280	0.04832	0.05477	0.05280	0.06165	0.06995	0.07717
4182000.0 /	0.06254	0.05892	0.06253	0.06301	0.05993	0.06675	0.06558	0.08153	0.08785
4181500.0 /	0.06728	0.07616	0.07399	0.07702	0.07742	0.07727	0.08110	0.09189	0.10339
4181000.0 /	0.06869	0.07675	0.09237	0.09580	0.09845	0.09895	0.10351	0.10513	0.12785
4180500.0 /	0.08142	0.08917	0.09394	0.11217	0.12811	0.13237	0.13376	0.14291	0.15976
4180000.0 /	0.08549	0.09471	0.11296	0.12718	0.14249	0.17708	0.19154	0.19695	0.20952
4179500.0 /	0.11998	0.13027	0.13586	0.14637	0.17496	0.20642	0.25674	0.31128	0.33398
4179000.0 /	0.10698	0.12740	0.15614	0.19373	0.23462	0.27223	0.33307	0.43469	0.62436
4178500.0 /	0.09281	0.11138	0.13579	0.16894	0.21632	0.28955	0.41572	0.65123	1.05823
4178000.0 /	0.07141	0.08493	0.10291	0.12769	0.16346	0.21844	0.31069	0.48766	0.91236
4177500.0 /	0.07643	0.08813	0.10377	0.12528	0.15498	0.19402	0.24240	0.32300	0.44441
4177000.0 /	0.06996	0.07902	0.08715	0.09532	0.11064	0.13811	0.15721	0.19750	0.31002
4176500.0 /	0.05229	0.05764	0.06902	0.08124	0.08475	0.09424	0.12076	0.16571	0.31264
4176000.0 /	0.04969	0.05511	0.05451	0.05693	0.06798	0.08381	0.10612	0.16628	0.30321
4175500.0 /	0.03865	0.03862	0.04495	0.05171	0.06285	0.07518	0.10422	0.16870	0.25103
4175000.0 /	0.03189	0.03700	0.04078	0.04961	0.05679	0.07178	0.10871	0.16805	0.21693
4174500.0 /	0.03045	0.03339	0.04057	0.04484	0.05280	0.07808	0.10902	0.14698	0.19853
4174000.0 /	0.02827	0.03402	0.03658	0.04078	0.05879	0.07592	0.11111	0.12599	0.17472
4173500.0 /	0.02908	0.03058	0.03271	0.04542	0.05846	0.07824	0.10071	0.11901	0.14764
4173000.0 /	0.02607	0.02702	0.03584	0.04747	0.05669	0.08093	0.08593	0.11688	0.12367
4172500.0 /	0.02286	0.02886	0.03923	0.04475	0.06001	0.07530	0.07819	0.11125	0.10523
4172000.0 /	0.02372	0.03260	0.03773	0.04466	0.06265	0.06483	0.07772	0.10120	0.09187

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, RISK AND CONC. ISOPLETHS ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 19.25035 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570500.0	571000.0	571500.0	572000.0	572500.0	573000.0	573500.0	574000.0	574500.0
4183500.0 /	0.07044	0.06583	0.06141	0.06899	0.09006	0.09678	0.10045	0.08336	0.06409
4183000.0 /	0.07977	0.07553	0.07121	0.08301	0.10748	0.11208	0.11023	0.08051	0.07483
4182500.0 /	0.09163	0.08813	0.08415	0.10315	0.12723	0.13377	0.11061	0.08800	0.08650
4182000.0 /	0.10697	0.10505	0.10195	0.13207	0.15302	0.15352	0.11145	0.10505	0.10124
4181500.0 /	0.12721	0.12871	0.12780	0.17243	0.19264	0.15897	0.13082	0.12596	0.13464
4181000.0 /	0.15441	0.16363	0.16829	0.22834	0.23845	0.17281	0.16290	0.17188	0.15103
4180500.0 /	0.19270	0.21907	0.23840	0.31749	0.26265	0.22239	0.23095	0.19848	0.17670
4180000.0 /	0.25635	0.31687	0.37543	0.45737	0.33062	0.33504	0.28025	0.24482	0.21693
4179500.0 /	0.38950	0.52021	0.68295	0.58905	0.55138	0.44135	0.36825	0.33309	0.30088
4179000.0 /	0.73357	1.08601	1.54852	1.15896	0.83359	0.66436	0.53680	0.43253	0.35731
4178500.0 /	2.05153	4.04958	4.76423	2.40050	1.37317	0.87588	0.61399	0.46262	0.36702
4178000.0 /	2.47792	19.25035	9.86337	2.76600	1.35247	0.83294	0.57950	0.43437	0.34228
4177500.0 /	0.88136	3.90363	3.69690	1.74181	1.03297	0.67866	0.50384	0.39441	0.32083
4177000.0 /	0.83095	1.47216	1.78600	1.11942	0.76992	0.56268	0.42988	0.32584	0.26751
4176500.0 /	0.60323	0.80909	0.91715	0.84595	0.58082	0.45416	0.36427	0.29845	0.25027
4176000.0 /	0.46197	0.52497	0.58005	0.62046	0.47628	0.37115	0.30769	0.26740	0.21864
4175500.0 /	0.34382	0.37393	0.41229	0.42734	0.40174	0.31117	0.26482	0.22654	0.20672
4175000.0 /	0.26069	0.28269	0.31535	0.31396	0.33495	0.27857	0.22266	0.20224	0.17629
4174500.0 /	0.20751	0.22270	0.25275	0.24536	0.26151	0.24422	0.20856	0.17029	0.16171
4174000.0 /	0.17228	0.18083	0.20893	0.19701	0.20360	0.21721	0.18580	0.16144	0.13681
4173500.0 /	0.14708	0.15025	0.17646	0.16164	0.16743	0.18265	0.16811	0.15075	0.12808
4173000.0 /	0.12777	0.12715	0.15143	0.13602	0.14320	0.14799	0.15561	0.13426	0.12525
4172500.0 /	0.11222	0.10920	0.13159	0.11751	0.12379	0.12282	0.13751	0.12471	0.11389
4172000.0 /	0.09933	0.09494	0.11551	0.10390	0.10697	0.10687	0.11564	0.11863	0.10249

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, RISK AND CONC. ISOPLETHS ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 19.25035 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 575000.0	575500.0	576000.0	576500.0	577000.0	577500.0
4183500.0 /	0.06541	0.06144	0.06121	0.06761	0.06453	0.05438
4183000.0 /	0.07239	0.07097	0.07792	0.07339	0.06174	0.05718
4182500.0 /	0.08380	0.09136	0.08479	0.07156	0.06805	0.06833
4182000.0 /	0.10941	0.09988	0.08517	0.08246	0.08019	0.07337
4181500.0 /	0.12071	0.10462	0.10131	0.09433	0.08602	0.08406
4181000.0 /	0.13332	0.12579	0.11368	0.10815	0.11020	0.11155
4180500.0 /	0.15958	0.14696	0.14627	0.14474	0.13655	0.12549
4180000.0 /	0.20836	0.19920	0.18176	0.16418	0.15099	0.14128
4179500.0 /	0.26231	0.23146	0.20806	0.18776	0.16874	0.15111
4179000.0 /	0.29845	0.25160	0.21505	0.18691	0.16515	0.14805
4178500.0 /	0.30197	0.25511	0.21986	0.19245	0.17058	0.15277
4178000.0 /	0.27954	0.23451	0.20088	0.17495	0.15444	0.13788
4177500.0 /	0.26853	0.22936	0.19886	0.17447	0.15457	0.13810
4177000.0 /	0.22907	0.19816	0.17312	0.15345	0.13808	0.12581
4176500.0 /	0.20198	0.17043	0.15224	0.13861	0.12590	0.11392
4176000.0 /	0.19291	0.16981	0.14239	0.12126	0.10905	0.10190
4175500.0 /	0.17585	0.15000	0.13867	0.12573	0.10833	0.09294
4175000.0 /	0.16459	0.14865	0.12470	0.11186	0.10648	0.09848
4174500.0 /	0.14271	0.13424	0.12769	0.10975	0.09427	0.08818
4174000.0 /	0.13365	0.11896	0.11185	0.11024	0.09907	0.08401
4173500.0 /	0.11396	0.11322	0.10143	0.09500	0.09556	0.08993
4173000.0 /	0.10429	0.09751	0.09779	0.08805	0.08207	0.08331
4172500.0 /	0.10457	0.08719	0.08514	0.08579	0.07757	0.07195
4172000.0 /	0.09940	0.08769	0.07471	0.07553	0.07621	0.06915

MODEL OUTPUT FILES FOR DETERMINATION OF ACUTE EXPOSURES

FILE NAMES: AB125A85.LST, AB125A86.LST, AB125A87.LST, AB125A88.LST, AB125A89.LST

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2984.96900 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178350.0 /	468.42580 (42, 7)	532.28170 (364, 1)	792.40440 (364, 1)	912.41470 (364, 1)	764.07070 (364, 1)
4178325.0 /	493.08560 (28, 8)	557.37390 (42, 7)	714.23440 (364, 1)	977.93960 (364, 1)	941.79430 (364, 1)
4178300.0 /	576.03980 (319,19)	591.42030 (42, 7)	639.48880 (42, 7)	961.97260 (364, 1)	1125.05800 (364, 1)
4178275.0 /	653.39430 (288, 4)	713.21640 (319,19)	775.95720 (42, 7)	864.95980 (26,21)	1256.50700 (364, 1)
4178250.0 /	707.71810 (10,21)	819.75610 (288, 4)	898.33770 (28, 8)	1004.93400 (42, 7)	1223.54000 (364, 1)
4178225.0 /	779.48020 (37, 7)	891.98250 (10,21)	1051.17300 (288, 4)	1160.19700 (28, 8)	1197.06700 (42, 7)
4178200.0 /	816.36880 (27, 5)	988.58450 (287, 4)	1151.72000 (288, 5)	1365.34500 (288, 4)	1461.40600 (28, 8)
4178175.0 /	917.06460 (318, 4)	1081.60800 (47, 2)	1164.55800 (27, 5)	1467.56100 (37, 7)	1717.17900 (288, 4)
4178150.0 /	972.73020 (72, 6)	1112.71000 (25, 1)	1369.27300 (29,23)	1616.79900 (102, 6)	1727.76200 (287, 4)
4178125.0 /	1013.55700 (348,19)	1214.63600 (36,21)	1439.45500 (33,23)	1698.19700 (12, 4)	1770.51300 (25, 1)
4178100.0 /	1035.79700 (343, 8)	1245.00600 (343, 8)	1494.61400 (343, 8)	1742.23800 (343, 8)	1803.43600 (343, 8)
4178075.0 /	986.11820 (15, 7)	1108.66700 (15, 7)	1333.24500 (305, 3)	1721.38300 (305, 3)	1839.99200 (23, 7)
4178050.0 /	983.65950 (67, 6)	1173.24600 (327,18)	1394.02600 (9,21)	1607.24300 (1, 5)	1708.82500 (176, 3)
4178025.0 /	930.18980 (346,19)	1087.66300 (285, 7)	1138.92200 (285, 7)	1517.04000 (81,22)	1731.30200 (9,19)
4178000.0 /	795.85840 (285, 7)	995.70940 (176, 3)	1172.26400 (324, 4)	1353.61400 (9,19)	1543.24600 (90,23)
4177975.0 /	783.52290 (81,22)	892.78000 (324, 4)	1027.96000 (91,24)	1168.51700 (90,23)	1305.21100 (42, 6)

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2984.96900 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178350.0 /	596.99230 (335, 6)	594.26600 (281,23)	647.27930 (267,21)	646.98200 (348,18)	640.28110 (340, 8)
4178325.0 /	726.98450 (335, 6)	727.13260 (281,23)	757.18800 (181, 3)	757.97460 (281,22)	746.46550 (56,23)
4178300.0 /	855.13200 (348, 7)	885.30420 (281,23)	901.40780 (181, 3)	903.47660 (281,22)	863.77530 (329,18)
4178275.0 /	1081.68200 (364, 1)	1058.84300 (331,21)	1083.24000 (181, 3)	1078.69800 (281,22)	1049.06300 (329,18)
4178250.0 /	1444.36000 (364, 1)	1235.73900 (331,21)	1305.97100 (181, 3)	1300.73900 (159, 2)	1255.77400 (78,22)
4178225.0 /	1761.49100 (364, 1)	1514.55300 (335, 6)	1562.39500 (28, 1)	1554.17000 (327, 3)	1540.53600 (182,21)
4178200.0 /	1660.37100 (364, 1)	1864.13600 (364, 1)	1778.05100 (28, 1)	1791.44100 (340, 8)	1936.27800 (363,24)
4178175.0 /	1737.22100 (42, 7)	2881.25700 (364, 1)	1772.17200 (275,10)	2074.55900 (364, 2)	2474.01600 (363,24)
4178150.0 /	1687.71800 (275, 4)	2091.82000 (364, 1)	2313.98700 (243, 8)	2719.61500 (364, 2)	2096.01500 (334, 8)
4178125.0 /	1788.07300 (262, 8)	2216.69400 (275, 8)	2459.15900 (22,12)	2984.96900 (351,15)	2443.47500 (134, 8)
4178100.0 /	2184.80100 (276,18)	2398.12500 (317,16)	195.96640 (276,16)	1859.06200 (47,16)	2386.41300 (184, 8)
4178075.0 /	2202.11500 (363,16)	1907.83700 (19,23)	2232.50900 (256, 9)	2519.47200 (178, 7)	2151.25700 (70, 7)
4178050.0 /	1824.64900 (363,15)	2256.48400 (307,18)	2405.62900 (268, 8)	2377.20500 (76,23)	2051.26400 (287, 9)
4178025.0 /	1854.51500 (306,19)	1804.77800 (35,22)	1823.24800 (328, 2)	1768.79000 (269, 5)	1780.37500 (287, 8)
4178000.0 /	1692.57300 (34,23)	1779.15400 (327,19)	1805.04900 (46, 6)	1783.41400 (307,23)	1726.77700 (3, 3)
4177975.0 /	1457.03400 (35,22)	1545.92600 (48,22)	1582.51100 (265, 7)	1566.26300 (276,20)	1495.62000 (3,20)

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2984.96900 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178350.0 /	689.82950 (364, 2)	688.81870 (363,24)	835.21250 (363,24)	745.62650 (363,24)	521.59950 (363,24)
4178325.0 /	763.10060 (364, 2)	860.27980 (363,24)	901.97350 (363,24)	677.35410 (363,24)	550.10360 (187,24)
4178300.0 /	864.68710 (182,21)	1032.96600 (363,24)	887.31590 (363,24)	676.69600 (363,22)	617.04760 (54,23)
4178275.0 /	1025.09800 (363,24)	1144.51000 (363,24)	844.77390 (242, 4)	756.01900 (54,23)	670.65990 (120,22)
4178250.0 /	1354.04700 (363,24)	1082.16900 (363,24)	971.60190 (121, 5)	854.76400 (8,20)	765.57040 (58, 3)
4178225.0 /	1572.41400 (363,24)	1270.28200 (187,24)	1115.03200 (8,20)	960.31640 (58, 3)	849.96980 (309,20)
4178200.0 /	1630.11000 (242, 4)	1467.69300 (8,20)	1274.06400 (296,23)	1104.81200 (300,22)	949.86510 (134,21)
4178175.0 /	1812.56400 (8,20)	1651.77800 (296,23)	1437.28100 (124, 3)	1163.07900 (89,23)	1030.45000 (89,24)
4178150.0 /	1833.47000 (309,20)	1760.79800 (89,23)	1557.79100 (135, 3)	1314.87300 (339, 9)	1083.53700 (89,20)
4178125.0 /	1908.26000 (201, 9)	1825.23900 (262,22)	1596.72100 (276, 8)	1377.63700 (255,23)	1137.07300 (339,20)
4178100.0 /	1957.60800 (47, 5)	1822.09300 (176,23)	1656.87200 (176,23)	1397.28300 (176,23)	1159.94400 (176,23)
4178075.0 /	1882.45200 (50, 8)	1803.35500 (2,22)	1594.35200 (156, 4)	1372.43300 (298,23)	1135.97500 (48,21)
4178050.0 /	1762.67500 (178,24)	1798.14300 (347,19)	1589.35000 (303,18)	1308.38600 (264,21)	1124.95700 (179, 5)
4178025.0 /	1770.91500 (1,19)	1627.97200 (72,21)	1417.05600 (184, 4)	1247.03400 (347,19)	1044.57800 (303,18)
4178000.0 /	1660.73100 (179, 2)	1453.30000 (95, 3)	1244.37600 (72,21)	1101.90300 (330,22)	939.86990 (166,23)
4177975.0 /	1407.11400 (266, 4)	1260.87800 (352, 7)	1121.71700 (95, 3)	977.13780 (36,20)	858.79190 (298, 3)

*** American Brass and Iron, LF 2421, Acute Exposure - 1985 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2984.96900 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 571275.0
4178350.0 /	457.16950 (121, 5)
4178325.0 /	506.06860 (54,23)
4178300.0 /	547.81660 (120,22)
4178275.0 /	618.72330 (58, 3)
4178250.0 /	684.66260 (309,20)
4178225.0 /	750.69100 (124, 3)
4178200.0 /	759.39110 (89,23)
4178175.0 /	872.90110 (91, 8)
4178150.0 /	924.36700 (262,22)
4178125.0 /	954.54520 (339,20)
4178100.0 /	966.30040 (176,23)
4178075.0 /	963.13590 (162,24)
4178050.0 /	918.82650 (2,22)
4178025.0 /	866.56890 (27,20)
4178000.0 /	834.31670 (347,19)
4177975.0 /	750.47170 (184, 4)

*** American Brass and Iron, LF 2421, Acute Exposure - 1986 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3389.92500 AND OCCURRED AT (571050.0, 4178175.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178350.0 /	481.95400 (328, 7)	551.99180 (1,16)	873.01530 (1,16)	1069.96600 (1,16)	958.03970 (1,16)
4178325.0 /	513.42380 (352,23)	573.47080 (328, 7)	759.80290 (1,16)	1112.81900 (1,16)	1150.85900 (1,16)
4178300.0 /	574.22040 (129, 5)	608.50050 (328, 7)	690.65730 (58, 3)	1055.85100 (1,16)	1333.66100 (1,16)
4178275.0 /	635.05400 (79, 4)	703.38450 (129, 5)	798.36680 (328, 7)	862.96840 (337, 9)	1435.49900 (1,16)
4178250.0 /	707.71810 (6,21)	796.74610 (79, 4)	874.98550 (352,23)	1033.95700 (328, 7)	1333.95500 (1,16)
4178225.0 /	778.86880 (287,24)	891.98250 (6,21)	1021.66700 (79, 4)	1153.45700 (352,23)	1295.31300 (58, 3)
4178200.0 /	853.36110 (271, 8)	988.76110 (113,20)	1166.07700 (287,24)	1327.02100 (79, 4)	1497.28400 (352,23)
4178175.0 /	917.78910 (21,20)	1112.84500 (337, 2)	1269.72200 (271, 8)	1509.70800 (287,24)	1668.97900 (79, 4)
4178150.0 /	1000.65700 (292, 2)	1161.28000 (353,19)	1359.89200 (21,20)	1663.49200 (292, 6)	1775.69300 (113,20)
4178125.0 /	1013.55700 (358,19)	1206.88200 (277,23)	1439.45500 (277,23)	1747.24100 (292, 4)	1821.64600 (292, 2)
4178100.0 /	1006.72300 (359, 8)	1210.06000 (359, 8)	1452.66100 (359, 8)	1693.33400 (359, 8)	1752.81400 (359, 8)
4178075.0 /	1014.59700 (337, 7)	1176.45400 (271, 4)	1271.65500 (271, 4)	1730.26100 (341, 1)	1806.46400 (72, 6)
4178050.0 /	997.40110 (341, 1)	1094.71300 (72, 6)	1402.58500 (349,23)	1648.37700 (230, 1)	1630.28500 (336, 2)
4178025.0 /	882.83920 (230, 1)	1080.01100 (230, 1)	967.61610 (336, 2)	1563.15600 (336, 2)	1745.56200 (336, 3)
4178000.0 /	657.57230 (230, 1)	985.62440 (336, 2)	1162.11900 (337, 6)	1393.53400 (336, 3)	1523.63900 (39, 8)
4177975.0 /	814.27610 (336, 2)	816.06950 (337, 6)	1072.16600 (336, 3)	1126.55900 (103, 4)	1368.39500 (336, 7)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1986 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3389.92500 AND OCCURRED AT (571050.0, 4178175.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178350.0 /	646.62770 (332, 5)	594.26600 (80,23)	614.85180 (334,24)	640.52880 (360,22)	639.42790 (264,23)
4178325.0 /	767.08510 (1,16)	727.13260 (80,23)	728.34700 (334,24)	757.97460 (360,22)	746.46550 (264,23)
4178300.0 /	1020.46700 (1,16)	885.30420 (80,23)	873.63700 (334,24)	903.47660 (360,22)	863.77530 (113, 4)
4178275.0 /	1354.81600 (1,16)	1052.61300 (80,23)	1059.83300 (334,24)	1078.69800 (360,22)	1049.06300 (113, 4)
4178250.0 /	1743.07700 (1,16)	1302.00200 (332, 5)	1293.50400 (334,24)	1300.73900 (299,24)	1223.09500 (350, 7)
4178225.0 /	2025.85400 (1,16)	1558.29400 (305, 6)	1562.39500 (334,24)	1510.49700 (299,24)	1468.68400 (264, 3)
4178200.0 /	1785.96300 (1,16)	2333.47900 (1,16)	1778.05100 (334,24)	1788.18700 (264,23)	1744.22000 (25,20)
4178175.0 /	1787.39200 (328, 7)	3389.92500 (1,16)	1766.81400 (300, 2)	1763.97500 (113, 4)	1854.51600 (128,21)
4178150.0 /	1713.42000 (352, 9)	2323.88800 (1,16)	2313.98700 (5, 8)	2378.67900 (294, 2)	2096.01500 (140, 8)
4178125.0 /	2031.37600 (1,24)	2315.40900 (95,15)	2459.15900 (3,12)	2524.35100 (303,14)	2443.47500 (18,21)
4178100.0 /	1832.08400 (346, 6)	2398.12500 (28,11)	46.85561 (305,11)	1851.53900 (308,13)	2256.02200 (72,11)
4178075.0 /	2157.41600 (72, 5)	2363.79000 (75, 7)	1970.62400 (281, 9)	2452.21100 (210, 9)	2203.16200 (18,11)
4178050.0 /	1713.86800 (56, 5)	2256.48400 (348, 4)	2084.41400 (347,13)	2377.20500 (296,23)	2051.26400 (316, 9)
4178025.0 /	1835.09300 (39, 8)	1823.15700 (38, 7)	1714.50000 (7, 1)	1743.78400 (17,21)	1828.54600 (335,23)
4178000.0 /	1692.57300 (278,23)	1829.84300 (337, 8)	1805.04900 (59, 6)	1783.41400 (78,23)	1726.77700 (7, 3)
4177975.0 /	1457.03400 (127, 6)	1545.92600 (37,22)	1571.69300 (180, 4)	1602.45400 (328, 4)	1495.62000 (26,20)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1986 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3389.92500 AND OCCURRED AT (571050.0, 4178175.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178350.0 /	615.34590 (350, 7)	595.74870 (41,23)	555.79150 (54, 1)	527.85990 (128,21)	492.84090 (358, 7)
4178325.0 /	718.94470 (264, 3)	685.34570 (25,20)	642.05080 (106, 3)	568.94160 (358, 7)	565.99070 (341, 2)
4178300.0 /	822.44570 (264, 3)	772.20150 (54, 1)	736.96720 (170,23)	690.98850 (341, 2)	634.86800 (299,23)
4178275.0 /	988.50650 (41,23)	923.11460 (106, 3)	847.09140 (358, 7)	777.85290 (299,23)	689.67450 (273, 7)
4178250.0 /	1127.97200 (25,20)	1060.26600 (170,23)	978.60310 (39,19)	872.53140 (136, 4)	765.57040 (23, 5)
4178225.0 /	1385.90800 (106, 3)	1306.96800 (341, 2)	1126.73400 (136, 4)	960.31640 (23, 5)	861.52700 (118, 4)
4178200.0 /	1631.36900 (358, 7)	1467.69300 (135,20)	1274.06400 (62,23)	1136.71900 (172, 6)	949.86510 (5,21)
4178175.0 /	1826.39600 (299,23)	1651.77800 (62,23)	1437.28100 (9, 5)	1163.07900 (185,23)	1030.45000 (133, 1)
4178150.0 /	1846.31000 (118, 4)	1760.79800 (185,23)	1557.79100 (7, 5)	1267.60600 (183,20)	1083.53700 (183,20)
4178125.0 /	1920.71600 (227, 8)	1825.23900 (136,22)	1596.72100 (350,21)	1369.29100 (350,21)	1070.66700 (350,21)
4178100.0 /	1957.60800 (72,11)	1819.38500 (100,21)	1649.99900 (100,21)	1389.16000 (100,21)	1151.84100 (100,21)
4178075.0 /	1882.45200 (226, 8)	1824.80900 (335,24)	1625.30200 (87,20)	1282.86300 (87,20)	1150.73000 (172, 3)
4178050.0 /	1810.16400 (172, 5)	1736.16200 (285,21)	1544.73800 (20, 4)	1308.38600 (113,21)	1126.01000 (335,24)
4178025.0 /	1798.43200 (328, 5)	1652.89400 (336,23)	1457.98000 (172, 4)	1207.17300 (99, 3)	1015.69900 (258,22)
4178000.0 /	1641.96600 (328, 3)	1495.27100 (328, 5)	1309.84900 (336,23)	1133.72600 (287,22)	927.85220 (36,20)
4177975.0 /	1381.78200 (335,23)	1260.87800 (25, 7)	1154.11200 (328, 5)	992.89450 (336,23)	883.59390 (172, 5)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1986 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3389.92500 AND OCCURRED AT (571050.0, 4178175.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571275.0
4178350.0 /	458.31590 (341, 2)
4178325.0 /	520.68390 (299,23)
4178300.0 /	560.47940 (273, 7)
4178275.0 /	618.72330 (23, 5)
4178250.0 /	672.01830 (118, 4)
4178225.0 /	750.69100 (9, 5)
4178200.0 /	759.39110 (185,23)
4178175.0 /	873.95530 (26,19)
4178150.0 /	924.36700 (136,22)
4178125.0 /	818.75570 (350,21)
4178100.0 /	958.69240 (100,21)
4178075.0 /	982.19810 (172, 3)
4178050.0 /	918.82650 (25,22)
4178025.0 /	858.41990 (210,23)
4178000.0 /	813.82320 (99, 3)
4177975.0 /	772.14530 (172, 4)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2653.52700 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178350.0 /	451.35230 (298, 1)	496.88620 (298, 1)	430.84610 (341,16)	572.39570 (9, 5)	515.19140 (26,22)
4178325.0 /	493.08560 (9, 8)	572.58230 (298, 1)	532.00750 (298, 1)	595.62570 (9, 5)	626.29430 (9, 5)
4178300.0 /	574.22040 (22, 5)	570.81600 (9, 8)	712.02670 (298, 1)	526.99070 (341,16)	805.92710 (9, 5)
4178275.0 /	640.50700 (279, 7)	703.51920 (9, 8)	708.85690 (298, 1)	828.71440 (298, 1)	877.35280 (9, 5)
4178250.0 /	653.31890 (8, 5)	799.26280 (279, 7)	898.33770 (9, 8)	996.76950 (298, 1)	805.63290 (298, 1)
4178225.0 /	757.00630 (8, 2)	869.03850 (8, 5)	1017.49700 (279, 7)	1160.19700 (9, 8)	1332.90200 (298, 1)
4178200.0 /	837.48680 (9, 9)	912.09120 (9, 9)	1151.72000 (8, 5)	1308.06400 (279, 7)	1461.40600 (9, 8)
4178175.0 /	917.06460 (55, 4)	1081.60800 (52,24)	1274.16200 (9, 9)	1467.33200 (8, 2)	1619.56100 (279, 7)
4178150.0 /	1000.82300 (298, 6)	1152.06500 (66, 3)	1369.27300 (8,23)	1616.79900 (277,22)	1742.57600 (9, 9)
4178125.0 /	999.52800 (55, 5)	1135.30300 (55, 5)	1379.42000 (18, 4)	1698.19700 (18, 4)	1800.80900 (66, 3)
4178100.0 /	1035.79700 (365,21)	1245.00600 (365,21)	1494.61400 (365,21)	1742.23800 (365,21)	1807.18200 (313,20)
4178075.0 /	1043.36200 (332, 4)	1229.81700 (307,23)	1510.48400 (307,23)	1766.17800 (365,19)	1839.99200 (8, 7)
4178050.0 /	983.65950 (294, 6)	1148.81000 (8, 7)	1348.76600 (48,19)	1695.98200 (331, 1)	1837.48700 (19, 8)
4178025.0 /	930.18980 (48,19)	1119.07400 (316, 7)	1239.32100 (19, 8)	1523.98600 (331, 5)	1781.30200 (330,19)
4178000.0 /	818.84280 (316, 7)	1024.46600 (331, 5)	1172.26400 (81, 4)	1393.53400 (332, 3)	1587.81500 (330,23)
4177975.0 /	799.96310 (331, 5)	892.78000 (81, 4)	1072.16600 (332, 3)	1202.26400 (330,23)	1329.98500 (297, 7)

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2653.52700 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178350.0 /	596.99230 (26,22)	589.74660 (38,22)	640.72390 (208,23)	646.98200 (9, 4)	639.42790 (42,23)
4178325.0 /	726.98450 (26,22)	685.73850 (284, 8)	741.51150 (208,23)	747.92260 (9, 4)	746.46550 (42,23)
4178300.0 /	839.30080 (26,22)	859.24600 (284, 8)	873.63700 (11, 2)	885.46190 (209, 1)	846.41040 (42,23)
4178275.0 /	869.44870 (26,22)	1058.84300 (284, 8)	1059.83300 (11, 2)	1076.90300 (209, 1)	1013.00300 (310, 6)
4178250.0 /	1147.01200 (9, 5)	1235.73900 (284, 8)	1293.50400 (11, 2)	1300.73900 (209, 1)	1255.77400 (310, 6)
4178225.0 /	1360.04600 (9, 5)	1514.55300 (26,22)	1562.39500 (11, 2)	1510.49700 (209, 1)	1502.87800 (23,19)
4178200.0 /	1386.59500 (298, 1)	1521.85000 (26,22)	1786.78200 (38,22)	1788.18700 (42,23)	1699.35600 (203, 7)
4178175.0 /	1577.66100 (298, 1)	1764.53400 (9, 5)	1755.30700 (238, 6)	1774.84500 (41,10)	1683.26000 (276,20)
4178150.0 /	1729.37100 (85, 8)	2150.95700 (344,11)	2330.04400 (344,12)	2373.07900 (203, 8)	2071.03100 (45,13)
4178125.0 /	2084.05100 (59, 7)	2315.40900 (22,11)	2417.73400 (253, 9)	2653.52700 (66, 9)	2284.32500 (234, 6)
4178100.0 /	1649.86300 (64,14)	2099.38700 (4, 9)	131.65010 (20,13)	1848.32300 (175, 7)	2348.72900 (45,16)
4178075.0 /	1437.47200 (300,13)	1181.89500 (102, 7)	2464.09800 (288, 9)	2339.81500 (297, 9)	2393.66700 (264,23)
4178050.0 /	1823.68600 (85,23)	2254.71500 (34, 6)	2475.10400 (297, 8)	2310.47900 (8, 9)	1735.86600 (262, 6)
4178025.0 /	1878.76300 (348, 5)	1804.77800 (313,22)	1875.90300 (265, 1)	1819.87200 (289, 5)	1777.22000 (296,23)
4178000.0 /	1548.45700 (12, 4)	1784.05900 (214, 5)	1820.01900 (254, 1)	1794.67200 (298, 8)	1776.64600 (297, 3)
4177975.0 /	1482.78700 (314, 2)	1590.57200 (297, 6)	1582.51100 (38, 7)	1611.49700 (330,20)	1538.81400 (48,20)

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2653.52700 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178350.0 /	622.39670 (310, 6)	560.04080 (23,19)	556.78240 (203, 7)	498.05350 (276,20)	489.30190 (276,20)
4178325.0 /	719.51590 (45, 1)	652.41490 (203, 7)	626.96420 (67,24)	614.84570 (276,20)	550.10360 (173, 1)
4178300.0 /	842.94620 (23,19)	791.15970 (203, 7)	724.51090 (276,20)	676.69600 (260,22)	630.98270 (176,21)
4178275.0 /	895.69140 (23,19)	896.34620 (67,24)	843.12050 (276,20)	791.11600 (176,21)	689.67270 (112, 4)
4178250.0 /	1183.44100 (203, 7)	1110.63600 (276,20)	986.59580 (176,21)	872.53140 (112, 4)	736.49150 (166, 2)
4178225.0 /	1332.35200 (67,24)	1270.28200 (173, 1)	1126.73400 (112, 4)	910.56200 (166, 2)	849.96980 (132,20)
4178200.0 /	1631.73600 (276,20)	1461.05400 (112, 4)	1156.36300 (132,20)	1078.19300 (124,24)	933.56990 (309,23)
4178175.0 /	1775.13000 (212,23)	1605.91500 (132,20)	1416.48100 (124,24)	1163.07900 (309,23)	1060.21000 (272,24)
4178150.0 /	1833.47000 (132,20)	1760.79800 (309,23)	1601.51500 (272,24)	1314.87300 (133,23)	1088.82900 (312, 7)
4178125.0 /	1920.71600 (262, 8)	1832.12900 (312, 7)	1382.62500 (312, 7)	1286.80600 (172,20)	1137.07300 (172,20)
4178100.0 /	1951.93800 (320,20)	1771.88500 (104,19)	1600.94700 (104,19)	1344.83200 (104,19)	1113.33900 (104,19)
4178075.0 /	1949.14800 (293, 9)	1855.43600 (112, 6)	1625.30200 (213,20)	1372.43300 (283,23)	1099.55800 (283,23)
4178050.0 /	1810.16400 (341, 3)	1643.19100 (89, 2)	1457.97600 (250,22)	1322.44800 (304,19)	1124.95700 (85, 3)
4178025.0 /	1770.91500 (12,19)	1652.89400 (297,23)	1307.28000 (283, 6)	1170.76600 (89, 2)	1015.69900 (250,22)
4178000.0 /	1614.11500 (62,24)	1466.88900 (307, 2)	1309.84900 (297,23)	1101.90300 (283, 6)	742.20890 (283, 6)
4177975.0 /	1395.49700 (315,20)	1229.28700 (80,22)	1145.71600 (307, 2)	992.89450 (297,23)	883.59390 (341, 3)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2653.52700 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 571275.0
4178350.0 /	457.16950 (58, 3)
4178325.0 /	508.28770 (176,21)
4178300.0 /	557.46180 (112, 4)
4178275.0 /	601.59770 (166, 2)
4178250.0 /	684.66260 (132,20)
4178225.0 /	745.45000 (124,24)
4178200.0 /	759.39110 (309,23)
4178175.0 /	872.90110 (151,21)
4178150.0 /	907.02780 (312, 7)
4178125.0 /	954.54520 (172,20)
4178100.0 /	925.53610 (104,19)
4178075.0 /	936.10130 (151,24)
4178050.0 /	945.36220 (112, 6)
4178025.0 /	858.41990 (272,23)
4178000.0 /	794.70540 (89, 2)
4177975.0 /	708.02590 (283, 6)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2730.16100 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178350.0 /	463.89430 (353, 4)	507.34050 (346, 8)	532.28420 (85, 4)	586.44730 (337,24)	605.14790 (337, 4)
4178325.0 /	528.25160 (364,23)	564.79060 (361,22)	626.42270 (346, 8)	649.98930 (337,24)	715.37690 (273,23)
4178300.0 /	561.93920 (249,21)	625.33570 (364,23)	692.04060 (39,24)	734.81570 (85, 4)	807.30660 (337,24)
4178275.0 /	653.39430 (351, 4)	703.51920 (249,21)	790.24000 (353, 4)	889.93980 (346, 8)	949.14040 (337,24)
4178250.0 /	728.15710 (1,21)	819.75610 (351, 4)	900.25510 (364,23)	1000.09800 (361,22)	1076.96800 (346, 8)
4178225.0 /	778.76840 (140, 6)	917.74300 (1,21)	1051.17300 (351, 4)	1186.76900 (364,23)	1295.48800 (39,24)
4178200.0 /	853.36110 (336, 8)	988.58450 (341, 4)	1151.72000 (332, 3)	1365.34500 (351, 4)	1540.52500 (364,23)
4178175.0 /	944.29480 (360,20)	1112.84500 (1, 1)	1269.72200 (336, 8)	1486.59900 (140, 6)	1717.17900 (351, 4)
4178150.0 /	973.71310 (165, 3)	1185.33700 (165, 3)	1399.16600 (360,20)	1663.49200 (273,22)	1727.76200 (341, 4)
4178125.0 /	1029.17100 (352, 8)	1249.71500 (352, 8)	1481.02600 (304,23)	1698.19700 (35, 4)	1852.81600 (165, 3)
4178100.0 /	1057.10300 (344,23)	1271.69600 (344,23)	1528.35600 (344,23)	1784.06100 (344,23)	1849.12500 (344,23)
4178075.0 /	1014.07600 (320, 4)	1176.45400 (320, 4)	1502.27400 (347, 8)	1771.09600 (346, 5)	1858.63500 (351,22)
4178050.0 /	1012.06800 (351,22)	1166.12000 (290,20)	1402.58500 (45,23)	1695.98200 (101, 1)	1890.55400 (336,21)
4178025.0 /	916.21070 (304, 8)	1130.45700 (360,22)	1323.63300 (352,23)	1519.28000 (57,24)	1731.30200 (272,19)
4178000.0 /	863.93400 (290, 4)	1019.24600 (336,21)	1179.46700 (361,20)	1357.08800 (265, 1)	1460.59600 (352,20)
4177975.0 /	791.41990 (57,24)	934.91200 (361,20)	1057.64800 (265, 1)	1171.93500 (352,20)	1318.99400 (39, 4)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2730.16100 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178350.0 /	646.62770 (1, 3)	643.17960 (334,18)	661.74620 (196, 5)	665.66690 (1, 4)	640.28110 (35,21)
4178325.0 /	747.97980 (199, 6)	734.35300 (334,18)	779.05570 (196, 5)	769.52260 (1, 4)	746.46550 (34, 9)
4178300.0 /	872.22860 (337, 4)	884.06100 (293, 8)	927.44050 (196, 5)	911.03400 (162, 1)	846.41040 (34, 9)
4178275.0 /	1015.64000 (337, 4)	1089.42200 (293, 8)	1114.52400 (196, 5)	1108.00400 (162, 1)	1045.04500 (140, 7)
4178250.0 /	1215.58100 (273,23)	1302.00200 (1, 3)	1343.68800 (196, 5)	1338.30400 (162, 1)	1292.04100 (117, 6)
4178225.0 /	1450.09400 (337,24)	1558.29400 (199, 6)	1607.51700 (273,24)	1599.05400 (344, 5)	1468.68400 (356, 3)
4178200.0 /	1674.80900 (346, 8)	1756.80800 (337, 4)	1829.40100 (273,24)	1791.44100 (35,21)	1744.44000 (281, 4)
4178175.0 /	1782.50600 (353, 4)	1823.92500 (337,24)	1721.39800 (336, 7)	1799.08900 (344,17)	1908.07500 (338, 8)
4178150.0 /	1729.17400 (323,23)	2088.90400 (54, 8)	2380.81500 (199, 8)	2373.07900 (19, 8)	2020.61700 (155, 5)
4178125.0 /	2084.05100 (105,10)	2227.72900 (4,16)	2440.85600 (39,10)	2730.16100 (349, 9)	2481.01600 (315, 9)
4178100.0 /	2116.27700 (255, 7)	2621.71500 (26, 9)	82.83676 (324,10)	1859.06200 (268,11)	2348.72900 (174, 5)
4178075.0 /	2157.41600 (319,16)	2273.29900 (200, 8)	2471.50300 (97, 8)	2512.85300 (308,16)	2266.78900 (105, 5)
4178050.0 /	1772.49700 (51,23)	2116.30300 (345, 9)	2405.62900 (305, 8)	2310.47900 (94, 9)	2047.04600 (292, 8)
4178025.0 /	1826.02800 (36, 3)	1875.81000 (293, 7)	1767.78900 (142, 7)	1759.64600 (344, 3)	1828.54600 (297,23)
4178000.0 /	1701.06100 (344,21)	1782.02300 (289,23)	1857.17900 (293, 6)	1794.67200 (273,21)	1776.64600 (204, 5)
4177975.0 /	1499.11300 (316, 6)	1590.57200 (343,22)	1617.08300 (273, 4)	1602.45400 (361, 4)	1538.81400 (305,20)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2730.16100 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178350.0 /	640.37160 (117, 6)	529.23190 (281, 4)	580.48350 (345,22)	543.10450 (338, 8)	480.75300 (141,22)
4178325.0 /	740.29550 (334,24)	678.08680 (281, 4)	657.78910 (304,19)	597.58730 (140,20)	565.99070 (1,24)
4178300.0 /	822.44570 (356, 3)	815.42800 (345,22)	743.95890 (338, 8)	690.98850 (1,24)	630.98270 (343,21)
4178275.0 /	932.80080 (281, 4)	951.54940 (304,19)	826.22170 (141,22)	791.11600 (343,21)	709.59050 (343,18)
4178250.0 /	1197.30500 (345,22)	1079.46100 (140,20)	1006.86500 (19,19)	897.73010 (343,18)	787.68010 (170, 3)
4178225.0 /	1443.72900 (304,19)	1306.96800 (1,24)	1159.27400 (343,18)	1011.79600 (345,21)	886.40780 (161, 4)
4178200.0 /	1589.61600 (141,22)	1503.24900 (343,18)	1320.91700 (345,21)	1109.33100 (130,24)	949.86510 (89, 8)
4178175.0 /	1811.65300 (343,18)	1655.95000 (345,21)	1478.78900 (130, 3)	1163.07900 (79,23)	1060.21000 (130, 2)
4178150.0 /	1899.63200 (161, 4)	1760.79800 (79,23)	1601.51500 (130, 2)	1314.87300 (68,23)	1132.86900 (170, 4)
4178125.0 /	1928.01600 (184, 5)	1877.95200 (133, 6)	1678.66900 (102, 3)	1325.02100 (56,19)	1130.63300 (273,18)
4178100.0 /	1798.40300 (354,22)	1819.38500 (140,21)	1649.99900 (140,21)	1389.16000 (140,21)	1151.84100 (140,21)
4178075.0 /	1894.43700 (201, 9)	1840.57800 (238, 7)	1640.39600 (344,18)	1372.43300 (198,23)	1150.73000 (81, 5)
4178050.0 /	1813.58100 (161, 1)	1765.47800 (316, 3)	1589.35000 (130, 4)	1334.51000 (345,23)	1126.01000 (272,24)
4178025.0 /	1770.91500 (23,19)	1652.89400 (334,23)	1457.98000 (249, 4)	1242.03600 (316, 3)	1045.03200 (335,22)
4178000.0 /	1614.11500 (99,24)	1443.39600 (23,19)	1309.84900 (334,23)	1133.72600 (204, 6)	939.86990 (160,23)
4177975.0 /	1407.11400 (319,17)	1229.28700 (73,22)	1113.55600 (13, 2)	1005.35800 (353,20)	883.59390 (252, 3)

*** American Brass and Iron, LF 2421, Acute Exposure - 1988 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2730.16100 AND OCCURRED AT (571100.0, 4178125.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571275.0
4178350.0 /	469.14720 (19,19)
4178325.0 /	508.28770 (343,21)
4178300.0 /	573.56130 (343,18)
4178275.0 /	636.59200 (170, 3)
4178250.0 /	691.42610 (161, 4)
4178225.0 /	772.37100 (130, 3)
4178200.0 /	784.40680 (344, 7)
4178175.0 /	873.95530 (292,19)
4178150.0 /	951.06270 (133, 6)
4178125.0 /	978.52370 (273,18)
4178100.0 /	958.69240 (140,21)
4178075.0 /	982.19810 (81, 5)
4178050.0 /	947.58370 (238, 7)
4178025.0 /	883.21110 (345,23)
4178000.0 /	837.32650 (316, 3)
4177975.0 /	772.14530 (249, 4)

HIGH

1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure 1989 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3363.68100 AND OCCURRED AT (571075.0, 4178050.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178350.0 /	481.95400 (333, 7)	500.21830 (69, 5)	547.65660 (53, 4)	586.44730 (74, 1)	602.56600 (316,20)
4178325.0 /	528.25160 (98,23)	581.10180 (323, 6)	608.83940 (291,21)	656.38590 (53, 4)	715.37690 (321,23)
4178300.0 /	590.80390 (16, 3)	638.76270 (173, 4)	712.02670 (21, 1)	756.03720 (53, 4)	807.30660 (74, 1)
4178275.0 /	653.39430 (31, 4)	723.69820 (16, 3)	813.06210 (173, 4)	864.95980 (291,21)	949.14040 (74, 1)
4178250.0 /	707.71810 (351,21)	819.75610 (31, 4)	900.25510 (98,23)	1033.95700 (333, 7)	1087.44000 (53, 4)
4178225.0 /	781.00810 (182, 4)	894.13640 (292, 3)	1051.17300 (31, 4)	1186.76900 (98,23)	1332.90200 (21, 1)
4178200.0 /	853.36110 (21, 8)	1017.13500 (182, 4)	1184.98200 (292, 3)	1365.34500 (31, 4)	1540.52500 (98,23)
4178175.0 /	944.29480 (40,20)	1112.84500 (1,24)	1274.16200 (335, 9)	1509.70800 (98,24)	1725.46500 (131,20)
4178150.0 /	1461.24000 (3,17)	1494.16900 (3,17)	1408.81800 (279,23)	1648.16700 (1,24)	1777.66000 (182, 4)
4178125.0 /	1328.58500 (3,17)	1642.72700 (3,17)	2061.54300 (3,17)	2566.28200 (3,17)	2898.71100 (3,17)
4178100.0 /	1027.43100 (363,23)	1236.00000 (363,23)	1485.45600 (363,23)	1733.98300 (363,23)	1797.22100 (363,23)
4178075.0 /	1043.36200 (74, 4)	1229.81700 (57,23)	1510.48400 (57,23)	1766.17800 (320,19)	1858.63500 (328,22)
4178050.0 /	1012.06800 (328,22)	1199.79700 (261,20)	1402.58500 (41, 9)	1695.98200 (40,24)	1837.48700 (6, 8)
4178025.0 /	957.05370 (324,19)	1130.45700 (346, 6)	1286.47900 (362,23)	1523.98600 (172, 5)	1770.18500 (171,21)
4178000.0 /	839.68390 (310, 4)	1024.46600 (172, 5)	1179.46700 (320,20)	1393.53400 (278, 3)	1567.64200 (25,21)
4177975.0 /	799.96310 (172, 5)	934.91200 (320,20)	1072.16600 (278, 3)	1159.09400 (278, 4)	1342.90600 (226, 6)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, Acute Exposure 1989 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3363.68100 AND OCCURRED AT (571075.0, 4178050.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178350.0 /	646.62770 (168, 5)	662.76290 (321,20)	727.19670 (40,14)	646.98200 (101, 4)	658.77250 (124,21)
4178325.0 /	728.80950 (168, 5)	774.16690 (321,20)	805.57080 (40,14)	757.97460 (101, 6)	747.49630 (124,21)
4178300.0 /	839.30080 (289, 6)	910.87180 (73,23)	904.93720 (362,19)	911.03400 (322, 2)	881.89310 (302,20)
4178275.0 /	1009.83700 (316,20)	1089.42200 (332, 8)	1090.44200 (163,24)	1108.00400 (322, 2)	1049.06300 (214, 4)
4178250.0 /	1215.58100 (321,23)	1302.00200 (168, 5)	1330.86100 (163,24)	1338.30400 (322, 2)	1291.16700 (123, 1)
4178225.0 /	1450.09400 (74, 1)	1514.55300 (289, 6)	1607.51700 (163,24)	1563.64100 (124,21)	1497.29400 (85,21)
4178200.0 /	1627.79800 (291,21)	1741.18800 (316,20)	1829.40100 (163,24)	1843.17800 (124,21)	1794.81900 (86, 4)
4178175.0 /	1833.98400 (173, 4)	1823.92500 (74, 1)	2234.72900 (40,14)	1774.84500 (40, 7)	1854.51600 (274, 8)
4178150.0 /	1734.69800 (131,20)	2150.95700 (317,15)	2834.57700 (40,14)	2694.51200 (90, 8)	2155.18900 (48, 9)
4178125.0 /	2133.71500 (63,17)	2351.54900 (53, 9)	2511.34800 (146, 7)	2802.95100 (82,12)	2420.19900 (181, 3)
4178100.0 /	2184.80100 (348,17)	2695.20900 (64,17)	198.82520 (126,16)	1859.06200 (99,11)	2450.49500 (197, 9)
4178075:0 /	2005.39100 (328, 7)	2414.63800 (271,22)	2907.40300 (40,17)	2585.42400 (17,15)	2376.09100 (52, 8)
4178050.0 /	1823.68600 (261,23)	2275.92500 (77,24)	3363.68100 (40,17)	2377.20500 (291, 9)	2110.50500 (290,23)
4178025.0 /	1888.09000 (25,21)	1875.81000 (53, 7)	2078.16900 (40,17)	1819.87200 (9, 3)	1828.54600 (25,23)
4178000.0 /	1701.06100 (40,21)	1784.05900 (31, 3)	1857.17900 (151, 6)	1794.67200 (291, 8)	1776.64600 (213, 5)
4177975.0 /	1499.11300 (24, 6)	1590.57200 (1,22)	1596.81000 (151, 6)	1602.45400 (277, 4)	1538.81400 (26,20)

*** American Brass and Iron, LF 2421, Acute Exposure 1989 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3363.68100 AND OCCURRED AT (571075.0, 4178050.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178350.0 /	629.80560 (123, 1)	656.99420 (90, 8)	580.48350 (277,22)	527.85990 (274, 8)	494.63720 (215,22)
4178325.0 /	740.29550 (123, 1)	697.66990 (86, 4)	645.07090 (85,24)	614.84570 (25,20)	550.91420 (215,22)
4178300.0 /	840.41590 (85,21)	815.42800 (277,22)	736.96720 (164,23)	696.23900 (215,22)	630.98270 (245,21)
4178275.0 /	977.47860 (28,20)	924.84000 (351,19)	850.08310 (215,22)	791.11600 (245,21)	690.02860 (40,22)
4178250.0 /	1205.03800 (86, 4)	1110.63600 (25,20)	986.59580 (245,21)	872.53140 (134, 4)	760.97670 (109,21)
4178225.0 /	1403.20400 (351,19)	1285.14200 (215,22)	1126.73400 (134, 4)	983.39590 (109,21)	886.40780 (226, 4)
4178200.0 /	1635.52400 (215,22)	1461.05400 (134, 4)	1283.83900 (109,21)	1104.81200 (150, 6)	949.86510 (88, 8)
4178175.0 /	1775.13000 (67,23)	1651.77800 (289,23)	1437.28100 (214, 3)	1221.19100 (125,20)	1060.21000 (86, 2)
4178150.0 /	1899.63200 (226, 4)	1767.85700 (125,20)	1602.78000 (226, 3)	1314.87300 (218,23)	1120.27500 (226, 7)
4178125.0 /	1928.01600 (105,11)	1885.04100 (226, 7)	1678.66900 (53, 3)	1369.29100 (337,21)	1137.07300 (345,20)
4178100.0 /	2028.45600 (284, 8)	1874.71500 (264,23)	1704.72300 (264,23)	1437.63600 (264,23)	1193.44300 (264,23)
4178075.0 /	1936.81700 (266, 8)	1824.80900 (270, 2)	1640.39600 (124, 4)	1372.43300 (50,23)	1150.73000 (86, 3)
4178050.0 /	1813.58100 (50, 1)	1786.30300 (321,21)	1589.35000 (337, 4)	1334.51000 (117,23)	1126.01000 (270, 2)
4178025.0 /	1798.43200 (86, 5)	1674.98800 (305, 8)	1457.98000 (198, 4)	1242.03600 (172, 3)	1045.03200 (126, 6)
4178000.0 /	1641.96600 (58, 3)	1495.27100 (86, 5)	1280.31300 (305, 8)	1133.72600 (173, 6)	967.01330 (45,23)
4177975.0 /	1407.11400 (273, 4)	1297.29200 (16, 7)	1154.11200 (86, 5)	977.13780 (14,20)	883.59390 (41, 3)

*** American Brass and Iron, LF 2421, Acute Exposure 1989 ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 3363.68100 AND OCCURRED AT (571075.0, 4178050.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571275.0
4178350.0 /	454.74050 (245,21)
4178325.0 /	508.28770 (245,21)
4178300.0 /	563.63760 (40,22)
4178275.0 /	618.97180 (33, 2)
4178250.0 /	691.42610 (226, 4)
4178225.0 /	750.69100 (214, 3)
4178200.0 /	815.79060 (125,20)
4178175.0 /	875.78880 (226, 3)
4178150.0 /	942.99040 (265, 1)
4178125.0 /	954.54520 (345,20)
4178100.0 /	994.20720 (264,23)
4178075.0 /	982.19810 (86, 3)
4178050.0 /	924.29370 (124, 4)
4178025.0 /	891.59550 (78,20)
4178000.0 /	837.32650 (172, 3)
4177975.0 /	772.14530 (198, 4)

OUTPUT FILES FOR DETERMINATION OF ACUTE EXPOSURE
IN THE RESIDENTIAL LOCATION

FILE NAMES: ABIRESA.LST

*** American Brass and Iron, LF 2421, Residential Acute Exposure ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 122.40520 AND OCCURRED AT (571800.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0
4178300.0 /	114.56440 (262,22)	104.29580 (262,22)	92.97571 (262,22)	81.72295 (262,22)	77.84367 (276, 8)
4178250.0 /	116.84780 (276, 8)	106.80630 (276, 8)	98.24967 (158, 4)	96.11658 (158, 4)	93.63315 (158, 4)
4178200.0 /	121.07270 (158, 4)	114.79990 (158, 4)	108.85020 (158, 4)	103.27370 (158, 4)	98.08238 (158, 4)
4178150.0 /	121.93080 (92, 2)	109.59590 (92, 2)	99.63608 (158, 4)	93.35936 (158, 4)	87.79251 (158, 4)
4178100.0 /	122.40520 (176,23)	110.04540 (176,23)	99.66064 (176,23)	90.84015 (176,23)	83.27567 (176,23)
4178050.0 /	119.72250 (274, 6)	106.58180 (274, 6)	95.49033 (274, 6)	86.05891 (274, 6)	77.98079 (274, 6)
4178000.0 /	118.17020 (48,21)	108.32850 (162,24)	99.92064 (162,24)	92.07727 (162,24)	84.86438 (162,24)
4177950.0 /	115.45250 (156, 4)	105.06860 (298,23)	96.92316 (298,23)	88.71730 (298,23)	81.52112 (48,21)
4177900.0 /	114.99150 (241, 2)	104.20310 (2,22)	94.45163 (156, 4)	87.26849 (156, 4)	79.60623 (156, 4)
4177850.0 /	111.77880 (264,21)	102.87620 (179, 5)	95.64203 (179, 5)	86.50787 (179, 5)	78.75180 (2,22)
4177800.0 /	110.71670 (303,18)	97.69305 (27,20)	88.42493 (264,21)	83.23353 (264,21)	77.65982 (179, 5)

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 122.40520 AND OCCURRED AT (571800.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 572050.0
4178300.0 /	77.15187 (158, 4)
4178250.0 /	90.94827 (158, 4)
4178200.0 /	93.26775 (158, 4)
4178150.0 /	82.82584 (158, 4)
4178100.0 /	76.73212 (176,23)
4178050.0 /	71.01366 (274, 6)
4178000.0 /	78.28787 (162,24)
4177950.0 /	75.28865 (48,21)
4177900.0 /	71.97385 (156, 4)
4177850.0 /	72.65614 (2,22)
4177800.0 /	73.54483 (179, 5)

MODEL OUTPUT FILE FOR DETERMINATION OF 111,TCA CONCENTRATIONS
IN THE INDUSTRIAL AREA

FILENAME:TCA.LST

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2274.14000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0	571025.0	571050.0	571075.0	571100.0
4178225.0 /	5.93407	7.02780	8.35745	9.67631	10.75470	12.04549	14.62459	16.34899	15.93329
4178200.0 /	6.50089	7.59292	9.19753	11.44062	13.97449	15.97692	18.32925	22.94512	23.68189
4178175.0 /	7.70035	8.84411	10.36529	12.70408	16.57205	22.10030	26.73454	32.20470	39.48612
4178150.0 /	8.76893	10.64082	12.97312	15.86659	19.73264	26.37852	39.91648	55.33370	74.15359
4178125.0 /	7.98493	10.13895	13.26813	17.98655	25.34503	36.97345	54.96656	90.83064	185.97170
4178100.0 /	6.01107	7.45961	9.53852	12.68333	17.78691	26.92858	45.93689	96.82610	326.29680
4178075.0 /	4.59360	5.52117	6.78331	8.57242	11.26140	15.69353	23.96784	37.51396	73.31127
4178050.0 /	3.78223	4.50843	5.50774	6.89939	8.70755	10.46336	12.17786	24.13224	61.58531
4178025.0 /	3.39618	3.96382	4.56771	5.08531	5.53812	7.01363	12.24167	22.18838	45.92180
4178000.0 /	2.87691	3.10113	3.30007	3.69351	4.88451	7.57374	11.74294	19.07249	32.31509
4177975.0 /	2.24565	2.40961	2.79840	3.68019	5.24371	7.41733	10.59459	16.44949	23.16043
4177950.0 /	1.91132	2.26022	2.90669	3.90036	5.19232	6.90067	9.64283	13.87167	17.37908
4177925.0 /	1.89277	2.37391	3.04862	3.88706	4.93194	6.42585	8.75762	11.54560	13.57881
4177900.0 /	1.98893	2.47079	3.05037	3.74537	4.66216	6.00585	7.87104	9.63193	10.94898
4177875.0 /	2.05843	2.47856	2.96896	3.58121	4.42059	5.59947	7.00645	8.12270	9.04862
4177850.0 /	2.06839	2.42997	2.86435	3.42763	4.19562	5.19013	6.20702	6.94219	7.62710

*** American Brass and Iron, Lf 2421, 111 TCA Conc., Full Year ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 2274.14000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571125.0	571150.0	571175.0	571200.0	571225.0	571250.0	571275.0
4178225.0 /	18.76848	23.74093	25.85832	23.00598	22.36726	23.71864	22.80982
4178200.0 /	27.58626	36.27243	36.85639	32.95898	35.58236	33.64622	30.16478
4178175.0 /	45.42319	62.62949	56.03654	60.17616	55.28061	47.46396	40.34149
4178150.0 /	91.33409	128.87200	125.69310	109.28150	85.97671	66.10735	51.10866
4178125.0 /	289.42040	421.05230	318.28200	191.99080	122.08050	84.07374	61.35712
4178100.0 /	0.00000	2274.14000	568.84080	252.21080	142.50690	91.98433	64.58075
4178075.0 /	512.06030	712.74240	271.44490	168.13550	110.92460	76.95821	56.18521
4178050.0 /	154.29430	314.99170	177.64450	95.69385	68.77539	53.42129	42.80685
4178025.0 /	73.86337	129.38130	130.50240	81.05426	51.52937	38.61207	31.42644
4178000.0 /	43.61417	65.21840	85.36828	68.59750	47.22279	33.14344	25.60376
4177975.0 /	29.01370	39.08789	55.06311	53.45625	42.48517	31.39493	23.51343
4177950.0 /	20.83665	26.25010	36.61817	40.53605	36.04455	29.17595	22.66296
4177925.0 /	15.78189	19.00723	25.56945	30.50603	29.75116	25.98561	21.47628
4177900.0 /	12.42930	14.50149	18.74004	23.11119	24.26555	22.56252	19.71672
4177875.0 /	10.08527	11.49404	14.32147	17.80096	19.69540	19.34351	17.70154
4177850.0 /	8.37788	9.37825	11.32929	13.99949	16.00675	16.47023	15.69011

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 48036.82000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 570900.0	570925.0	570950.0	570975.0	571000.0
4178225.0 /	1785.75000 (284,11)	1883.08700 (284,11)	1917.13100 (284,11)	1833.99400 (284,11)	2552.29500 (283, 9)
4178200.0 /	2122.85600 (284, 8)	2054.23600 (284,11)	2247.00400 (284,11)	2372.31900 (284,11)	2328.47900 (284,11)
4178175.0 /	2582.75400 (284, 8)	2811.26900 (284, 8)	2845.92300 (284, 8)	2710.16900 (284,11)	3040.54900 (284,11)
4178150.0 /	2046.49000 (284, 8)	2544.79800 (284, 8)	3155.81800 (284, 8)	3811.06100 (284, 8)	4230.31400 (284, 8)
4178125.0 /	1014.36100 (284,11)	1235.19500 (284, 8)	1642.22600 (284, 8)	2277.08200 (284, 8)	3311.80500 (284, 8)
4178100.0 /	1081.23900 (325, 9)	1207.81400 (325, 9)	1443.07800 (343, 8)	1902.74300 (343, 8)	2637.34000 (343, 8)
4178075.0 /	1974.38100 (325, 9)	2288.08400 (325, 9)	2690.05500 (325, 9)	3205.38700 (325, 9)	3842.12500 (325, 9)
4178050.0 /	2117.03100 (325, 9)	2242.24200 (325, 9)	2287.73200 (325, 9)	2448.12600 (325,10)	3810.41100 (325,10)
4178025.0 /	1697.85400 (325,10)	2284.00500 (325,10)	3003.63500 (325,10)	3696.99900 (325,10)	3875.68800 (325,10)
4178000.0 /	2436.58900 (325,10)	2802.80200 (325,10)	2936.40700 (325,10)	2582.65200 (325,10)	2957.97900 (345,12)
4177975.0 /	2360.11100 (325,10)	2223.27600 (325,10)	1957.05700 (282,12)	2669.64900 (345,12)	3713.03100 (345,12)
4177950.0 /	1683.67500 (325,10)	1792.54400 (282,12)	2402.37900 (345,12)	3123.78500 (345,12)	3560.22600 (345,12)
4177925.0 /	1642.65400 (282,12)	2172.43700 (345,12)	2699.69700 (345,12)	3040.06700 (345,12)	2942.58000 (345,12)
4177900.0 /	1978.10400 (345,12)	2380.00300 (345,12)	2651.98200 (345,12)	2643.84400 (345,12)	3249.91300 (288,10)
4177875.0 /	2130.43200 (345,12)	2352.57000 (345,12)	2384.94800 (345,12)	2548.27200 (288,10)	3490.15600 (288,10)
4177850.0 /	2115.10200 (345,12)	2165.44400 (345,12)	2050.00300 (288,10)	2834.79300 (288,10)	3498.49300 (288,10)

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 48036.82000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571025.0	571050.0	571075.0	571100.0	571125.0
4178225.0 /	3398.83400 (283, 9)	5022.28900 (90, 9)	4796.44600 (7,12)	7646.26500 (284,12)	10805.72000 (284,12)
4178200.0 /	3144.18900 (283, 9)	4190.50700 (283, 9)	6769.87900 (7,12)	7983.29400 (284,12)	13432.52000 (284,12)
4178175.0 /	3145.71100 (284,11)	4099.71300 (283, 9)	6967.25400 (90, 9)	7255.61200 (284,12)	17768.83000 (284,12)
4178150.0 /	4019.37000 (284,11)	4773.12300 (287, 4)	7504.83200 (288, 4)	13099.98000 (7,12)	26178.11000 (284,12)
4178125.0 /	5020.88700 (284, 8)	7426.79000 (284, 8)	10936.16000 (47, 2)	23322.13000 (288, 4)	47369.60000 (284,12)
4178100.0 /	3920.59200 (343, 8)	6466.87000 (343, 8)	12980.87000 (72, 4)	35420.78000 (72, 4)	0.00000 (0, 0)
4178075.0 /	4498.26500 (325, 9)	6140.40100 (327,18)	11309.48000 (1, 5)	23058.00000 (9,19)	43264.48000 (46, 5)
4178050.0 /	5462.72900 (325,10)	5512.20500 (325,10)	8688.24100 (345,12)	15636.50000 (288,10)	15693.02000 (265, 7)
4178025.0 /	3441.13900 (282,12)	6006.79000 (345,12)	6842.08900 (345,12)	12447.87000 (288,10)	9002.40100 (278,10)
4178000.0 /	4585.97100 (345,12)	5336.49500 (345,12)	8363.18000 (288,10)	9842.89800 (278,10)	6346.07800 (278,10)
4177975.0 /	4285.42000 (345,12)	5385.45400 (288,10)	7446.00800 (288,10)	8050.59100 (278,10)	4885.57300 (278,10)
4177950.0 /	3698.22800 (288,10)	5689.31200 (288,10)	5997.75900 (288,10)	6555.10900 (278,10)	3965.49600 (278,10)
4177925.0 /	4257.83900 (288,10)	5283.80600 (288,10)	5469.33400 (278,10)	5421.44000 (278,10)	3333.78800 (278,10)
4177900.0 /	4324.23300 (288,10)	4633.64300 (288,10)	4984.47500 (278,10)	4568.75700 (278,10)	2873.61200 (278,10)
4177875.0 /	4102.03400 (288,10)	3966.86900 (288,10)	4484.24200 (278,10)	3918.19800 (278,10)	2523.59800 (278,10)
4177850.0 /	3748.59600 (288,10)	3806.94100 (278,10)	4022.90100 (278,10)	3412.03700 (278,10)	2248.47300 (278,10)

HIGH
1-HR
SGROUP# 1

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 48036.82000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571150.0	571175.0	571200.0	571225.0	571250.0
4178225.0 /	9939.28600 (284,12)	7072.75800 (90,12)	6055.08800 (90,12)	4147.75300 (90,12)	3600.50000 (283,12)
4178200.0 /	11552.86000 (284,12)	8502.43600 (90,12)	5887.26200 (90,12)	4471.22500 (283,12)	4587.04700 (345,10)
4178175.0 /	13110.51000 (284,12)	9407.41400 (90,12)	5911.04900 (283,12)	6246.51800 (345,10)	5071.22300 (345,10)
4178150.0 /	17508.02000 (90,12)	8722.55500 (283,12)	9049.60400 (345,10)	6680.07800 (278, 9)	4119.96000 (278, 9)
4178125.0 /	27462.03000 (54,23)	13925.24000 (278, 9)	7379.10000 (284, 9)	7352.71400 (284, 9)	6394.45900 (284, 9)
4178100.0 /	48036.82000 (92, 2)	16780.00000 (219,21)	8728.53000 (284, 9)	6330.52400 (284, 9)	4966.47900 (284, 9)
4178075.0 /	31730.39000 (325,12)	14220.65000 (188, 1)	7265.37600 (179, 5)	4275.71800 (156, 4)	3149.05400 (84,12)
4178050.0 /	16297.43000 (288, 9)	16665.80000 (325,12)	9744.62400 (325,12)	3762.93100 (188, 1)	2702.50200 (288,11)
4178025.0 /	10319.24000 (350,10)	12211.88000 (288, 9)	11160.22000 (325,12)	8976.53400 (325,12)	4094.66900 (325,12)
4178000.0 /	7189.54100 (350,10)	8743.92700 (288, 9)	7179.04500 (288, 9)	8388.72500 (325,12)	7600.49600 (325,12)
4177975.0 /	4956.02100 (350,10)	5225.37100 (350,10)	7717.43900 (288, 9)	4633.83600 (288, 9)	6729.33300 (325,12)
4177950.0 /	3569.82900 (350,10)	5033.32600 (350,10)	5942.87500 (288, 9)	5880.13900 (288, 9)	3994.60200 (325,12)
4177925.0 /	2690.99400 (350,10)	4396.09700 (350,10)	4035.44000 (288, 9)	5545.79800 (288, 9)	4443.88000 (288, 9)
4177900.0 /	2107.78600 (350,10)	3711.81900 (350,10)	3438.23100 (350,10)	4511.24400 (288, 9)	4709.12100 (288, 9)
4177875.0 /	1785.14200 (282, 7)	3109.99200 (350,10)	3341.39200 (350,10)	3412.82200 (288, 9)	4320.00400 (288, 9)
4177850.0 /	1603.00600 (282, 7)	2614.32000 (350,10)	3102.63900 (350,10)	2513.72100 (350,10)	3645.12500 (288, 9)

*** American Brass and Iron, LF 2421, 111 TCA Conc., Full Year ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 48036.82000 AND OCCURRED AT (571150.0, 4178100.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571275.0
4178225.0 /	3574.51000 (283,12)
4178200.0 /	4449.84200 (345,10)
4178175.0 /	4371.72300 (278, 9)
4178150.0 /	3867.97100 (284, 9)
4178125.0 /	5438.06600 (284, 9)
4178100.0 /	4087.24600 (284, 9)
4178075.0 /	2906.49200 (84,12)
4178050.0 /	2128.32400 (288,11)
4178025.0 /	2249.36900 (288,11)
4178000.0 /	4655.73700 (325,12)
4177975.0 /	6441.38600 (325,12)
4177950.0 /	5626.51800 (325,12)
4177925.0 /	3724.44800 (325,12)
4177900.0 /	3433.06800 (288, 9)
4177875.0 /	3897.36100 (288, 9)
4177850.0 /	3875.39200 (288, 9)

MODEL OUTPUT FILE FOR DETERMINATION OF 111,TCA CONCENTRATIONS
IN RESIDENTIAL AREAS

FILENAME: TCARES.LST

'N'-DAY
365 DAYS
SGROUP# 1

*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

* 365-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 4.40813 AND OCCURRED AT (571800.0, 4178150.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0	572050.0
4178300.0 /	3.76339	3.42255	3.13166	2.88079	2.66237	2.47062
4178250.0 /	4.05005	3.66079	3.32968	3.04535	2.79914	2.58437
4178200.0 /	4.30258	3.85602	3.48106	3.16288	2.89040	2.65510
4178150.0 /	4.40813	3.92294	3.52093	3.18370	2.89768	2.65272
4178100.0 /	4.28010	3.80422	3.41135	3.08271	2.80461	2.56684
4178050.0 /	3.98705	3.55724	3.20034	2.90026	2.64522	2.42633
4178000.0 /	3.65846	3.28206	2.96630	2.69865	2.46965	2.27199
4177950.0 /	3.30773	2.99669	2.72889	2.49741	2.29633	2.12076
4177900.0 /	2.90495	2.67195	2.46427	2.27873	2.11284	1.96446
4177850.0 /	2.51718	2.33651	2.17836	2.03690	1.90860	1.79142
4177800.0 /	2.23568	2.06839	1.92836	1.80873	1.70415	1.61069

*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1272.62700 AND OCCURRED AT (571800.0, 4178200.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571800.0	571850.0	571900.0	571950.0	572000.0
4178300.0 /	1043.04100 (284, 9)	1035.66800 (284, 9)	1018.43100 (284, 9)	994.81230 (284, 9)	967.28000 (284, 9)
4178250.0 /	1230.91300 (284, 9)	1175.36000 (284, 9)	1119.85200 (284, 9)	1065.96500 (284, 9)	1014.56000 (284, 9)
4178200.0 /	1272.62700 (284, 9)	1185.38600 (284, 9)	1107.41100 (284, 9)	1037.65400 (284, 9)	975.11420 (284, 9)
4178150.0 /	1141.94000 (284, 9)	1054.21000 (284, 9)	978.52920 (284, 9)	912.64170 (284, 9)	854.79910 (284, 9)
4178100.0 /	880.36600 (284, 9)	819.93950 (284, 9)	767.32400 (284, 9)	721.08510 (284, 9)	680.11950 (284, 9)
4178050.0 /	802.32940 (84,12)	755.73320 (84,12)	714.47740 (84,12)	677.73870 (84,12)	644.84440 (84,12)
4178000.0 /	692.05290 (84,12)	666.44370 (84,12)	641.46710 (84,12)	617.52340 (84,12)	594.80130 (84,12)
4177950.0 /	517.17850 (84,12)	517.94670 (84,12)	514.71870 (84,12)	508.75640 (84,12)	500.96840 (84,12)
4177900.0 /	463.28320 (288,11)	415.82300 (288,11)	374.67080 (288,11)	379.41960 (84,12)	385.64210 (84,12)
4177850.0 /	512.61190 (288,11)	466.81130 (288,11)	425.48560 (288,11)	388.42990 (288,11)	355.30760 (288,11)
4177800.0 /	534.18730 (288,11)	495.62230 (288,11)	458.71550 (288,11)	424.09240 (288,11)	392.01820 (288,11)

*** American Brass and Iron, LF 2421, 111 TCA Conc., 1985 Resid. ***

* HIGHEST 1-HOUR AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *
* FROM SOURCES: 1,
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 1272.62700 AND OCCURRED AT (571800.0, 4178200.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 572050.0
4178300.0 /	937.57320 (284, 9)
4178250.0 /	966.04430 (284, 9)
4178200.0 /	918.88410 (284, 9)
4178150.0 /	803.64280 (284, 9)
4178100.0 /	643.56200 (284, 9)
4178050.0 /	615.23960 (84,12)
4178000.0 /	573.37540 (84,12)
4177950.0 /	492.00720 (84,12)
4177900.0 /	389.04150 (84,12)
4177850.0 /	325.72670 (288,11)
4177800.0 /	362.53590 (288,11)

MODEL OUTPUT FILES FOR DETERMINATION OF 30 DAY AVERAGE CONCENTRATIONS

30 DAYS

SGROUP# 1

*** 30Day Average Lead Concentrations ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04985 AND OCCURRED AT (571250.0, 4177750.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00054	0.00060	0.00061	0.00058	0.00048	0.00041	0.00041	0.00034	0.00027
4179750.0 /	0.00060	0.00067	0.00076	0.00077	0.00070	0.00055	0.00054	0.00047	0.00035
4179500.0 /	0.00069	0.00077	0.00087	0.00100	0.00100	0.00085	0.00071	0.00066	0.00048
4179250.0 /	0.00077	0.00089	0.00102	0.00118	0.00139	0.00137	0.00106	0.00099	0.00070
4179000.0 /	0.00098	0.00102	0.00119	0.00143	0.00172	0.00211	0.00197	0.00158	0.00115
4178750.0 /	0.00187	0.00183	0.00170	0.00175	0.00218	0.00283	0.00372	0.00302	0.00226
4178500.0 /	0.00197	0.00246	0.00305	0.00360	0.00379	0.00393	0.00576	0.00882	0.00632
4178250.0 /	0.00119	0.00153	0.00203	0.00285	0.00430	0.00720	0.01328	0.02001	0.04242
4178000.0 /	0.00092	0.00114	0.00143	0.00187	0.00256	0.00369	0.00548	0.00651	0.03383
4177750.0 /	0.00068	0.00072	0.00075	0.00073	0.00069	0.00083	0.00180	0.00334	0.01564
4177500.0 /	0.00028	0.00026	0.00027	0.00037	0.00064	0.00085	0.00123	0.00495	0.00781
4177250.0 /	0.00016	0.00022	0.00034	0.00045	0.00049	0.00065	0.00165	0.00314	0.00466
4177000.0 /	0.00022	0.00028	0.00031	0.00032	0.00041	0.00080	0.00194	0.00195	0.00311
4176750.0 /	0.00022	0.00022	0.00023	0.00029	0.00048	0.00102	0.00150	0.00149	0.00224
4176500.0 /	0.00017	0.00018	0.00021	0.00033	0.00058	0.00110	0.00104	0.00123	0.00170
4176250.0 /	0.00014	0.00016	0.00024	0.00037	0.00070	0.00092	0.00079	0.00105	0.00134
4176000.0 /	0.00013	0.00019	0.00027	0.00045	0.00073	0.00070	0.00067	0.00091	0.00109

1

'N'-DAY
30 DAYS
SGROUP# 1

*** 30Day Average Lead Concentrations ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04985 AND OCCURRED AT (571250.0, 4177750.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00030	0.00029	0.00034	0.00033	0.00030	0.00020	0.00010	0.00006
4179750.0 /	0.00039	0.00038	0.00044	0.00040	0.00029	0.00014	0.00008	0.00006
4179500.0 /	0.00052	0.00053	0.00056	0.00045	0.00022	0.00011	0.00008	0.00010
4179250.0 /	0.00073	0.00080	0.00072	0.00037	0.00015	0.00013	0.00016	0.00022
4179000.0 /	0.00113	0.00122	0.00072	0.00025	0.00022	0.00030	0.00037	0.00037
4178750.0 /	0.00206	0.00174	0.00047	0.00046	0.00063	0.00063	0.00058	0.00055
4178500.0 /	0.00526	0.00118	0.00139	0.00141	0.00122	0.00106	0.00088	0.00071
4178250.0 /	0.00711	0.00682	0.00382	0.00211	0.00130	0.00088	0.00065	0.00050
4178000.0 /	0.04669	0.00953	0.00475	0.00277	0.00180	0.00126	0.00094	0.00073
4177750.0 /	0.04985	0.01190	0.00403	0.00220	0.00144	0.00110	0.00092	0.00079
4177500.0 /	0.01846	0.01316	0.00534	0.00259	0.00152	0.00106	0.00077	0.00060
4177250.0 /	0.00820	0.01081	0.00567	0.00311	0.00191	0.00115	0.00083	0.00065
4177000.0 /	0.00450	0.00740	0.00580	0.00318	0.00207	0.00148	0.00095	0.00068
4176750.0 /	0.00286	0.00495	0.00500	0.00351	0.00206	0.00150	0.00117	0.00082
4176500.0 /	0.00200	0.00342	0.00402	0.00333	0.00232	0.00147	0.00115	0.00096
4176250.0 /	0.00150	0.00244	0.00313	0.00299	0.00235	0.00163	0.00111	0.00092
4176000.0 /	0.00117	0.00180	0.00244	0.00259	0.00221	0.00174	0.00121	0.00088

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.06765 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00041	0.00036	0.00029	0.00031	0.00042	0.00060	0.00065	0.00088	0.00092
4179750.0 /	0.00047	0.00051	0.00044	0.00037	0.00042	0.00065	0.00080	0.00101	0.00110
4179500.0 /	0.00042	0.00057	0.00066	0.00058	0.00049	0.00066	0.00102	0.00120	0.00136
4179250.0 /	0.00044	0.00051	0.00071	0.00090	0.00080	0.00072	0.00120	0.00153	0.00179
4179000.0 /	0.00068	0.00068	0.00069	0.00090	0.00130	0.00119	0.00126	0.00221	0.00255
4178750.0 /	0.00093	0.00103	0.00113	0.00117	0.00128	0.00205	0.00204	0.00317	0.00421
4178500.0 /	0.00112	0.00134	0.00161	0.00195	0.00234	0.00265	0.00373	0.00464	0.00921
4178250.0 /	0.00102	0.00127	0.00164	0.00220	0.00314	0.00485	0.00821	0.01382	0.03599
4178000.0 /	0.00100	0.00125	0.00160	0.00217	0.00314	0.00508	0.00979	0.02340	0.03542
4177750.0 /	0.00118	0.00147	0.00187	0.00239	0.00300	0.00357	0.00278	0.00359	0.02583
4177500.0 /	0.00111	0.00124	0.00139	0.00147	0.00121	0.00090	0.00133	0.00621	0.00940
4177250.0 /	0.00082	0.00083	0.00070	0.00052	0.00051	0.00071	0.00212	0.00516	0.00503
4177000.0 /	0.00047	0.00036	0.00031	0.00035	0.00045	0.00099	0.00253	0.00420	0.00327
4176750.0 /	0.00022	0.00022	0.00025	0.00031	0.00057	0.00135	0.00228	0.00324	0.00235
4176500.0 /	0.00017	0.00020	0.00023	0.00037	0.00078	0.00145	0.00208	0.00244	0.00180
4176250.0 /	0.00016	0.00018	0.00026	0.00049	0.00094	0.00136	0.00194	0.00187	0.00143
4176000.0 /	0.00015	0.00020	0.00034	0.00061	0.00098	0.00126	0.00175	0.00148	0.00118

1

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.06765 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00067	0.00059	0.00052	0.00040	0.00030	0.00028	0.00035	0.00040
4179750.0 /	0.00079	0.00073	0.00061	0.00044	0.00036	0.00043	0.00050	0.00038
4179500.0 /	0.00097	0.00094	0.00070	0.00050	0.00054	0.00064	0.00046	0.00029
4179250.0 /	0.00130	0.00122	0.00080	0.00074	0.00088	0.00058	0.00037	0.00035
4179000.0 /	0.00195	0.00157	0.00111	0.00131	0.00076	0.00055	0.00058	0.00064
4178750.0 /	0.00351	0.00211	0.00227	0.00113	0.00100	0.00108	0.00107	0.00099
4178500.0 /	0.00738	0.00522	0.00236	0.00236	0.00205	0.00169	0.00142	0.00122
4178250.0 /	0.02716	0.01053	0.00579	0.00369	0.00258	0.00193	0.00150	0.00121
4178000.0 /	0.06765	0.01509	0.00679	0.00378	0.00243	0.00172	0.00130	0.00102
4177750.0 /	0.02184	0.01602	0.00665	0.00361	0.00254	0.00197	0.00158	0.00128
4177500.0 /	0.00790	0.00803	0.00739	0.00441	0.00269	0.00180	0.00136	0.00113
4177250.0 /	0.00418	0.00491	0.00462	0.00447	0.00319	0.00218	0.00155	0.00114
4177000.0 /	0.00277	0.00322	0.00306	0.00314	0.00310	0.00245	0.00182	0.00136
4176750.0 /	0.00203	0.00208	0.00231	0.00224	0.00234	0.00234	0.00196	0.00154
4176500.0 /	0.00158	0.00147	0.00181	0.00169	0.00175	0.00184	0.00185	0.00162
4176250.0 /	0.00127	0.00113	0.00136	0.00139	0.00137	0.00143	0.00151	0.00153
4176000.0 /	0.00106	0.00092	0.00102	0.00119	0.00110	0.00116	0.00120	0.00128

*** 30 Day Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04755 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS (METERS) /	569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
	X-AXIS (METERS)								
4180000.0 /	0.00014	0.00016	0.00025	0.00038	0.00046	0.00052	0.00050	0.00072	0.00070
4179750.0 /	0.00019	0.00018	0.00021	0.00036	0.00052	0.00064	0.00062	0.00085	0.00088
4179500.0 /	0.00024	0.00025	0.00024	0.00029	0.00053	0.00076	0.00086	0.00101	0.00116
4179250.0 /	0.00025	0.00030	0.00034	0.00034	0.00044	0.00085	0.00119	0.00126	0.00162
4179000.0 /	0.00024	0.00030	0.00039	0.00050	0.00053	0.00072	0.00152	0.00186	0.00247
4178750.0 /	0.00025	0.00030	0.00038	0.00052	0.00075	0.00095	0.00143	0.00325	0.00432
4178500.0 /	0.00023	0.00029	0.00038	0.00053	0.00075	0.00119	0.00207	0.00422	0.00959
4178250.0 /	0.00026	0.00033	0.00041	0.00055	0.00077	0.00119	0.00225	0.00616	0.04193
4178000.0 /	0.00019	0.00024	0.00031	0.00042	0.00061	0.00100	0.00195	0.00508	0.00746
4177750.0 /	0.00023	0.00028	0.00036	0.00048	0.00065	0.00088	0.00131	0.00067	0.00421
4177500.0 /	0.00023	0.00027	0.00032	0.00037	0.00046	0.00062	0.00024	0.00065	0.00164
4177250.0 /	0.00020	0.00021	0.00024	0.00033	0.00031	0.00012	0.00022	0.00055	0.00085
4177000.0 /	0.00015	0.00019	0.00024	0.00018	0.00007	0.00010	0.00023	0.00046	0.00052
4176750.0 /	0.00016	0.00017	0.00011	0.00005	0.00006	0.00012	0.00021	0.00037	0.00035
4176500.0 /	0.00012	0.00007	0.00003	0.00004	0.00007	0.00012	0.00019	0.00029	0.00026
4176250.0 /	0.00005	0.00002	0.00003	0.00004	0.00007	0.00011	0.00018	0.00023	0.00020
4176000.0 /	0.00002	0.00002	0.00003	0.00005	0.00007	0.00010	0.00016	0.00018	0.00016

'N'-DAY
30 DAYS
SGROUP# 1

*** 30 Day Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04755 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00080	0.00125	0.00164	0.00122	0.00061	0.00041	0.00042	0.00040
4179750.0 /	0.00103	0.00167	0.00184	0.00103	0.00055	0.00052	0.00050	0.00042
4179500.0 /	0.00141	0.00227	0.00186	0.00084	0.00068	0.00065	0.00054	0.00051
4179250.0 /	0.00204	0.00301	0.00157	0.00094	0.00089	0.00074	0.00071	0.00070
4179000.0 /	0.00326	0.00354	0.00147	0.00134	0.00111	0.00105	0.00099	0.00089
4178750.0 /	0.00608	0.00313	0.00233	0.00190	0.00170	0.00142	0.00116	0.00095
4178500.0 /	0.01287	0.00541	0.00405	0.00290	0.00205	0.00154	0.00123	0.00102
4178250.0 /	0.02935	0.01151	0.00568	0.00352	0.00242	0.00177	0.00137	0.00109
4178000.0 /	0.04755	0.01230	0.00571	0.00329	0.00218	0.00158	0.00121	0.00097
4177750.0 /	0.00595	0.00730	0.00470	0.00283	0.00206	0.00163	0.00131	0.00108
4177500.0 /	0.00215	0.00249	0.00291	0.00247	0.00184	0.00136	0.00108	0.00093
4177250.0 /	0.00107	0.00117	0.00147	0.00161	0.00149	0.00126	0.00103	0.00083
4177000.0 /	0.00064	0.00070	0.00079	0.00099	0.00104	0.00100	0.00091	0.00079
4176750.0 /	0.00043	0.00049	0.00051	0.00058	0.00073	0.00074	0.00071	0.00069
4176500.0 /	0.00031	0.00036	0.00035	0.00041	0.00045	0.00056	0.00056	0.00054
4176250.0 /	0.00023	0.00027	0.00028	0.00029	0.00033	0.00037	0.00045	0.00044
4176000.0 /	0.00018	0.00021	0.00023	0.00022	0.00025	0.00027	0.00031	0.00037

*** 30 Day Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05199 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00036	0.00033	0.00046	0.00045	0.00056	0.00074	0.00073	0.00071
4179750.0 /	0.00045	0.00047	0.00058	0.00062	0.00088	0.00093	0.00089	0.00075
4179500.0 /	0.00058	0.00070	0.00075	0.00105	0.00122	0.00115	0.00094	0.00074
4179250.0 /	0.00080	0.00106	0.00122	0.00169	0.00159	0.00124	0.00095	0.00082
4179000.0 /	0.00124	0.00162	0.00249	0.00238	0.00172	0.00131	0.00113	0.00106
4178750.0 /	0.00246	0.00380	0.00412	0.00266	0.00200	0.00176	0.00166	0.00157
4178500.0 /	0.00679	0.00949	0.00502	0.00382	0.00331	0.00284	0.00242	0.00208
4178250.0 /	0.04940	0.01750	0.01007	0.00648	0.00464	0.00357	0.00287	0.00239
4178000.0 /	0.05199	0.01597	0.00817	0.00534	0.00390	0.00304	0.00248	0.00208
4177750.0 /	0.01093	0.00830	0.00552	0.00383	0.00280	0.00217	0.00178	0.00152
4177500.0 /	0.00400	0.00382	0.00340	0.00283	0.00223	0.00181	0.00150	0.00128
4177250.0 /	0.00233	0.00236	0.00198	0.00190	0.00181	0.00148	0.00128	0.00110
4177000.0 /	0.00159	0.00146	0.00143	0.00126	0.00124	0.00127	0.00111	0.00095
4176750.0 /	0.00116	0.00098	0.00108	0.00096	0.00089	0.00089	0.00094	0.00088
4176500.0 /	0.00089	0.00074	0.00081	0.00078	0.00070	0.00067	0.00067	0.00072
4176250.0 /	0.00070	0.00060	0.00060	0.00065	0.00059	0.00053	0.00053	0.00053
4176000.0 /	0.00057	0.00050	0.00046	0.00053	0.00051	0.00046	0.00043	0.00043

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05318 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00017	0.00009	0.00006	0.00006	0.00008	0.00012	0.00012	0.00007	0.00007
4179750.0 /	0.00033	0.00022	0.00011	0.00007	0.00008	0.00013	0.00017	0.00010	0.00009
4179500.0 /	0.00045	0.00044	0.00032	0.00015	0.00010	0.00013	0.00022	0.00016	0.00012
4179250.0 /	0.00061	0.00061	0.00062	0.00047	0.00021	0.00015	0.00024	0.00027	0.00018
4179000.0 /	0.00074	0.00088	0.00091	0.00092	0.00078	0.00032	0.00026	0.00048	0.00028
4178750.0 /	0.00047	0.00071	0.00109	0.00145	0.00156	0.00147	0.00054	0.00069	0.00055
4178500.0 /	0.00036	0.00044	0.00060	0.00095	0.00178	0.00311	0.00356	0.00116	0.00162
4178250.0 /	0.00036	0.00045	0.00059	0.00078	0.00111	0.00171	0.00349	0.01439	0.00933
4178000.0 /	0.00024	0.00029	0.00037	0.00049	0.00068	0.00106	0.00198	0.00543	0.00405
4177750.0 /	0.00023	0.00029	0.00037	0.00050	0.00073	0.00108	0.00085	0.00070	0.00057
4177500.0 /	0.00024	0.00030	0.00040	0.00047	0.00039	0.00024	0.00029	0.00005	0.00012
4177250.0 /	0.00026	0.00028	0.00023	0.00015	0.00013	0.00016	0.00005	0.00007	0.00004
4177000.0 /	0.00015	0.00011	0.00008	0.00009	0.00011	0.00005	0.00001	0.00009	0.00002
4176750.0 /	0.00006	0.00006	0.00007	0.00008	0.00004	0.00001	0.00002	0.00007	0.00001
4176500.0 /	0.00004	0.00005	0.00006	0.00004	0.00001	0.00001	0.00003	0.00004	0.00000
4176250.0 /	0.00005	0.00005	0.00003	0.00001	0.00001	0.00001	0.00004	0.00003	0.00000
4176000.0 /	0.00004	0.00003	0.00001	0.00001	0.00000	0.00001	0.00004	0.00002	0.00000

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05318 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00017	0.00035	0.00058	0.00073	0.00053	0.00057	0.00061	0.00063
4179750.0 /	0.00024	0.00050	0.00087	0.00078	0.00069	0.00077	0.00080	0.00082
4179500.0 /	0.00036	0.00079	0.00119	0.00090	0.00101	0.00106	0.00110	0.00110
4179250.0 /	0.00059	0.00141	0.00139	0.00138	0.00148	0.00154	0.00145	0.00115
4179000.0 /	0.00110	0.00249	0.00204	0.00226	0.00232	0.00194	0.00142	0.00114
4178750.0 /	0.00264	0.00360	0.00401	0.00385	0.00266	0.00197	0.00161	0.00132
4178500.0 /	0.00976	0.00952	0.00716	0.00436	0.00309	0.00221	0.00163	0.00124
4178250.0 /	0.05318	0.01929	0.00817	0.00434	0.00271	0.00187	0.00138	0.00107
4178000.0 /	0.02559	0.01343	0.00639	0.00366	0.00239	0.00170	0.00128	0.00101
4177750.0 /	0.00223	0.00235	0.00300	0.00248	0.00199	0.00161	0.00130	0.00105
4177500.0 /	0.00043	0.00100	0.00086	0.00104	0.00120	0.00109	0.00094	0.00085
4177250.0 /	0.00020	0.00049	0.00052	0.00046	0.00051	0.00061	0.00068	0.00064
4177000.0 /	0.00010	0.00018	0.00036	0.00033	0.00029	0.00031	0.00036	0.00041
4176750.0 /	0.00005	0.00010	0.00023	0.00024	0.00023	0.00020	0.00021	0.00024
4176500.0 /	0.00003	0.00008	0.00011	0.00020	0.00017	0.00017	0.00015	0.00015
4176250.0 /	0.00002	0.00006	0.00006	0.00014	0.00015	0.00013	0.00013	0.00012
4176000.0 /	0.00001	0.00005	0.00004	0.00008	0.00013	0.00011	0.00011	0.00011

SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05019 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00014	0.00015	0.00019	0.00021	0.00017	0.00022	0.00025	0.00035	0.00047
4179750.0 /	0.00017	0.00017	0.00020	0.00025	0.00025	0.00024	0.00031	0.00040	0.00059
4179500.0 /	0.00016	0.00021	0.00023	0.00026	0.00034	0.00031	0.00038	0.00048	0.00078
4179250.0 /	0.00012	0.00018	0.00027	0.00032	0.00038	0.00048	0.00045	0.00062	0.00107
4179000.0 /	0.00014	0.00015	0.00020	0.00034	0.00047	0.00059	0.00071	0.00088	0.00160
4178750.0 /	0.00016	0.00020	0.00023	0.00026	0.00042	0.00077	0.00109	0.00126	0.00264
4178500.0 /	0.00013	0.00016	0.00022	0.00031	0.00045	0.00062	0.00141	0.00278	0.00502
4178250.0 /	0.00012	0.00016	0.00021	0.00028	0.00040	0.00062	0.00122	0.00323	0.01619
4178000.0 /	0.00003	0.00004	0.00005	0.00006	0.00007	0.00009	0.00013	0.00025	0.00209
4177750.0 /	0.00001	0.00001	0.00001	0.00002	0.00002	0.00016	0.00108	0.00066	0.00495
4177500.0 /	0.00001	0.00001	0.00002	0.00010	0.00035	0.00058	0.00028	0.00006	0.00251
4177250.0 /	0.00002	0.00006	0.00017	0.00031	0.00032	0.00016	0.00001	0.00038	0.00142
4177000.0 /	0.00011	0.00018	0.00022	0.00020	0.00011	0.00001	0.00002	0.00052	0.00091
4176750.0 /	0.00016	0.00016	0.00013	0.00008	0.00001	0.00000	0.00010	0.00049	0.00064
4176500.0 /	0.00012	0.00010	0.00006	0.00001	0.00000	0.00001	0.00017	0.00042	0.00047
4176250.0 /	0.00008	0.00005	0.00001	0.00000	0.00000	0.00004	0.00021	0.00036	0.00037
4176000.0 /	0.00004	0.00001	0.00000	0.00000	0.00001	0.00007	0.00021	0.00031	0.00029

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05019 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00032	0.00034	0.00044	0.00057	0.00049	0.00044	0.00052	0.00061
4179750.0 /	0.00041	0.00045	0.00065	0.00069	0.00057	0.00065	0.00077	0.00070
4179500.0 /	0.00056	0.00066	0.00095	0.00080	0.00084	0.00101	0.00089	0.00076
4179250.0 /	0.00080	0.00112	0.00126	0.00115	0.00140	0.00120	0.00103	0.00097
4179000.0 /	0.00128	0.00205	0.00175	0.00213	0.00174	0.00151	0.00136	0.00115
4178750.0 /	0.00254	0.00334	0.00375	0.00289	0.00242	0.00190	0.00145	0.00113
4178500.0 /	0.00843	0.00890	0.00608	0.00406	0.00266	0.00187	0.00139	0.00107
4178250.0 /	0.05019	0.01714	0.00703	0.00381	0.00242	0.00171	0.00128	0.00100
4178000.0 /	0.02626	0.00738	0.00451	0.00294	0.00205	0.00152	0.00117	0.00093
4177750.0 /	0.00460	0.00259	0.00304	0.00166	0.00093	0.00072	0.00064	0.00059
4177500.0 /	0.00161	0.00187	0.00100	0.00121	0.00122	0.00087	0.00055	0.00036
4177250.0 /	0.00113	0.00095	0.00098	0.00055	0.00059	0.00071	0.00069	0.00056
4177000.0 /	0.00084	0.00051	0.00064	0.00061	0.00036	0.00034	0.00043	0.00047
4176750.0 /	0.00063	0.00034	0.00043	0.00046	0.00042	0.00025	0.00022	0.00028
4176500.0 /	0.00049	0.00028	0.00028	0.00034	0.00035	0.00030	0.00019	0.00016
4176250.0 /	0.00039	0.00025	0.00019	0.00025	0.00027	0.00027	0.00023	0.00015
4176000.0 /	0.00031	0.00024	0.00015	0.00019	0.00021	0.00022	0.00022	0.00019

30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.08379 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00006	0.00009	0.00013	0.00022	0.00025	0.00023	0.00019	0.00021	0.00021
4179750.0 /	0.00005	0.00007	0.00011	0.00019	0.00030	0.00031	0.00026	0.00026	0.00028
4179500.0 /	0.00008	0.00007	0.00009	0.00015	0.00028	0.00041	0.00038	0.00034	0.00037
4179250.0 /	0.00006	0.00009	0.00010	0.00012	0.00022	0.00046	0.00056	0.00046	0.00053
4179000.0 /	0.00001	0.00004	0.00010	0.00015	0.00017	0.00035	0.00081	0.00076	0.00083
4178750.0 /	0.00001	0.00001	0.00002	0.00006	0.00020	0.00028	0.00067	0.00150	0.00147
4178500.0 /	0.00004	0.00003	0.00003	0.00002	0.00003	0.00014	0.00057	0.00194	0.00327
4178250.0 /	0.00004	0.00005	0.00007	0.00009	0.00013	0.00017	0.00017	0.00060	0.01708
4178000.0 /	0.00001	0.00001	0.00001	0.00001	0.00001	0.00002	0.00002	0.00003	0.00429
4177750.0 /	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00087	0.00056
4177500.0 /	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00037	0.00003	0.00018
4177250.0 /	0.00000	0.00000	0.00000	0.00001	0.00007	0.00022	0.00004	0.00006	0.00008
4177000.0 /	0.00000	0.00000	0.00001	0.00007	0.00015	0.00005	0.00001	0.00006	0.00004
4176750.0 /	0.00000	0.00001	0.00006	0.00011	0.00005	0.00001	0.00002	0.00005	0.00003
4176500.0 /	0.00002	0.00005	0.00009	0.00005	0.00001	0.00000	0.00002	0.00003	0.00002
4176250.0 /	0.00005	0.00007	0.00005	0.00001	0.00000	0.00001	0.00002	0.00003	0.00001
4176000.0 /	0.00006	0.00004	0.00001	0.00000	0.00000	0.00001	0.00002	0.00002	0.00001

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.08379 AND OCCURRED AT (571250.0, 4178250.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00018	0.00044	0.00065	0.00088	0.00090	0.00096	0.00104	0.00112
4179750.0 /	0.00025	0.00066	0.00095	0.00115	0.00119	0.00130	0.00141	0.00134
4179500.0 /	0.00039	0.00099	0.00144	0.00154	0.00169	0.00184	0.00174	0.00164
4179250.0 /	0.00068	0.00161	0.00213	0.00232	0.00255	0.00238	0.00220	0.00191
4179000.0 /	0.00137	0.00301	0.00344	0.00384	0.00352	0.00305	0.00243	0.00191
4178750.0 /	0.00339	0.00586	0.00671	0.00582	0.00439	0.00313	0.00227	0.00170
4178500.0 /	0.01174	0.01563	0.01123	0.00647	0.00395	0.00266	0.00193	0.00148
4178250.0 /	0.08379	0.02455	0.00928	0.00488	0.00304	0.00210	0.00156	0.00121
4178000.0 /	0.02635	0.00549	0.00351	0.00237	0.00171	0.00129	0.00102	0.00083
4177750.0 /	0.00219	0.00344	0.00273	0.00126	0.00069	0.00056	0.00051	0.00047
4177500.0 /	0.00031	0.00082	0.00127	0.00140	0.00109	0.00070	0.00041	0.00028
4177250.0 /	0.00008	0.00048	0.00048	0.00068	0.00082	0.00074	0.00062	0.00046
4177000.0 /	0.00004	0.00022	0.00031	0.00033	0.00043	0.00054	0.00053	0.00048
4176750.0 /	0.00002	0.00009	0.00023	0.00021	0.00024	0.00030	0.00038	0.00040
4176500.0 /	0.00001	0.00004	0.00014	0.00018	0.00016	0.00019	0.00023	0.00028
4176250.0 /	0.00001	0.00002	0.00008	0.00014	0.00013	0.00013	0.00015	0.00018
4176000.0 /	0.00001	0.00001	0.00004	0.00010	0.00012	0.00011	0.00011	0.00013

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04605 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00013	0.00017	0.00012	0.00005	0.00003	0.00005	0.00006	0.00009	0.00016
4179750.0 /	0.00007	0.00015	0.00020	0.00012	0.00005	0.00005	0.00007	0.00010	0.00020
4179500.0 /	0.00003	0.00006	0.00017	0.00025	0.00013	0.00006	0.00009	0.00012	0.00026
4179250.0 /	0.00006	0.00004	0.00006	0.00020	0.00032	0.00014	0.00010	0.00015	0.00036
4179000.0 /	0.00010	0.00010	0.00008	0.00007	0.00023	0.00045	0.00016	0.00021	0.00053
4178750.0 /	0.00011	0.00014	0.00016	0.00017	0.00013	0.00027	0.00071	0.00031	0.00086
4178500.0 /	0.00014	0.00016	0.00019	0.00024	0.00032	0.00038	0.00034	0.00137	0.00153
4178250.0 /	0.00021	0.00025	0.00032	0.00040	0.00053	0.00071	0.00104	0.00195	0.00487
4178000.0 /	0.00006	0.00007	0.00008	0.00009	0.00010	0.00010	0.00006	0.00001	0.00462
4177750.0 /	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00038	0.00041	0.00217
4177500.0 /	0.00000	0.00000	0.00000	0.00001	0.00010	0.00026	0.00014	0.00056	0.00062
4177250.0 /	0.00000	0.00001	0.00004	0.00012	0.00014	0.00007	0.00029	0.00047	0.00029
4177000.0 /	0.00002	0.00006	0.00010	0.00008	0.00004	0.00016	0.00020	0.00034	0.00018
4176750.0 /	0.00007	0.00008	0.00005	0.00002	0.00009	0.00014	0.00019	0.00021	0.00012
4176500.0 /	0.00006	0.00003	0.00002	0.00006	0.00011	0.00011	0.00018	0.00013	0.00009
4176250.0 /	0.00002	0.00001	0.00004	0.00009	0.00008	0.00010	0.00015	0.00009	0.00007
4176000.0 /	0.00001	0.00002	0.00006	0.00007	0.00007	0.00011	0.00012	0.00006	0.00005

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.04605 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00017	0.00041	0.00037	0.00032	0.00044	0.00050	0.00041	0.00035
4179750.0 /	0.00025	0.00055	0.00041	0.00049	0.00064	0.00054	0.00044	0.00044
4179500.0 /	0.00038	0.00071	0.00055	0.00080	0.00074	0.00059	0.00058	0.00058
4179250.0 /	0.00065	0.00088	0.00098	0.00110	0.00083	0.00081	0.00079	0.00077
4179000.0 /	0.00125	0.00126	0.00175	0.00128	0.00122	0.00117	0.00120	0.00128
4178750.0 /	0.00267	0.00300	0.00229	0.00209	0.00206	0.00215	0.00204	0.00177
4178500.0 /	0.00578	0.00549	0.00476	0.00472	0.00385	0.00288	0.00216	0.00166
4178250.0 /	0.03109	0.02141	0.00982	0.00540	0.00349	0.00250	0.00191	0.00152
4178000.0 /	0.04605	0.01995	0.00983	0.00583	0.00389	0.00281	0.00214	0.00170
4177750.0 /	0.00542	0.00500	0.00548	0.00432	0.00311	0.00243	0.00200	0.00170
4177500.0 /	0.00108	0.00186	0.00205	0.00191	0.00221	0.00200	0.00163	0.00135
4177250.0 /	0.00032	0.00117	0.00112	0.00116	0.00099	0.00113	0.00126	0.00120
4177000.0 /	0.00016	0.00067	0.00062	0.00077	0.00076	0.00064	0.00066	0.00077
4176750.0 /	0.00010	0.00030	0.00054	0.00043	0.00057	0.00055	0.00046	0.00045
4176500.0 /	0.00007	0.00015	0.00041	0.00034	0.00034	0.00044	0.00042	0.00036
4176250.0 /	0.00006	0.00008	0.00026	0.00032	0.00024	0.00029	0.00035	0.00034
4176000.0 /	0.00004	0.00005	0.00015	0.00028	0.00022	0.00020	0.00025	0.00029

30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.07135 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
					X-AXIS (METERS)				
4180000.0 /	0.00004	0.00004	0.00003	0.00002	0.00002	0.00002	0.00002	0.00003	0.00005
4179750.0 /	0.00007	0.00006	0.00005	0.00004	0.00003	0.00003	0.00003	0.00004	0.00007
4179500.0 /	0.00011	0.00009	0.00007	0.00007	0.00005	0.00004	0.00004	0.00004	0.00009
4179250.0 /	0.00010	0.00014	0.00014	0.00011	0.00009	0.00006	0.00006	0.00006	0.00012
4179000.0 /	0.00008	0.00011	0.00016	0.00021	0.00017	0.00013	0.00010	0.00009	0.00018
4178750.0 /	0.00011	0.00012	0.00013	0.00019	0.00031	0.00033	0.00023	0.00018	0.00030
4178500.0 /	0.00010	0.00014	0.00019	0.00023	0.00028	0.00042	0.00078	0.00052	0.00059
4178250.0 /	0.00002	0.00003	0.00005	0.00009	0.00018	0.00040	0.00091	0.00200	0.00291
4178000.0 /	0.00000	0.00000	0.00000	0.00000	0.00001	0.00005	0.00025	0.00237	0.01243
4177750.0 /	0.00002	0.00004	0.00009	0.00019	0.00038	0.00062	0.00073	0.00146	0.00447
4177500.0 /	0.00011	0.00017	0.00024	0.00027	0.00027	0.00040	0.00056	0.00075	0.00173
4177250.0 /	0.00015	0.00016	0.00015	0.00017	0.00028	0.00030	0.00057	0.00051	0.00090
4177000.0 /	0.00010	0.00010	0.00013	0.00020	0.00019	0.00034	0.00022	0.00056	0.00056
4176750.0 /	0.00008	0.00011	0.00015	0.00013	0.00021	0.00025	0.00016	0.00045	0.00038
4176500.0 /	0.00010	0.00012	0.00010	0.00013	0.00022	0.00010	0.00021	0.00034	0.00028
4176250.0 /	0.00010	0.00008	0.00009	0.00017	0.00013	0.00007	0.00023	0.00026	0.00021
4176000.0 /	0.00006	0.00007	0.00013	0.00014	0.00006	0.00010	0.00021	0.00021	0.00017

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.07135 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00008	0.00021	0.00048	0.00070	0.00049	0.00035	0.00028	0.00024
4179750.0 /	0.00011	0.00034	0.00076	0.00076	0.00048	0.00037	0.00030	0.00031
4179500.0 /	0.00017	0.00061	0.00111	0.00071	0.00050	0.00040	0.00041	0.00041
4179250.0 /	0.00030	0.00118	0.00124	0.00073	0.00057	0.00058	0.00056	0.00057
4179000.0 /	0.00064	0.00222	0.00122	0.00088	0.00088	0.00086	0.00097	0.00107
4178750.0 /	0.00186	0.00270	0.00158	0.00156	0.00168	0.00183	0.00163	0.00134
4178500.0 /	0.00828	0.00383	0.00390	0.00408	0.00313	0.00234	0.00183	0.00148
4178250.0 /	0.02249	0.01889	0.00935	0.00566	0.00386	0.00283	0.00218	0.00175
4178000.0 /	0.07135	0.02855	0.01203	0.00667	0.00431	0.00306	0.00230	0.00181
4177750.0 /	0.00746	0.00819	0.00750	0.00590	0.00457	0.00340	0.00254	0.00195
4177500.0 /	0.00308	0.00333	0.00299	0.00336	0.00287	0.00251	0.00224	0.00197
4177250.0 /	0.00163	0.00149	0.00173	0.00157	0.00188	0.00177	0.00157	0.00142
4177000.0 /	0.00098	0.00095	0.00111	0.00106	0.00099	0.00117	0.00122	0.00111
4176750.0 /	0.00065	0.00073	0.00065	0.00083	0.00072	0.00069	0.00080	0.00088
4176500.0 /	0.00046	0.00057	0.00046	0.00056	0.00062	0.00053	0.00051	0.00058
4176250.0 /	0.00034	0.00044	0.00039	0.00037	0.00048	0.00047	0.00041	0.00039
4176000.0 /	0.00026	0.00035	0.00034	0.00028	0.00034	0.00040	0.00037	0.00033

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05859 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00027	0.00029	0.00031	0.00033	0.00030	0.00021	0.00025	0.00026	0.00023
4179750.0 /	0.00035	0.00034	0.00036	0.00039	0.00042	0.00032	0.00028	0.00034	0.00030
4179500.0 /	0.00041	0.00045	0.00045	0.00048	0.00053	0.00052	0.00036	0.00046	0.00041
4179250.0 /	0.00053	0.00054	0.00060	0.00062	0.00066	0.00075	0.00061	0.00062	0.00058
4179000.0 /	0.00060	0.00073	0.00079	0.00086	0.00093	0.00101	0.00115	0.00084	0.00092
4178750.0 /	0.00052	0.00067	0.00091	0.00120	0.00138	0.00159	0.00180	0.00171	0.00173
4178500.0 /	0.00040	0.00054	0.00074	0.00106	0.00162	0.00260	0.00340	0.00438	0.00445
4178250.0 /	0.00025	0.00033	0.00044	0.00062	0.00098	0.00176	0.00394	0.01225	0.02307
4178000.0 /	0.00022	0.00027	0.00036	0.00048	0.00071	0.00116	0.00226	0.00522	0.02039
4177750.0 /	0.00028	0.00035	0.00044	0.00055	0.00068	0.00087	0.00069	0.00234	0.01291
4177500.0 /	0.00025	0.00028	0.00032	0.00038	0.00031	0.00027	0.00090	0.00354	0.00595
4177250.0 /	0.00020	0.00022	0.00019	0.00012	0.00021	0.00050	0.00104	0.00261	0.00356
4177000.0 /	0.00013	0.00008	0.00007	0.00017	0.00033	0.00046	0.00142	0.00173	0.00241
4176750.0 /	0.00004	0.00006	0.00014	0.00024	0.00028	0.00069	0.00119	0.00126	0.00175
4176500.0 /	0.00006	0.00012	0.00018	0.00020	0.00036	0.00081	0.00091	0.00097	0.00134
4176250.0 /	0.00011	0.00015	0.00015	0.00022	0.00049	0.00071	0.00073	0.00080	0.00107
4176000.0 /	0.00012	0.00012	0.00015	0.00030	0.00054	0.00058	0.00060	0.00068	0.00087

1

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.05859 AND OCCURRED AT (571250.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00032	0.00049	0.00061	0.00063	0.00041	0.00032	0.00039	0.00048
4179750.0 /	0.00043	0.00068	0.00081	0.00066	0.00042	0.00048	0.00060	0.00057
4179500.0 /	0.00060	0.00096	0.00104	0.00062	0.00062	0.00079	0.00072	0.00056
4179250.0 /	0.00093	0.00144	0.00112	0.00083	0.00109	0.00095	0.00071	0.00055
4179000.0 /	0.00161	0.00219	0.00126	0.00164	0.00132	0.00093	0.00069	0.00057
4178750.0 /	0.00337	0.00260	0.00287	0.00201	0.00130	0.00101	0.00092	0.00085
4178500.0 /	0.00912	0.00670	0.00353	0.00232	0.00195	0.00160	0.00127	0.00101
4178250.0 /	0.03617	0.01153	0.00613	0.00356	0.00235	0.00169	0.00129	0.00103
4178000.0 /	0.05859	0.01703	0.00793	0.00453	0.00295	0.00209	0.00157	0.00123
4177750.0 /	0.02606	0.01227	0.00549	0.00347	0.00262	0.00203	0.00161	0.00131
4177500.0 /	0.01105	0.00607	0.00551	0.00318	0.00210	0.00156	0.00129	0.00111
4177250.0 /	0.00608	0.00561	0.00339	0.00325	0.00211	0.00154	0.00116	0.00092
4177000.0 /	0.00398	0.00415	0.00245	0.00232	0.00221	0.00154	0.00119	0.00094
4176750.0 /	0.00282	0.00278	0.00261	0.00146	0.00172	0.00163	0.00119	0.00095
4176500.0 /	0.00210	0.00203	0.00227	0.00146	0.00108	0.00134	0.00127	0.00096
4176250.0 /	0.00162	0.00160	0.00175	0.00157	0.00092	0.00089	0.00109	0.00103
4176000.0 /	0.00129	0.00133	0.00134	0.00147	0.00100	0.00067	0.00076	0.00091

30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.07461 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00040	0.00047	0.00050	0.00050	0.00041	0.00048	0.00052	0.00049	0.00047
4179750.0 /	0.00043	0.00050	0.00059	0.00064	0.00059	0.00054	0.00066	0.00063	0.00060
4179500.0 /	0.00048	0.00054	0.00064	0.00077	0.00084	0.00072	0.00082	0.00085	0.00080
4179250.0 /	0.00064	0.00065	0.00071	0.00086	0.00108	0.00115	0.00101	0.00121	0.00113
4179000.0 /	0.00073	0.00088	0.00095	0.00102	0.00124	0.00164	0.00164	0.00182	0.00175
4178750.0 /	0.00068	0.00084	0.00112	0.00146	0.00167	0.00201	0.00291	0.00279	0.00317
4178500.0 /	0.00062	0.00078	0.00102	0.00140	0.00206	0.00318	0.00414	0.00697	0.00771
4178250.0 /	0.00067	0.00081	0.00102	0.00134	0.00187	0.00291	0.00558	0.01536	0.03606
4178000.0 /	0.00077	0.00096	0.00123	0.00165	0.00238	0.00382	0.00724	0.01653	0.07461
4177750.0 /	0.00087	0.00109	0.00138	0.00173	0.00211	0.00254	0.00452	0.01004	0.03443
4177500.0 /	0.00080	0.00087	0.00094	0.00107	0.00150	0.00275	0.00396	0.00953	0.01458
4177250.0 /	0.00054	0.00061	0.00077	0.00116	0.00183	0.00220	0.00353	0.00675	0.00832
4177000.0 /	0.00048	0.00065	0.00093	0.00131	0.00143	0.00180	0.00370	0.00472	0.00552
4176750.0 /	0.00057	0.00076	0.00099	0.00103	0.00112	0.00207	0.00304	0.00353	0.00399
4176500.0 /	0.00064	0.00078	0.00078	0.00079	0.00127	0.00207	0.00240	0.00273	0.00305
4176250.0 /	0.00063	0.00062	0.00059	0.00085	0.00138	0.00181	0.00198	0.00217	0.00243
4176000.0 /	0.00051	0.00047	0.00061	0.00095	0.00136	0.00151	0.00169	0.00177	0.00200

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.07461 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00049	0.00048	0.00058	0.00076	0.00052	0.00022	0.00017	0.00020
4179750.0 /	0.00063	0.00061	0.00085	0.00084	0.00037	0.00022	0.00026	0.00029
4179500.0 /	0.00083	0.00086	0.00123	0.00069	0.00031	0.00035	0.00038	0.00035
4179250.0 /	0.00117	0.00142	0.00139	0.00049	0.00050	0.00053	0.00045	0.00038
4179000.0 /	0.00178	0.00253	0.00097	0.00078	0.00078	0.00063	0.00054	0.00048
4178750.0 /	0.00322	0.00286	0.00141	0.00127	0.00098	0.00082	0.00067	0.00057
4178500.0 /	0.00984	0.00345	0.00252	0.00180	0.00134	0.00106	0.00086	0.00071
4178250.0 /	0.02058	0.00821	0.00424	0.00256	0.00174	0.00127	0.00099	0.00079
4178000.0 /	0.05500	0.01177	0.00481	0.00273	0.00181	0.00132	0.00102	0.00081
4177750.0 /	0.02515	0.00868	0.00521	0.00309	0.00201	0.00140	0.00102	0.00079
4177500.0 /	0.01120	0.00870	0.00348	0.00274	0.00198	0.00145	0.00111	0.00088
4177250.0 /	0.00735	0.00530	0.00392	0.00191	0.00166	0.00136	0.00108	0.00087
4177000.0 /	0.00539	0.00342	0.00342	0.00219	0.00122	0.00110	0.00099	0.00083
4176750.0 /	0.00416	0.00262	0.00240	0.00227	0.00139	0.00086	0.00078	0.00075
4176500.0 /	0.00332	0.00214	0.00175	0.00185	0.00156	0.00097	0.00064	0.00059
4176250.0 /	0.00272	0.00181	0.00142	0.00141	0.00144	0.00112	0.00072	0.00049
4176000.0 /	0.00227	0.00156	0.00123	0.00110	0.00118	0.00112	0.00084	0.00055

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.08923 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 569000.0	569250.0	569500.0	569750.0	570000.0	570250.0	570500.0	570750.0	571000.0
4180000.0 /	0.00050	0.00049	0.00041	0.00036	0.00036	0.00034	0.00036	0.00085	0.00099
4179750.0 /	0.00061	0.00063	0.00061	0.00050	0.00045	0.00045	0.00040	0.00094	0.00125
4179500.0 /	0.00067	0.00077	0.00082	0.00078	0.00063	0.00060	0.00055	0.00099	0.00165
4179250.0 /	0.00071	0.00083	0.00101	0.00112	0.00107	0.00085	0.00082	0.00101	0.00230
4179000.0 /	0.00083	0.00093	0.00110	0.00137	0.00165	0.00158	0.00127	0.00120	0.00346
4178750.0 /	0.00126	0.00133	0.00139	0.00158	0.00201	0.00271	0.00267	0.00219	0.00576
4178500.0 /	0.00145	0.00178	0.00220	0.00265	0.00300	0.00353	0.00538	0.00580	0.01023
4178250.0 /	0.00133	0.00166	0.00214	0.00288	0.00413	0.00649	0.01123	0.01791	0.02574
4178000.0 /	0.00120	0.00148	0.00189	0.00251	0.00353	0.00538	0.00916	0.01811	0.08923
4177750.0 /	0.00113	0.00131	0.00153	0.00181	0.00229	0.00321	0.00354	0.01086	0.03324
4177500.0 /	0.00080	0.00093	0.00116	0.00141	0.00144	0.00148	0.00415	0.00724	0.01426
4177250.0 /	0.00074	0.00083	0.00081	0.00075	0.00096	0.00227	0.00356	0.00592	0.00834
4177000.0 /	0.00054	0.00049	0.00049	0.00071	0.00147	0.00229	0.00271	0.00459	0.00561
4176750.0 /	0.00034	0.00037	0.00056	0.00105	0.00160	0.00166	0.00247	0.00343	0.00410
4176500.0 /	0.00030	0.00046	0.00079	0.00118	0.00124	0.00148	0.00222	0.00259	0.00316
4176250.0 /	0.00039	0.00062	0.00091	0.00100	0.00101	0.00141	0.00195	0.00204	0.00253
4176000.0 /	0.00051	0.00072	0.00083	0.00078	0.00096	0.00132	0.00167	0.00167	0.00208

1

'N'-DAY
30 DAYS
SGROUP# 1

*** Lead Concentration Isopleths ***

* 30-DAY AVERAGE CONCENTRATION (MICROGRAMS/CUBIC METER) *

* FROM ALL SOURCES *
* FOR THE RECEPTOR GRID *

* MAXIMUM VALUE EQUALS 0.08923 AND OCCURRED AT (571000.0, 4178000.0) *

Y-AXIS / (METERS) /	X-AXIS (METERS) 571250.0	571500.0	571750.0	572000.0	572250.0	572500.0	572750.0	573000.0
4180000.0 /	0.00066	0.00038	0.00026	0.00033	0.00034	0.00025	0.00020	0.00018
4179750.0 /	0.00080	0.00043	0.00035	0.00045	0.00036	0.00026	0.00022	0.00017
4179500.0 /	0.00098	0.00049	0.00055	0.00053	0.00036	0.00030	0.00021	0.00013
4179250.0 /	0.00124	0.00065	0.00082	0.00055	0.00041	0.00027	0.00015	0.00013
4179000.0 /	0.00163	0.00115	0.00094	0.00062	0.00035	0.00021	0.00020	0.00018
4178750.0 /	0.00226	0.00202	0.00108	0.00048	0.00035	0.00030	0.00022	0.00016
4178500.0 /	0.00469	0.00249	0.00091	0.00065	0.00041	0.00034	0.00033	0.00032
4178250.0 /	0.01253	0.00284	0.00188	0.00141	0.00104	0.00078	0.00061	0.00049
4178000.0 /	0.01756	0.00459	0.00189	0.00110	0.00075	0.00056	0.00043	0.00035
4177750.0 /	0.03814	0.00562	0.00165	0.00120	0.00082	0.00057	0.00041	0.00031
4177500.0 /	0.01781	0.00926	0.00281	0.00088	0.00065	0.00056	0.00045	0.00037
4177250.0 /	0.01019	0.00835	0.00387	0.00172	0.00068	0.00040	0.00036	0.00034
4177000.0 /	0.00672	0.00600	0.00442	0.00217	0.00118	0.00057	0.00030	0.00024
4176750.0 /	0.00483	0.00446	0.00391	0.00258	0.00142	0.00087	0.00048	0.00027
4176500.0 /	0.00368	0.00346	0.00317	0.00264	0.00167	0.00101	0.00068	0.00041
4176250.0 /	0.00292	0.00276	0.00258	0.00237	0.00184	0.00116	0.00077	0.00055
4176000.0 /	0.00239	0.00226	0.00216	0.00203	0.00180	0.00133	0.00086	0.00061

Model Output File for 24 Hour Maximum Concentration

*** ISCST2 - VERSION 93109 ***   *** Lead Emission Modeled as Gas
*** Including Area Emission Source

*** MODELING OPTIONS USED: CONC   RURAL   FLAT   DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP:
INCLUDING SOURCE(S):   BAGHOUSE, CLEAN   , AREA   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
571125.00	4178000.00	30.28283c	(88120224)	572000.00	4178150.00	1.43

APPENDIX C-3

Source Parameters

Appendix C-3

Source Parameters

There were two sources of emission from the AB&I facility. The baghouse which filters the air from the cupola is the source of most emissions except for methyl chloroform. The methyl chloroform is emitted from a pipe coating operation which uses a dip tank and drying area. Both sources were modeled as area sources of approximately the size of the emission area. The baghouse was divided into two area sources due to its rectangular shape. The baghouse is operated under positive pressure, and the emissions, after filtering through the bags, are vented to the atmosphere without a stack. The walls of the baghouse channel most of the emission to the top of the baghouse where there is a center opening and open sides. This resulted in a height of about 10 meters. The height of the pipe coating was determined to be the average of the dip tank and the drying racks, approximately 1 meter.

APPENDIX C-4

Discussion of Modeling Parameters

Appendix C-4

Modeling Parameters

The modeling was performed using ISCST. The parameters for the model are shown for each model run in Appendix C-1. In summary, the modeling was performed for 365 days per year using meteorological datasets from the Alameda Naval Air Station for the five years 1985, 1986, 1987, 1988, and 1989. The model was run in the regulatory default mode with the calm processor turned on. The emission sources were assigned unit emission factors equal to 1 gram per second per each source. The area was determined to be urban based on the population density of the surrounding 3-kilometer area.

The model runs were all performed under the same conditions with only the UTM coordinates of the receptors being changed or the averaging time being changed to 1 hour for determination of acute exposures.

The location of the MEI was determined by modeling an area of 400 meters x 400 meters using 25-meter receptor spacing and adjusting the resulting unit concentrations by a factor of 3.8 to convert the concentration to risk. The 3.8 factor was determined using initial runs of the ARB HRA92 programs using a CHI/Q of 1.0. The results of this modeling were printed in Figure C-4(a), and the approximate location of the facility fenceline was printed on the figure. The highest risk outside of the fenceline was chosen as the MEI. Since all the points were adjusted by the same factor, the location of the MEI would not change even if the factor was different.

The location of the MER was determined by first modeling an area 2,000 meters x 1,600 meters using 100-meter spacing and adjusting the result by the same 3.8 factor described above. These results are shown on Figure C-4(b). A line was drawn on the figure to divide the residential and industrial areas. The area which showed the highest residential concentrations was then selected and remodeled using 50-meter spacing. The highest risk within the residential area was chosen as the MER.

Subsequent modeling runs used the same areas when appropriate. For determination of exposures at sensitive receptor and census tract locations, the actual UTM coordinates of each was entered into the model.

March 27, 1992 LF-2421

Scott B. Lutz
Senior Air Quality Engineer
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Subject: Selection of Dispersion Parameters for ISCST Air Dispersion Modeling
American Brass and Iron Foundry
7825 San Leandro Street
Oakland, California

Dear Mr. Lutz:

This letter is in response to your comment regarding justification for using rural or urban dispersion parameters in the ISCST air dispersion modeling for the American Brass and Iron Foundry, 7825 San Leandro Street, Oakland, California ("the Site"). The comment was attached to the letter dated January 29, 1992 from Steve Hill of the Air Toxics Evaluation Unit to David Robinson of the American Brass and Iron Foundry.

The EPA Guideline on Air Quality Models recommends the use of either its Land Use Procedure or its Population Density Procedure to determine whether the character of an area is primarily urban or rural. The Population Density Procedure was chosen to determine that the character of the area surrounding the Site is urban.

Under the EPA's Population Density Procedure, the average population density within a circular area of 3 kilometers (km) radius around the emission sources is calculated. If the calculated average population density is greater than 750 people/km^2, the urban air dispersion coefficients are to be used. Otherwise, appropriate rural air dispersion coefficients must be used.

The Thomas Brothers 1990 census tract maps were used to identify U.S. Census tracts within 3 km of the source. Some of the census tracts shown on the map (Figure 1) lie completely within the 3-km-radius circle; other tracts were mostly, partially, or barely within the circle.

2421urban.ltr/src

Emeryville, California
(510) 652-4500
FAX (510) 652-2246

The calculated sum of the populations of the census tracts that lie completely within this circle is 56,860 people. Because the area of the circle is 28 km^2, the average population density within the circle is calculated to be 2030 people/km^2. This average is lower than the actual density, however, because it disregards the populations of the census tracts that are mostly, partially, or barely within the circle.

Because the conservatively estimated population density within the 3-km-radius of the Site is greater than the lower-bound limit of 750 people/km^2, the area surrounding the Site is determined to be urban. Therefore, the ISCST model will be run in Urban Mode 3.

Figure 1 shows the Site and the census tracts within a 3-km-radius circle around the Site. Census tract populations are shown in Table 1.

Please call me with any questions at (510) 652-4500.

Sincerely,

Fariba Sirjani

Fariba Sirjani
Project Hydrologist

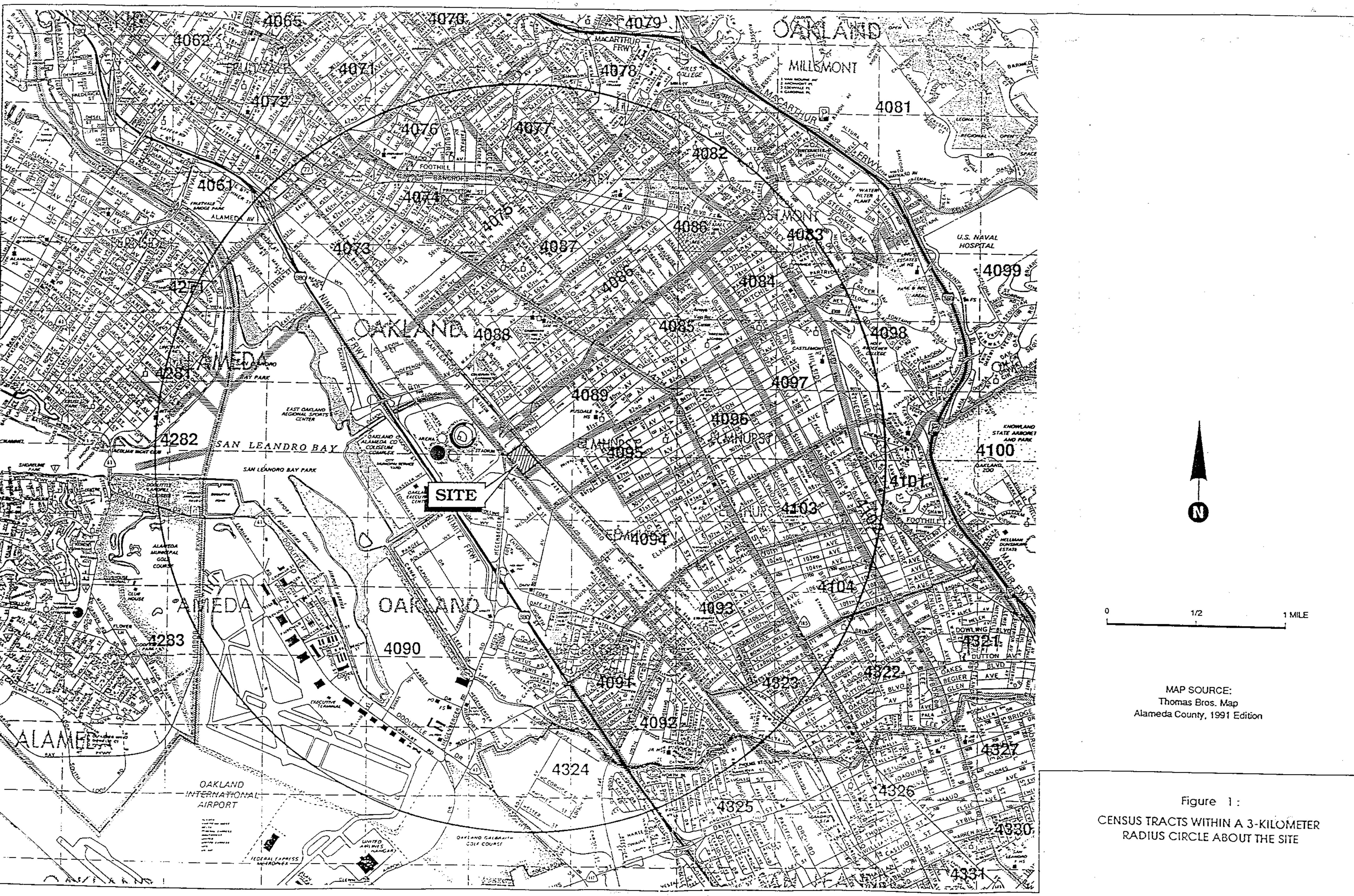
Enclosures

2421urban.ltr/src

TABLE 1
CENSUS TRACT POPULATIONS

Census Tract Number	1990 Population
The census tracts completely within the circle.*	
4073	1,516
4074	2,893
4075	3,095
4084	3,193
4085	4,198
4086	4,359
4087	5,868
4088	4,289
4089	2,811
4091	1,961
4092	2,452
4093	4,173
4094	3,070
4095	2,195
4096	4,029
4097	4,012
4103	2,746
Total:	56,860
The census tracts mostly within the circle.	
4077	4,620
4090	3,115
4102	2,728
4104	2,878
Total:	13,341
The census tracts partially within the circle.	
4076	5,513
4098	3,097
4101	2,472
4324	4,596
4325	6,866
Total:	22,544
The census tracts barely within the circle.	
4061	2,754
4072	4,708
4078	2,585
4271	3,533
4281	4,130
4282	5,860
4283	11,212
4322	3,446
Total:	38,228

Note:
* - The 3-kilometer-radius circle circumscribing the Site.



MAP SOURCE:
Thomas Bros. Map
Alameda County, 1991 Edition

Figure 1:

CENSUS TRACTS WITHIN A 3-KILOMETER RADIUS CIRCLE ABOUT THE SITE

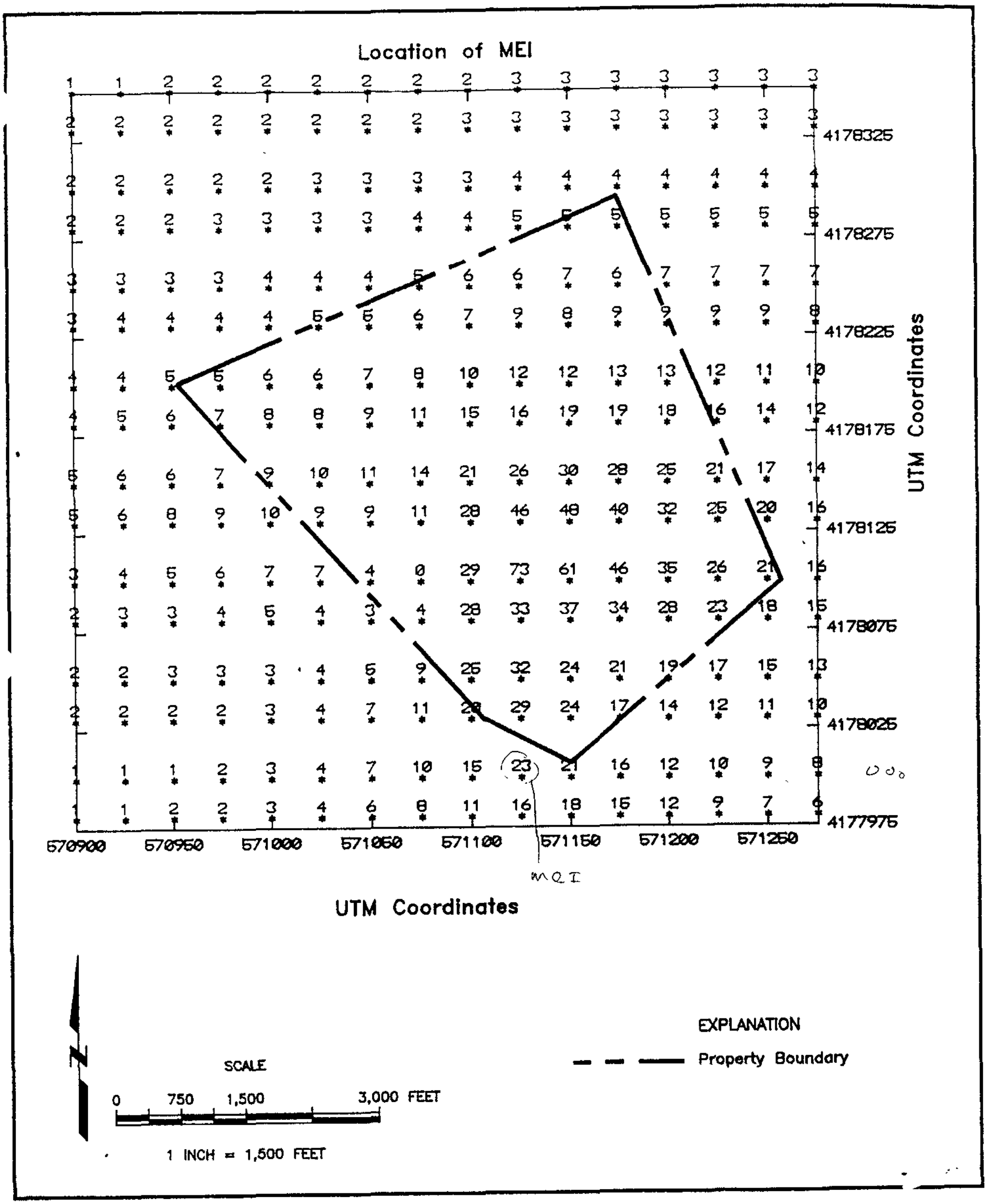


Figure C-4A : LOCATION OF MEI

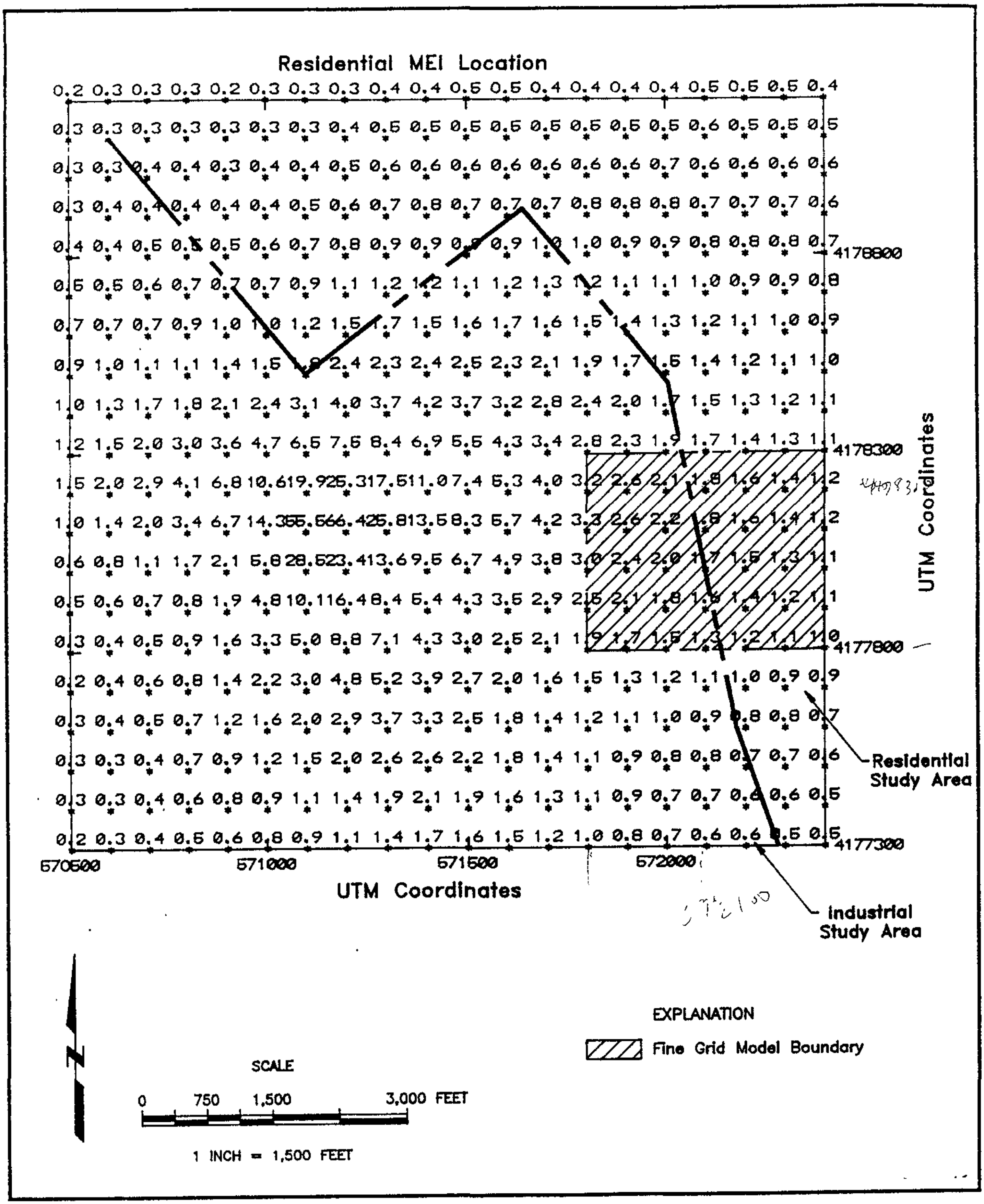


Figure C-4B : RESIDENTIAL MEI LOCATION

APPENDIX D

Multipathway Analysis

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Patrick Randall
COMPANY NAME: Bio-Environmental
PROJECT NAME: AB&I

MEI CANCER

DATE OF RUN: 08-02-1993
TIME OF RUN: 14:26:49
POLLUTANT DATA FILE VERSION: 3/13/92

****

CHRONIC EXPOSURE AND INDIVIDUAL CANCER RISK REPORT

****

EMISSION FILE NAME: D:abi.E92

POLLUTANT	EMISSION RATE (G/SEC)
ARSENIC, INORGANIC	8.7E-05
BERYLLIUM	3.9E-06
CADMIUM	2.3E-05
CHROMIUM 6+	2.2E-06
COPPER	4.4E-04
DIOXINS AND FURANS (TCDD EQ	7.7E-09
FORMALDEHYDE	1.1E-03
HYDROCHLORIC ACID	4.1E-01
LEAD	6.0E-04
MANGANESE	3.4E-03
MERCURY	1.8E-05
NICKEL	7.8E-05
PAH AS BENZO(A)PYRENE	3.5E-06
SELENIUM	3.9E-06
ZINC	5.2E-02

===

ROUTE FILE NAME: D:abi.I92

1. DEPOSITION VELOCITY - .02
2. THE FRACTION OF HOMEGROWN PRODUCE - 0

GENERAL ANIMAL EXPOSURE FACTORS

3. FARM CHI OVER Q - 0
4. FRACTION OF ANIMAL'S DIET FROM GRAZING - 0
5. FRACTION OF ANIMAL'S DIET FROM IMPACTED FEED - 0
6. FRACTION OF ANIMAL'S WATER IMPACTED BY DEPOSITION - 0

ANIMAL WATER FACTORS

. SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

FRACTION OF MEAT IN DIET PRODUCED AT HOME - 0

. THE FOLLOWING FRACTIONS OF EACH TYPE ARE PRODUCED

BEEF	PORK	LAMB	CHICKEN
0	0	0	0

. FRACTION OF EGGS PRODUCED ON SITE - 0

DAIRY PRODUCTS

11. FRACTION OF MILK PRODUCED ON SITE - 0
12. GOAT MILK FRACTION - 0

DRINKING WATER WILL BE EVALUATED USING THE FOLLOWING FACTORS

. FRACTION OF IMPACTED DRINKING WATER - 0

14. CHI OVER Q AT WATER SOURCE - 0

SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

FISH WILL BE EVALUATED WITH THE FOLLOWING FACTORS

. FISH FROM IMPACTED WATER - 0

17. CHI OVER Q AT FISH SOURCE - 0

. SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

CHI OVER Q USED: 5

CHRONIC INHALATION EXPOSURE

LLUTANT	AVERAGE (UG/M3)	AEL	AVERAGE CONC./AEL
RSENIC, INORGANIC	4.3E-04	5.0E-01	8.7E-04

BERYLLIUM	1.9E-05	4.8E-03	4.1E-03
CADMIUM	1.2E-04	3.5E+00	3.3E-05
CHROMIUM 6+	1.1E-05	2.0E-03	5.5E-03
COPPER	2.2E-03	2.4E+00	9.1E-04
DIOXINS AND FURANS (	3.9E-08	3.5E-06	1.1E-02
FORMALDEHYDE	5.7E-03	3.6E+00	1.6E-03
HYDROCHLORIC ACID	2.0E+00	7.0E+00	2.9E-01
LEAD	3.0E-03	1.5E+00	2.0E-03
MANGANESE	1.7E-02	4.0E-01	4.2E-02
MERCURY	8.8E-05	3.0E-01	2.9E-04
NICKEL	3.9E-04	2.4E-01	1.6E-03
PAH AS BENZO(A)PYREN	1.8E-05	----	----
SELENIUM	2.0E-05	5.0E-01	3.9E-05
ZINC	2.6E-01	3.5E+01	7.4E-03

==

POLLUTANT	CHRONIC INGESTION EXPOSURE AVERAGE (UG/KG-DAY)	AEL	AVG (UG/KG-DAY)/AEL
ARSENIC, INORGANIC	1.2E-06	1.0E-03	1.2E-03
BERYLLIUM	5.2E-08	5.0E-03	1.0E-05
CADMIUM	3.1E-07	1.0E-03	3.1E-04
CHROMIUM 6+	3.4E-08	5.0E-03	6.9E-06
COPPER	5.7E-06	----	----
DIOXINS AND FURANS (	5.3E-11	1.0E-09	5.3E-02
FORMALDEHYDE	----	----	----

YDROCHLORIC ACID	----	----	----
EAD	8.0E-06	4.3E-04	1.9E-02
ANGANESE	4.4E-05	----	----
ERCURY	2.8E-07	3.0E-04	9.3E-04
ICKEL	1.1E-06	----	----
PAH AS BENZO(A)PYREN	4.0E-09	----	----
ELENIUM	----	----	----
INC	6.7E-04	----	----

44 YEAR
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

OLLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
NIC, IN	9.0E-07	1.7E-06	3.5E-08	0.0E+00	0.0E+00	0.0E+00
BERYLLIUM	2.9E-08	1.9E-07	4.0E-09	0.0E+00	0.0E+00	0.0E+00
ADMIUM	3.0E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM 6+	9.6E-07	1.0E-08	2.2E-09	0.0E+00	0.0E+00	0.0E+00
IOXINS AND	9.2E-07	1.6E-06	1.6E-06	0.0E+00	2.8E-06	0.0E+00
FORMALDEHYD	4.6E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	6.4E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AH AS BENZ	1.9E-08	1.8E-08	1.1E-08	0.0E+00	4.6E-08	0.0E+00
oute Total	3.2E-06	3.5E-06	1.7E-06	0.0E+00	2.8E-06	0.0E+00

Total Risk 1.1E-05

44 YEAR
FOR 2588 SCREENING PURPOSES ONLY
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

UTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
EAD	1.5E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ELENIUM	1.7E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
oute Total	1.5E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

otal Risk 1.5E-07

70 YEAR
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

LLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
RSENIC, IN	1.4E-06	1.9E-06	4.1E-08	0.0E+00	0.0E+00	0.0E+00
BERYLLIUM	4.7E-08	2.2E-07	4.6E-09	0.0E+00	0.0E+00	0.0E+00
ADMIUM	4.8E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM 6+	1.5E-06	1.2E-08	2.5E-09	0.0E+00	0.0E+00	0.0E+00
IOXINS AND	1.5E-06	2.1E-06	2.1E-06	0.0E+00	0.0E+00	0.0E+00
RMALDEHYD	7.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	1.0E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AH AS BENZ	3.0E-08	2.8E-08	1.8E-08	0.0E+00	0.0E+00	0.0E+00
oute Total	5.2E-06	4.3E-06	2.2E-06	0.0E+00	0.0E+00	0.0E+00

Total Risk 1.2E-05

70 YEAR
FOR 2588 SCREENING PURPOSES ONLY
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

POLLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
EAD	2.4E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ELENIUM	2.7E-09	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

ute Total	2.4E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Total Risk 2.4E-07

END OF CHRONIC EXPOSURE AND INDIVIDUAL CANCER RISK REPORT
DATE: 08-02-1993 TIME: 14:26:51

Page: 1 08-02-1993 14:26:12

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Patrick Randall MER CANCER
COMPANY NAME: Bio-Environmental
PROJECT NAME: AB&I
DATE OF RUN: 08-02-1993
TIME OF RUN: 14:25:50
POLLUTANT DATA FILE VERSION: 3/13/92

****
CHRONIC EXPOSURE AND INDIVIDUAL CANCER RISK REPORT
****

EMISSION FILE NAME: D:abi.E92

POLLUTANT	EMISSION RATE (G/SEC)
ARSENIC, INORGANIC	8.7E-05
BERYLLIUM	3.9E-06
CADMIUM	2.3E-05
CHROMIUM 6+	2.2E-06
COPPER	4.4E-04
DIOXINS AND FURANS (TCDD EQ	7.7E-09
FORMALDEHYDE	1.1E-03
HYDROCHLORIC ACID	4.1E-01
LEAD	6.0E-04
MANGANESE	3.4E-03
MERCURY	1.8E-05
NICKEL	7.8E-05
PAH AS BENZO(A)PYRENE	3.5E-06
SELENIUM	3.9E-06
ZINC	5.2E-02

==

ROUTE FILE NAME: D:abi.I92

1. DEPOSITION VELOCITY - .02
2. THE FRACTION OF HOMEGROWN PRODUCE - 0

GENERAL ANIMAL EXPOSURE FACTORS

3. FARM CHI OVER Q - 0
4. FRACTION OF ANIMAL'S DIET FROM GRAZING - 0
5. FRACTION OF ANIMAL'S DIET FROM IMPACTED FEED - 0
6. FRACTION OF ANIMAL'S WATER IMPACTED BY DEPOSITION - 0

ANIMAL WATER FACTORS

SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

. FRACTION OF MEAT IN DIET PRODUCED AT HOME - 0
9. THE FOLLOWING FRACTIONS OF EACH TYPE ARE PRODUCED

BEEF	PORK	LAMB	CHICKEN
0	0	0	0

0. FRACTION OF EGGS PRODUCED ON SITE - 0

DAIRY PRODUCTS

11. FRACTION OF MILK PRODUCED ON SITE - 0
12. GOAT MILK FRACTION - 0

DRINKING WATER WILL BE EVALUATED USING THE FOLLOWING FACTORS

3. FRACTION OF IMPACTED DRINKING WATER - 0

14. CHI OVER Q AT WATER SOURCE - 0

SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

FISH WILL BE EVALUATED WITH THE FOLLOWING FACTORS

6. FISH FROM IMPACTED WATER - 0

17. CHI OVER Q AT FISH SOURCE - 0

8.

SURFACE AREA	VOLUME	VOLUME CHANGES
0	0	0

CHI OVER Q USED: 1.72

CHRONIC INHALATION EXPOSURE

OLLUTANT	AVERAGE (UG/M3)	AEL	AVERAGE CONC./AEL
RSENIC, INORGANIC	1.5E-04	5.0E-01	3.0E-04

BERYLLIUM	6.7E-06	4.8E-03	1.4E-03
CADMIUM	4.0E-05	3.5E+00	1.1E-05
CHROMIUM 6+	3.7E-06	2.0E-03	1.9E-03
COPPER	7.5E-04	2.4E+00	3.1E-04
DIOXINS AND FURANS (	1.3E-08	3.5E-06	3.8E-03
FORMALDEHYDE	1.9E-03	3.6E+00	5.4E-04
HYDROCHLORIC ACID	7.1E-01	7.0E+00	1.0E-01
LEAD	1.0E-03	1.5E+00	6.9E-04
MANGANESE	5.8E-03	4.0E-01	1.5E-02
MERCURY	3.0E-05	3.0E-01	1.0E-04
NICKEL	1.3E-04	2.4E-01	5.6E-04
PAH AS BENZO(A)PYREN	6.1E-06	----	----
SELENIUM	6.7E-06	5.0E-01	1.3E-05
ZINC	8.9E-02	3.5E+01	2.5E-03

	CHRONIC INGESTION EXPOSURE		
POLLUTANT	AVERAGE (UG/KG-DAY)	AEL	AVG (UG/KG-DAY)/AEL
ARSENIC, INORGANIC	4.0E-07	1.0E-03	4.0E-04
BERYLLIUM	1.8E-08	5.0E-03	3.6E-06
CADMIUM	1.1E-07	1.0E-03	1.1E-04
CHROMIUM 6+	1.2E-08	5.0E-03	2.4E-06
COPPER	2.0E-06	----	----
DIOXINS AND FURANS (	1.8E-11	1.0E-09	1.8E-02
FORMALDEHYDE	----	----	----

YDROCHLORIC ACID	----	----	----
EAD	2.7E-06	4.3E-04	6.4E-03
ANGANESE	1.5E-05	----	----
ERCURY	9.6E-08	3.0E-04	3.2E-04
ICKEL	3.6E-07	----	----
PAH AS BENZO(A)PYREN	1.4E-09	----	----
ELENIUM	----	----	----
INC	2.3E-04	----	----

44 YEAR
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

OLLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
ENIC, IN	3.1E-07	5.7E-07	1.2E-08	0.0E+00	0.0E+00	0.0E+00
BERYLLIUM	1.0E-08	6.5E-08	1.4E-09	0.0E+00	0.0E+00	0.0E+00
ADMIUM	1.0E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
CHROMIUM 6+	3.3E-07	3.5E-09	7.5E-10	0.0E+00	0.0E+00	0.0E+00
IOXINS AND	3.2E-07	5.6E-07	5.5E-07	0.0E+00	9.5E-07	0.0E+00
ORMALDEHYD	1.6E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	2.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AH AS BENZ	6.5E-09	6.2E-09	3.9E-09	0.0E+00	1.6E-08	0.0E+00
oute Total	1.1E-06	1.2E-06	5.7E-07	0.0E+00	9.6E-07	0.0E+00

Total Risk 3.9E-06

44 YEAR
FOR 2588 SCREENING PURPOSES ONLY
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

age: 5 08-02-1993 14:26:15

LUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
EAD	5.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ELENIUM	5.9E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
oute Total	5.2E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
otal Risk	5.2E-08					

70 YEAR
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

LLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
RSENIC, IN	4.9E-07	6.6E-07	1.4E-08	0.0E+00	0.0E+00	0.0E+00
BERYLLIUM	1.6E-08	7.5E-08	1.6E-09	0.0E+00	0.0E+00	0.0E+00
ADMIUM	1.7E-07	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
HROMIUM 6+	5.2E-07	4.1E-09	8.7E-10	0.0E+00	0.0E+00	0.0E+00
DIOXINS AND	5.0E-07	7.4E-07	7.3E-07	0.0E+00	0.0E+00	0.0E+00
ORMALDEHYD	2.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NICKEL	3.5E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
AH AS BENZ	1.0E-08	9.6E-09	6.1E-09	0.0E+00	0.0E+00	0.0E+00
oute Total	1.8E-06	1.5E-06	7.5E-07	0.0E+00	0.0E+00	0.0E+00
Total Risk	4.0E-06					

70 YEAR
FOR 2588 SCREENING PURPOSES ONLY
INDIVIDUAL CANCER RISK BY POLLUTANT AND ROUTE

POLLUTANT	AIR	SOIL	SKIN	GARDEN	MMILK	OTHER
EAD	8.3E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
ELENIUM	9.4E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Route Total	8.4E-08	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Total Risk 8.4E-08

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END OF CHRONIC EXPOSURE AND INDIVIDUAL CANCER RISK REPORT
DATE: 08-02-1993 TIME: 14:25:51

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Page: 1 08-02-1993 14:27:49

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Patrick Randall
COMPANY NAME: Bio-Environmental
PROJECT NAME: AB&I
DATE OF RUN: 08-02-1993
TIME OF RUN: 14:27:37
POLLUTANT DATA FILE VERSION: 3/13/92

MEI Chronic

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CHRONIC INHALATION EXPOSURE REPORT
****

EMISSION FILE NAME: D:abi.E92

POLLUTANT	EMISSION RATE (G/SEC)
ARSENIC, INORGANIC	8.7E-05
BERYLLIUM	3.9E-06
CADMIUM	2.3E-05
CHROMIUM 6+	2.2E-06
COPPER	4.4E-04
DIOXINS AND FURANS (TCDD EQ	7.7E-09
FORMALDEHYDE	1.1E-03
HYDROCHLORIC ACID	4.1E-01
LEAD	6.0E-04
MANGANESE	3.4E-03
MERCURY	1.8E-05
NICKEL	7.8E-05
PAH AS BENZO(A)PYRENE	3.5E-06
SELENIUM	3.9E-06
ZINC	5.2E-02

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CHI OVER Q USED: 5
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BACKGROUND FILE NAME: D:abi.B92

POLLUTANT	BACKGROUND (UG/M3)
LEAD	4.8E-02

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CHRONIC INHALATION HAZARD INDEX

P JTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
RSENIC, INORGA	.0009	---	.0009	.0009	---	---	---	---
ERYLLIUM	.0041	---	---	---	---	---	---	---
CADMIUM	<.0001	---	---	---	---	<.0001	---	---
HROMIUM 6+	.0055	---	---	---	---	.0055	.0055	---
COPPER	.0009	---	---	---	---	---	---	---
IOXINS AND FUR	---	---	---	.0110	.0110	---	.0110	.0110
ORMALDEHYDE	.0016	---	---	---	---	---	---	---
HYDROCHLORIC AC	.2929	---	---	.2929	---	---	---	---
EAD	---	.0020	.0020	---	.0020	.0020	---	.0020
MANGANESE	.0424	---	.0424	---	---	---	---	---
ERCURY	.0003	.0003	.0003	---	---	.0003	.0003	---
NI KEL	.0016	---	---	---	---	.0016	---	.0016
SELENIUM	<.0001	---	---	---	---	---	---	---
INC	.0074	.0074	---	---	---	---	---	---
OTAL CHRONIC	.3575	.0097	.0455	.3047	.0130	.0094	.0167	.0146

CHRONIC BACKGROUND INHALATION HAZARD INDEX

OLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
EAD	---	.0320	.0320	---	.0320	.0320	---	.0320
OTAL BG CHRON	---	.0320	.0320	---	.0320	.0320	---	.0320

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN

TOTAL CHRONIC	.3575	.0097	.0455	.3047	.0130	.0094	.0167	.0146
TOTAL BG CHRON	---	.0320	.0320	---	.0320	.0320	---	.0320
TOTAL	.3575	.0417	.0775	.3047	.0450	.0414	.0167	.0466

END OF CHRONIC INHALATION EXPOSURE REPORT
DATE: 08-02-1993 TIME: 14:27:38

ge: 1 08-02-1993 14:28:53

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

N BY: Patrick Randall
COMPANY NAME: Bio-Environmental
OJECT NAME: AB&I
TE OF RUN: 08-02-1993
TIME OF RUN: 14:28:10
POLLUTANT DATA FILE VERSION: 3/13/92

~~MEI~~ CHRONIC
MER

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CHRONIC INHALATION EXPOSURE REPORT

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EMISSION FILE NAME: D:abi.E92

POLLUTANT	EMISSION RATE (G/SEC)
ARSENIC, INORGANIC	8.7E-05
BERYLLIUM	3.9E-06
CADMIUM	2.3E-05
CHROMIUM 6+	2.2E-06
COPPER	4.4E-04
DIOXINS AND FURANS (TCDD EQ	7.7E-09
FORMALDEHYDE	1.1E-03
HYDROCHLORIC ACID	4.1E-01
LEAD	6.0E-04
MANGANESE	3.4E-03
MERCURY	1.8E-05
NICKEL	7.8E-05
PAH AS BENZO(A)PYRENE	3.5E-06
SELENIUM	3.9E-06
ZINC	5.2E-02

CHI OVER Q USED: 1.72

BACKGROUND FILE NAME: D:abi.B92

POLLUTANT	BACKGROUND (UG/M3)
LEAD	4.8E-02

CHRONIC INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
ARSENIC, INORGA	.0003	---	.0003	.0003	---	---	---	---
BERYLLIUM	.0014	---	---	---	---	---	---	---
CADMIUM	<.0001	---	---	---	---	<.0001	---	---
CHROMIUM 6+	.0019	---	---	---	---	.0019	.0019	---
COPPER	.0003	---	---	---	---	---	---	---
DIOXINS AND FUR	---	---	---	.0038	.0038	---	.0038	.0038
FORMALDEHYDE	.0005	---	---	---	---	---	---	---
HYDROCHLORIC AC	.1007	---	---	.1007	---	---	---	---
LEAD	---	.0007	.0007	---	.0007	.0007	---	.0007
MANGANESE	.0146	---	.0146	---	---	---	---	---
MERCURY	.0001	.0001	.0001	---	---	.0001	.0001	---
NICKEL	.0006	---	---	---	---	.0006	---	.0006
SELENIUM	<.0001	---	---	---	---	---	---	---
ZINC	.0025	.0025	---	---	---	---	---	---
TOTAL CHRONIC	.123~~0~~1	.0033	.0157	.1048	.0045	.003~~2~~9	.0058	.005~~0~~1

CHRONIC BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
LEAD	---	.0320	.0320	---	.0320	.0320	---	.0320
TOTAL BG CHRON	---	.0320	.0320	---	.0320	.0320	---	.0320

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN

TOTAL CHRONIC	.1230	.0033	.0157	.1048	.0045	.0032	.0058	.0050
TOTAL BG CHRON	---	.0320	.0320	---	.0320	.0320	---	.0320
TOTAL	.1230	.0353	.0477	.1048	.0365	.0352	.0058	.0370

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END OF CHRONIC INHALATION EXPOSURE REPORT
DATE: 08-02-1993 TIME: 14:28:11

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age: 1 08-02-1993 14:24:40

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

N BY: Patrick Randall
OMPANY NAME: Bio-Environmental
ROJECT NAME: AB&I
TE OF RUN: 08-02-1993
IME OF RUN: 14:24:30
OLLUTANT DATA FILE VERSION: 3/13/92

MEI ACUTE

****
ACUTE INHALATION EXPOSURE REPORT
****

EMISSION FILE NAME: D:abi.M92

POLLUTANT	EMISSION RATE (G/SEC)
COPPER	2.0E-03
FORMALDEHYDE	5.0E-03
HYDROCHLORIC ACID	1.8E+00
LEAD	2.6E-03
MERCURY	7.7E-05
NICKEL	3.4E-04
SELENIUM	1.7E-05

BACKGROUND FILE NAME: D:abi.B92

POLLUTANT	BACKGROUND (UG/M3)
LEAD	4.8E-02

CHI OVER Q USED: 250 $(x\ 10^{-1})$

ACUTE INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
COPPER	.0500	---	---	---	---	---	---	---
RMALDEHYDE	.0034	---	---	---	---	---	---	---
DROCHLORIC AC	.1500	---	---	---	---	---	---	---

[illegible]	---	---	.4333	---	---	---	---	---
RCURY	---	---	.0006	---	---	.0006	.0006	---
CKEL	---	---	---	---	---	---	---	.0850
ELENIUM	.0021	---	---	---	---	---	---	---
TAL ACUTE	.2055	---	.4340	---	---	.0006	.0006	.0850

x10⁻¹

ACUTE BACKGROUND INHALATION HAZARD INDEX

LLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
LEAD	---	---	.0320	---	---	---	---	---
TOTAL BG ACUTE	---	---	.0320	---	---	---	---	---

PROJECT PLUS BACKGROUND

UTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TAL ACUTE	.2055	---	.4340	---	---	.0006	.0006	.0850
TOTAL BG ACUTE	---	---	.0320	---	---	---	---	---
TOTAL	.2055	---	.4660	---	---	.0006	.0006	.0850

END OF ACUTE INHALATION EXPOSURE REPORT

DATE: 08-02-1993 TIME: 14:24:31

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Pat Randall
COMPANY NAME: Levine-Fricke
PROJECT NAME: American Brass and Iron
DATE OF RUN: 09-08-1992
TIME OF RUN: 16:46:21
POLLUTANT DATA FILE VERSION: 3/13/92

MEI
Chronic III TCA
Exposure

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CHRONIC INHALATION EXPOSURE REPORT

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EMISSION FILE NAME: D:abitca.E92

POLLUTANT	EMISSION RATE (G/SEC)
METHYL CHLOROFORM	3.7E+01

CHI OVER Q USED: 17.1

BACKGROUND FILE NAME: D:sample.B92

POLLUTANT	BACKGROUND (UG/M3)
HYDROGEN SULFIDE	3.0E+00
LEAD	6.0E-02
NITROGEN DIOXIDE	4.9E+01
OZONE	3.6E+01
SULFATES	5.3E+00
SULFUR DIOXIDE	5.3E-01

CHRONIC INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
METHYL CHLOROFO	---	---	1.99	---	1.99	---	1.99	---
TOTAL CHRONIC	---	---	1.99	---	1.99	---	1.99	---

CHRONIC BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
HYDROGEN SULFID	---	---	.0724	---	---	---	---	---
LEAD	---	.0400	.0400	---	.0400	.0400	---	.0400
NITROGEN DIOXID	.1049	---	---	---	---	---	---	---
OZONE	.2000	---	---	---	---	---	---	---
SULFATES	.2100	---	---	---	---	---	---	---
SULFUR DIOXIDE	.0008	---	---	---	---	---	---	---
TOTAL BG CHRON	.5157	.0400	.1124	---	.0400	.0400	---	.0400

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TOTAL CHRONIC	---	---	1.99	---	1.99	---	1.99	---
TOTAL BG CHRON	.5157	.0400	.1124	---	.0400	.0400	---	.0400
TOTAL	.5157	.0400	2.10	---	2.03	.0400	1.99	.0400

END OF CHRONIC INHALATION EXPOSURE REPORT
DATE: 09-08-1992 TIME: 16:46:21

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Pat Randall
COMPANY NAME: Levine-Fricke
PROJECT NAME: AB&I MEI Acute
DATE OF RUN: 09-08-1992
TIME OF RUN: 16:32:16
POLLUTANT DATA FILE VERSION: 3/13/92

MEI
Acute Exposure

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ACUTE INHALATION EXPOSURE REPORT

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EMISSION FILE NAME: D:abi.M92

POLLUTANT	EMISSION RATE (G/SEC)
COPPER	2.0E-03
FORMALDEHYDE	5.0E-03
HYDROCHLORIC ACID	1.8E+00
LEAD	5.5E-02
MERCURY	7.7E-05
NICKEL	3.4E-04
SELENIUM	1.7E-05

BACKGROUND FILE NAME: D:sample.B92

POLLUTANT	BACKGROUND (UG/M3)
HYDROGEN SULFIDE	3.0E+00
LEAD	6.0E-02
NITROGEN DIOXIDE	4.9E+01
OZONE	3.6E+01
SULFATES	5.3E+00
SULFUR DIOXIDE	5.3E-01

CHI OVER Q USED: 250

ACUTE INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN

PPER	.0500	---	---	---	---	---	---	---
FORMALDEHYDE	.0034	---	---	---	---	---	---	---
HYDROCHLORIC AC	.1492	---	---	---	---	---	---	---
LEAD	---	---	9.17	---	---	---	---	---
MERCURY	---	---	.0006	---	---	.0006	.0006	---
NICKEL	---	---	---	---	---	---	---	.0855
SELENIUM	.0021	---	---	---	---	---	---	---
TOTAL ACUTE	.2047	---	9.17	---	---	.0006	.0006	.0855

ACUTE BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
YDROGEN SULFID	.0724	---	---	---	---	---	---	---
AD	---	---	.0400	---	---	---	---	---
NITROGEN DIOXID	.1049	---	---	---	---	---	---	---
OZONE	.2000	---	---	---	---	---	---	---
SULFATES	.2100	---	---	---	---	---	---	---
SULFUR DIOXIDE	.0008	---	---	---	---	---	---	---
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TOTAL ACUTE	.2047	---	9.17	---	---	.0006	.0006	.0855
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---
TAL	.7927	---	9.21	---	---	.0006	.0006	.0855

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END OF ACUTE INHALATION EXPOSURE REPORT

DATE: 09-08-1992 TIME: 16:32:17

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Page: 1 09-08-1992 16:38:52

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Pat Randall
COMPANY NAME: Levine-Fricke
PROJECT NAME: AB&I MEI Acute
DATE OF RUN: 09-08-1992
TIME OF RUN: 16:38:31
POLLUTANT DATA FILE VERSION: 3/13/92

MEI
Acute III TCA
Exposure

ACUTE INHALATION EXPOSURE REPORT

EMISSION FILE NAME: D:abitcal.M92

POLLUTANT	EMISSION RATE (G/SEC)
METHYL CHLOROFORM	3.8E+01

BACKGROUND FILE NAME: D:sample.B92

POLLUTANT	BACKGROUND (UG/M3)
HYDROGEN SULFIDE	3.0E+00
LEAD	6.0E-02
NITROGEN DIOXIDE	4.9E+01
OZONE	3.6E+01
SULFATES	5.3E+00
SULFUR DIOXIDE	5.3E-01

CHI OVER Q USED: 870

ACUTE INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
METHYL CHLOROFO	---	---	.1717	---	---	---	---	---
TOTAL ACUTE	---	---	.1717	---	---	---	---	---

ACUTE BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
HYDROGEN SULFID	.0724	---	---	---	---	---	---	---
LEAD	---	---	.0400	---	---	---	---	---
NITROGEN DIOXID	.1049	---	---	---	---	---	---	---
OZONE	.2000	---	---	---	---	---	---	---
SULFATES	.2100	---	---	---	---	---	---	---
SULFUR DIOXIDE	.0008	---	---	---	---	---	---	---
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TOTAL ACUTE	---	---	.1717	---	---	---	---	---
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---
TOTAL	.5881	---	.2117	---	---	---	---	---

END OF ACUTE INHALATION EXPOSURE REPORT

DATE: 09-08-1992 TIME: 16:38:31

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Pat Randall
COMPANY NAME: Levine-Fricke
PROJECT NAME: American Brass and Iron
DATE OF RUN: 09-08-1992
TIME OF RUN: 16:50:40
POLLUTANT DATA FILE VERSION: 3/13/92

MER
Acute III TCA
Exposure

ACUTE INHALATION EXPOSURE REPORT

EMISSION FILE NAME: D:abitca1.M92

POLLUTANT	EMISSION RATE (G/SEC)
METHYL CHLOROFORM	3.8E+01

BACKGROUND FILE NAME: D:sample.B92

POLLUTANT	BACKGROUND (UG/M3)
HYDROGEN SULFIDE	3.0E+00
LEAD	6.0E-02
NITROGEN DIOXIDE	4.9E+01
OZONE	3.6E+01
SULFATES	5.3E+00
SULFUR DIOXIDE	5.3E-01

CHI OVER Q USED: 94

ACUTE INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
METHYL CHLOROFO	---	---	.0186	---	---	---	---	---
TOTAL ACUTE	---	---	.0186	---	---	---	---	---

ACUTE BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	EYE	REPRO	KIDN	GI/LV	IMMUN
HYDROGEN SULFID	.0724	---	---	---	---	---	---	---
LEAD	---	---	.0400	---	---	---	---	---
NITROGEN DIOXID	.1049	---	---	---	---	---	---	---
OZONE	.2000	---	---	---	---	---	---	---
SULFATES	.2100	---	---	---	---	---	---	---
SULFUR DIOXIDE	.0008	---	---	---	---	---	---	---
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TAL ACUTE	---	---	.0186	---	---	---	---	---
TOTAL BG ACUTE	.5881	---	.0400	---	---	---	---	---
TOTAL	.5881	---	.0586	---	---	---	---	---

==
****

END OF ACUTE INHALATION EXPOSURE REPORT

DATE: 09-08-1992 TIME: 16:50:41

****

CALIFORNIA AIR RESOURCES BOARD AND OFFICE OF ENVIRONMENTAL HEALTH
HAZARD ASSESSMENT HRA PROGRAM VERSION 1.1

RUN BY: Pat Randall
COMPANY NAME: Levine-Fricke
PROJECT NAME: American Brass and Iron
DATE OF RUN: 09-14-1992
TIME OF RUN: 08:46:51
POLLUTANT DATA FILE VERSION: 3/13/92

MER
Chronic III TCA
Exposure

****

CHRONIC INHALATION EXPOSURE REPORT

****

EMISSION FILE NAME: D:abitca.E92

POLLUTANT	EMISSION RATE (G/SEC)
METHYL CHLOROFORM	3.7E+01

===

CHI OVER Q USED: 2.89

===

BACKGROUND FILE NAME: D:sample.B92

POLLUTANT	BACKGROUND (UG/M3)
HYDROGEN SULFIDE	3.0E+00
LEAD	6.0E-02
NITROGEN DIOXIDE	4.9E+01
OZONE	3.6E+01
SULFATES	5.3E+00
SULFUR DIOXIDE	5.3E-01

===

CHRONIC INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
METHYL CHLOROFO	---	---	.3360	---	.3360	---	.3360	---
TOTAL CHRONIC	---	---	.3360	---	.3360	---	.3360	---

CHRONIC BACKGROUND INHALATION HAZARD INDEX

POLLUTANT	RESP	CV/BL	CNS	SKIN	REPRO	KIDN	GI/LV	IMMUN
HYDROGEN SULFID	---	---	.0724	---	---	---	---	---
LEAD	---	.0400	.0400	---	.0400	.0400	---	.0400
NITROGEN DIOXID	.1049	---	---	---	---	---	---	---
OZONE	.2000	---	---	---	---	---	---	---
SULFATES	.2100	---	---	---	---	---	---	---
SULFUR DIOXIDE	.0008	---	---	---	---	---	---	---
TOTAL BG CHRON	.5157	.0400	.1124	---	.0400	.0400	---	.0400

PROJECT PLUS BACKGROUND

POLLUTANT	RESP	CV/BL	CNS	EYE/SKIN	REPRO	KIDN	GI/LV	IMMUN
TOTAL CHRONIC	---	---	.3360	---	.3360	---	.3360	---
TOTAL BG CHRON	.5157	.0400	.1124	---	.0400	.0400	---	.0400
TOTAL	.5157	.0400	.4483	---	.3760	.0400	.3360	.0400

END OF CHRONIC INHALATION EXPOSURE REPORT

DATE: 09-14-1992 TIME: 08:46:52

APPENDIX E

Summary of Emissions Test

ECOSERVE, Inc.
AIR QUALITY MANAGEMENT CONSULTANTS
Since 1972

Corporate Office / Operations
690-A Garcia Avenue
Pittsburg, California 94565

- Permitting
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DETERMINATION OF AB2588 EMISSIONS FROM THE GRAY IRON CUPOLA BAGHOUSE AT AMERICAN BRASS AND IRON OAKLAND, CALIFORNIA

TEST DATES
November 18-21,1991

REPORT DATE
April 29,1992

Prepared for:

Mr. David Robinson

American Brass and Iron
7825 San Leandro
Oakland, CA 94621

Report #: 1818-3

Prepared By:

John Pascale

John Pascale

Toll Free (800) 841-9191 • Local (510) 439-5766 • FAX (510) 439-7512

ECOSERVE, Inc.

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TABLE OF CONTENTS (Continued)

ECOSERVE, Inc.

TABLE OF CONTENTS (Continued)

SECTION 1.0 - INTRODUCTION

This report supersedes report # 1818r issued April 1, 1992 and contains the various changes requested by Scott Lutz of the Bay Area Air Quality Management District.

The report presents the results of several source tests performed by Ecoserve, Incorporated at the American Brass and Iron facility located in Oakland, CA. The tests were performed at the "Gray Iron Cupola Baghouse" during the week of November 18-21, 1991 in order to generate emissions data as required for California AB 2588 risk assessment. Ecoserve acted as a secondary contractor for the purposes of this test, following the test plan submitted to the BAAQMD by Levine Fricke Company.

A total of seven air toxic sampling methods were utilized. Listed below is a summary of the sampling program including the test methods, sampling locations, and the date each test was performed. In addition to determining concentrations and emission rates of the pollutants listed below, Ecoserve also determined several dilution factors for the baghouse based on concentrations of Carbon Dioxide measured at the inlet, and within the baghouse interior.

For the purposes of this report, Levine Fricke requested that these dilution factors not be applied to the emission rates determined at the baghouse interior as they had assumed responsibility for applying dilution factors in the course of performing the risk assessment. However, at the request of Scott Lutz with BAAQMD the report now presents the average emission rates and the results of the three sample runs corrected for the dilution factor.

Parameter	Sample Location	Date	Test Method
Metals: As..Zn	Inlet	11/18 & 21/91	CARB Method 436
Metals: As..Zn	Baghouse Interior	11/18 & 21/91	CARB Method 436
Cadmium	Baghouse Interior	11/18/91	CARB Method 424
Hex./Tot. Chromium	Baghouse Interior	11/19/91	CARB Method 425
Hydrogen Chloride	Baghouse Interior	11/19/91	CARB Method 421
PAH's	Baghouse Interior	11/20/91	CARB Method 429
Dioxins	Baghouse Interior	11/20/91	CARB Method 428
Formaldehyde	Baghouse Interior	11/20/91	CARB Method 430
O_2, CO_2, CO	Baghouse Interior	continuous	CARB Method 100
O_2, CO_2, CO	Inlet	continuous	CARB Method 100

SECTION 1.1 - OVERVIEW OF REPORT FORMAT

Due to the duration and complexity of the test program, a special format will be used in this report. The report consists of nine sections, including this introduction. The section titles and contents are as follows:

Section 1: Introduction

The introduction provides an overview of the content of the report, as well as a description of the sampling locations and an overview of the modifications to the standard sampling procedures necessary, due to the site configuration. Tables presenting the average emission rates of the air toxics are presented with the results given in units of pounds per hour (lbs/hr).

Section 2: CARB Method 436 (Combined Metals Method)

CARB Method 436 was utilized at both the baghouse inlet and interior in order to quantify emissions of metals and particulate matter. Total Chromium was not determined from the CARB 436 trains. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). For each site, the results are presented in three tables, the contents of which are as follows:

TABLE 2-1: CARB Method 436 Summary of Laboratory Results - Baghouse Inlet
TABLE 2-2: CARB Method 436 Concentration and Emission Rates - Baghouse Inlet
TABLE 2-3: CARB Method 436 (As Applied for Particulate Matter) Laboratory Results, Concentration and Emission Rates - Baghouse Inlet
TABLE 2-4: CARB Method 436 Summary of Laboratory Results - Baghouse Interior
TABLE 2-5: CARB Method 436 Concentration and Emission Rates - Baghouse Interior
TABLE 2-6: CARB Method 436 (As Applied for Particulate Matter) Laboratory Results, Concentration and Emission Rates - Baghouse Interior

Also included in Section 2 are:
- a description of any modifications to the standard CARB sampling procedures;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 3: CARB Method 424 (Cadmium)

Cadmium as measured by CARB Method 434 was the metals verification method assigned by CARB for this test. Sampling was performed at the baghouse interior only. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). The results are presented in a single table;

TABLE 3-1: CARB Method 424 Laboratory Results, Concentration and Emission Rates - Baghouse Interior

Also included in Section 3 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 4: CARB Method 425 (Total and Hexavalent Chromium)

Total and Hexavalent Chromium were measured using CARB Method 425 at the baghouse interior only. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). The results are presented in a single table;

TABLE 4-1: CARB Method 425 Laboratory Results, Concentration and Emission Rates - Baghouse Interior

Also included in Section 4 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 5: CARB Method 421 (Hydrogen Chloride)

Hydrogen Chloride was measured at the baghouse interior using CARB Method 421. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). The results are presented in a single table;

TABLE 5-1: CARB Method 421 Laboratory Results, Concentration and Emission Rates - Baghouse Interior

Also included in Section 5 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 6: CARB Method 429 (PAH's)

PAH's were measured at the baghouse interior using CARB Method 429. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). The results are presented in three tables:

TABLE 6-1: CARB Method 429 Summary of Laboratory Results - Baghouse Interior
TABLE 6-2: CARB Method 429 Concentrations - Baghouse Interior
TABLE 6-3: CARB Method 429 Emission Rates - Baghouse Interior

Also included in Section 6 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 7: CARB Method 428 (Dioxins and Furans)

Section 7 presents the results of CARB Method 428 sampling at the baghouse interior. The dilution factors from Section 9 have been used in the calculation of the concentration (grns/SDCF) and the emission rates (lbs/hr). The results are presented in three tables:

TABLE 7-1: CARB Method 428 Summary of Laboratory Results - Baghouse Interior
TABLE 7-2: CARB Method 428 Concentrations - Baghouse Interior
TABLE 7-3: CARB Method 428 Emission Rates - Baghouse Interior

Also included in Section 7 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 8: CARB Method 430 (Formaldehyde)
At the request of the administrator, two CARB Method 430 runs were performed in the baghouse, and one run at the baghouse inlet. The dilution factors from Section 9 have been used in the calculation of the concentration (ppm) and the emission rates (lbs/hr). The results of these runs are presented in one table;

TABLE 8-1: CARB Method 430 Laboratory Results, Concentration and Emission Rates

Also included in Section 8 are:
- a description of any modifications to the standard CARB sampling procedure;
- a discussion of results;
- the equations utilized to generate pollutant concentrations and emission rates;
- reduced field data sheets;
- copies of results of laboratory analysis, field data sheets and equipment calibration information.

Section 9: CARB Method 100 (Continuous Monitoring)
This section presents the results of the continuous monitoring study performed at the inlet to the baghouse, and within the baghouse interior. Based on the results of this study, dilution factors which have been applied to each sample run have been developed. Included in this section are reduced concentration data sheets, as well as copies of the original strip charts.

SECTION 1.2 - DESCRIPTION OF SOURCE CONFIGURATION

The "Gray Iron Cupola Baghouse" is not configured as most point sources encountered in source testing. Rather than an enclosed abatement device with a discrete stack through which pollutants are emitted to atmosphere, the baghouse is open to the atmosphere on its ends, and exhausts to atmosphere through a small space of approximately 4 feet between the lower edge of the roof and the top of the bags. The interior of the baghouse consists of 17 bag sections, each section approximately 7 feet wide and 13 feet deep. Overhead drawings of the baghouse interior are presented following this section.

This configuration presented several problems. First, since the baghouse was open on its ends, ambient air could flow through the baghouse, creating a diluting effect. Second, with no discrete exhaust stack, the location at which samples were to be drawn would not meet standard CARB Method 1 requirements.

In to determine the effects of dilut25HCarbon Dioxide concentrations were measured simultaneously at the inlet to the baghouse, and within the baghouse interior using Infrared Industries Model 702 NDIR analyzers. The location from which sample was drawn within the baghouse interior was as close as possible to the locations at which toxic sampling occurred. Thus, dilution factors were developed that are representative of the effects of dilution for each toxic sample run. The dilution factors from this section have been used in the calculation of the concentration (grns/SDCF or ppm) and the emission rates (lbs/hr).

The selection of appropriate and representative sampling points within the baghouse presented a more difficult problem. Levine Fricke proposed that toxic samples be drawn from between the bags, at a location near the middle of the bags (vertically). The toxic sample nozzle was positioned approximately 6 feet into the baghouse sections which were sampled.

The determination of sample point velocity vectors in this location was not practical. It was known that a certain amount of flow would exit the sides of the bags, but with limited space between the bags, it was not possible to determine at what angle this flow occurred or the magnitude of the velocity. Ecoserve presented this problem to Levine Fricke prior to the test, and was informed that approval had been received to sample non-isokinetically from the proposed locations.

SECTION 1.3 - AVERAGE POLLUTANT EMISSION RATES

The average emission rates of the toxic pollutants in question are presented in the following tables. The average emission rates were calculated based on the three runs of each CARB method. The volume flow rates used to calculate emission rates are presented in the report sections specifically devoted to each group of pollutants.

In the case of several pollutants, sample concentrations were below the analytical detection limit. In these cases, CARB requires that emission rates be calculated based on the analytical detection limit, and be reported as less than (<) the value calculated using those limits. If the concentration of a given pollutant was less than the detection limit for one or more run, the average emission rate is presented as less than the three run average.

1.0 INTRODUCTION

On April 27, 1993, Geraghty & Miller, Inc. (Geraghty & Miller) performed lead and cadmium emission tests on the grey iron cupola baghouse located at the American Brass & Iron Foundry in Oakland, California. The purpose of the test was to develop lead and cadmium emission factors and to determine compliance with Bay Area Air Quality Management District (BAAQMD) regulations. A representative of American Brass & Iron Foundry, David Robinson, and a representative of BAAQMD, Chuck McClure, observed a portion of the test.

The grey iron cupola has a melting capacity of 25 tons of scrap iron per year. It operates 10 hours per day and four days per week, or approximately 2,000 hours per year.

The resulting combustion gases first flow up to an afterburner, then through a horizontal duct, and then to a quench tower where their temperature decreases significantly. The quenched combustion gases are then directed through the grey iron cupola baghouse, where contaminants are filtered out before the gases are directly released into the atmosphere, without being guided through an exhaust stack.

A total of four 2-hour lead emission tests were conducted inside the baghouse. The test procedure followed California Air Resource Board (CARB) Method 12, except that a slight variation in the test procedure was necessary due to the absence of the baghouse stack. A more detailed description of the test procedure modification will follow in Section 2.

This report presents the emission test results. The appendices contain reduced data, laboratory analytical results, and calibration information.

2.0 DISCUSSION

2.1 TEST LOCATIONS

There are two locations in the process where emission tests were performed. The baghouse inlet refers to the horizontal duct that connects the quench tower to the baghouse. The baghouse outlet refers to the inside of the baghouse where the contaminants have been filtered out. At the baghouse inlet, the compositions and velocities of the combustion gases were measured following CARB Methods 1 through 4. The lead concentrations were determined at the baghouse outlet.

2.2 TEST PROCEDURE

CARB methods are designed for emission tests to be performed in a duct or stack where gases are confined. However, the baghouse did not have a stack, and the gases were not confined. For this reason, lead emission tests were not performed isokinetically. All other testing procedures were followed.

In this lead emission test, two sampling locations were randomly selected, Section 6 and Section 13. Each location was tested twice, one with a 3' probe and the other with a 6' probe. Both locations were tested simultaneously. Additionally, a CO_2 probe was attached to each of the lead probes for measuring CO_2 concentrations for one hour during the lead emission testing.

While the lead emission tests were performed at the baghouse outlet, the volumetric flow rates of the combustion gases were measured at the baghouse inlet for each pair of the simultaneous lead emission runs.

2.3 LEAD EMISSION CALCULATIONS

CO_2 dilution factors were calculated for each of the four lead emission tests. The dilution factor was determined based on the ratio of CO_2 concentration at the baghouse inlet to the CO_2 concentration at the baghouse outlet. Lead emissions were calculated based on the volumetric flow rates determined from the baghouse inlet and the CO_2 dilution factor. The equations for calculating CO_2 dilutions factors and lead emissons were as follows:

$$E.R. = \frac{[conc.]}{V_{mstd}} \times 0.0154 \times 0.00858 \times CO_2 \text{ dilution factor} \times SDCFM$$

where:

E.R.:	emission rate, lb/hr
conc.:	lead concentration, mg
CO_2 dilution factor:	$\frac{CO_2\ [inlet]}{CO_2\ [outlet]}$
V_{mstd}:	Volume of air collected, corrected to standard temperature at 70°F and standard pressure of 29.92 in Hg, ft^3.
SDCFM:	Volumetric flow rate of air at the baghouse inlet, corrected to standard temperature and pressure and on a dry basis, $\frac{ft^3}{min}$.

2.4 TEST RESULTS

Samples were sent to Calscience Environmental Laboratories, Inc. for lead analysis. Cadmium was also able to be analyzed, since the cadmium test method was virtually the same as the lead test method. Laboratory results indicated that both lead and cadmium were found at microgram levels. Laboratory results also revealed that cadmium in the field blank was below its detection limit of 0.02 micrograms per sample (µg/sample) and lead in the field blank was detected at 0.53 µg/sample.

Per CARB requirement, lead and cadmium emissions were not blank corrected. The average lead and cadmium emissions, based on four runs, were 0.022 pounds per hour (lb/hr) and 8.1×10^{-4} lb/hr, respectively. See Tables 1 through 3 for more detailed results.

3.0 REFERENCES

California Air Resources Board. March 1988. Stationary Source Test Method 12.

———. March 1988. Stationary Source Test Method 424.

———. March 1988. Stationary Source Test Method 100.

———. March 1988. Stationary Source Test Methods 1–4.

Table 1: **Summary of Results for Volumetric Flow Rates**
American Brass & Iron
for Titchell, Maltzman, Mark, Bas, Ohleyer, and Mishel
650 California Street
San Francisco, California 94108

	Date	4/27/93	4/27/93
	Time	1123-1153	1248-1323
Process Conditions			
Exhaust Gas Temperature (°F)		531	521
Volumetric Flow Rates			
ACFM		56,200	54,600
SDCFM		27,200	27,900
Gaseous Concentrations (Vol.% Dry)			
O2		10.0	12.0
CO2		9.0	7.8
H2O %		9.6	5.5

Test Unit: Baghouse Inlet
Test Method: CARB Methods 1 to 4

Table 2: **Summary of Results for CO2 Dilution Factors**
American Brass & Iron
for Titchell, Maltzman, Mark, Bas, Ohleyer, and Mishel
650 California Street
San Francisco, California 94108

Date: 4/27/93

Run (a)	Inlet CO2 (b)	Outlet CO2 (c)	Dilution (d)
1	9.0	0.6	15.0
2	9.0	1.2	7.5
3	7.8	1.3	6.0
4	7.8	1.2	6.5

(a) Runs 1 and 3 at Section 13; Runs 2 and 4 at Section 6
(b) Inlet CO2 measured by CARB Method 3
(c) Outlet CO2 measured by CARB Method 100
(d) Dilution Factor = Inlet CO2/Outlet CO2

Table 3: **Summary of Results for Lead and Cadmium Emissions**
American Brass & Iron
for Titchell, Maltzman, Mark, Bas, Ohleyer, and Mishel
650 California Street
San Francisco, California

	4/27/93	4/27/93	4/27/93	4/27/93
Date / **Time**	0836-1036	0848-1048	1215-1415	1215-1415
Section	13	6	13	6
Process Conditions				
Exhaust Gas Temperature (°F)	158	178	159	192
Volumetric Flow Rates				
ACFM	56,200	56,200	54,600	54,600
SDCFM	27,200	27,200	27,900	27,900
Gaseous Concentrations (Vol.% Dry)				
O2	20.8	20.5	20.8	20.8
CO2	0.6	1.2	1.3	1.2
H2O %	2.5	2.6	3.7	4.3
Sampled Volume				
SDCF	52.5	60.7	55.5	59.0
Lead Concentrations				
Pb (µg)	47.0	20.9	27.9	47.1
Pb (µg/SDCF)	0.895	0.344	0.503	0.798
Cadmium Concentrations				
Cd (µg)	1.92	0.68	2.18	0.18
Cd (µg/SDCF)	0.037	0.011	0.039	0.003
Lead Emissions				
Pb (lb/hr) (a)	0.048	0.0093	0.011	0.019
Pb (lb/year) (b)	96.5	18.6	22.2	38.3
Cadmium Emissions				
Cd (lb/hr) (a)	2.0 E(-3)	3.0 E(-4)	8.7 E(-4)	7.3 E(-5)
Cd (lb/year) (b)	4.0	0.6	1.7	0.1

Test Unit: Baghouse Outlet
Test Method: CARB Methods 12 (lead) and 424 (cadmium)

(a) Lead and cadmium emissions are calculated based on volumetric flow rates determined from the baghouse inlet and CO2 dilution factors.
(b) Emissions (lb/year) are calculated based on 2,000 hr/year.