



Nebraska Public Power District

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NLS2023030
April 27, 2023

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Annual Radioactive Effluent Release Report
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this letter is to transmit to the Nuclear Regulatory Commission (NRC) the Cooper Nuclear Station (CNS) Annual Radioactive Effluent Release Report for the period January 1, 2022, through December 31, 2022. This report is enclosed. During the period from January 1, 2022, through December 31, 2022, there were no changes to the Offsite Dose Assessment Manual (ODAM) or the Process Control Program (PCP), and as such, copies of the ODA M and PCP are not being transmitted with this letter. This document is being submitted for NRC use per the requirements of Technical Specification 5.6.3 and CNS ODA M Section D 5.3.

This letter contains no regulatory commitments.

Should you have any questions or require additional information, please contact me at (402) 825-5416.

Sincerely,

Linda Dewhirst
Regulatory Affairs and Compliance Manager

/jd

Enclosure - Radioactive Effluent Release Report January 1, 2022, through December 31, 2022

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cc: Regional Administrator w/ enclosure
USNRC - Region IV

Senior Resident Inspector w/ enclosure
USNRC-CNS

Cooper Project Manager w/ enclosure
USNRC - NRR Plant Licensing Branch IV

CNS Records w/ enclosure

NPG Distribution w/o enclosure

NLS2023030
Enclosure

Enclosure

Radioactive Effluent Release Report
January 1, 2022, through December 31, 2022

**NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION**

RADIOACTIVE EFFLUENT RELEASE REPORT

January 1, 2022 through December 31, 2022

USNRC Docket 50-298

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INTRODUCTION

This report summarizes meteorological data and doses from radioactive effluents for the Cooper Nuclear Station for the period January through December, 2022. The data presented is consistent with guidance provided in Regulatory Guide 1.21 of the U.S. Nuclear Regulatory Commission (Revision 1, 1974) for reporting meteorological data and radioactive effluent data.

The report is organized into four parts. Appendix A presents the effluent and waste disposal source term data. Appendix B presents a summary of onsite meteorological data for the report period, including atmospheric diffusion estimates and a description of the atmospheric diffusion model. Appendix C presents the doses from liquid and gaseous radioactive effluents. Descriptions of the dose calculation models are also included. Appendix D presents the latest groundwater report.

APPENDIX A

SOURCE TERMS

EFFLUENT AND WASTE DISPOSAL REPORTS

SUPPLEMENTAL INFORMATION

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT

January 1, 2022 through December 31, 2022

Cooper Nuclear Station effluent and waste disposal data are presented in the format prescribed by Regulatory Guide 1.21. Meteorological data required by Table 4A&B of Regulatory Guide 1.21 is included in the Meteorological Section of the Annual Radioactive Material Release Report - Radioactive Effluents.

Facility Cooper Nuclear Station License DPR-46.

A. Regulatory Limits

1. Gaseous Waste Effluents

- a. The dose rates due to radioactive materials released in gaseous effluents offsite shall be limited to the following:
 1. Noble Gases: Less than or equal to 500 mrem/yr to the total body and less than or equal to 3000 mrem/yr to the skin.
 2. I-131, I-133, tritium, and all radionuclides in particulate form with half-lives greater than or equal to 8 days: Less than or equal to 1500 mrem/yr to any organ.
- b. The air dose due to noble gases released in gaseous effluents offsite shall be limited to the following:
 1. During any calendar quarter: Less than or equal to 5 mrad from gamma radiation and less than or equal to 10 mrad from beta radiation.
 2. During any calendar year: Less than or equal to 10 mrad from gamma radiation and less than or equal to 20 mrad from beta radiation.
- c. The dose to a member of the public due to I-131, I-133, and radioactive materials in particulate form with half-lives greater than 8 days in gaseous effluents offsite shall be limited to the following:
 1. During any calendar quarter: Less than or equal to 7.5 mrem to any organ.
 2. During any calendar year: Less than or equal to 15 mrem to any organ.

2. Liquid Waste Effluents

- a. January 1, 2022 through December 31, 2022

The concentration of radioactive material in water offsite due to radioactive liquid effluents shall not exceed the concentration specified in 10 CFR 20 Part 20.1302 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall not exceed 2×10^{-4} uCi/ml total activity. (CNS Technical Specification Amendment 174 Implementation)

- b. The dose to a member of the public due to radioactive material in liquid effluents offsite shall be limited to the following:
 - 1. During any calendar quarter: Less than or equal to 1.5 mrem to the total body and less than or equal to 5 mrem to any organ.
 - 2. During any calendar year: Less than or equal to 3 mrem to the total body and less than or equal to 10 mrem to any organ.

B. Maximum Permissible Concentrations

- 1. Water: Covered in Section A.2.
- 2. Air: Covered in Section A.1.

C. Average Energy

The average energy (E) of the radionuclide mixtures of fission and activation gases released is not applicable. This information is not utilized for dose or release calculations.

D. Measurements and Approximations of Total Radioactivity

The methods used to measure or approximate the total radioactivity in effluents and to determine radionuclide composition are as follows:

1. Gaseous Effluents

- a. Fission and Activation Gases:

Radioactivity and radionuclide composition is determined by laboratory HPGe detector analysis in correlation with continuous gross radioactivity monitoring by a beta scintillation detector in the release pathway.

- b. Iodines:

Charcoal cartridges provide continuous sample collection. These cartridges are analyzed for radioactivity and radionuclide composition in the laboratory by a HPGe detector gamma spectrometer.

- c. Particulates:

Particulate filters provide continuous sample collection. These filters are analyzed for radioactivity and radionuclide composition in the laboratory by a HPGe detector gamma spectrometer. An aliquot of a filter composite from each release point was analyzed for Sr-89, Sr-90, and gross alpha by an offsite laboratory.

- d. Tritium:

A portable sampling apparatus is utilized to collect a quarterly sample of each radioactive vent effluent. These samples are analyzed using a liquid scintillation counter.

e. Carbon-14:

Carbon-14 source term was estimated using 2022 plant operational data and applying the methodology outlined in EPRI Technical Report 1021106 (EPRI, 2010).

2. Liquid Effluents

a. Principal gamma emitters and dissolved and entrained gases:

Each batch of liquid effluent is analyzed for radioactivity and radionuclide composition in the laboratory by a HPGe detector gamma spectrometer. In addition, each batch is monitored for gross gamma radioactivity by a NaI detector in-line with the release pathway.

b. Tritium:

An aliquot of a monthly composite is analyzed using a liquid scintillation counter.

c. Sr-89 and Sr-90:

An aliquot from a quarterly composite is analyzed by an offsite laboratory.

d. Gross alpha:

An aliquot from a monthly composite is analyzed by an offsite laboratory.

e. Fe-55:

An aliquot from a quarterly composite is analyzed by an offsite laboratory.

E. Batch Releases

a. Liquid

1.	Number of batch releases	0	
2.	Total time period for batch releases	0	minutes
3.	Maximum time period for batch release	0	minutes
4.	Average time period for batch release	0	minutes
5.	Minimum time period for batch release	0	minutes
6.	Average stream flow during periods of release of effluent into a flowing stream	NA	liters/minute
7.	Total activity released	0	Ci

b. Gaseous

1.	Number of batch releases	0	
2.	Total time period for batch releases	0	minutes
3.	Maximum time period for batch release	0	minutes
4.	Average time period for batch release	0	minutes
5.	Minimum time period for batch release	0	minutes

F. Abnormal Release

a. Liquid

1.	Number of releases:	0	
2.	Total activity released	0	Ci

b. Gaseous

1.	Number of releases:	0	
2.	Total activity released	0	Ci

**TABLE 1A
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES**

	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR	EST. TOTAL ERROR %
A. Fission and activation gases						
1. Total release	Ci	8.63E+00	1.00E+01	6.68E+01	1.97E+01	2.0E+01
2. Average release rate for period	μCi/sec	1.11E+00	1.28E+00	8.40E+00	2.48E+00	
B. Iodines						
1. Total iodine 131	Ci	1.94E-05	2.19E-05	3.81E-05	1.61E-04	3.0E+01
2. Average release rate for period	μCi/sec	2.50E-06	2.78E-06	4.79E-06	2.03E-05	
C. Particulates						
1. Particulates with half-lives >8 days	Ci	5.12E-06	8.14E-06	1.25E-04	7.67E-04	5.0E+01
2. Average release rate for period	μCi/sec	6.59E-07	1.04E-06	1.57E-05	9.65E-05	
3. Gross alpha radioactivity	Ci	6.11E-06	1.07E-06	1.98E-06	2.29E-06	
D. Tritium						
1. Total release	Ci	2.17E+00	5.24E+00	3.95E+00	2.10E+00	3.0E+01
2. Average release rate for period	μCi/sec	2.79E-01	6.66E-01	4.97E-01	2.64E-01	
E. Carbon-14						
1. Total release	Ci	2.46E+00	2.49E+00	2.51E+00	2.51E+00	NA
2. Release Rate	μCi/sec	3.16E-01	3.16E-01	3.16E-01	3.16E-01	

TABLE 1B
EFFLUENT AND GASEOUS WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENT-ELEVATED RELEASE
CONTINUOUS MODE *BATCH

NUCLIDES RELEASED	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR
1. Fission gases					
argon-41	Ci	8.77E-02	7.35E-02	5.00E-02	4.81E-01
krypton-83m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
krypton-85m	Ci	9.04E-02	1.43E-01	3.70E+00	3.45E-01
krypton-85	Ci	2.88E+00	4.23E-01	0.00E+00	0.00E+00
krypton-87	Ci	2.27E-01	4.75E-01	9.94E+00	3.31E+00
krypton-88	Ci	1.99E-01	3.50E-01	1.13E+01	4.05E+00
krypton-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-131m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-133m	Ci	0.00E+00	0.00E+00	2.33E-01	4.61E-02
xenon-133	Ci	4.72E-02	1.61E-01	5.00E+00	1.70E+00
xenon-135m	Ci	1.99E-01	5.30E-01	3.63E+00	6.14E-01
xenon-135	Ci	2.96E-01	6.25E-01	2.07E+01	6.29E+00
xenon-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-138	Ci	7.15E-01	1.39E+00	7.57E+00	2.37E+00
Total for period	Ci	4.74E+00	4.17E+00	6.21E+01	1.92E+01
2. Iodines					
iodine-131	Ci	6.93E-06	7.69E-06	2.48E-05	1.08E-04
iodine-132	Ci	2.76E-06	2.70E-06	0.00E+00	3.82E-05
iodine-133	Ci	2.70E-05	3.14E-05	8.71E-05	6.60E-05
iodine-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iodine-135	Ci	0.00E+00	0.00E+00	0.00E+00	7.83E-05
Total for period	Ci	3.67E-05	4.18E-05	1.12E-04	2.91E-04

* No batch discharges were made

TABLE 1B
EFFLUENT AND GASEOUS WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENT-ELEVATED RELEASE (CONTINUED)
CONTINUOUS MODE *BATCH

NUCLIDES RELEASED	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR
3. Particulates					
sodium-24	Ci	0.00E+00	9.07E-07	0.00E+00	0.00E+00
chromium-51	Ci	0.00E+00	0.00E+00	4.49E-05	9.87E-05
manganese-54	Ci	7.61E-09	0.00E+00	5.12E-06	3.85E-05
manganese-56	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iron-59	Ci	0.00E+00	0.00E+00	2.59E-06	5.50E-06
cobalt-58	Ci	0.00E+00	0.00E+00	4.85E-06	1.92E-05
cobalt-60	Ci	1.21E-07	5.19E-07	3.10E-05	3.07E-04
zinc-65	Ci	2.91E-08	3.48E-07	3.58E-06	3.25E-05
zinc-69	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
rubidium-88	Ci	0.00E+00	0.00E+00	0.00E+00	3.41E-01
rubidium-89	Ci	0.00E+00	0.00E+00	0.00E+00	6.91E-02
strontium-89	Ci	1.98E-07	2.73E-07	8.38E-07	3.84E-05
strontium-90	Ci	0.00E+00	1.01E-08	0.00E+00	2.34E-07
strontium-91	Ci	0.00E+00	6.34E-06	1.52E-05	9.79E-05
yttrium-91m	Ci	0.00E+00	0.00E+00	0.00E+00	4.86E-07
yttrium-93	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
niobium-95	Ci	0.00E+00	0.00E+00	4.18E-07	2.56E-06
ruthenium-103	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
silver-110m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
antimony-124	Ci	0.00E+00	0.00E+00	5.57E-07	1.74E-06
antimony-125	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
tellurium-132	Ci	0.00E+00	0.00E+00	0.00E+00	2.58E-06
cesium-137	Ci	1.35E-08	6.01E-08	2.16E-07	7.42E-07
cesium-138	Ci	3.11E-04	2.93E-03	2.44E-03	6.36E-01
barium-139	Ci	7.80E-04	1.02E-03	1.07E-03	6.31E-02
barium-140	Ci	0.00E+00	0.00E+00	5.06E-06	1.87E-05
lanthanum-140	Ci	0.00E+00	1.48E-07	4.04E-06	1.73E-05
cerium-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
praesodymium-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for period	Ci	1.09E-03	3.96E-03	3.63E-03	1.11E+00
Total for period with >8d half life	Ci	3.69E-07	1.21E-06	9.91E-05	5.64E-04

* No batch discharges were made

TABLE 1C
EFFLUENT AND GASEOUS WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENT-BUILDING VENT RELEASE
CONTINUOUS MODE *BATCH

NUCLIDES RELEASED	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR
1. Fission gases					
krypton-83m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
krypton-85m	Ci	3.41E-01	4.34E-01	2.18E-01	4.49E-02
krypton-85	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
krypton-87	Ci	6.56E-01	1.19E+00	1.16E+00	5.31E-02
krypton-88	Ci	8.59E-01	1.48E+00	1.19E+00	3.97E-02
krypton-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-131m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-133m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-133	Ci	2.80E-01	5.99E-01	1.57E-01	2.22E-01
xenon-135m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-135	Ci	1.75E+00	2.16E+00	1.92E+00	1.47E-01
xenon-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for period	Ci	3.89E+00	5.86E+00	4.65E+00	5.07E-01
2. Iodines					
iodine-131	Ci	1.25E-05	1.42E-05	1.33E-05	5.33E-05
iodine-132	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iodine-133	Ci	7.55E-05	7.44E-05	5.77E-05	2.45E-05
iodine-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iodine-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for period	Ci	8.80E-05	8.86E-05	7.10E-05	7.78E-05

* No batch discharges were made.

TABLE 1C
EFFLUENT AND GASEOUS WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENT-BUILDING VENT RELEASE (CONTINUED)
CONTINUOUS MODE *BATCH

NUCLIDES RELEASED	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR
3. Particulates					
sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
chromium-51	Ci	0.00E+00	0.00E+00	4.49E-06	5.93E-05
manganese-54	Ci	4.04E-07	0.00E+00	1.02E-06	1.53E-05
manganese-56	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cobalt-57	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cobalt-58	Ci	0.00E+00	0.00E+00	4.50E-07	8.25E-06
iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	2.02E-06
cobalt-60	Ci	3.31E-06	4.34E-06	1.82E-05	1.12E-04
zinc-65	Ci	0.00E+00	1.05E-06	0.00E+00	4.31E-06
rubidium-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
strontium-89	Ci	1.04E-06	1.54E-06	8.88E-07	4.77E-07
strontium-90	Ci	0.00E+00	0.00E+00	0.00E+00	3.61E-07
strontium-91	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
strontium-92	Ci	1.47E-05	0.00E+00	0.00E+00	0.00E+00
yttrium-91m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
technetium-99m	Ci	0.00E+00	0.00E+00	0.00E+00	6.38E-07
ruthenium-103	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
silver-110m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
antimony-124	Ci	0.00E+00	0.00E+00	2.06E-07	1.28E-06
cesium-137	Ci	0.00E+00	0.00E+00	1.52E-07	5.35E-08
cesium-138	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
barium-139	Ci	2.22E-03	2.97E-03	5.09E-04	2.31E-04
barium-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
lanthanum-140	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cerium-141	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cerium-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
praseodymium-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for period	Ci	2.24E-03	2.98E-03	5.34E-04	4.35E-04
Total for period >8 day half life	Ci	4.75E-06	6.93E-06	2.54E-05	2.03E-04

* No batch discharges were made

**TABLE 2A
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES**

	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR	EST. TOTAL ERROR %
A. Fission and activation products						
1. Total release (not including tritium, gases or alpha)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.0E+01
2. Average diluted concentration during period	μCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
B. Tritium						
1. Total release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.0E+01
2. Average diluted concentration during period	μCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
C. Dissolved and entrained gases						
1. Total release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.0E+01
2. Average diluted concentration during period	μCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
D. Gross alpha radioactivity						
1. Total release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.0E+01
E. Volume of waste released (prior to dilution)						
	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.0E+01
F. Volume of dilution water used during period						
	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.0E+01

TABLE 2B
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS (CONTINUED)
CONTINUOUS MODE *BATCH MODE

NUCLIDES RELEASED	UNIT	1st QTR	2nd QTR	3rd QTR	4th QTR
sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
chromium-51	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
manganese-54	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iron-55	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cobalt-57	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cobalt-58	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cobalt-60	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
zinc-65	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
strontium-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
strontium-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
strontium-92	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
technetium-99m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
technetium-101m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iodine-131	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
iodine-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cesium-134	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cesium-137	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
cerium-144	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total for period	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

* No continuous mode discharges were made

TABLE 3

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
PERIOD: January 1, 2022 through December 31, 2022

A. Solid Waste Shipped Offsite for Burial or Disposal (Not Irradiated Fuel)

1. Type of Waste

	Unit	12 Month Period	Est. Total Error %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³	23.96	N/A
	Ci	3.26E+02	15%
b. Dry compressible waste, contaminated equip, etc.	m ³	332.7	N/A
	Ci	1.04E+00	25%
c. Irradiated components, control rods, etc.	m ³	0.00	N/A
	Ci	0.00E+00	N/A
d. Other	m ³	0.00	N/A
	Ci	0.00E+00	N/A

2. Estimate of Major Nuclide Composition (By Type of Waste), Percent %

a. Resin

americium-241	9.30E-06	iron-59	1.23E-01
barium-140	6.37E-05	lanthanum-140	7.32E-05
carbon-14	2.87E-02	maganese-54	5.98E+00
cesuim-134	1.30E-04	nickel-63	1.63E+00
cesium-137	6.15E-02	niobium-95	0.00E-00
cesium-141	4.54E-05	plutonium-238	1.23E-05
chromium-51	3.62E-01	plutonium-239	1.19E-05
cobalt-57	1.42E-04	plutonium-241	8.78E-04
cobalt-58	3.00E+00	silver-110m	1.98E-01
cobalt-60	5.36E+01	strontium-89	2.18E-02
curium-242	8.33E-06	strontium-90	5.37E-03
curium-244	7.72E-06	technetium-99	7.16E-03
iodine-129	5.80E-04	tritium	3.90E-03
iodine-131	1.79E-05	zinc-65	1.15E+01
iron-55	2.34E+01		

TABLE 3

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS (continued)

PERIOD: January 1, 2022 through December 31, 2022

b. DAW

americium-241	1.93E-04	nickel-63	1.67E+00
antimony-124	1.77E-01	niobium-94	0.00E-00
carbon-14	3.57E-03	niobium-95	1.37E+00
cesium-137	8.51E-02	plutonium-238	2.08E-04
chromium-51	1.76E+01	plutonium-239	2.21E-04
cobalt-58	1.81E+00	plutonium-241	1.54E-02
cobalt-60	4.86E+01	silver-110m	4.67E-03
curium-242	1.00E-04	strontium-89	9.59E-03
curium-244	1.29E-04	strontium-90	5.02E-03
iodine-129	1.03E-03	technetium-99	8.26E-03
iron-55	1.95E+01	tin-113	2.98E-02
iron-59	1.13E+00	tritium	1.20E-02
manganese-54	3.79E+00	zinc-65	3.39E+00
nickel-59	0.00E-00	zirconium-95	8.00E-01

c. N/A

TABLE 3

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS (continued)
PERIOD: January 1, 2022 through December 31, 2022

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
3	Exclusive Use	UT
11	Exclusive Use	TN

4. Solidification Agent

None

B. Irradiated Fuel Shipments (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	NA	NA

**GASEOUS RADIOACTIVE WASTES
CUMULATIVE DOSE DATA**

A.	Maximum gamma air dose		<u>1st Qtr</u>	<u>2nd Qtr</u>	<u>3rd Qtr</u>	<u>4th Qtr</u>	<u>Annual</u>
	Site boundary*		N	NNE	N	N	N
	1. Total	mrad	9.98E-03	1.43E-02	2.24E-02	1.17E-03	5.25E-02
	Percent of Technical Specification						
	2. Limit		0.20%	0.29%	0.45%	0.02%	0.53%
	Most Exposed Resident*		NW	NW	NW	NW	NW
	1. Total	mrad	1.15E-03	1.82E-03	7.59E-03	9.40E-04	1.22E-02
	Percent of Technical Specification						
	2. Limit		0.02%	0.04%	0.15%	0.02%	0.12%
B.	Maximum beta air dose						
	Site boundary*		N	NNE	N	N	N
	1. Total	mrad	6.92E-03	9.64E-03	1.59E-02	1.10E-03	3.65E-02
	Percent of Technical Specification						
	2. Limit		0.07%	0.10%	0.16%	0.01%	0.18%
	Most Exposed Resident*		NW	NW	NW	NW	NW
	1. Total	mrad	7.99E-04	1.12E-03	5.19E-03	6.35E-04	8.36E-03
	Percent of Technical Specification						
	2. Limit		0.01%	0.01%	0.05%	0.01%	0.04%
C.	Maximum organ dose due to I-131, I-133, and particulates (>8 day half lives)						
	Site boundary*		N	N	N	N	N
	1. Total	mrem	8.49E-03	1.16E-02	1.31E-02	4.98E-02	8.32E-02
	Percent of Technical Specification						
	2. Limit		0.11%	0.15%	0.18%	0.66%	0.55%
	3. Organ		Thyroid	Thyroid	Thyroid	Thyroid	Thyroid
	4. Exposed Individual		Infant	Infant	Infant	Infant	Infant
	Most Exposed Resident*		NW	NW	NW	NW	NW
	1. Total	mrem	8.25E-04	4.00E-03	4.65E-03	1.82E-02	2.62E-02
	Percent of Technical Specification						
	2. Limit		0.01%	0.05%	0.06%	0.24%	0.17%
	3. Organ		Thyroid	Thyroid	Thyroid	Thyroid	Thyroid
	4. Exposed Individual		Infant	Infant	Infant	Infant	Infant
D.	Maximum organ dose rate due to I-131, I-133, tritium, and particulates (>8 day half-lives) was 0.0832 mrem/year which was 0.55% of the Technical Specification Limit.						
E.	All radioactive noble gas effluent monitors were set to automatically alarm when the monitor alarm set point, determined as specified in the Offsite Dose Assessment Manual (ODAM), was exceeded. This is required to ensure that the 500 mrem/yr to the total body and the 3000 mrem/yr to the skin limits are not exceeded.						

*Resident and Site Boundary Key: N is 0.67 miles North, NW is 0.90 miles Northwest, and NNE is 0.60 miles North-Northeast.

GASEOUS RADIOACTIVE WASTES (Continued)
CUMULATIVE DOSE DATA

F. Maximum organ dose due to Carbon-14*			<u>1st Qtr</u>	<u>2nd Qtr</u>	<u>3rd Qtr</u>	<u>4th Qtr</u>	<u>Annual</u>
1.	Total	mrem	1.86E-01	1.97E-01	4.99E-01	4.01E-01	1.24E+00
2.	Percent of Technical Specification Limit		1.86%	1.97%	4.99%	4.01%	6.20%
3.	Organ	mrem	Bone	Bone	Bone	Bone	Bone
4.	Exposed Individual		Child	Child	Child	Child	Child

*Maximum organ dose due to Carbon-14 is based on summation of organ dose pathways from the nearest garden, nearest meat animal, and nearest milk animal. Inhalation pathway was negligible.

LIQUID RADIOACTIVE WASTES
CUMULATIVE DOSE DATA

A. Maximum whole body dose			<u>1st Qtr</u>	<u>2nd Qtr</u>	<u>3rd Qtr</u>	<u>4th Qtr</u>	<u>Annual</u>
1.	Total	mrem	0.00E-00	0.00E-00	0.00E-00	0.00E-00	0.00E-00
2.	Percent of Technical Specification Limit		0.00%	0.00%	0.00%	0.00%	0.00%
B. Maximum Organ Dose							
1.	Total	mrem	0.00E-00	0.00E-00	0.00E-00	0.00E-00	0.00E-00
2.	Percent of Technical Specification Limit		0.00%	0.00%	0.00%	0.00%	0.00%

2022 ARERR SUPPLEMENTAL INFORMATION

- A. Unplanned Releases
N/A
- B. District or CNS Initiated Changes to the Process Control Program.
N/A
- C. Changes to the Offsite Dose Assessment Manual
N/A
- D. Reports Required by the CNS Offsite Dose Assessment Manual (ODAM)
- 1) The following is being reported per the requirements of ODAM Specification D3.3.2, Condition B, Required Action B.2.2:
 - a) The Elevated Release Point (ERP) process flow measuring device (D 3.3.2-4.d) was declared inoperable on 12/10/2020 10:38 due to flow transmitter equipment malfunction. Attempts to perform maintenance activities, plant modification and other plant parameter changes to restore operability of D 3.3.2-4.d have not been successful/sustainable thus far. In the interim, DEC 5376823 is substituting a conservative, fixed value of 5500 CFM for the flow rate until the issue can be resolved. ERP process flow measuring device was out of service for 365 days in 2022. (CR-2022-04111)
 - 2) The following is being reported per the intent of ODAM Specification D3.3.2, Condition I, Required Action I.2.2 though in both cases DLCO 3.0.3 was entered:
 - a) Turbine Building (TB) alternate gaseous effluent radiation monitor was secured at the same time the TB Normal and High Range gaseous effluent radiation monitor was placed in service (8/27/2022 03:03) but prior to the TB Normal and High Range gaseous effluent radiation monitor being declared operable (8/27/2022 06:21). While the TB gaseous effluent release pathway was being measured for radionuclides the entire time, the TB Normal and High Range gaseous effluent radiation monitor was not operable as required by TLCO 3.3.3 and DLCO 3.3.2 from 8/27/2022 03:03 to 8/27/2022 06:21 (3.3 hours). The cause was due to miscommunication and was corrected immediately upon discovery. The TB effluent radiation monitor procedure (and three other procedures for similar effluent radiation monitors) were revised to add a specific step to ensure Control Room assesses operability prior to the alternate monitor being secured. (CR-2022-03649/03650)
 - b) The alternate Reactor Building (RB) gaseous effluent radiation monitor (alternate RB effluent monitor) was in service because the RB gaseous effluent radiation monitor (normal RB effluent monitor) was de-energized for planned maintenance. On 10/22/2022 15:09, the alternate RB effluent monitor was also found de-energized. The alternate RB effluent monitor was returned to service 10/22/2022 20:11 following fuse replacement. Since both

lost power, neither was able to monitor the RB gaseous effluent release pathway. It is not known exactly when the alternate RB effluent monitor became de-energized but the last known time it was definitively in service was 10/22/2022 07:51. Therefore, the RB gaseous effluent release pathway was not monitored for at least 5.0 hours but potentially up to 12.3 hours. (CR-2022-05300/05301/05303)

E. Errata Data

- 1) Correction is required to the 2021 ARERR Supplemental Information page Section D. This affected page is labeled "ERRATA DATA #1." As recommended in Reg Guide 1.21 Rev 3, the corrected page in its entirety is being submitted (attached on page A19) with revision bars in the left margin to indicate the location of the changes. The need to correct 2021 ARERR information was documented and addressed via CNS' corrective action program (CR-2022-04111).
- 2) Correction is required to the 2019 ARERR Supplemental Information page Section D. This affected page is labeled "ERRATA DATA #2." As recommended in Reg Guide 1.21 Rev 3, the corrected page in its entirety is being submitted (attached on page A20) with revision bars in the left margin to indicate the location of the changes. The need to correct 2019 ARERR information was documented and addressed via CNS' corrective action program (CR-2022-04111-CA-6).

ERRATA DATA #1 (Page 1 of 1)

SUPPLEMENTAL INFORMATION FOR CALENDAR YEAR 2021

A. Unplanned Releases, Leaks, or Spills:

None.

B. NPPD Initiated Changes to the Process Control Program:

None.

C. Changes to the Offsite Dose Assessment Manual:

None.

D. Reports Required by the Offsite Dose Assessment Manual:

1) The following is being reported per the requirements of ODAM Specification D 3.3.2, Condition B, Required Action B.2.2:

- a. The ERP process flow measuring device was declared inoperable (ODAM LCO 3.3.2-4.d) on 12/10/2020 at 10:38 due to flow transmitter equipment malfunction. Attempts to perform maintenance activities to restore operability were unsuccessful. On 12/18/2020 at 09:30, DEC 5376823 temporarily substituted a fixed value of 5500 CFM for the flow rate to restore operability to the remainder of the ERP Kaman effluent monitor (TRM LCO 3.3.3-8 and D 3.3.2-4.a, b, c & e) until the flow measuring device could be fixed. As stated in paragraph b below, D 3.3.2-4.a, b, c & e weren't declared operable until 2/12/2021 11:47. The flow rate of 5500 CFM is the maximum expected ERP flow. Using this conservative value ensures ERP effluent monitors indicate a conservative release rate. Attempts to perform maintenance activities to restore operability remained unsuccessful throughout 2021; therefore, DEC 5376823 remains in place. ERP process flow measuring device was out of service for 365 days in 2021. (CR-2022-04111)
- b. The ERP Noble Gas Activity Monitor (D 3.3.2-4.a), Iodine Sampler Cartridge (D 3.3.2-4.b), Particulate Sample Filter (D 3.3.2-4.c) and Sampler Flow Rate Measuring Device (D 3.3.2-4.e) were inoperable from 12/4/2020 04:31 to 2/12/2021 11:47 (70.3 days). This was due to equipment and water intrusion issues with 3.3.2-4.e. Inoperability of 3.3.2-4.e results in defacto inoperability of D 3.3.2-4.a, b and c. (CR-2021-00019, CR-2022-04111, CR-2022-04112, CR-2023-00395)

2) The following is being reported per the requirements of ODAM Specification D 3.3.2, Condition I, Required Action I.2.2.

- a. From 2/19/21 22:20 to 2/25/21 00:44, Radwaste/Augmented Radwaste (RW/ARW) building effluent continuous particulate and iodine monitoring did not occur because sample line flow for primary and backup RW/ARW effluent monitors was lost. Noble gas grab samples were able to be obtained via an alternate RW/ARW sample point during this timeframe. Loss of sample flow and subsequent equipment damage was associated with extreme cold weather conditions (low of -22 °F) that existed. This same polar vortex severely impacted the entire Midwest & Texas. Primary and backup RW/ARW effluent monitors were out of service for 122 hours in 2021. (CNS-2021-00830)

ERRATA DATA #2 (Page 1 of 1)

SUPPLEMENTAL INFORMATION FOR CALENDAR YEAR 2019

- A. Unplanned Releases, Leaks, or Spills:
None
- B. District or CNS Initiated Changes to the Process Control Program.
None.
- C. Changes to the Offsite Dose Assessment Manual
None.
- D. Reports Required by the Offsite Dose Assessment Manual:
- 1) The following is being reported per the requirements of ODAM Specification D3.3.1, Condition B, Required Action B.2.2 due to these conditions existing for a period of greater than 31 days during the January 1 - December 31, 2019 reporting period. During these occurrences, Service Water (SW) samples were manually collected and analyzed for gamma radioactivity every 24 hours.
 - a) Both SW radiation monitors were declared inoperable and their respective detectors preemptively removed on 03/13/2019 at 11:00 to protect them from impending water intrusion caused by Missouri River flooding. Once flooding conditions subsided, SW radiation monitor detectors were promptly reinstalled and declared operable on 04/22/2019 at 22:15. This occurrence lasted 40.47 days. (CR-2019-02255)
 - b) Both SW radiation monitors were declared inoperable and their respective detectors preemptively removed on 05/24/2019 at 19:30 to protect them from impending water intrusion caused by Missouri River flooding. Once flooding conditions subsided, SW radiation monitor detectors were promptly reinstalled and declared operable on 6/27/2019 at 23:10. This occurrence lasted 35.15 days. (CR-2019-03461)
 - c) Both SW radiation monitors were declared inoperable and their respective detectors preemptively removed on 09/18/2019 at 09:00 to protect them from impending water intrusion caused by Missouri River flooding. Once flooding conditions subsided, SW radiation monitor detectors were promptly reinstalled and declared operable on 11/06/2019 at 20:41. This occurrence lasted 49.49 days. (CR-2019-05466)
 - 2) The following is being reported per the requirements of ODAM Specification D3.3.2, Condition I, Required Action I.2.2.
 - a) From 3/11/2019 02:48 to 3/14/2019 16:26, Elevated Release Point (ERP) particulate filter sampling was not effectively performed. A particulate filter was in service during this period but when the filter was being removed, it was identified that the filter had a tear. The filter was analyzed using gamma spectroscopy and activity was found to be less than expected, indicating that the filter was not fully intact while in service and that its ability to obtain a representative sample was negatively impacted. The condition was corrected immediately upon discovery. Appropriate actions were taken to quantify releases during this timeframe using particulate data under same plant conditions. ERP iodine and noble gas sampling capability was not impacted during this timeframe. This occurrence lasted 3.6 days (CR-2019-01671, CR-2022-04111, CR-2023-01166)

APPENDIX B
METEOROLOGY

CONTENTS

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METEOROLOGICAL DATA SUMMARIES

Meteorological data collected onsite for the period January 1, 2022 through December 31, 2022, were reduced, validated, summarized for analysis, and included in appropriate dose calculations. Some adjustments were necessary during the validation of the data and they are discussed beginning on page B6. Hourly data summaries are provided for all pertinent parameters and for the joint frequency distributions (JFD's) of wind speed and wind direction by atmospheric stability class.

DATA RECOVERY

Data recovery statistics are provided in Table 1 for all pertinent meteorological parameters. Average data recovery for all parameters in 2022 exceeded 99.6%.

	<u>Average Data Recovery</u>
January 1 - March 31, 2022 (Q1)	99.6%
April 1 - June 30, 2022 (Q2)	99.8%
First Semiannual Period - January 1 - June 30, 2022 (SEM1)	99.7%
July 1 - September 30, 2022 (Q3)	99.7%
October 1 - December 31, 2022 (Q4)	99.9%
Second Semiannual Period - July 1 - December 31, 2022 (SEM2)	99.8%
Annual Period - January 1 - December 31, 2022 (ANN)	99.8%

WIND AT 100-METER LEVEL AND 10-METER LEVEL

	<u>Predominant Wind Direction at 100m Level</u>	<u>Predominant Wind Direction at 10m Level</u>
Q1	North-northwest 19.1%	North-northwest 15.7%
Q2	South 16.0%	South 16.0%
SEM1	North-northwest 14.4%	South 14.5%
Q3	South 13.7%	South 17.2%
Q4	North-northwest 13.2%	South 14.8%
SEM2	South 13.2%	South 16.0%
ANN	South 13.2%	South 15.2%

	<u>Mean Wind Speed at 100m Level</u>	<u>Mean Wind Speed at 10m Level</u>
Q1	16.0 MPH	10.4 MPH
Q2	15.6 MPH	10.3 MPH
SEM1	15.8 MPH	10.3 MPH
Q3	11.1 MPH	5.9 MPH
Q4	15.7 MPH	8.8 MPH
SEM2	13.4 MPH	7.3 MPH
ANN	14.6 MPH	8.8 MPH

	<u>Maximum Hourly Average Wind Speed/(Date at 100m Level)</u>	<u>Maximum Hourly Average Wind Speed/(Date at 10m Level)</u>
Q1	41.5 MPH/(22/01/15)	30.7 MPH/(22/01/15)
Q2	53.3 MPH/(22/04/12)	39.8 MPH/(22/04/12)
SEM1	53.3 MPH/(22/04/12)	39.8 MPH/(22/04/12)
Q3	36.1 MPH/(22/09/17)	21.0 MPH/(22/09/09)
Q4	38.9 MPH/(22/10/23)	37.4 MPH/(22/10/23)
SEM2	38.9 MPH/(22/10/23)	37.4 MPH/(22/10/23)
ANN	53.3 MPH/(22/04/12)	39.8 MPH/(22/04/12)

TEMPERATURE AT 10-METER LEVEL

	<u>Mean Hourly Average Temperature</u>	<u>Average Daily Maximum</u>	<u>Average Daily Minimum</u>
Q1	32.3 Degrees F	44.0 Degrees F	21.1 Degrees F
Q2	64.0 Degrees F	73.3 Degrees F	54.5 Degrees F
SEM1	48.3 Degrees F	58.7 Degrees F	37.9 Degrees F
Q3	74.0 Degrees F	83.7 Degrees F	64.6 Degrees F
Q4	40.9 Degrees F	52.0 Degrees F	30.5 Degrees F
SEM2	57.4 Degrees F	67.8 Degrees F	47.6 Degrees F
ANN	52.9 Degrees F	63.3 Degrees F	42.8 Degrees F

	<u>Maximum Temperature (Date)</u>	<u>Minimum Temperature (Date)</u>
Q1	76.7 Degrees F (22/03/02)	-5.4 Degrees F (22/01/02)
Q2	99.0 Degrees F (22/06/13)	27.0 Degrees F (22/04/09)
SEM1	99.0 Degrees F (22/06/13)	-5.4 Degrees F (22/01/02)
Q3	99.9 Degrees F (22/09/20)	45.4 Degrees F (22/09/28)
Q4	85.1 Degrees F (22/10/23)	-10.7 Degrees F (22/12/22)
SEM2	99.9 Degrees F (22/09/20)	-10.7 Degrees F (22/12/22)
ANN	99.9 Degrees F (22/09/20)	-10.7 Degrees F (22/12/22)

PRECIPITATION

	<u>Total Precipitation</u>	<u>Maximum Daily Precipitation Total/ (Date)</u>	<u>Maximum Hourly Precipitation Total/ (Date)</u>
Q1	2.69 Inches	0.62 Inches (22/03/18)	0.16 Inches (22/03/22)
Q2	12.71 Inches	2.45 Inches (22/04/29)	0.86 Inches (22/06/07)
SEM1	15.40 Inches	2.45 Inches (22/04/29)	0.86 Inches (22/06/07)
Q3	6.47 Inches	1.46 Inches (22/07/07)	0.58 Inches (22/07/16)
Q4	3.32 Inches	1.41 Inches (22/11/04)	0.37 Inches (22/11/04)
SEM2	9.79 Inches	1.46 Inches (22/07/07)	0.58 Inches (22/07/16)
ANN	25.19 Inches	2.45 Inches (22/04/29)	0.86 Inches (22/06/07)

ATMOSPHERIC STABILITY

Atmospheric stability is determined through classification of differential temperature data based on JFD of the 100-meter wind and the delta T (100m - 10m) stability data.

	<u>Unstable Conditions Classes A-C</u>	<u>Neutral Conditions Class D</u>	<u>Stable Conditions Classes E-G</u>
Q1	<1%	51%	48%
Q2	1%	51%	48%
SEM1	1%	51%	48%
Q3	2%	37%	61%
Q4	3%	50%	47%
SEM2	3%	44%	53%
ANN	2%	47%	51%

TABLE 1. Meteorological Data Recovery

Data Recovery (% of total Observations)

	January- March 2022	April- June 2022	January- June 2022	July- Sept. 2022	October- Dec. 2022	July- Dec. 2022	January- Dec. 2022
100m wind speed	99.8	100.0	99.9	99.6	100.0	99.8	99.8
100m wind direction	99.8	100.0	99.9	99.6	100.0	99.8	99.8
100m ambient temperature	99.6	100.0	99.8	99.6	100.0	99.8	99.8
60m wind speed	99.8	100.0	99.9	100.0	99.7	99.9	99.9
60m wind direction	99.8	100.0	99.9	100.0	99.7	99.9	99.9
60m ambient temperature	99.6	100.0	99.8	99.6	100.0	99.8	99.8
10m wind speed	99.3	98.7	99.0	99.5	100.0	99.8	99.4
10m wind direction	99.3	98.7	99.0	99.5	100.0	99.8	99.4
10m ambient temperature	99.6	100.0	99.8	99.6	100.0	99.8	99.8
10m dew point	99.7	100.0	99.8	99.6	100.0	99.8	99.8
100m-10m delta T	99.6	100.0	99.8	99.6	100.0	99.8	99.8
100m-60m delta T	99.6	100.0	99.8	99.6	100.0	99.8	99.8
60m-10m delta T	99.6	100.0	99.8	99.6	100.0	99.8	99.8
Precipitation	99.9	100.0	99.9	99.9	100.0	99.9	99.9
100m JFD	99.4	100.0	99.7	99.6	100.0	99.8	99.7
10m JFD	98.9	98.7	98.8	99.1	100.0	99.6	99.2

JFD - Joint Frequency Distribution of wind speed, wind direction and atmospheric stability.

MONTHLY SUMMARY TABLES OF HOURLY METEOROLOGICAL DATA

The tables presented in this section provide a summary of hourly averages of measured meteorological parameters. The tables provide summaries by month for the annual period January through December, 2022. Summaries for the first quarter, second quarter, third quarter, fourth quarter, and semiannual periods are also provided. The parameters provided are listed below.

- * 10 meter ambient temperature.
- * Wind direction frequencies at 10 meters and 100 meters.
- * Precipitation.

Any missing or non-measured data are indicated by a field of 9's.

10-Meter Ambient Temperature

and

10-Meter Dew Point Temperature

PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

JANUARY

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	23.7	31	15.9	31	72.6	31	2.8	31	21.3
2	31	22.6	31	15.0	31	73.4	31	2.7	31	20.3
3	31	21.6	31	14.5	31	74.7	31	2.6	31	19.5
4	31	20.9	31	14.3	31	76.0	31	2.6	31	19.0
5	31	20.1	31	13.8	31	76.9	31	2.6	31	18.3
6	31	19.2	31	13.4	31	78.2	31	2.5	31	17.6
7	31	18.6	31	13.2	31	79.5	31	2.5	31	17.1
8	31	18.5	31	13.2	31	79.9	31	2.5	31	17.0
9	31	18.8	31	12.8	31	77.7	31	2.5	31	17.2
10	31	21.3	31	13.3	31	71.4	31	2.6	31	19.1
11	31	23.9	31	14.0	31	66.3	31	2.6	31	21.0
12	31	26.3	31	14.5	31	62.0	31	2.7	31	22.7
13	31	28.6	31	14.8	31	57.6	31	2.7	31	24.2
14	31	30.7	31	15.5	31	54.9	31	2.8	31	25.7
15	31	32.3	31	16.2	31	53.4	31	2.9	31	27.0
16	31	33.2	31	17.0	31	53.8	31	2.9	31	27.7
17	31	33.1	31	17.7	31	55.5	31	3.0	31	27.9
18	31	31.6	31	18.7	31	60.9	31	3.2	31	27.2
19	31	29.8	31	18.5	31	64.4	31	3.1	31	26.0
20	31	28.6	31	18.3	31	66.7	31	3.1	31	25.2
21	31	27.7	31	18.0	31	68.4	31	3.0	31	24.5
22	31	26.8	31	17.6	31	69.7	31	3.0	31	23.9
23	31	26.0	31	17.1	31	70.3	31	2.9	31	23.1
24	31	25.2	31	16.8	31	71.3	31	2.9	31	22.5
HOURLY MEAN		25.4		15.6		68.2		2.8		22.3
AVG DAILY MAX		36.1		23.1		86.1		3.7		30.7
AVG DAILY MIN		14.8		8.8		50.2		2.1		13.7
ABSOLUTE MAX		62.3		38.9		100.0		6.3		45.9
ABSOLUTE MIN		-5.4		-10.9		23.2		.8		-6.0
TOTAL OBS		744		744		744		744		744

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

FEBRUARY

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	28	26.8	28	14.5	28	61.0	28	2.6	28	23.0
2	28	26.0	28	14.9	28	64.1	28	2.7	28	22.5
3	28	25.1	28	14.7	28	66.0	28	2.7	28	21.9
4	28	24.6	28	14.6	28	67.3	28	2.7	28	21.6
5	28	24.2	28	14.5	28	67.9	28	2.7	28	21.3
6	28	23.3	28	14.3	28	69.9	28	2.7	28	20.7
7	28	22.5	28	14.0	28	71.1	28	2.7	28	20.1
8	28	22.2	28	13.6	28	70.4	28	2.6	28	19.7
9	28	23.6	28	13.6	28	66.5	28	2.6	28	20.7
10	28	26.7	28	14.4	28	60.7	28	2.6	28	22.9
11	28	30.0	28	15.1	28	54.9	28	2.7	28	25.2
12	28	33.0	28	15.6	28	50.3	28	2.7	28	27.1
13	28	35.6	28	15.3	28	45.4	28	2.7	28	28.6
14	28	37.6	28	15.0	28	41.8	28	2.6	28	29.7
15	28	39.0	28	15.0	28	39.8	28	2.6	28	30.5
16	28	39.6	28	14.6	28	38.4	28	2.5	28	30.8
17	28	39.6	28	14.8	28	38.7	28	2.5	28	30.9
18	28	38.4	28	15.3	28	41.1	28	2.6	28	30.3
19	28	35.6	28	15.8	28	46.2	28	2.6	28	28.7
20	28	33.3	28	15.6	28	50.0	28	2.6	28	27.3
21	28	31.4	28	15.5	28	53.3	28	2.6	28	26.1
22	28	29.9	28	15.0	28	55.6	28	2.6	28	25.0
23	28	28.6	28	14.4	28	57.1	28	2.5	28	24.0
24	28	27.6	28	14.1	28	58.6	28	2.6	28	23.4
HOURLY MEAN		30.2		14.7		55.7		2.6		25.1
AVG DAILY MAX		42.9		23.6		77.0		3.7		34.4
AVG DAILY MIN		17.4		7.1		37.5		1.9		15.1
ABSOLUTE MAX		66.9		45.0		100.0		7.9		49.8
ABSOLUTE MIN		-.2		-8.3		15.6		.9		-1.0
TOTAL OBS		672		672		672		672		672

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

MARCH

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	38.7	31	30.5	31	74.3	31	4.9	31	35.4
2	31	37.3	31	29.5	31	75.3	31	4.7	31	34.2
3	31	36.3	31	29.3	31	77.2	31	4.6	31	33.6
4	31	35.4	31	29.1	31	79.1	31	4.6	31	33.0
5	31	34.8	31	29.0	31	80.4	31	4.6	31	32.5
6	31	34.1	31	28.8	31	81.6	31	4.6	31	32.1
7	31	33.7	31	28.6	31	81.9	31	4.6	31	31.8
8	30	33.9	29	27.7	29	78.4	29	4.4	29	31.6
9	30	36.0	30	27.9	29	72.5	29	4.4	29	32.9
10	30	38.8	30	28.4	29	66.6	29	4.4	29	34.6
11	30	41.5	30	28.8	29	62.2	29	4.5	29	36.2
12	30	43.9	30	29.1	29	58.5	29	4.6	29	37.6
13	30	45.8	30	29.2	29	55.5	29	4.6	29	38.7
14	30	47.6	31	29.3	30	51.8	30	4.6	30	39.7
15	30	48.9	31	29.4	30	50.1	30	4.6	30	40.4
16	31	50.4	31	29.8	31	49.2	31	4.7	31	41.4
17	31	49.9	31	30.3	31	51.3	31	4.8	31	41.4
18	31	49.1	31	30.8	31	53.9	31	4.9	31	41.2
19	31	47.0	31	31.9	31	59.5	31	5.1	31	40.4
20	31	44.9	31	32.1	31	64.2	31	5.2	31	39.4
21	31	42.8	31	32.0	31	68.3	31	5.2	31	38.3
22	31	41.0	31	31.8	31	71.9	31	5.1	31	37.2
23	31	39.7	31	31.3	31	73.4	31	5.0	31	36.3
24	31	38.8	31	31.1	31	75.3	31	5.0	31	35.7
HOURLY MEAN		41.3		29.8		67.3		4.7		36.5
AVG DAILY MAX		52.7		37.3		90.1		6.4		43.8
AVG DAILY MIN		30.8		23.9		44.8		3.7		29.4
ABSOLUTE MAX		76.7		63.8		100.0		15.0		64.3
ABSOLUTE MIN		6.4		- .9		19.1		1.2		5.3
TOTAL OBS		736		737		730		730		730

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-MAR 2022

JAN-MAR HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	90	29.8	90	20.5	90	69.6	90	3.5	90	26.7
2	90	28.7	90	20.0	90	71.2	90	3.4	90	25.8
3	90	27.7	90	19.6	90	72.8	90	3.3	90	25.1
4	90	27.1	90	19.5	90	74.4	90	3.3	90	24.6
5	90	26.4	90	19.2	90	75.3	90	3.3	90	24.1
6	90	25.6	90	19.0	90	76.8	90	3.3	90	23.5
7	90	25.0	90	18.7	90	77.7	90	3.3	90	23.1
8	89	24.8	88	18.1	88	76.4	88	3.2	88	22.7
9	89	26.1	89	18.2	88	72.4	88	3.1	88	23.5
10	89	28.9	89	18.7	88	66.4	88	3.2	88	25.4
11	89	31.8	89	19.3	88	61.3	88	3.3	88	27.3
12	89	34.3	89	19.8	88	57.1	88	3.3	88	29.0
13	89	36.6	89	19.8	88	53.0	88	3.3	88	30.4
14	89	38.6	90	20.1	89	49.7	89	3.3	89	31.7
15	89	40.0	90	20.3	89	48.0	89	3.3	89	32.6
16	90	41.1	90	20.7	90	47.4	90	3.4	90	33.4
17	90	40.9	90	21.1	90	48.8	90	3.5	90	33.5
18	90	39.7	90	21.8	90	52.3	90	3.6	90	33.0
19	90	37.5	90	22.3	90	57.0	90	3.7	90	31.8
20	90	35.7	90	22.2	90	60.6	90	3.7	90	30.8
21	90	34.1	90	22.0	90	63.7	90	3.6	90	29.7
22	90	32.6	90	21.7	90	66.1	90	3.6	90	28.8
23	90	31.5	90	21.2	90	67.3	90	3.5	90	27.9
24	90	30.6	90	20.9	90	68.7	90	3.5	90	27.3
HOURLY MEAN		32.3		20.2		63.9		3.4		28.0
AVG DAILY MAX		44.0		28.1		84.7		4.6		36.4
AVG DAILY MIN		21.1		13.5		44.4		2.5		19.6
ABSOLUTE MAX		76.7		63.8		100.0		15.0		64.3
ABSOLUTE MIN		-5.4		-10.9		15.6		.8		-6.0
TOTAL OBS		2152		2153		2146		2146		2146

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

APRIL

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	30	46.6	30	36.5	30	69.9	30	6.1	30	42.2
2	30	45.8	30	36.0	30	70.0	30	6.0	30	41.6
3	30	45.0	30	35.7	30	70.9	30	6.0	30	41.1
4	30	44.2	30	35.4	30	72.5	30	6.0	30	40.5
5	30	43.4	30	35.4	30	74.4	30	6.0	30	40.1
6	30	43.0	30	35.2	30	75.0	30	6.0	30	39.7
7	30	43.1	30	34.7	30	73.2	30	5.9	30	39.6
8	30	44.6	30	35.0	30	69.9	30	6.0	30	40.6
9	30	46.9	30	35.5	30	65.5	30	6.1	30	42.1
10	30	49.4	30	36.3	30	62.2	30	6.3	30	43.7
11	30	51.7	30	36.9	30	59.5	30	6.5	30	45.3
12	30	54.1	30	37.1	30	55.9	30	6.5	30	46.5
13	30	56.1	30	37.3	30	52.7	30	6.5	30	47.5
14	30	58.0	30	37.0	30	49.5	30	6.4	30	48.3
15	30	59.3	30	37.0	30	47.9	30	6.4	30	49.0
16	30	59.6	30	36.7	30	47.4	30	6.4	30	49.1
17	30	59.7	30	36.9	30	47.6	30	6.5	30	49.2
18	30	59.2	30	37.3	30	48.5	30	6.5	30	49.1
19	30	58.0	30	37.5	30	50.5	30	6.5	30	48.6
20	30	55.7	30	38.1	30	55.0	30	6.6	30	47.6
21	30	53.3	30	37.7	30	58.4	30	6.5	30	46.3
22	30	51.1	30	37.5	30	62.3	30	6.4	30	45.0
23	30	49.5	30	37.2	30	64.9	30	6.3	30	44.1
24	30	48.2	30	37.1	30	67.4	30	6.3	30	43.4
HOURLY MEAN		51.1		36.5		61.3		6.3		44.6
AVG DAILY MAX		61.4		44.6		87.6		8.4		50.8
AVG DAILY MIN		40.4		29.8		38.7		4.7		37.4
ABSOLUTE MAX		88.4		67.4		100.0		16.9		71.4
ABSOLUTE MIN		27.0		15.2		21.9		2.3		24.7
TOTAL OBS		720		720		720		720		720

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

MAY

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	61.1	31	55.2	31	81.7	31	11.8	31	57.8
2	31	60.1	31	54.9	31	83.4	31	11.7	31	57.2
3	31	59.4	31	54.9	31	85.0	31	11.7	31	56.9
4	31	58.9	31	54.6	31	85.8	31	11.6	31	56.5
5	31	58.4	31	54.6	31	86.8	31	11.6	31	56.3
6	31	58.1	31	54.7	31	88.2	31	11.6	31	56.3
7	31	58.9	31	55.0	31	86.7	31	11.7	31	56.8
8	31	60.7	31	55.4	31	82.8	31	11.8	31	57.7
9	31	62.9	31	55.5	31	77.9	31	11.8	31	58.7
10	31	65.1	31	55.0	31	71.7	31	11.6	31	59.2
11	31	67.0	31	54.7	31	67.0	31	11.4	31	59.8
12	31	68.9	31	54.2	31	62.3	31	11.2	31	60.3
13	31	70.5	31	53.6	31	58.3	31	10.9	31	60.5
14	31	71.6	31	53.0	31	55.9	31	10.6	31	60.7
15	31	72.2	31	53.0	31	54.8	31	10.6	31	60.8
16	31	72.4	31	52.8	31	54.9	31	10.5	31	60.9
17	31	72.5	31	52.9	31	55.1	31	10.5	31	61.0
18	31	72.3	31	53.0	31	55.5	31	10.6	31	60.9
19	31	71.0	31	54.6	31	59.9	31	11.2	31	61.3
20	31	68.7	31	55.7	31	65.7	31	11.8	31	61.0
21	31	66.7	31	56.2	31	71.0	31	12.0	31	60.6
22	31	65.1	31	56.3	31	74.5	31	12.1	31	59.9
23	31	64.0	31	56.2	31	76.8	31	12.0	31	59.4
24	31	62.7	31	56.0	31	79.3	31	12.0	31	58.9
HOURLY MEAN		65.4		54.7		71.7		11.4		59.1
AVG DAILY MAX		73.8		59.5		92.6		13.5		62.8
AVG DAILY MIN		56.9		49.3		49.0		9.2		54.9
ABSOLUTE MAX		95.8		76.2		100.0		22.4		79.1
ABSOLUTE MIN		39.1		32.7		24.2		4.7		37.5
TOTAL OBS		744		744		744		744		744

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

JUNE

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	30	70.8	30	65.1	30	82.6	30	16.1	30	67.3
2	30	70.0	30	64.8	30	84.0	30	16.0	30	66.9
3	30	68.9	30	64.5	30	85.8	30	15.8	30	66.2
4	30	67.9	30	64.5	30	88.4	30	15.8	30	65.8
5	30	67.4	30	64.3	30	89.3	30	15.7	30	65.5
6	30	67.1	30	63.8	30	89.0	30	15.5	30	65.1
7	30	68.7	30	63.9	30	84.6	30	15.4	30	65.8
8	30	71.2	30	64.2	30	79.4	30	15.5	30	66.9
9	30	73.8	30	64.1	30	72.4	30	15.4	30	67.8
10	30	76.4	30	63.8	30	66.3	30	15.3	30	68.6
11	30	78.5	30	63.4	30	61.4	30	15.1	30	69.0
12	30	79.7	30	63.1	30	58.6	30	14.9	30	69.3
13	30	81.0	30	62.7	30	55.5	30	14.6	30	69.5
14	30	82.2	30	62.6	30	53.5	30	14.6	30	69.8
15	30	83.0	30	62.7	30	52.3	30	14.6	30	70.1
16	30	83.6	30	63.2	30	52.1	30	14.9	30	70.6
17	30	83.6	30	63.9	30	52.9	30	15.2	30	71.0
18	30	83.1	30	64.4	30	54.8	30	15.5	30	71.1
19	30	81.5	30	65.2	30	59.3	30	15.9	30	71.1
20	30	78.7	30	66.2	30	66.8	30	16.4	30	70.7
21	30	76.0	30	66.3	30	73.3	30	16.5	30	69.8
22	30	74.7	30	66.1	30	75.9	30	16.5	30	69.3
23	30	73.4	30	65.8	30	78.1	30	16.4	30	68.7
24	30	72.3	30	65.8	30	80.6	30	16.4	30	68.3
HOURLY MEAN		75.6		64.3		70.7		15.6		68.5
AVG DAILY MAX		84.6		68.8		91.9		18.1		72.2
AVG DAILY MIN		66.1		59.5		48.8		13.1		63.7
ABSOLUTE MAX		99.0		80.8		100.0		26.0		80.9
ABSOLUTE MIN		47.8		37.5		24.2		5.6		46.8
TOTAL OBS		720		720		720		720		720

B14

PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY APR-JUN 2022

APR-JUN HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	91	59.5	91	52.3	91	78.1	91	11.3	91	55.8
2	91	58.6	91	51.9	91	79.2	91	11.2	91	55.2
3	91	57.8	91	51.7	91	80.6	91	11.1	91	54.8
4	91	57.0	91	51.5	91	82.3	91	11.1	91	54.3
5	91	56.5	91	51.5	91	83.5	91	11.1	91	54.0
6	91	56.1	91	51.3	91	84.1	91	11.0	91	53.7
7	91	56.9	91	51.2	91	81.6	91	11.0	91	54.1
8	91	58.9	91	51.6	91	77.4	91	11.1	91	55.1
9	91	61.2	91	51.7	91	72.0	91	11.1	91	56.2
10	91	63.6	91	51.7	91	66.8	91	11.1	91	57.2
11	91	65.8	91	51.7	91	62.7	91	11.0	91	58.1
12	91	67.6	91	51.5	91	58.9	91	10.9	91	58.7
13	91	69.2	91	51.2	91	55.5	91	10.7	91	59.2
14	91	70.6	91	50.9	91	53.0	91	10.5	91	59.6
15	91	71.5	91	50.9	91	51.7	91	10.5	91	60.0
16	91	71.8	91	50.9	91	51.5	91	10.6	91	60.2
17	91	71.9	91	51.3	91	51.9	91	10.7	91	60.4
18	91	71.5	91	51.6	91	53.0	91	10.9	91	60.4
19	91	70.2	91	52.5	91	56.6	91	11.2	91	60.3
20	91	67.7	91	53.3	91	62.5	91	11.6	91	59.8
21	91	65.3	91	53.4	91	67.6	91	11.7	91	58.9
22	91	63.6	91	53.3	91	70.9	91	11.6	91	58.1
23	91	62.3	91	53.1	91	73.3	91	11.6	91	57.4
24	91	61.1	91	53.0	91	75.8	91	11.6	91	56.9
HOURLY MEAN		64.0		51.9		68.0		11.1		57.4
AVG DAILY MAX		73.3		57.6		90.7		13.3		61.9
AVG DAILY MIN		54.5		46.3		45.6		9.0		52.0
ABSOLUTE MAX		99.0		80.8		100.0		26.0		80.9
ABSOLUTE MIN		27.0		15.2		21.9		2.3		24.7
TOTAL OBS		2184		2184		2184		2184		2184

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-JUN 2022

JAN-JUN HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	181	44.7	181	36.5	181	73.9	181	7.4	181	41.3
2	181	43.7	181	36.0	181	75.2	181	7.3	181	40.6
3	181	42.9	181	35.8	181	76.8	181	7.3	181	40.0
4	181	42.1	181	35.6	181	78.4	181	7.2	181	39.5
5	181	41.5	181	35.4	181	79.5	181	7.2	181	39.2
6	181	40.9	181	35.2	181	80.5	181	7.2	181	38.7
7	181	41.1	181	35.1	181	79.7	181	7.2	181	38.7
8	180	42.0	179	35.1	179	76.9	179	7.2	179	39.2
9	180	43.9	180	35.1	179	72.2	179	7.2	179	40.1
10	180	46.5	180	35.4	179	66.6	179	7.2	179	41.6
11	180	49.0	180	35.7	179	62.0	179	7.2	179	43.0
12	180	51.1	180	35.8	179	58.1	179	7.2	179	44.1
13	180	53.1	180	35.7	179	54.3	179	7.1	179	45.0
14	180	54.8	181	35.6	180	51.4	180	7.0	180	45.8
15	180	55.9	181	35.7	180	49.9	180	7.0	180	46.4
16	181	56.6	181	35.9	181	49.5	181	7.0	181	46.9
17	181	56.5	181	36.3	181	50.4	181	7.1	181	47.0
18	181	55.7	181	36.8	181	52.7	181	7.2	181	46.8
19	181	53.9	181	37.4	181	56.8	181	7.5	181	46.2
20	181	51.8	181	37.9	181	61.6	181	7.7	181	45.4
21	181	49.8	181	37.8	181	65.6	181	7.7	181	44.4
22	181	48.2	181	37.6	181	68.5	181	7.6	181	43.5
23	181	47.0	181	37.2	181	70.3	181	7.6	181	42.8
24	181	46.0	181	37.0	181	72.3	181	7.6	181	42.2
HOURLY MEAN		48.3		36.2		66.0		7.3		42.8
AVG DAILY MAX		58.7		43.0		87.7		9.0		49.2
AVG DAILY MIN		37.9		30.0		45.0		5.8		35.9
ABSOLUTE MAX		99.0		80.8		100.0		26.0		80.9
ABSOLUTE MIN		-5.4		-10.9		15.6		.8		-6.0
TOTAL OBS		4336		4337		4330		4330		4330

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JUL-SEP 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

JULY

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	73.1	31	69.5	31	88.5	31	18.2	31	70.7
2	31	72.3	31	69.0	31	89.5	31	17.9	31	70.1
3	31	71.5	31	68.5	31	90.2	31	17.6	31	69.6
4	31	71.0	31	68.2	31	90.3	31	17.5	31	69.2
5	31	70.3	31	68.0	31	91.6	31	17.4	31	68.8
6	31	69.9	31	67.9	31	92.3	31	17.3	31	68.6
7	31	70.7	31	68.0	31	90.4	31	17.3	31	68.9
8	31	72.5	31	68.4	31	87.0	31	17.5	31	69.9
9	31	74.5	31	68.6	31	82.7	31	17.6	31	70.7
10	31	76.6	31	68.7	31	77.6	31	17.5	31	71.3
11	31	78.5	31	68.5	31	72.5	31	17.4	31	71.8
12	31	80.0	31	68.4	31	68.8	31	17.3	31	72.3
13	31	81.4	31	68.5	31	66.1	31	17.3	31	72.7
14	31	82.7	31	68.4	31	63.2	31	17.2	31	73.1
15	31	83.6	31	68.2	31	61.3	31	17.1	31	73.3
16	31	84.2	31	68.2	31	60.1	31	17.2	31	73.5
17	31	84.5	31	68.6	31	60.4	31	17.4	31	73.8
18	31	84.2	31	69.4	31	62.3	31	17.9	31	74.2
19	31	83.1	31	70.6	31	67.0	31	18.6	31	74.6
20	31	80.6	31	71.3	31	73.9	31	19.1	31	74.3
21	31	78.1	31	71.4	31	80.5	31	19.3	31	73.6
22	31	76.5	31	70.9	31	83.3	31	18.9	31	72.7
23	31	75.2	31	70.5	31	85.8	31	18.8	31	72.1
24	31	74.1	31	70.2	31	87.9	31	18.6	31	71.5
HOURLY MEAN		77.1		69.1		78.1		17.8		71.7
AVG DAILY MAX		85.0		73.5		96.6		20.6		75.5
AVG DAILY MIN		68.7		65.2		57.6		15.6		67.2
ABSOLUTE MAX		95.4		79.2		100.0		24.3		81.6
ABSOLUTE MIN		56.6		56.0		42.0		11.1		57.4
TOTAL OBS		744		744		744		744		744

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JUL-SEP 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

AUGUST

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	71.5	31	68.4	31	89.9	31	17.6	31	69.4
2	31	70.7	31	67.9	31	90.7	31	17.3	31	68.8
3	31	69.7	31	67.5	31	92.5	31	17.1	31	68.3
4	31	69.0	31	67.1	31	93.3	31	16.9	31	67.7
5	31	68.4	31	66.6	31	93.3	31	16.6	31	67.2
6	31	67.4	31	66.0	31	94.2	31	16.3	31	66.5
7	31	67.5	31	65.5	31	92.8	31	16.0	31	66.2
8	30	70.2	30	66.2	29	87.2	29	16.4	29	67.8
9	30	73.1	30	67.1	29	82.2	29	16.8	29	69.3
10	30	75.8	30	67.9	29	77.1	29	17.1	29	70.7
11	30	78.1	30	68.0	29	72.3	29	17.3	29	71.6
12	30	80.3	30	67.5	29	66.4	29	16.9	29	72.0
13	30	81.9	30	67.2	29	62.3	29	16.7	29	72.3
14	30	83.2	30	67.0	29	59.4	29	16.6	29	72.6
15	30	84.2	30	66.9	29	57.3	29	16.5	29	72.9
16	30	84.0	30	66.9	29	58.1	29	16.5	29	72.8
17	31	84.1	31	66.6	31	57.0	31	16.3	31	72.5
18	31	83.6	31	67.4	31	59.3	31	16.7	31	72.8
19	31	81.5	31	69.3	31	67.0	31	17.8	31	73.3
20	31	78.3	31	69.8	31	75.5	31	18.2	31	72.6
21	31	76.0	31	69.5	31	80.6	31	18.1	31	71.7
22	31	74.4	31	69.2	31	84.1	31	18.0	31	71.0
23	31	72.9	31	68.7	31	86.9	31	17.7	31	70.2
24	31	71.9	31	68.5	31	89.2	31	17.6	31	69.7
HOURLY MEAN		75.7		67.6		78.1		17.0		70.4
AVG DAILY MAX		85.3		71.4		98.0		19.3		74.0
AVG DAILY MIN		66.4		64.1		53.1		15.1		65.6
ABSOLUTE MAX		95.3		81.0		100.0		26.0		82.1
ABSOLUTE MIN		56.0		55.7		38.9		10.9		56.7
TOTAL OBS		735		735		726		726		726

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JUL-SEP 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

SEPTEMBER

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	30	64.6	30	58.5	30	81.2	30	13.0	30	61.1
2	30	63.6	30	58.2	30	83.2	30	12.9	30	60.5
3	30	62.6	30	57.7	30	84.5	30	12.7	30	59.9
4	30	61.8	30	57.3	30	85.4	30	12.5	30	59.3
5	30	60.9	30	56.9	30	86.8	30	12.4	30	58.7
6	30	60.0	30	56.8	30	88.8	30	12.3	30	58.2
7	30	59.5	30	56.3	30	88.6	30	12.1	30	57.7
8	30	61.0	30	56.5	30	85.3	30	12.1	30	58.5
9	30	64.5	30	57.3	30	78.4	30	12.5	30	60.5
10	30	68.5	30	57.6	30	70.0	30	12.6	30	62.3
11	30	72.0	30	57.5	30	62.9	30	12.5	30	63.5
12	30	74.6	30	57.2	30	57.6	30	12.3	30	64.4
13	30	76.9	30	56.7	30	52.9	30	12.1	30	64.9
14	30	78.3	30	56.1	30	49.7	30	11.9	30	65.1
15	30	79.3	30	56.0	30	48.0	30	11.8	30	65.4
16	30	79.7	30	56.4	30	48.2	30	12.0	30	65.7
17	30	79.5	30	57.2	30	49.7	30	12.3	30	66.0
18	30	78.0	30	58.3	30	53.5	30	12.7	30	66.0
19	30	74.4	30	59.5	30	61.7	30	13.3	30	65.4
20	30	71.1	30	59.7	30	68.6	30	13.5	30	64.3
21	30	69.0	30	59.5	30	72.9	30	13.4	30	63.4
22	30	67.3	30	59.3	30	76.8	30	13.3	30	62.6
23	30	66.4	30	58.9	30	77.8	30	13.1	30	62.1
24	30	65.3	30	58.4	30	79.4	30	12.9	30	61.3
HOURLY MEAN		69.1		57.7		70.5		12.6		62.4
AVG DAILY MAX		80.7		62.0		93.0		14.5		67.2
AVG DAILY MIN		58.6		53.5		45.1		10.8		57.1
ABSOLUTE MAX		99.9		74.1		100.0		20.8		77.2
ABSOLUTE MIN		45.4		28.7		22.2		3.9		41.7
TOTAL OBS		720		720		720		720		720

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JUL-SEP 2022

JUL-SEP HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	92	69.8	92	65.5	92	86.6	92	16.3	92	67.1
2	92	68.9	92	65.1	92	87.9	92	16.0	92	66.6
3	92	68.0	92	64.7	92	89.1	92	15.8	92	66.0
4	92	67.3	92	64.3	92	89.7	92	15.6	92	65.5
5	92	66.6	92	63.9	92	90.6	92	15.5	92	65.0
6	92	65.8	92	63.7	92	91.8	92	15.4	92	64.5
7	92	65.9	92	63.3	92	90.6	92	15.2	92	64.4
8	91	68.0	91	63.7	90	86.5	90	15.4	90	65.4
9	91	70.8	91	64.4	90	81.1	90	15.6	90	66.8
10	91	73.7	91	64.8	90	74.9	90	15.8	90	68.1
11	91	76.2	91	64.7	90	69.2	90	15.7	90	69.0
12	91	78.3	91	64.4	90	64.3	90	15.5	90	69.5
13	91	80.1	91	64.2	90	60.5	90	15.4	90	70.0
14	91	81.4	91	63.9	90	57.5	90	15.2	90	70.2
15	91	82.4	91	63.8	90	55.6	90	15.2	90	70.5
16	91	82.7	91	63.9	90	55.5	90	15.2	90	70.7
17	92	82.8	92	64.2	92	55.8	92	15.3	92	70.8
18	92	82.0	92	65.1	92	58.4	92	15.8	92	71.0
19	92	79.7	92	66.5	92	65.3	92	16.6	92	71.2
20	92	76.8	92	67.0	92	72.7	92	17.0	92	70.5
21	92	74.4	92	66.9	92	78.1	92	17.0	92	69.6
22	92	72.8	92	66.5	92	81.5	92	16.8	92	68.8
23	92	71.6	92	66.1	92	83.6	92	16.6	92	68.2
24	92	70.5	92	65.8	92	85.6	92	16.4	92	67.6
HOURLY MEAN		74.0		64.9		75.6		15.8		68.2
AVG DAILY MAX		83.7		69.0		95.9		18.2		72.3
AVG DAILY MIN		64.6		61.0		52.0		13.9		63.4
ABSOLUTE MAX		99.9		81.0		100.0		26.0		82.1
ABSOLUTE MIN		45.4		28.7		22.2		3.9		41.7
TOTAL OBS		2199		2199		2190		2190		2190

B20

PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY OCT-DEC 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

OCTOBER

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	50.1	31	40.7	31	71.0	31	7.1	31	45.7
2	31	48.8	31	40.6	31	74.2	31	7.1	31	44.9
3	31	47.8	31	40.4	31	76.5	31	7.1	31	44.3
4	31	47.2	31	40.2	31	77.8	31	7.0	31	43.9
5	31	46.1	31	39.8	31	79.9	31	6.9	31	43.2
6	31	45.4	31	39.4	31	80.6	31	6.8	31	42.7
7	31	44.8	31	39.1	31	81.4	31	6.7	31	42.2
8	31	45.6	31	38.8	31	78.2	31	6.6	31	42.5
9	31	50.0	31	40.0	31	69.4	31	6.8	31	45.3
10	31	54.8	31	40.5	31	59.6	31	6.9	31	47.9
11	31	59.0	31	40.2	31	51.0	31	6.8	31	49.8
12	31	62.6	31	39.7	31	44.7	31	6.7	31	51.3
13	31	65.0	31	39.2	31	40.5	31	6.5	31	52.1
14	31	66.5	31	38.7	31	37.7	31	6.4	31	52.6
15	31	67.5	31	38.4	31	36.1	31	6.3	31	52.9
16	31	67.7	31	38.4	31	36.0	31	6.3	31	53.1
17	31	67.1	31	38.7	31	37.0	31	6.4	31	52.9
18	31	64.4	31	40.0	31	42.1	31	6.7	31	52.2
19	31	60.6	31	40.7	31	48.9	31	6.9	31	50.8
20	31	57.5	31	41.1	31	55.1	31	7.1	31	49.5
21	31	55.7	31	41.2	31	58.8	31	7.1	31	48.6
22	31	54.0	31	40.8	31	61.6	31	7.0	31	47.6
23	31	52.6	31	40.7	31	64.7	31	7.0	31	46.9
24	31	51.1	31	40.6	31	68.0	31	7.0	31	46.1
HOURLY MEAN		55.5		39.9		59.6		6.8		47.9
AVG DAILY MAX		69.1		45.3		87.2		8.2		54.3
AVG DAILY MIN		42.7		34.6		33.4		5.6		40.2
ABSOLUTE MAX		85.1		62.2		100.0		14.0		68.8
ABSOLUTE MIN		17.5		10.5		19.0		1.9		16.6
TOTAL OBS		744		744		744		744		744

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY OCT-DEC 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

NOVEMBER

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	30	37.3	30	30.6	30	77.1	30	5.2	30	34.7
2	30	36.9	30	30.8	30	79.0	30	5.3	30	34.6
3	30	36.5	30	30.7	30	80.3	30	5.3	30	34.3
4	30	35.8	30	30.4	30	81.2	30	5.3	30	33.8
5	30	35.5	30	30.6	30	82.8	30	5.3	30	33.7
6	30	35.0	30	30.5	30	83.8	30	5.3	30	33.3
7	30	34.5	30	30.2	30	84.5	30	5.3	30	32.9
8	30	34.5	30	30.1	30	84.2	30	5.3	30	32.8
9	30	35.3	30	29.7	30	80.5	30	5.1	30	33.2
10	30	37.5	30	29.7	30	74.2	30	5.0	30	34.5
11	30	40.5	30	30.1	30	67.7	30	5.0	30	36.3
12	30	43.2	30	30.1	30	61.5	30	5.0	30	37.8
13	30	45.3	30	29.8	30	56.8	30	5.0	30	38.9
14	30	46.8	30	29.7	30	53.7	30	4.9	30	39.6
15	30	47.8	30	29.6	30	52.0	30	4.9	30	40.1
16	30	48.0	30	29.7	30	51.6	30	5.0	30	40.2
17	30	47.1	30	30.2	30	53.8	30	5.0	30	39.9
18	30	44.9	30	30.9	30	59.4	30	5.2	30	39.0
19	30	42.8	30	30.6	30	63.3	30	5.2	30	37.8
20	30	41.2	30	30.6	30	67.2	30	5.2	30	36.9
21	30	40.1	30	30.2	30	69.1	30	5.2	30	36.1
22	30	38.7	30	29.8	30	71.3	30	5.1	30	35.2
23	30	38.1	30	29.6	30	72.3	30	5.1	30	34.8
24	30	37.0	30	29.5	30	74.8	30	5.0	30	34.1
HOURLY MEAN		40.0		30.2		70.1		5.1		36.0
AVG DAILY MAX		50.1		36.4		89.9		6.5		42.8
AVG DAILY MIN		30.0		23.7		48.8		3.9		28.3
ABSOLUTE MAX		80.0		65.2		100.0		15.7		68.0
ABSOLUTE MIN		13.2		6.5		23.5		1.7		11.7
TOTAL OBS		720		720		720		720		720

B22

PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY OCT-DEC 2022

MONTHLY HOUR AVERAGES FOR THE PERIOD

DECEMBER

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	31	23.8	31	19.2	31	82.2	31	3.3	31	22.5
2	31	23.3	31	18.9	31	82.7	31	3.2	31	22.1
3	31	23.0	31	18.7	31	83.0	31	3.2	31	21.8
4	31	22.8	31	18.6	31	83.6	31	3.2	31	21.6
5	31	22.4	31	18.3	31	83.7	31	3.2	31	21.2
6	31	22.2	31	18.2	31	83.9	31	3.2	31	21.1
7	31	22.1	31	18.5	31	84.8	31	3.2	31	21.2
8	31	22.2	31	18.8	31	85.6	31	3.3	31	21.4
9	31	22.8	31	19.0	31	84.1	31	3.3	31	21.9
10	31	24.5	31	19.4	31	80.4	31	3.4	31	23.1
11	31	26.9	31	20.4	31	76.3	31	3.6	31	25.0
12	31	29.4	31	21.4	31	72.3	31	3.7	31	26.9
13	31	31.7	31	21.9	31	68.3	31	3.7	31	28.4
14	31	33.4	31	22.4	31	66.0	31	3.8	31	29.6
15	31	34.7	31	23.1	31	64.4	31	3.9	31	30.6
16	31	35.1	31	23.5	31	64.5	31	3.9	31	31.0
17	31	34.3	31	24.1	31	67.8	31	4.0	31	30.7
18	31	32.1	31	24.3	31	73.5	31	4.0	31	29.5
19	31	30.3	31	23.7	31	76.6	31	3.9	31	28.1
20	31	28.8	31	22.8	31	78.5	31	3.7	31	26.9
21	31	27.6	31	22.1	31	79.8	31	3.6	31	25.9
22	31	26.5	31	21.3	31	80.4	31	3.5	31	24.9
23	31	25.5	31	20.6	31	81.5	31	3.4	31	24.0
24	31	24.7	31	20.2	31	82.3	31	3.4	31	23.4
HOURLY MEAN		27.1		20.8		77.8		3.5		25.1
AVG DAILY MAX		36.7		27.8		90.2		4.5		32.7
AVG DAILY MIN		18.7		14.4		60.9		2.7		17.7
ABSOLUTE MAX		64.9		50.8		100.0		9.7		53.7
ABSOLUTE MIN		-10.7		-20.4		34.6		.5		-11.5
TOTAL OBS		744		744		744		744		744

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY OCT-DEC 2022

OCT-DEC HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	92	37.1	92	30.2	92	76.8	92	5.2	92	34.3
2	92	36.3	92	30.1	92	78.6	92	5.2	92	33.8
3	92	35.8	92	29.9	92	79.9	92	5.2	92	33.5
4	92	35.2	92	29.7	92	80.9	92	5.2	92	33.1
5	92	34.6	92	29.6	92	82.1	92	5.1	92	32.7
6	92	34.2	92	29.4	92	82.8	92	5.1	92	32.4
7	92	33.8	92	29.2	92	83.5	92	5.1	92	32.1
8	92	34.1	92	29.2	92	82.6	92	5.1	92	32.2
9	92	36.1	92	29.5	92	78.0	92	5.1	92	33.4
10	92	38.9	92	29.9	92	71.4	92	5.1	92	35.2
11	92	42.1	92	30.2	92	64.9	92	5.1	92	37.0
12	92	45.1	92	30.4	92	59.5	92	5.1	92	38.7
13	92	47.4	92	30.3	92	55.1	92	5.1	92	39.8
14	92	48.9	92	30.3	92	52.4	92	5.0	92	40.6
15	92	50.0	92	30.4	92	50.8	92	5.0	92	41.2
16	92	50.3	92	30.6	92	50.7	92	5.1	92	41.4
17	92	49.5	92	31.0	92	52.8	92	5.1	92	41.2
18	92	47.2	92	31.8	92	58.3	92	5.3	92	40.3
19	92	44.6	92	31.7	92	62.9	92	5.3	92	38.9
20	92	42.5	92	31.5	92	66.9	92	5.3	92	37.8
21	92	41.1	92	31.2	92	69.2	92	5.3	92	36.9
22	92	39.8	92	30.6	92	71.1	92	5.2	92	35.9
23	92	38.7	92	30.3	92	72.8	92	5.2	92	35.2
24	92	37.6	92	30.1	92	75.0	92	5.1	92	34.5
HOURLY MEAN		40.9		30.3		69.1		5.2		36.3
AVG DAILY MAX		52.0		36.5		89.1		6.4		43.3
AVG DAILY MIN		30.5		24.2		47.7		4.0		28.7
ABSOLUTE MAX		85.1		65.2		100.0		15.7		68.8
ABSOLUTE MIN		-10.7		-20.4		19.0		.5		-11.5
TOTAL OBS		2208		2208		2208		2208		2208

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JUL-DEC 2022

JUL-DEC HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	184	53.4	184	47.8	184	81.7	184	10.7	184	50.7
2	184	52.6	184	47.6	184	83.2	184	10.6	184	50.2
3	184	51.9	184	47.3	184	84.5	184	10.5	184	49.7
4	184	51.3	184	47.0	184	85.3	184	10.4	184	49.3
5	184	50.6	184	46.7	184	86.4	184	10.3	184	48.8
6	184	50.0	184	46.5	184	87.3	184	10.2	184	48.4
7	184	49.9	184	46.3	184	87.1	184	10.1	184	48.2
8	183	50.9	183	46.4	182	84.5	182	10.2	182	48.6
9	183	53.3	183	46.9	182	79.5	182	10.3	182	50.0
10	183	56.2	183	47.2	182	73.1	182	10.4	182	51.5
11	183	59.1	183	47.4	182	67.1	182	10.4	182	52.8
12	183	61.6	183	47.3	182	61.8	182	10.3	182	53.9
13	183	63.6	183	47.2	182	57.8	182	10.2	182	54.7
14	183	65.1	183	47.0	182	54.9	182	10.1	182	55.3
15	183	66.1	183	47.0	182	53.2	182	10.0	182	55.7
16	183	66.4	183	47.1	182	53.1	182	10.1	182	55.9
17	184	66.1	184	47.6	184	54.3	184	10.2	184	56.0
18	184	64.6	184	48.4	184	58.4	184	10.5	184	55.6
19	184	62.2	184	49.1	184	64.1	184	11.0	184	55.0
20	184	59.6	184	49.3	184	69.8	184	11.2	184	54.1
21	184	57.8	184	49.0	184	73.6	184	11.1	184	53.3
22	184	56.3	184	48.6	184	76.3	184	11.0	184	52.4
23	184	55.2	184	48.2	184	78.2	184	10.9	184	51.7
24	184	54.1	184	47.9	184	80.3	184	10.8	184	51.1
HOURLY MEAN		57.4		47.5		72.3		10.5		52.2
AVG DAILY MAX		67.8		52.8		92.5		12.3		57.8
AVG DAILY MIN		47.6		42.6		49.8		9.0		46.1
ABSOLUTE MAX		99.9		81.0		100.0		26.0		82.1
ABSOLUTE MIN		-10.7		-20.4		19.0		.5		-11.5
TOTAL OBS		4407		4407		4398		4398		4398

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PROGRAM: WETTEMP
 VERSION: PC-1.0

NPPD-COOPER NUCLEAR STATION 10-M TEMPERATURE SUMMARY JAN-DEC 2022

JAN-DEC HOUR AVERAGES FOR THE PERIOD

10.0 METER LEVEL

HOUR	TEMPERATURE		DEW POINT		RELATIVE HUM		ABSOLUTE HUM		WET BULB	
	NUMBER		NUMBER		NUMBER		NUMBER		NUMBER	
	OBS	(DEG F)	OBS	(DEG F)	OBS	(%)	OBS	(GM/M3)	OBS	(DEG F)
1	365	49.1	365	42.2	365	77.8	365	9.1	365	46.1
2	365	48.2	365	41.9	365	79.3	365	9.0	365	45.4
3	365	47.4	365	41.6	365	80.7	365	8.9	365	44.9
4	365	46.7	365	41.4	365	81.9	365	8.8	365	44.5
5	365	46.1	365	41.1	365	82.9	365	8.8	365	44.0
6	365	45.5	365	40.9	365	83.9	365	8.7	365	43.6
7	365	45.5	365	40.7	365	83.4	365	8.7	365	43.5
8	363	46.5	362	40.8	361	80.8	361	8.7	361	43.9
9	363	48.6	363	41.1	361	75.9	361	8.8	361	45.1
10	363	51.4	363	41.4	361	69.9	361	8.8	361	46.6
11	363	54.1	363	41.6	361	64.6	361	8.8	361	47.9
12	363	56.4	363	41.6	361	60.0	361	8.7	361	49.1
13	363	58.4	363	41.5	361	56.1	361	8.6	361	49.9
14	363	60.0	364	41.3	362	53.2	362	8.5	362	50.6
15	363	61.1	364	41.4	362	51.5	362	8.5	362	51.1
16	364	61.5	364	41.5	363	51.3	363	8.6	363	51.4
17	365	61.4	365	42.0	365	52.4	365	8.7	365	51.5
18	365	60.2	365	42.7	365	55.5	365	8.9	365	51.2
19	365	58.1	365	43.3	365	60.5	365	9.2	365	50.6
20	365	55.7	365	43.6	365	65.7	365	9.4	365	49.8
21	365	53.8	365	43.5	365	69.7	365	9.4	365	48.9
22	365	52.3	365	43.1	365	72.4	365	9.3	365	48.0
23	365	51.1	365	42.8	365	74.3	365	9.2	365	47.3
24	365	50.0	365	42.5	365	76.3	365	9.2	365	46.7
HOURLY MEAN		52.9		41.9		69.2		8.9		47.6
AVG DAILY MAX		63.3		47.9		90.1		10.7		53.5
AVG DAILY MIN		42.8		36.3		47.4		7.4		41.0
ABSOLUTE MAX		99.9		81.0		100.0		26.0		82.1
ABSOLUTE MIN		-10.7		-20.4		15.6		.5		-11.5
TOTAL OBS		8743		8744		8728		8728		8728

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Wind Direction Frequencies

10-Meter Level

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JANUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	6.5	3.2	00.0	00.0	3.2	6.5	3.2	9.7	12.9	9.7	3.2	3.2	3.2	9.7	19.4	00.0	100.
2	9.7	6.5	00.0	00.0	3.2	00.0	3.2	3.2	12.9	9.7	9.7	12.9	3.2	00.0	6.5	19.4	00.0	100.
3	12.9	6.5	00.0	00.0	00.0	00.0	3.2	3.2	19.4	12.9	00.0	6.5	3.2	3.2	12.9	12.9	3.2	100.
4	12.9	3.2	00.0	00.0	3.2	3.2	3.2	16.1	9.7	3.2	6.5	3.2	00.0	6.5	12.9	12.9	3.2	100.
5	10.0	3.3	00.0	00.0	00.0	3.3	00.0	13.3	20.0	6.7	3.3	00.0	6.7	3.3	13.3	16.7	00.0	100.
6	10.0	3.3	00.0	00.0	00.0	3.3	6.7	6.7	23.3	00.0	00.0	3.3	3.3	3.3	13.3	23.3	00.0	100.
7	13.3	00.0	00.0	00.0	00.0	3.3	6.7	10.0	13.3	6.7	00.0	00.0	3.3	6.7	23.3	13.3	00.0	100.
8	13.3	3.3	00.0	00.0	00.0	00.0	3.3	6.7	20.0	10.0	3.3	3.3	3.3	3.3	13.3	16.7	00.0	100.
9	10.0	6.7	00.0	00.0	3.3	00.0	00.0	16.7	20.0	6.7	00.0	00.0	3.3	3.3	16.7	13.3	00.0	100.
10	16.1	9.7	00.0	00.0	00.0	3.2	3.2	12.9	12.9	6.5	3.2	00.0	3.2	00.0	3.2	25.8	00.0	100.
11	22.6	12.9	00.0	00.0	00.0	00.0	6.5	3.2	19.4	6.5	3.2	00.0	9.7	3.2	00.0	12.9	00.0	100.
12	12.9	12.9	6.5	00.0	00.0	3.2	00.0	6.5	12.9	9.7	6.5	3.2	3.2	6.5	6.5	9.7	00.0	100.
13	6.5	9.7	3.2	3.2	00.0	00.0	3.2	6.5	12.9	9.7	00.0	16.1	00.0	00.0	12.9	16.1	00.0	100.
14	12.9	3.2	3.2	00.0	3.2	00.0	3.2	9.7	9.7	12.9	6.5	00.0	9.7	12.9	3.2	9.7	00.0	100.
15	12.9	3.2	00.0	00.0	00.0	00.0	3.2	9.7	16.1	6.5	12.9	6.5	6.5	6.5	3.2	12.9	00.0	100.
16	22.6	3.2	00.0	00.0	00.0	3.2	3.2	12.9	6.5	12.9	12.9	3.2	3.2	3.2	6.5	6.5	00.0	100.
17	22.6	3.2	00.0	00.0	3.2	00.0	3.2	6.5	16.1	9.7	9.7	00.0	00.0	00.0	12.9	12.9	00.0	100.
18	16.1	00.0	3.2	00.0	00.0	00.0	6.5	9.7	16.1	9.7	3.2	6.5	3.2	00.0	12.9	12.9	00.0	100.
19	3.2	6.5	00.0	00.0	3.2	00.0	3.2	12.9	22.6	3.2	00.0	00.0	9.7	3.2	9.7	22.6	00.0	100.
20	6.5	6.5	00.0	00.0	3.2	00.0	3.2	12.9	25.8	3.2	00.0	3.2	6.5	6.5	6.5	16.1	00.0	100.
21	9.7	3.2	00.0	00.0	00.0	6.5	00.0	12.9	16.1	6.5	3.2	00.0	3.2	9.7	9.7	19.4	00.0	100.
22	6.5	3.2	00.0	00.0	00.0	00.0	6.5	6.5	19.4	6.5	6.5	00.0	6.5	3.2	9.7	25.8	00.0	100.
23	9.7	3.2	3.2	00.0	00.0	00.0	3.2	3.2	19.4	12.9	3.2	3.2	3.2	9.7	3.2	22.6	00.0	100.
24	6.5	3.2	00.0	00.0	00.0	00.0	3.2	9.7	12.9	12.9	6.5	9.7	6.5	00.0	6.5	22.6	00.0	100.
ALL	11.9	5.1	.9	.1	.9	1.4	3.5	8.9	16.1	8.3	4.6	3.5	4.3	4.1	9.5	16.5	.3	100.

NUMBER OF OBS = 739

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NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

FEBRUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.7	7.1	00.0	00.0	3.6	3.6	3.6	00.0	21.4	7.1	3.6	10.7	7.1	3.6	7.1	10.7	00.0	100.
2	14.3	7.1	00.0	00.0	00.0	3.6	00.0	3.6	21.4	3.6	10.7	3.6	00.0	10.7	7.1	14.3	00.0	100.
3	10.7	10.7	00.0	3.6	00.0	00.0	00.0	10.7	17.9	3.6	3.6	3.6	00.0	7.1	14.3	14.3	00.0	100.
4	7.1	10.7	3.6	00.0	3.6	3.6	00.0	7.1	14.3	7.1	00.0	7.1	00.0	3.6	7.1	25.0	00.0	100.
5	10.7	7.1	00.0	3.6	00.0	3.6	00.0	10.7	10.7	10.7	3.6	3.6	00.0	3.6	7.1	25.0	00.0	100.
6	10.7	10.7	3.6	00.0	00.0	3.6	00.0	7.1	10.7	14.3	3.6	00.0	00.0	10.7	14.3	10.7	00.0	100.
7	14.3	10.7	00.0	00.0	00.0	00.0	3.6	7.1	10.7	14.3	7.1	3.6	7.1	00.0	14.3	7.1	00.0	100.
8	17.9	7.1	3.6	00.0	00.0	00.0	7.1	7.1	3.6	10.7	14.3	00.0	3.6	00.0	21.4	3.6	00.0	100.
9	17.9	3.6	7.1	00.0	00.0	3.6	3.6	7.1	3.6	3.6	10.7	7.1	3.6	7.1	10.7	10.7	00.0	100.
10	17.9	7.1	3.6	3.6	00.0	3.6	3.6	00.0	3.6	00.0	10.7	00.0	14.3	3.6	17.9	10.7	00.0	100.
11	17.9	7.1	00.0	00.0	00.0	00.0	3.6	3.6	7.1	3.6	3.6	3.6	14.3	7.1	17.9	10.7	00.0	100.
12	21.4	14.3	00.0	00.0	00.0	00.0	00.0	7.1	7.1	00.0	10.7	7.1	7.1	3.6	14.3	7.1	00.0	100.
13	17.9	14.3	00.0	00.0	3.6	00.0	00.0	7.1	00.0	7.1	10.7	7.1	7.1	00.0	14.3	10.7	00.0	100.
14	25.0	7.1	00.0	00.0	00.0	00.0	00.0	3.6	3.6	10.7	3.6	17.9	3.6	00.0	10.7	14.3	00.0	100.
15	17.9	10.7	00.0	00.0	00.0	00.0	00.0	00.0	7.1	7.1	7.1	10.7	7.1	10.7	3.6	17.9	00.0	100.
16	17.9	10.7	00.0	00.0	00.0	00.0	00.0	00.0	7.1	7.1	14.3	10.7	7.1	00.0	7.1	17.9	00.0	100.
17	10.7	10.7	3.6	00.0	00.0	00.0	00.0	00.0	14.3	7.1	14.3	7.1	00.0	3.6	3.6	25.0	00.0	100.
18	14.3	7.1	3.6	00.0	00.0	00.0	00.0	3.6	17.9	7.1	14.3	00.0	3.6	00.0	7.1	21.4	00.0	100.
19	10.7	10.7	00.0	3.6	00.0	00.0	3.6	3.6	14.3	10.7	10.7	3.6	3.6	3.6	7.1	14.3	00.0	100.
20	10.7	14.3	00.0	00.0	00.0	00.0	00.0	3.6	14.3	14.3	3.6	7.1	7.1	3.6	7.1	14.3	00.0	100.
21	14.3	10.7	00.0	00.0	00.0	00.0	3.6	7.1	14.3	3.6	21.4	00.0	3.6	00.0	7.1	14.3	00.0	100.
22	10.7	14.3	00.0	00.0	3.6	00.0	00.0	3.6	10.7	14.3	10.7	3.6	00.0	3.6	14.3	10.7	00.0	100.
23	10.7	10.7	3.6	3.6	00.0	00.0	00.0	00.0	21.4	3.6	7.1	7.1	3.6	3.6	7.1	17.9	00.0	100.
24	10.7	3.6	00.0	00.0	00.0	7.1	00.0	00.0	14.3	7.1	10.7	17.9	3.6	00.0	7.1	17.9	00.0	100.
ALL	14.3	9.5	1.3	.7	.6	1.3	1.3	4.3	11.3	7.4	8.8	6.0	4.5	3.7	10.4	14.4	00.0	100.

NUMBER OF OBS = 672

B29

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

MARCH

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	16.1	3.2	3.2	3.2	00.0	6.5	00.0	6.5	12.9	3.2	9.7	6.5	00.0	00.0	16.1	12.9	00.0	100.
2	12.9	9.7	3.2	00.0	00.0	6.5	00.0	00.0	16.1	6.5	9.7	3.2	3.2	3.2	9.7	16.1	00.0	100.
3	6.5	16.1	3.2	00.0	3.2	3.2	00.0	00.0	12.9	6.5	6.5	3.2	3.2	6.5	19.4	9.7	00.0	100.
4	3.3	20.0	3.3	00.0	00.0	10.0	00.0	3.3	10.0	3.3	00.0	3.3	10.0	10.0	13.3	10.0	00.0	100.
5	3.3	16.7	6.7	00.0	00.0	6.7	3.3	6.7	10.0	00.0	00.0	3.3	3.3	10.0	16.7	13.3	00.0	100.
6	6.7	20.0	00.0	3.3	00.0	6.7	00.0	3.3	13.3	3.3	00.0	00.0	6.7	00.0	20.0	16.7	00.0	100.
7	13.3	6.7	6.7	3.3	00.0	6.7	6.7	3.3	10.0	3.3	00.0	00.0	3.3	3.3	16.7	13.3	3.3	100.
8	16.7	3.3	6.7	00.0	00.0	6.7	3.3	6.7	13.3	6.7	00.0	3.3	00.0	3.3	16.7	13.3	00.0	100.
9	16.1	6.5	6.5	00.0	00.0	3.2	16.1	9.7	6.5	00.0	6.5	00.0	00.0	00.0	12.9	16.1	00.0	100.
10	12.9	6.5	6.5	3.2	00.0	3.2	9.7	9.7	12.9	6.5	00.0	00.0	00.0	00.0	9.7	19.4	00.0	100.
11	12.9	6.5	6.5	6.5	00.0	6.5	6.5	3.2	16.1	3.2	3.2	00.0	3.2	00.0	16.1	9.7	00.0	100.
12	16.1	3.2	6.5	3.2	00.0	3.2	6.5	6.5	12.9	6.5	00.0	3.2	00.0	3.2	9.7	19.4	00.0	100.
13	19.4	3.2	6.5	00.0	3.2	3.2	9.7	00.0	9.7	9.7	3.2	3.2	00.0	3.2	9.7	16.1	00.0	100.
14	16.1	6.5	3.2	3.2	00.0	6.5	3.2	6.5	9.7	12.9	00.0	3.2	00.0	00.0	16.1	12.9	00.0	100.
15	16.1	9.7	00.0	3.2	3.2	3.2	6.5	3.2	6.5	9.7	6.5	6.5	00.0	00.0	9.7	16.1	00.0	100.
16	12.9	12.9	3.2	00.0	3.2	3.2	6.5	3.2	6.5	6.5	6.5	6.5	3.2	00.0	6.5	19.4	00.0	100.
17	12.9	6.5	3.2	3.2	3.2	3.2	3.2	6.5	9.7	6.5	00.0	00.0	3.2	9.7	6.5	22.6	00.0	100.
18	19.4	9.7	00.0	3.2	6.5	3.2	3.2	9.7	12.9	00.0	3.2	00.0	00.0	3.2	12.9	12.9	00.0	100.
19	12.9	9.7	00.0	3.2	6.5	00.0	6.5	9.7	9.7	6.5	00.0	00.0	3.2	6.5	9.7	16.1	00.0	100.
20	17.2	6.9	00.0	00.0	3.4	6.9	3.4	10.3	3.4	10.3	3.4	3.4	3.4	6.9	3.4	17.2	00.0	100.
21	13.8	10.3	3.4	00.0	3.4	3.4	00.0	10.3	6.9	10.3	00.0	00.0	3.4	6.9	3.4	24.1	00.0	100.
22	16.7	10.0	00.0	00.0	3.3	3.3	00.0	13.3	10.0	10.0	00.0	00.0	3.3	6.7	3.3	20.0	00.0	100.
23	13.3	13.3	00.0	00.0	3.3	3.3	3.3	3.3	20.0	6.7	3.3	00.0	00.0	3.3	6.7	20.0	00.0	100.
24	16.1	00.0	9.7	00.0	3.2	3.2	00.0	00.0	22.6	3.2	9.7	00.0	00.0	3.2	9.7	19.4	00.0	100.
ALL	13.5	9.0	3.7	1.6	1.9	4.6	4.1	5.6	11.5	5.9	3.0	2.0	2.2	3.7	11.5	16.1	.1	100.

NUMBER OF OBS = 733

B30

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-MAR

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	11.1	5.6	2.2	1.1	1.1	4.4	3.3	3.3	14.4	7.8	7.8	6.7	3.3	2.2	11.1	14.4	00.0	100.
2	12.2	7.8	1.1	00.0	1.1	3.3	1.1	2.2	16.7	6.7	10.0	6.7	2.2	4.4	7.8	16.7	00.0	100.
3	10.0	11.1	1.1	1.1	1.1	1.1	1.1	4.4	16.7	7.8	3.3	4.4	2.2	5.6	15.6	12.2	1.1	100.
4	7.9	11.2	2.2	00.0	2.2	5.6	1.1	9.0	11.2	4.5	2.2	4.5	3.4	6.7	11.2	15.7	1.1	100.
5	8.0	9.1	2.3	1.1	00.0	4.5	1.1	10.2	13.6	5.7	2.3	2.3	3.4	5.7	12.5	18.2	00.0	100.
6	9.1	11.4	1.1	1.1	00.0	4.5	2.3	5.7	15.9	5.7	1.1	1.1	3.4	4.5	15.9	17.0	00.0	100.
7	13.6	5.7	2.3	1.1	00.0	3.4	5.7	6.8	11.4	8.0	2.3	1.1	4.5	3.4	18.2	11.4	1.1	100.
8	15.9	4.5	3.4	00.0	00.0	2.3	4.5	6.8	12.5	9.1	5.7	2.3	2.3	2.3	17.0	11.4	00.0	100.
9	14.6	5.6	4.5	00.0	1.1	2.2	6.7	11.2	10.1	3.4	5.6	2.2	2.2	3.4	13.5	13.5	00.0	100.
10	15.6	7.8	3.3	2.2	00.0	3.3	5.6	7.8	10.0	4.4	4.4	00.0	5.6	1.1	10.0	18.9	00.0	100.
11	17.8	8.9	2.2	2.2	00.0	2.2	5.6	3.3	14.4	4.4	3.3	1.1	8.9	3.3	11.1	11.1	00.0	100.
12	16.7	10.0	4.4	1.1	00.0	2.2	2.2	6.7	11.1	5.6	5.6	4.4	3.3	4.4	10.0	12.2	00.0	100.
13	14.4	8.9	3.3	1.1	2.2	1.1	4.4	4.4	7.8	8.9	4.4	8.9	2.2	1.1	12.2	14.4	00.0	100.
14	17.8	5.6	2.2	1.1	1.1	2.2	2.2	6.7	7.8	12.2	3.3	6.7	4.4	4.4	10.0	12.2	00.0	100.
15	15.6	7.8	00.0	1.1	1.1	1.1	3.3	4.4	10.0	7.8	8.9	7.8	4.4	5.6	5.6	15.6	00.0	100.
16	17.8	8.9	1.1	00.0	1.1	2.2	3.3	5.6	6.7	8.9	11.1	6.7	4.4	1.1	6.7	14.4	00.0	100.
17	15.6	6.7	2.2	1.1	2.2	1.1	2.2	4.4	13.3	7.8	7.8	2.2	1.1	4.4	7.8	20.0	00.0	100.
18	16.7	5.6	2.2	1.1	2.2	1.1	3.3	7.8	15.6	5.6	6.7	2.2	2.2	1.1	11.1	15.6	00.0	100.
19	8.9	8.9	00.0	2.2	3.3	00.0	4.4	8.9	15.6	6.7	3.3	1.1	5.6	4.4	8.9	17.8	00.0	100.
20	11.4	9.1	00.0	00.0	2.3	2.3	2.3	9.1	14.8	9.1	2.3	4.5	5.7	5.7	5.7	15.9	00.0	100.
21	12.5	8.0	1.1	00.0	1.1	3.4	1.1	10.2	12.5	6.8	8.0	00.0	3.4	5.7	6.8	19.3	00.0	100.
22	11.2	9.0	00.0	00.0	2.2	1.1	2.2	7.9	13.5	10.1	5.6	1.1	3.4	4.5	9.0	19.1	00.0	100.
23	11.2	9.0	2.2	1.1	1.1	1.1	2.2	2.2	20.2	7.9	4.5	3.4	2.2	5.6	5.6	20.2	00.0	100.
24	11.1	2.2	3.3	00.0	1.1	3.3	1.1	3.3	16.7	7.8	8.9	8.9	3.3	1.1	7.8	20.0	00.0	100.
ALL	13.2	7.8	2.0	.8	1.2	2.5	3.0	6.3	13.0	7.2	5.4	3.8	3.6	3.8	10.4	15.7	.1	100.

NUMBER OF OBS = 2144

B31

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

APRIL

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.7	7.1	3.6	3.6	00.0	3.6	14.3	3.6	17.9	3.6	00.0	00.0	3.6	10.7	7.1	10.7	00.0	100.
2	3.6	7.1	00.0	3.6	3.6	00.0	14.3	3.6	10.7	10.7	3.6	3.6	00.0	7.1	14.3	10.7	3.6	100.
3	3.6	7.1	00.0	00.0	3.6	00.0	17.9	7.1	17.9	00.0	7.1	10.7	00.0	00.0	17.9	7.1	00.0	100.
4	7.4	3.7	00.0	00.0	3.7	3.7	18.5	3.7	14.8	00.0	3.7	7.4	7.4	00.0	14.8	11.1	00.0	100.
5	11.1	3.7	00.0	00.0	00.0	7.4	18.5	7.4	7.4	3.7	00.0	7.4	3.7	00.0	22.2	7.4	00.0	100.
6	7.1	3.6	00.0	00.0	3.6	00.0	14.3	10.7	21.4	3.6	00.0	7.1	3.6	00.0	14.3	10.7	00.0	100.
7	7.1	3.6	00.0	00.0	00.0	7.1	17.9	3.6	10.7	7.1	3.6	3.6	7.1	00.0	14.3	14.3	00.0	100.
8	3.7	11.1	00.0	00.0	00.0	7.4	14.8	14.8	11.1	00.0	00.0	7.4	7.4	00.0	14.8	7.4	00.0	100.
9	6.9	3.4	00.0	00.0	00.0	6.9	17.2	13.8	17.2	00.0	00.0	3.4	3.4	6.9	13.8	6.9	00.0	100.
10	6.7	3.3	00.0	3.3	3.3	00.0	10.0	10.0	23.3	3.3	3.3	3.3	3.3	6.7	3.3	16.7	00.0	100.
11	3.3	3.3	3.3	3.3	00.0	3.3	6.7	13.3	13.3	13.3	3.3	3.3	6.7	3.3	10.0	10.0	00.0	100.
12	6.7	6.7	3.3	00.0	3.3	00.0	13.3	3.3	13.3	10.0	6.7	6.7	6.7	3.3	13.3	3.3	00.0	100.
13	3.3	6.7	00.0	3.3	3.3	00.0	13.3	10.0	10.0	10.0	3.3	6.7	3.3	6.7	6.7	13.3	00.0	100.
14	3.3	3.3	3.3	00.0	6.7	00.0	13.3	13.3	6.7	13.3	00.0	3.3	6.7	3.3	10.0	13.3	00.0	100.
15	3.3	6.7	00.0	00.0	3.3	3.3	16.7	10.0	13.3	6.7	00.0	3.3	00.0	10.0	10.0	13.3	00.0	100.
16	00.0	6.7	3.3	00.0	3.3	6.7	6.7	16.7	10.0	6.7	00.0	3.3	3.3	10.0	10.0	13.3	00.0	100.
17	00.0	10.0	3.3	00.0	3.3	6.7	6.7	13.3	16.7	00.0	00.0	3.3	00.0	6.7	10.0	20.0	00.0	100.
18	00.0	6.7	3.3	00.0	6.7	3.3	6.7	13.3	16.7	3.3	00.0	00.0	3.3	10.0	6.7	20.0	00.0	100.
19	3.3	3.3	6.7	00.0	3.3	6.7	13.3	6.7	13.3	00.0	00.0	3.3	3.3	10.0	10.0	16.7	00.0	100.
20	3.3	00.0	3.3	00.0	00.0	6.7	16.7	6.7	10.0	3.3	3.3	3.3	3.3	10.0	10.0	20.0	00.0	100.
21	6.7	3.3	00.0	00.0	00.0	10.0	6.7	13.3	6.7	3.3	00.0	16.7	00.0	10.0	13.3	10.0	00.0	100.
22	10.3	6.9	00.0	00.0	00.0	00.0	10.3	17.2	6.9	3.4	00.0	3.4	10.3	3.4	17.2	6.9	3.4	100.
23	6.9	3.4	3.4	3.4	00.0	3.4	13.8	6.9	10.3	00.0	3.4	00.0	24.1	6.9	6.9	6.9	00.0	100.
24	10.7	00.0	3.6	00.0	7.1	7.1	10.7	3.6	14.3	3.6	3.6	00.0	14.3	00.0	7.1	14.3	00.0	100.
ALL	5.3	5.0	1.7	.9	2.4	3.9	12.9	9.5	13.1	4.6	1.9	4.6	5.2	5.3	11.5	11.9	.3	100.

NUMBER OF OBS = 696

B32

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	12.9	6.5	3.2	6.5	6.5	3.2	12.9	6.5	9.7	9.7	3.2	6.5	00.0	00.0	3.2	9.7	00.0	100.
2	12.9	3.2	9.7	3.2	12.9	3.2	6.5	6.5	12.9	6.5	3.2	3.2	00.0	00.0	3.2	9.7	3.2	100.
3	13.3	6.7	3.3	13.3	6.7	3.3	10.0	6.7	20.0	3.3	00.0	3.3	00.0	00.0	3.3	6.7	00.0	100.
4	16.1	12.9	00.0	6.5	6.5	6.5	00.0	16.1	16.1	6.5	3.2	00.0	00.0	3.2	00.0	3.2	3.2	100.
5	16.1	9.7	00.0	00.0	6.5	3.2	6.5	16.1	16.1	6.5	00.0	3.2	00.0	6.5	00.0	6.5	3.2	100.
6	12.9	6.5	6.5	00.0	3.2	00.0	12.9	9.7	19.4	3.2	3.2	00.0	00.0	3.2	12.9	6.5	00.0	100.
7	16.7	6.7	6.7	00.0	6.7	3.3	10.0	26.7	3.3	3.3	00.0	00.0	3.3	3.3	00.0	6.7	3.3	100.
8	16.1	00.0	6.5	6.5	3.2	00.0	6.5	22.6	19.4	3.2	00.0	00.0	00.0	12.9	00.0	3.2	00.0	100.
9	12.9	3.2	3.2	3.2	12.9	00.0	3.2	9.7	22.6	6.5	00.0	00.0	6.5	3.2	6.5	6.5	00.0	100.
10	19.4	3.2	3.2	3.2	9.7	3.2	6.5	3.2	16.1	9.7	6.5	00.0	3.2	3.2	6.5	3.2	00.0	100.
11	12.9	00.0	9.7	3.2	6.5	00.0	9.7	9.7	19.4	6.5	3.2	3.2	3.2	00.0	6.5	6.5	00.0	100.
12	12.9	00.0	3.2	9.7	00.0	3.2	19.4	00.0	12.9	12.9	3.2	00.0	3.2	6.5	6.5	6.5	00.0	100.
13	12.9	3.2	00.0	9.7	00.0	3.2	16.1	3.2	16.1	9.7	00.0	3.2	00.0	12.9	00.0	9.7	00.0	100.
14	9.7	3.2	3.2	6.5	00.0	6.5	3.2	6.5	19.4	12.9	00.0	3.2	3.2	6.5	3.2	12.9	00.0	100.
15	12.9	3.2	00.0	9.7	6.5	00.0	3.2	3.2	16.1	16.1	3.2	3.2	3.2	3.2	6.5	9.7	00.0	100.
16	9.7	9.7	3.2	9.7	3.2	3.2	3.2	6.5	12.9	16.1	00.0	00.0	3.2	3.2	6.5	9.7	00.0	100.
17	6.5	16.1	3.2	9.7	6.5	00.0	6.5	3.2	22.6	3.2	6.5	00.0	3.2	00.0	3.2	9.7	00.0	100.
18	9.7	16.1	3.2	9.7	6.5	00.0	6.5	3.2	22.6	3.2	6.5	00.0	00.0	00.0	3.2	9.7	00.0	100.
19	12.9	6.5	12.9	6.5	00.0	9.7	6.5	6.5	22.6	6.5	00.0	00.0	00.0	00.0	3.2	6.5	00.0	100.
20	16.1	6.5	9.7	6.5	00.0	6.5	3.2	9.7	22.6	3.2	00.0	3.2	3.2	00.0	3.2	6.5	00.0	100.
21	16.1	6.5	9.7	6.5	00.0	3.2	6.5	12.9	16.1	00.0	3.2	00.0	3.2	3.2	6.5	6.5	00.0	100.
22	16.7	10.0	6.7	6.7	00.0	3.3	3.3	13.3	16.7	3.3	00.0	00.0	6.7	3.3	00.0	10.0	00.0	100.
23	10.0	6.7	10.0	00.0	6.7	3.3	6.7	10.0	20.0	3.3	00.0	00.0	6.7	00.0	6.7	10.0	00.0	100.
24	10.0	10.0	6.7	3.3	3.3	3.3	6.7	10.0	10.0	13.3	00.0	00.0	3.3	00.0	00.0	10.0	10.0	100.
ALL	13.3	6.5	5.1	5.8	4.7	3.0	7.3	9.2	16.9	7.0	1.9	1.4	2.3	3.1	3.8	7.7	.9	100.

NUMBER OF OBS = 739

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.7	00.0	00.0	3.3	3.3	6.7	16.7	3.3	16.7	13.3	10.0	00.0	3.3	3.3	10.0	3.3	00.0	100.
2	10.0	3.3	00.0	00.0	00.0	3.3	6.7	6.7	16.7	26.7	13.3	00.0	00.0	3.3	3.3	6.7	00.0	100.
3	3.3	3.3	00.0	00.0	00.0	3.3	6.7	6.7	23.3	10.0	13.3	3.3	3.3	3.3	13.3	3.3	3.3	100.
4	3.3	3.3	00.0	00.0	3.3	3.3	6.7	3.3	20.0	10.0	13.3	3.3	3.3	6.7	6.7	3.3	10.0	100.
5	3.3	3.3	00.0	00.0	00.0	3.3	3.3	10.0	16.7	23.3	10.0	00.0	00.0	13.3	13.3	00.0	00.0	100.
6	13.3	3.3	00.0	00.0	00.0	00.0	13.3	10.0	23.3	13.3	00.0	10.0	00.0	00.0	10.0	00.0	3.3	100.
7	6.7	6.7	3.3	00.0	00.0	3.3	6.7	20.0	26.7	6.7	3.3	00.0	00.0	3.3	3.3	10.0	00.0	100.
8	13.3	10.0	3.3	00.0	00.0	3.3	10.0	10.0	16.7	13.3	6.7	3.3	00.0	3.3	00.0	6.7	00.0	100.
9	10.0	10.0	3.3	6.7	3.3	3.3	6.7	6.7	10.0	26.7	6.7	3.3	3.3	00.0	00.0	00.0	00.0	100.
10	10.0	10.0	00.0	00.0	6.7	10.0	10.0	6.7	10.0	20.0	3.3	3.3	3.3	00.0	3.3	3.3	00.0	100.
11	10.0	3.3	3.3	6.7	6.7	6.7	10.0	3.3	13.3	20.0	3.3	3.3	3.3	00.0	00.0	6.7	00.0	100.
12	16.7	6.7	3.3	00.0	3.3	13.3	6.7	6.7	13.3	16.7	3.3	3.3	3.3	3.3	00.0	00.0	00.0	100.
13	13.3	3.3	00.0	00.0	3.3	6.7	6.7	16.7	16.7	16.7	00.0	3.3	3.3	00.0	00.0	10.0	00.0	100.
14	10.0	3.3	6.7	00.0	6.7	6.7	13.3	3.3	20.0	10.0	3.3	00.0	00.0	3.3	3.3	10.0	00.0	100.
15	16.7	00.0	00.0	00.0	6.7	3.3	16.7	10.0	13.3	13.3	3.3	00.0	00.0	00.0	3.3	13.3	00.0	100.
16	13.3	00.0	3.3	00.0	6.7	3.3	13.3	6.7	13.3	16.7	6.7	00.0	00.0	00.0	3.3	13.3	00.0	100.
17	13.3	3.3	6.7	00.0	6.7	3.3	10.0	6.7	20.0	16.7	3.3	00.0	00.0	00.0	00.0	10.0	00.0	100.
18	10.0	6.7	00.0	00.0	6.7	00.0	16.7	10.0	20.0	10.0	3.3	00.0	00.0	3.3	00.0	13.3	00.0	100.
19	10.0	6.7	00.0	00.0	10.0	6.7	6.7	10.0	13.3	20.0	00.0	3.3	3.3	00.0	3.3	6.7	00.0	100.
20	3.3	6.7	00.0	6.7	00.0	6.7	6.7	10.0	13.3	16.7	10.0	00.0	00.0	10.0	00.0	10.0	00.0	100.
21	00.0	13.3	00.0	3.3	00.0	6.7	10.0	6.7	16.7	16.7	00.0	3.3	3.3	6.7	6.7	6.7	00.0	100.
22	3.3	10.0	00.0	00.0	6.7	3.3	10.0	6.7	33.3	3.3	6.7	00.0	6.7	3.3	00.0	6.7	00.0	100.
23	16.7	00.0	3.3	00.0	00.0	3.3	13.3	3.3	23.3	10.0	6.7	3.3	00.0	6.7	00.0	6.7	3.3	100.
24	00.0	00.0	3.3	00.0	00.0	10.0	10.0	6.7	20.0	16.7	6.7	00.0	3.3	3.3	00.0	20.0	00.0	100.
ALL	9.0	4.9	1.7	1.1	3.3	5.0	9.9	7.9	17.9	15.3	5.7	1.9	1.8	3.2	3.5	7.1	.8	100.

NUMBER OF OBS = 720

B34

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

APR-JUN

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.1	4.5	2.2	4.5	3.4	4.5	14.6	4.5	14.6	9.0	4.5	2.2	2.2	4.5	6.7	7.9	00.0	100.
2	9.0	4.5	3.4	2.2	5.6	2.2	9.0	5.6	13.5	14.6	6.7	2.2	00.0	3.4	6.7	9.0	2.2	100.
3	6.8	5.7	1.1	4.5	3.4	2.3	11.4	6.8	20.5	4.5	6.8	5.7	1.1	1.1	11.4	5.7	1.1	100.
4	9.1	6.8	00.0	2.3	4.5	4.5	8.0	8.0	17.0	5.7	6.8	3.4	3.4	3.4	6.8	5.7	4.5	100.
5	10.2	5.7	00.0	00.0	2.3	4.5	9.1	11.4	13.6	11.4	3.4	3.4	1.1	6.8	11.4	4.5	1.1	100.
6	11.2	4.5	2.2	00.0	2.2	00.0	13.5	10.1	21.3	6.7	1.1	5.6	1.1	1.1	12.4	5.6	1.1	100.
7	10.2	5.7	3.4	00.0	2.3	4.5	11.4	17.0	13.6	5.7	2.3	1.1	3.4	2.3	5.7	10.2	1.1	100.
8	11.4	6.8	3.4	2.3	1.1	3.4	10.2	15.9	15.9	5.7	2.3	3.4	2.3	5.7	4.5	5.7	00.0	100.
9	10.0	5.6	2.2	3.3	5.6	3.3	8.9	10.0	16.7	11.1	2.2	2.2	4.4	3.3	6.7	4.4	00.0	100.
10	12.1	5.5	1.1	2.2	6.6	4.4	8.8	6.6	16.5	11.0	4.4	2.2	3.3	3.3	4.4	7.7	00.0	100.
11	8.8	2.2	5.5	4.4	4.4	3.3	8.8	8.8	15.4	13.2	3.3	3.3	4.4	1.1	5.5	7.7	00.0	100.
12	12.1	4.4	3.3	3.3	2.2	5.5	13.2	3.3	13.2	13.2	4.4	3.3	4.4	4.4	6.6	3.3	00.0	100.
13	9.9	4.4	00.0	4.4	2.2	3.3	12.1	9.9	14.3	12.1	1.1	4.4	2.2	6.6	2.2	11.0	00.0	100.
14	7.7	3.3	4.4	2.2	4.4	4.4	9.9	7.7	15.4	12.1	1.1	2.2	3.3	4.4	5.5	12.1	00.0	100.
15	11.0	3.3	00.0	3.3	5.5	2.2	12.1	7.7	14.3	12.1	2.2	2.2	1.1	4.4	6.6	12.1	00.0	100.
16	7.7	5.5	3.3	3.3	4.4	4.4	7.7	9.9	12.1	13.2	2.2	1.1	2.2	4.4	6.6	12.1	00.0	100.
17	6.6	9.9	4.4	3.3	5.5	3.3	7.7	7.7	19.8	6.6	3.3	1.1	1.1	2.2	4.4	13.2	00.0	100.
18	6.6	9.9	2.2	3.3	6.6	1.1	9.9	8.8	19.8	5.5	3.3	00.0	1.1	4.4	3.3	14.3	00.0	100.
19	8.8	5.5	6.6	2.2	4.4	7.7	8.8	7.7	16.5	8.8	00.0	2.2	2.2	3.3	5.5	9.9	00.0	100.
20	7.7	4.4	4.4	4.4	00.0	6.6	8.8	8.8	15.4	7.7	4.4	2.2	2.2	6.6	4.4	12.1	00.0	100.
21	7.7	7.7	3.3	3.3	00.0	6.6	7.7	11.0	13.2	6.6	1.1	6.6	2.2	6.6	8.8	7.7	00.0	100.
22	10.1	9.0	2.2	2.2	2.2	2.2	7.9	12.4	19.1	3.4	2.2	1.1	7.9	3.4	5.6	7.9	1.1	100.
23	11.2	3.4	5.6	1.1	2.2	3.4	11.2	6.7	18.0	4.5	3.4	1.1	10.1	4.5	4.5	7.9	1.1	100.
24	6.8	3.4	4.5	1.1	3.4	6.8	9.1	6.8	14.8	11.4	3.4	00.0	6.8	1.1	2.3	14.8	3.4	100.
ALL	9.3	5.5	2.9	2.6	3.5	3.9	10.0	8.9	16.0	9.0	3.2	2.6	3.1	3.9	6.2	8.9	.7	100.

NUMBER OF OBS = 2155

B35

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-JUN

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.6	5.0	2.2	2.8	2.2	4.5	8.9	3.9	14.5	8.4	6.1	4.5	2.8	3.4	8.9	11.2	00.0	100.
2	10.6	6.1	2.2	1.1	3.4	2.8	5.0	3.9	15.1	10.6	8.4	4.5	1.1	3.9	7.3	12.8	1.1	100.
3	8.4	8.4	1.1	2.8	2.2	1.7	6.2	5.6	18.5	6.2	5.1	5.1	1.7	3.4	13.5	9.0	1.1	100.
4	8.5	9.0	1.1	1.1	3.4	5.1	4.5	8.5	14.1	5.1	4.5	4.0	3.4	5.1	9.0	10.7	2.8	100.
5	9.1	7.4	1.1	.6	1.1	4.5	5.1	10.8	13.6	8.5	2.8	2.8	2.3	6.3	11.9	11.4	.6	100.
6	10.2	7.9	1.7	.6	1.1	2.3	7.9	7.9	18.6	6.2	1.1	3.4	2.3	2.8	14.1	11.3	.6	100.
7	11.9	5.7	2.8	.6	1.1	4.0	8.5	11.9	12.5	6.8	2.3	1.1	4.0	2.8	11.9	10.8	1.1	100.
8	13.6	5.7	3.4	1.1	.6	2.8	7.4	11.4	14.2	7.4	4.0	2.8	2.3	4.0	10.8	8.5	00.0	100.
9	12.3	5.6	3.4	1.7	3.4	2.8	7.8	10.6	13.4	7.3	3.9	2.2	3.4	3.4	10.1	8.9	00.0	100.
10	13.8	6.6	2.2	2.2	3.3	3.9	7.2	7.2	13.3	7.7	4.4	1.1	4.4	2.2	7.2	13.3	00.0	100.
11	13.3	5.5	3.9	3.3	2.2	2.8	7.2	6.1	14.9	8.8	3.3	2.2	6.6	2.2	8.3	9.4	00.0	100.
12	14.4	7.2	3.9	2.2	1.1	3.9	7.7	5.0	12.2	9.4	5.0	3.9	3.9	4.4	8.3	7.7	00.0	100.
13	12.2	6.6	1.7	2.8	2.2	2.2	8.3	7.2	11.0	10.5	2.8	6.6	2.2	3.9	7.2	12.7	00.0	100.
14	12.7	4.4	3.3	1.7	2.8	3.3	6.1	7.2	11.6	12.2	2.2	4.4	3.9	4.4	7.7	12.2	00.0	100.
15	13.3	5.5	00.0	2.2	3.3	1.7	7.7	6.1	12.2	9.9	5.5	5.0	2.8	5.0	6.1	13.8	00.0	100.
16	12.7	7.2	2.2	1.7	2.8	3.3	5.5	7.7	9.4	11.0	6.6	3.9	3.3	2.8	6.6	13.3	00.0	100.
17	11.0	8.3	3.3	2.2	3.9	2.2	5.0	6.1	16.6	7.2	5.5	1.7	1.1	3.3	6.1	16.6	00.0	100.
18	11.6	7.7	2.2	2.2	4.4	1.1	6.6	8.3	17.7	5.5	5.0	1.1	1.7	2.8	7.2	14.9	00.0	100.
19	8.8	7.2	3.3	2.2	3.9	3.9	6.6	8.3	16.0	7.7	1.7	1.7	3.9	3.9	7.2	13.8	00.0	100.
20	9.5	6.7	2.2	2.2	1.1	4.5	5.6	8.9	15.1	8.4	3.4	3.4	3.9	6.1	5.0	14.0	00.0	100.
21	10.1	7.8	2.2	1.7	.6	5.0	4.5	10.6	12.8	6.7	4.5	3.4	2.8	6.1	7.8	13.4	00.0	100.
22	10.7	9.0	1.1	1.1	2.2	1.7	5.1	10.1	16.3	6.7	3.9	1.1	5.6	3.9	7.3	13.5	.6	100.
23	11.2	6.2	3.9	1.1	1.7	2.2	6.7	4.5	19.1	6.2	3.9	2.2	6.2	5.1	5.1	14.0	.6	100.
24	9.0	2.8	3.9	.6	2.2	5.1	5.1	5.1	15.7	9.6	6.2	4.5	5.1	1.1	5.1	17.4	1.7	100.
ALL	11.2	6.7	2.4	1.7	2.3	3.2	6.5	7.6	14.5	8.1	4.3	3.2	3.3	3.8	8.3	12.3	.4	100.

NUMBER OF OBS = 4299

B36

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JULY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	6.5	3.2	3.2	6.5	6.5	00.0	9.7	12.9	12.9	6.5	3.2	6.5	3.2	00.0	6.5	6.5	100.
2	12.9	00.0	00.0	00.0	9.7	3.2	3.2	6.5	19.4	16.1	6.5	00.0	6.5	00.0	6.5	6.5	3.2	100.
3	12.9	00.0	3.2	3.2	00.0	3.2	9.7	9.7	25.8	6.5	3.2	3.2	6.5	3.2	3.2	3.2	3.2	100.
4	9.7	3.2	00.0	3.2	3.2	6.5	3.2	3.2	16.1	12.9	3.2	9.7	6.5	9.7	3.2	3.2	3.2	100.
5	9.7	3.2	3.2	00.0	9.7	00.0	6.5	3.2	22.6	9.7	00.0	9.7	3.2	3.2	6.5	6.5	3.2	100.
6	9.7	00.0	3.2	3.2	00.0	3.2	3.2	00.0	29.0	6.5	16.1	00.0	3.2	3.2	00.0	16.1	3.2	100.
7	12.9	12.9	3.2	00.0	00.0	3.2	3.2	6.5	25.8	6.5	3.2	6.5	00.0	00.0	00.0	12.9	3.2	100.
8	12.9	9.7	3.2	6.5	3.2	3.2	3.2	12.9	16.1	16.1	00.0	3.2	3.2	00.0	3.2	3.2	00.0	100.
9	6.5	12.9	3.2	6.5	3.2	9.7	6.5	6.5	16.1	16.1	3.2	00.0	00.0	00.0	00.0	6.5	3.2	100.
10	6.5	22.6	00.0	3.2	6.5	3.2	12.9	3.2	9.7	16.1	6.5	3.2	00.0	00.0	00.0	6.5	00.0	100.
11	6.5	12.9	9.7	00.0	6.5	00.0	16.1	3.2	12.9	12.9	6.5	3.2	3.2	00.0	3.2	3.2	00.0	100.
12	00.0	19.4	00.0	3.2	16.1	00.0	12.9	3.2	12.9	16.1	3.2	3.2	00.0	00.0	3.2	6.5	00.0	100.
13	3.2	9.7	6.5	3.2	12.9	6.5	6.5	6.5	16.1	12.9	3.2	3.2	00.0	00.0	00.0	9.7	00.0	100.
14	9.7	9.7	00.0	3.2	3.2	12.9	9.7	6.5	16.1	12.9	3.2	00.0	3.2	00.0	00.0	9.7	00.0	100.
15	9.7	6.5	3.2	3.2	6.5	6.5	9.7	3.2	25.8	9.7	3.2	00.0	00.0	00.0	3.2	9.7	00.0	100.
16	6.5	6.5	9.7	6.5	6.5	00.0	9.7	6.5	16.1	9.7	00.0	3.2	00.0	3.2	3.2	12.9	00.0	100.
17	3.2	6.5	3.2	12.9	3.2	3.2	6.5	9.7	19.4	9.7	3.2	00.0	3.2	00.0	00.0	16.1	00.0	100.
18	9.7	00.0	9.7	3.2	9.7	3.2	9.7	12.9	19.4	6.5	00.0	3.2	00.0	00.0	3.2	9.7	00.0	100.
19	3.2	3.2	3.2	6.5	6.5	6.5	9.7	16.1	9.7	16.1	3.2	00.0	00.0	3.2	3.2	9.7	00.0	100.
20	9.7	00.0	9.7	6.5	6.5	00.0	00.0	16.1	9.7	9.7	6.5	6.5	00.0	3.2	6.5	9.7	00.0	100.
21	3.2	12.9	00.0	6.5	3.2	00.0	3.2	3.2	16.1	3.2	3.2	6.5	9.7	3.2	6.5	19.4	00.0	100.
22	19.4	3.2	3.2	9.7	3.2	3.2	3.2	00.0	19.4	9.7	3.2	00.0	00.0	9.7	3.2	3.2	6.5	100.
23	13.3	3.3	3.3	6.7	00.0	3.3	3.3	3.3	10.0	20.0	10.0	10.0	00.0	00.0	00.0	6.7	6.7	100.
24	16.1	00.0	00.0	3.2	9.7	3.2	3.2	9.7	9.7	12.9	12.9	12.9	00.0	3.2	00.0	00.0	3.2	100.
ALL	8.9	6.9	3.5	4.3	5.7	3.8	6.5	6.7	17.0	11.7	4.6	3.8	2.3	2.0	2.4	8.2	1.9	100.

NUMBER OF OBS = 743

B37

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

AUGUST

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	12.9	6.5	00.0	00.0	6.5	3.2	00.0	3.2	25.8	16.1	3.2	3.2	00.0	6.5	6.5	3.2	3.2	100.
2	12.9	6.5	00.0	3.2	00.0	6.5	00.0	6.5	25.8	9.7	9.7	00.0	6.5	3.2	00.0	00.0	9.7	100.
3	12.9	6.5	00.0	6.5	00.0	00.0	00.0	6.5	9.7	9.7	3.2	9.7	3.2	6.5	12.9	3.2	9.7	100.
4	6.5	16.1	00.0	6.5	3.2	00.0	00.0	6.5	16.1	6.5	6.5	00.0	12.9	3.2	6.5	3.2	6.5	100.
5	9.7	3.2	9.7	3.2	00.0	3.2	00.0	9.7	16.1	3.2	3.2	3.2	3.2	6.5	3.2	16.1	6.5	100.
6	6.5	12.9	3.2	6.5	00.0	3.2	00.0	6.5	16.1	9.7	3.2	00.0	6.5	6.5	3.2	12.9	3.2	100.
7	16.1	12.9	3.2	6.5	3.2	00.0	00.0	3.2	22.6	9.7	00.0	3.2	6.5	3.2	00.0	6.5	3.2	100.
8	10.0	6.7	16.7	10.0	00.0	3.3	3.3	6.7	33.3	3.3	00.0	00.0	3.3	00.0	3.3	00.0	00.0	100.
9	3.3	10.0	3.3	13.3	6.7	10.0	3.3	10.0	20.0	13.3	00.0	00.0	00.0	3.3	3.3	00.0	00.0	100.
10	6.7	3.3	6.7	6.7	3.3	6.7	6.7	10.0	23.3	6.7	13.3	00.0	00.0	00.0	3.3	3.3	00.0	100.
11	6.7	3.3	6.7	10.0	6.7	6.7	6.7	13.3	16.7	13.3	6.7	00.0	00.0	00.0	3.3	00.0	00.0	100.
12	6.7	6.7	3.3	10.0	00.0	10.0	10.0	13.3	16.7	6.7	6.7	3.3	3.3	00.0	3.3	00.0	00.0	100.
13	3.3	3.3	10.0	10.0	3.3	3.3	6.7	16.7	23.3	6.7	00.0	00.0	3.3	3.3	3.3	3.3	00.0	100.
14	6.7	6.7	13.3	00.0	6.7	3.3	16.7	16.7	20.0	6.7	00.0	00.0	00.0	00.0	3.3	00.0	00.0	100.
15	3.3	10.0	10.0	00.0	6.7	6.7	13.3	16.7	26.7	00.0	3.3	00.0	00.0	00.0	00.0	3.3	00.0	100.
16	10.0	6.7	6.7	6.7	3.3	6.7	6.7	13.3	26.7	00.0	00.0	3.3	00.0	3.3	3.3	3.3	00.0	100.
17	16.1	9.7	6.5	6.5	6.5	00.0	12.9	19.4	19.4	00.0	00.0	00.0	00.0	00.0	00.0	3.2	00.0	100.
18	6.5	12.9	6.5	6.5	3.2	3.2	9.7	25.8	16.1	3.2	00.0	00.0	00.0	00.0	00.0	6.5	00.0	100.
19	6.5	9.7	3.2	6.5	3.2	00.0	9.7	12.9	22.6	3.2	3.2	6.5	00.0	00.0	3.2	9.7	00.0	100.
20	00.0	9.7	9.7	3.2	00.0	3.2	3.2	6.5	12.9	12.9	3.2	3.2	3.2	6.5	6.5	16.1	00.0	100.
21	6.5	3.2	3.2	6.5	00.0	00.0	3.2	6.5	16.1	6.5	9.7	3.2	3.2	9.7	00.0	16.1	6.5	100.
22	6.5	6.5	00.0	6.5	00.0	00.0	3.2	6.5	25.8	6.5	3.2	9.7	00.0	00.0	9.7	9.7	6.5	100.
23	16.1	6.5	00.0	3.2	3.2	3.2	00.0	3.2	19.4	19.4	3.2	6.5	00.0	00.0	3.2	3.2	9.7	100.
24	9.7	6.5	3.2	00.0	3.2	00.0	3.2	6.5	25.8	16.1	3.2	00.0	00.0	00.0	00.0	9.7	12.9	100.
ALL	8.4	7.8	5.2	5.7	2.9	3.4	4.9	10.2	20.7	7.9	3.5	2.3	2.3	2.6	3.4	5.6	3.3	100.

NUMBER OF OBS = 735

B38

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

SEPTEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.0	10.0	00.0	3.3	00.0	3.3	6.7	10.0	20.0	6.7	00.0	00.0	00.0	3.3	10.0	10.0	6.7	100.
2	6.7	10.0	6.7	00.0	00.0	00.0	6.7	13.3	13.3	10.0	3.3	3.3	3.3	3.3	10.0	10.0	00.0	100.
3	6.7	3.3	3.3	3.3	3.3	00.0	3.3	16.7	23.3	00.0	00.0	3.3	00.0	6.7	16.7	3.3	6.7	100.
4	13.3	3.3	00.0	3.3	00.0	3.3	6.7	10.0	20.0	6.7	00.0	6.7	3.3	00.0	13.3	3.3	6.7	100.
5	00.0	10.0	3.3	3.3	00.0	3.3	3.3	13.3	16.7	3.3	3.3	6.7	6.7	3.3	6.7	13.3	3.3	100.
6	23.3	10.0	00.0	3.3	00.0	00.0	13.3	00.0	26.7	00.0	3.3	3.3	3.3	00.0	00.0	6.7	6.7	100.
7	16.7	6.7	6.7	3.3	00.0	6.7	00.0	20.0	10.0	3.3	00.0	6.7	00.0	6.7	3.3	3.3	6.7	100.
8	16.7	6.7	3.3	6.7	6.7	10.0	3.3	13.3	10.0	13.3	3.3	00.0	3.3	00.0	3.3	00.0	00.0	100.
9	10.0	6.7	3.3	00.0	16.7	3.3	16.7	13.3	13.3	3.3	3.3	00.0	00.0	00.0	6.7	3.3	00.0	100.
10	6.7	6.7	3.3	3.3	3.3	10.0	20.0	10.0	13.3	6.7	6.7	00.0	00.0	00.0	00.0	10.0	00.0	100.
11	6.7	3.3	3.3	3.3	3.3	10.0	20.0	10.0	10.0	3.3	6.7	6.7	00.0	00.0	3.3	10.0	00.0	100.
12	6.7	3.3	10.0	3.3	3.3	13.3	13.3	13.3	10.0	6.7	00.0	00.0	6.7	00.0	00.0	10.0	00.0	100.
13	13.3	00.0	6.7	00.0	10.0	3.3	16.7	16.7	10.0	10.0	00.0	00.0	00.0	3.3	00.0	10.0	00.0	100.
14	13.3	00.0	3.3	10.0	6.7	10.0	20.0	13.3	6.7	6.7	00.0	00.0	00.0	3.3	00.0	6.7	00.0	100.
15	13.3	00.0	6.7	3.3	6.7	10.0	20.0	13.3	6.7	6.7	3.3	00.0	00.0	3.3	00.0	6.7	00.0	100.
16	10.0	3.3	3.3	3.3	13.3	6.7	16.7	16.7	6.7	3.3	3.3	00.0	00.0	3.3	00.0	10.0	00.0	100.
17	10.0	00.0	6.7	3.3	10.0	10.0	13.3	16.7	10.0	3.3	3.3	00.0	00.0	00.0	3.3	10.0	00.0	100.
18	3.3	3.3	3.3	6.7	00.0	13.3	16.7	16.7	13.3	3.3	00.0	00.0	00.0	3.3	6.7	10.0	00.0	100.
19	10.0	00.0	6.7	00.0	6.7	3.3	23.3	16.7	10.0	00.0	3.3	00.0	00.0	00.0	13.3	6.7	00.0	100.
20	13.3	00.0	6.7	00.0	00.0	6.7	20.0	10.0	13.3	3.3	3.3	3.3	00.0	6.7	6.7	6.7	00.0	100.
21	16.7	00.0	6.7	00.0	3.3	3.3	16.7	10.0	20.0	00.0	00.0	3.3	00.0	3.3	00.0	13.3	3.3	100.
22	16.7	3.3	3.3	3.3	6.7	6.7	10.0	13.3	10.0	10.0	00.0	00.0	00.0	3.3	6.7	3.3	3.3	100.
23	13.3	6.7	00.0	6.7	00.0	6.7	10.0	13.3	20.0	10.0	00.0	00.0	3.3	00.0	3.3	6.7	00.0	100.
24	16.7	6.7	00.0	3.3	00.0	3.3	10.0	16.7	16.7	13.3	00.0	3.3	00.0	00.0	00.0	10.0	00.0	100.
ALL	11.4	4.3	4.0	3.2	4.2	6.1	12.8	13.2	13.8	5.6	1.9	1.9	1.3	2.2	4.7	7.6	1.8	100.

NUMBER OF OBS = 720

B39

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUL-SEP

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.8	7.6	1.1	2.2	4.3	4.3	2.2	7.6	19.6	12.0	3.3	2.2	2.2	4.3	5.4	6.5	5.4	100.
2	10.9	5.4	2.2	1.1	3.3	3.3	3.3	8.7	19.6	12.0	6.5	1.1	5.4	2.2	5.4	5.4	4.3	100.
3	10.9	3.3	2.2	4.3	1.1	1.1	4.3	10.9	19.6	5.4	2.2	5.4	3.3	5.4	10.9	3.3	6.5	100.
4	9.8	7.6	00.0	4.3	2.2	3.3	3.3	6.5	17.4	8.7	3.3	5.4	7.6	4.3	7.6	3.3	5.4	100.
5	6.5	5.4	5.4	2.2	3.3	2.2	3.3	8.7	18.5	5.4	2.2	6.5	4.3	4.3	5.4	12.0	4.3	100.
6	13.0	7.6	2.2	4.3	00.0	2.2	5.4	2.2	23.9	5.4	7.6	1.1	4.3	3.3	1.1	12.0	4.3	100.
7	15.2	10.9	4.3	3.3	1.1	3.3	1.1	9.8	19.6	6.5	1.1	5.4	2.2	3.3	1.1	7.6	4.3	100.
8	13.2	7.7	7.7	7.7	3.3	5.5	3.3	11.0	19.8	11.0	1.1	1.1	3.3	00.0	3.3	1.1	00.0	100.
9	6.6	9.9	3.3	6.6	8.8	7.7	8.8	9.9	16.5	11.0	2.2	00.0	00.0	1.1	3.3	3.3	1.1	100.
10	6.6	11.0	3.3	4.4	4.4	6.6	13.2	7.7	15.4	9.9	8.8	1.1	00.0	00.0	1.1	6.6	00.0	100.
11	6.6	6.6	6.6	4.4	5.5	5.5	14.3	8.8	13.2	9.9	6.6	3.3	1.1	00.0	3.3	4.4	00.0	100.
12	4.4	9.9	4.4	5.5	6.6	7.7	12.1	9.9	13.2	9.9	3.3	2.2	3.3	00.0	2.2	5.5	00.0	100.
13	6.6	4.4	7.7	4.4	8.8	4.4	9.9	13.2	16.5	9.9	1.1	1.1	1.1	2.2	1.1	7.7	00.0	100.
14	9.9	5.5	5.5	4.4	5.5	8.8	15.4	12.1	14.3	8.8	1.1	00.0	1.1	1.1	1.1	5.5	00.0	100.
15	8.8	5.5	6.6	2.2	6.6	7.7	14.3	11.0	19.8	5.5	3.3	00.0	00.0	1.1	1.1	6.6	00.0	100.
16	8.8	5.5	6.6	5.5	7.7	4.4	11.0	12.1	16.5	4.4	1.1	2.2	00.0	3.3	2.2	8.8	00.0	100.
17	9.8	5.4	5.4	7.6	6.5	4.3	10.9	15.2	16.3	4.3	2.2	00.0	1.1	00.0	1.1	9.8	00.0	100.
18	6.5	5.4	6.5	5.4	4.3	6.5	12.0	18.5	16.3	4.3	00.0	1.1	00.0	1.1	3.3	8.7	00.0	100.
19	6.5	4.3	4.3	4.3	5.4	3.3	14.1	15.2	14.1	6.5	3.3	2.2	00.0	1.1	6.5	8.7	00.0	100.
20	7.6	3.3	8.7	3.3	2.2	3.3	7.6	10.9	12.0	8.7	4.3	4.3	1.1	5.4	6.5	10.9	00.0	100.
21	8.7	5.4	3.3	4.3	2.2	1.1	7.6	6.5	17.4	3.3	4.3	4.3	4.3	5.4	2.2	16.3	3.3	100.
22	14.1	4.3	2.2	6.5	3.3	3.3	5.4	6.5	18.5	8.7	2.2	3.3	00.0	4.3	6.5	5.4	5.4	100.
23	14.3	5.5	1.1	5.5	1.1	4.4	4.4	6.6	16.5	16.5	4.4	5.5	1.1	00.0	2.2	5.5	5.5	100.
24	14.1	4.3	1.1	2.2	4.3	2.2	5.4	10.9	17.4	14.1	5.4	5.4	00.0	1.1	00.0	6.5	5.4	100.
ALL	9.6	6.3	4.2	4.4	4.2	4.4	8.0	10.0	17.2	8.4	3.4	2.7	2.0	2.3	3.5	7.1	2.3	100.

NUMBER OF OBS = 2198

B40

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

OCTOBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	22.6	00.0	00.0	00.0	00.0	3.2	9.7	3.2	12.9	6.5	6.5	3.2	3.2	6.5	9.7	12.9	00.0	100.
2	3.2	3.2	00.0	00.0	3.2	3.2	6.5	3.2	19.4	19.4	3.2	6.5	3.2	6.5	3.2	9.7	6.5	100.
3	3.2	3.2	3.2	00.0	00.0	3.2	12.9	6.5	16.1	9.7	3.2	12.9	9.7	3.2	3.2	9.7	00.0	100.
4	12.9	00.0	00.0	00.0	00.0	9.7	3.2	12.9	12.9	16.1	00.0	00.0	12.9	3.2	3.2	6.5	6.5	100.
5	6.5	6.5	00.0	00.0	00.0	3.2	6.5	6.5	12.9	12.9	3.2	6.5	12.9	3.2	9.7	9.7	00.0	100.
6	3.2	6.5	3.2	00.0	00.0	3.2	6.5	19.4	9.7	00.0	6.5	6.5	3.2	6.5	9.7	12.9	3.2	100.
7	6.5	3.2	3.2	3.2	00.0	00.0	9.7	00.0	16.1	9.7	6.5	3.2	00.0	9.7	19.4	9.7	00.0	100.
8	6.5	00.0	3.2	00.0	3.2	6.5	9.7	16.1	12.9	3.2	3.2	3.2	00.0	9.7	12.9	9.7	00.0	100.
9	6.5	3.2	00.0	00.0	3.2	6.5	9.7	12.9	9.7	3.2	3.2	6.5	3.2	9.7	6.5	16.1	00.0	100.
10	3.2	3.2	00.0	00.0	6.5	6.5	12.9	00.0	16.1	3.2	12.9	3.2	3.2	3.2	12.9	12.9	00.0	100.
11	3.2	3.2	00.0	3.2	3.2	12.9	12.9	00.0	9.7	6.5	6.5	6.5	3.2	3.2	6.5	19.4	00.0	100.
12	3.2	3.2	3.2	3.2	00.0	00.0	9.7	12.9	9.7	6.5	3.2	12.9	3.2	3.2	9.7	16.1	00.0	100.
13	3.2	3.2	3.2	00.0	00.0	6.5	16.1	00.0	12.9	3.2	3.2	9.7	9.7	3.2	6.5	19.4	00.0	100.
14	16.1	00.0	00.0	00.0	00.0	3.2	16.1	3.2	19.4	3.2	3.2	6.5	6.5	6.5	12.9	3.2	00.0	100.
15	9.7	3.2	00.0	00.0	00.0	3.2	19.4	00.0	6.5	12.9	00.0	6.5	3.2	16.1	12.9	6.5	00.0	100.
16	12.9	00.0	00.0	00.0	00.0	00.0	19.4	3.2	12.9	3.2	6.5	3.2	6.5	6.5	12.9	12.9	00.0	100.
17	12.9	00.0	00.0	00.0	00.0	3.2	9.7	6.5	16.1	6.5	6.5	3.2	6.5	00.0	12.9	16.1	00.0	100.
18	9.7	00.0	00.0	00.0	00.0	3.2	3.2	19.4	9.7	3.2	3.2	00.0	9.7	3.2	6.5	29.0	00.0	100.
19	9.7	00.0	00.0	00.0	3.2	00.0	6.5	9.7	9.7	3.2	3.2	3.2	3.2	12.9	12.9	19.4	3.2	100.
20	12.9	3.2	00.0	3.2	00.0	3.2	3.2	6.5	9.7	00.0	6.5	00.0	6.5	6.5	12.9	19.4	6.5	100.
21	12.9	3.2	00.0	00.0	3.2	00.0	9.7	00.0	12.9	00.0	12.9	00.0	6.5	6.5	00.0	19.4	12.9	100.
22	9.7	6.5	00.0	3.2	00.0	3.2	3.2	9.7	9.7	3.2	3.2	3.2	00.0	9.7	12.9	16.1	6.5	100.
23	9.7	6.5	00.0	00.0	00.0	00.0	9.7	3.2	12.9	12.9	9.7	9.7	6.5	6.5	00.0	9.7	3.2	100.
24	12.9	00.0	9.7	00.0	00.0	3.2	3.2	3.2	16.1	9.7	3.2	6.5	3.2	6.5	6.5	9.7	6.5	100.
ALL	8.9	2.6	1.2	.7	1.1	3.6	9.5	6.6	12.8	6.6	5.0	5.1	5.2	6.3	9.0	13.6	2.3	100.

NUMBER OF OBS = 744

B41

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

NOVEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	3.3	3.3	00.0	00.0	3.3	3.3	3.3	00.0	16.7	16.7	10.0	6.7	3.3	3.3	3.3	20.0	3.3	100.
2	10.0	00.0	00.0	00.0	3.3	6.7	3.3	3.3	20.0	13.3	6.7	3.3	00.0	10.0	3.3	16.7	00.0	100.
3	6.7	00.0	00.0	3.3	3.3	3.3	6.7	6.7	13.3	13.3	6.7	00.0	3.3	6.7	3.3	20.0	3.3	100.
4	10.0	00.0	00.0	00.0	3.3	3.3	6.7	6.7	16.7	13.3	6.7	6.7	00.0	6.7	6.7	13.3	00.0	100.
5	3.3	00.0	00.0	3.3	00.0	00.0	6.7	13.3	13.3	3.3	10.0	6.7	3.3	13.3	6.7	13.3	3.3	100.
6	6.7	00.0	3.3	00.0	3.3	00.0	6.7	10.0	16.7	3.3	00.0	6.7	3.3	10.0	20.0	10.0	00.0	100.
7	00.0	6.7	00.0	00.0	00.0	3.3	13.3	00.0	13.3	16.7	00.0	00.0	6.7	16.7	10.0	10.0	3.3	100.
8	6.7	00.0	3.3	00.0	00.0	3.3	3.3	10.0	16.7	6.7	00.0	00.0	3.3	16.7	13.3	13.3	3.3	100.
9	3.3	00.0	00.0	6.7	00.0	3.3	3.3	13.3	10.0	6.7	00.0	00.0	3.3	20.0	6.7	16.7	6.7	100.
10	6.7	3.3	00.0	3.3	00.0	00.0	3.3	16.7	13.3	6.7	3.3	3.3	00.0	3.3	26.7	10.0	00.0	100.
11	6.7	00.0	00.0	3.3	00.0	00.0	13.3	00.0	16.7	6.7	3.3	00.0	10.0	00.0	23.3	16.7	00.0	100.
12	3.3	3.3	00.0	00.0	3.3	00.0	3.3	13.3	10.0	10.0	10.0	3.3	00.0	3.3	20.0	16.7	00.0	100.
13	00.0	3.3	00.0	00.0	00.0	3.3	3.3	6.7	20.0	10.0	3.3	6.7	00.0	6.7	16.7	20.0	00.0	100.
14	00.0	3.3	00.0	00.0	00.0	3.3	6.7	3.3	16.7	16.7	3.3	00.0	00.0	6.7	16.7	23.3	00.0	100.
15	6.7	3.3	00.0	00.0	00.0	3.3	6.7	6.7	16.7	13.3	3.3	00.0	00.0	3.3	13.3	23.3	00.0	100.
16	10.0	00.0	00.0	00.0	00.0	3.3	6.7	6.7	16.7	13.3	3.3	00.0	00.0	6.7	10.0	23.3	00.0	100.
17	6.7	3.3	00.0	00.0	3.3	00.0	6.7	10.0	16.7	6.7	3.3	00.0	00.0	10.0	13.3	20.0	00.0	100.
18	6.7	00.0	00.0	00.0	3.3	00.0	6.7	13.3	6.7	16.7	00.0	00.0	10.0	3.3	20.0	13.3	00.0	100.
19	10.0	00.0	00.0	00.0	00.0	3.3	6.7	13.3	13.3	6.7	6.7	00.0	6.7	6.7	16.7	10.0	00.0	100.
20	6.7	00.0	00.0	00.0	00.0	3.3	3.3	20.0	13.3	6.7	6.7	3.3	3.3	3.3	13.3	13.3	3.3	100.
21	6.7	00.0	00.0	00.0	00.0	6.7	3.3	13.3	20.0	00.0	6.7	10.0	00.0	00.0	13.3	16.7	3.3	100.
22	10.0	00.0	00.0	00.0	3.3	00.0	3.3	13.3	10.0	13.3	6.7	10.0	00.0	3.3	6.7	20.0	00.0	100.
23	13.3	3.3	00.0	00.0	00.0	3.3	3.3	6.7	10.0	16.7	6.7	6.7	3.3	3.3	3.3	20.0	00.0	100.
24	10.0	00.0	00.0	00.0	00.0	3.3	3.3	6.7	23.3	10.0	3.3	10.0	6.7	00.0	6.7	16.7	00.0	100.
ALL	6.4	1.4	.3	.8	1.3	2.5	5.6	8.9	15.0	10.3	4.6	3.5	2.8	6.8	12.2	16.5	1.3	100.

NUMBER OF OBS = 720

B42

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

DECEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	3.2	6.5	3.2	00.0	6.5	00.0	9.7	3.2	16.1	6.5	00.0	00.0	3.2	16.1	16.1	9.7	00.0	100.
2	9.7	00.0	3.2	00.0	00.0	6.5	6.5	9.7	12.9	6.5	00.0	3.2	00.0	12.9	12.9	16.1	00.0	100.
3	9.7	00.0	3.2	00.0	00.0	6.5	6.5	9.7	22.6	3.2	00.0	6.5	00.0	9.7	16.1	6.5	00.0	100.
4	6.5	00.0	00.0	3.2	00.0	9.7	6.5	9.7	19.4	3.2	00.0	00.0	3.2	12.9	16.1	9.7	00.0	100.
5	6.5	3.2	00.0	3.2	00.0	6.5	3.2	12.9	16.1	9.7	00.0	00.0	3.2	12.9	12.9	9.7	00.0	100.
6	3.2	3.2	3.2	3.2	00.0	6.5	9.7	6.5	19.4	3.2	3.2	00.0	3.2	6.5	12.9	12.9	3.2	100.
7	3.2	3.2	00.0	00.0	3.2	6.5	6.5	6.5	16.1	3.2	3.2	6.5	00.0	16.1	9.7	16.1	00.0	100.
8	6.5	3.2	00.0	00.0	3.2	6.5	9.7	6.5	16.1	3.2	00.0	3.2	3.2	16.1	9.7	9.7	3.2	100.
9	3.2	3.2	00.0	3.2	00.0	6.5	9.7	9.7	12.9	16.1	00.0	00.0	00.0	9.7	12.9	12.9	00.0	100.
10	00.0	3.2	00.0	3.2	00.0	9.7	6.5	9.7	16.1	12.9	3.2	00.0	00.0	9.7	9.7	16.1	00.0	100.
11	6.5	3.2	3.2	00.0	00.0	3.2	9.7	9.7	16.1	9.7	6.5	3.2	3.2	3.2	16.1	6.5	00.0	100.
12	6.5	6.5	00.0	00.0	00.0	00.0	19.4	3.2	19.4	6.5	00.0	3.2	6.5	12.9	16.1	00.0	00.0	100.
13	3.2	3.2	3.2	00.0	00.0	00.0	9.7	16.1	6.5	16.1	6.5	00.0	3.2	9.7	16.1	6.5	00.0	100.
14	12.9	00.0	3.2	3.2	00.0	6.5	9.7	3.2	12.9	12.9	9.7	00.0	00.0	6.5	19.4	00.0	00.0	100.
15	6.5	00.0	00.0	00.0	3.2	6.5	12.9	6.5	6.5	22.6	3.2	00.0	00.0	9.7	16.1	6.5	00.0	100.
16	6.5	6.5	00.0	00.0	3.2	00.0	16.1	6.5	12.9	6.5	9.7	00.0	3.2	16.1	12.9	00.0	00.0	100.
17	6.5	3.2	00.0	00.0	3.2	6.5	9.7	6.5	16.1	3.2	6.5	6.5	00.0	9.7	22.6	00.0	00.0	100.
18	6.5	3.2	00.0	00.0	3.2	6.5	6.5	00.0	22.6	3.2	3.2	6.5	00.0	9.7	19.4	6.5	3.2	100.
19	6.5	3.2	00.0	00.0	3.2	6.5	3.2	00.0	19.4	9.7	00.0	6.5	3.2	12.9	9.7	12.9	3.2	100.
20	6.5	3.2	00.0	00.0	3.2	6.5	3.2	6.5	19.4	9.7	00.0	3.2	3.2	6.5	16.1	9.7	3.2	100.
21	6.5	3.2	00.0	00.0	3.2	6.5	3.2	6.5	16.1	12.9	3.2	00.0	3.2	3.2	16.1	12.9	3.2	100.
22	6.5	6.5	00.0	00.0	3.2	3.2	3.2	3.2	19.4	9.7	6.5	00.0	3.2	6.5	19.4	9.7	00.0	100.
23	6.5	6.5	00.0	00.0	00.0	6.5	9.7	00.0	19.4	3.2	3.2	3.2	3.2	9.7	16.1	12.9	00.0	100.
24	12.9	00.0	00.0	00.0	3.2	6.5	3.2	00.0	22.6	3.2	00.0	6.5	3.2	6.5	16.1	16.1	00.0	100.
ALL	6.3	3.1	.9	.8	1.7	5.4	8.1	6.3	16.5	8.2	2.8	2.4	2.2	10.2	15.1	9.1	.8	100.

NUMBER OF OBS = 744

B43

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

OCT-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.8	3.3	1.1	00.0	3.3	2.2	7.6	2.2	15.2	9.8	5.4	3.3	3.3	8.7	9.8	14.1	1.1	100.
2	7.6	1.1	1.1	00.0	2.2	5.4	5.4	5.4	17.4	13.0	3.3	4.3	1.1	9.8	6.5	14.1	2.2	100.
3	6.5	1.1	2.2	1.1	1.1	4.3	8.7	7.6	17.4	8.7	3.3	6.5	4.3	6.5	7.6	12.0	1.1	100.
4	9.8	00.0	00.0	1.1	1.1	7.6	5.4	9.8	16.3	10.9	2.2	2.2	5.4	7.6	8.7	9.8	2.2	100.
5	5.4	3.3	00.0	2.2	00.0	3.3	5.4	10.9	14.1	8.7	4.3	4.3	6.5	9.8	9.8	10.9	1.1	100.
6	4.3	3.3	3.3	1.1	1.1	3.3	7.6	12.0	15.2	2.2	3.3	4.3	3.3	7.6	14.1	12.0	2.2	100.
7	3.3	4.3	1.1	1.1	1.1	3.3	9.8	2.2	15.2	9.8	3.3	3.3	2.2	14.1	13.0	12.0	1.1	100.
8	6.5	1.1	2.2	00.0	2.2	5.4	7.6	10.9	15.2	4.3	1.1	2.2	2.2	14.1	12.0	10.9	2.2	100.
9	4.3	2.2	00.0	3.3	1.1	5.4	7.6	12.0	10.9	8.7	1.1	2.2	2.2	13.0	8.7	15.2	2.2	100.
10	3.3	3.3	00.0	2.2	2.2	5.4	7.6	8.7	15.2	7.6	6.5	2.2	1.1	5.4	16.3	13.0	00.0	100.
11	5.4	2.2	1.1	2.2	1.1	5.4	12.0	3.3	14.1	7.6	5.4	3.3	5.4	2.2	15.2	14.1	00.0	100.
12	4.3	4.3	1.1	1.1	1.1	00.0	10.9	9.8	13.0	7.6	4.3	6.5	3.3	6.5	15.2	10.9	00.0	100.
13	2.2	3.3	2.2	00.0	00.0	3.3	9.8	7.6	13.0	9.8	4.3	5.4	4.3	6.5	13.0	15.2	00.0	100.
14	9.8	1.1	1.1	1.1	00.0	4.3	10.9	3.3	16.3	10.9	5.4	2.2	2.2	6.5	16.3	8.7	00.0	100.
15	7.6	2.2	00.0	00.0	1.1	4.3	13.0	4.3	9.8	16.3	2.2	2.2	1.1	9.8	14.1	12.0	00.0	100.
16	9.8	2.2	00.0	00.0	1.1	1.1	14.1	5.4	14.1	7.6	6.5	1.1	3.3	9.8	12.0	12.0	00.0	100.
17	8.7	2.2	00.0	00.0	2.2	3.3	8.7	7.6	16.3	5.4	5.4	3.3	2.2	6.5	16.3	12.0	00.0	100.
18	7.6	1.1	00.0	00.0	2.2	3.3	5.4	10.9	13.0	7.6	2.2	2.2	6.5	5.4	15.2	16.3	1.1	100.
19	8.7	1.1	00.0	00.0	2.2	3.3	5.4	7.6	14.1	6.5	3.3	3.3	4.3	10.9	13.0	14.1	2.2	100.
20	8.7	2.2	00.0	1.1	1.1	4.3	3.3	10.9	14.1	5.4	4.3	2.2	4.3	5.4	14.1	14.1	4.3	100.
21	8.7	2.2	00.0	00.0	2.2	4.3	5.4	6.5	16.3	4.3	7.6	3.3	3.3	3.3	9.8	16.3	6.5	100.
22	8.7	4.3	00.0	1.1	2.2	2.2	3.3	8.7	13.0	8.7	5.4	4.3	1.1	6.5	13.0	15.2	2.2	100.
23	9.8	5.4	00.0	00.0	00.0	3.3	7.6	3.3	14.1	10.9	6.5	6.5	4.3	6.5	6.5	14.1	1.1	100.
24	12.0	00.0	3.3	00.0	1.1	4.3	3.3	3.3	20.7	7.6	2.2	7.6	4.3	4.3	9.8	14.1	2.2	100.
ALL	7.2	2.4	.8	.8	1.4	3.8	7.7	7.2	14.8	8.3	4.1	3.7	3.4	7.8	12.1	13.0	1.4	100.

NUMBER OF OBS = 2208

B44

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUL-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	9.8	5.4	1.1	1.1	3.8	3.3	4.9	4.9	17.4	10.9	4.3	2.7	2.7	6.5	7.6	10.3	3.3	100.
2	9.2	3.3	1.6	.5	2.7	4.3	4.3	7.1	18.5	12.5	4.9	2.7	3.3	6.0	6.0	9.8	3.3	100.
3	8.7	2.2	2.2	2.7	1.1	2.7	6.5	9.2	18.5	7.1	2.7	6.0	3.8	6.0	9.2	7.6	3.8	100.
4	9.8	3.8	00.0	2.7	1.6	5.4	4.3	8.2	16.8	9.8	2.7	3.8	6.5	6.0	8.2	6.5	3.8	100.
5	6.0	4.3	2.7	2.2	1.6	2.7	4.3	9.8	16.3	7.1	3.3	5.4	5.4	7.1	7.6	11.4	2.7	100.
6	8.7	5.4	2.7	2.7	.5	2.7	6.5	7.1	19.6	3.8	5.4	2.7	3.8	5.4	7.6	12.0	3.3	100.
7	9.2	7.6	2.7	2.2	1.1	3.3	5.4	6.0	17.4	8.2	2.2	4.3	2.2	8.7	7.1	9.8	2.7	100.
8	9.8	4.4	4.9	3.8	2.7	5.5	5.5	10.9	17.5	7.7	1.1	1.6	2.7	7.1	7.7	6.0	1.1	100.
9	5.5	6.0	1.6	4.9	4.9	6.6	8.2	10.9	13.7	9.8	1.6	1.1	1.1	7.1	6.0	9.3	1.6	100.
10	4.9	7.1	1.6	3.3	3.3	6.0	10.4	8.2	15.3	8.7	7.7	1.6	.5	2.7	8.7	9.8	00.0	100.
11	6.0	4.4	3.8	3.3	3.3	5.5	13.1	6.0	13.7	8.7	6.0	3.3	3.3	1.1	9.3	9.3	00.0	100.
12	4.4	7.1	2.7	3.3	3.8	3.8	11.5	9.8	13.1	8.7	3.8	4.4	3.3	3.3	8.7	8.2	00.0	100.
13	4.4	3.8	4.9	2.2	4.4	3.8	9.8	10.4	14.8	9.8	2.7	3.3	2.7	4.4	7.1	11.5	00.0	100.
14	9.8	3.3	3.3	2.7	2.7	6.6	13.1	7.7	15.3	9.8	3.3	1.1	1.6	3.8	8.7	7.1	00.0	100.
15	8.2	3.8	3.3	1.1	3.8	6.0	13.7	7.7	14.8	10.9	2.7	1.1	.5	5.5	7.7	9.3	00.0	100.
16	9.3	3.8	3.3	2.7	4.4	2.7	12.6	8.7	15.3	6.0	3.8	1.6	1.6	6.6	7.1	10.4	00.0	100.
17	9.2	3.8	2.7	3.8	4.3	3.8	9.8	11.4	16.3	4.9	3.8	1.6	1.6	3.3	8.7	10.9	00.0	100.
18	7.1	3.3	3.3	2.7	3.3	4.9	8.7	14.7	14.7	6.0	1.1	1.6	3.3	3.3	9.2	12.5	.5	100.
19	7.6	2.7	2.2	2.2	3.8	3.3	9.8	11.4	14.1	6.5	3.3	2.7	2.2	6.0	9.8	11.4	1.1	100.
20	8.2	2.7	4.3	2.2	1.6	3.8	5.4	10.9	13.0	7.1	4.3	3.3	2.7	5.4	10.3	12.5	2.2	100.
21	8.7	3.8	1.6	2.2	2.2	2.7	6.5	6.5	16.8	3.8	6.0	3.8	3.8	4.3	6.0	16.3	4.9	100.
22	11.4	4.3	1.1	3.8	2.7	2.7	4.3	7.6	15.8	8.7	3.8	3.8	.5	5.4	9.8	10.3	3.8	100.
23	12.0	5.5	.5	2.7	.5	3.8	6.0	4.9	15.3	13.7	5.5	6.0	2.7	3.3	4.4	9.8	3.3	100.
24	13.0	2.2	2.2	1.1	2.7	3.3	4.3	7.1	19.0	10.9	3.8	6.5	2.2	2.7	4.9	10.3	3.8	100.
ALL	8.4	4.3	2.5	2.6	2.8	4.1	7.9	8.6	16.0	8.4	3.7	3.2	2.7	5.0	7.8	10.1	1.9	100.

NUMBER OF OBS = 4406

B45

NPPD-COOPER NUCLEAR STATION 10-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.2	5.2	1.7	1.9	3.0	3.9	6.9	4.4	16.0	9.6	5.2	3.6	2.8	5.0	8.3	10.7	1.7	100.
2	9.9	4.7	1.9	.8	3.0	3.6	4.7	5.5	16.8	11.6	6.6	3.6	2.2	5.0	6.6	11.3	2.2	100.
3	8.6	5.2	1.7	2.8	1.7	2.2	6.4	7.5	18.5	6.6	3.9	5.5	2.8	4.7	11.3	8.3	2.5	100.
4	9.1	6.4	.6	1.9	2.5	5.3	4.4	8.3	15.5	7.5	3.6	3.9	5.0	5.5	8.6	8.6	3.3	100.
5	7.5	5.8	1.9	1.4	1.4	3.6	4.7	10.3	15.0	7.8	3.1	4.2	3.9	6.7	9.7	11.4	1.7	100.
6	9.4	6.6	2.2	1.7	.8	2.5	7.2	7.5	19.1	5.0	3.3	3.0	3.0	4.2	10.8	11.6	1.9	100.
7	10.6	6.7	2.8	1.4	1.1	3.6	6.9	8.9	15.0	7.5	2.2	2.8	3.1	5.8	9.4	10.3	1.9	100.
8	11.7	5.0	4.2	2.5	1.7	4.2	6.4	11.1	15.9	7.5	2.5	2.2	2.5	5.6	9.2	7.2	.6	100.
9	8.8	5.8	2.5	3.3	4.1	4.7	8.0	10.8	13.5	8.6	2.8	1.7	2.2	5.2	8.0	9.1	.8	100.
10	9.3	6.9	1.9	2.7	3.3	4.9	8.8	7.7	14.3	8.2	6.0	1.4	2.5	2.5	8.0	11.5	00.0	100.
11	9.6	4.9	3.8	3.3	2.7	4.1	10.2	6.0	14.3	8.8	4.7	2.7	4.9	1.6	8.8	9.3	00.0	100.
12	9.3	7.1	3.3	2.7	2.5	3.8	9.6	7.4	12.6	9.1	4.4	4.1	3.6	3.8	8.5	8.0	00.0	100.
13	8.2	5.2	3.3	2.5	3.3	3.0	9.1	8.8	12.9	10.2	2.7	4.9	2.5	4.1	7.1	12.1	00.0	100.
14	11.3	3.8	3.3	2.2	2.7	4.9	9.6	7.4	13.5	11.0	2.7	2.7	2.7	4.1	8.2	9.6	00.0	100.
15	10.7	4.7	1.6	1.6	3.6	3.8	10.7	6.9	13.5	10.4	4.1	3.0	1.6	5.2	6.9	11.5	00.0	100.
16	11.0	5.5	2.7	2.2	3.6	3.0	9.1	8.2	12.4	8.5	5.2	2.7	2.5	4.7	6.9	11.8	00.0	100.
17	10.1	6.0	3.0	3.0	4.1	3.0	7.4	8.8	16.4	6.0	4.7	1.6	1.4	3.3	7.4	13.7	00.0	100.
18	9.3	5.5	2.7	2.5	3.8	3.0	7.7	11.5	16.2	5.8	3.0	1.4	2.5	3.0	8.2	13.7	.3	100.
19	8.2	4.9	2.7	2.2	3.8	3.6	8.2	9.9	15.1	7.1	2.5	2.2	3.0	4.9	8.5	12.6	.5	100.
20	8.8	4.7	3.3	2.2	1.4	4.1	5.5	9.9	14.0	7.7	3.9	3.3	3.3	5.8	7.7	13.2	1.1	100.
21	9.4	5.8	1.9	1.9	1.4	3.9	5.5	8.5	14.9	5.2	5.2	3.6	3.3	5.2	6.9	14.9	2.5	100.
22	11.0	6.6	1.1	2.5	2.5	2.2	4.7	8.8	16.0	7.7	3.9	2.5	3.0	4.7	8.6	11.9	2.2	100.
23	11.6	5.8	2.2	1.9	1.1	3.0	6.4	4.7	17.2	10.0	4.7	4.2	4.4	4.2	4.7	11.9	1.9	100.
24	11.0	2.5	3.0	.8	2.5	4.1	4.7	6.1	17.4	10.2	5.0	5.5	3.6	1.9	5.0	13.8	2.8	100.
ALL	9.8	5.5	2.5	2.2	2.6	3.7	7.2	8.1	15.2	8.2	4.0	3.2	3.0	4.4	8.1	11.2	1.2	100.

NUMBER OF OBS = 8705

B46

Wind Direction Frequencies

100-Meter Level

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JANUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL	
1	3.2	3.2	6.5	00.0	3.2	00.0	3.2	12.9	12.9	00.0	6.5	6.5	6.5	3.2	6.5	25.8	00.0	100.	
2	9.7	3.2	00.0	00.0	6.5	00.0	00.0	9.7	12.9	9.7	00.0	9.7	9.7	3.2	6.5	19.4	00.0	100.	
3	12.9	3.2	00.0	00.0	3.2	00.0	00.0	9.7	16.1	9.7	00.0	9.7	6.5	6.5	6.5	16.1	00.0	100.	
4	9.7	3.2	00.0	00.0	00.0	3.2	00.0	12.9	12.9	9.7	00.0	9.7	3.2	6.5	9.7	19.4	00.0	100.	
5	6.7	3.3	00.0	00.0	00.0	3.3	00.0	10.0	13.3	10.0	00.0	3.3	10.0	3.3	13.3	23.3	00.0	100.	
6	6.7	3.3	00.0	00.0	00.0	3.3	00.0	10.0	13.3	10.0	00.0	00.0	16.7	00.0	16.7	20.0	00.0	100.	
7	13.3	00.0	00.0	00.0	00.0	3.3	00.0	6.7	16.7	6.7	3.3	3.3	3.3	10.0	13.3	20.0	00.0	100.	
8	13.3	3.3	00.0	00.0	00.0	3.3	00.0	6.7	20.0	3.3	3.3	00.0	3.3	10.0	13.3	20.0	00.0	100.	
9	10.0	6.7	00.0	00.0	00.0	3.3	00.0	6.7	16.7	6.7	3.3	00.0	6.7	3.3	16.7	20.0	00.0	100.	
10	19.4	6.5	00.0	00.0	00.0	3.2	00.0	6.5	12.9	12.9	00.0	6.5	3.2	00.0	6.5	22.6	00.0	100.	
11	16.1	9.7	00.0	00.0	00.0	00.0	3.2	3.2	12.9	12.9	6.5	00.0	6.5	6.5	00.0	22.6	00.0	100.	
12	12.9	9.7	3.2	00.0	00.0	3.2	00.0	6.5	9.7	12.9	6.5	3.2	3.2	6.5	6.5	16.1	00.0	100.	
13	9.7	6.5	3.2	3.2	00.0	00.0	3.2	6.5	9.7	12.9	00.0	12.9	3.2	00.0	12.9	16.1	00.0	100.	
14	9.7	3.2	00.0	3.2	3.2	00.0	3.2	6.5	9.7	16.1	6.5	9.7	00.0	9.7	6.5	12.9	00.0	100.	
15	9.7	3.2	00.0	00.0	00.0	00.0	3.2	6.5	16.1	12.9	6.5	9.7	6.5	6.5	3.2	16.1	00.0	100.	
16	9.7	3.2	00.0	00.0	00.0	00.0	3.2	12.9	9.7	16.1	9.7	3.2	3.2	6.5	3.2	19.4	00.0	100.	
17	12.9	3.2	00.0	00.0	00.0	3.2	00.0	12.9	9.7	6.5	9.7	6.5	3.2	6.5	12.9	12.9	00.0	100.	
18	6.5	00.0	3.2	00.0	00.0	00.0	00.0	6.5	16.1	9.7	3.2	6.5	9.7	00.0	3.2	12.9	22.6	00.0	100.
19	12.9	00.0	00.0	00.0	3.2	00.0	6.5	12.9	16.1	3.2	3.2	3.2	6.5	6.5	6.5	19.4	00.0	100.	
20	3.2	9.7	00.0	00.0	3.2	00.0	6.5	9.7	12.9	9.7	3.2	3.2	00.0	6.5	12.9	19.4	00.0	100.	
21	3.2	9.7	00.0	00.0	00.0	3.2	3.2	9.7	12.9	9.7	6.5	00.0	3.2	6.5	12.9	19.4	00.0	100.	
22	9.7	3.2	3.2	3.2	00.0	3.2	3.2	6.5	16.1	9.7	6.5	00.0	3.2	3.2	9.7	19.4	00.0	100.	
23	3.2	6.5	3.2	00.0	00.0	3.2	6.5	6.5	16.1	6.5	6.5	3.2	3.2	3.2	6.5	25.8	00.0	100.	
24	00.0	6.5	00.0	3.2	00.0	00.0	9.7	9.7	9.7	00.0	19.4	3.2	3.2	3.2	3.2	29.0	00.0	100.	
ALL	9.3	4.6	.9	.5	.9	1.6	2.6	9.1	13.3	8.8	4.7	4.9	4.7	5.0	9.1	19.9	00.0	100.	

NUMBER OF OBS = 739

B48

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

FEBRUARY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.7	3.6	00.0	00.0	00.0	3.6	7.1	7.1	10.7	3.6	10.7	10.7	3.6	7.1	7.1	14.3	00.0	100.
2	10.7	7.1	00.0	00.0	3.6	3.6	00.0	7.1	10.7	7.1	7.1	10.7	3.6	3.6	7.1	17.9	00.0	100.
3	10.7	7.1	00.0	3.6	00.0	3.6	00.0	7.1	3.6	10.7	7.1	10.7	7.1	3.6	7.1	17.9	00.0	100.
4	17.9	3.6	00.0	00.0	00.0	3.6	3.6	3.6	00.0	14.3	7.1	10.7	3.6	7.1	7.1	17.9	00.0	100.
5	14.3	3.6	00.0	00.0	00.0	3.6	3.6	3.6	3.6	10.7	10.7	7.1	00.0	7.1	7.1	25.0	00.0	100.
6	17.9	3.6	00.0	00.0	00.0	3.6	3.6	7.1	00.0	14.3	7.1	3.6	00.0	10.7	14.3	14.3	00.0	100.
7	14.3	7.1	00.0	00.0	00.0	3.6	3.6	7.1	00.0	3.6	17.9	3.6	3.6	7.1	17.9	10.7	00.0	100.
8	17.9	00.0	3.6	00.0	00.0	3.6	3.6	3.6	00.0	00.0	21.4	3.6	7.1	00.0	21.4	14.3	00.0	100.
9	21.4	00.0	3.6	00.0	00.0	00.0	3.6	3.6	3.6	00.0	10.7	10.7	3.6	10.7	14.3	14.3	00.0	100.
10	25.0	00.0	00.0	3.6	00.0	00.0	3.6	3.6	3.6	00.0	10.7	00.0	14.3	7.1	17.9	10.7	00.0	100.
11	21.4	00.0	00.0	00.0	00.0	00.0	3.6	3.6	7.1	00.0	7.1	3.6	7.1	14.3	17.9	14.3	00.0	100.
12	17.9	7.1	3.6	00.0	00.0	00.0	00.0	7.1	7.1	00.0	7.1	7.1	7.1	7.1	14.3	14.3	00.0	100.
13	21.4	3.6	00.0	3.6	00.0	00.0	00.0	7.1	00.0	10.7	7.1	14.3	00.0	3.6	14.3	14.3	00.0	100.
14	25.0	3.6	00.0	00.0	00.0	00.0	00.0	3.6	3.6	7.1	7.1	17.9	3.6	00.0	17.9	10.7	00.0	100.
15	21.4	3.6	00.0	00.0	00.0	00.0	00.0	00.0	7.1	7.1	7.1	10.7	7.1	10.7	7.1	17.9	00.0	100.
16	21.4	3.6	00.0	00.0	00.0	00.0	00.0	00.0	7.1	7.1	14.3	10.7	7.1	00.0	7.1	21.4	00.0	100.
17	14.3	10.7	00.0	00.0	00.0	00.0	00.0	00.0	10.7	10.7	10.7	10.7	3.6	00.0	10.7	17.9	00.0	100.
18	10.7	7.1	3.6	00.0	00.0	00.0	00.0	3.6	14.3	10.7	14.3	00.0	3.6	00.0	10.7	21.4	00.0	100.
19	10.7	7.1	00.0	3.6	00.0	00.0	3.6	3.6	14.3	7.1	14.3	3.6	00.0	3.6	14.3	14.3	00.0	100.
20	14.3	7.1	00.0	00.0	3.6	00.0	3.6	7.1	10.7	7.1	10.7	3.6	3.6	3.6	14.3	10.7	00.0	100.
21	7.1	14.3	00.0	00.0	00.0	3.6	3.6	7.1	10.7	3.6	14.3	3.6	00.0	7.1	7.1	17.9	00.0	100.
22	7.1	10.7	3.6	00.0	00.0	3.6	3.6	00.0	14.3	3.6	17.9	7.1	00.0	3.6	7.1	17.9	00.0	100.
23	10.7	3.6	7.1	00.0	00.0	3.6	00.0	3.6	14.3	10.7	10.7	7.1	00.0	3.6	3.6	21.4	00.0	100.
24	10.7	3.6	00.0	00.0	3.6	7.1	00.0	7.1	10.7	7.1	7.1	14.3	00.0	3.6	7.1	17.9	00.0	100.
ALL	15.6	5.1	1.0	.6	.4	1.9	2.1	4.5	7.0	6.5	10.9	7.7	3.7	5.2	11.5	16.2	00.0	100.

NUMBER OF OBS = 672

B49

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

MARCH

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	6.5	6.5	00.0	3.2	6.5	00.0	3.2	6.5	9.7	6.5	12.9	00.0	00.0	6.5	25.8	00.0	100.
2	12.9	3.2	6.5	00.0	3.2	6.5	00.0	00.0	12.9	6.5	3.2	9.7	6.5	00.0	9.7	19.4	00.0	100.
3	9.7	6.5	6.5	00.0	6.5	3.2	00.0	00.0	12.9	3.2	9.7	3.2	6.5	3.2	9.7	19.4	00.0	100.
4	3.2	12.9	3.2	00.0	3.2	6.5	00.0	00.0	12.9	3.2	6.5	6.5	6.5	00.0	19.4	16.1	00.0	100.
5	3.2	9.7	6.5	00.0	3.2	6.5	00.0	00.0	9.7	6.5	3.2	9.7	3.2	00.0	25.8	12.9	00.0	100.
6	3.2	9.7	6.5	00.0	3.2	6.5	00.0	00.0	9.7	6.5	3.2	6.5	6.5	3.2	16.1	19.4	00.0	100.
7	3.2	6.5	9.7	00.0	3.2	6.5	00.0	3.2	6.5	6.5	3.2	6.5	3.2	6.5	12.9	22.6	00.0	100.
8	9.7	6.5	6.5	00.0	00.0	9.7	00.0	6.5	9.7	00.0	3.2	6.5	3.2	3.2	19.4	16.1	00.0	100.
9	12.9	6.5	6.5	00.0	00.0	3.2	6.5	9.7	6.5	3.2	3.2	6.5	00.0	3.2	19.4	12.9	00.0	100.
10	9.7	3.2	6.5	3.2	00.0	3.2	6.5	3.2	12.9	9.7	00.0	3.2	00.0	3.2	6.5	29.0	00.0	100.
11	6.5	9.7	6.5	3.2	00.0	3.2	6.5	3.2	16.1	6.5	00.0	00.0	3.2	00.0	16.1	19.4	00.0	100.
12	9.7	6.5	3.2	3.2	00.0	3.2	6.5	6.5	12.9	6.5	00.0	00.0	3.2	3.2	12.9	22.6	00.0	100.
13	9.7	3.2	3.2	3.2	00.0	3.2	9.7	00.0	9.7	9.7	3.2	3.2	00.0	3.2	12.9	25.8	00.0	100.
14	9.7	3.2	3.2	3.2	3.2	3.2	3.2	6.5	9.7	12.9	00.0	3.2	00.0	00.0	19.4	19.4	00.0	100.
15	16.1	6.5	3.2	3.2	00.0	3.2	6.5	3.2	6.5	9.7	6.5	6.5	00.0	00.0	16.1	12.9	00.0	100.
16	3.2	12.9	3.2	00.0	3.2	3.2	3.2	6.5	3.2	9.7	6.5	9.7	00.0	00.0	16.1	19.4	00.0	100.
17	6.5	6.5	3.2	3.2	3.2	3.2	3.2	6.5	9.7	6.5	00.0	6.5	00.0	6.5	9.7	25.8	00.0	100.
18	12.9	00.0	00.0	6.5	3.2	3.2	3.2	6.5	16.1	00.0	3.2	00.0	00.0	6.5	12.9	25.8	00.0	100.
19	12.9	6.5	00.0	3.2	6.5	3.2	3.2	12.9	6.5	3.2	3.2	00.0	00.0	6.5	9.7	22.6	00.0	100.
20	16.1	6.5	00.0	00.0	9.7	3.2	3.2	16.1	3.2	6.5	00.0	00.0	00.0	6.5	6.5	22.6	00.0	100.
21	12.9	6.5	00.0	3.2	3.2	6.5	00.0	22.6	3.2	3.2	00.0	00.0	6.5	6.5	3.2	22.6	00.0	100.
22	9.7	6.5	3.2	00.0	6.5	6.5	00.0	6.5	16.1	9.7	3.2	00.0	00.0	3.2	6.5	22.6	00.0	100.
23	9.7	6.5	3.2	00.0	3.2	6.5	3.2	3.2	16.1	16.1	00.0	00.0	3.2	3.2	6.5	19.4	00.0	100.
24	6.5	3.2	6.5	00.0	6.5	3.2	00.0	6.5	12.9	12.9	6.5	3.2	00.0	00.0	6.5	25.8	00.0	100.
ALL	9.0	6.5	4.3	1.5	3.1	4.7	2.7	5.5	10.1	7.0	3.1	4.3	2.2	2.8	12.5	20.8	00.0	100.

NUMBER OF OBS = 744

B50

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-MAR

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.7	4.4	4.4	00.0	2.2	3.3	3.3	7.8	10.0	4.4	7.8	10.0	3.3	3.3	6.7	22.2	00.0	100.
2	11.1	4.4	2.2	00.0	4.4	3.3	00.0	5.6	12.2	7.8	3.3	10.0	6.7	2.2	7.8	18.9	00.0	100.
3	11.1	5.6	2.2	1.1	3.3	2.2	00.0	5.6	11.1	7.8	5.6	7.8	6.7	4.4	7.8	17.8	00.0	100.
4	10.0	6.7	1.1	00.0	1.1	4.4	1.1	5.6	8.9	8.9	4.4	8.9	4.4	4.4	12.2	17.8	00.0	100.
5	7.9	5.6	2.2	00.0	1.1	4.5	1.1	4.5	9.0	9.0	4.5	6.7	4.5	3.4	15.7	20.2	00.0	100.
6	9.0	5.6	2.2	00.0	1.1	4.5	1.1	5.6	7.9	10.1	3.4	3.4	7.9	4.5	15.7	18.0	00.0	100.
7	10.1	4.5	3.4	00.0	1.1	4.5	1.1	5.6	7.9	5.6	7.9	4.5	3.4	7.9	14.6	18.0	00.0	100.
8	13.5	3.4	3.4	00.0	00.0	5.6	1.1	5.6	10.1	1.1	9.0	3.4	4.5	4.5	18.0	16.9	00.0	100.
9	14.6	4.5	3.4	00.0	00.0	2.2	3.4	6.7	9.0	3.4	5.6	5.6	3.4	5.6	16.9	15.7	00.0	100.
10	17.8	3.3	2.2	2.2	00.0	2.2	3.3	4.4	10.0	7.8	3.3	3.3	5.6	3.3	10.0	21.1	00.0	100.
11	14.4	6.7	2.2	1.1	00.0	1.1	4.4	3.3	12.2	6.7	4.4	1.1	5.6	6.7	11.1	18.9	00.0	100.
12	13.3	7.8	3.3	1.1	00.0	2.2	2.2	6.7	10.0	6.7	4.4	3.3	4.4	5.6	11.1	17.8	00.0	100.
13	13.3	4.4	2.2	3.3	00.0	1.1	4.4	4.4	6.7	11.1	3.3	10.0	1.1	2.2	13.3	18.9	00.0	100.
14	14.4	3.3	1.1	2.2	2.2	1.1	2.2	5.6	7.8	12.2	4.4	10.0	1.1	3.3	14.4	14.4	00.0	100.
15	15.6	4.4	1.1	1.1	00.0	1.1	3.3	3.3	10.0	10.0	6.7	8.9	4.4	5.6	8.9	15.6	00.0	100.
16	11.1	6.7	1.1	00.0	1.1	1.1	2.2	6.7	6.7	11.1	10.0	7.8	3.3	2.2	8.9	20.0	00.0	100.
17	11.1	6.7	1.1	1.1	1.1	2.2	1.1	6.7	10.0	7.8	6.7	7.8	2.2	4.4	11.1	18.9	00.0	100.
18	10.0	2.2	2.2	2.2	1.1	1.1	3.3	8.9	13.3	4.4	7.8	3.3	1.1	3.3	12.2	23.3	00.0	100.
19	12.2	4.4	00.0	2.2	3.3	1.1	4.4	10.0	12.2	4.4	6.7	2.2	2.2	5.6	10.0	18.9	00.0	100.
20	11.1	7.8	00.0	00.0	5.6	1.1	4.4	11.1	8.9	7.8	4.4	2.2	1.1	5.6	11.1	17.8	00.0	100.
21	7.8	10.0	00.0	1.1	1.1	4.4	2.2	13.3	8.9	5.6	6.7	1.1	3.3	6.7	7.8	20.0	00.0	100.
22	8.9	6.7	3.3	1.1	2.2	4.4	2.2	4.4	15.6	7.8	8.9	2.2	1.1	3.3	7.8	20.0	00.0	100.
23	7.8	5.6	4.4	00.0	1.1	4.4	3.3	4.4	15.6	11.1	5.6	3.3	2.2	3.3	5.6	22.2	00.0	100.
24	5.6	4.4	2.2	1.1	3.3	3.3	3.3	7.8	11.1	6.7	11.1	6.7	1.1	2.2	5.6	24.4	00.0	100.
ALL	11.2	5.4	2.1	.9	1.5	2.8	2.5	6.4	10.2	7.5	6.1	5.6	3.5	4.3	11.0	19.1	00.0	100.

NUMBER OF OBS = 2155

BS1

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

APRIL

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.7	3.3	3.3	6.7	00.0	3.3	10.0	10.0	20.0	00.0	00.0	3.3	3.3	10.0	6.7	13.3	00.0	100.
2	13.3	3.3	00.0	00.0	3.3	10.0	16.7	3.3	16.7	3.3	00.0	00.0	6.7	10.0	6.7	6.7	00.0	100.
3	6.7	6.7	00.0	00.0	6.7	00.0	16.7	10.0	13.3	00.0	3.3	6.7	3.3	3.3	16.7	6.7	00.0	100.
4	10.0	00.0	3.3	00.0	6.7	3.3	13.3	10.0	10.0	3.3	00.0	6.7	6.7	3.3	13.3	10.0	00.0	100.
5	13.3	00.0	00.0	00.0	3.3	13.3	6.7	13.3	10.0	3.3	3.3	3.3	6.7	00.0	13.3	10.0	00.0	100.
6	6.7	3.3	00.0	00.0	00.0	10.0	10.0	20.0	6.7	3.3	00.0	10.0	3.3	00.0	13.3	13.3	00.0	100.
7	00.0	6.7	00.0	00.0	00.0	3.3	16.7	13.3	10.0	3.3	00.0	6.7	6.7	00.0	16.7	16.7	00.0	100.
8	3.3	6.7	00.0	3.3	3.3	10.0	10.0	13.3	10.0	00.0	3.3	6.7	6.7	00.0	13.3	10.0	00.0	100.
9	00.0	6.7	00.0	00.0	00.0	13.3	13.3	10.0	16.7	3.3	00.0	3.3	10.0	00.0	13.3	10.0	00.0	100.
10	3.3	3.3	00.0	00.0	3.3	6.7	3.3	13.3	23.3	3.3	3.3	6.7	00.0	6.7	6.7	16.7	00.0	100.
11	00.0	6.7	00.0	3.3	00.0	3.3	6.7	13.3	20.0	6.7	00.0	10.0	3.3	3.3	10.0	13.3	00.0	100.
12	00.0	6.7	3.3	00.0	3.3	00.0	13.3	6.7	16.7	3.3	6.7	6.7	6.7	3.3	13.3	10.0	00.0	100.
13	3.3	6.7	00.0	3.3	3.3	00.0	13.3	6.7	16.7	6.7	3.3	6.7	6.7	3.3	10.0	10.0	00.0	100.
14	3.3	3.3	3.3	00.0	6.7	00.0	10.0	10.0	20.0	6.7	00.0	3.3	6.7	6.7	16.7	3.3	00.0	100.
15	3.3	3.3	00.0	00.0	6.7	3.3	10.0	13.3	13.3	6.7	00.0	3.3	6.7	3.3	16.7	10.0	00.0	100.
16	3.3	6.7	00.0	00.0	3.3	6.7	6.7	13.3	13.3	6.7	00.0	3.3	3.3	13.3	6.7	13.3	00.0	100.
17	00.0	6.7	00.0	00.0	3.3	10.0	6.7	13.3	13.3	3.3	00.0	3.3	00.0	13.3	16.7	10.0	00.0	100.
18	00.0	3.3	3.3	00.0	6.7	3.3	10.0	13.3	13.3	3.3	00.0	3.3	00.0	10.0	13.3	16.7	00.0	100.
19	6.7	3.3	3.3	00.0	3.3	6.7	13.3	10.0	13.3	00.0	00.0	3.3	3.3	13.3	6.7	13.3	00.0	100.
20	3.3	6.7	3.3	00.0	00.0	13.3	13.3	6.7	10.0	00.0	00.0	00.0	6.7	16.7	13.3	6.7	00.0	100.
21	6.7	00.0	3.3	3.3	00.0	13.3	3.3	13.3	6.7	00.0	00.0	6.7	10.0	10.0	16.7	6.7	00.0	100.
22	6.7	3.3	3.3	00.0	00.0	10.0	16.7	6.7	6.7	00.0	00.0	3.3	10.0	13.3	6.7	13.3	00.0	100.
23	10.0	3.3	00.0	6.7	00.0	10.0	10.0	6.7	13.3	00.0	3.3	3.3	6.7	10.0	10.0	6.7	00.0	100.
24	6.7	00.0	3.3	3.3	00.0	3.3	16.7	6.7	16.7	3.3	00.0	00.0	10.0	10.0	6.7	13.3	00.0	100.
ALL	4.9	4.2	1.4	1.3	2.6	6.5	11.1	10.7	13.8	2.9	1.1	4.6	5.6	6.8	11.8	10.8	00.0	100.

NUMBER OF OBS = 720

BS2

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

MAY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	6.5	6.5	9.7	9.7	3.2	6.5	12.9	9.7	6.5	3.2	00.0	00.0	3.2	6.5	9.7	00.0	100.
2	9.7	3.2	12.9	6.5	3.2	12.9	9.7	9.7	9.7	6.5	00.0	00.0	00.0	9.7	00.0	6.5	00.0	100.
3	6.5	6.5	3.2	6.5	9.7	16.1	6.5	9.7	12.9	6.5	00.0	00.0	6.5	3.2	00.0	6.5	00.0	100.
4	9.7	6.5	9.7	6.5	00.0	9.7	9.7	12.9	12.9	12.9	00.0	00.0	3.2	3.2	00.0	3.2	00.0	100.
5	9.7	12.9	6.5	00.0	3.2	3.2	9.7	22.6	3.2	9.7	3.2	3.2	3.2	6.5	00.0	3.2	00.0	100.
6	12.9	00.0	12.9	3.2	3.2	00.0	6.5	22.6	12.9	00.0	6.5	00.0	6.5	3.2	3.2	6.5	00.0	100.
7	6.5	9.7	6.5	3.2	3.2	3.2	6.5	25.8	12.9	00.0	00.0	3.2	6.5	6.5	00.0	6.5	00.0	100.
8	16.1	00.0	6.5	3.2	6.5	3.2	3.2	16.1	19.4	3.2	00.0	3.2	3.2	12.9	00.0	3.2	00.0	100.
9	6.5	3.2	3.2	6.5	9.7	00.0	3.2	12.9	22.6	00.0	3.2	00.0	9.7	3.2	6.5	9.7	00.0	100.
10	6.5	3.2	3.2	6.5	9.7	00.0	6.5	3.2	19.4	9.7	3.2	3.2	00.0	6.5	3.2	16.1	00.0	100.
11	3.2	3.2	6.5	3.2	6.5	6.5	3.2	9.7	22.6	3.2	3.2	3.2	3.2	3.2	3.2	16.1	00.0	100.
12	6.5	3.2	00.0	9.7	00.0	6.5	16.1	00.0	12.9	12.9	3.2	00.0	6.5	6.5	3.2	12.9	00.0	100.
13	6.5	3.2	3.2	6.5	00.0	9.7	6.5	12.9	12.9	6.5	00.0	3.2	3.2	9.7	00.0	16.1	00.0	100.
14	9.7	3.2	3.2	6.5	00.0	6.5	3.2	3.2	25.8	9.7	00.0	3.2	3.2	9.7	00.0	12.9	00.0	100.
15	12.9	3.2	3.2	6.5	6.5	00.0	3.2	3.2	19.4	9.7	6.5	3.2	3.2	3.2	6.5	9.7	00.0	100.
16	12.9	3.2	9.7	6.5	6.5	00.0	3.2	6.5	16.1	12.9	00.0	3.2	3.2	3.2	3.2	9.7	00.0	100.
17	9.7	12.9	3.2	9.7	6.5	00.0	6.5	3.2	22.6	3.2	6.5	3.2	00.0	3.2	3.2	6.5	00.0	100.
18	6.5	12.9	3.2	9.7	6.5	00.0	6.5	3.2	22.6	3.2	6.5	00.0	00.0	00.0	3.2	16.1	00.0	100.
19	9.7	3.2	9.7	9.7	3.2	6.5	6.5	3.2	29.0	3.2	00.0	00.0	00.0	00.0	00.0	16.1	00.0	100.
20	16.1	3.2	6.5	12.9	00.0	6.5	6.5	12.9	25.8	00.0	00.0	00.0	00.0	00.0	00.0	9.7	00.0	100.
21	12.9	3.2	9.7	12.9	00.0	6.5	9.7	16.1	16.1	3.2	00.0	00.0	00.0	00.0	00.0	9.7	00.0	100.
22	16.1	6.5	9.7	9.7	3.2	3.2	12.9	12.9	16.1	3.2	00.0	00.0	3.2	00.0	00.0	3.2	00.0	100.
23	16.1	6.5	9.7	3.2	12.9	00.0	6.5	12.9	19.4	3.2	3.2	00.0	00.0	3.2	00.0	3.2	00.0	100.
24	12.9	6.5	12.9	3.2	6.5	3.2	9.7	12.9	12.9	6.5	00.0	3.2	00.0	00.0	3.2	6.5	00.0	100.
ALL	10.1	5.2	6.7	6.7	4.8	4.4	7.0	10.9	17.1	5.6	2.0	1.5	2.7	4.2	1.9	9.1	00.0	100.

NUMBER OF OBS = 744

BS3

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUNE

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	10.0	00.0	00.0	3.3	3.3	13.3	20.0	10.0	10.0	20.0	3.3	00.0	3.3	00.0	00.0	3.3	00.0	100.
2	6.7	3.3	3.3	3.3	3.3	3.3	13.3	10.0	13.3	20.0	13.3	00.0	3.3	00.0	00.0	3.3	00.0	100.
3	10.0	3.3	3.3	00.0	3.3	00.0	13.3	3.3	23.3	13.3	10.0	10.0	3.3	00.0	00.0	3.3	00.0	100.
4	3.3	3.3	00.0	3.3	00.0	6.7	10.0	6.7	23.3	20.0	3.3	6.7	3.3	00.0	3.3	6.7	00.0	100.
5	3.3	00.0	00.0	3.3	00.0	3.3	10.0	10.0	16.7	13.3	13.3	3.3	00.0	10.0	00.0	13.3	00.0	100.
6	10.0	3.3	00.0	3.3	00.0	3.3	6.7	13.3	20.0	6.7	10.0	6.7	00.0	3.3	6.7	6.7	00.0	100.
7	3.3	3.3	3.3	3.3	00.0	00.0	13.3	13.3	13.3	10.0	6.7	6.7	3.3	00.0	13.3	6.7	00.0	100.
8	10.0	6.7	10.0	00.0	00.0	00.0	6.7	10.0	20.0	10.0	10.0	3.3	3.3	00.0	3.3	6.7	00.0	100.
9	6.7	6.7	3.3	3.3	00.0	3.3	10.0	6.7	13.3	16.7	10.0	3.3	3.3	00.0	00.0	10.0	3.3	100.
10	10.0	3.3	00.0	3.3	3.3	6.7	6.7	13.3	10.0	20.0	3.3	3.3	3.3	00.0	6.7	6.7	00.0	100.
11	10.0	3.3	6.7	3.3	6.7	10.0	6.7	6.7	10.0	20.0	3.3	3.3	3.3	00.0	00.0	6.7	00.0	100.
12	13.3	3.3	3.3	00.0	3.3	13.3	6.7	6.7	13.3	16.7	3.3	3.3	3.3	3.3	00.0	6.7	00.0	100.
13	13.3	3.3	00.0	3.3	00.0	6.7	16.7	6.7	20.0	13.3	00.0	3.3	3.3	00.0	00.0	10.0	00.0	100.
14	6.7	3.3	3.3	00.0	3.3	10.0	16.7	3.3	16.7	10.0	3.3	00.0	00.0	3.3	3.3	16.7	00.0	100.
15	10.0	00.0	00.0	00.0	3.3	6.7	16.7	10.0	16.7	10.0	3.3	00.0	00.0	00.0	3.3	20.0	00.0	100.
16	00.0	3.3	3.3	00.0	3.3	6.7	13.3	6.7	16.7	16.7	3.3	00.0	00.0	00.0	6.7	20.0	00.0	100.
17	6.7	10.0	00.0	00.0	6.7	6.7	6.7	13.3	23.3	6.7	3.3	00.0	00.0	00.0	00.0	16.7	00.0	100.
18	6.7	3.3	3.3	00.0	6.7	3.3	13.3	10.0	20.0	10.0	3.3	00.0	00.0	3.3	3.3	13.3	00.0	100.
19	00.0	3.3	3.3	00.0	3.3	13.3	10.0	6.7	16.7	16.7	00.0	00.0	6.7	00.0	00.0	20.0	00.0	100.
20	10.0	3.3	3.3	6.7	3.3	6.7	10.0	16.7	13.3	16.7	3.3	00.0	00.0	00.0	00.0	6.7	00.0	100.
21	10.0	00.0	3.3	3.3	3.3	10.0	13.3	10.0	23.3	10.0	00.0	3.3	00.0	00.0	00.0	6.7	3.3	100.
22	6.7	00.0	3.3	6.7	3.3	6.7	13.3	13.3	26.7	6.7	3.3	00.0	3.3	00.0	00.0	6.7	00.0	100.
23	6.7	00.0	00.0	3.3	6.7	6.7	6.7	13.3	16.7	16.7	6.7	6.7	00.0	00.0	3.3	6.7	00.0	100.
24	3.3	00.0	3.3	00.0	6.7	10.0	13.3	13.3	16.7	16.7	6.7	3.3	00.0	00.0	00.0	6.7	00.0	100.
ALL	7.4	2.9	2.5	2.2	3.1	6.5	11.4	9.7	17.2	14.0	5.3	2.8	1.9	1.0	2.2	9.6	.3	100.

NUMBER OF OBS = 720

BS4

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

APR-JUN

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	7.7	3.3	3.3	6.6	4.4	6.6	12.1	11.0	13.2	8.8	2.2	1.1	2.2	4.4	4.4	8.8	00.0	100.
2	9.9	3.3	5.5	3.3	3.3	8.8	13.2	7.7	13.2	9.9	4.4	00.0	3.3	6.6	2.2	5.5	00.0	100.
3	7.7	5.5	2.2	2.2	6.6	5.5	12.1	7.7	16.5	6.6	4.4	5.5	4.4	2.2	5.5	5.5	00.0	100.
4	7.7	3.3	4.4	3.3	2.2	6.6	11.0	9.9	15.4	12.1	1.1	4.4	4.4	2.2	5.5	6.6	00.0	100.
5	8.8	4.4	2.2	1.1	2.2	6.6	8.8	15.4	9.9	8.8	6.6	3.3	3.3	5.5	4.4	8.8	00.0	100.
6	9.9	2.2	4.4	2.2	1.1	4.4	7.7	18.7	13.2	3.3	5.5	5.5	3.3	2.2	7.7	8.8	00.0	100.
7	3.3	6.6	3.3	2.2	1.1	2.2	12.1	17.6	12.1	4.4	2.2	5.5	5.5	2.2	9.9	9.9	00.0	100.
8	9.9	4.4	5.5	2.2	3.3	4.4	6.6	13.2	16.5	4.4	4.4	4.4	4.4	4.4	5.5	6.6	00.0	100.
9	4.4	5.5	2.2	3.3	3.3	5.5	8.8	9.9	17.6	6.6	4.4	2.2	7.7	1.1	6.6	9.9	1.1	100.
10	6.6	3.3	1.1	3.3	5.5	4.4	5.5	9.9	17.6	11.0	3.3	4.4	1.1	4.4	5.5	13.2	00.0	100.
11	4.4	4.4	4.4	3.3	4.4	6.6	5.5	9.9	17.6	9.9	2.2	5.5	3.3	2.2	4.4	12.1	00.0	100.
12	6.6	4.4	2.2	3.3	2.2	6.6	12.1	4.4	14.3	11.0	4.4	3.3	5.5	4.4	5.5	9.9	00.0	100.
13	7.7	4.4	1.1	4.4	1.1	5.5	12.1	8.8	16.5	8.8	1.1	4.4	4.4	4.4	3.3	12.1	00.0	100.
14	6.6	3.3	3.3	2.2	3.3	5.5	9.9	5.5	20.9	8.8	1.1	2.2	3.3	6.6	6.6	11.0	00.0	100.
15	8.8	2.2	1.1	2.2	5.5	3.3	9.9	8.8	16.5	8.8	3.3	2.2	3.3	2.2	8.8	13.2	00.0	100.
16	5.5	4.4	4.4	2.2	4.4	4.4	7.7	8.8	15.4	12.1	1.1	2.2	2.2	5.5	5.5	14.3	00.0	100.
17	5.5	9.9	1.1	3.3	5.5	5.5	6.6	9.9	19.8	4.4	3.3	2.2	00.0	5.5	6.6	11.0	00.0	100.
18	4.4	6.6	3.3	3.3	6.6	2.2	9.9	8.8	18.7	5.5	3.3	1.1	00.0	4.4	6.6	15.4	00.0	100.
19	5.5	3.3	5.5	3.3	3.3	8.8	9.9	6.6	19.8	6.6	00.0	1.1	3.3	4.4	2.2	16.5	00.0	100.
20	9.9	4.4	4.4	6.6	1.1	8.8	9.9	12.1	16.5	5.5	1.1	00.0	2.2	5.5	4.4	7.7	00.0	100.
21	9.9	1.1	5.5	6.6	1.1	9.9	8.8	13.2	15.4	4.4	00.0	3.3	3.3	3.3	5.5	7.7	1.1	100.
22	9.9	3.3	5.5	5.5	2.2	6.6	14.3	11.0	16.5	3.3	1.1	1.1	5.5	4.4	2.2	7.7	00.0	100.
23	11.0	3.3	3.3	4.4	6.6	5.5	7.7	11.0	16.5	6.6	4.4	3.3	2.2	4.4	4.4	5.5	00.0	100.
24	7.7	2.2	6.6	2.2	4.4	5.5	13.2	11.0	15.4	8.8	2.2	2.2	3.3	3.3	3.3	8.8	00.0	100.
ALL	7.5	4.1	3.6	3.4	3.5	5.8	9.8	10.4	16.0	7.5	2.8	2.9	3.4	4.0	5.3	9.8	.1	100.

NUMBER OF OBS = 2184

BSS

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-JUN

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	7.2	3.9	3.9	3.3	3.3	5.0	7.7	9.4	11.6	6.6	5.0	5.5	2.8	3.9	5.5	15.5	00.0	100.
2	10.5	3.9	3.9	1.7	3.9	6.1	6.6	6.6	12.7	8.8	3.9	5.0	5.0	4.4	5.0	12.2	00.0	100.
3	9.4	5.5	2.2	1.7	5.0	3.9	6.1	6.6	13.8	7.2	5.0	6.6	5.5	3.3	6.6	11.6	00.0	100.
4	8.8	5.0	2.8	1.7	1.7	5.5	6.1	7.7	12.2	10.5	2.8	6.6	4.4	3.3	8.8	12.2	00.0	100.
5	8.3	5.0	2.2	.6	1.7	5.6	5.0	10.0	9.4	8.9	5.6	5.0	3.9	4.4	10.0	14.4	00.0	100.
6	9.4	3.9	3.3	1.1	1.1	4.4	4.4	12.2	10.6	6.7	4.4	4.4	5.6	3.3	11.7	13.3	00.0	100.
7	6.7	5.6	3.3	1.1	1.1	3.3	6.7	11.7	10.0	5.0	5.0	5.0	4.4	5.0	12.2	13.9	00.0	100.
8	11.7	3.9	4.4	1.1	1.7	5.0	3.9	9.4	13.3	2.8	6.7	3.9	4.4	4.4	11.7	11.7	00.0	100.
9	9.4	5.0	2.8	1.7	1.7	3.9	6.1	8.3	13.3	5.0	5.0	3.9	5.6	3.3	11.7	12.8	.6	100.
10	12.2	3.3	1.7	2.8	2.8	3.3	4.4	7.2	13.8	9.4	3.3	3.9	3.3	3.9	7.7	17.1	00.0	100.
11	9.4	5.5	3.3	2.2	2.2	3.9	5.0	6.6	14.9	8.3	3.3	3.3	4.4	4.4	7.7	15.5	00.0	100.
12	9.9	6.1	2.8	2.2	1.1	4.4	7.2	5.5	12.2	8.8	4.4	3.3	5.0	5.0	8.3	13.8	00.0	100.
13	10.5	4.4	1.7	3.9	.6	3.3	8.3	6.6	11.6	9.9	2.2	7.2	2.8	3.3	8.3	15.5	00.0	100.
14	10.5	3.3	2.2	2.2	2.8	3.3	6.1	5.5	14.4	10.5	2.8	6.1	2.2	5.0	10.5	12.7	00.0	100.
15	12.2	3.3	1.1	1.7	2.8	2.2	6.6	6.1	13.3	9.4	5.0	5.5	3.9	3.9	8.8	14.4	00.0	100.
16	8.3	5.5	2.8	1.1	2.8	2.8	5.0	7.7	11.0	11.6	5.5	5.0	2.8	3.9	7.2	17.1	00.0	100.
17	8.3	8.3	1.1	2.2	3.3	3.9	3.9	8.3	14.9	6.1	5.0	5.0	1.1	5.0	8.8	14.9	00.0	100.
18	7.2	4.4	2.8	2.8	3.9	1.7	6.6	8.8	16.0	5.0	5.5	2.2	.6	3.9	9.4	19.3	00.0	100.
19	8.8	3.9	2.8	2.8	3.3	5.0	7.2	8.3	16.0	5.5	3.3	1.7	2.8	5.0	6.1	17.7	00.0	100.
20	10.5	6.1	2.2	3.3	3.3	5.0	7.2	11.6	12.7	6.6	2.8	1.1	1.7	5.5	7.7	12.7	00.0	100.
21	8.8	5.5	2.8	3.9	1.1	7.2	5.5	13.3	12.2	5.0	3.3	2.2	3.3	5.0	6.6	13.8	.6	100.
22	9.4	5.0	4.4	3.3	2.2	5.5	8.3	7.7	16.0	5.5	5.0	1.7	3.3	3.9	5.0	13.8	00.0	100.
23	9.4	4.4	3.9	2.2	3.9	5.0	5.5	7.7	16.0	8.8	5.0	3.3	2.2	3.9	5.0	13.8	00.0	100.
24	6.6	3.3	4.4	1.7	3.9	4.4	8.3	9.4	13.3	7.7	6.6	4.4	2.2	2.8	4.4	16.6	00.0	100.
ALL	9.3	4.7	2.9	2.2	2.5	4.3	6.2	8.4	13.1	7.5	4.4	4.2	3.5	4.1	8.1	14.4	.0	100.

NUMBER OF OBS = 4339

B56

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JULY

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	00.0	9.7	3.2	00.0	9.7	6.5	6.5	19.4	9.7	12.9	6.5	6.5	3.2	00.0	3.2	3.2	00.0	100.
2	00.0	3.2	9.7	00.0	00.0	19.4	3.2	19.4	3.2	12.9	3.2	9.7	9.7	00.0	00.0	6.5	00.0	100.
3	3.2	6.5	3.2	6.5	00.0	3.2	12.9	19.4	9.7	9.7	6.5	6.5	3.2	3.2	3.2	3.2	00.0	100.
4	3.2	6.5	3.2	00.0	6.5	3.2	9.7	6.5	16.1	3.2	9.7	12.9	00.0	9.7	00.0	9.7	00.0	100.
5	6.5	3.2	3.2	3.2	6.5	3.2	9.7	9.7	16.1	3.2	00.0	9.7	3.2	3.2	9.7	9.7	00.0	100.
6	6.5	00.0	9.7	3.2	3.2	3.2	9.7	3.2	16.1	6.5	9.7	3.2	6.5	3.2	3.2	12.9	00.0	100.
7	6.5	00.0	12.9	6.5	3.2	3.2	9.7	3.2	12.9	12.9	3.2	00.0	3.2	6.5	00.0	16.1	00.0	100.
8	12.9	3.2	3.2	12.9	00.0	00.0	9.7	6.5	16.1	12.9	00.0	3.2	00.0	3.2	3.2	12.9	00.0	100.
9	12.9	9.7	00.0	6.5	9.7	6.5	3.2	3.2	16.1	16.1	00.0	9.7	00.0	00.0	00.0	6.5	00.0	100.
10	9.7	12.9	3.2	3.2	9.7	00.0	9.7	3.2	12.9	12.9	3.2	9.7	00.0	00.0	00.0	9.7	00.0	100.
11	3.2	16.1	6.5	00.0	6.5	00.0	19.4	00.0	12.9	12.9	9.7	00.0	00.0	3.2	3.2	6.5	00.0	100.
12	00.0	16.1	6.5	00.0	16.1	00.0	16.1	00.0	12.9	16.1	3.2	3.2	00.0	00.0	3.2	6.5	00.0	100.
13	00.0	16.1	3.2	3.2	12.9	3.2	12.9	3.2	16.1	12.9	3.2	3.2	00.0	00.0	00.0	9.7	00.0	100.
14	6.5	12.9	00.0	6.5	3.2	9.7	9.7	3.2	19.4	9.7	6.5	00.0	3.2	00.0	00.0	9.7	00.0	100.
15	6.5	6.5	00.0	3.2	9.7	12.9	3.2	6.5	16.1	16.1	3.2	00.0	00.0	00.0	3.2	12.9	00.0	100.
16	00.0	9.7	3.2	9.7	9.7	3.2	6.5	6.5	16.1	9.7	00.0	3.2	00.0	3.2	3.2	16.1	00.0	100.
17	00.0	6.5	3.2	12.9	3.2	6.5	6.5	6.5	19.4	9.7	00.0	6.5	00.0	00.0	00.0	19.4	00.0	100.
18	3.2	3.2	3.2	9.7	9.7	3.2	9.7	16.1	16.1	3.2	3.2	3.2	00.0	00.0	3.2	12.9	00.0	100.
19	6.5	6.5	3.2	3.2	9.7	9.7	16.1	12.9	9.7	6.5	3.2	3.2	00.0	00.0	3.2	6.5	00.0	100.
20	3.2	12.9	6.5	6.5	3.2	6.5	25.8	6.5	9.7	3.2	3.2	3.2	00.0	00.0	3.2	6.5	00.0	100.
21	3.2	12.9	9.7	6.5	9.7	00.0	16.1	12.9	12.9	3.2	00.0	3.2	00.0	00.0	3.2	6.5	00.0	100.
22	00.0	19.4	00.0	6.5	16.1	3.2	16.1	12.9	12.9	00.0	3.2	00.0	00.0	3.2	00.0	6.5	00.0	100.
23	00.0	9.7	12.9	6.5	6.5	9.7	12.9	16.1	9.7	6.5	3.2	00.0	3.2	00.0	00.0	3.2	00.0	100.
24	00.0	6.5	6.5	6.5	6.5	9.7	3.2	22.6	9.7	19.4	3.2	3.2	00.0	00.0	00.0	3.2	00.0	100.
ALL	3.9	8.7	4.8	5.1	7.1	5.2	10.8	9.1	13.4	9.7	3.6	4.3	1.5	1.6	2.0	9.0	00.0	100.

NUMBER OF OBS = 744

BS7

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

AUGUST

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	3.2	6.5	6.5	3.2	6.5	3.2	6.5	12.9	19.4	16.1	6.5	3.2	3.2	00.0	00.0	3.2	00.0	100.
2	3.2	3.2	6.5	6.5	3.2	6.5	3.2	9.7	25.8	12.9	6.5	3.2	6.5	00.0	3.2	00.0	00.0	100.
3	3.2	3.2	9.7	3.2	00.0	6.5	6.5	6.5	22.6	16.1	3.2	3.2	6.5	6.5	3.2	00.0	00.0	100.
4	3.2	3.2	3.2	9.7	3.2	9.7	00.0	9.7	12.9	19.4	6.5	00.0	3.2	9.7	3.2	3.2	00.0	100.
5	6.5	3.2	6.5	6.5	00.0	12.9	00.0	9.7	9.7	16.1	6.5	6.5	3.2	6.5	3.2	3.2	00.0	100.
6	6.5	00.0	9.7	6.5	3.2	9.7	00.0	6.5	16.1	16.1	3.2	3.2	00.0	9.7	3.2	6.5	00.0	100.
7	3.2	00.0	9.7	16.1	3.2	3.2	6.5	3.2	12.9	16.1	9.7	00.0	00.0	3.2	6.5	6.5	00.0	100.
8	6.7	3.3	10.0	10.0	10.0	00.0	6.7	00.0	16.7	10.0	6.7	3.3	3.3	00.0	6.7	6.7	00.0	100.
9	6.7	6.7	3.3	16.7	3.3	00.0	10.0	3.3	16.7	10.0	6.7	3.3	00.0	6.7	3.3	3.3	00.0	100.
10	13.3	00.0	6.7	6.7	3.3	6.7	13.3	3.3	20.0	3.3	16.7	00.0	00.0	00.0	6.7	00.0	00.0	100.
11	6.7	3.3	6.7	6.7	10.0	10.0	3.3	13.3	16.7	10.0	6.7	00.0	00.0	00.0	3.3	3.3	00.0	100.
12	16.7	00.0	6.7	10.0	00.0	10.0	6.7	10.0	16.7	10.0	6.7	00.0	3.3	00.0	3.3	00.0	00.0	100.
13	6.7	3.3	10.0	6.7	00.0	6.7	10.0	16.7	20.0	3.3	00.0	00.0	00.0	10.0	00.0	6.7	00.0	100.
14	10.0	6.7	10.0	00.0	6.7	3.3	16.7	13.3	20.0	6.7	00.0	00.0	00.0	3.3	00.0	3.3	00.0	100.
15	10.0	13.3	00.0	00.0	6.7	10.0	13.3	10.0	26.7	00.0	3.3	00.0	00.0	00.0	00.0	6.7	00.0	100.
16	16.7	6.7	3.3	6.7	3.3	3.3	13.3	10.0	23.3	3.3	3.3	00.0	00.0	3.3	00.0	3.3	00.0	100.
17	19.4	12.9	6.5	3.2	6.5	3.2	9.7	22.6	16.1	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	100.
18	9.7	6.5	12.9	3.2	3.2	3.2	16.1	22.6	16.1	00.0	00.0	00.0	00.0	00.0	00.0	6.5	00.0	100.
19	6.5	9.7	6.5	9.7	6.5	3.2	12.9	19.4	16.1	00.0	3.2	00.0	00.0	00.0	00.0	6.5	00.0	100.
20	9.7	9.7	6.5	9.7	6.5	3.2	12.9	22.6	6.5	3.2	3.2	00.0	00.0	00.0	3.2	3.2	00.0	100.
21	6.5	00.0	12.9	12.9	6.5	6.5	12.9	12.9	19.4	3.2	00.0	00.0	00.0	00.0	3.2	3.2	00.0	100.
22	3.2	3.2	16.1	9.7	3.2	6.5	16.1	9.7	22.6	3.2	00.0	00.0	00.0	00.0	3.2	3.2	00.0	100.
23	3.2	3.2	12.9	9.7	6.5	3.2	9.7	19.4	22.6	6.5	00.0	00.0	00.0	00.0	00.0	3.2	00.0	100.
24	00.0	6.5	9.7	6.5	3.2	6.5	9.7	9.7	35.5	6.5	3.2	00.0	00.0	00.0	00.0	3.2	00.0	100.
ALL	7.5	4.8	8.0	7.5	4.4	5.7	9.0	11.6	18.8	8.0	4.2	1.1	1.2	2.4	2.3	3.5	00.0	100.

NUMBER OF OBS = 735

B58

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

SEPTEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	13.3	00.0	3.3	3.3	6.7	6.7	10.0	30.0	13.3	00.0	3.3	00.0	3.3	00.0	00.0	6.7	00.0	100.
2	10.0	00.0	3.3	6.7	00.0	6.7	16.7	20.0	13.3	3.3	6.7	00.0	00.0	3.3	00.0	10.0	00.0	100.
3	6.7	3.3	00.0	6.7	3.3	6.7	13.3	23.3	13.3	6.7	3.3	00.0	00.0	00.0	6.7	6.7	00.0	100.
4	6.7	3.3	00.0	3.3	3.3	10.0	13.3	23.3	13.3	00.0	10.0	00.0	00.0	00.0	3.3	10.0	00.0	100.
5	6.7	3.3	00.0	6.7	00.0	6.7	16.7	13.3	16.7	6.7	3.3	3.3	00.0	00.0	6.7	10.0	00.0	100.
6	13.3	6.7	00.0	3.3	6.7	10.0	10.0	16.7	13.3	3.3	00.0	6.7	00.0	00.0	00.0	10.0	00.0	100.
7	13.3	3.3	00.0	6.7	10.0	6.7	6.7	20.0	13.3	3.3	00.0	3.3	3.3	00.0	3.3	6.7	00.0	100.
8	16.7	00.0	00.0	3.3	10.0	10.0	10.0	10.0	10.0	10.0	3.3	00.0	00.0	6.7	6.7	3.3	00.0	100.
9	10.0	3.3	00.0	00.0	10.0	10.0	13.3	13.3	10.0	3.3	6.7	00.0	3.3	3.3	6.7	6.7	00.0	100.
10	3.3	10.0	00.0	00.0	6.7	10.0	20.0	10.0	10.0	10.0	00.0	3.3	00.0	00.0	13.3	3.3	00.0	100.
11	13.3	00.0	3.3	00.0	6.7	3.3	26.7	6.7	13.3	6.7	3.3	3.3	00.0	00.0	6.7	6.7	00.0	100.
12	13.3	3.3	3.3	3.3	3.3	10.0	20.0	13.3	6.7	6.7	00.0	3.3	3.3	00.0	3.3	6.7	00.0	100.
13	10.0	3.3	3.3	00.0	13.3	6.7	23.3	13.3	3.3	3.3	3.3	00.0	00.0	3.3	00.0	13.3	00.0	100.
14	10.0	3.3	10.0	00.0	10.0	6.7	20.0	20.0	3.3	3.3	00.0	00.0	3.3	00.0	00.0	10.0	00.0	100.
15	10.0	3.3	3.3	6.7	6.7	10.0	16.7	20.0	6.7	3.3	00.0	00.0	00.0	3.3	00.0	10.0	00.0	100.
16	6.7	00.0	3.3	3.3	10.0	13.3	13.3	20.0	3.3	6.7	00.0	00.0	00.0	3.3	00.0	16.7	00.0	100.
17	10.0	3.3	3.3	6.7	10.0	10.0	13.3	20.0	6.7	3.3	00.0	00.0	00.0	3.3	3.3	6.7	00.0	100.
18	10.0	00.0	3.3	6.7	3.3	16.7	16.7	20.0	3.3	3.3	00.0	00.0	00.0	3.3	00.0	13.3	00.0	100.
19	13.3	00.0	00.0	6.7	6.7	13.3	23.3	13.3	3.3	3.3	00.0	00.0	00.0	00.0	3.3	13.3	00.0	100.
20	13.3	00.0	00.0	10.0	6.7	13.3	23.3	13.3	6.7	00.0	00.0	00.0	00.0	3.3	3.3	6.7	00.0	100.
21	10.0	3.3	00.0	6.7	00.0	23.3	20.0	16.7	3.3	00.0	3.3	00.0	00.0	00.0	00.0	13.3	00.0	100.
22	6.7	6.7	00.0	6.7	6.7	16.7	20.0	13.3	10.0	00.0	3.3	00.0	00.0	00.0	00.0	10.0	00.0	100.
23	6.7	6.7	3.3	3.3	3.3	10.0	23.3	16.7	10.0	3.3	3.3	00.0	00.0	00.0	00.0	10.0	00.0	100.
24	13.3	3.3	3.3	3.3	3.3	6.7	23.3	20.0	6.7	3.3	3.3	3.3	00.0	00.0	00.0	6.7	00.0	100.
ALL	10.3	2.9	1.9	4.3	6.1	10.1	17.2	16.9	8.9	3.9	2.4	1.1	.7	1.4	2.8	9.0	00.0	100.

NUMBER OF OBS = 720

BS9

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUL-SEP

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	5.4	5.4	4.3	2.2	7.6	5.4	7.6	20.7	14.1	9.8	5.4	3.3	3.3	00.0	1.1	4.3	00.0	100.
2	4.3	2.2	6.5	4.3	1.1	10.9	7.6	16.3	14.1	9.8	5.4	4.3	5.4	1.1	1.1	5.4	00.0	100.
3	4.3	4.3	4.3	5.4	1.1	5.4	10.9	16.3	15.2	10.9	4.3	3.3	3.3	3.3	4.3	3.3	00.0	100.
4	4.3	4.3	2.2	4.3	4.3	7.6	7.6	13.0	14.1	7.6	8.7	4.3	1.1	6.5	2.2	7.6	00.0	100.
5	6.5	3.3	3.3	5.4	2.2	7.6	8.7	10.9	14.1	8.7	3.3	6.5	2.2	3.3	6.5	7.6	00.0	100.
6	8.7	2.2	6.5	4.3	4.3	7.6	6.5	8.7	15.2	8.7	4.3	4.3	2.2	4.3	2.2	9.8	00.0	100.
7	7.6	1.1	7.6	9.8	5.4	4.3	7.6	8.7	13.0	10.9	4.3	1.1	2.2	3.3	3.3	9.8	00.0	100.
8	12.1	2.2	4.4	8.8	6.6	3.3	8.8	5.5	14.3	11.0	3.3	2.2	1.1	3.3	5.5	7.7	00.0	100.
9	9.9	6.6	1.1	7.7	7.7	5.5	8.8	6.6	14.3	9.9	4.4	4.4	1.1	3.3	3.3	5.5	00.0	100.
10	8.8	7.7	3.3	3.3	6.6	5.5	14.3	5.5	14.3	8.8	6.6	4.4	00.0	00.0	6.6	4.4	00.0	100.
11	7.7	6.6	5.5	2.2	7.7	4.4	16.5	6.6	14.3	9.9	6.6	1.1	00.0	1.1	4.4	5.5	00.0	100.
12	9.9	6.6	5.5	4.4	6.6	6.6	14.3	7.7	12.1	11.0	3.3	2.2	2.2	00.0	3.3	4.4	00.0	100.
13	5.5	7.7	5.5	3.3	8.8	5.5	15.4	11.0	13.2	6.6	2.2	1.1	00.0	4.4	00.0	9.9	00.0	100.
14	8.8	7.7	6.6	2.2	6.6	6.6	15.4	12.1	14.3	6.6	2.2	00.0	2.2	1.1	00.0	7.7	00.0	100.
15	8.8	7.7	1.1	3.3	7.7	11.0	11.0	12.1	16.5	6.6	2.2	00.0	00.0	1.1	1.1	9.9	00.0	100.
16	7.7	5.5	3.3	6.6	7.7	6.6	11.0	12.1	14.3	6.6	1.1	1.1	00.0	3.3	1.1	12.1	00.0	100.
17	9.8	7.6	4.3	7.6	6.5	6.5	9.8	16.3	14.1	4.3	00.0	2.2	00.0	1.1	1.1	8.7	00.0	100.
18	7.6	3.3	6.5	6.5	5.4	7.6	14.1	19.6	12.0	2.2	1.1	1.1	00.0	1.1	1.1	10.9	00.0	100.
19	8.7	5.4	3.3	6.5	7.6	8.7	17.4	15.2	9.8	3.3	2.2	1.1	00.0	00.0	2.2	8.7	00.0	100.
20	8.7	7.6	4.3	8.7	5.4	7.6	20.7	14.1	7.6	2.2	2.2	1.1	00.0	1.1	3.3	5.4	00.0	100.
21	6.5	5.4	7.6	8.7	5.4	9.8	16.3	14.1	12.0	2.2	1.1	1.1	00.0	00.0	2.2	7.6	00.0	100.
22	3.3	9.8	5.4	7.6	8.7	8.7	17.4	12.0	15.2	1.1	2.2	00.0	00.0	1.1	1.1	6.5	00.0	100.
23	3.3	6.5	9.8	6.5	5.4	7.6	15.2	17.4	14.1	5.4	2.2	00.0	1.1	00.0	00.0	5.4	00.0	100.
24	4.3	5.4	6.5	5.4	4.3	7.6	12.0	17.4	17.4	9.8	3.3	2.2	00.0	00.0	00.0	4.3	00.0	100.
ALL	7.2	5.5	5.0	5.6	5.9	7.0	12.3	12.5	13.7	7.2	3.4	2.2	1.1	1.8	2.4	7.2	00.0	100.

NUMBER OF OBS = 2199

B60

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

OCTOBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.5	3.2	00.0	00.0	3.2	12.9	9.7	12.9	6.5	3.2	6.5	00.0	6.5	6.5	9.7	12.9	00.0	100.
2	6.5	00.0	3.2	3.2	00.0	6.5	16.1	6.5	9.7	6.5	6.5	3.2	6.5	3.2	16.1	6.5	00.0	100.
3	3.2	3.2	00.0	00.0	3.2	3.2	22.6	00.0	12.9	3.2	6.5	3.2	6.5	3.2	9.7	19.4	00.0	100.
4	3.2	3.2	00.0	00.0	3.2	6.5	19.4	00.0	9.7	9.7	00.0	6.5	9.7	6.5	3.2	19.4	00.0	100.
5	6.5	00.0	00.0	00.0	3.2	6.5	19.4	00.0	6.5	9.7	00.0	12.9	6.5	6.5	3.2	19.4	00.0	100.
6	3.2	3.2	00.0	3.2	00.0	6.5	12.9	3.2	6.5	3.2	9.7	6.5	6.5	12.9	6.5	16.1	00.0	100.
7	3.2	00.0	3.2	00.0	3.2	9.7	6.5	6.5	6.5	3.2	9.7	3.2	9.7	9.7	9.7	16.1	00.0	100.
8	6.5	00.0	00.0	00.0	3.2	9.7	6.5	9.7	3.2	6.5	6.5	6.5	3.2	12.9	12.9	12.9	00.0	100.
9	3.2	00.0	3.2	3.2	00.0	6.5	9.7	9.7	3.2	9.7	3.2	6.5	00.0	12.9	12.9	16.1	00.0	100.
10	3.2	3.2	00.0	3.2	3.2	00.0	16.1	3.2	9.7	9.7	3.2	6.5	00.0	12.9	19.4	6.5	00.0	100.
11	3.2	6.5	00.0	6.5	00.0	6.5	12.9	3.2	9.7	6.5	3.2	6.5	3.2	6.5	9.7	16.1	00.0	100.
12	00.0	3.2	6.5	00.0	00.0	6.5	12.9	3.2	12.9	3.2	6.5	9.7	3.2	3.2	16.1	12.9	00.0	100.
13	3.2	3.2	3.2	00.0	6.5	3.2	12.9	3.2	12.9	3.2	6.5	3.2	12.9	6.5	9.7	9.7	00.0	100.
14	9.7	00.0	00.0	00.0	00.0	6.5	16.1	3.2	16.1	3.2	3.2	9.7	9.7	6.5	6.5	9.7	00.0	100.
15	12.9	00.0	00.0	00.0	00.0	3.2	19.4	6.5	9.7	3.2	3.2	6.5	6.5	16.1	6.5	6.5	00.0	100.
16	12.9	00.0	00.0	00.0	00.0	3.2	19.4	9.7	6.5	6.5	3.2	00.0	6.5	9.7	12.9	9.7	00.0	100.
17	9.7	00.0	00.0	00.0	00.0	6.5	12.9	9.7	9.7	6.5	3.2	6.5	3.2	3.2	16.1	12.9	00.0	100.
18	6.5	00.0	00.0	00.0	3.2	6.5	9.7	16.1	6.5	00.0	9.7	3.2	00.0	3.2	12.9	22.6	00.0	100.
19	9.7	00.0	00.0	3.2	3.2	3.2	16.1	16.1	6.5	3.2	3.2	00.0	00.0	9.7	6.5	19.4	00.0	100.
20	9.7	00.0	00.0	00.0	6.5	9.7	12.9	12.9	3.2	3.2	3.2	3.2	00.0	9.7	6.5	19.4	00.0	100.
21	9.7	3.2	00.0	00.0	6.5	9.7	9.7	6.5	16.1	3.2	6.5	00.0	3.2	9.7	3.2	12.9	00.0	100.
22	16.1	00.0	00.0	3.2	3.2	12.9	6.5	6.5	16.1	3.2	9.7	00.0	3.2	6.5	3.2	9.7	00.0	100.
23	6.5	3.2	00.0	00.0	6.5	12.9	12.9	00.0	19.4	6.5	3.2	3.2	3.2	6.5	00.0	16.1	00.0	100.
24	6.5	3.2	00.0	00.0	3.2	6.5	19.4	3.2	12.9	9.7	3.2	3.2	6.5	3.2	6.5	12.9	00.0	100.
ALL	6.7	1.6	.8	1.1	2.6	6.9	13.8	6.3	9.7	5.2	5.0	4.6	4.8	7.8	9.1	14.0	00.0	100.

NUMBER OF OBS = 744

B61

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

NOVEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.7	3.3	00.0	00.0	00.0	10.0	3.3	3.3	20.0	10.0	6.7	6.7	00.0	6.7	3.3	20.0	00.0	100.
2	6.7	3.3	00.0	00.0	00.0	6.7	6.7	3.3	23.3	6.7	10.0	3.3	00.0	6.7	3.3	20.0	00.0	100.
3	00.0	6.7	00.0	00.0	00.0	6.7	3.3	6.7	20.0	10.0	6.7	6.7	00.0	10.0	00.0	23.3	00.0	100.
4	00.0	00.0	3.3	3.3	00.0	6.7	3.3	6.7	23.3	3.3	6.7	10.0	00.0	6.7	3.3	23.3	00.0	100.
5	00.0	00.0	3.3	00.0	3.3	3.3	3.3	10.0	23.3	3.3	6.7	6.7	3.3	10.0	6.7	16.7	00.0	100.
6	00.0	00.0	3.3	00.0	3.3	00.0	6.7	16.7	20.0	00.0	6.7	3.3	6.7	13.3	3.3	16.7	00.0	100.
7	00.0	00.0	3.3	00.0	3.3	00.0	3.3	23.3	13.3	00.0	6.7	6.7	3.3	16.7	10.0	10.0	00.0	100.
8	3.3	00.0	00.0	3.3	00.0	00.0	3.3	13.3	20.0	6.7	00.0	00.0	10.0	16.7	13.3	10.0	00.0	100.
9	00.0	00.0	00.0	3.3	00.0	00.0	6.7	20.0	6.7	6.7	00.0	3.3	3.3	20.0	10.0	20.0	00.0	100.
10	3.3	00.0	00.0	3.3	00.0	00.0	6.7	6.7	16.7	6.7	3.3	00.0	3.3	16.7	23.3	10.0	00.0	100.
11	6.7	00.0	00.0	3.3	00.0	00.0	6.7	3.3	23.3	6.7	00.0	00.0	3.3	3.3	26.7	16.7	00.0	100.
12	6.7	00.0	00.0	00.0	3.3	00.0	3.3	10.0	16.7	6.7	3.3	6.7	00.0	3.3	23.3	16.7	00.0	100.
13	00.0	3.3	00.0	00.0	3.3	00.0	6.7	6.7	16.7	13.3	00.0	3.3	3.3	10.0	16.7	16.7	00.0	100.
14	3.3	00.0	00.0	00.0	3.3	00.0	6.7	6.7	16.7	13.3	3.3	00.0	00.0	10.0	23.3	13.3	00.0	100.
15	3.3	3.3	00.0	00.0	3.3	00.0	6.7	13.3	10.0	16.7	00.0	00.0	00.0	3.3	20.0	20.0	00.0	100.
16	10.0	00.0	00.0	00.0	3.3	00.0	10.0	13.3	6.7	16.7	00.0	00.0	00.0	10.0	13.3	16.7	00.0	100.
17	3.3	3.3	00.0	00.0	3.3	6.7	3.3	16.7	13.3	6.7	00.0	00.0	00.0	6.7	16.7	20.0	00.0	100.
18	3.3	3.3	00.0	3.3	3.3	3.3	3.3	16.7	10.0	10.0	00.0	00.0	3.3	6.7	20.0	13.3	00.0	100.
19	3.3	3.3	3.3	00.0	3.3	00.0	6.7	20.0	6.7	10.0	00.0	3.3	3.3	3.3	13.3	20.0	00.0	100.
20	6.7	00.0	3.3	00.0	3.3	00.0	6.7	16.7	10.0	10.0	00.0	6.7	3.3	3.3	10.0	20.0	00.0	100.
21	3.3	6.7	00.0	00.0	3.3	3.3	3.3	16.7	10.0	10.0	00.0	6.7	6.7	00.0	10.0	20.0	00.0	100.
22	6.7	3.3	00.0	3.3	00.0	3.3	6.7	13.3	6.7	10.0	3.3	3.3	6.7	3.3	10.0	20.0	00.0	100.
23	6.7	3.3	00.0	3.3	00.0	6.7	3.3	10.0	13.3	6.7	6.7	6.7	3.3	3.3	3.3	23.3	00.0	100.
24	6.7	3.3	00.0	00.0	3.3	6.7	3.3	10.0	13.3	10.0	6.7	6.7	00.0	3.3	10.0	16.7	00.0	100.
ALL	3.8	1.9	.8	1.1	1.9	2.6	5.1	11.8	15.0	8.3	3.2	3.8	2.6	8.1	12.2	17.6	00.0	100.

NUMBER OF OBS = 720

B62

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
 VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

DECEMBER

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	00.0	6.5	3.2	00.0	00.0	9.7	3.2	9.7	16.1	6.5	00.0	3.2	3.2	12.9	16.1	9.7	00.0	100.
2	00.0	3.2	6.5	00.0	00.0	6.5	6.5	12.9	6.5	12.9	00.0	3.2	00.0	16.1	6.5	19.4	00.0	100.
3	3.2	3.2	3.2	3.2	00.0	6.5	3.2	12.9	12.9	6.5	3.2	3.2	00.0	12.9	19.4	6.5	00.0	100.
4	00.0	6.5	3.2	3.2	00.0	6.5	3.2	16.1	12.9	00.0	3.2	6.5	00.0	12.9	19.4	6.5	00.0	100.
5	00.0	6.5	00.0	6.5	3.2	3.2	3.2	9.7	16.1	6.5	00.0	3.2	9.7	9.7	16.1	6.5	00.0	100.
6	00.0	3.2	3.2	3.2	6.5	3.2	3.2	9.7	19.4	6.5	00.0	3.2	00.0	16.1	16.1	6.5	00.0	100.
7	00.0	00.0	3.2	3.2	6.5	6.5	6.5	9.7	19.4	00.0	00.0	6.5	00.0	16.1	6.5	16.1	00.0	100.
8	3.2	00.0	3.2	00.0	6.5	6.5	6.5	12.9	12.9	3.2	3.2	3.2	00.0	22.6	9.7	6.5	00.0	100.
9	00.0	00.0	6.5	00.0	3.2	9.7	6.5	12.9	9.7	9.7	3.2	00.0	3.2	12.9	12.9	9.7	00.0	100.
10	3.2	3.2	3.2	00.0	00.0	12.9	3.2	12.9	6.5	6.5	12.9	3.2	00.0	9.7	12.9	9.7	00.0	100.
11	00.0	3.2	00.0	3.2	00.0	6.5	9.7	12.9	6.5	9.7	3.2	9.7	6.5	6.5	12.9	9.7	00.0	100.
12	6.5	00.0	00.0	3.2	3.2	6.5	9.7	3.2	19.4	6.5	00.0	3.2	9.7	9.7	16.1	3.2	00.0	100.
13	6.5	00.0	00.0	3.2	00.0	9.7	3.2	12.9	12.9	12.9	3.2	00.0	00.0	12.9	16.1	6.5	00.0	100.
14	6.5	3.2	00.0	3.2	00.0	6.5	6.5	12.9	9.7	19.4	00.0	00.0	00.0	9.7	16.1	6.5	00.0	100.
15	6.5	00.0	00.0	3.2	6.5	3.2	6.5	9.7	12.9	19.4	00.0	00.0	00.0	12.9	12.9	6.5	00.0	100.
16	12.9	00.0	00.0	00.0	3.2	9.7	6.5	6.5	16.1	6.5	6.5	3.2	00.0	16.1	9.7	3.2	00.0	100.
17	9.7	00.0	00.0	00.0	00.0	12.9	9.7	3.2	19.4	3.2	6.5	3.2	00.0	12.9	19.4	00.0	00.0	100.
18	6.5	3.2	00.0	00.0	6.5	6.5	9.7	3.2	22.6	00.0	00.0	12.9	3.2	9.7	9.7	6.5	00.0	100.
19	6.5	3.2	00.0	3.2	00.0	9.7	6.5	12.9	9.7	3.2	6.5	3.2	3.2	12.9	16.1	3.2	00.0	100.
20	6.5	3.2	00.0	00.0	00.0	9.7	6.5	12.9	9.7	6.5	3.2	3.2	3.2	6.5	19.4	9.7	00.0	100.
21	3.2	6.5	00.0	00.0	00.0	9.7	3.2	19.4	6.5	9.7	00.0	3.2	6.5	6.5	12.9	12.9	00.0	100.
22	3.2	6.5	00.0	00.0	3.2	6.5	3.2	9.7	16.1	6.5	6.5	00.0	6.5	6.5	16.1	9.7	00.0	100.
23	3.2	3.2	3.2	00.0	00.0	6.5	6.5	6.5	12.9	9.7	3.2	6.5	3.2	16.1	9.7	9.7	00.0	100.
24	3.2	3.2	3.2	00.0	00.0	9.7	00.0	3.2	19.4	6.5	3.2	6.5	6.5	9.7	12.9	12.9	00.0	100.
ALL	3.8	2.8	1.7	1.6	2.0	7.7	5.5	10.3	13.6	7.4	2.8	3.8	2.7	12.1	14.0	8.2	00.0	100.

NUMBER OF OBS = 744

B63

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

OCT-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	4.3	4.3	1.1	00.0	1.1	10.9	5.4	8.7	14.1	6.5	4.3	3.3	3.3	8.7	9.8	14.1	00.0	100.
2	4.3	2.2	3.3	1.1	00.0	6.5	9.8	7.6	13.0	8.7	5.4	3.3	2.2	8.7	8.7	15.2	00.0	100.
3	2.2	4.3	1.1	1.1	1.1	5.4	9.8	6.5	15.2	6.5	5.4	4.3	2.2	8.7	9.8	16.3	00.0	100.
4	1.1	3.3	2.2	2.2	1.1	6.5	8.7	7.6	15.2	4.3	3.3	7.6	3.3	8.7	8.7	16.3	00.0	100.
5	2.2	2.2	1.1	2.2	3.3	4.3	8.7	6.5	15.2	6.5	2.2	7.6	6.5	8.7	8.7	14.1	00.0	100.
6	1.1	2.2	2.2	2.2	3.3	3.3	7.6	9.8	15.2	3.3	5.4	4.3	4.3	14.1	8.7	13.0	00.0	100.
7	1.1	00.0	3.3	1.1	4.3	5.4	5.4	13.0	13.0	1.1	5.4	5.4	4.3	14.1	8.7	14.1	00.0	100.
8	4.3	00.0	1.1	1.1	3.3	5.4	5.4	12.0	12.0	5.4	3.3	3.3	4.3	17.4	12.0	9.8	00.0	100.
9	1.1	00.0	3.3	2.2	1.1	5.4	7.6	14.1	6.5	8.7	2.2	3.3	2.2	15.2	12.0	15.2	00.0	100.
10	3.3	2.2	1.1	2.2	1.1	4.3	8.7	7.6	10.9	7.6	6.5	3.3	1.1	13.0	18.5	8.7	00.0	100.
11	3.3	3.3	00.0	4.3	00.0	4.3	9.8	6.5	13.0	7.6	2.2	5.4	4.3	5.4	16.3	14.1	00.0	100.
12	4.3	1.1	2.2	1.1	2.2	4.3	8.7	5.4	16.3	5.4	3.3	6.5	4.3	5.4	18.5	10.9	00.0	100.
13	3.3	2.2	1.1	1.1	3.3	4.3	7.6	7.6	14.1	9.8	3.3	2.2	5.4	9.8	14.1	10.9	00.0	100.
14	6.5	1.1	00.0	1.1	1.1	4.3	9.8	7.6	14.1	12.0	2.2	3.3	3.3	8.7	15.2	9.8	00.0	100.
15	7.6	1.1	00.0	1.1	3.3	2.2	10.9	9.8	10.9	13.0	1.1	2.2	2.2	10.9	13.0	10.9	00.0	100.
16	12.0	00.0	00.0	00.0	2.2	4.3	12.0	9.8	9.8	9.8	3.3	1.1	2.2	12.0	12.0	9.8	00.0	100.
17	7.6	1.1	00.0	00.0	1.1	8.7	8.7	9.8	14.1	5.4	3.3	3.3	1.1	7.6	17.4	10.9	00.0	100.
18	5.4	2.2	00.0	1.1	4.3	5.4	7.6	12.0	13.0	3.3	3.3	5.4	2.2	6.5	14.1	14.1	00.0	100.
19	6.5	2.2	1.1	2.2	2.2	4.3	9.8	16.3	7.6	5.4	3.3	2.2	2.2	8.7	12.0	14.1	00.0	100.
20	7.6	1.1	1.1	00.0	3.3	6.5	8.7	14.1	7.6	6.5	2.2	4.3	2.2	6.5	12.0	16.3	00.0	100.
21	5.4	5.4	00.0	00.0	3.3	7.6	5.4	14.1	10.9	7.6	2.2	3.3	5.4	5.4	8.7	15.2	00.0	100.
22	8.7	3.3	00.0	2.2	2.2	7.6	5.4	9.8	13.0	6.5	6.5	1.1	5.4	5.4	9.8	13.0	00.0	100.
23	5.4	3.3	1.1	1.1	2.2	8.7	7.6	5.4	15.2	7.6	4.3	5.4	3.3	8.7	4.3	16.3	00.0	100.
24	5.4	3.3	1.1	00.0	2.2	7.6	7.6	5.4	15.2	8.7	4.3	5.4	4.3	5.4	9.8	14.1	00.0	100.
ALL	4.8	2.1	1.1	1.3	2.2	5.8	8.2	9.5	12.7	7.0	3.7	4.0	3.4	9.3	11.8	13.2	00.0	100.

NUMBER OF OBS = 2208

B64

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JUL-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	4.9	4.9	2.7	1.1	4.3	8.2	6.5	14.7	14.1	8.2	4.9	3.3	3.3	4.3	5.4	9.2	00.0	100.
2	4.3	2.2	4.9	2.7	.5	8.7	8.7	12.0	13.6	9.2	5.4	3.8	3.8	4.9	4.9	10.3	00.0	100.
3	3.3	4.3	2.7	3.3	1.1	5.4	10.3	11.4	15.2	8.7	4.9	3.8	2.7	6.0	7.1	9.8	00.0	100.
4	2.7	3.8	2.2	3.3	2.7	7.1	8.2	10.3	14.7	6.0	6.0	6.0	2.2	7.6	5.4	12.0	00.0	100.
5	4.3	2.7	2.2	3.8	2.7	6.0	8.7	8.7	14.7	7.6	2.7	7.1	4.3	6.0	7.6	10.9	00.0	100.
6	4.9	2.2	4.3	3.3	3.8	5.4	7.1	9.2	15.2	6.0	4.9	4.3	3.3	9.2	5.4	11.4	00.0	100.
7	4.3	.5	5.4	5.4	4.9	4.9	6.5	10.9	13.0	6.0	4.9	3.3	3.3	8.7	6.0	12.0	00.0	100.
8	8.2	1.1	2.7	4.9	4.9	4.4	7.1	8.7	13.1	8.2	3.3	2.7	2.7	10.4	8.7	8.7	00.0	100.
9	5.5	3.3	2.2	4.9	4.4	5.5	8.2	10.4	10.4	9.3	3.3	3.8	1.6	9.3	7.7	10.4	00.0	100.
10	6.0	4.9	2.2	2.7	3.8	4.9	11.5	6.6	12.6	8.2	6.6	3.8	.5	6.6	12.6	6.6	00.0	100.
11	5.5	4.9	2.7	3.3	3.8	4.4	13.1	6.6	13.7	8.7	4.4	3.3	2.2	3.3	10.4	9.8	00.0	100.
12	7.1	3.8	3.8	2.7	4.4	5.5	11.5	6.6	14.2	8.2	3.3	4.4	3.3	2.7	10.9	7.7	00.0	100.
13	4.4	4.9	3.3	2.2	6.0	4.9	11.5	9.3	13.7	8.2	2.7	1.6	2.7	7.1	7.1	10.4	00.0	100.
14	7.7	4.4	3.3	1.6	3.8	5.5	12.6	9.8	14.2	9.3	2.2	1.6	2.7	4.9	7.7	8.7	00.0	100.
15	8.2	4.4	.5	2.2	5.5	6.6	10.9	10.9	13.7	9.8	1.6	1.1	1.1	6.0	7.1	10.4	00.0	100.
16	9.8	2.7	1.6	3.3	4.9	5.5	11.5	10.9	12.0	8.2	2.2	1.1	1.1	7.7	6.6	10.9	00.0	100.
17	8.7	4.3	2.2	3.8	3.8	7.6	9.2	13.0	14.1	4.9	1.6	2.7	.5	4.3	9.2	9.8	00.0	100.
18	6.5	2.7	3.3	3.8	4.9	6.5	10.9	15.8	12.5	2.7	2.2	3.3	1.1	3.8	7.6	12.5	00.0	100.
19	7.6	3.8	2.2	4.3	4.9	6.5	13.6	15.8	8.7	4.3	2.7	1.6	1.1	4.3	7.1	11.4	00.0	100.
20	8.2	4.3	2.7	4.3	4.3	7.1	14.7	14.1	7.6	4.3	2.2	2.7	1.1	3.8	7.6	10.9	00.0	100.
21	6.0	5.4	3.8	4.3	4.3	8.7	10.9	14.1	11.4	4.9	1.6	2.2	2.7	2.7	5.4	11.4	00.0	100.
22	6.0	6.5	2.7	4.9	5.4	8.2	11.4	10.9	14.1	3.8	4.3	.5	2.7	3.3	5.4	9.8	00.0	100.
23	4.3	4.9	5.4	3.8	3.8	8.2	11.4	11.4	14.7	6.5	3.3	2.7	2.2	4.3	2.2	10.9	00.0	100.
24	4.9	4.3	3.8	2.7	3.3	7.6	9.8	11.4	16.3	9.2	3.8	3.8	2.2	2.7	4.9	9.2	00.0	100.
ALL	6.0	3.8	3.0	3.4	4.0	6.4	10.2	11.0	13.2	7.1	3.5	3.1	2.3	5.6	7.1	10.2	00.0	100.

NUMBER OF OBS = 4407

B65

NPPD-COOPER NUCLEAR STATION 100-M WIND DIRECTION 2022

PROGRAM: WINPER
VERSION: PC-1.0

HOURLY WIND ROSES (PERCENT)

JAN-DEC

WIND DIRECTION

HR. OF DAY	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	TOTAL
1	6.0	4.4	3.3	2.2	3.8	6.6	7.1	12.1	12.9	7.4	4.9	4.4	3.0	4.1	5.5	12.3	00.0	100.
2	7.4	3.0	4.4	2.2	2.2	7.4	7.7	9.3	13.2	9.0	4.7	4.4	4.4	4.7	4.9	11.2	00.0	100.
3	6.3	4.9	2.5	2.5	3.0	4.7	8.2	9.0	14.5	7.9	4.9	5.2	4.1	4.7	6.8	10.7	00.0	100.
4	5.8	4.4	2.5	2.5	2.2	6.3	7.1	9.0	13.4	8.2	4.4	6.3	3.3	5.5	7.1	12.1	00.0	100.
5	6.3	3.8	2.2	2.2	2.2	5.8	6.9	9.3	12.1	8.2	4.1	6.0	4.1	5.2	8.8	12.6	00.0	100.
6	7.1	3.0	3.8	2.2	2.5	4.9	5.8	10.7	12.9	6.3	4.7	4.4	4.4	6.3	8.5	12.4	00.0	100.
7	5.5	3.0	4.4	3.3	3.0	4.1	6.6	11.3	11.5	5.5	4.9	4.1	3.8	6.9	9.1	12.9	00.0	100.
8	9.9	2.5	3.6	3.0	3.3	4.7	5.5	9.1	13.2	5.5	5.0	3.3	3.6	7.4	10.2	10.2	00.0	100.
9	7.4	4.1	2.5	3.3	3.0	4.7	7.2	9.4	11.8	7.2	4.1	3.9	3.6	6.3	9.6	11.6	.3	100.
10	9.1	4.1	1.9	2.7	3.3	4.1	8.0	6.9	13.2	8.8	4.9	3.8	1.9	5.2	10.2	11.8	00.0	100.
11	7.4	5.2	3.0	2.7	3.0	4.1	9.1	6.6	14.3	8.5	3.8	3.3	3.3	3.8	9.1	12.6	00.0	100.
12	8.5	4.9	3.3	2.5	2.7	4.9	9.3	6.0	13.2	8.5	3.8	3.8	4.1	3.8	9.6	10.7	00.0	100.
13	7.4	4.7	2.5	3.0	3.3	4.1	9.9	8.0	12.6	9.1	2.5	4.4	2.7	5.2	7.7	12.9	00.0	100.
14	9.1	3.8	2.7	1.9	3.3	4.4	9.3	7.7	14.3	9.9	2.5	3.8	2.5	4.9	9.1	10.7	00.0	100.
15	10.2	3.8	.8	1.9	4.1	4.4	8.8	8.5	13.5	9.6	3.3	3.3	2.5	4.9	8.0	12.4	00.0	100.
16	9.1	4.1	2.2	2.2	3.8	4.1	8.2	9.3	11.5	9.9	3.8	3.0	1.9	5.8	6.9	14.0	00.0	100.
17	8.5	6.3	1.6	3.0	3.6	5.8	6.6	10.7	14.5	5.5	3.3	3.8	.8	4.7	9.0	12.3	00.0	100.
18	6.8	3.6	3.0	3.3	4.4	4.1	8.8	12.3	14.2	3.8	3.8	2.7	.8	3.8	8.5	15.9	00.0	100.
19	8.2	3.8	2.5	3.6	4.1	5.8	10.4	12.1	12.3	4.9	3.0	1.6	1.9	4.7	6.6	14.5	00.0	100.
20	9.3	5.2	2.5	3.8	3.8	6.0	11.0	12.9	10.1	5.5	2.5	1.9	1.4	4.7	7.7	11.8	00.0	100.
21	7.4	5.5	3.3	4.1	2.7	7.9	8.2	13.7	11.8	4.9	2.5	2.2	3.0	3.8	6.0	12.6	.3	100.
22	7.7	5.8	3.6	4.1	3.8	6.8	9.9	9.3	15.1	4.7	4.7	1.1	3.0	3.6	5.2	11.8	00.0	100.
23	6.8	4.7	4.7	3.0	3.8	6.6	8.5	9.6	15.3	7.7	4.1	3.0	2.2	4.1	3.6	12.3	00.0	100.
24	5.8	3.8	4.1	2.2	3.6	6.0	9.0	10.4	14.8	8.5	5.2	4.1	2.2	2.7	4.7	12.9	00.0	100.
ALL	7.6	4.3	2.9	2.8	3.3	5.4	8.2	9.7	13.2	7.3	4.0	3.7	2.9	4.9	7.6	12.3	.0	100.

NUMBER OF OBS = 8746

B66

Precipitation

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	1	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	3	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	1	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	14	.00 .00	.00 .01	.00 .03	.00 .00	.00 .03	.00 .05	.00 .03	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.16
22	1	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	16	.00 .00	.00 .01	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03
22	1	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B68

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	1	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	27	.00 .00	.00 .00	.00 .00	.00 .02	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	1	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	1	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B69

MONTH OF JANUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 11
TOTAL DAYS WITH PRECIPITATION - 4
TOTAL AMOUNT OF PRECIPITATION - .22 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .05 INCHES
MAXIMUM DAILY PRECIPITATION - .16 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 14 HOUR 18 - .05 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 14 HOUR 15 - .15 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 14 HOUR 14 - .16 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 14 HOUR 14 - .16 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 14 HOUR 14 - .16 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 481
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 1
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - .01 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .01 INCHES
MAXIMUM DAILY PRECIPITATION - .01 INCHES

MONTH OF JANUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	11	32	56	80	104
.02	5	22	40	58	76
.03	4	14	26	38	50
.04	1	10	16	22	28
.05	1	7	13	19	25
.07	0	7	13	19	25
.10	0	5	11	17	23
.15	0	2	8	14	20
.20	0	0	0	0	0
.25	0	0	0	0	0
.30	0	0	0	0	0
.35	0	0	0	0	0
.40	0	0	0	0	0
.45	0	0	0	0	0
.50	0	0	0	0	0
.60	0	0	0	0	0
.70	0	0	0	0	0
.80	0	0	0	0	0
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B71

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	2	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	2	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B72

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	2	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	25	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	2	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	2	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B73

MONTH OF FEBRUARY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 672
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 3
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - .04 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .02 INCHES
MAXIMUM DAILY PRECIPITATION - .02 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 6 - .02 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 13 - .02 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 13 - .02 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 13 - .02 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 13 - .02 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 372
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - .02 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .01 INCHES
MAXIMUM DAILY PRECIPITATION - .02 INCHES

MONTH OF FEBRUARY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	3	13	25	37	49
.02	1	11	23	35	47
.03	0	0	0	0	0
.04	0	0	0	0	0
.05	0	0	0	0	0
.07	0	0	0	0	0
.10	0	0	0	0	0
.15	0	0	0	0	0
.20	0	0	0	0	0
.25	0	0	0	0	0
.30	0	0	0	0	0
.35	0	0	0	0	0
.40	0	0	0	0	0
.45	0	0	0	0	0
.50	0	0	0	0	0
.60	0	0	0	0	0
.70	0	0	0	0	0
.80	0	0	0	0	0
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B75

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	3	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03 .00	.03 .00	.01 .00	.02 .00	.09
22	3	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	7	.00 .02	.00 .05	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.09
22	3	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	11	.00 .04	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.06
22	3	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	9.99 .00	9.99 .00	.00 .00	.00 .00	.00 .00	.00
22	3	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .09	.00 .09	.00 .03	.00 .04	.25

B76

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	3	18	.04 .00	.04 .00	.04 .00	.05 .00	.03 .00	.06 .00	.09 .00	.10 .00	.08 .00	.06 .00	.02 .00	.01 .00	.62
22	3	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	21	.00 .00	.00 .00	.00 .01	.00 .02	.00 .00	.00 .02	.00 .10	.00 .04	.00 .10	.00 .14	.00 .08	.00 .10	.61
22	3	22	.03 .01	.05 .00	.11 .01	.16 .00	.02 .00	.02 .00	.02 .00	.09 .00	.01 .00	.00 .00	.00 .00	.00 .00	.53
22	3	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.03
22	3	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	3	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.14
22	3	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.01
22	3	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B77

MONTH OF MARCH

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 2
TOTAL HOURS OF PRECIPITATION - 52
TOTAL DAYS WITH PRECIPITATION - 10
TOTAL AMOUNT OF PRECIPITATION - 2.43 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .16 INCHES
MAXIMUM DAILY PRECIPITATION - .62 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 22 HOUR 4 - .16 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 19 - .56 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 19 - .95 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 16 - 1.11 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 21 HOUR 16 - 1.13 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 172
NUMBER OF MISSING HOURS - 1
TOTAL HOURS OF PRECIPITATION - 7
TOTAL DAYS WITH PRECIPITATION - 2
TOTAL AMOUNT OF PRECIPITATION - .15 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .05 INCHES
MAXIMUM DAILY PRECIPITATION - .09 INCHES

MONTH OF MARCH

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	52	99	147	195	243
.02	38	82	124	166	208
.03	30	71	114	156	198
.04	25	63	99	135	171
.05	19	63	99	135	171
.07	14	54	84	114	144
.10	8	42	60	78	96
.15	1	33	46	58	70
.20	0	28	40	52	64
.25	0	25	39	51	63
.30	0	19	35	47	59
.35	0	16	33	45	57
.40	0	12	31	43	55
.45	0	7	27	40	52
.50	0	4	24	37	49
.60	0	0	18	30	42
.70	0	0	8	22	34
.80	0	0	6	18	30
.90	0	0	4	11	17
1.00	0	0	0	7	13
1.10	0	0	0	2	10
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B79

JAN-MAR INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2160
NUMBER OF MISSING HOURS - 2
TOTAL HOURS OF PRECIPITATION - 66
TOTAL DAYS WITH PRECIPITATION - 16
TOTAL AMOUNT OF PRECIPITATION - 2.69 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .16 INCHES
MAXIMUM DAILY PRECIPITATION - .62 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 22 HOUR 4 - .16 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 21 HOUR 19 - .56 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 21 HOUR 19 - .95 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 21 HOUR 16 - 1.11 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 3 DAY 21 HOUR 16 - 1.13 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 1025
NUMBER OF MISSING HOURS - 1
TOTAL HOURS OF PRECIPITATION - 10
TOTAL DAYS WITH PRECIPITATION - 4
TOTAL AMOUNT OF PRECIPITATION - .18 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .05 INCHES
MAXIMUM DAILY PRECIPITATION - .09 INCHES

JAN-MAR INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	66	144	228	312	396
.02	44	115	187	259	331
.03	34	85	140	194	248
.04	26	73	115	157	199
.05	20	70	112	154	196
.07	14	61	97	133	169
.10	8	47	71	95	119
.15	1	35	54	72	90
.20	0	28	40	52	64
.25	0	25	39	51	63
.30	0	19	35	47	59
.35	0	16	33	45	57
.40	0	12	31	43	55
.45	0	7	27	40	52
.50	0	4	24	37	49
.60	0	0	18	30	42
.70	0	0	8	22	34
.80	0	0	6	18	30
.90	0	0	4	11	17
1.00	0	0	0	7	13
1.10	0	0	0	2	10
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

B81

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	4	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .02	.00 .01	.00 .00	.03
22	4	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	3	.00 .02	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	4	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	5	.00 .04	.00 .00	.00 .02	.00 .01	.00 .02	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.09
22	4	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .05	.00 .03	.00 .00	.09
22	4	8	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	4	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .39	.00 .01	.00 .00	.40
22	4	13	.03 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03
22	4	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.01

B82

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	4	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	20	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.02
22	4	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	22	.07 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.07
22	4	23	.00 .00	.00 .00	.00 .00	.00 .42	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.42
22	4	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	4	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .32	.00 .03	.35
22	4	29	.46 .00	.27 .00	.24 .00	.13 .00	.02 .00	.00 .00	.02 .00	.23 .31	.08 .48	.00 .20	.00 .01	.00 .00	2.45
22	4	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

MONTH OF APRIL

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 34
TOTAL DAYS WITH PRECIPITATION - 13
TOTAL AMOUNT OF PRECIPITATION - 4.00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .48 INCHES
MAXIMUM DAILY PRECIPITATION - 2.45 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 29 HOUR 21 - .48 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 28 HOUR 23 - 1.45 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 28 HOUR 23 - 1.80 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 28 HOUR 23 - 1.80 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 28 HOUR 23 - 2.79 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 26
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF APRIL

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	34	104	174	234	292
.02	24	78	134	188	240
.03	18	66	113	155	196
.04	15	57	99	135	171
.05	14	54	96	132	168
.07	13	50	91	127	163
.10	11	35	64	88	112
.15	10	35	59	77	95
.20	10	35	59	77	95
.25	7	34	58	76	94
.30	6	34	58	76	94
.35	4	29	54	75	93
.40	3	26	50	73	91
.45	2	15	27	38	44
.50	0	14	26	38	44
.60	0	14	26	38	44
.70	0	11	25	37	43
.80	0	10	23	37	43
.90	0	9	22	36	42
1.00	0	8	20	35	42
1.10	0	4	10	21	29
1.20	0	2	10	21	29
1.30	0	2	10	20	29
1.40	0	1	9	15	24
1.50	0	0	3	9	19
1.60	0	0	3	9	19
1.70	0	0	3	9	19
1.80	0	0	2	8	17
1.90	0	0	0	0	6
2.00	0	0	0	0	5

B85

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	5	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	2	.00 .00	.00 .01	.00 .00	.00 .00	.00 .02	.00 .03	.00 .23	.00 .20	.01 .02	.00 .01	.01 .01	.00 .00	.55
22	5	3	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	5	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .02	.00 .00	.00 .03	.00 .09	.00 .04	.00 .01	.20
22	5	6	.02 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03
22	5	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	8	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	5	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .03	.00 .16	.19
22	5	13	.02 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.04
22	5	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .02	.00 .02	.00 .00	.05
22	5	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.08 .00	.05 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.13
22	5	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	17	.00 .00	.00 .00	.00 .01	.00 .02	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	5	18	.05 .00	.02 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.07
22	5	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	24	.00 .07	.00 .06	.00 .26	.00 .19	.00 .13	.00 .05	.00 .00	.00 .01	.00 .01	.02 .01	.05 .01	.09 .01	.97
22	5	25	.00 .17	.00 .27	.00 .22	.00 .14	.00 .22	.00 .23	.02 .02	.02 .01	.06 .00	.07 .01	.11 .01	.16 .00	1.74
22	5	26	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	5	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	5	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.01
22	5	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B87

MONTH OF MAY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 67
TOTAL DAYS WITH PRECIPITATION - 15
TOTAL AMOUNT OF PRECIPITATION - 4.05 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .27 INCHES
MAXIMUM DAILY PRECIPITATION - 1.74 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 14 - .27 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 13 - 1.25 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 8 - 1.69 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 25 HOUR 7 - 1.74 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 24 HOUR 21 - 1.76 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF MAY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	67	143	196	244	292
.02	42	107	151	187	223
.03	29	93	142	178	214
.04	26	76	122	158	194
.05	25	69	118	154	190
.07	19	59	105	142	178
.10	14	50	89	128	164
.15	11	44	78	113	143
.20	7	35	68	98	122
.25	2	28	46	65	77
.30	0	23	42	62	74
.35	0	23	41	61	73
.40	0	22	41	60	73
.45	0	21	39	59	73
.50	0	18	38	57	72
.60	0	13	26	38	48
.70	0	10	23	36	47
.80	0	8	21	33	46
.90	0	5	16	30	44
1.00	0	5	11	17	30
1.10	0	3	11	17	28
1.20	0	1	9	15	25
1.30	0	0	8	14	24
1.40	0	0	7	13	22
1.50	0	0	5	11	20
1.60	0	0	4	10	16
1.70	0	0	0	8	15
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	6	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	5	.00 .00	.00 .00	.00 .00	.15 .00	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.16
22	6	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .47	.00 .00	.00 .86	.00 .25	.00 .19	1.77
22	6	8	.01 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	6	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .02	.00 .06	.00 .04	.00 .05	.17
22	6	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.04
22	6	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .03	.00 .45	.00 .00	.00 .00	.00 .00	.00 .00	.48
22	6	12	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.03 .00	.00 .00	.00 .00	.00 .00	.04
22	6	13	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	6	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .81	.00 .01	.82
22	6	17	.11 .00	.31 .00	.01 .00	.07 .00	.30 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.80

B90

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	6	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .01	.01
22	6	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	23	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	6	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.06 .00	.14 .00	.08 .00	.04 .00	.00 .00	.00 .00	.00 .00	.32
22	6	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	6	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B91

MONTH OF JUNE

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 33
TOTAL DAYS WITH PRECIPITATION - 13
TOTAL AMOUNT OF PRECIPITATION - 4.66 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .86 INCHES
MAXIMUM DAILY PRECIPITATION - 1.77 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 22 - .86 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 20 - 1.78 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 20 - 1.79 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 20 - 1.79 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 20 - 1.79 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF JUNE

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	33	103	171	226	268
.02	22	71	119	161	197
.03	21	64	106	143	179
.04	18	51	91	134	176
.05	16	50	86	122	158
.07	13	48	85	122	158
.10	11	46	83	119	155
.15	9	44	80	116	152
.20	7	34	61	91	121
.25	7	32	56	80	104
.30	6	30	54	78	103
.35	4	26	44	62	80
.40	4	24	42	60	78
.45	4	24	42	60	78
.50	2	15	27	43	61
.60	2	15	27	39	51
.70	2	14	26	38	50
.80	2	14	26	38	50
.90	0	10	22	34	46
1.00	0	9	21	33	45
1.10	0	9	21	33	45
1.20	0	9	21	33	45
1.30	0	7	19	31	43
1.40	0	3	15	27	39
1.50	0	3	15	27	39
1.60	0	2	14	26	38
1.70	0	2	8	14	20
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B93

APR-JUN INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2184
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 134
TOTAL DAYS WITH PRECIPITATION - 41
TOTAL AMOUNT OF PRECIPITATION - 12.71 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .86 INCHES
MAXIMUM DAILY PRECIPITATION - 2.45 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 22 - .86 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 20 - 1.78 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 2.79 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 26
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

APR-JUN INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	134	350	541	704	852
.02	88	256	404	536	660
.03	68	223	361	476	589
.04	59	184	312	427	541
.05	55	173	300	408	516
.07	45	157	281	391	499
.10	36	131	236	335	431
.15	30	123	217	306	390
.20	24	104	188	266	338
.25	16	94	160	221	275
.30	12	87	154	216	271
.35	8	78	139	198	246
.40	7	72	133	193	242
.45	6	60	108	157	195
.50	2	47	91	138	177
.60	2	42	79	115	143
.70	2	35	74	111	140
.80	2	32	70	108	139
.90	0	24	60	100	132
1.00	0	22	52	85	117
1.10	0	16	42	71	102
1.20	0	12	40	69	99
1.30	0	9	37	65	96
1.40	0	4	31	55	85
1.50	0	3	23	47	78
1.60	0	2	21	45	73
1.70	0	2	11	31	54
1.80	0	0	2	8	17
1.90	0	0	0	0	6
2.00	0	0	0	0	5

B95

JAN-JUN INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 4344
 NUMBER OF MISSING HOURS - 2
 TOTAL HOURS OF PRECIPITATION - 200
 TOTAL DAYS WITH PRECIPITATION - 57
 TOTAL AMOUNT OF PRECIPITATION - 15.40 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - .86 INCHES
 MAXIMUM DAILY PRECIPITATION - 2.45 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 22 - .86 INCHES
 6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 20 - 1.78 INCHES
 12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
 18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
 24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 2.79 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 1051
 NUMBER OF MISSING HOURS - 1
 TOTAL HOURS OF PRECIPITATION - 10
 TOTAL DAYS WITH PRECIPITATION - 4
 TOTAL AMOUNT OF PRECIPITATION - .18 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - .05 INCHES
 MAXIMUM DAILY PRECIPITATION - .09 INCHES

JAN-JUN INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	200	494	769	1016	1250
.02	132	371	591	795	993
.03	102	308	501	670	838
.04	85	257	427	584	740
.05	75	243	412	562	712
.07	59	218	378	524	668
.10	44	178	307	430	550
.15	31	158	271	378	480
.20	24	132	228	318	402
.25	16	119	199	272	338
.30	12	106	189	263	330
.35	8	94	172	243	303
.40	7	84	164	236	297
.45	6	67	135	197	247
.50	2	51	115	175	226
.60	2	42	97	145	185
.70	2	35	82	133	174
.80	2	32	76	126	169
.90	0	24	64	111	149
1.00	0	22	52	92	130
1.10	0	16	42	73	112
1.20	0	12	40	69	99
1.30	0	9	37	65	96
1.40	0	4	31	55	85
1.50	0	3	23	47	78
1.60	0	2	21	45	73
1.70	0	2	11	31	54
1.80	0	0	2	8	17
1.90	0	0	0	0	6
2.00	0	0	0	0	5

B97

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	7	1	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.03 .00	.01 .00	.00 .00	.01 .00	.00 .00	.00 .00	.06
22	7	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	6	.00 .00	.00 .00	.00 .00	.03 .00	.02 .00	.02 .00	.04 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.12
22	7	7	.36 .00	.34 .00	.05 .00	.10 .00	.05 .00	.01 .00	.10 .00	.03 .00	.00 .00	.00 .00	.00 .03	.00 .39	1.46
22	7	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.32 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.32
22	7	15	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	7	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .10	.00 .58	.68
22	7	17	.33 .00	.03 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.36

B98

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	7	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	25	.00 .00	.00 .02	.00 .06	.00 .01	.00 .01	.00 .00	.03 .00	.03 .00	.01 .00	.00 .00	.00 .00	.00 .00	.17
22	7	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .04	.00 .00	.00 .00	.04
22	7	27	.00 .00	.01 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	7	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	7	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B99

MONTH OF JULY

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 35
TOTAL DAYS WITH PRECIPITATION - 10
TOTAL AMOUNT OF PRECIPITATION - 3.24 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .58 INCHES
MAXIMUM DAILY PRECIPITATION - 1.46 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 16 HOUR 24 - .58 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 16 HOUR 23 - 1.04 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 16 HOUR 23 - 1.04 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 16 HOUR 23 - 1.04 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 7 HOUR 1 - 1.46 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF JULY

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	35	92	141	185	217
.02	24	77	121	160	190
.03	21	70	114	153	183
.04	14	63	108	149	179
.05	12	56	104	145	175
.07	9	48	86	121	146
.10	9	38	76	111	138
.15	6	29	57	88	112
.20	6	28	52	76	96
.25	6	28	52	76	96
.30	6	27	51	75	96
.35	3	20	38	56	72
.40	1	17	35	53	70
.45	1	12	24	38	55
.50	1	12	24	37	53
.60	0	12	24	36	51
.70	0	10	22	34	49
.80	0	8	20	32	47
.90	0	7	19	31	45
1.00	0	4	16	28	41
1.10	0	0	0	0	2
1.20	0	0	0	0	1
1.30	0	0	0	0	1
1.40	0	0	0	0	1
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B101

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	8	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.02 .00	.00 .00	.03
22	8	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	15	.00 .00	.00 .01	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .04	.01 .22	.00 .00	.00 .02	.00 .20	.51
22	8	16	.16 .00	.12 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.28
22	8	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01

B102

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	8	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	19	.00 .00	.00 .00	.00 .17	.00 .32	.00 .40	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.89
22	8	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02 .00	.00 .00	.00 .00	.00 .00	.02
22	8	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	27	.00 .00	.00 .00	.00 .00	.00 .02	.00 .00	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.04
22	8	28	.00 .00	.00 .00	.09 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.09
22	8	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	30	.00 9.99	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	8	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B103

MONTH OF AUGUST

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 1
TOTAL HOURS OF PRECIPITATION - 20
TOTAL DAYS WITH PRECIPITATION - 8
TOTAL AMOUNT OF PRECIPITATION - 1.87 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .40 INCHES
MAXIMUM DAILY PRECIPITATION - .89 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 17 - .40 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 15 - .89 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 15 - .89 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 15 - .89 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 19 HOUR 15 - .89 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF AUGUST

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	20	65	103	139	175
.02	13	50	85	115	145
.03	9	35	67	91	115
.04	9	29	52	70	88
.05	8	26	44	62	80
.07	8	25	44	62	80
.10	7	19	35	53	71
.15	6	18	30	42	54
.20	4	17	29	41	53
.25	2	17	29	41	53
.30	2	13	26	38	50
.35	1	13	25	37	49
.40	1	13	25	37	49
.45	0	12	24	36	48
.50	0	9	22	34	46
.60	0	7	19	31	43
.70	0	6	18	30	42
.80	0	4	10	16	22
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

B105

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	9	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	10	.00 .18	.00 .05	.00 .00	.00 .03	.00 .01	.00 .01	.00 .00	.07 .00	.20 .00	.12 .00	.06 .00	.06 .00	.79
22	9	11	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	9	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	16	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.02 .00	.00 .00	.00 .00	.00 .00	.03
22	9	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.05 .00	.00 .00	.03 .00	.12 .00	.06 .00	.07 .00	.00 .00	.33

B106

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	9	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02 .00	.00 .00	.00 .00	.00 .00	.02
22	9	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	21	.00 .00	.00 .00	.00 .00	.00 .01	.00 .03	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.05
22	9	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	23	.00 .03	.00 .00	.01 .00	.03 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02 .00	.03 .00	.12
22	9	24	.00 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01
22	9	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	9	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B107

MONTH OF SEPTEMBER

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 28
TOTAL DAYS WITH PRECIPITATION - 8
TOTAL AMOUNT OF PRECIPITATION - 1.36 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .20 INCHES
MAXIMUM DAILY PRECIPITATION - .79 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 10 HOUR 9 - .20 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 10 HOUR 8 - .69 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 10 HOUR 8 - .79 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 10 HOUR 8 - .79 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 10 HOUR 8 - .80 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF SEPTEMBER

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	28	79	127	165	196
.02	20	58	96	132	163
.03	17	46	78	109	139
.04	11	42	69	94	118
.05	11	34	59	83	107
.07	6	25	44	63	83
.10	4	18	33	51	70
.15	2	16	28	40	53
.20	1	16	28	40	52
.25	0	15	27	39	51
.30	0	9	21	33	45
.35	0	7	13	20	26
.40	0	5	12	18	24
.45	0	5	11	17	23
.50	0	3	10	16	22
.60	0	2	8	14	20
.70	0	0	7	13	19
.80	0	0	0	0	3
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B109

JUL-SEP INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2208
 NUMBER OF MISSING HOURS - 1
 TOTAL HOURS OF PRECIPITATION - 83
 TOTAL DAYS WITH PRECIPITATION - 26
 TOTAL AMOUNT OF PRECIPITATION - 6.47 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - .58 INCHES
 MAXIMUM DAILY PRECIPITATION - 1.46 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 24 - .58 INCHES
 6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 23 - 1.04 INCHES
 12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 23 - 1.04 INCHES
 18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 23 - 1.04 INCHES
 24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 7 HOUR 1 - 1.46 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 0
 NUMBER OF MISSING HOURS - 0
 TOTAL HOURS OF PRECIPITATION - 0
 TOTAL DAYS WITH PRECIPITATION - 0
 TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
 MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
 MAXIMUM DAILY PRECIPITATION - .00 INCHES

JUL-SEP INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)					
	1	6	12	18	24	
.01	83	236	371	489	588	
.02	57	185	302	407	498	
.03	47	151	259	353	437	
.04	34	134	229	313	385	
.05	31	116	207	290	362	
.07	23	98	174	246	309	
.10	20	75	144	215	279	
.15	14	63	115	170	219	
.20	11	61	109	157	201	
.25	8	60	108	156	200	
.30	8	49	98	146	191	
.35	4	40	76	113	147	
.40	2	35	72	108	143	
.45	1	29	59	91	126	
.50	1	24	56	87	121	
.60	0	21	51	81	114	
.70	0	16	47	77	110	
.80	0	12	30	48	72	
.90	0	7	19	31	45	
1.00	0	4	16	28	41	
1.10	0	0	0	0	2	
1.20	0	0	0	0	1	
1.30	0	0	0	0	1	
1.40	0	0	0	0	1	
1.50	0	0	0	0	0	
1.60	0	0	0	0	0	
1.70	0	0	0	0	0	
1.80	0	0	0	0	0	
1.90	0	0	0	0	0	
2.00	0	0	0	0	0	

B111

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	10	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .31	.31
22	10	12	.12 .00	.20 .00	.04 .00	.00 .00	.01 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.37
22	10	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B112

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	10	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	24	.00 .03	.00 .05	.00 .04	.00 .00	.00 .00	.00 .01	.00 .00	.00 .00	.00 .00	.01 .00	.03 .00	.10 .00	.27
22	10	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	10	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B13

MONTH OF OCTOBER

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 12
TOTAL DAYS WITH PRECIPITATION - 3
TOTAL AMOUNT OF PRECIPITATION - .95 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .31 INCHES
MAXIMUM DAILY PRECIPITATION - .37 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 24 - .31 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 24 - .68 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 24 - .68 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 24 - .68 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 11 HOUR 24 - .68 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 34
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF OCTOBER

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	12	25	37	49	61
.02	9	19	31	43	55
.03	9	19	31	43	55
.04	7	19	31	43	55
.05	5	18	30	42	54
.07	4	16	28	40	52
.10	4	16	28	40	52
.15	2	13	25	37	49
.20	2	12	24	36	48
.25	1	10	22	34	46
.30	1	7	13	19	25
.35	0	6	12	18	24
.40	0	5	11	17	23
.45	0	4	10	16	22
.50	0	4	10	16	22
.60	0	4	10	16	22
.70	0	0	0	0	0
.80	0	0	0	0	0
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B15

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	11	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	4	.00 .10	.00 .01	.00 .02	.37 .00	.04 .01	.10 .02	.07 .00	.06 .00	.20 .00	.17 .00	.15 .00	.09 .00	1.41
22	11	5	.00 .00	.00 .00	.05 .00	.07 .00	.06 .00	.04 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.22
22	11	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	8	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	13	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	15	.00 .01	.00 .01	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.02
22	11	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B116

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	11	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	27	.00 .00	.04 .00	.04 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.08
22	11	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	11	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B117

MONTH OF NOVEMBER

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 720
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 22
TOTAL DAYS WITH PRECIPITATION - 4
TOTAL AMOUNT OF PRECIPITATION - 1.73 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .37 INCHES
MAXIMUM DAILY PRECIPITATION - 1.41 INCHES

1	HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY	4	HOUR	4	-	.37	INCHES
6	HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY	4	HOUR	4	-	.84	INCHES
12	HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY	4	HOUR	4	-	1.38	INCHES
18	HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY	4	HOUR	4	-	1.41	INCHES
24	HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY	4	HOUR	4	-	1.46	INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 265
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - .02 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .01 INCHES
MAXIMUM DAILY PRECIPITATION - .02 INCHES

MONTH OF NOVEMBER

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	22	43	64	82	100
.02	18	41	62	80	98
.03	16	35	51	63	75
.04	16	33	51	63	75
.05	12	30	48	60	72
.07	9	27	46	60	72
.10	6	22	34	43	49
.15	4	20	33	42	48
.20	2	17	30	41	47
.25	1	13	20	31	37
.30	1	13	19	27	33
.35	1	13	19	27	33
.40	0	11	18	25	31
.45	0	10	16	23	30
.50	0	10	16	23	29
.60	0	7	13	20	27
.70	0	5	12	18	25
.80	0	1	11	17	24
.90	0	0	9	15	23
1.00	0	0	7	14	22
1.10	0	0	5	11	20
1.20	0	0	4	10	16
1.30	0	0	3	9	15
1.40	0	0	0	4	10
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B119

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	12	1	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	2	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	3	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	4	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	5	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	6	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	7	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	8	.00 .00	.00 .00	.00 .00	.00 .01	.00 .01	.00 .00	.00 .02	.00 .01	.01 .01	.00 .00	.00 .00	.00 .00	.07
22	12	9	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	10	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	11	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	12	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .11	.11
22	12	13	.11 .00	.00 .00	.00 .00	.00 .01	.13 .00	.07 .00	.06 .00	.01 .00	.03 .00	.03 .00	.00 .00	.00 .00	.45
22	12	14	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	15	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	16	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	17	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B120

NPPD-COOPER NUCLEAR STATION PRECIPITATION DATA FOR 2022

RAIN VERSION PC-1.0

YR	MON	DAY	1AM 1PM	2AM 2PM	3AM 3PM	4AM 4PM	5AM 5PM	6AM 6PM	7AM 7PM	8AM 8PM	9AM 9PM	10AM 10PM	11AM 11PM	12N 12MDNT	TOTAL
22	12	18	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	19	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.01 .00	.00 .00	.01
22	12	20	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	21	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	22	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	23	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	24	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	25	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	26	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	27	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	28	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	29	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	30	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00
22	12	31	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00 .00	.00

B121

MONTH OF DECEMBER

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 744
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 16
TOTAL DAYS WITH PRECIPITATION - 4
TOTAL AMOUNT OF PRECIPITATION - .64 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .13 INCHES
MAXIMUM DAILY PRECIPITATION - .45 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 13 HOUR 5 - .13 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 24 - .35 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 24 - .55 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 24 - .56 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS DAY 12 HOUR 24 - .56 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 439
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 0
TOTAL DAYS WITH PRECIPITATION - 0
TOTAL AMOUNT OF PRECIPITATION - .00 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .00 INCHES
MAXIMUM DAILY PRECIPITATION - .00 INCHES

MONTH OF DECEMBER

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	16	45	64	82	100
.02	8	25	38	50	62
.03	7	22	36	48	60
.04	5	21	34	46	58
.05	5	18	31	43	55
.07	4	14	21	33	45
.10	3	13	19	25	31
.15	0	11	17	23	29
.20	0	11	17	23	29
.25	0	6	12	18	24
.30	0	4	12	18	24
.35	0	1	8	14	20
.40	0	0	7	13	19
.45	0	0	5	12	18
.50	0	0	3	9	15
.60	0	0	0	0	0
.70	0	0	0	0	0
.80	0	0	0	0	0
.90	0	0	0	0	0
1.00	0	0	0	0	0
1.10	0	0	0	0	0
1.20	0	0	0	0	0
1.30	0	0	0	0	0
1.40	0	0	0	0	0
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

ENTRIES INDICATE NUMBER OF DURATION PERIODS WITH RAINFALL GREATER THAN OR EQUAL TO AMOUNT SHOWN

B123

OCT-DEC INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 2208
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 50
TOTAL DAYS WITH PRECIPITATION - 11
TOTAL AMOUNT OF PRECIPITATION - 3.32 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .37 INCHES
MAXIMUM DAILY PRECIPITATION - 1.41 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - .37 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - .84 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.38 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.41 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.46 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 738
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - .02 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .01 INCHES
MAXIMUM DAILY PRECIPITATION - .02 INCHES

OCT-DEC INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	50	113	165	213	261
.02	35	85	131	173	215
.03	32	76	118	154	190
.04	28	73	116	152	188
.05	22	66	109	145	181
.07	17	57	95	133	169
.10	13	51	81	108	132
.15	6	44	75	102	126
.20	4	40	71	100	124
.25	2	29	54	83	107
.30	2	24	44	64	82
.35	1	20	39	59	77
.40	0	16	36	55	73
.45	0	14	31	51	70
.50	0	14	29	48	66
.60	0	11	23	36	49
.70	0	5	12	18	25
.80	0	1	11	17	24
.90	0	0	9	15	23
1.00	0	0	7	14	22
1.10	0	0	5	11	20
1.20	0	0	4	10	16
1.30	0	0	3	9	15
1.40	0	0	0	4	10
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

B125

JUL-DEC INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 4416
NUMBER OF MISSING HOURS - 1
TOTAL HOURS OF PRECIPITATION - 133
TOTAL DAYS WITH PRECIPITATION - 37
TOTAL AMOUNT OF PRECIPITATION - 9.79 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .58 INCHES
MAXIMUM DAILY PRECIPITATION - 1.46 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 24 - .58 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 7 DAY 16 HOUR 23 - 1.04 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.38 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.41 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 11 DAY 4 HOUR 4 - 1.46 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 738
NUMBER OF MISSING HOURS - 0
TOTAL HOURS OF PRECIPITATION - 2
TOTAL DAYS WITH PRECIPITATION - 1
TOTAL AMOUNT OF PRECIPITATION - .02 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .01 INCHES
MAXIMUM DAILY PRECIPITATION - .02 INCHES

JUL-DEC INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	133	349	536	702	849
.02	92	270	433	580	713
.03	79	227	377	507	627
.04	62	207	345	465	573
.05	53	182	316	435	543
.07	40	155	269	379	478
.10	33	126	225	323	411
.15	20	107	190	272	345
.20	15	101	180	257	325
.25	10	89	162	239	307
.30	10	73	142	210	273
.35	5	60	115	172	224
.40	2	51	108	163	216
.45	1	43	90	142	196
.50	1	38	85	135	187
.60	0	32	74	117	163
.70	0	21	59	95	135
.80	0	13	41	65	96
.90	0	7	28	46	68
1.00	0	4	23	42	63
1.10	0	0	5	11	22
1.20	0	0	4	10	17
1.30	0	0	3	9	16
1.40	0	0	0	4	11
1.50	0	0	0	0	0
1.60	0	0	0	0	0
1.70	0	0	0	0	0
1.80	0	0	0	0	0
1.90	0	0	0	0	0
2.00	0	0	0	0	0

B127

JAN-DEC INDEX

FOR ALL TEMPERATURES

TOTAL NUMBER OF HOURS - 8760
NUMBER OF MISSING HOURS - 3
TOTAL HOURS OF PRECIPITATION - 333
TOTAL DAYS WITH PRECIPITATION - 94
TOTAL AMOUNT OF PRECIPITATION - 25.19 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .86 INCHES
MAXIMUM DAILY PRECIPITATION - 2.45 INCHES

1 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 22 - .86 INCHES
6 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 6 DAY 7 HOUR 20 - 1.78 INCHES
12 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
18 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 1.80 INCHES
24 HOUR PERIOD IN MONTH WITH GREATEST AMOUNT PRECIPITATION STARTS MONTH 4 DAY 28 HOUR 23 - 2.79 INCHES

FOR TEMPERATURES LESS THAN OR EQUAL TO 32 DEGREES

TOTAL NUMBER OF HOURS - 1789
NUMBER OF MISSING HOURS - 1
TOTAL HOURS OF PRECIPITATION - 12
TOTAL DAYS WITH PRECIPITATION - 5
TOTAL AMOUNT OF PRECIPITATION - .20 INCHES
MAXIMUM 1-HOUR PRECIPITATION - .05 INCHES
MAXIMUM DAILY PRECIPITATION - .09 INCHES

JAN-DEC INDEX

PRECIPITATION INTENSITY - DURATION
(NUMBER OF OCCURRENCES)

AMOUNT INCHES	DURATION (HOURS)				
	1	6	12	18	24
.01	333	843	1310	1729	2116
.02	224	641	1029	1386	1723
.03	181	535	883	1188	1482
.04	147	464	776	1059	1329
.05	128	425	730	1005	1269
.07	99	373	647	903	1146
.10	77	304	532	753	961
.15	51	265	461	650	825
.20	39	233	408	575	727
.25	26	208	361	511	645
.30	22	179	331	473	603
.35	13	154	287	415	527
.40	9	135	272	399	513
.45	7	110	225	339	443
.50	3	89	200	310	413
.60	2	74	171	262	348
.70	2	56	141	228	309
.80	2	45	117	191	265
.90	0	31	92	157	217
1.00	0	26	75	134	193
1.10	0	16	47	84	134
1.20	0	12	44	79	116
1.30	0	9	40	74	112
1.40	0	4	31	59	96
1.50	0	3	23	47	78
1.60	0	2	21	45	73
1.70	0	2	11	31	54
1.80	0	0	2	8	17
1.90	0	0	0	0	6
2.00	0	0	0	0	5

B129

JOINT FREQUENCY DISTRIBUTION TABLES

The tables presented in this section are results obtained from processing of the hourly meteorological data collected at the Cooper Nuclear Station (CNS). The joint frequency distribution (JFD) tables represent the frequency of occurrence, in number of observations, that a particular wind speed, wind direction, and stability category occurred simultaneously. On a quarterly and semiannual basis, the JFDs were produced for wind speed and wind direction by atmospheric stability corresponding to the seven Pasquill stability classes, and for wind speed and wind direction for all stability categories combined. Atmospheric stability was classified per Regulatory Guide 1.23, using the 100-meter to 10-meter temperature difference (ΔT) for the 100-meter JFDs and the 60-meter to 10-meter ΔT for the 10-meter JFDs.

JFDs of 10-Meter Wind vs. Delta T

January-March 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7.51-12.50	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12.51-18.50	3	3	0	2	2	5	0	0	0	0	0	0	0	0	0	0	15
18.51-24.00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	4	0	2	2	5	0	0	0	0	0	1	0	0	0	0	18

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	1	2	0	0	0	0	1	0	0	0	0	0	0	0	0	4
7.51-12.50	15	2	0	2	0	0	1	2	1	0	0	0	0	0	0	0	23
12.51-18.50	6	4	0	0	0	2	2	2	3	0	0	0	0	0	1	1	21
18.51-24.00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
>24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	24	8	2	2	0	2	3	5	4	1	0	0	0	0	2	1	54

B132

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	6	2	2	0	0	1	0	1	1	1	0	2	1	3	1	1	22
7.51-12.50	7	1	3	1	0	0	0	1	3	3	2	0	2	0	1	4	28
12.51-18.50	9	3	1	0	1	0	2	4	8	6	0	2	0	0	6	15	57
18.51-24.00	2	3	0	0	0	0	1	1	3	3	0	1	0	0	4	7	25
>24.00	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	0	4
TOTAL	24	10	6	1	1	1	3	8	15	14	2	5	3	3	13	27	136

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	3	0	1	1	3	1	1	1	3	1	2	2	1	0	21
3.51- 7.50	16	29	12	3	7	6	5	14	11	7	20	14	13	7	14	11	189
7.51-12.50	32	32	7	2	2	6	6	17	20	11	18	11	12	8	40	80	304
12.51-18.50	41	28	1	0	1	5	7	7	18	14	17	4	3	5	48	122	321
18.51-24.00	60	22	0	0	0	0	7	0	8	4	1	2	0	5	15	25	149
>24.00	17	1	0	0	0	0	0	0	8	0	0	0	0	0	0	3	29
TOTAL	166	113	23	5	11	18	28	39	66	37	59	32	30	27	118	241	1013

B133

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	5	3	2	3	1	1	2	3	6	7	1	3	0	4	6	7	54
3.51- 7.50	19	16	1	3	4	7	13	22	40	8	9	3	8	7	24	20	204
7.51-12.50	16	11	3	1	3	13	6	18	33	10	10	7	6	11	29	17	194
12.51-18.50	6	0	0	0	0	1	1	8	24	15	4	1	2	1	4	1	68
18.51-24.00	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
>24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL	47	31	6	7	8	22	23	51	104	41	24	14	16	23	63	45	525

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	1	3	0	0	0	3	1	7	16	12	2	3	1	2	0	4	55
3.51- 7.50	0	1	0	0	1	0	3	13	34	13	8	6	7	7	9	6	108
7.51-12.50	2	0	0	1	0	0	0	2	9	4	5	8	12	10	12	2	67
12.51-18.50	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	4	0	1	1	3	4	22	59	29	15	18	20	19	22	12	234

B134

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	8	4	3	1	2	0	4	6	17	21	4	4	5	5	2	7	93
3.51- 7.50	2	1	3	0	0	1	0	4	12	5	6	1	1	0	3	0	39
7.51-12.50	0	0	0	0	0	0	1	0	0	0	5	5	5	5	1	0	22
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	10	5	6	1	2	1	5	10	29	26	15	10	11	10	6	7	156

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	14	11	8	4	4	5	10	17	40	41	10	11	8	13	9	18	223
3.51- 7.50	43	50	20	6	12	15	21	55	98	34	43	27	30	24	51	38	567
7.51-12.50	73	46	13	7	5	19	14	40	66	28	40	31	37	34	83	103	639
12.51-18.50	66	38	2	2	4	13	12	21	53	35	21	8	5	6	60	139	485
18.51-24.00	66	28	0	0	0	0	9	1	11	8	1	3	0	5	20	32	184
>24.00	17	2	0	0	0	0	0	1	9	2	0	0	0	0	1	3	35
TOTAL	279	175	43	19	25	52	66	135	277	148	115	80	80	82	224	333	2136

B135

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2160

TOTAL NUMBER OF VALID OBSERVATIONS: 2136

TOTAL NUMBER OF MISSING OBSERVATIONS: 24

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.9 %

MEAN WIND SPEED FOR THIS PERIOD: 10.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.84	2.53	6.37	47.43	24.58	10.96	7.30

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	4	4	0	2	2	5	0	0	0	0	0	1	0	0	0	0	0
B	24	8	2	2	0	2	3	5	4	1	0	0	0	0	2	1	0
C	24	10	6	1	1	1	3	8	15	14	2	5	3	3	13	27	0
D	166	113	23	5	11	18	28	39	66	37	59	32	30	27	118	241	0
E	47	31	6	7	8	22	23	51	104	41	24	14	16	23	63	45	0
F	4	4	0	1	1	3	4	22	59	29	15	18	20	19	22	12	1
G	10	5	6	1	2	1	5	10	29	26	15	10	11	10	6	7	2
TOTAL	279	175	43	19	25	52	66	135	277	148	115	80	80	82	224	333	3

B136

JFDs of 10-Meter Wind vs. Delta T

April-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	9	4	0	0	2	0	1	2	1	0	0	0	0	0	0	1	20
12.51-18.50	1	2	0	0	0	0	2	2	1	1	0	0	0	0	0	5	14
18.51-24.00	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	0	17
TOTAL	10	6	0	0	2	0	3	4	22	9	0	0	0	0	0	6	62

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	6	6	3	0	0	0	1	3	0	1	0	1	0	0	0	0	21
7.51-12.50	13	6	1	0	1	1	4	6	0	3	1	0	1	2	5	6	50
12.51-18.50	1	1	0	0	0	0	0	5	4	3	0	0	0	0	1	11	26
18.51-24.00	0	0	0	0	0	0	0	0	2	7	0	1	1	0	0	0	11
>24.00	0	0	0	0	0	0	0	0	8	6	0	0	0	0	0	0	14
TOTAL	20	13	4	0	1	1	5	14	14	20	1	2	2	2	6	17	122

B138

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
3.51- 7.50	6	5	2	0	2	2	5	5	0	0	3	2	1	2	2	1	38
7.51-12.50	10	4	0	1	0	0	5	5	2	6	2	1	2	3	2	12	55
12.51-18.50	1	0	0	0	0	2	4	4	12	11	3	0	3	2	3	12	57
18.51-24.00	0	0	0	0	0	0	2	0	6	6	0	1	3	1	1	0	20
>24.00	0	0	0	0	0	0	0	0	7	2	0	0	0	0	1	0	10
TOTAL	17	10	2	1	2	5	16	14	27	25	8	4	9	8	9	25	182

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	5	7	5	5	2	5	4	4	3	3	0	0	0	1	3	51
3.51- 7.50	15	18	21	18	31	10	22	15	11	10	7	2	8	7	2	8	205
7.51-12.50	56	14	14	13	18	23	45	28	29	15	5	9	6	7	10	33	325
12.51-18.50	10	8	2	3	2	5	45	26	29	16	5	3	3	13	40	27	237
18.51-24.00	1	0	0	0	0	0	7	4	21	9	0	6	2	11	10	2	73
>24.00	0	0	0	0	0	0	0	0	31	4	0	1	0	1	5	2	44
TOTAL	86	45	44	39	56	40	124	77	125	57	20	21	19	39	68	75	935

B139

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	11	11	3	3	5	10	4	5	4	3	3	1	2	4	5	9	83
3.51- 7.50	20	26	7	9	4	14	15	20	21	18	11	7	4	3	5	7	191
7.51-12.50	8	7	1	5	3	9	23	32	25	19	12	4	8	6	8	15	185
12.51-18.50	1	0	0	0	0	2	15	20	32	2	0	0	3	4	1	1	81
18.51-24.00	0	0	0	0	0	1	2	0	20	0	0	0	0	0	1	0	24
>24.00	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
TOTAL	40	44	11	17	12	36	59	77	111	42	26	12	17	17	20	32	573

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	12	7	1	0	1	0	1	2	8	14	3	7	6	6	6	13	87
3.51- 7.50	4	2	0	0	0	2	0	4	20	16	2	1	3	1	7	4	66
7.51-12.50	1	0	0	0	0	1	1	1	3	3	1	1	1	0	4	3	20
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	17	9	1	0	1	3	2	7	31	33	6	9	10	7	17	20	175

B140

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	13
1.01- 3.50	3	0	0	0	2	0	0	3	8	12	6	6	8	10	11	10	79
3.51- 7.50	1	0	0	0	0	0	0	0	1	0	1	0	1	1	2	3	10
7.51-12.50	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	4
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	0	0	0	2	0	0	3	10	14	7	6	9	11	14	13	106

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	15
1.01- 3.50	30	24	11	8	13	13	10	14	24	32	15	14	16	20	23	35	302
3.51- 7.50	52	57	33	27	37	28	43	47	53	45	24	13	17	14	18	23	531
7.51-12.50	97	35	16	19	24	34	79	74	61	48	21	15	18	18	30	70	659
12.51-18.50	14	11	2	3	2	9	66	57	78	33	8	3	9	19	45	56	415
18.51-24.00	1	0	0	0	0	1	11	4	56	26	0	8	6	12	12	2	139
>24.00	0	0	0	0	0	0	0	0	68	16	0	1	0	1	6	2	94
TOTAL	194	127	62	57	76	85	209	196	340	200	68	54	66	84	134	188	2155

B141

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2155

TOTAL NUMBER OF MISSING OBSERVATIONS: 29

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.7 %

MEAN WIND SPEED FOR THIS PERIOD: 10.3 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
2.88	5.66	8.45	43.39	26.59	8.12	4.92

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	10	6	0	0	2	0	3	4	22	9	0	0	0	0	0	6	0
B	20	13	4	0	1	1	5	14	14	20	1	2	2	2	6	17	0
C	17	10	2	1	2	5	16	14	27	25	8	4	9	8	9	25	0
D	86	45	44	39	56	40	124	77	125	57	20	21	19	39	68	75	0
E	40	44	11	17	12	36	59	77	111	42	26	12	17	17	20	32	0
F	17	9	1	0	1	3	2	7	31	33	6	9	10	7	17	20	2
G	4	0	0	0	2	0	0	3	10	14	7	6	9	11	14	13	13
TOTAL	194	127	62	57	76	85	209	196	340	200	68	54	66	84	134	188	15

B142

JFDs of 10-Meter Wind vs. Delta T

January-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7.51-12.50	10	4	0	0	2	0	1	2	1	0	0	0	0	0	0	1	21
12.51-18.50	4	5	0	2	2	5	2	2	1	1	0	0	0	0	0	5	29
18.51-24.00	0	1	0	0	0	0	0	0	7	4	0	0	0	0	0	0	12
>24.00	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	0	17
TOTAL	14	10	0	2	4	5	3	4	22	9	0	1	0	0	0	6	80

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	6	7	5	0	0	0	1	4	0	1	0	1	0	0	0	0	25
7.51-12.50	28	8	1	2	1	1	5	8	1	3	1	0	1	2	5	6	73
12.51-18.50	7	5	0	0	0	2	2	7	7	3	0	0	0	0	2	12	47
18.51-24.00	3	1	0	0	0	0	0	0	2	7	0	1	1	0	1	0	16
>24.00	0	0	0	0	0	0	0	0	8	7	0	0	0	0	0	0	15
TOTAL	44	21	6	2	1	3	8	19	18	21	1	2	2	2	8	18	176

B144

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
3.51- 7.50	12	7	4	0	2	3	5	6	1	1	3	4	2	5	3	2	60
7.51-12.50	17	5	3	2	0	0	5	6	5	9	4	1	4	3	3	16	83
12.51-18.50	10	3	1	0	1	2	6	8	20	17	3	2	3	2	9	27	114
18.51-24.00	2	3	0	0	0	0	3	1	9	9	0	2	3	1	5	7	45
>24.00	0	1	0	0	0	0	0	1	7	3	0	0	0	0	2	0	14
TOTAL	41	20	8	2	3	6	19	22	42	39	10	9	12	11	22	52	318

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	6	10	5	6	3	8	5	5	4	6	1	2	2	2	3	72
3.51- 7.50	31	47	33	21	38	16	27	29	22	17	27	16	21	14	16	19	394
7.51-12.50	88	46	21	15	20	29	51	45	49	26	23	20	18	15	50	113	629
12.51-18.50	51	36	3	3	3	10	52	33	47	30	22	7	6	18	88	149	558
18.51-24.00	61	22	0	0	0	0	14	4	29	13	1	8	2	16	25	27	222
>24.00	17	1	0	0	0	0	0	0	39	4	0	1	0	1	5	5	73
TOTAL	252	158	67	44	67	58	152	116	191	94	79	53	49	66	186	316	1948

B145

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	16	14	5	6	6	11	6	8	10	10	4	4	2	8	11	16	137
3.51- 7.50	39	42	8	12	8	21	28	42	61	26	20	10	12	10	29	27	395
7.51-12.50	24	18	4	6	6	22	29	50	58	29	22	11	14	17	37	32	379
12.51-18.50	7	0	0	0	0	3	16	28	56	17	4	1	5	5	5	2	149
18.51-24.00	1	1	0	0	0	1	3	0	20	1	0	0	0	0	1	0	28
>24.00	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
TOTAL	87	75	17	24	20	58	82	128	215	83	50	26	33	40	83	77	1098

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	3
1.01- 3.50	13	10	1	0	1	3	2	9	24	26	5	10	7	8	6	17	142
3.51- 7.50	4	3	0	0	1	2	3	17	54	29	10	7	10	8	16	10	174
7.51-12.50	3	0	0	1	0	1	1	3	12	7	6	9	13	10	16	5	87
12.51-18.50	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	21	13	1	1	2	6	6	29	90	62	21	27	30	26	39	32	409

B146

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	15
1.01- 3.50	11	4	3	1	4	0	4	9	25	33	10	10	13	15	13	17	172
3.51- 7.50	3	1	3	0	0	1	0	4	13	5	7	1	2	1	5	3	49
7.51-12.50	0	0	0	0	0	0	1	0	1	2	5	5	5	5	2	0	26
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	14	5	6	1	4	1	5	13	39	40	22	16	20	21	20	20	262

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	18
1.01- 3.50	44	35	19	12	17	18	20	31	64	73	25	25	24	33	32	53	525
3.51- 7.50	95	107	53	33	49	43	64	102	151	79	67	40	47	38	69	61	1098
7.51-12.50	170	81	29	26	29	53	93	114	127	76	61	46	55	52	113	173	1298
12.51-18.50	80	49	4	5	6	22	78	78	131	68	29	11	14	25	105	195	900
18.51-24.00	67	28	0	0	0	1	20	5	67	34	1	11	6	17	32	34	323
>24.00	17	2	0	0	0	0	0	1	77	18	0	1	0	1	7	5	129
TOTAL	473	302	105	76	101	137	275	331	617	348	183	134	146	166	358	521	4291

B147

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4344

TOTAL NUMBER OF VALID OBSERVATIONS: 4291

TOTAL NUMBER OF MISSING OBSERVATIONS: 53

PERCENT DATA RECOVERY FOR THIS PERIOD: 98.8 %

MEAN WIND SPEED FOR THIS PERIOD: 10.3 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.86	4.10	7.41	45.40	25.59	9.53	6.11

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	14	10	0	2	4	5	3	4	22	9	0	1	0	0	0	6	0
B	44	21	6	2	1	3	8	19	18	21	1	2	2	2	8	18	0
C	41	20	8	2	3	6	19	22	42	39	10	9	12	11	22	52	0
D	252	158	67	44	67	58	152	116	191	94	79	53	49	66	186	316	0
E	87	75	17	24	20	58	82	128	215	83	50	26	33	40	83	77	0
F	21	13	1	1	2	6	6	29	90	62	21	27	30	26	39	32	3
G	14	5	6	1	4	1	5	13	39	40	22	16	20	21	20	20	15
TOTAL	473	302	105	76	101	137	275	331	617	348	183	134	146	166	358	521	18

B148

Stability Classes by Hour of Day

10-Meter Wind vs. Delta T

January-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
22	1	1	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	1	2	D	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F	
22	1	3	F	F	F	F	F	F	F	F	F	E	E	E	D	D	D	D	E	E	F	F	E	E	E	E	
22	1	4	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	D	D	D	D	D	
22	1	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	1	6	D	D	D	D	D	D	D	D	D	C	D	C	C	D	D	D	D	E	E	F	E	E	E	E	
22	1	7	D	D	D	D	D	D	D	D	D	D	C	C	B	C	D	C	D	D	D	D	D	D	D	E	
22	1	8	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	D	D	
22	1	9	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	E	E	E	E	F	F	E	
22	1	10	E	E	G	F	F	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	1	11	E	E	E	F	F	F	G	G	G	E	D	D	D	D	D	D	D	E	E	F	F	F	F	F	
22	1	12	F	G	G	G	G	G	F	G	E	D	D	D	D	D	D	D	D	E	F	G	G	G	G	G	
22	1	13	F	F	E	E	E	E	E	E	E	D	D	D	D	C	D	D	E	E	F	G	G	G	G	G	
22	1	14	G	G	G	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	1	15	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	E	
22	1	16	D	D	D	D	-	-	-	-	-	D	D	D	A	D	D	D	E	E	E	E	E	E	E	E	
22	1	17	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	E	E	E	E	E	E	E	F	G	G
22	1	18	G	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	E	E	G	G	G	F	E	E	D
22	1	19	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D	D	D	
22	1	20	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	D	E	E	E	E	
22	1	21	E	E	F	E	E	E	E	E	D	D	C	C	C	D	D	D	D	D	D	D	D	E	E	E	D
22	1	22	D	E	E	E	E	E	F	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	D	E	
22	1	23	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	
22	1	24	F	F	F	F	E	F	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	
22	1	25	D	E	D	D	D	E	D	D	D	D	C	C	C	C	D	D	D	D	E	E	E	F	G	G	
22	1	26	G	G	G	G	G	F	F	F	E	D	C	C	C	C	D	D	E	F	E	E	E	D	D	D	
22	1	27	D	D	E	D	E	D	E	E	E	D	D	D	D	C	C	D	D	E	E	F	D	D	D	D	
22	1	28	D	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	E	E	E	E	F	F	E	
22	1	29	E	E	E	F	F	F	F	G	F	D	D	D	D	D	D	D	D	E	F	F	F	F	F	F	
22	1	30	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	F	F	F	F	E	E	
22	1	31	E	E	E	E	E	F	F	F	E	D	D	C	D	D	E	F	F	F	F	F	G	G	F	F	
22	2	1	F	F	G	F	F	F	F	F	D	D	D	C	C	C	D	D	D	D	D	D	D	D	D	D	
22	2	2	D	D	D	D	D	D	D	D	D	C	B	A	B	C	D	D	D	D	D	D	D	D	D	D	
22	2	3	D	D	D	D	D	D	D	D	D	C	B	A	A	B	B	C	D	D	E	E	E	E	E	F	
22	2	4	F	G	G	F	F	E	F	F	D	D	C	C	C	C	C	D	D	E	E	E	E	E	E	E	
22	2	5	E	E	E	F	E	E	E	E	D	D	C	C	C	B	C	D	D	E	E	E	E	E	E	E	
22	2	6	E	E	E	F	F	F	E	E	E	D	C	B	B	C	C	D	D	D	E	F	F	F	F	F	
22	2	7	G	F	G	G	F	F	F	E	E	D	D	D	D	D	D	D	D	E	F	G	G	F	F	F	
22	2	8	F	F	F	F	F	F	E	E	E	D	D	C	C	D	C	D	D	E	F	G	G	F	F	G	
22	2	9	F	E	E	E	E	E	F	E	D	D	C	C	C	C	C	D	D	D	E	F	F	F	F	F	
22	2	10	F	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D	
22	2	11	E	E	E	E	D	D	E	D	D	D	D	C	C	C	C	D	D	D	D	D	D	D	D	D	
22	2	12	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	E	E	E	F	F	F	E	
22	2	13	E	E	F	F	E	D	E	D	D	C	C	B	B	C	C	D	D	D	E	E	E	E	E	F	
22	2	14	F	F	G	G	G	G	G	G	G	D	B	B	B	B	B	D	D	D	F	F	F	F	E	E	

B150

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	2	15	E	E	E	E	E	E	D	D	D	D	C	C	C	D	D	D	E	E	E	E	E	E	E	E
22	2	16	E	E	F	G	G	G	E	D	D	C	B	A	A	B	B	D	D	D	D	D	D	D	D	D
22	2	17	D	D	D	D	D	D	D	D	D	D	C	C	C	C	C	D	D	E	G	G	G	G	F	F
22	2	18	F	F	F	F	E	E	E	E	D	D	C	C	C	D	D	D	D	E	E	D	D	D	D	D
22	2	19	D	D	D	D	D	E	E	D	D	D	B	B	B	B	C	D	D	E	E	E	E	E	E	E
22	2	20	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	E	E	E	G	G	G	G	G
22	2	21	G	G	G	G	F	F	F	E	E	E	C	C	C	D	D	C	D	D	D	D	D	D	D	D
22	2	22	D	D	D	D	D	D	D	D	D	D	D	C	B	B	C	D	D	D	D	D	D	D	D	D
22	2	23	D	D	D	D	D	D	D	D	C	B	A	A	B	B	C	C	D	D	D	D	D	E	E	E
22	2	24	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E
22	2	25	E	E	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	E
22	2	26	E	E	F	F	F	F	F	F	F	E	D	D	C	C	C	D	C	D	D	E	G	G	G	F
22	2	27	F	G	G	G	G	G	G	G	F	E	D	D	C	D	D	D	D	D	F	F	G	G	F	F
22	2	28	F	E	F	F	F	F	G	G	E	D	D	D	C	D	D	D	D	E	G	G	G	G	G	G
22	3	1	G	G	G	G	G	G	G	G	E	D	D	D	C	C	C	D	D	E	G	G	G	G	G	G
22	3	2	G	G	G	G	G	G	G	G	E	D	D	C	C	C	C	D	E	F	G	E	E	E	E	E
22	3	3	E	E	E	E	E	E	D	D	B	B	A	A	A	A	C	D	D	E	E	E	E	E	E	E
22	3	4	E	E	D	D	D	D	D	D	C	B	B	C	D	D	D	D	D	E	E	E	E	E	E	E
22	3	5	E	E	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	6	D	D	D	D	D	D	D	D	D	D	C	B	B	D	D	D	D	D	D	D	D	D	D	D
22	3	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	F	F	F
22	3	8	F	F	F	F	F	G	G	F	D	D	D	D	C	D	D	D	D	D	D	E	E	D	D	E
22	3	9	E	E	E	E	E	E	E	E	D	B	B	B	B	B	B	C	D	D	D	D	D	D	D	D
22	3	10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E
22	3	11	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E
22	3	12	E	F	F	F	F	F	F	E	D	D	C	C	B	B	C	C	D	D	D	E	E	E	E	E
22	3	13	E	E	E	E	E	E	E	F	D	D	C	C	B	B	B	C	D	D	E	F	G	G	G	F
22	3	14	F	F	F	F	F	G	G	F	E	D	D	C	D	C	D	D	D	D	E	E	E	E	E	E
22	3	15	E	E	E	E	E	E	E	E	D	D	D	C	B	C	C	D	D	D	F	F	G	G	F	F
22	3	16	G	G	G	G	G	G	G	-	-	-	-	-	-	-	-	C	D	D	F	F	G	F	G	G
22	3	17	G	E	E	E	E	E	D	D	C	B	C	C	D	D	D	D	D	D	D	D	D	D	D	D
22	3	18	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	19	F	F	G	G	F	G	E	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	G
22	3	20	F	G	G	-	-	-	-	-	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	21	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D
22	3	22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	24	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	25	F	F	F	F	E	E	E	E	D	D	D	D	C	C	D	D	D	D	E	E	E	F	F	F
22	3	26	G	F	G	G	F	F	E	D	D	B	B	B	A	B	B	C	D	D	E	E	E	E	E	E
22	3	27	E	D	E	E	E	E	D	D	D	C	B	C	B	C	C	D	D	D	D	-	-	F	F	E
22	3	28	E	E	F	F	E	E	E	D	D	B	A	A	A	A	A	B	D	D	D	D	D	D	D	E
22	3	29	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	30	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	31	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	E	-	F	F	F	F

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PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	4	1	F	E	F	F	F	F	F	-	D	D	C	B	B	B	A	B	D	D	E	E	E	E	E	E
22	4	2	E	E	E	E	D	D	D	D	D	C	C	C	C	B	C	C	D	D	E	F	G	G	G	G
22	4	3	-	-	-	-	-	F	-	-	D	D	D	E	D	D	E	E	E	E	E	F	G	G	-	-
22	4	4	G	F	E	E	E	E	E	D	C	C	C	C	C	B	C	D	D	F	F	F	F	F	F	G
22	4	5	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	E	E
22	4	6	E	E	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	4	7	E	E	D	D	E	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D
22	4	8	D	D	D	D	D	D	D	D	D	D	C	B	B	B	B	C	D	D	D	E	F	F	F	F
22	4	9	F	G	G	G	G	G	G	F	D	D	B	A	A	A	B	B	C	D	D	E	E	E	E	E
22	4	10	E	E	E	E	E	D	D	D	D	C	C	C	C	C	C	D	D	D	D	E	F	G	G	G
22	4	11	F	E	E	E	F	E	E	E	D	D	C	B	C	C	C	D	D	D	E	F	F	E	F	F
22	4	12	E	E	E	D	D	D	D	D	D	D	C	A	A	A	B	D	D	D	D	D	E	E	E	E
22	4	13	D	D	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	E	F	F	F	F	F
22	4	14	E	E	E	E	E	E	D	D	D	C	B	C	B	C	D	D	D	E	E	E	E	E	E	E
22	4	15	E	E	E	E	E	E	D	D	B	A	B	A	A	A	B	C	C	D	D	E	E	E	E	E
22	4	16	D	D	D	D	E	E	D	D	B	A	A	B	B	B	B	B	C	D	D	E	E	E	E	E
22	4	17	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-	E	F
22	4	18	F	F	E	E	E	E	E	D	C	C	C	B	A	A	A	C	C	D	D	E	F	F	G	F
22	4	19	F	G	F	-	E	E	E	D	C	D	C	D	D	D	D	D	D	D	D	D	D	D	D	D
22	4	20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G
22	4	21	G	G	F	E	-	-	-	-	-	D	D	A	A	B	C	C	D	D	D	E	E	E	D	E
22	4	22	E	E	E	E	E	E	E	D	D	D	D	B	A	B	D	D	D	D	D	E	E	E	E	E
22	4	23	E	E	D	D	D	D	D	D	D	C	A	A	A	B	D	D	E	E	E	E	E	E	E	E
22	4	24	E	E	E	E	E	E	E	D	D	C	D	C	D	C	D	D	D	D	D	D	D	D	D	D
22	4	25	D	D	D	D	D	D	D	D	D	C	C	B	B	B	B	A	B	C	D	D	E	E	F	G
22	4	26	-	-	-	-	-	-	G	E	D	D	C	B	B	B	B	C	C	D	D	E	E	E	E	E
22	4	27	E	E	E	E	E	E	E	D	C	B	B	A	A	A	A	A	C	D	D	E	E	E	E	E
22	4	28	E	E	E	E	E	E	F	D	C	B	D	A	A	A	A	C	C	D	D	D	D	D	D	D
22	4	29	E	E	E	E	D	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	4	30	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	5	1	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	5	2	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	5	3	D	D	D	D	D	D	D	C	D	C	C	C	C	D	D	D	D	D	D	D	D	D	E	D
22	5	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	5	5	E	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	E
22	5	6	D	D	D	D	E	E	D	D	D	D	C	D	D	D	D	D	D	D	D	E	F	F	F	F
22	5	7	F	F	E	E	E	E	D	D	D	C	C	C	B	C	C	D	D	D	D	E	E	E	E	E
22	5	8	E	E	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	5	9	E	E	E	E	D	D	D	D	D	D	C	B	B	C	C	C	D	D	D	E	E	E	E	E
22	5	10	E	E	E	E	E	E	E	D	D	D	C	C	C	C	C	D	D	D	D	E	E	D	E	D
22	5	11	E	E	E	E	D	E	E	D	D	C	B	B	A	A	A	A	C	C	D	E	E	-	-	E
22	5	12	E	E	E	E	E	E	D	D	C	B	A	A	A	A	A	A	B	D	D	E	E	E	E	D
22	5	13	E	E	E	E	E	E	E	D	D	D	D	D	D	C	D	D	D	D	D	G	G	G	G	G
22	5	14	G	G	G	G	G	G	G	E	D	D	C	C	C	C	D	C	D	E	F	F	G	F	E	E
22	5	15	F	F	E	E	E	E	E	D	D	D	D	D	B	A	A	B	C	D	D	F	G	G	G	G

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PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
22	5	16	G	G	F	E	G	G	E	D	D	D	C	C	B	D	B	C	C	D	D	F	F	F	E	F	
22	5	17	E	E	E	E	E	F	E	D	C	B	B	A	B	D	D	E	D	D	D	E	E	E	E	E	
22	5	18	E	E	E	E	F	F	E	D	D	C	B	A	B	A	B	B	D	D	E	F	G	G	F	F	
22	5	19	F	F	F	F	F	E	E	D	D	B	B	A	A	A	A	C	D	D	D	D	D	E	D	-	
22	5	20	D	D	D	D	D	D	D	D	D	C	C	C	C	B	C	D	D	D	D	E	E	E	E	E	
22	5	21	E	D	D	D	D	D	D	D	D	B	A	A	B	D	D	D	D	D	D	E	E	F	F	G	
22	5	22	G	G	-	G	G	G	F	D	D	C	B	B	A	B	A	B	B	D	D	E	E	E	E	E	
22	5	23	E	F	F	E	E	E	E	D	D	D	C	D	C	D	D	B	C	D	D	D	E	D	D	D	
22	5	24	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	5	25	D	D	D	D	D	-	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	5	26	D	D	D	D	D	D	D	D	D	C	C	B	D	D	D	D	D	D	D	E	G	G	G	G	
22	5	27	G	G	G	G	G	G	F	E	D	D	D	D	D	C	D	D	D	D	D	E	E	F	E	E	
22	5	28	E	E	E	E	E	E	E	E	D	D	C	C	B	B	B	C	D	D	D	E	E	E	E	D	
22	5	29	E	E	E	E	E	E	D	D	D	D	C	B	C	B	C	B	D	D	D	D	E	E	E	E	
22	5	30	E	E	D	E	D	D	D	D	B	A	B	B	B	A	B	D	D	D	D	D	E	D	F	E	
22	5	31	E	F	E	E	F	E	E	D	D	D	C	C	B	B	B	C	D	D	E	F	F	E	E	E	
22	6	1	D	D	D	E	E	D	D	D	C	C	B	A	A	C	D	D	D	D	D	F	G	G	F	F	
22	6	2	G	G	G	G	G	F	D	D	D	C	C	B	B	B	C	C	D	D	E	G	G	F	E	E	
22	6	3	E	E	E	E	E	F	D	D	D	D	B	B	B	B	D	D	D	D	D	E	E	E	E	E	
22	6	4	E	E	F	F	E	E	D	D	D	D	D	D	A	B	B	B	C	D	D	E	E	D	D	D	
22	6	5	D	D	D	E	E	D	D	D	D	D	C	C	B	B	C	D	D	D	D	E	E	F	F	F	
22	6	6	F	E	F	E	F	F	D	D	D	D	C	B	B	B	B	C	D	D	E	E	E	E	E	E	
22	6	7	F	F	E	E	E	F	D	D	C	C	B	B	B	B	B	B	C	D	E	E	E	E	D	D	
22	6	8	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	F	G	G	G	G	
22	6	9	G	E	E	F	F	G	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	E	F
22	6	10	E	E	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	G	G	G	
22	6	11	G	G	G	G	G	F	F	D	D	D	D	D	D	C	D	D	D	E	E	E	E	E	E	E	
22	6	12	F	F	F	E	E	E	D	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	E	
22	6	13	E	E	E	E	E	E	D	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	6	14	E	E	E	E	E	E	D	D	D	D	D	C	B	C	C	D	D	D	E	E	E	E	E	E	
22	6	15	E	E	E	E	E	E	D	D	D	D	D	B	A	A	B	C	D	D	E	E	G	G	G	F	
22	6	16	F	F	G	G	F	F	E	D	D	D	D	B	C	C	B	D	D	D	E	E	F	E	E	F	
22	6	17	F	E	E	E	E	F	F	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	6	18	E	E	E	E	E	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	D	D	D	D	
22	6	19	D	E	E	E	E	D	D	D	D	D	C	C	C	C	D	D	D	D	D	E	E	E	E	E	
22	6	20	E	E	E	E	E	E	D	D	D	D	C	C	C	C	D	D	D	D	D	E	E	E	E	E	
22	6	21	E	E	E	E	E	D	D	D	D	D	D	C	C	B	B	D	D	D	E	E	E	E	E	E	
22	6	22	E	F	F	F	F	F	E	E	D	D	D	C	B	C	C	D	D	E	F	F	F	E	F	D	
22	6	23	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	6	24	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22	6	25	E	E	E	F	F	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	6	26	E	E	E	F	F	E	E	D	D	C	B	B	C	C	D	D	D	E	G	G	G	G	G	G	
22	6	27	G	G	G	G	G	G	F	D	D	C	C	D	D	C	C	D	D	D	D	F	F	F	G	G	
22	6	28	F	F	F	F	F	F	E	D	D	C	C	B	B	C	C	D	D	D	E	F	F	F	F	F	
22	6	29	F	F	F	E	E	F	E	D	D	D	C	C	C	C	D	D	D	E	F	F	F	F	F	E	

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PROGRAM: JFD VERSION: PC-1.2
NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-JUN 2022
SITE IDENTIFIER:NPPD
DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

		HOURLY STABILITIES																								
		HOURS																								
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	6	30	E	E	F	F	F	F	E	D	D	D	D	C	C	C	D	D	D	D	E	F	E	E	E	E

B154

JFDs of 10-Meter Wind vs. Delta T

July-September 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	5
7.51-12.50	1	0	0	0	2	1	5	5	0	0	0	0	0	0	0	3	17
12.51-18.50	0	0	0	0	0	0	3	2	0	5	1	0	0	0	0	5	16
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	0	0	0	5	1	9	7	1	5	1	0	0	0	0	8	39

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	1	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	6
7.51-12.50	0	1	0	0	0	1	4	1	1	1	0	0	0	0	0	2	11
12.51-18.50	0	0	0	0	0	0	4	2	1	0	0	0	0	2	0	0	9
18.51-24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	1	0	1	1	2	11	3	4	1	0	0	0	2	0	2	29

B156

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
3.51- 7.50	0	0	2	0	1	5	3	1	0	0	0	1	0	0	0	1	14
7.51-12.50	2	2	0	0	0	1	6	3	1	1	0	0	1	0	0	0	17
12.51-18.50	2	0	0	0	0	0	0	2	4	0	1	0	0	1	0	1	11
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	2	3	0	1	7	9	6	5	1	1	1	1	1	0	2	44

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	7	14	13	13	13	7	10	8	7	7	4	0	3	3	0	3	112
3.51- 7.50	27	37	40	45	51	38	42	41	21	11	6	5	1	2	5	16	388
7.51-12.50	28	14	0	11	3	12	43	37	38	29	11	1	4	1	12	28	272
12.51-18.50	10	4	0	0	0	0	0	8	47	12	3	2	0	0	0	2	88
18.51-24.00	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	4
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	73	69	53	69	67	57	95	94	114	61	24	8	8	6	17	49	865

B157

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	5
1.01- 3.50	22	21	16	11	9	10	8	19	21	13	3	10	2	2	5	9	181
3.51- 7.50	31	32	12	13	6	10	23	45	71	16	4	4	5	4	13	21	310
7.51-12.50	9	7	0	0	0	1	13	17	39	17	3	0	0	1	4	6	117
12.51-18.50	2	1	0	0	0	0	0	0	7	6	1	0	0	0	0	0	17
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	64	61	28	24	15	21	44	81	138	53	11	14	7	7	22	36	631

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	17
1.01- 3.50	30	7	4	4	3	4	5	12	25	21	22	9	12	11	12	24	205
3.51- 7.50	18	0	1	0	0	4	0	8	63	20	2	2	3	3	5	8	137
7.51-12.50	3	0	0	0	0	0	0	0	10	4	3	0	2	0	2	1	25
12.51-18.50	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	51	7	5	4	3	8	5	20	99	45	27	12	17	14	19	33	386

B158

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	28
1.01- 3.50	10	0	1	1	1	0	1	2	12	22	7	19	7	20	17	23	143
3.51- 7.50	3	1	0	0	0	0	0	0	1	1	1	4	1	1	1	4	18
7.51-12.50	1	0	0	0	0	0	0	0	1	0	1	2	1	0	0	0	6
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	14	1	1	1	1	0	1	2	14	23	9	25	9	21	18	27	195

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	51
1.01- 3.50	69	42	35	30	26	22	24	41	65	63	36	38	24	36	34	59	644
3.51- 7.50	81	70	55	58	62	58	72	95	156	48	13	16	10	10	24	50	878
7.51-12.50	44	24	0	11	5	16	71	63	90	52	18	3	8	2	18	40	465
12.51-18.50	14	5	0	0	0	0	7	14	60	23	6	3	0	3	0	8	143
18.51-24.00	1	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	8
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	209	141	90	99	93	96	174	213	375	189	73	60	42	51	76	157	2189

B159

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2189

TOTAL NUMBER OF MISSING OBSERVATIONS: 19

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.1 %

MEAN WIND SPEED FOR THIS PERIOD: 5.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.78	1.32	2.01	39.52	28.83	17.63	8.91

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	2	0	0	0	5	1	9	7	1	5	1	0	0	0	0	8	0
B	1	1	0	1	1	2	11	3	4	1	0	0	0	2	0	2	0
C	4	2	3	0	1	7	9	6	5	1	1	1	1	1	0	2	0
D	73	69	53	69	67	57	95	94	114	61	24	8	8	6	17	49	1
E	64	61	28	24	15	21	44	81	138	53	11	14	7	7	22	36	5
F	51	7	5	4	3	8	5	20	99	45	27	12	17	14	19	33	17
G	14	1	1	1	1	0	1	2	14	23	9	25	9	21	18	27	28
TOTAL	209	141	90	99	93	96	174	213	375	189	73	60	42	51	76	157	51

B160

JFDs of 10-Meter Wind vs. Delta T

October-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	1	0	0	0	1	2	0	1	0	0	0	0	0	0	0	6
7.51-12.50	4	2	0	0	0	0	9	4	3	2	0	0	0	1	2	1	28
12.51-18.50	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4
>24.00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
TOTAL	5	3	0	0	0	1	11	4	11	5	0	0	0	1	2	1	44

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	1	0	0	0	0	0	0	1	0	0	0	2	0	1	0	1	6
7.51-12.50	2	1	0	0	0	0	4	0	2	1	2	3	0	2	1	1	19
12.51-18.50	0	0	0	0	0	0	0	0	4	1	0	0	1	0	0	3	9
18.51-24.00	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	0	5
>24.00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
TOTAL	3	1	0	0	0	0	4	1	15	2	2	5	1	4	4	5	47

B162

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4
3.51- 7.50	1	0	1	0	0	6	2	0	0	0	1	0	0	0	1	0	12
7.51-12.50	8	1	0	0	0	1	1	3	1	3	2	1	1	3	1	3	29
12.51-18.50	2	0	0	0	0	1	4	0	0	1	1	1	0	1	1	9	21
18.51-24.00	0	0	0	0	0	0	0	0	3	3	0	0	0	1	1	0	8
>24.00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
TOTAL	11	1	1	0	0	8	9	5	9	7	4	2	1	5	4	12	79

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	5	2	2	5	3	6	7	4	1	1	1	2	2	0	3	44
3.51- 7.50	20	10	4	6	5	8	25	14	6	13	10	9	10	11	19	22	192
7.51-12.50	28	9	0	2	2	10	42	14	22	16	13	8	7	35	66	81	355
12.51-18.50	6	0	0	0	0	15	18	11	19	20	8	5	9	52	77	54	294
18.51-24.00	0	0	0	0	0	1	0	2	17	9	2	0	1	6	19	18	75
>24.00	0	0	0	0	0	0	0	0	12	4	0	0	0	0	0	2	18
TOTAL	54	24	6	10	12	37	91	48	80	63	34	23	29	106	181	180	978

B163

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	4
1.01- 3.50	6	7	4	4	5	5	4	6	4	9	1	3	4	5	1	4	72
3.51- 7.50	36	4	1	0	4	16	18	17	24	6	5	6	11	14	28	24	214
7.51-12.50	5	1	0	0	0	3	17	15	20	17	19	8	9	8	10	9	141
12.51-18.50	1	0	0	0	0	0	0	6	35	16	2	1	1	0	1	3	66
18.51-24.00	0	0	0	0	0	0	0	1	15	1	0	0	0	0	0	0	17
>24.00	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
TOTAL	48	12	5	4	9	24	39	45	105	49	27	18	25	27	40	40	521

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	5
1.01- 3.50	19	5	2	1	2	6	4	10	15	16	7	9	4	8	7	12	127
3.51- 7.50	5	2	0	0	0	3	5	7	25	6	3	3	3	9	8	6	85
7.51-12.50	0	0	0	0	0	3	0	0	9	2	2	2	2	0	1	0	21
12.51-18.50	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	24	7	2	1	2	12	9	17	49	25	12	14	9	17	16	18	239

B164

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	23
1.01- 3.50	7	10	4	2	6	3	8	37	49	32	10	14	7	10	18	31	248
3.51- 7.50	1	1	0	0	0	0	0	2	7	2	1	2	1	3	2	1	23
7.51-12.50	0	0	0	0	0	0	0	0	2	0	0	3	1	0	0	0	6
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	8	11	4	2	6	3	8	39	58	34	11	19	9	13	20	32	300

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	32
1.01- 3.50	32	27	12	9	18	17	24	62	72	58	19	27	17	25	26	50	495
3.51- 7.50	65	18	6	6	9	34	52	41	63	27	20	22	25	38	58	54	538
7.51-12.50	47	14	0	2	2	17	73	36	59	41	38	25	20	49	81	95	599
12.51-18.50	9	0	0	0	0	16	22	17	59	41	11	7	11	53	79	69	394
18.51-24.00	0	0	0	0	0	1	0	3	39	14	2	0	1	8	23	18	109
>24.00	0	0	0	0	0	0	0	0	35	4	0	0	0	0	0	2	41
TOTAL	153	59	18	17	29	85	171	159	327	185	90	81	74	173	267	288	2208

B165

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2208

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 8.8 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.99	2.13	3.58	44.29	23.60	10.82	13.59

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	5	3	0	0	0	1	11	4	11	5	0	0	0	1	2	1	0
B	3	1	0	0	0	0	4	1	15	2	2	5	1	4	4	5	0
C	11	1	1	0	0	8	9	5	9	7	4	2	1	5	4	12	0
D	54	24	6	10	12	37	91	48	80	63	34	23	29	106	181	180	0
E	48	12	5	4	9	24	39	45	105	49	27	18	25	27	40	40	4
F	24	7	2	1	2	12	9	17	49	25	12	14	9	17	16	18	5
G	8	11	4	2	6	3	8	39	58	34	11	19	9	13	20	32	23
TOTAL	153	59	18	17	29	85	171	159	327	185	90	81	74	173	267	288	32

B166

JFDs of 10-Meter Wind vs. Delta T

July-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	2	1	0	0	3	1	3	0	1	0	0	0	0	0	0	0	11
7.51-12.50	5	2	0	0	2	1	14	9	3	2	0	0	0	1	2	4	45
12.51-18.50	0	0	0	0	0	0	3	2	1	7	1	0	0	0	0	5	19
18.51-24.00	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5
>24.00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
TOTAL	7	3	0	0	5	2	20	11	12	10	1	0	0	1	2	9	83

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	2	0	0	0	1	1	3	1	0	0	0	2	0	1	0	1	12
7.51-12.50	2	2	0	0	0	1	8	1	3	2	2	3	0	2	1	3	30
12.51-18.50	0	0	0	0	0	0	4	2	5	1	0	0	1	2	0	3	18
18.51-24.00	0	0	0	0	0	0	0	0	3	0	0	0	0	1	3	0	7
>24.00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
TOTAL	4	2	0	1	1	2	15	4	19	3	2	5	1	6	4	7	76

B168

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	1	2	2	0	0	0	0	0	0	0	0	6
3.51- 7.50	1	0	3	0	1	11	5	1	0	0	1	1	0	0	1	1	26
7.51-12.50	10	3	0	0	0	2	7	6	2	4	2	1	2	3	1	3	46
12.51-18.50	4	0	0	0	0	1	4	2	4	1	2	1	0	2	1	10	32
18.51-24.00	0	0	0	0	0	0	0	0	3	3	0	0	0	1	1	0	8
>24.00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
TOTAL	15	3	4	0	1	15	18	11	14	8	5	3	2	6	4	14	123

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	7	19	15	15	18	10	16	15	11	8	5	1	5	5	0	6	156
3.51- 7.50	47	47	44	51	56	46	67	55	27	24	16	14	11	13	24	38	580
7.51-12.50	56	23	0	13	5	22	85	51	60	45	24	9	11	36	78	109	627
12.51-18.50	16	4	0	0	0	15	18	19	66	32	11	7	9	52	77	56	382
18.51-24.00	1	0	0	0	0	1	0	2	18	11	2	0	1	6	19	18	79
>24.00	0	0	0	0	0	0	0	0	12	4	0	0	0	0	0	2	18
TOTAL	127	93	59	79	79	94	186	142	194	124	58	31	37	112	198	229	1843

B169

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	9
1.01- 3.50	28	28	20	15	14	15	12	25	25	22	4	13	6	7	6	13	253
3.51- 7.50	67	36	13	13	10	26	41	62	95	22	9	10	16	18	41	45	524
7.51-12.50	14	8	0	0	0	4	30	32	59	34	22	8	9	9	14	15	258
12.51-18.50	3	1	0	0	0	0	0	6	42	22	3	1	1	0	1	3	83
18.51-24.00	0	0	0	0	0	0	0	1	15	2	0	0	0	0	0	0	18
>24.00	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
TOTAL	112	73	33	28	24	45	83	126	243	102	38	32	32	34	62	76	1152

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	22
1.01- 3.50	49	12	6	5	5	10	9	22	40	37	29	18	16	19	19	36	332
3.51- 7.50	23	2	1	0	0	7	5	15	88	26	5	5	6	12	13	14	222
7.51-12.50	3	0	0	0	0	3	0	0	19	6	5	2	4	0	3	1	46
12.51-18.50	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	75	14	7	5	5	20	14	37	148	70	39	26	26	31	35	51	625

B170

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	51
1.01- 3.50	17	10	5	3	7	3	9	39	61	54	17	33	14	30	35	54	391
3.51- 7.50	4	2	0	0	0	0	0	2	8	3	2	6	2	4	3	5	41
7.51-12.50	1	0	0	0	0	0	0	0	3	0	1	5	2	0	0	0	12
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	22	12	5	3	7	3	9	41	72	57	20	44	18	34	38	59	495

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	83
1.01- 3.50	101	69	47	39	44	39	48	103	137	121	55	65	41	61	60	109	1139
3.51- 7.50	146	88	61	64	71	92	124	136	219	75	33	38	35	48	82	104	1416
7.51-12.50	91	38	0	13	7	33	144	99	149	93	56	28	28	51	99	135	1064
12.51-18.50	23	5	0	0	0	16	29	31	119	64	17	10	11	56	79	77	537
18.51-24.00	1	0	0	0	0	1	0	3	43	17	2	0	1	8	23	18	117
>24.00	0	0	0	0	0	0	0	0	35	4	0	0	0	0	0	2	41
TOTAL	362	200	108	116	122	181	345	372	702	374	163	141	116	224	343	445	4397

B171

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4416

TOTAL NUMBER OF VALID OBSERVATIONS: 4397

TOTAL NUMBER OF MISSING OBSERVATIONS: 19

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.6 %

MEAN WIND SPEED FOR THIS PERIOD: 7.3 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.89	1.73	2.80	41.91	26.20	14.21	11.26

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	7	3	0	0	5	2	20	11	12	10	1	0	0	1	2	9	0
B	4	2	0	1	1	2	15	4	19	3	2	5	1	6	4	7	0
C	15	3	4	0	1	15	18	11	14	8	5	3	2	6	4	14	0
D	127	93	59	79	79	94	186	142	194	124	58	31	37	112	198	229	1
E	112	73	33	28	24	45	83	126	243	102	38	32	32	34	62	76	9
F	75	14	7	5	5	20	14	37	148	70	39	26	26	31	35	51	22
G	22	12	5	3	7	3	9	41	72	57	20	44	18	34	38	59	51
TOTAL	362	200	108	116	122	181	345	372	702	374	163	141	116	224	343	445	83

B172

Stability Classes by Hour of Day

10-Meter Wind vs. Delta T

July-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
22	7	1	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F			
22	7	2	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	D	E	E	E	E		
22	7	3	E	E	E	E	E	D	D	D	D	D	C	B	A	B	D	D	D	D	D	D	D	D	D	D			
22	7	4	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E			
22	7	5	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	E	D	-	D		
22	7	6	E	E	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D		
22	7	7	D	E	E	F	E	E	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	E	E	E	E		
22	7	8	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E		
22	7	9	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	F	F	F	F	F		
22	7	10	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	E	F		
22	7	11	F	E	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	G	G	F	F	
22	7	12	F	F	F	F	F	G	F	D	D	D	D	D	D	D	D	D	D	D	D	E	G	G	G	G	G		
22	7	13	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F		
22	7	14	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	7	15	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F		
22	7	16	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
22	7	17	E	E	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G	
22	7	18	G	G	G	G	F	G	F	E	D	D	D	D	D	C	D	D	D	D	D	D	D	E	F	F	E	F	
22	7	19	E	E	E	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	
22	7	20	G	G	G	F	F	G	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	G	G	G	G
22	7	21	F	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	E	E	E	
22	7	22	E	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F	E	E
22	7	23	F	F	F	F	F	F	E	E	E	D	D	D	D	E	E	E	E	E	E	F	F	F	F	F	E	E	
22	7	24	E	E	E	E	D	D	D	D	D	D	D	D	E	D	D	D	D	D	D	D	E	F	F	F	F	F	
22	7	25	F	E	F	F	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	7	26	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	7	27	E	E	E	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	G	F	F	F	G	
22	7	28	F	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	G	G	F	F
22	7	29	G	G	G	G	G	G	G	D	D	D	D	D	D	C	D	D	D	D	D	D	E	F	G	G	G	G	
22	7	30	G	G	G	G	G	G	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	F	F	E	E	E	
22	7	31	E	E	E	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	G	G	F	
22	8	1	F	F	E	E	F	F	F	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	
22	8	2	F	E	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	8	3	F	E	E	E	E	F	F	D	D	E	E	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F	
22	8	4	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	G	G	G	G	
22	8	5	F	F	F	E	E	F	E	D	D	D	D	C	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	8	6	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	E	E	
22	8	7	E	E	E	E	F	F	E	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	D	D	
22	8	8	D	E	D	D	D	D	D	D	D	D	D	C	C	D	D	D	D	D	D	D	E	E	F	F	E	E	
22	8	9	F	F	F	F	F	F	E	E	D	D	D	C	D	D	D	D	D	D	D	D	E	F	G	G	G	G	
22	8	10	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G
22	8	11	G	F	G	G	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F
22	8	12	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	E	E
22	8	13	E	E	E	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E

B174

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
22	8	14	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E			
22	8	15	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D			
22	8	16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F			
22	8	17	F	F	F	G	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	G	G	G	G	G			
22	8	18	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F	F			
22	8	19	E	E	E	F	F	F	F	E	D	D	D	D	D	D	E	F	G	F	F	F	F	F	G	F			
22	8	20	G	F	F	F	F	F	F	F	D	D	D	D	D	D	D	D	D	D	E	G	G	G	G	F			
22	8	21	F	F	E	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	F	G	G	F	G	E		
22	8	22	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	G	G	G	G		
22	8	23	G	G	G	G	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F			
22	8	24	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F		
22	8	25	F	F	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	E	F	F	E	E	E	E		
22	8	26	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	8	27	E	E	E	E	F	F	F	E	E	D	D	D	D	D	E	D	F	F	F	E	F	F	E	E	F		
22	8	28	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	E	E	E	E		
22	8	29	E	E	E	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	G		
22	8	30	G	G	G	G	F	G	F	-	-	-	-	-	-	-	-	-	-	D	E	E	G	G	G	G	G		
22	8	31	G	G	G	G	G	G	G	-	-	-	-	-	-	-	-	-	-	D	E	E	F	F	F	F	F		
22	9	1	F	F	G	G	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F		
22	9	2	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	E	F		
22	9	3	F	F	F	F	E	E	E	E	D	D	D	D	C	D	C	D	D	D	D	E	F	F	F	F	F		
22	9	4	F	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	E	E	E	E	E		
22	9	5	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	E	E	E	E	F	F		
22	9	6	F	E	F	F	F	F	F	F	E	D	D	C	C	C	C	D	D	D	D	D	E	E	E	E	E		
22	9	7	E	F	F	F	F	F	F	E	E	D	D	D	C	D	D	D	D	D	D	E	F	F	G	G	G	G	
22	9	8	F	F	F	F	F	F	F	F	E	D	D	D	C	C	C	D	D	D	E	F	F	F	F	F	F		
22	9	9	E	E	E	F	F	F	E	E	D	D	C	D	D	D	D	D	D	D	E	D	E	E	E	E	E		
22	9	10	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F	F	
22	9	11	F	F	F	G	F	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	G	G	G	G	G	F	
22	9	12	F	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G	G	
22	9	13	G	F	G	G	F	F	F	F	E	D	D	D	D	C	C	D	D	D	D	E	E	E	F	F	F	F	
22	9	14	F	G	G	F	F	F	F	F	E	D	D	D	C	C	C	D	D	D	D	E	E	E	F	F	F	F	E
22	9	15	E	E	F	F	E	F	E	E	D	D	D	A	B	B	B	D	D	D	E	E	E	E	E	E	E	E	
22	9	16	E	E	E	E	E	E	E	E	E	E	D	D	C	B	B	B	D	D	D	E	E	E	E	E	E	E	
22	9	17	F	E	E	E	E	F	F	E	E	F	G	D	B	B	B	D	D	D	E	E	G	G	F	F	F	F	
22	9	18	E	E	E	F	E	F	F	E	D	D	C	A	B	B	C	D	D	D	E	F	E	E	E	E	E	E	
22	9	19	E	E	E	E	E	E	E	E	D	D	C	B	B	A	B	C	C	D	E	F	F	F	F	G	F	F	
22	9	20	F	F	F	F	F	F	F	F	D	A	A	A	A	A	A	C	D	D	D	F	F	F	F	F	F	E	
22	9	21	E	E	E	E	E	E	E	D	D	C	B	C	A	D	D	E	E	E	E	E	E	E	E	E	E	E	
22	9	22	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	9	23	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	9	24	F	F	F	G	G	G	G	E	E	D	C	B	C	B	D	D	D	D	E	G	G	G	F	E	F	F	
22	9	25	F	F	G	G	F	E	F	D	D	B	A	A	A	A	A	C	D	E	E	F	F	F	F	F	G	G	
22	9	26	G	G	F	E	F	F	F	E	D	C	B	A	A	A	A	B	D	E	G	G	G	G	G	G	G	G	
22	9	27	G	G	G	G	G	G	G	F	D	B	A	B	B	B	C	C	D	E	E	E	E	E	E	E	E	E	

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PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	9	28	E	E	E	E	E	E	F	D	C	A	A	A	A	A	A	B	D	E	E	F	F	F	F	E
22	9	29	E	E	E	F	F	E	E	D	C	A	A	A	A	A	A	B	C	D	E	E	E	E	E	E
22	9	30	E	E	E	E	F	E	E	E	D	A	A	A	A	A	A	B	D	D	E	E	E	E	E	E
22	10	1	F	F	E	F	F	F	E	E	D	A	A	A	A	A	A	C	E	F	G	F	F	F	F	F
22	10	2	F	E	F	F	F	F	E	E	D	C	A	A	A	A	A	B	D	E	F	G	F	F	F	F
22	10	3	F	F	F	F	F	F	F	E	D	C	B	A	A	A	A	B	D	D	E	F	F	E	F	F
22	10	4	E	E	E	F	F	F	F	E	D	C	B	A	A	A	B	D	E	E	F	E	E	F	F	F
22	10	5	G	G	F	G	G	G	G	E	C	B	A	A	A	B	B	D	D	E	G	G	G	G	F	F
22	10	6	F	F	G	G	G	G	G	F	D	C	B	A	A	A	A	D	D	E	E	E	E	E	E	E
22	10	7	E	E	E	E	E	E	E	D	C	C	B	A	A	A	A	B	D	E	F	G	F	G	G	G
22	10	8	G	G	G	G	G	G	G	G	D	C	B	B	B	B	B	C	D	E	F	G	F	F	E	E
22	10	9	E	E	E	E	G	G	G	F	D	D	B	B	B	A	B	C	D	F	G	G	G	G	G	G
22	10	10	G	G	G	G	G	G	G	G	E	D	C	B	A	A	A	B	D	E	G	G	G	G	F	E
22	10	11	E	E	E	E	F	E	D	D	B	A	A	A	A	A	C	D	E	E	E	E	E	E	E	D
22	10	12	E	E	E	D	E	E	F	E	D	D	C	C	B	B	D	D	D	E	E	E	F	F	F	F
22	10	13	E	E	E	E	E	E	E	D	D	D	C	B	B	B	C	D	D	E	E	F	G	G	G	G
22	10	14	G	G	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	G	G
22	10	15	G	G	G	G	G	G	G	G	E	D	C	C	C	D	D	D	D	D	E	F	G	F	E	F
22	10	16	F	G	G	F	G	G	F	E	E	D	D	C	C	D	D	D	D	E	E	E	E	E	E	E
22	10	17	F	F	E	E	E	E	E	E	D	D	C	B	B	C	C	D	D	E	E	E	E	F	E	E
22	10	18	E	E	E	E	E	E	E	E	D	C	B	C	C	B	C	C	D	E	F	G	G	G	G	G
22	10	19	G	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	F	G	G	G	G	G	G
22	10	20	G	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	F	G	G	G	G	G	G
22	10	21	G	G	F	E	E	E	E	E	D	D	C	C	C	D	D	D	D	G	G	G	G	G	G	G
22	10	22	G	G	G	F	F	F	F	G	E	D	B	B	A	A	B	C	D	E	E	E	F	F	F	F
22	10	23	F	F	E	F	E	E	E	E	D	D	C	B	A	A	B	C	D	D	E	E	E	E	E	E
22	10	24	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	F	F
22	10	25	F	F	G	G	G	F	E	E	E	D	D	D	C	D	D	D	D	E	F	G	G	G	G	G
22	10	26	G	G	G	G	G	G	F	G	F	D	D	C	C	D	D	D	D	E	E	E	E	E	E	E
22	10	27	E	E	E	E	E	E	E	E	D	D	C	C	C	D	D	D	D	E	E	E	F	E	E	E
22	10	28	F	F	F	F	G	F	E	D	D	D	C	C	C	C	D	D	D	E	G	G	G	G	G	G
22	10	29	G	G	G	G	G	G	F	E	D	D	C	C	D	D	D	D	D	F	G	F	F	F	F	G
22	10	30	G	G	G	G	G	F	F	D	E	D	D	D	D	C	D	D	D	E	F	F	E	F	F	E
22	10	31	E	E	E	E	F	F	F	F	E	D	D	D	D	D	D	D	E	F	G	G	G	G	G	G
22	11	1	G	G	G	G	G	G	G	F	D	D	C	B	C	C	D	D	F	F	F	F	E	E	E	E
22	11	2	E	E	E	E	E	E	E	E	D	C	C	B	B	B	B	D	D	E	E	E	E	E	E	E
22	11	3	E	E	E	E	E	D	D	D	D	D	D	B	A	B	C	D	D	D	D	E	E	D	D	D
22	11	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	11	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22	11	6	E	E	E	D	E	E	E	E	D	D	D	D	D	D	D	D	D	E	F	F	F	F	G	G
22	11	7	G	G	F	F	F	F	F	E	D	D	D	C	C	D	D	D	D	E	E	E	E	E	E	E
22	11	8	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	D	D	D
22	11	9	D	D	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	11	10	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	11	11	D	D	D	D	D	D	D	D	D	D	C	B	C	C	C	D	D	D	D	D	D	D	D	D

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PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR MN DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22 11 12	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F
22 11 13	G	F	F	F	F	F	F	F	E	D	C	C	C	B	C	D	D	D	D	D	D	D	D	D
22 11 14	D	D	D	D	D	E	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 11 15	D	D	D	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22 11 16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	F	F
22 11 17	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 11 18	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	E	E	E	F	E	E	E
22 11 19	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	G	G	G	G	G
22 11 20	F	F	E	F	F	E	E	E	E	D	D	D	D	D	D	D	E	E	F	E	E	E	E	E
22 11 21	E	E	E	E	G	G	G	G	G	D	D	C	D	D	D	D	E	G	G	G	G	G	G	G
22 11 22	G	G	G	G	G	G	G	G	G	E	D	D	D	D	D	D	E	F	G	G	G	G	F	G
22 11 23	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	E	F	F	E	E	E	E	E
22 11 24	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	F	E	E	E	E	E
22 11 25	E	E	E	F	E	F	E	E	E	D	D	D	D	D	D	D	E	F	G	G	G	F	G	G
22 11 26	G	F	G	G	F	G	G	G	G	F	D	D	D	D	D	D	E	E	F	F	F	F	F	E
22 11 27	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	G
22 11 28	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	E	E	E	E	F	F	E
22 11 29	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E
22 11 30	E	D	E	E	D	D	D	D	D	D	D	D	C	C	D	D	D	E	G	G	G	G	G	G
22 12 1	G	G	F	F	F	F	E	E	D	D	D	C	D	D	D	D	E	E	F	F	E	E	E	E
22 12 2	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	E	E	E
22 12 4	E	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	E	F	F	F	F	F	F
22 12 5	F	F	G	F	G	G	G	F	F	E	D	D	D	D	D	D	D	E	D	D	D	E	E	E
22 12 6	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	G	G	G	G	G	G
22 12 7	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22 12 8	E	E	E	E	D	E	D	E	D	E	D	D	D	D	D	D	D	E	D	D	E	E	E	D
22 12 9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	G	G	G	F	G	F
22 12 11	G	G	G	G	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 12	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 13	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	E	E
22 12 14	D	D	D	E	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 15	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 17	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	E	E	E
22 12 18	E	F	F	F	F	E	E	E	E	D	C	D	D	C	D	D	D	E	E	E	E	E	E	E
22 12 19	E	E	E	E	E	E	E	E	D	D	E	D	D	D	D	D	D	E	E	D	D	D	D	D
22 12 20	D	D	D	D	D	D	D	D	D	C	D	D	C	C	D	D	D	D	D	E	D	D	D	D
22 12 21	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22 12 24	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	D	E
22 12 25	E	E	E	E	E	E	F	F	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22 12 26	E	D	D	D	D	D	D	D	D	D	C	D	C	D	D	D	D	E	F	G	G	F	F	F

B177

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JUL-DEC 2022
 SITE IDENTIFIER: NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS

YR MN DY	HOURLY STABILITIES																							
	HOURS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22 12 27	E	E	F	E	E	E	E	E	D	D	D	D	C	C	D	D	D	E	E	E	E	E	E	E
22 12 28	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	F	F	F	G	G
22 12 29	G	G	G	F	G	G	G	G	G	F	F	D	D	D	D	D	D	D	D	D	D	D	E	E
22 12 30	E	D	E	E	F	F	G	G	G	F	D	D	D	D	D	D	D	F	F	F	G	F	F	G
22 12 31	F	F	F	E	E	E	E	E	E	E	D	D	D	D	D	D	E	G	G	G	G	G	G	G

JFDs of 10-Meter Wind vs. Delta T

January-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	2	1	0	0	3	1	3	0	1	0	0	1	0	0	0	0	12
7.51-12.50	15	6	0	0	4	1	15	11	4	2	0	0	1	2	5	66	
12.51-18.50	4	5	0	2	2	5	5	4	2	8	1	0	0	0	10	48	
18.51-24.00	0	1	0	0	0	0	0	0	11	5	0	0	0	0	0	17	
>24.00	0	0	0	0	0	0	0	0	16	4	0	0	0	0	0	20	
TOTAL	21	13	0	2	9	7	23	15	34	19	1	1	0	1	2	15	163

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	8	7	5	0	1	1	4	5	0	1	0	3	0	1	0	1	37
7.51-12.50	30	10	1	2	1	2	13	9	4	5	3	3	1	4	6	9	103
12.51-18.50	7	5	0	0	0	2	6	9	12	4	0	0	1	2	2	15	65
18.51-24.00	3	1	0	0	0	0	0	0	5	7	0	1	1	1	4	0	23
>24.00	0	0	0	0	0	0	0	0	16	7	0	0	0	0	0	0	23
TOTAL	48	23	6	3	2	5	23	23	37	24	3	7	3	8	12	25	252

B180

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	1	0	0	2	2	2	0	0	0	0	0	0	0	0	8
3.51- 7.50	13	7	7	0	3	14	10	7	1	1	4	5	2	5	4	3	86
7.51-12.50	27	8	3	2	0	2	12	12	7	13	6	2	6	6	4	19	129
12.51-18.50	14	3	1	0	1	3	10	10	24	18	5	3	3	4	10	37	146
18.51-24.00	2	3	0	0	0	0	3	1	12	12	0	2	3	2	6	7	53
>24.00	0	1	0	0	0	0	0	1	12	3	0	0	0	0	2	0	19
TOTAL	56	23	12	2	4	21	37	33	56	47	15	12	14	17	26	66	441

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	11	25	25	20	24	13	24	20	16	12	11	2	7	7	2	9	228
3.51- 7.50	78	94	77	72	94	62	94	84	49	41	43	30	32	27	40	57	974
7.51-12.50	144	69	21	28	25	51	136	96	109	71	47	29	29	51	128	222	1256
12.51-18.50	67	40	3	3	3	25	70	52	113	62	33	14	15	70	165	205	940
18.51-24.00	62	22	0	0	0	1	14	6	47	24	3	8	3	22	44	45	301
>24.00	17	1	0	0	0	0	0	0	51	8	0	1	0	1	5	7	91
TOTAL	379	251	126	123	146	152	338	258	385	218	137	84	86	178	384	545	3791

B181

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	9
1.01- 3.50	44	42	25	21	20	26	18	33	35	32	8	17	8	15	17	29	390
3.51- 7.50	106	78	21	25	18	47	69	104	156	48	29	20	28	28	70	72	919
7.51-12.50	38	26	4	6	6	26	59	82	117	63	44	19	23	26	51	47	637
12.51-18.50	10	1	0	0	0	3	16	34	98	39	7	2	6	5	6	5	232
18.51-24.00	1	1	0	0	0	1	3	1	35	3	0	0	0	0	1	0	46
>24.00	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	17
TOTAL	199	148	50	52	44	103	165	254	458	185	88	58	65	74	145	153	2250

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	25
1.01- 3.50	62	22	7	5	6	13	11	31	64	63	34	28	23	27	25	53	474
3.51- 7.50	27	5	1	0	1	9	8	32	142	55	15	12	16	20	29	24	396
7.51-12.50	6	0	0	1	0	4	1	3	31	13	11	11	17	10	19	6	133
12.51-18.50	1	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	6
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	96	27	8	6	7	26	20	66	238	132	60	53	56	57	74	83	1034

B182

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	66
1.01- 3.50	28	14	8	4	11	3	13	48	86	87	27	43	27	45	48	71	563
3.51- 7.50	7	3	3	0	0	1	0	6	21	8	9	7	4	5	8	8	90
7.51-12.50	1	0	0	0	0	0	1	0	4	2	6	10	7	5	2	0	38
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	36	17	11	4	11	4	14	54	111	97	42	60	38	55	58	79	757

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 10.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	101
1.01- 3.50	145	104	66	51	61	57	68	134	201	194	80	90	65	94	92	162	1664
3.51- 7.50	241	195	114	97	120	135	188	238	370	154	100	78	82	86	151	165	2514
7.51-12.50	261	119	29	39	36	86	237	213	276	169	117	74	83	103	212	308	2362
12.51-18.50	103	54	4	5	6	38	107	109	250	132	46	21	25	81	184	272	1437
18.51-24.00	68	28	0	0	0	2	20	8	110	51	3	11	7	25	55	52	440
>24.00	17	2	0	0	0	0	0	1	112	22	0	1	0	1	7	7	170
TOTAL	835	502	213	192	223	318	620	703	1319	722	346	275	262	390	701	966	8688

B183

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:10M WIND VS 10M DELTA T - JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 60.0 AND 10.0 METERS
 WIND MEASURED AT: 10.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8688

TOTAL NUMBER OF MISSING OBSERVATIONS: 72

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.2 %

MEAN WIND SPEED FOR THIS PERIOD: 8.8 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
1.88	2.90	5.08	43.63	25.90	11.90	8.71

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	21	13	0	2	9	7	23	15	34	19	1	1	0	1	2	15	0
B	48	23	6	3	2	5	23	23	37	24	3	7	3	8	12	25	0
C	56	23	12	2	4	21	37	33	56	47	15	12	14	17	26	66	0
D	379	251	126	123	146	152	338	258	385	218	137	84	86	178	384	545	1
E	199	148	50	52	44	103	165	254	458	185	88	58	65	74	145	153	9
F	96	27	8	6	7	26	20	66	238	132	60	53	56	57	74	83	25
G	36	17	11	4	11	4	14	54	111	97	42	60	38	55	58	79	66
TOTAL	835	502	213	192	223	318	620	703	1319	722	346	275	262	390	701	966	101

B184

JFDs of 100-Meter Wind vs. Delta T

January-March 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	2	2	3	2	0	0	1	2	0	4	0	3	0	0	21
3.51- 7.50	15	16	4	3	1	0	1	9	6	7	8	12	10	11	6	9	118
7.51-12.50	15	21	12	2	0	2	4	12	12	17	14	14	7	7	25	42	206
12.51-18.50	43	22	2	5	2	5	5	18	24	8	6	4	6	7	39	97	293
18.51-24.00	36	2	5	0	1	8	4	5	13	15	13	3	1	1	60	83	250
>24.00	88	13	1	0	0	0	9	1	13	6	1	2	0	7	18	51	210
TOTAL	197	76	26	12	7	17	23	45	69	55	42	39	24	36	148	282	1098

B187

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	2	1	1	0	0	0	0	0	1	2	0	7
3.51- 7.50	6	9	3	1	1	1	2	1	1	2	1	4	1	1	5	13	52
7.51-12.50	8	22	3	2	5	6	10	20	18	10	6	4	4	7	8	27	160
12.51-18.50	13	11	11	0	6	19	7	29	38	11	18	13	5	5	19	35	240
18.51-24.00	3	4	1	0	4	11	2	10	31	12	15	8	2	4	24	13	144
>24.00	4	0	0	0	1	2	0	2	12	4	3	1	4	4	4	3	44
TOTAL	34	46	18	3	17	41	22	63	100	39	43	30	16	22	62	91	647

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	0	1	0	0	1	0	1	0	0	0	4
3.51- 7.50	1	1	0	2	1	0	1	1	2	2	0	1	1	1	4	2	20
7.51-12.50	1	0	0	0	2	3	0	10	19	18	9	4	4	3	5	9	87
12.51-18.50	2	0	0	0	2	1	5	10	6	15	12	11	7	3	6	7	87
18.51-24.00	0	0	0	0	0	0	1	0	3	3	11	13	8	9	6	11	65
>24.00	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	2	8
TOTAL	4	1	1	2	5	4	7	22	30	38	33	30	23	18	22	31	271

B188

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
3.51- 7.50	1	0	0	1	2	0	0	1	0	1	4	1	1	2	0	1	15
7.51-12.50	0	1	0	0	0	0	1	6	12	16	2	5	5	7	3	4	62
12.51-18.50	0	0	0	0	0	0	0	0	5	2	2	4	6	4	0	1	24
18.51-24.00	0	0	0	0	0	0	0	0	2	4	3	7	1	4	0	0	21
>24.00	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4
TOTAL	1	1	1	1	2	0	1	7	19	24	13	18	14	17	3	6	128

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	4	2	3	4	1	2	1	3	1	4	1	4	2	0	34
3.51- 7.50	23	26	7	7	5	1	4	12	9	12	13	18	13	15	15	25	205
7.51-12.50	24	44	15	4	7	11	15	48	61	61	31	28	20	24	41	82	516
12.51-18.50	58	33	13	6	10	25	17	57	73	36	38	32	24	20	64	140	646
18.51-24.00	39	6	6	0	5	19	7	15	49	34	42	31	12	18	90	107	480
>24.00	92	13	1	0	1	2	9	3	25	10	6	5	7	13	23	56	266
TOTAL	236	124	46	19	31	62	53	137	218	156	131	118	77	94	235	410	2147

B189

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-MAR 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 3/31/22

*** JAN-MAR 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2160

TOTAL NUMBER OF VALID OBSERVATIONS: 2147

TOTAL NUMBER OF MISSING OBSERVATIONS: 13

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.4 %

MEAN WIND SPEED FOR THIS PERIOD: 16.0 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.09	.00	.05	51.14	30.14	12.62	5.96

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
D	197	76	26	12	7	17	23	45	69	55	42	39	24	36	148	282	0
E	34	46	18	3	17	41	22	63	100	39	43	30	16	22	62	91	0
F	4	1	1	2	5	4	7	22	30	38	33	30	23	18	22	31	0
G	1	1	1	1	2	0	1	7	19	24	13	18	14	17	3	6	0
TOTAL	236	124	46	19	31	62	53	137	218	156	131	118	77	94	235	410	0

B190

JFDs of 100-Meter Wind vs. Delta T

April-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

B192

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
18.51-24.00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16
TOTAL	0	2	0	0	0	0	1	0	17	1	0	0	0	0	0	0	21

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	4	3	4	1	4	2	2	4	5	1	1	1	0	0	2	1	35
3.51- 7.50	11	15	6	3	10	8	17	13	8	5	10	4	6	3	3	8	130
7.51-12.50	22	13	15	18	18	14	23	19	16	7	5	9	7	6	13	22	227
12.51-18.50	10	11	10	13	11	16	27	32	33	19	9	5	3	15	19	73	306
18.51-24.00	19	4	1	5	2	3	24	24	40	17	3	6	2	11	21	35	217
>24.00	27	0	0	0	0	3	13	5	67	27	0	10	10	14	18	3	197
TOTAL	93	46	36	40	45	46	106	97	169	76	28	35	28	49	76	142	1113

B193

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	3	1	2	1	2	0	1	2	2	2	0	0	1	0	0	17
3.51- 7.50	8	10	7	2	3	7	9	5	4	4	0	2	5	2	2	5	75
7.51-12.50	4	7	19	14	13	20	18	16	11	9	7	6	4	3	2	8	161
12.51-18.50	15	6	8	10	6	19	18	45	30	18	7	9	6	2	6	18	223
18.51-24.00	8	3	1	1	1	11	29	29	37	13	5	3	5	13	16	10	185
>24.00	3	0	0	0	0	5	13	3	49	2	0	0	5	5	5	2	92
TOTAL	38	29	36	29	24	64	87	99	133	48	21	20	25	26	31	43	753

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	4	1	0	1	2	1	0	0	1	1	0	2	0	1	1	3	18
3.51- 7.50	3	2	2	1	3	4	2	5	7	4	1	2	2	3	3	1	45
7.51-12.50	6	2	2	0	1	3	5	9	9	11	4	4	4	0	1	9	70
12.51-18.50	4	1	0	0	0	3	3	6	6	20	5	0	2	3	0	3	56
18.51-24.00	0	0	0	0	0	0	2	1	2	1	1	0	2	1	2	3	15
>24.00	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	5
TOTAL	17	6	4	2	6	11	15	21	27	37	11	8	10	8	7	19	210

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	5	1	2	1	1	0	1	0	2	0	0	1	0	0	2	20
3.51- 7.50	7	4	0	3	1	2	1	4	4	1	2	1	3	1	1	3	38
7.51-12.50	3	1	1	0	0	2	1	3	1	0	0	0	3	3	0	2	20
12.51-18.50	0	0	0	0	0	0	1	3	0	0	0	0	3	1	0	1	9
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	14	10	2	5	2	5	3	11	5	3	2	1	10	5	1	8	87

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	12	12	6	6	8	6	2	6	8	6	3	3	1	2	3	6	90
3.51- 7.50	29	31	15	9	17	21	29	27	23	14	13	9	16	9	9	17	288
7.51-12.50	35	23	37	32	32	39	47	47	37	27	16	19	18	12	16	41	478
12.51-18.50	29	20	18	23	17	38	50	86	69	57	21	14	14	21	25	95	597
18.51-24.00	27	7	2	6	3	14	55	54	80	32	9	9	9	25	39	48	419
>24.00	30	0	0	0	0	8	29	8	134	29	0	10	15	19	23	5	310
TOTAL	162	93	78	76	77	126	212	228	351	165	62	64	73	88	115	212	2184

B195

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T APR-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 4/ 1/22 - 6/30/22

*** APR-JUN 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2184

TOTAL NUMBER OF VALID OBSERVATIONS: 2184

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 15.6 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.00	.96	50.96	34.48	9.62	3.98

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	2	0	0	0	0	1	0	17	1	0	0	0	0	0	0	0
D	93	46	36	40	45	46	106	97	169	76	28	35	28	49	76	142	1
E	38	29	36	29	24	64	87	99	133	48	21	20	25	26	31	43	0
F	17	6	4	2	6	11	15	21	27	37	11	8	10	8	7	19	1
G	14	10	2	5	2	5	3	11	5	3	2	1	10	5	1	8	0
TOTAL	162	93	78	76	77	126	212	228	351	165	62	64	73	88	115	212	2

B196

JFDs of 100-Meter Wind vs. Delta T

January-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	4
18.51-24.00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16
TOTAL	0	2	0	1	0	0	1	0	17	1	0	0	0	0	0	0	22

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	4	5	6	3	7	4	2	4	6	3	1	5	0	3	2	1	56
3.51- 7.50	26	31	10	6	11	8	18	22	14	12	18	16	16	14	9	17	248
7.51-12.50	37	34	27	20	18	16	27	31	28	24	19	23	14	13	38	64	433
12.51-18.50	53	33	12	18	13	21	32	50	57	27	15	9	9	22	58	170	599
18.51-24.00	55	6	6	5	3	11	28	29	53	32	16	9	3	12	81	118	467
>24.00	115	13	1	0	0	3	22	6	80	33	1	12	10	21	36	54	407
TOTAL	290	122	62	52	52	63	129	142	238	131	70	74	52	85	224	424	2211

B199

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	3	1	2	1	4	1	2	2	2	2	0	0	2	2	0	24
3.51- 7.50	14	19	10	3	4	8	11	6	5	6	1	6	6	3	7	18	127
7.51-12.50	12	29	22	16	18	26	28	36	29	19	13	10	8	10	10	35	321
12.51-18.50	28	17	19	10	12	38	25	74	68	29	25	22	11	7	25	53	463
18.51-24.00	11	7	2	1	5	22	31	39	68	25	20	11	7	17	40	23	329
>24.00	7	0	0	0	1	7	13	5	61	6	3	1	9	9	9	5	136
TOTAL	72	75	54	32	41	105	109	162	233	87	64	50	41	48	93	134	1400

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	4	1	1	1	2	1	0	1	1	1	1	2	1	1	1	3	22
3.51- 7.50	4	3	2	3	4	4	3	6	9	6	1	3	3	4	7	3	65
7.51-12.50	7	2	2	0	3	6	5	19	28	29	13	8	8	3	6	18	157
12.51-18.50	6	1	0	0	2	4	8	16	12	35	17	11	9	6	6	10	143
18.51-24.00	0	0	0	0	0	0	3	1	5	4	12	13	10	10	8	14	80
>24.00	0	0	0	0	0	0	3	0	2	0	0	1	2	2	1	2	13
TOTAL	21	7	5	4	11	15	22	43	57	75	44	38	33	26	29	50	481

B200

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	5	2	2	1	1	0	1	0	3	0	0	1	0	0	2	22
3.51- 7.50	8	4	0	4	3	2	1	5	4	2	6	2	4	3	1	4	53
7.51-12.50	3	2	1	0	0	2	2	9	13	16	2	5	8	10	3	6	82
12.51-18.50	0	0	0	0	0	0	1	3	5	2	2	4	9	5	0	2	33
18.51-24.00	0	0	0	0	0	0	0	0	2	4	3	7	1	4	0	0	21
>24.00	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4
TOTAL	15	11	3	6	4	5	4	18	24	27	15	19	24	22	4	14	215

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	12	14	10	8	11	10	3	8	9	9	4	7	2	6	5	6	124
3.51- 7.50	52	57	22	16	22	22	33	39	32	26	26	27	29	24	24	42	493
7.51-12.50	59	67	52	36	39	50	62	95	98	88	47	47	38	36	57	123	994
12.51-18.50	87	53	31	29	27	63	67	143	142	93	59	46	38	41	89	235	1243
18.51-24.00	66	13	8	6	8	33	62	69	129	66	51	40	21	43	129	155	899
>24.00	122	13	1	0	1	10	38	11	159	39	6	15	22	32	46	61	576
TOTAL	398	217	124	95	108	188	265	365	569	321	193	182	150	182	350	622	4331

B201

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22

*** JAN-JUN 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4344

TOTAL NUMBER OF VALID OBSERVATIONS: 4331

TOTAL NUMBER OF MISSING OBSERVATIONS: 13

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.7 %

MEAN WIND SPEED FOR THIS PERIOD: 15.8 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.05	.00	.51	51.05	32.33	11.11	4.96

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	0	2	0	1	0	0	1	0	17	1	0	0	0	0	0	0	0
D	290	122	62	52	52	63	129	142	238	131	70	74	52	85	224	424	1
E	72	75	54	32	41	105	109	162	233	87	64	50	41	48	93	134	0
F	21	7	5	4	11	15	22	43	57	75	44	38	33	26	29	50	1
G	15	11	3	6	4	5	4	18	24	27	15	19	24	22	4	14	0
TOTAL	398	217	124	95	108	188	265	365	569	321	193	182	150	182	350	622	2

B202

Stability Classes by Hour of Day

100-Meter Wind vs. Delta T

January-June 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
22	1	1	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
22	1	2	D	D	D	E	E	E	E	F	E	E	D	D	D	D	D	D	D	E	E	F	F	F	F	G		
22	1	3	G	G	G	G	G	G	G	G	G	F	F	E	D	E	D	E	E	E	E	F	E	E	E	E		
22	1	4	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	D	D	D	D		
22	1	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
22	1	6	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	E	E	E		
22	1	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	1	8	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E		
22	1	9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	E		
22	1	10	E	E	F	F	E	E	F	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E		
22	1	11	E	F	F	F	F	F	G	G	G	F	E	D	D	D	D	D	D	E	E	F	F	F	G	G		
22	1	12	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	E	F	G	G	G	G	G		
22	1	13	F	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	F	G	G	G	G	G		
22	1	14	G	G	F	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	D	D	D	D		
22	1	15	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	1	16	E	D	D	D	-	-	-	-	-	E	D	D	A	A	D	E	E	E	E	E	E	E	E	E		
22	1	17	E	E	E	E	E	F	F	E	F	E	D	D	D	D	D	D	E	E	E	F	F	F	F	F		
22	1	18	F	F	F	G	G	G	G	F	E	D	D	D	D	D	D	D	D	E	E	G	G	G	F	E	E	
22	1	19	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E		
22	1	20	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	1	21	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	1	22	E	E	E	E	E	E	F	F	F	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E		
22	1	23	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F		
22	1	24	F	F	F	F	E	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
22	1	25	D	E	D	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F	
22	1	26	G	G	G	G	G	G	F	F	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	1	27	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	D	D	D	
22	1	28	D	D	D	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	1	29	E	E	E	F	F	F	F	F	F	D	D	D	D	D	D	D	D	D	E	F	F	F	F	E	F	
22	1	30	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	E	E
22	1	31	E	E	E	E	E	F	F	F	F	E	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F	
22	2	1	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	2	2	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	2	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	2	4	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	2	5	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	2	6	E	E	E	E	F	E	E	E	F	D	D	D	D	D	D	D	D	D	D	E	E	F	E	F	F	
22	2	7	G	G	G	G	G	F	F	E	E	D	D	D	D	D	D	D	D	D	D	E	F	G	F	F	F	
22	2	8	F	F	F	F	F	G	F	F	F	E	D	D	D	D	D	D	D	D	D	E	F	F	G	F	F	F
22	2	9	F	E	E	E	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F
22	2	10	F	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22	2	11	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	2	12	D	D	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F
22	2	13	E	E	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	E	F	F
22	2	14	F	F	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	E	F	F	F	E	E	E

B204

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	2	15	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22	2	16	E	E	E	F	F	G	G	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	2	17	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	F
22	2	18	F	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	D	D
22	2	19	D	D	E	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	2	20	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	F	G	G	G
22	2	21	G	G	G	G	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	2	22	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	2	23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	2	24	E	E	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
22	2	25	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	E
22	2	26	E	E	E	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	F	G	G	F	F
22	2	27	F	F	F	G	G	G	G	G	F	E	D	D	D	D	D	D	D	D	E	F	F	G	G	G
22	2	28	F	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	E	F	G	F	G	G
22	3	1	G	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G
22	3	2	G	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	E	F	F	E	E	E
22	3	3	E	E	E	E	E	E	E	E	D	D	D	D	C	D	D	D	D	D	E	E	E	E	E	E
22	3	4	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	3	5	E	E	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D
22	3	6	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	7	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F
22	3	8	G	F	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	E	E	E	D	D	E
22	3	9	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22	3	11	F	E	F	F	F	F	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22	3	12	E	E	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	13	E	E	E	E	F	E	E	F	E	D	D	D	D	D	D	D	D	D	E	F	G	G	F	F
22	3	14	F	E	E	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	15	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G
22	3	16	G	G	F	G	G	G	G	-	-	-	-	-	-	-	-	D	D	E	E	F	F	F	F	G
22	3	17	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	18	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	19	E	F	F	F	F	G	F	E	E	E	D	D	D	D	D	D	D	D	E	F	F	G	F	F
22	3	20	F	F	F	F	G	G	G	G	E	E	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	21	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	22	D	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	24	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F
22	3	25	F	F	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F
22	3	26	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	3	27	E	E	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	E
22	3	28	E	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	29	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	3	30	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	3	31	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F

B205

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
22	4	1	F	E	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E			
22	4	2	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	G	G		
22	4	3	G	G	G	G	F	F	F	E	D	D	D	D	E	D	E	E	E	E	E	E	F	G	G	G	G		
22	4	4	G	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F		
22	4	5	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F	E	E		
22	4	6	E	E	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	4	7	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D		
22	4	8	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F		
22	4	9	F	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	4	10	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F		
22	4	11	F	E	E	E	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	E	F		
22	4	12	F	E	E	E	E	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	E	E	E	E		
22	4	13	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F		
22	4	14	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	4	15	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	4	16	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	4	17	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F		
22	4	18	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F		
22	4	19	E	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D		
22	4	20	D	D	E	E	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	G	G	G		
22	4	21	G	G	G	G	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	4	22	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	D	E	E	E	E		
22	4	23	E	E	E	D	D	D	D	D	D	D	D	D	C	D	D	E	E	E	E	E	E	E	E	E	E		
22	4	24	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D		
22	4	25	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	
22	4	26	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	4	27	E	E	E	E	E	E	E	D	D	D	D	D	C	C	C	D	D	D	D	D	E	E	E	E	E		
22	4	28	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	D	D	D	D	D	D	E	
22	4	29	E	E	E	E	D	E	D	E	E	D	D	D	D	D	D	D	D	D	D	E	D	E	E	E	E	E	
22	4	30	D	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	5	1	D	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	5	2	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22	5	3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	
22	5	4	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	E	E	E	
22	5	5	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	5	6	E	E	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	
22	5	7	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	5	8	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	5	9	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	5	10	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	
22	5	11	E	E	E	E	E	E	E	D	D	D	D	D	D	C	C	C	D	D	D	D	E	E	E	E	E	E	
22	5	12	E	E	E	E	E	E	E	D	D	D	D	D	C	C	C	C	C	C	C	D	D	E	E	E	E	E	
22	5	13	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	F	G	G	G	G	G	
22	5	14	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	E	E
22	5	15	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	D	E	F	F	G	G	G	

B206

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	5	16	G	G	G	F	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F
22	5	17	F	E	F	F	E	F	E	D	D	D	D	D	D	D	D	E	D	E	E	E	E	E	E	E
22	5	18	E	E	E	E	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F
22	5	19	F	F	F	F	F	F	E	D	D	D	D	C	C	C	D	D	D	D	D	D	D	E	E	E
22	5	20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	5	21	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F
22	5	22	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	5	23	E	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D
22	5	24	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D
22	5	25	D	D	D	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	5	26	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F
22	5	27	F	F	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	5	28	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	5	29	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	5	30	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F
22	5	31	E	F	F	E	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	F	E	E	E
22	6	1	E	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F
22	6	2	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F
22	6	3	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	4	E	E	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	5	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	F
22	6	6	E	E	E	E	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	7	F	F	F	E	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	8	D	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	F
22	6	9	G	F	F	F	G	G	F	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F
22	6	10	E	E	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F
22	6	11	F	F	G	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	12	E	E	F	F	E	E	E	E	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	13	E	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	14	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	15	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F
22	6	16	F	F	F	G	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	17	F	E	F	E	E	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	18	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
22	6	19	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E
22	6	20	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	21	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	22	E	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F
22	6	23	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22	6	24	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E
22	6	25	E	E	E	E	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E
22	6	26	E	E	E	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G
22	6	27	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F
22	6	28	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F
22	6	29	F	F	E	E	E	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F

PROGRAM: JFD VERSION: PC-1.2
NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-JUN 2022
SITE IDENTIFIER:NPPD
DATA PERIOD EXAMINED: 1/ 1/22 - 6/30/22
STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

		HOURLY STABILITIES																								
		HOURS																								
YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	6	30	E	E	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E

JFDs of 100-Meter Wind vs. Delta T

July-September 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	4
12.51-18.50	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	2	6
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	1	0	6	0	0	2	0	0	0	0	0	3	12

B210

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
7.51-12.50	0	0	0	0	6	0	2	0	0	0	0	0	0	0	0	2	10
12.51-18.50	0	0	0	0	0	0	5	5	0	1	0	0	0	0	0	1	12
18.51-24.00	1	0	0	0	0	0	0	2	1	3	0	0	0	0	0	3	10
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	1	0	7	0	8	7	1	4	0	0	0	0	0	6	35

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	5	6	8	3	8	7	9	2	5	3	1	4	0	6	1	1	69
3.51- 7.50	18	27	22	25	38	39	36	17	9	7	11	3	0	1	5	4	262
7.51-12.50	16	15	7	15	11	14	57	26	23	10	5	2	1	2	11	25	240
12.51-18.50	29	4	0	4	0	5	14	29	31	14	7	3	3	4	2	21	170
18.51-24.00	14	3	0	2	1	0	0	5	18	9	1	0	0	0	1	3	57
>24.00	9	0	0	0	0	0	0	1	1	3	0	0	0	0	0	0	14
TOTAL	91	55	37	49	58	65	116	80	87	46	25	12	4	13	20	54	812

B211

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	4	4	1	0	1	1	0	1	0	2	2	2	19
3.51- 7.50	4	9	8	9	11	32	12	5	3	3	2	4	1	2	1	6	112
7.51-12.50	11	23	31	23	21	25	40	37	23	18	3	6	2	2	5	21	291
12.51-18.50	23	11	2	17	8	3	34	60	71	34	7	3	2	3	5	15	298
18.51-24.00	12	0	0	4	2	0	2	10	28	11	1	0	1	2	4	2	79
>24.00	2	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	8
TOTAL	52	43	42	53	46	64	89	112	128	71	13	14	6	11	17	46	807

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	1	1	2	3	1	3	0	0	2	0	0	0	2	1	17
3.51- 7.50	1	6	7	12	0	10	10	7	5	4	4	1	2	3	3	5	80
7.51-12.50	3	10	16	3	7	5	17	42	24	5	7	4	2	2	1	17	165
12.51-18.50	3	4	1	2	1	1	7	14	23	11	3	3	4	3	2	13	95
18.51-24.00	1	0	0	0	0	0	0	1	17	0	3	0	1	0	1	4	28
>24.00	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	4
TOTAL	9	20	25	18	10	19	35	68	71	20	19	8	9	8	9	41	389

B212

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	2	2	2	1	1	1	2	2	3	1	1	1	2	1	0	22
3.51- 7.50	1	3	4	2	5	5	4	2	6	8	4	2	1	2	0	0	49
7.51-12.50	1	0	0	0	0	0	7	7	6	5	4	6	3	4	2	3	48
12.51-18.50	0	0	0	0	0	0	0	1	0	1	5	3	0	1	2	4	17
18.51-24.00	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	1	6
>24.00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL	2	5	6	4	6	6	12	12	15	17	17	15	5	9	5	8	144

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	6	8	13	6	15	15	12	7	8	7	4	6	1	10	6	4	128
3.51- 7.50	24	45	41	48	55	86	63	31	23	22	21	10	4	8	9	15	505
7.51-12.50	31	48	54	41	46	44	126	112	76	38	19	18	8	10	19	68	758
12.51-18.50	55	19	3	23	9	9	63	109	125	62	22	12	9	11	11	56	598
18.51-24.00	28	3	0	6	3	0	2	18	65	24	8	1	2	2	6	14	182
>24.00	11	0	0	0	0	0	0	2	5	7	0	2	0	0	0	1	28
TOTAL	155	123	111	124	128	154	266	279	302	160	74	49	24	41	51	158	2199

B213

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-SEP 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 9/30/22

*** JUL-SEP 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2199

TOTAL NUMBER OF MISSING OBSERVATIONS: 9

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.6 %

MEAN WIND SPEED FOR THIS PERIOD: 11.1 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.00	.55	1.59	36.93	36.70	17.69	6.55

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	0	0	0	0	1	0	6	0	0	2	0	0	0	0	0	3	0
C	1	0	1	0	7	0	8	7	1	4	0	0	0	0	0	6	0
D	91	55	37	49	58	65	116	80	87	46	25	12	4	13	20	54	0
E	52	43	42	53	46	64	89	112	128	71	13	14	6	11	17	46	0
F	9	20	25	18	10	19	35	68	71	20	19	8	9	8	9	41	0
G	2	5	6	4	6	6	12	12	15	17	17	15	5	9	5	8	0
TOTAL	155	123	111	124	128	154	266	279	302	160	74	49	24	41	51	158	0

B214

JFDs of 100-Meter Wind vs. Delta T

October-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
18.51-24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	8	1	0	0	0	0	0	0	0	0	9
12.51-18.50	2	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	5
18.51-24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL	2	1	0	0	0	0	9	1	2	0	0	0	0	1	0	0	16

B216

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	1	5
7.51-12.50	1	0	0	0	0	0	5	0	5	0	2	0	1	0	1	1	16
12.51-18.50	0	1	0	0	0	0	0	0	1	0	2	0	1	1	1	0	7
18.51-24.00	1	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1	6
>24.00	0	0	0	0	0	0	0	2	8	0	0	0	0	1	1	0	12
TOTAL	2	1	0	0	0	1	6	5	15	0	4	1	3	2	3	3	46

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	2	1	3	1	4	4	4	1	1	0	0	1	1	1	3	28
3.51- 7.50	5	3	2	2	7	11	18	2	2	7	7	14	4	5	11	3	103
7.51-12.50	10	2	2	5	7	23	26	15	12	23	6	3	4	11	21	14	184
12.51-18.50	18	9	0	2	4	21	28	24	20	15	6	9	6	28	63	70	323
18.51-24.00	21	0	0	0	0	1	1	16	20	20	1	8	8	56	55	55	262
>24.00	8	0	0	0	0	0	0	16	54	8	2	2	6	44	37	34	211
TOTAL	63	16	5	12	19	60	77	77	109	74	22	36	29	145	188	179	1111

B217

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	4
3.51- 7.50	0	0	0	1	3	9	2	1	1	0	3	2	1	4	1	6	34
7.51-12.50	3	2	7	1	9	29	11	8	9	3	2	0	2	6	9	14	115
12.51-18.50	7	8	3	3	3	1	25	24	15	3	1	7	3	9	19	28	159
18.51-24.00	17	2	0	0	1	0	1	23	24	9	13	8	5	11	10	15	139
>24.00	2	0	0	0	0	0	0	17	34	8	0	1	9	1	0	5	77
TOTAL	29	12	11	5	16	40	39	74	83	24	19	18	20	31	39	68	528

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	2	0	4	1	0	0	0	0	0	0	0	0	0	7
3.51- 7.50	2	1	1	5	7	13	7	3	1	4	7	6	2	1	1	4	65
7.51-12.50	3	3	1	1	3	3	22	9	5	3	3	4	4	9	3	12	88
12.51-18.50	1	3	6	0	0	0	12	17	12	5	4	4	2	0	4	14	84
18.51-24.00	0	0	0	0	0	0	0	4	11	3	8	5	2	2	0	0	35
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
TOTAL	6	7	8	8	10	20	42	33	29	15	22	19	13	12	8	30	282

B218

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	1	2	1	0	1	0	0	0	1	2	2	1	2	3	1	17
3.51- 7.50	0	4	0	2	1	5	5	3	2	12	3	3	1	2	5	2	50
7.51-12.50	4	1	0	0	1	0	3	9	8	10	5	9	1	3	9	6	69
12.51-18.50	0	4	0	0	0	0	1	6	25	12	6	2	3	5	6	2	72
18.51-24.00	0	0	0	0	0	0	0	0	3	7	0	0	2	2	0	0	14
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	10	2	3	2	6	9	18	38	42	16	16	8	14	23	11	222

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	3	4	6	1	10	5	5	1	3	2	2	2	3	4	4	56
3.51- 7.50	7	8	3	10	18	39	33	9	6	23	20	26	9	12	18	16	257
7.51-12.50	21	8	10	7	20	55	75	42	39	39	18	16	12	29	43	47	481
12.51-18.50	28	26	9	5	7	22	67	71	73	35	19	22	15	44	93	115	651
18.51-24.00	39	2	0	0	1	1	2	46	61	39	22	21	17	71	65	71	458
>24.00	10	0	0	0	0	0	0	35	98	16	2	3	18	46	38	39	305
TOTAL	106	47	26	28	47	127	182	208	278	155	83	90	73	205	261	292	2208

B219

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T OCT-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 10/ 1/22 - 12/31/22

*** OCT-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2208

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 15.7 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.14	.72	2.08	50.32	23.91	12.77	10.05

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0
B	2	1	0	0	0	0	9	1	2	0	0	0	0	1	0	0	0
C	2	1	0	0	0	1	6	5	15	0	4	1	3	2	3	3	0
D	63	16	5	12	19	60	77	77	109	74	22	36	29	145	188	179	0
E	29	12	11	5	16	40	39	74	83	24	19	18	20	31	39	68	0
F	6	7	8	8	10	20	42	33	29	15	22	19	13	12	8	30	0
G	4	10	2	3	2	6	9	18	38	42	16	16	8	14	23	11	0
TOTAL	106	47	26	28	47	127	182	208	278	155	83	90	73	205	261	292	0

B220

JFDs of 100-Meter Wind vs. Delta T

July-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
18.51-24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	1	0	11	1	0	0	0	0	0	0	0	0	13
12.51-18.50	2	1	0	0	0	0	4	0	0	1	0	0	0	1	0	2	11
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
>24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL	2	1	0	0	1	0	15	1	2	2	0	0	0	1	0	3	28

B222

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	0	0	0	0	1	1	2	0	0	0	0	1	1	0	0	1	7
7.51-12.50	1	0	0	0	6	0	7	0	5	0	2	0	1	0	1	3	26
12.51-18.50	0	1	0	0	0	0	5	5	1	1	2	0	1	1	1	1	19
18.51-24.00	2	0	0	0	0	0	0	5	2	3	0	0	0	0	0	4	16
>24.00	0	0	0	0	0	0	0	2	8	0	0	0	0	1	1	0	12
TOTAL	3	1	1	0	7	1	14	12	16	4	4	1	3	2	3	9	81

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	6	8	9	6	9	11	13	6	6	4	1	4	1	7	2	4	97
3.51- 7.50	23	30	24	27	45	50	54	19	11	14	18	17	4	6	16	7	365
7.51-12.50	26	17	9	20	18	37	83	41	35	33	11	5	5	13	32	39	424
12.51-18.50	47	13	0	6	4	26	42	53	51	29	13	12	9	32	65	91	493
18.51-24.00	35	3	0	2	1	1	1	21	38	29	2	8	8	56	56	58	319
>24.00	17	0	0	0	0	0	0	17	55	11	2	2	6	44	37	34	225
TOTAL	154	71	42	61	77	125	193	157	196	120	47	48	33	158	208	233	1923

B223

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	2	0	4	5	1	1	1	2	0	1	0	2	2	2	23
3.51- 7.50	4	9	8	10	14	41	14	6	4	3	5	6	2	6	2	12	146
7.51-12.50	14	25	38	24	30	54	51	45	32	21	5	6	4	8	14	35	406
12.51-18.50	30	19	5	20	11	4	59	84	86	37	8	10	5	12	24	43	457
18.51-24.00	29	2	0	4	3	0	3	33	52	20	14	8	6	13	14	17	218
>24.00	4	0	0	0	0	0	0	17	36	12	0	1	9	1	0	5	85
TOTAL	81	55	53	58	62	104	128	186	211	95	32	32	26	42	56	114	1335

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	1	0	1	3	2	7	2	3	0	0	2	0	0	0	2	1	24
3.51- 7.50	3	7	8	17	7	23	17	10	6	8	11	7	4	4	4	9	145
7.51-12.50	6	13	17	4	10	8	39	51	29	8	10	8	6	11	4	29	253
12.51-18.50	4	7	7	2	1	1	19	31	35	16	7	7	6	3	6	27	179
18.51-24.00	1	0	0	0	0	0	0	5	28	3	11	5	3	2	1	4	63
>24.00	0	0	0	0	0	0	0	1	2	0	0	0	3	0	0	1	7
TOTAL	15	27	33	26	20	39	77	101	100	35	41	27	22	20	17	71	671

B224

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	3	4	3	1	2	1	2	2	4	3	3	2	4	4	1	39
3.51- 7.50	1	7	4	4	6	10	9	5	8	20	7	5	2	4	5	2	99
7.51-12.50	5	1	0	0	1	0	10	16	14	15	9	15	4	7	11	9	117
12.51-18.50	0	4	0	0	0	0	1	7	25	13	11	5	3	6	8	6	89
18.51-24.00	0	0	0	0	0	0	0	0	4	7	3	1	2	2	0	1	20
>24.00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL	6	15	8	7	8	12	21	30	53	59	33	31	13	23	28	19	366

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	7	11	17	12	16	25	17	12	9	10	6	8	3	13	10	8	184
3.51- 7.50	31	53	44	58	73	125	96	40	29	45	41	36	13	20	27	31	762
7.51-12.50	52	56	64	48	66	99	201	154	115	77	37	34	20	39	62	115	1239
12.51-18.50	83	45	12	28	16	31	130	180	198	97	41	34	24	55	104	171	1249
18.51-24.00	67	5	0	6	4	1	4	64	126	63	30	22	19	73	71	85	640
>24.00	21	0	0	0	0	0	0	37	103	23	2	5	18	46	38	40	333
TOTAL	261	170	137	152	175	281	448	487	580	315	157	139	97	246	312	450	4407

B225

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22

*** JUL-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 4416

TOTAL NUMBER OF VALID OBSERVATIONS: 4407

TOTAL NUMBER OF MISSING OBSERVATIONS: 9

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.8 %

MEAN WIND SPEED FOR THIS PERIOD: 13.4 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.07	.64	1.84	43.64	30.29	15.23	8.30

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0
B	2	1	0	0	1	0	15	1	2	2	0	0	0	1	0	3	0
C	3	1	1	0	7	1	14	12	16	4	4	1	3	2	3	9	0
D	154	71	42	61	77	125	193	157	196	120	47	48	33	158	208	233	0
E	81	55	53	58	62	104	128	186	211	95	32	32	26	42	56	114	0
F	15	27	33	26	20	39	77	101	100	35	41	27	22	20	17	71	0
G	6	15	8	7	8	12	21	30	53	59	33	31	13	23	28	19	0
TOTAL	261	170	137	152	175	281	448	487	580	315	157	139	97	246	312	450	0

B226

Stability Classes by Hour of Day

100-Meter Wind vs. Delta T

July-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
22	7	1	E	E	E	E	E	E	E	E	E	D	D	D	D	D	E	D	D	D	D	E	E	E	F	F				
22	7	2	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E			
22	7	3	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E				
22	7	4	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E				
22	7	5	E	E	E	E	E	E	E	E	E	D	E	D	D	D	D	D	D	D	D	E	E	E	D	E	E			
22	7	6	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	E	D	D	D	D	E	E	E	E	E			
22	7	7	E	E	E	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E			
22	7	8	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E			
22	7	9	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F			
22	7	10	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F			
22	7	11	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F		
22	7	12	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	G		
22	7	13	G	G	F	G	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F		
22	7	14	F	F	F	F	F	E	E	E	E	D	D	E	E	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	7	15	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F	F		
22	7	16	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	E	E		
22	7	17	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G		
22	7	18	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F		
22	7	19	E	E	E	E	E	E	E	E	E	D	E	E	E	D	D	D	D	D	D	E	E	E	F	F	G	G		
22	7	20	G	G	G	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	G	G	G	G	
22	7	21	G	G	G	G	G	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	E	E	
22	7	22	E	E	F	F	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E	F	F	F	E	E	
22	7	23	F	E	E	F	F	F	F	E	E	E	D	E	E	E	E	E	E	E	E	E	F	F	F	F	E	E	E	
22	7	24	E	E	E	E	E	E	D	E	D	D	D	E	E	E	D	D	D	D	D	D	E	E	F	F	E	F	F	
22	7	25	F	F	E	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	
22	7	26	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	7	27	E	E	E	E	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F	F	
22	7	28	F	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F	F
22	7	29	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G	G	
22	7	30	G	G	G	G	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	7	31	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	G	F	F
22	8	1	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F	F
22	8	2	F	E	E	F	E	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E
22	8	3	E	E	E	E	E	F	F	E	D	E	E	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F	F
22	8	4	F	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	G	F	F
22	8	5	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22	8	6	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E
22	8	7	E	E	E	E	E	E	E	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	D
22	8	8	D	E	E	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	E	F	E	E
22	8	9	F	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	F	F
22	8	10	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G	G
22	8	11	F	F	F	G	G	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F
22	8	12	F	F	F	G	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	E	E
22	8	13	E	E	E	E	E	E	E	E	D	D	D	D	D	D	E	E	D	E	E	E	E	E	E	E	E	E	E	E

B228

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
22	8	14	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E			
22	8	15	E	E	E	E	E	E	E	E	E	D	D	D	D	E	D	D	D	D	D	E	E	E	E	E			
22	8	16	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F			
22	8	17	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G			
22	8	18	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	E	E		
22	8	19	E	E	E	F	F	F	E	E	D	D	D	D	D	E	F	F	F	F	F	F	F	F	F	F			
22	8	20	F	F	F	G	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	G	F			
22	8	21	F	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F			
22	8	22	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	G			
22	8	23	G	G	G	G	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F			
22	8	24	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F	F		
22	8	25	F	F	F	F	F	G	G	F	E	D	D	D	D	D	D	D	D	D	E	E	F	F	E	E	E		
22	8	26	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E		
22	8	27	E	E	E	E	E	E	E	E	E	E	E	D	E	E	E	F	F	F	F	F	F	E	E	F			
22	8	28	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E		
22	8	29	E	E	E	F	F	E	E	E	D	D	E	D	E	D	D	D	D	E	E	F	F	G	G	G	G		
22	8	30	G	G	G	G	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	E	F	G	G	G	G		
22	8	31	G	G	G	G	G	G	G	-	-	-	-	-	-	-	-	-	-	-	D	E	E	E	F	F	F		
22	9	1	F	F	G	F	E	E	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F		
22	9	2	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	9	3	E	E	F	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	E		
22	9	4	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	9	5	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E		
22	9	6	E	E	E	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E		
22	9	7	E	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	G		
22	9	8	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	E	E		
22	9	9	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	D	D	D	E	E	E		
22	9	10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F	F	
22	9	11	F	F	F	F	F	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G	G	
22	9	12	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	G	G	
22	9	13	G	G	G	G	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	E	F	F	F	F	
22	9	14	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	E	
22	9	15	E	E	E	E	E	F	E	E	D	D	D	C	C	C	D	D	D	D	E	E	E	E	E	E	E	E	
22	9	16	E	E	E	E	E	E	E	E	E	E	E	D	D	D	C	D	D	D	D	E	E	E	E	E	E	E	
22	9	17	E	E	E	E	E	E	F	E	E	F	G	D	C	D	D	D	D	D	D	E	F	F	F	F	F	F	
22	9	18	E	E	E	F	F	F	F	E	D	D	D	C	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	9	19	E	E	E	E	E	E	E	E	D	D	D	D	D	C	D	D	D	D	D	E	F	F	F	F	F	E	
22	9	20	F	F	F	F	F	F	F	F	D	C	C	B	B	C	C	D	D	D	D	E	F	F	F	F	F	E	
22	9	21	E	E	E	E	E	E	D	D	D	D	D	D	C	D	D	D	D	D	D	E	E	E	E	E	E	E	
22	9	22	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22	9	23	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	
22	9	24	F	F	F	G	F	F	G	G	F	E	D	D	D	D	D	D	D	D	D	D	E	G	G	F	E	E	E
22	9	25	E	F	F	G	F	F	F	E	D	D	C	C	B	C	C	D	D	D	D	E	E	F	F	F	F	F	
22	9	26	G	G	G	F	F	G	F	E	D	D	D	C	B	B	C	D	D	D	D	E	F	G	G	G	G	G	
22	9	27	G	G	G	G	G	G	G	E	D	C	D	C	C	D	D	D	D	D	D	E	E	E	E	E	E	E	

B229

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

HOURLY STABILITIES
 HOURS

YR	MN	DY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22	9	28	E	E	E	E	E	E	F	E	D	C	C	C	C	B	C	C	D	D	E	F	F	F	F	E
22	9	29	E	E	E	F	F	E	E	D	D	C	C	B	B	B	B	C	D	D	E	E	E	E	E	E
22	9	30	E	E	F	E	E	E	E	E	D	C	C	C	B	C	B	C	D	D	E	E	E	E	E	E
22	10	1	F	F	E	E	F	F	F	E	D	D	C	B	B	B	C	C	D	D	F	F	F	F	F	F
22	10	2	F	E	E	F	F	F	F	E	D	D	C	C	B	B	C	C	D	E	F	F	F	F	F	F
22	10	3	F	F	F	F	F	F	F	E	D	D	D	B	B	B	B	D	D	D	E	F	E	E	F	F
22	10	4	E	E	E	F	F	F	F	F	D	D	D	B	C	C	D	D	D	E	E	E	E	E	F	F
22	10	5	F	F	F	F	F	G	G	E	D	D	C	C	B	D	C	D	D	E	F	G	G	F	F	F
22	10	6	F	F	G	G	G	G	F	F	D	D	C	C	B	A	C	D	D	D	E	E	E	E	E	E
22	10	7	E	E	E	E	D	E	E	D	D	D	C	B	B	C	D	D	D	E	E	F	F	F	F	G
22	10	8	G	G	G	G	G	G	G	E	D	D	C	C	C	C	D	D	D	D	F	F	F	F	F	F
22	10	9	E	F	F	E	F	G	G	E	D	D	D	C	C	C	D	D	D	E	G	G	G	G	G	G
22	10	10	G	G	G	G	G	G	G	F	D	D	D	C	C	C	D	D	D	E	F	G	G	G	F	E
22	10	11	E	E	E	E	E	E	E	D	D	D	C	A	A	B	B	D	D	D	E	E	D	E	D	D
22	10	12	E	D	E	D	E	E	E	E	D	D	D	D	C	D	D	D	D	D	E	E	F	F	F	E
22	10	13	E	E	E	E	E	E	E	E	D	D	D	D	C	C	D	D	D	D	E	E	F	G	G	G
22	10	14	G	G	F	F	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	F
22	10	15	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	E	F	F	E	E	F
22	10	16	F	G	G	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	10	17	E	E	E	E	E	D	E	D	D	D	D	C	D	D	D	D	D	E	E	E	E	E	E	E
22	10	18	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G
22	10	19	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G
22	10	20	G	G	G	G	G	G	G	E	D	D	D	D	D	D	D	D	D	D	F	G	G	G	G	G
22	10	21	G	G	F	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	F	G	G	G	G	G
22	10	22	F	F	F	F	F	F	F	F	E	D	D	C	C	C	D	D	D	D	E	E	E	F	F	F
22	10	23	F	F	E	E	E	E	E	E	D	D	D	C	C	C	C	D	D	D	E	E	E	D	D	E
22	10	24	D	D	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F
22	10	25	F	F	F	F	G	F	E	E	D	D	D	D	D	D	D	D	D	D	E	F	G	G	G	G
22	10	26	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	10	27	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	10	28	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	E	F	G	F	G	G
22	10	29	G	G	G	G	G	G	F	F	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F
22	10	30	G	F	G	G	F	F	F	F	E	F	D	D	D	D	D	D	D	D	E	E	E	E	E	F
22	10	31	E	E	E	E	F	F	F	F	E	D	D	D	D	D	D	D	D	D	E	G	G	G	G	G
22	11	1	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	D	D	E	E	F	E	E	E
22	11	2	E	E	E	E	E	E	E	E	D	D	D	C	C	D	C	D	D	D	E	E	E	E	E	E
22	11	3	E	E	E	D	D	D	D	D	D	D	D	C	C	C	D	D	D	D	D	D	E	E	D	D
22	11	4	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	11	5	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	11	6	E	D	D	D	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	G
22	11	7	G	G	F	F	F	F	F	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E
22	11	8	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D
22	11	9	D	D	D	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22	11	10	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
22	11	11	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

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PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

YR MN DY	HOURLY STABILITIES																								
	HOURS																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
22 11 12	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F	E	F	
22 11 13	F	F	F	F	F	F	F	F	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	D	
22 11 14	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 11 15	D	D	D	D	D	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22 11 16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	F	F	F	F	
22 11 17	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 11 18	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	E	E	
22 11 19	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	
22 11 20	F	F	F	F	F	E	E	E	E	D	D	D	D	D	D	D	D	E	F	E	E	E	E	E	
22 11 21	E	E	E	E	F	F	G	F	F	D	D	D	D	D	D	D	D	E	F	G	G	G	G	G	
22 11 22	G	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	E	F	G	G	G	F	F	
22 11 23	F	G	G	G	G	F	F	F	F	E	D	D	D	D	D	D	D	E	E	E	E	E	D	D	
22 11 24	D	D	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22 11 25	E	E	E	F	F	F	F	F	F	E	D	D	D	D	D	D	D	E	F	G	G	G	F	G	
22 11 26	G	F	G	G	F	G	G	G	G	F	D	D	D	D	D	D	D	E	E	F	F	E	F	E	
22 11 27	D	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	G	G	G	
22 11 28	G	G	G	G	G	G	G	G	F	D	D	D	D	D	D	D	D	E	E	E	F	F	E	E	
22 11 29	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E
22 11 30	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	E	F	F	G	G	G	G
22 12 1	G	G	F	F	F	E	E	E	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22 12 2	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 3	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22 12 4	E	E	E	E	F	F	F	F	F	E	D	D	D	D	D	D	D	E	E	F	F	F	F	F	
22 12 5	E	F	F	F	G	F	F	F	F	E	D	D	D	D	D	D	D	E	D	D	D	D	E	E	
22 12 6	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	E	F	F	G	G	G	G	
22 12 7	G	G	G	G	G	G	G	G	F	E	D	D	D	D	D	D	D	E	E	E	E	E	E	E	
22 12 8	F	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	D	E	E	E	D	D	
22 12 9	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 10	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	F	F	F	F	F	F	
22 12 11	G	G	G	G	G	G	F	F	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	
22 12 12	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 13	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	D	
22 12 14	D	D	D	D	E	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 15	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 16	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 17	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	
22 12 18	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	
22 12 19	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	D	D	D	D	
22 12 20	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 21	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 22	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 23	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	
22 12 24	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	D	E	D
22 12 25	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	F
22 12 26	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	F	F	F	F	F

B231

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JUL-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 7/ 1/22 - 12/31/22
 STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS

YR MN DY	HOURLY STABILITIES																							
	HOURS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
22 12 27	E	E	E	E	E	E	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	E	E
22 12 28	E	E	E	E	E	E	E	E	E	D	D	D	D	D	D	D	E	E	E	E	F	F	F	F
22 12 29	F	G	G	G	G	G	F	F	G	F	F	D	D	D	D	D	D	D	D	D	D	D	E	E
22 12 30	E	D	E	E	F	F	F	F	F	E	D	D	D	D	D	D	E	F	F	F	F	F	F	F
22 12 31	F	F	F	E	E	E	E	E	E	D	D	D	D	D	D	D	F	F	G	G	G	G	G	G

JFDs of 100-Meter Wind vs. Delta T

January-December 2022

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS A

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12.51-18.50	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
18.51-24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
>24.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	2	0	0	1	0	1	0	1	5

STABILITY CLASS B

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.51- 7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.51-12.50	0	0	0	0	1	0	11	1	0	0	0	0	0	0	0	0	13
12.51-18.50	2	1	0	0	0	0	4	0	0	1	0	0	0	1	0	2	11
18.51-24.00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
>24.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL	2	1	0	0	1	0	15	1	2	2	0	0	0	1	0	3	28

B234

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3.51- 7.50	0	0	0	0	1	1	2	0	0	0	0	1	1	0	0	1	7
7.51-12.50	1	0	0	0	6	0	7	0	5	0	2	0	1	0	0	3	26
12.51-18.50	0	3	0	1	0	0	6	5	1	1	2	0	1	1	1	1	23
18.51-24.00	2	0	0	0	0	0	0	5	3	4	0	0	0	0	0	4	18
>24.00	0	0	0	0	0	0	0	2	24	0	0	0	0	1	1	0	28
TOTAL	3	3	1	1	7	1	15	12	33	5	4	1	3	2	3	9	103

STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	10	13	15	9	16	15	15	10	12	7	2	9	1	10	4	5	153
3.51- 7.50	49	61	34	33	56	58	72	41	25	26	36	33	20	20	25	24	613
7.51-12.50	63	51	36	40	36	53	110	72	63	57	30	28	19	26	70	103	857
12.51-18.50	100	46	12	24	17	47	74	103	108	56	28	21	18	54	123	261	1092
18.51-24.00	90	9	6	7	4	12	29	50	91	61	18	17	11	68	137	176	786
>24.00	132	13	1	0	0	3	22	23	135	44	3	14	16	65	73	88	632
TOTAL	444	193	104	113	129	188	322	299	434	251	117	122	85	243	432	657	4134

B235

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	0	3	3	2	5	9	2	3	3	4	2	1	0	4	4	2	47
3.51- 7.50	18	28	18	13	18	49	25	12	9	9	6	12	8	9	9	30	273
7.51-12.50	26	54	60	40	48	80	79	81	61	40	18	16	12	18	24	70	727
12.51-18.50	58	36	24	30	23	42	84	158	154	66	33	32	16	19	49	96	920
18.51-24.00	40	9	2	5	8	22	34	72	120	45	34	19	13	30	54	40	547
>24.00	11	0	0	0	1	7	13	22	97	18	3	2	18	10	9	10	221
TOTAL	153	130	107	90	103	209	237	348	444	182	96	82	67	90	149	248	2735

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	1
1.01- 3.50	5	1	2	4	4	8	2	4	1	1	3	2	1	1	3	4	46
3.51- 7.50	7	10	10	20	11	27	20	16	15	14	12	10	7	8	11	12	210
7.51-12.50	13	15	19	4	13	14	44	70	57	37	23	16	14	14	10	47	410
12.51-18.50	10	8	7	2	3	5	27	47	47	51	24	18	15	9	12	37	322
18.51-24.00	1	0	0	0	0	0	3	6	33	7	23	18	13	12	9	18	143
>24.00	0	0	0	0	0	0	3	1	4	0	0	1	5	2	1	3	20
TOTAL	36	34	38	30	31	54	99	144	157	110	85	65	55	46	46	121	1152

B236

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	0
1.01- 3.50	4	8	6	5	2	3	1	3	2	7	3	3	3	4	4	3	61
3.51- 7.50	9	11	4	8	9	12	10	10	12	22	13	7	6	7	6	6	152
7.51-12.50	8	3	1	0	1	2	12	25	27	31	11	20	12	17	14	15	199
12.51-18.50	0	4	0	0	0	0	2	10	30	15	13	9	12	11	8	8	122
18.51-24.00	0	0	0	0	0	0	0	0	6	11	6	8	3	6	0	1	41
>24.00	0	0	0	0	0	0	0	0	0	0	2	3	1	0	0	0	6
TOTAL	21	26	11	13	12	17	25	48	77	86	48	50	37	45	32	33	581

STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 100.00 METERS

SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM																	2
1.01- 3.50	19	25	27	20	27	35	20	20	18	19	10	15	5	19	15	14	308
3.51- 7.50	83	110	66	74	95	147	129	79	61	71	67	63	42	44	51	73	1255
7.51-12.50	111	123	116	84	105	149	263	249	213	165	84	81	58	75	119	238	2233
12.51-18.50	170	98	43	57	43	94	197	323	340	190	100	80	62	96	193	406	2492
18.51-24.00	133	18	8	12	12	34	66	133	255	129	81	62	40	116	200	240	1539
>24.00	143	13	1	0	1	10	38	48	262	62	8	20	40	78	84	101	909
TOTAL	659	387	261	247	283	469	713	852	1149	636	350	321	247	428	662	1072	8738

B237

PROGRAM: JFD VERSION: PC-1.2
 NPPD-COOPER NUCLEAR STATION JFD:100M WIND VS 10M DELTA T JAN-DEC 2022
 SITE IDENTIFIER:NPPD
 DATA PERIOD EXAMINED: 1/ 1/22 - 12/31/22

*** JAN-DEC 2022 ***

STABILITY BASED ON: DELTA T BETWEEN 100.0 AND 10.0 METERS
 WIND MEASURED AT: 100.0 METERS
 WIND THRESHOLD AT: 1.00 MPH

TOTAL NUMBER OF OBSERVATIONS: 8760

TOTAL NUMBER OF VALID OBSERVATIONS: 8738

TOTAL NUMBER OF MISSING OBSERVATIONS: 22

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.7 %

MEAN WIND SPEED FOR THIS PERIOD: 14.6 MPH

NUMBER OF OBSERVATIONS WITH BACKUP WIND SPEED: 0

NUMBER OF OBSERVATIONS WITH BACKUP WIND DIRECTION: 0

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

A	B	C	D	E	F	G
.06	.32	1.18	47.31	31.30	13.18	6.65

DISTRIBUTION OF WIND DIRECTION VS STABILITY

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
A	0	0	0	0	0	0	0	0	2	0	0	1	0	1	0	1	0
B	2	1	0	0	1	0	15	1	2	2	0	0	0	1	0	3	0
C	3	3	1	1	7	1	15	12	33	5	4	1	3	2	3	9	0
D	444	193	104	113	129	188	322	299	434	251	117	122	85	243	432	657	1
E	153	130	107	90	103	209	237	348	444	182	96	82	67	90	149	248	0
F	36	34	38	30	31	54	99	144	157	110	85	65	55	46	46	121	1
G	21	26	11	13	12	17	25	48	77	86	48	50	37	45	32	33	0
TOTAL	659	387	261	247	283	469	713	852	1149	636	350	321	247	428	662	1072	2

B238

ATMOSPHERIC DIFFUSION ESTIMATES

The tables of atmospheric diffusion estimates in this section were generated using the latest version of the computer code XOQDOQ included as part of NRC Dose 2.3.20 (ORNL 2015). Data are given for 22 distances and 16 compass points (directions from site) centered on the Cooper Nuclear Station (CNS). Tables are presented for the ground-level (vent) and elevated (stack) release options separately, and for the following time periods in 2022: January-March, April-June, January-June, July-September, October-December, July-December, and January-December.

The most recent 5-year average X/Q , depleted X/Q , and D/Q values for CNS have been calculated and compared to the 2022 annual values provided herein. The differences in both peak directions and magnitudes were small and were likely the result of minor year-to-year climatological fluctuations. The most recent 5-year average X/Q , depleted X/Q , and D/Q values are representative of conditions around CNS and are available for use in dose calculations as necessary.

Atmospheric Diffusion Estimates

Ground Level Releases

January-March 2022

VENTS GROUND LEVEL RELEASES - JAN-MAR 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.540E-05	1.176E-05	6.126E-06	3.018E-06	1.207E-06	6.516E-07	4.123E-07	2.875E-07	2.140E-07	1.668E-07	1.347E-07
SSW	2.629E-05	8.916E-06	4.725E-06	2.349E-06	9.339E-07	5.020E-07	3.164E-07	2.199E-07	1.631E-07	1.268E-07	1.021E-07
SW	1.162E-05	3.779E-06	1.927E-06	9.424E-07	3.816E-07	2.079E-07	1.325E-07	9.287E-08	6.943E-08	5.435E-08	4.402E-08
WSW	4.596E-06	1.553E-06	8.265E-07	4.115E-07	1.657E-07	8.996E-08	5.715E-08	3.997E-08	2.982E-08	2.330E-08	1.884E-08
W	6.530E-06	2.155E-06	1.123E-06	5.560E-07	2.261E-07	1.235E-07	7.881E-08	5.531E-08	4.138E-08	3.241E-08	2.626E-08
WNW	8.928E-06	3.033E-06	1.663E-06	8.415E-07	3.356E-07	1.807E-07	1.140E-07	7.930E-08	5.887E-08	4.579E-08	3.688E-08
NW	1.541E-05	5.070E-06	2.669E-06	1.329E-06	5.410E-07	2.957E-07	1.888E-07	1.325E-07	9.918E-08	7.769E-08	6.297E-08
NNW	3.443E-05	1.104E-05	5.893E-06	2.971E-06	1.217E-06	6.677E-07	4.275E-07	3.008E-07	2.255E-07	1.769E-07	1.435E-07
N	7.836E-05	2.452E-05	1.300E-05	6.558E-06	2.721E-06	1.506E-06	9.702E-07	6.861E-07	5.165E-07	4.066E-07	3.309E-07
NNE	5.779E-05	1.761E-05	9.087E-06	4.540E-06	1.911E-06	1.068E-06	6.930E-07	4.929E-07	3.728E-07	2.947E-07	2.407E-07
NE	2.597E-05	8.382E-06	4.391E-06	2.191E-06	8.954E-07	4.906E-07	3.137E-07	2.205E-07	1.652E-07	1.295E-07	1.050E-07
ENE	2.067E-05	6.544E-06	3.447E-06	1.730E-06	7.109E-07	3.908E-07	2.506E-07	1.765E-07	1.325E-07	1.040E-07	8.447E-08
E	2.077E-05	6.547E-06	3.417E-06	1.708E-06	7.050E-07	3.887E-07	2.498E-07	1.763E-07	1.325E-07	1.041E-07	8.467E-08
ESE	2.212E-05	7.043E-06	3.718E-06	1.865E-06	7.677E-07	4.226E-07	2.712E-07	1.912E-07	1.436E-07	1.128E-07	9.164E-08
SE	3.124E-05	1.074E-05	5.810E-06	2.915E-06	1.160E-06	6.241E-07	3.935E-07	2.735E-07	2.029E-07	1.578E-07	1.270E-07
SSE	4.305E-05	1.460E-05	7.759E-06	3.863E-06	1.538E-06	8.274E-07	5.218E-07	3.627E-07	2.692E-07	2.093E-07	1.686E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.117E-07	5.797E-08	3.785E-08	2.198E-08	1.504E-08	1.123E-08	8.861E-09	7.260E-09	6.113E-09	5.256E-09	4.593E-09
SSW	8.450E-08	4.338E-08	2.811E-08	1.612E-08	1.093E-08	8.097E-09	6.348E-09	5.173E-09	4.336E-09	3.713E-09	3.233E-09
SW	3.662E-08	1.921E-08	1.264E-08	7.419E-09	5.114E-09	3.842E-09	3.045E-09	2.505E-09	2.117E-09	1.826E-09	1.600E-09
WSW	1.565E-08	8.159E-09	5.343E-09	3.110E-09	2.128E-09	1.589E-09	1.253E-09	1.026E-09	8.633E-10	7.418E-10	6.479E-10
W	2.185E-08	1.145E-08	7.527E-09	4.406E-09	3.026E-09	2.267E-09	1.792E-09	1.471E-09	1.241E-09	1.068E-09	9.346E-10
WNW	3.052E-08	1.567E-08	1.015E-08	5.811E-09	3.928E-09	2.905E-09	2.273E-09	1.849E-09	1.547E-09	1.322E-09	1.149E-09
NW	5.240E-08	2.750E-08	1.809E-08	1.059E-08	7.278E-09	5.452E-09	4.311E-09	3.538E-09	2.983E-09	2.568E-09	2.247E-09
NNW	1.196E-07	6.299E-08	4.153E-08	2.440E-08	1.680E-08	1.260E-08	9.972E-09	8.190E-09	6.910E-09	5.951E-09	5.208E-09
N	2.764E-07	1.470E-07	9.757E-08	5.784E-08	4.005E-08	3.018E-08	2.397E-08	1.975E-08	1.670E-08	1.442E-08	1.264E-08
NNE	2.016E-07	1.085E-07	7.258E-08	4.350E-08	3.036E-08	2.301E-08	1.836E-08	1.519E-08	1.289E-08	1.116E-08	9.814E-09
NE	8.745E-08	4.596E-08	3.026E-08	1.775E-08	1.221E-08	9.153E-09	7.243E-09	5.948E-09	5.019E-09	4.323E-09	3.783E-09
ENE	7.041E-08	3.716E-08	2.455E-08	1.446E-08	9.975E-09	7.945E-09	6.591E-09	5.486E-09	4.127E-09	3.558E-09	3.117E-09
E	7.065E-08	3.743E-08	2.478E-08	1.465E-08	1.013E-08	7.625E-09	6.054E-09	4.985E-09	4.215E-09	3.638E-09	3.189E-09
ESE	7.642E-08	4.040E-08	2.671E-08	1.576E-08	1.088E-08	8.179E-09	6.486E-09	5.336E-09	4.509E-09	3.888E-09	3.407E-09
SE	1.051E-07	5.389E-08	3.487E-08	1.996E-08	1.349E-08	9.980E-09	7.811E-09	6.355E-09	5.318E-09	4.547E-09	3.954E-09
SSE	1.395E-07	7.159E-08	4.636E-08	2.659E-08	1.802E-08	1.335E-08	1.047E-08	8.531E-09	7.150E-09	6.122E-09	5.331E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE										
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	5.998E-06	1.362E-06	4.262E-07	2.170E-07	1.357E-07	6.097E-08	2.242E-08	1.130E-08	7.280E-09	5.264E-09	
SSW	4.600E-06	1.056E-06	3.273E-07	1.655E-07	1.029E-07	4.573E-08	1.648E-08	8.152E-09	5.190E-09	3.720E-09	
SW	1.901E-06	4.290E-07	1.367E-07	7.038E-08	4.434E-08	2.016E-08	7.555E-09	3.863E-09	2.512E-09	1.828E-09	
WSW	8.035E-07	1.867E-07	5.903E-08	3.024E-08	1.898E-08	8.572E-09	3.170E-09	1.598E-09	1.029E-09	7.430E-10	
W	1.101E-06	2.538E-07	8.133E-08	4.194E-08	2.645E-08	1.202E-08	4.487E-09	2.280E-09	1.475E-09	1.070E-09	
WNW	1.602E-06	3.792E-07	1.179E-07	5.972E-08	3.716E-08	1.651E-08	5.937E-09	2.925E-09	1.855E-09	1.325E-09	
NW	2.607E-06	6.071E-07	1.948E-07	1.005E-07	6.342E-08	2.885E-08	1.079E-08	5.482E-09	3.547E-09	2.572E-09	
NNW	5.738E-06	1.363E-06	4.408E-07	2.285E-07	1.445E-07	6.603E-08	2.483E-08	1.267E-08	8.212E-09	5.960E-09	
N	1.270E-05	3.034E-06	9.994E-07	5.231E-07	3.332E-07	1.538E-07	5.876E-08	3.033E-08	1.980E-08	1.444E-08	
NNE	8.961E-06	2.121E-06	7.129E-07	3.773E-07	2.422E-07	1.132E-07	4.412E-08	2.311E-08	1.522E-08	1.117E-08	
NE	4.300E-06	1.003E-06	3.236E-07	1.674E-07	1.058E-07	4.820E-08	1.807E-08	9.204E-09	5.964E-09	4.329E-09	
ENE	3.372E-06	7.951E-07	2.584E-07	1.342E-07	8.505E-08	3.894E-08	1.471E-08	7.535E-09	4.898E-09	3.563E-09	
E	3.353E-06	7.874E-07	2.574E-07	1.342E-07	8.525E-08	3.919E-08	1.489E-08	7.665E-09	4.997E-09	3.643E-09	
ESE	3.634E-06	8.583E-07	2.796E-07	1.455E-07	9.227E-08	4.232E-08	1.602E-08	8.222E-09	5.350E-09	3.894E-09	
SE	5.620E-06	1.312E-06	4.070E-07	2.059E-07	1.280E-07	5.681E-08	2.040E-08	1.005E-08	6.376E-09	4.556E-09	
SSE	7.549E-06	1.739E-06	5.397E-07	2.731E-07	1.699E-07	7.546E-08	2.717E-08	1.344E-08	8.559E-09	6.134E-09	

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VENTS GROUND LEVEL RELEASES - JAN-MAR 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.536E-05	1.174E-05	6.110E-06	3.008E-06	1.200E-06	6.468E-07	4.085E-07	2.843E-07	2.111E-07	1.642E-07	1.323E-07
SSW	2.626E-05	8.900E-06	4.713E-06	2.341E-06	9.289E-07	4.984E-07	3.135E-07	2.174E-07	1.610E-07	1.249E-07	1.004E-07
SW	1.161E-05	3.771E-06	1.920E-06	9.382E-07	3.790E-07	2.060E-07	1.309E-07	9.157E-08	6.829E-08	5.332E-08	4.308E-08
WSW	4.591E-06	1.549E-06	8.237E-07	4.096E-07	1.646E-07	8.911E-08	5.647E-08	3.940E-08	2.932E-08	2.285E-08	1.843E-08
W	6.522E-06	2.150E-06	1.120E-06	5.536E-07	2.246E-07	1.224E-07	7.789E-08	5.453E-08	4.070E-08	3.179E-08	2.570E-08
WNW	8.919E-06	3.028E-06	1.658E-06	8.384E-07	3.337E-07	1.793E-07	1.130E-07	7.840E-08	5.809E-08	4.510E-08	3.625E-08
NW	1.540E-05	5.059E-06	2.660E-06	1.323E-06	5.374E-07	2.930E-07	1.866E-07	1.307E-07	9.759E-08	7.626E-08	6.166E-08
NNW	3.439E-05	1.102E-05	5.875E-06	2.959E-06	1.209E-06	6.621E-07	4.229E-07	2.969E-07	2.221E-07	1.738E-07	1.407E-07
N	7.827E-05	2.447E-05	1.296E-05	6.529E-06	2.703E-06	1.492E-06	9.592E-07	6.767E-07	5.083E-07	3.992E-07	3.241E-07
NNE	5.771E-05	1.756E-05	9.049E-06	4.515E-06	1.895E-06	1.056E-06	6.831E-07	4.844E-07	3.653E-07	2.879E-07	2.345E-07
NE	2.595E-05	8.367E-06	4.380E-06	2.183E-06	8.907E-07	4.871E-07	3.109E-07	2.181E-07	1.631E-07	1.276E-07	1.033E-07
ENE	2.065E-05	6.530E-06	3.437E-06	1.723E-06	7.064E-07	3.876E-07	2.479E-07	1.743E-07	1.305E-07	1.022E-07	8.284E-08
E	2.075E-05	6.534E-06	3.408E-06	1.702E-06	7.010E-07	3.857E-07	2.474E-07	1.742E-07	1.307E-07	1.025E-07	8.316E-08
ESE	2.209E-05	7.028E-06	3.706E-06	1.858E-06	7.629E-07	4.190E-07	2.683E-07	1.887E-07	1.414E-07	1.108E-07	8.985E-08
SE	3.122E-05	1.073E-05	5.799E-06	2.908E-06	1.156E-06	6.208E-07	3.909E-07	2.713E-07	2.011E-07	1.561E-07	1.255E-07
SSE	4.302E-05	1.458E-05	7.740E-06	3.851E-06	1.530E-06	8.217E-07	5.172E-07	3.588E-07	2.658E-07	2.063E-07	1.658E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.095E-07	5.621E-08	3.631E-08	2.062E-08	1.380E-08	1.008E-08	7.783E-09	6.239E-09	5.142E-09	4.328E-09	3.703E-09
SSW	8.286E-08	4.210E-08	2.698E-08	1.515E-08	1.005E-08	7.287E-09	5.592E-09	4.461E-09	3.661E-09	3.069E-09	2.618E-09
SW	3.575E-08	1.852E-08	1.204E-08	6.890E-09	4.634E-09	3.397E-09	2.629E-09	2.111E-09	1.742E-09	1.468E-09	1.257E-09
WSW	1.527E-08	7.862E-09	5.083E-09	2.885E-09	1.924E-09	1.401E-09	1.078E-09	8.607E-10	7.067E-10	5.926E-10	5.052E-10
W	2.133E-08	1.104E-08	7.162E-09	4.086E-09	2.735E-09	1.997E-09	1.540E-09	1.233E-09	1.014E-09	8.516E-10	7.271E-10
WNW	2.994E-08	1.522E-08	9.762E-09	5.483E-09	3.636E-09	2.638E-09	2.026E-09	1.617E-09	1.328E-09	1.115E-09	9.517E-10
NW	5.119E-08	2.653E-08	1.724E-08	9.854E-09	6.607E-09	4.831E-09	3.729E-09	2.989E-09	2.462E-09	2.070E-09	1.770E-09
NNW	1.170E-07	6.092E-08	3.971E-08	2.281E-08	1.535E-08	1.126E-08	8.720E-09	7.007E-09	5.786E-09	4.878E-09	4.180E-09
N	2.701E-07	1.420E-07	9.311E-08	5.391E-08	3.648E-08	2.686E-08	2.085E-08	1.680E-08	1.390E-08	1.174E-08	1.007E-08
NNE	1.959E-07	1.038E-07	6.846E-08	3.985E-08	2.703E-08	1.991E-08	1.545E-08	1.243E-08	1.027E-08	8.656E-09	7.411E-09
NE	8.586E-08	4.470E-08	2.916E-08	1.678E-08	1.133E-08	8.336E-09	6.476E-09	5.223E-09	4.328E-09	3.662E-09	3.149E-09
ENE	6.890E-08	3.596E-08	2.349E-08	1.353E-08	9.134E-09	6.716E-09	5.212E-09	4.197E-09	3.472E-09	2.932E-09	2.517E-09
E	6.925E-08	3.631E-08	2.379E-08	1.377E-08	9.331E-09	6.882E-09	5.355E-09	4.322E-09	3.584E-09	3.034E-09	2.609E-09
ESE	7.476E-08	3.908E-08	2.555E-08	1.474E-08	9.952E-09	7.319E-09	5.680E-09	4.574E-09	3.784E-09	3.195E-09	2.742E-09
SE	1.037E-07	5.280E-08	3.393E-08	1.915E-08	1.276E-08	9.309E-09	7.184E-09	5.764E-09	4.758E-09	4.012E-09	3.442E-09
SSE	1.369E-07	6.954E-08	4.457E-08	2.503E-08	1.661E-08	1.205E-08	9.251E-09	7.383E-09	6.060E-09	5.083E-09	4.336E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	5.983E-06	1.356E-06	4.224E-07	2.142E-07	1.333E-07	5.921E-08	2.108E-08	1.015E-08	6.262E-09	4.338E-09
SSW	4.589E-06	1.051E-06	3.244E-07	1.634E-07	1.011E-07	4.444E-08	1.551E-08	7.344E-09	4.479E-09	3.077E-09
SW	1.895E-06	4.264E-07	1.352E-07	6.924E-08	4.340E-08	1.947E-08	7.031E-09	3.419E-09	2.118E-09	1.471E-09
WSW	8.009E-07	1.855E-07	5.835E-08	2.974E-08	1.857E-08	8.274E-09	2.946E-09	1.411E-09	8.640E-10	5.941E-10
W	1.097E-06	2.523E-07	8.041E-08	4.126E-08	2.588E-08	1.160E-08	4.169E-09	2.011E-09	1.237E-09	8.536E-10
WNW	1.598E-06	3.773E-07	1.168E-07	5.894E-08	3.654E-08	1.607E-08	5.613E-09	2.659E-09	1.624E-09	1.118E-09
NW	2.599E-06	6.035E-07	1.926E-07	9.893E-08	6.211E-08	2.788E-08	1.005E-08	4.864E-09	3.000E-09	2.075E-09
NNW	5.721E-06	1.355E-06	4.363E-07	2.251E-07	1.417E-07	6.395E-08	2.325E-08	1.134E-08	7.031E-09	4.888E-09
N	1.266E-05	3.015E-06	9.884E-07	5.148E-07	3.264E-07	1.487E-07	5.487E-08	2.702E-08	1.685E-08	1.176E-08
NNE	8.926E-06	2.104E-06	7.030E-07	3.699E-07	2.360E-07	1.086E-07	4.051E-08	2.003E-08	1.247E-08	8.673E-09
NE	4.290E-06	9.985E-07	3.208E-07	1.653E-07	1.041E-07	4.694E-08	1.711E-08	8.390E-09	5.240E-09	3.669E-09
ENE	3.362E-06	7.906E-07	2.557E-07	1.322E-07	8.342E-08	3.774E-08	1.379E-08	6.759E-09	4.210E-09	2.938E-09
E	3.344E-06	7.833E-07	2.550E-07	1.324E-07	8.374E-08	3.806E-08	1.403E-08	6.924E-09	4.336E-09	3.040E-09
ESE	3.623E-06	8.533E-07	2.767E-07	1.433E-07	9.048E-08	4.100E-08	1.501E-08	7.366E-09	4.589E-09	3.202E-09
SE	5.610E-06	1.307E-06	4.044E-07	2.040E-07	1.265E-07	5.572E-08	1.959E-08	9.380E-09	5.786E-09	4.022E-09
SSE	7.531E-06	1.731E-06	5.351E-07	2.697E-07	1.671E-07	7.341E-08	2.563E-08	1.215E-08	7.413E-09	5.096E-09

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VENTS GROUND LEVEL RELEASES - JAN-MAR 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.349E-05	1.074E-05	5.455E-06	2.639E-06	1.023E-06	5.384E-07	3.331E-07	2.276E-07	1.663E-07	1.275E-07	1.013E-07
SSW	2.487E-05	8.138E-06	4.208E-06	2.054E-06	7.919E-07	4.149E-07	2.557E-07	1.741E-07	1.268E-07	9.694E-08	7.684E-08
SW	1.100E-05	3.449E-06	1.715E-06	8.239E-07	3.234E-07	1.717E-07	1.069E-07	7.347E-08	5.392E-08	4.149E-08	3.308E-08
WSW	4.349E-06	1.417E-06	7.358E-07	3.597E-07	1.405E-07	7.429E-08	4.614E-08	3.162E-08	2.316E-08	1.779E-08	1.416E-08
W	6.178E-06	1.967E-06	1.000E-06	4.861E-07	1.917E-07	1.020E-07	6.363E-08	4.376E-08	3.214E-08	2.474E-08	1.973E-08
WNW	8.447E-06	2.768E-06	1.480E-06	7.358E-07	2.845E-07	1.493E-07	9.212E-08	6.278E-08	4.576E-08	3.500E-08	2.775E-08
NW	1.458E-05	4.627E-06	2.376E-06	1.162E-06	4.586E-07	2.442E-07	1.524E-07	1.049E-07	7.704E-08	5.933E-08	4.732E-08
NNW	3.257E-05	1.007E-05	5.247E-06	2.598E-06	1.032E-06	5.516E-07	3.452E-07	2.380E-07	1.752E-07	1.351E-07	1.079E-07
N	7.413E-05	2.238E-05	1.157E-05	5.733E-06	2.307E-06	1.244E-06	7.833E-07	5.428E-07	4.012E-07	3.105E-07	2.487E-07
NNE	5.467E-05	1.607E-05	8.088E-06	3.968E-06	1.619E-06	8.814E-07	5.591E-07	3.896E-07	2.892E-07	2.247E-07	1.806E-07
NE	2.457E-05	7.650E-06	3.910E-06	1.916E-06	7.593E-07	4.054E-07	2.535E-07	1.746E-07	1.284E-07	9.900E-08	7.904E-08
ENE	1.955E-05	5.972E-06	3.069E-06	1.512E-06	6.026E-07	3.229E-07	2.024E-07	1.397E-07	1.029E-07	7.945E-08	6.351E-08
E	1.966E-05	5.975E-06	3.043E-06	1.494E-06	5.977E-07	3.212E-07	2.018E-07	1.396E-07	1.030E-07	7.959E-08	6.369E-08
ESE	2.092E-05	6.428E-06	3.310E-06	1.631E-06	6.508E-07	3.491E-07	2.190E-07	1.513E-07	1.116E-07	8.615E-08	6.890E-08
SE	2.956E-05	9.807E-06	5.175E-06	2.550E-06	9.843E-07	5.160E-07	3.181E-07	2.167E-07	1.579E-07	1.208E-07	9.572E-08
SSE	4.074E-05	1.333E-05	6.909E-06	3.379E-06	1.304E-06	6.838E-07	4.216E-07	2.872E-07	2.093E-07	1.600E-07	1.269E-07

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	8.280E-08	4.051E-08	2.513E-08	1.342E-08	8.566E-09	6.021E-09	4.498E-09	3.504E-09	2.815E-09	2.315E-09	1.939E-09
SSW	6.264E-08	3.032E-08	1.866E-08	9.847E-09	6.227E-09	4.344E-09	3.225E-09	2.500E-09	1.999E-09	1.638E-09	1.367E-09
SW	2.711E-08	1.340E-08	8.373E-09	4.516E-09	2.903E-09	2.051E-09	1.538E-09	1.203E-09	9.690E-10	7.990E-10	6.709E-10
WSW	1.159E-08	5.692E-09	3.539E-09	1.893E-09	1.207E-09	8.476E-10	6.324E-10	4.920E-10	3.947E-10	3.242E-10	2.712E-10
W	1.617E-08	7.988E-09	4.986E-09	2.681E-09	1.716E-09	1.209E-09	9.041E-10	7.049E-10	5.666E-10	4.662E-10	3.906E-10
WNW	2.263E-08	1.096E-08	6.741E-09	3.553E-09	2.243E-09	1.563E-09	1.159E-09	8.974E-10	7.170E-10	5.869E-10	4.896E-10
NW	3.880E-08	1.919E-08	1.199E-08	6.451E-09	4.133E-09	2.912E-09	2.179E-09	1.699E-09	1.366E-09	1.124E-09	9.425E-10
NNW	8.858E-08	4.398E-08	2.755E-08	1.488E-08	9.557E-09	6.746E-09	5.056E-09	3.949E-09	3.179E-09	2.619E-09	2.197E-09
N	2.047E-07	1.026E-07	6.468E-08	3.524E-08	2.276E-08	1.614E-08	1.214E-08	9.504E-09	7.669E-09	6.330E-09	5.321E-09
NNE	1.491E-07	7.553E-08	4.795E-08	2.637E-08	1.714E-08	1.220E-08	9.206E-09	7.228E-09	5.843E-09	4.831E-09	4.065E-09
NE	6.484E-08	3.214E-08	2.012E-08	1.086E-08	6.977E-09	4.928E-09	3.697E-09	2.890E-09	2.329E-09	1.921E-09	1.614E-09
ENE	5.216E-08	2.596E-08	1.628E-08	8.820E-09	5.678E-09	4.016E-09	3.015E-09	2.358E-09	1.901E-09	1.568E-09	1.317E-09
E	5.236E-08	2.616E-08	1.646E-08	8.949E-09	5.776E-09	4.094E-09	3.079E-09	2.412E-09	1.947E-09	1.608E-09	1.353E-09
ESE	5.661E-08	2.821E-08	1.772E-08	9.610E-09	6.191E-09	4.381E-09	3.290E-09	2.574E-09	2.075E-09	1.712E-09	1.438E-09
SE	7.804E-08	3.777E-08	2.324E-08	1.226E-08	7.755E-09	5.412E-09	4.021E-09	3.119E-09	2.496E-09	2.047E-09	1.711E-09
SSE	1.034E-07	5.005E-08	3.080E-08	1.625E-08	1.028E-08	7.170E-09	5.324E-09	4.126E-09	3.300E-09	2.704E-09	2.257E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	5.377E-06	1.167E-06	3.457E-07	1.691E-07	1.022E-07	4.307E-08	1.386E-08	6.090E-09	3.525E-09	2.324E-09
SSW	4.124E-06	9.048E-07	2.655E-07	1.289E-07	7.754E-08	3.232E-08	1.020E-08	4.399E-09	2.516E-09	1.645E-09
SW	1.704E-06	3.672E-07	1.108E-07	5.477E-08	3.336E-08	1.421E-08	4.656E-09	2.073E-09	1.210E-09	8.019E-10
WSW	7.201E-07	1.598E-07	4.784E-08	2.353E-08	1.428E-08	6.044E-09	1.954E-09	8.574E-10	4.951E-10	3.255E-10
W	9.865E-07	2.173E-07	6.591E-08	3.264E-08	1.990E-08	8.472E-09	2.764E-09	1.222E-09	7.091E-10	4.680E-10
WNW	1.436E-06	3.247E-07	9.563E-08	4.652E-08	2.800E-08	1.168E-08	3.680E-09	1.583E-09	9.034E-10	5.894E-10
NW	2.337E-06	5.196E-07	1.579E-07	7.824E-08	4.772E-08	2.035E-08	6.651E-09	2.944E-09	1.709E-09	1.129E-09
NNW	5.142E-06	1.166E-06	3.574E-07	1.779E-07	1.088E-07	4.659E-08	1.533E-08	6.820E-09	3.972E-09	2.628E-09
N	1.138E-05	2.596E-06	8.099E-07	4.071E-07	2.507E-07	1.084E-07	3.624E-08	1.630E-08	9.557E-09	6.353E-09
NNE	8.031E-06	1.813E-06	5.772E-07	2.933E-07	1.820E-07	7.961E-08	2.706E-08	1.232E-08	7.265E-09	4.847E-09
NE	3.855E-06	8.590E-07	2.624E-07	1.304E-07	7.970E-08	3.406E-08	1.119E-08	4.982E-09	2.907E-09	1.928E-09
ENE	3.022E-06	6.805E-07	2.094E-07	1.045E-07	6.403E-08	2.748E-08	9.082E-09	4.059E-09	2.372E-09	1.574E-09
E	3.006E-06	6.739E-07	2.087E-07	1.045E-07	6.420E-08	2.767E-08	9.207E-09	4.137E-09	2.426E-09	1.614E-09
ESE	3.257E-06	7.345E-07	2.266E-07	1.132E-07	6.946E-08	2.986E-08	9.893E-09	4.427E-09	2.588E-09	1.718E-09
SE	5.038E-06	1.124E-06	3.303E-07	1.606E-07	9.659E-08	4.026E-08	1.270E-08	5.480E-09	3.139E-09	2.055E-09
SSE	6.767E-06	1.490E-06	4.378E-07	2.128E-07	1.280E-07	5.335E-08	1.683E-08	7.260E-09	4.154E-09	2.715E-09

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VENTS GROUND LEVEL RELEASES - JAN-MAR 2022
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION	DISTANCES IN MILES											
FROM SITE	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
S	3.027E-07	1.024E-07	5.256E-08	2.499E-08	8.976E-09	4.451E-09	2.621E-09	1.716E-09	1.208E-09	8.949E-10	6.897E-10	
SSW	1.899E-07	6.422E-08	3.297E-08	1.568E-08	5.631E-09	2.792E-09	1.644E-09	1.077E-09	7.575E-10	5.614E-10	4.326E-10	
SW	4.669E-08	1.579E-08	8.107E-09	3.854E-09	1.384E-09	6.866E-10	4.043E-10	2.647E-10	1.863E-10	1.380E-10	1.064E-10	
WSW	2.062E-08	6.974E-09	3.581E-09	1.702E-09	6.115E-10	3.033E-10	1.786E-10	1.169E-10	8.227E-11	6.097E-11	4.699E-11	
W	2.715E-08	9.182E-09	4.715E-09	2.241E-09	8.051E-10	3.993E-10	2.351E-10	1.539E-10	1.083E-10	8.028E-11	6.186E-11	
WNW	5.644E-08	1.909E-08	9.800E-09	4.659E-09	1.674E-09	8.299E-10	4.887E-10	3.200E-10	2.252E-10	1.669E-10	1.286E-10	
NW	7.168E-08	2.424E-08	1.244E-08	5.916E-09	2.125E-09	1.054E-09	6.206E-10	4.063E-10	2.859E-10	2.119E-10	1.633E-10	
NNW	1.467E-07	4.959E-08	2.546E-08	1.211E-08	4.348E-09	2.156E-09	1.270E-09	8.314E-10	5.850E-10	4.336E-10	3.341E-10	
N	3.011E-07	1.018E-07	5.227E-08	2.485E-08	8.926E-09	4.427E-09	2.607E-09	1.707E-09	1.201E-09	8.900E-10	6.859E-10	
NNE	1.612E-07	5.451E-08	2.799E-08	1.331E-08	4.780E-09	2.370E-09	1.396E-09	9.139E-10	6.430E-10	4.766E-10	3.672E-10	
NE	1.248E-07	4.221E-08	2.167E-08	1.030E-08	3.701E-09	1.835E-09	1.081E-09	7.077E-10	4.979E-10	3.690E-10	2.844E-10	
ENE	8.690E-08	2.938E-08	1.509E-08	7.173E-09	2.576E-09	1.278E-09	7.523E-10	4.926E-10	3.466E-10	2.569E-10	1.980E-10	
E	8.688E-08	2.938E-08	1.508E-08	7.171E-09	2.576E-09	1.277E-09	7.522E-10	4.925E-10	3.466E-10	2.568E-10	1.979E-10	
ESE	8.907E-08	3.012E-08	1.546E-08	7.352E-09	2.641E-09	1.310E-09	7.711E-10	5.049E-10	3.553E-10	2.633E-10	2.029E-10	
SE	2.429E-07	8.215E-08	4.218E-08	2.005E-08	7.203E-09	3.572E-09	2.103E-09	1.377E-09	9.691E-10	7.182E-10	5.534E-10	
SSE	3.613E-07	1.222E-07	6.273E-08	2.982E-08	1.071E-08	5.313E-09	3.128E-09	2.048E-09	1.441E-09	1.068E-09	8.231E-10	
DIRECTION	DISTANCES IN MILES											
FROM SITE	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	
S	5.479E-10	2.434E-10	1.474E-10	7.452E-11	4.510E-11	3.024E-11	2.167E-11	1.627E-11	1.265E-11	1.011E-11	8.249E-12	
SSW	3.437E-10	1.527E-10	9.249E-11	4.675E-11	2.829E-11	1.897E-11	1.359E-11	1.021E-11	7.937E-12	6.340E-12	5.175E-12	
SW	8.451E-11	3.754E-11	2.274E-11	1.149E-11	6.957E-12	4.665E-12	3.342E-12	2.510E-12	1.951E-12	1.559E-12	1.272E-12	
WSW	3.733E-11	1.658E-11	1.005E-11	5.077E-12	3.073E-12	2.060E-12	1.476E-12	1.109E-12	8.620E-13	6.885E-13	5.620E-13	
W	4.915E-11	2.183E-11	1.322E-11	6.685E-12	4.046E-12	2.713E-12	1.944E-12	1.460E-12	1.135E-12	9.065E-13	7.399E-13	
WNW	1.022E-10	4.538E-11	2.749E-11	1.389E-11	8.410E-12	5.638E-12	4.040E-12	3.034E-12	2.359E-12	1.884E-12	1.538E-12	
NW	1.297E-10	5.763E-11	3.491E-11	1.764E-11	1.068E-11	7.160E-12	5.131E-12	3.853E-12	2.996E-12	2.393E-12	1.953E-12	
NNW	2.654E-10	1.179E-10	7.143E-11	3.610E-11	2.185E-11	1.465E-11	1.050E-11	7.883E-12	6.129E-12	4.896E-12	3.996E-12	
N	5.449E-10	2.421E-10	1.466E-10	7.411E-11	4.486E-11	3.008E-11	2.155E-11	1.618E-11	1.258E-11	1.005E-11	8.204E-12	
NNE	2.918E-10	1.296E-10	7.851E-11	3.968E-11	2.402E-11	1.610E-11	1.154E-11	8.665E-12	6.737E-12	5.382E-12	4.393E-12	
NE	2.259E-10	1.004E-10	6.079E-11	3.073E-11	1.860E-11	1.247E-11	8.935E-12	6.709E-12	5.217E-12	4.167E-12	3.401E-12	
ENE	1.573E-10	6.987E-11	4.232E-11	2.139E-11	1.295E-11	8.681E-12	6.220E-12	4.671E-12	3.632E-12	2.901E-12	2.368E-12	
E	1.572E-10	6.985E-11	4.231E-11	2.139E-11	1.294E-11	8.679E-12	6.219E-12	4.670E-12	3.631E-12	2.900E-12	2.367E-12	
ESE	1.612E-10	7.161E-11	4.338E-11	2.193E-11	1.327E-11	8.898E-12	6.376E-12	4.787E-12	3.722E-12	2.973E-12	2.427E-12	
SE	4.397E-10	1.953E-10	1.183E-10	5.980E-11	3.620E-11	2.427E-11	1.739E-11	1.306E-11	1.015E-11	8.110E-12	6.620E-12	
SSE	6.539E-10	2.905E-10	1.760E-10	8.894E-11	5.385E-11	3.609E-11	2.586E-11	1.942E-11	1.510E-11	1.206E-11	9.845E-12	

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***** RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS *****										
DIRECTION	SEGMENT BOUNDARIES IN MILES									
FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	5.137E-08	1.052E-08	2.747E-09	1.234E-09	6.980E-10	2.684E-10	7.765E-11	3.078E-11	1.643E-11	1.017E-11
SSW	3.223E-08	6.601E-09	1.723E-09	7.740E-10	4.379E-10	1.684E-10	4.871E-11	1.931E-11	1.031E-11	6.381E-12
SW	7.924E-09	1.623E-09	4.237E-10	1.903E-10	1.077E-10	4.140E-11	1.198E-11	4.747E-12	2.535E-12	1.569E-12
WSW	3.500E-09	7.170E-10	1.872E-10	8.406E-11	4.755E-11	1.829E-11	5.290E-12	2.097E-12	1.120E-12	6.931E-13
W	4.608E-09	9.439E-10	2.464E-10	1.107E-10	6.261E-11	2.408E-11	6.965E-12	2.761E-12	1.474E-12	9.125E-13
WNW	9.579E-09	1.962E-09	5.122E-10	2.300E-10	1.301E-10	5.005E-11	1.448E-11	5.738E-12	3.064E-12	1.897E-12
NW	1.216E-08	2.492E-09	6.504E-10	2.921E-10	1.653E-10	6.355E-11	1.839E-11	7.287E-12	3.891E-12	2.409E-12
NNW	2.489E-08	5.098E-09	1.331E-09	5.977E-10	3.381E-10	1.300E-10	3.762E-11	1.491E-11	7.962E-12	4.928E-12
N	5.109E-08	1.047E-08	2.732E-09	1.227E-09	6.941E-10	2.669E-10	7.722E-11	3.061E-11	1.634E-11	1.012E-11
NNE	2.736E-08	5.604E-09	1.463E-09	6.570E-10	3.717E-10	1.429E-10	4.135E-11	1.639E-11	8.752E-12	5.417E-12
NE	2.118E-08	4.339E-09	1.133E-09	5.088E-10	2.878E-10	1.107E-10	3.202E-11	1.269E-11	6.777E-12	4.195E-12
ENE	1.475E-08	3.021E-09	7.886E-10	3.542E-10	2.004E-10	7.705E-11	2.229E-11	8.834E-12	4.718E-12	2.920E-12
E	1.474E-08	3.020E-09	7.884E-10	3.541E-10	2.003E-10	7.703E-11	2.229E-11	8.833E-12	4.717E-12	2.919E-12
ESE	1.512E-08	3.096E-09	8.083E-10	3.630E-10	2.054E-10	7.897E-11	2.285E-11	9.055E-12	4.835E-12	2.993E-12
SE	4.123E-08	8.445E-09	2.205E-09	9.901E-10	5.601E-10	2.154E-10	6.231E-11	2.470E-11	1.319E-11	8.163E-12
SSE	6.132E-08	1.256E-08	3.279E-09	1.473E-09	8.331E-10	3.204E-10	9.268E-11	3.673E-11	1.962E-11	1.214E-11

VENTS GROUND LEVEL RELEASES - JAN-MAR 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST. (MI)	X/Q (SEC/M3) NO DEPLETION	X/Q (SEC/M3) 2.26 DAY DEPLETION	X/Q (SEC/M3) 8.0 DAY DEPLETION	D/Q (PER SQ.METER)
A	Site Boundary	S	.80	5.2E-06	5.2E-06	4.7E-06	4.5E-08
A	Site Boundary	SSW	.82	3.8E-06	3.7E-06	3.3E-06	2.6E-08
A	Site Boundary	SW	.97	1.0E-06	1.0E-06	8.8E-07	4.1E-09
A	Site Boundary	WSW	.93	5.0E-07	4.9E-07	4.4E-07	2.1E-09
A	Site Boundary	W	.91	6.9E-07	6.9E-07	6.1E-07	2.8E-09
A	Site Boundary	WNW	.94	9.8E-07	9.8E-07	8.6E-07	5.5E-09
A	Site Boundary	NW	.81	2.2E-06	2.2E-06	2.0E-06	1.0E-08
A	Site Boundary	NNW	.69	6.7E-06	6.7E-06	6.0E-06	2.9E-08
A	Site Boundary	N	.67	1.5E-05	1.5E-05	1.4E-05	6.2E-08
A	Site Boundary	NNE	.60	1.3E-05	1.3E-05	1.2E-05	4.1E-08
A	Site Boundary	NE	.62	5.8E-06	5.8E-06	5.3E-06	2.9E-08
A	Site Boundary	ENE	.59	5.1E-06	5.0E-06	4.6E-06	2.3E-08
A	Site Boundary	E	.53	6.0E-06	6.0E-06	5.5E-06	2.7E-08
A	Site Boundary	ESE	.54	6.3E-06	6.2E-06	5.7E-06	2.7E-08
A	Site Boundary	SE	.65	7.2E-06	7.2E-06	6.5E-06	5.4E-08
A	Site Boundary	SSE	.81	6.4E-06	6.4E-06	5.7E-06	5.1E-08
A	Nearest Res	SW	1.30	5.2E-07	5.2E-07	4.5E-07	2.0E-09
A	Nearest Res	WSW	1.80	1.1E-07	1.1E-07	9.4E-08	3.9E-10
A	Nearest Res	WNW	2.40	1.2E-07	1.2E-07	1.0E-07	5.4E-10
A	Nearest Res	NW	.90	1.7E-06	1.7E-06	1.5E-06	7.8E-09
A	Nearest Res	NNW	1.90	7.4E-07	7.4E-07	6.2E-07	2.4E-09
A	Nearest Res	NE	1.60	7.8E-07	7.8E-07	6.6E-07	3.2E-09
A	Nearest Res	E	2.00	3.9E-07	3.9E-07	3.2E-07	1.3E-09
A	Nearest Cow	NNW	3.50	2.3E-07	2.2E-07	1.8E-07	5.9E-10
A	Nearest Garde	SW	2.20	1.7E-07	1.7E-07	1.4E-07	5.5E-10
A	Nearest Garde	WSW	1.80	1.1E-07	1.1E-07	9.4E-08	3.9E-10
A	Nearest Garde	WNW	2.60	1.1E-07	1.0E-07	8.5E-08	4.5E-10
A	Nearest Garde	NW	1.90	3.3E-07	3.3E-07	2.7E-07	1.2E-09
A	Nearest Garde	NNW	2.80	3.4E-07	3.4E-07	2.7E-07	9.8E-10
A	Nearest Garde	ENE	1.70	5.5E-07	5.4E-07	4.6E-07	1.9E-09
A	Nearest Garde	ESE	2.30	3.2E-07	3.2E-07	2.6E-07	9.4E-10

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Atmospheric Diffusion Estimates

Ground Level Releases

April-June 2022

VENTS GROUND LEVEL RELEASES - APR-JUN 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.136E-05	1.354E-05	7.264E-06	3.650E-06	1.464E-06	7.917E-07	5.015E-07	3.499E-07	2.604E-07	2.031E-07	1.640E-07	
SSW	2.664E-05	9.145E-06	5.013E-06	2.528E-06	9.957E-07	5.318E-07	3.336E-07	2.309E-07	1.707E-07	1.323E-07	1.063E-07	
SW	1.186E-05	4.262E-06	2.299E-06	1.143E-06	4.407E-07	2.316E-07	1.434E-07	9.813E-08	7.186E-08	5.524E-08	4.402E-08	
WSW	1.007E-05	3.714E-06	2.019E-06	1.006E-06	3.885E-07	2.045E-07	1.267E-07	8.679E-08	6.359E-08	4.890E-08	3.898E-08	
W	1.772E-05	6.096E-06	3.218E-06	1.594E-06	6.313E-07	3.384E-07	2.128E-07	1.476E-07	1.093E-07	8.487E-08	6.825E-08	
WNW	1.506E-05	5.463E-06	3.003E-06	1.506E-06	5.880E-07	3.121E-07	1.947E-07	1.342E-07	9.887E-08	7.639E-08	6.117E-08	
NW	2.351E-05	8.487E-06	4.596E-06	2.287E-06	8.832E-07	4.649E-07	2.882E-07	1.975E-07	1.448E-07	1.114E-07	8.886E-08	
NNW	3.096E-05	1.051E-05	5.610E-06	2.795E-06	1.113E-06	5.989E-07	3.779E-07	2.629E-07	1.953E-07	1.520E-07	1.225E-07	
N	5.535E-05	1.779E-05	9.418E-06	4.723E-06	1.931E-06	1.058E-06	6.765E-07	4.756E-07	3.564E-07	2.794E-07	2.267E-07	
NNE	5.856E-05	1.799E-05	9.364E-06	4.691E-06	1.954E-06	1.085E-06	7.004E-07	4.962E-07	3.742E-07	2.950E-07	2.404E-07	
NE	2.546E-05	8.012E-06	4.127E-06	2.046E-06	8.492E-07	4.703E-07	3.033E-07	2.147E-07	1.618E-07	1.274E-07	1.038E-07	
ENE	2.373E-05	7.186E-06	3.698E-06	1.847E-06	7.778E-07	4.348E-07	2.822E-07	2.008E-07	1.519E-07	1.201E-07	9.810E-08	
E	2.945E-05	8.919E-06	4.547E-06	2.258E-06	9.535E-07	5.340E-07	3.471E-07	2.472E-07	1.872E-07	1.481E-07	1.211E-07	
ESE	3.458E-05	1.052E-05	5.325E-06	2.633E-06	1.111E-06	6.223E-07	4.045E-07	2.881E-07	2.182E-07	1.727E-07	1.412E-07	
SE	4.273E-05	1.307E-05	6.668E-06	3.307E-06	1.389E-06	7.753E-07	5.027E-07	3.574E-07	2.702E-07	2.135E-07	1.743E-07	
SSE	5.267E-05	1.641E-05	8.531E-06	4.257E-06	1.760E-06	9.719E-07	6.254E-07	4.419E-07	3.325E-07	2.616E-07	2.129E-07	

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.360E-07	7.054E-08	4.602E-08	2.667E-08	1.820E-08	1.356E-08	1.068E-08	8.729E-09	7.337E-09	6.298E-09	5.496E-09	
SSW	8.775E-08	4.470E-08	2.879E-08	1.637E-08	1.103E-08	8.130E-09	6.346E-09	5.150E-09	4.301E-09	3.670E-09	3.186E-09	
SW	3.609E-08	1.788E-08	1.128E-08	6.223E-09	4.097E-09	2.968E-09	2.283E-09	1.830E-09	1.512E-09	1.278E-09	1.100E-09	
WSW	3.196E-08	1.581E-08	9.961E-09	5.482E-09	3.599E-09	2.600E-09	1.996E-09	1.597E-09	1.317E-09	1.111E-09	9.547E-10	
W	5.639E-08	2.879E-08	1.858E-08	1.260E-08	7.154E-09	5.285E-09	4.134E-09	3.362E-09	2.813E-09	2.405E-09	2.091E-09	
WNW	5.035E-08	2.532E-08	1.615E-08	9.058E-09	6.038E-09	4.416E-09	3.424E-09	2.762E-09	2.295E-09	1.950E-09	1.685E-09	
NW	7.290E-08	3.620E-08	2.288E-08	1.267E-08	8.375E-09	6.085E-09	4.692E-09	3.769E-09	3.120E-09	2.641E-09	2.277E-09	
NNW	1.014E-07	5.228E-08	3.396E-08	1.956E-08	1.330E-08	9.878E-09	7.759E-09	6.332E-09	5.314E-09	4.554E-09	3.969E-09	
N	1.888E-07	9.931E-08	6.544E-08	3.842E-08	2.645E-08	1.984E-08	1.570E-08	1.290E-08	1.089E-08	9.377E-09	8.208E-09	
NNE	2.010E-07	1.075E-07	7.157E-08	4.265E-08	2.966E-08	2.242E-08	1.785E-08	1.474E-08	1.249E-08	1.080E-08	9.486E-09	
NE	8.677E-08	4.629E-08	3.080E-08	1.833E-08	1.275E-08	9.631E-09	7.671E-09	6.333E-09	5.367E-09	4.641E-09	4.076E-09	
ENE	8.221E-08	4.427E-08	2.963E-08	1.778E-08	1.241E-08	9.414E-09	7.517E-09	6.220E-09	5.281E-09	4.573E-09	4.022E-09	
E	1.015E-07	5.479E-08	3.673E-08	2.208E-08	1.545E-08	1.173E-08	9.377E-09	7.765E-09	6.598E-09	5.718E-09	5.032E-09	
ESE	1.184E-07	6.391E-08	4.286E-08	2.578E-08	1.805E-08	1.371E-08	1.096E-08	9.080E-09	7.718E-09	6.690E-09	5.888E-09	
SE	1.461E-07	7.857E-08	5.257E-08	3.152E-08	2.201E-08	1.669E-08	1.332E-08	1.102E-08	9.362E-09	8.107E-09	7.131E-09	
SSE	1.778E-07	9.457E-08	6.279E-08	3.727E-08	2.586E-08	1.952E-08	1.552E-08	1.280E-08	1.084E-08	9.368E-09	8.222E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE											
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50		
S	7.054E-06	1.651E-06	5.182E-07	2.641E-07	1.652E-07	7.419E-08	2.720E-08	1.364E-08	8.755E-09	6.309E-09		
SSW	4.826E-06	1.130E-06	3.453E-07	1.733E-07	1.071E-07	4.719E-08	1.675E-08	8.189E-09	5.168E-09	3.678E-09		
SW	2.221E-06	5.038E-07	1.488E-07	7.303E-08	4.441E-08	1.899E-08	6.402E-09	2.995E-09	1.838E-09	1.281E-09		
WSW	1.945E-06	4.438E-07	1.315E-07	6.462E-08	3.932E-08	1.680E-08	5.640E-09	2.625E-09	1.604E-09	1.114E-09		
W	3.136E-06	7.149E-07	2.202E-07	1.109E-07	6.878E-08	3.039E-08	1.084E-08	5.323E-09	3.373E-09	2.409E-09		
WNW	2.884E-06	6.693E-07	2.018E-07	1.004E-07	6.167E-08	2.681E-08	9.292E-09	4.452E-09	2.773E-09	1.954E-09		
NW	4.434E-06	1.009E-06	2.990E-07	1.471E-07	8.962E-08	3.844E-08	1.303E-08	6.138E-09	3.786E-09	2.648E-09		
NNW	5.447E-06	1.258E-06	3.908E-07	1.981E-07	1.234E-07	5.506E-08	1.998E-08	9.942E-09	6.352E-09	4.563E-09		
N	9.191E-06	2.163E-06	6.978E-07	3.611E-07	2.283E-07	1.041E-07	3.910E-08	1.995E-08	1.293E-08	9.391E-09		
NNE	9.203E-06	2.176E-06	7.212E-07	3.789E-07	2.420E-07	1.123E-07	4.330E-08	2.252E-08	1.477E-08	1.082E-08		
NE	4.065E-06	9.467E-07	3.124E-07	1.638E-07	1.045E-07	4.840E-08	1.862E-08	9.677E-09	6.347E-09	4.647E-09		
ENE	3.651E-06	8.630E-07	2.903E-07	1.537E-07	9.873E-08	4.620E-08	1.803E-08	9.455E-09	6.233E-09	4.579E-09		
E	4.501E-06	1.057E-06	3.570E-07	1.894E-07	1.218E-07	5.715E-08	2.239E-08	1.178E-08	7.781E-09	5.725E-09		
ESE	5.282E-06	1.232E-06	4.161E-07	2.208E-07	1.421E-07	6.666E-08	2.614E-08	1.377E-08	9.098E-09	6.697E-09		
SE	6.597E-06	1.543E-06	5.173E-07	2.735E-07	1.755E-07	8.202E-08	3.197E-08	1.676E-08	1.105E-08	8.117E-09		
SSE	8.382E-06	1.964E-06	6.444E-07	3.367E-07	2.143E-07	9.894E-08	3.787E-08	1.961E-08	1.283E-08	9.380E-09		

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VENTS GROUND LEVEL RELEASES - APR-JUN 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.130E-05	1.351E-05	7.235E-06	3.630E-06	1.452E-06	7.827E-07	4.942E-07	3.437E-07	2.551E-07	1.983E-07	1.596E-07
SSW	2.661E-05	9.125E-06	4.997E-06	2.517E-06	9.892E-07	5.271E-07	3.299E-07	2.278E-07	1.681E-07	1.300E-07	1.041E-07
SW	1.185E-05	4.254E-06	2.292E-06	1.139E-06	4.382E-07	2.298E-07	1.420E-07	9.701E-08	7.090E-08	5.439E-08	4.326E-08
WSW	1.006E-05	3.708E-06	2.014E-06	1.002E-06	3.866E-07	2.031E-07	1.257E-07	8.594E-08	6.287E-08	4.826E-08	3.841E-08
W	1.770E-05	6.079E-06	3.205E-06	1.585E-06	6.259E-07	3.345E-07	2.097E-07	1.449E-07	1.070E-07	8.278E-08	6.634E-08
WNW	1.504E-05	5.454E-06	2.996E-06	1.501E-06	5.850E-07	3.099E-07	1.931E-07	1.328E-07	9.769E-08	7.535E-08	6.023E-08
NW	2.350E-05	8.476E-06	4.588E-06	2.281E-06	8.799E-07	4.625E-07	2.863E-07	1.960E-07	1.435E-07	1.103E-07	8.784E-08
NNW	3.092E-05	1.048E-05	5.591E-06	2.782E-06	1.105E-06	5.931E-07	3.733E-07	2.590E-07	1.919E-07	1.489E-07	1.197E-07
N	5.526E-05	1.773E-05	9.378E-06	4.697E-06	1.914E-06	1.045E-06	6.662E-07	4.668E-07	3.486E-07	2.724E-07	2.202E-07
NNE	5.844E-05	1.791E-05	9.309E-06	4.655E-06	1.931E-06	1.067E-06	6.861E-07	4.840E-07	3.633E-07	2.852E-07	2.314E-07
NE	2.540E-05	7.978E-06	4.102E-06	2.029E-06	8.386E-07	4.624E-07	2.968E-07	2.091E-07	1.568E-07	1.230E-07	9.971E-08
ENE	2.367E-05	7.152E-06	3.673E-06	1.830E-06	7.669E-07	4.266E-07	2.755E-07	1.950E-07	1.468E-07	1.154E-07	9.384E-08
E	2.938E-05	8.876E-06	4.515E-06	2.237E-06	9.400E-07	5.237E-07	3.387E-07	2.400E-07	1.808E-07	1.423E-07	1.157E-07
ESE	3.449E-05	1.046E-05	5.287E-06	2.608E-06	1.095E-06	6.099E-07	3.944E-07	2.794E-07	2.105E-07	1.656E-07	1.347E-07
SE	4.263E-05	1.301E-05	6.625E-06	3.279E-06	1.371E-06	7.613E-07	4.913E-07	3.476E-07	2.615E-07	2.056E-07	1.671E-07
SSE	5.256E-05	1.634E-05	8.481E-06	4.224E-06	1.739E-06	9.563E-07	6.127E-07	4.310E-07	3.229E-07	2.529E-07	2.049E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.320E-07	6.736E-08	4.325E-08	2.428E-08	1.606E-08	1.161E-08	8.870E-09	7.044E-09	5.753E-09	4.802E-09	4.077E-09
SSW	8.579E-08	4.321E-08	2.751E-08	1.529E-08	1.007E-08	7.259E-09	5.541E-09	4.399E-09	3.595E-09	3.002E-09	2.551E-09
SW	3.540E-08	1.736E-08	1.085E-08	5.867E-09	3.788E-09	2.690E-09	2.029E-09	1.595E-09	1.293E-09	1.072E-09	9.052E-10
WSW	3.144E-08	1.543E-08	9.640E-09	5.219E-09	3.371E-09	2.396E-09	1.810E-09	1.425E-09	1.156E-09	9.602E-10	8.121E-10
W	5.463E-08	2.741E-08	1.738E-08	9.573E-09	6.237E-09	4.452E-09	3.365E-09	2.647E-09	2.144E-09	1.776E-09	1.497E-09
WNW	4.949E-08	2.467E-08	1.560E-08	8.600E-09	5.635E-09	4.050E-09	3.086E-09	2.448E-09	2.000E-09	1.670E-09	1.419E-09
NW	7.198E-08	3.551E-08	2.230E-08	1.219E-08	7.953E-09	5.705E-09	4.344E-09	3.446E-09	2.816E-09	2.355E-09	2.005E-09
NNW	9.882E-08	5.023E-08	3.217E-08	1.802E-08	1.191E-08	8.613E-09	6.589E-09	5.240E-09	4.289E-09	3.588E-09	3.053E-09
N	1.828E-07	9.452E-08	6.123E-08	3.476E-08	2.315E-08	1.682E-08	1.290E-08	1.029E-08	8.430E-09	7.058E-09	6.011E-09
NNE	1.926E-07	1.007E-07	6.564E-08	3.747E-08	2.499E-08	1.814E-08	1.389E-08	1.104E-08	9.022E-09	7.528E-09	6.387E-09
NE	8.296E-08	4.323E-08	2.811E-08	1.598E-08	1.063E-08	7.691E-09	5.875E-09	4.658E-09	3.796E-09	3.160E-09	2.676E-09
ENE	7.824E-08	4.107E-08	2.681E-08	1.531E-08	1.019E-08	7.378E-09	5.632E-09	4.461E-09	3.631E-09	3.018E-09	2.551E-09
E	9.656E-08	5.079E-08	3.320E-08	1.899E-08	1.266E-08	9.176E-09	7.012E-09	5.559E-09	4.528E-09	3.767E-09	3.186E-09
ESE	1.124E-07	5.906E-08	3.858E-08	2.203E-08	1.466E-08	1.061E-08	8.089E-09	6.401E-09	5.205E-09	4.323E-09	3.650E-09
SE	1.393E-07	7.315E-08	4.777E-08	2.732E-08	1.822E-08	1.321E-08	1.011E-08	8.024E-09	6.545E-09	5.453E-09	4.619E-09
SSE	1.704E-07	8.865E-08	5.759E-08	3.274E-08	2.178E-08	1.578E-08	1.206E-08	9.573E-09	7.810E-09	6.508E-09	5.515E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE										
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	7.027E-06	1.638E-06	5.110E-07	2.588E-07	1.608E-07	7.100E-08	2.484E-08	1.170E-08	7.074E-09	4.815E-09	
SSW	4.812E-06	1.123E-06	3.417E-07	1.706E-07	1.050E-07	4.569E-08	1.568E-08	7.321E-09	4.419E-09	3.010E-09	
SW	2.215E-06	5.012E-07	1.474E-07	7.207E-08	4.365E-08	1.847E-08	6.049E-09	2.719E-09	1.604E-09	1.076E-09	
WSW	1.941E-06	4.419E-07	1.304E-07	6.390E-08	3.875E-08	1.641E-08	5.380E-09	2.422E-09	1.432E-09	9.634E-10	
W	3.123E-06	7.095E-07	2.170E-07	1.086E-07	6.687E-08	2.900E-08	9.826E-09	4.493E-09	2.661E-09	1.781E-09	
WNW	2.877E-06	6.663E-07	2.001E-07	9.922E-08	6.073E-08	2.616E-08	8.838E-09	4.087E-09	2.460E-09	1.675E-09	
NW	4.427E-06	1.006E-06	2.972E-07	1.458E-07	8.861E-08	3.774E-08	1.255E-08	5.760E-09	3.462E-09	2.362E-09	
NNW	5.430E-06	1.250E-06	3.862E-07	1.947E-07	1.206E-07	5.300E-08	1.845E-08	8.683E-09	5.263E-09	3.597E-09	
N	9.154E-06	2.146E-06	6.875E-07	3.534E-07	2.218E-07	9.933E-08	3.548E-08	1.694E-08	1.033E-08	7.077E-09	
NNE	9.152E-06	2.152E-06	7.068E-07	3.680E-07	2.330E-07	1.056E-07	3.818E-08	1.827E-08	1.109E-08	7.548E-09	
NE	4.042E-06	9.360E-07	3.059E-07	1.589E-07	1.004E-07	4.534E-08	1.630E-08	7.747E-09	4.677E-09	3.169E-09	
ENE	3.627E-06	8.519E-07	2.836E-07	1.486E-07	9.446E-08	4.300E-08	1.559E-08	7.431E-09	4.480E-09	3.027E-09	
E	4.472E-06	1.043E-06	3.486E-07	1.831E-07	1.165E-07	5.315E-08	1.934E-08	9.240E-09	5.581E-09	3.777E-09	
ESE	5.246E-06	1.216E-06	4.059E-07	2.131E-07	1.356E-07	6.180E-08	2.243E-08	1.068E-08	6.428E-09	4.335E-09	
SE	6.557E-06	1.524E-06	5.058E-07	2.648E-07	1.682E-07	7.657E-08	2.782E-08	1.331E-08	8.056E-09	5.468E-09	
SSE	8.336E-06	1.943E-06	6.317E-07	3.271E-07	2.064E-07	9.301E-08	3.339E-08	1.589E-08	9.613E-09	6.526E-09	

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VENTS GROUND LEVEL RELEASES - APR-JUN 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.913E-05	1.236E-05	6.466E-06	3.190E-06	1.240E-06	6.535E-07	4.045E-07	2.765E-07	2.020E-07	1.548E-07	1.230E-07
SSW	2.520E-05	8.346E-06	4.463E-06	2.210E-06	8.440E-07	4.393E-07	2.693E-07	1.827E-07	1.326E-07	1.011E-07	7.989E-08
SW	1.122E-05	3.890E-06	2.047E-06	9.993E-07	3.737E-07	1.914E-07	1.158E-07	7.769E-08	5.586E-08	4.222E-08	3.312E-08
WSW	9.524E-06	3.390E-06	1.798E-06	8.794E-07	3.295E-07	1.690E-07	1.024E-07	6.874E-08	4.946E-08	3.740E-08	2.935E-08
W	1.677E-05	5.562E-06	2.864E-06	1.393E-06	5.348E-07	2.793E-07	1.717E-07	1.166E-07	8.478E-08	6.469E-08	5.118E-08
WNW	1.425E-05	4.986E-06	2.675E-06	1.317E-06	4.987E-07	2.579E-07	1.574E-07	1.063E-07	7.688E-08	5.841E-08	4.605E-08
NW	2.225E-05	7.747E-06	4.094E-06	2.000E-06	7.493E-07	3.844E-07	2.330E-07	1.565E-07	1.127E-07	8.526E-08	6.697E-08
NNW	2.929E-05	9.590E-06	4.994E-06	2.443E-06	9.430E-07	4.945E-07	3.051E-07	2.080E-07	1.516E-07	1.160E-07	9.198E-08
N	5.236E-05	1.623E-05	8.383E-06	4.128E-06	1.635E-06	8.729E-07	5.456E-07	3.758E-07	2.763E-07	2.129E-07	1.700E-07
NNE	5.539E-05	1.640E-05	8.331E-06	4.098E-06	1.654E-06	8.940E-07	5.640E-07	3.914E-07	2.895E-07	2.243E-07	1.798E-07
NE	2.408E-05	7.308E-06	3.671E-06	1.787E-06	7.186E-07	3.876E-07	2.442E-07	1.693E-07	1.251E-07	9.684E-08	7.759E-08
ENE	2.244E-05	6.554E-06	3.289E-06	1.613E-06	6.579E-07	3.581E-07	2.271E-07	1.582E-07	1.174E-07	9.115E-08	7.324E-08
E	2.785E-05	8.134E-06	4.044E-06	1.972E-06	8.065E-07	4.397E-07	2.792E-07	1.947E-07	1.446E-07	1.124E-07	9.037E-08
ESE	3.270E-05	9.589E-06	4.736E-06	2.298E-06	9.399E-07	5.124E-07	3.253E-07	2.269E-07	1.685E-07	1.310E-07	1.053E-07
SE	4.041E-05	1.192E-05	5.931E-06	2.888E-06	1.175E-06	6.387E-07	4.046E-07	2.816E-07	2.089E-07	1.621E-07	1.302E-07
SSE	4.982E-05	1.497E-05	7.590E-06	3.718E-06	1.489E-06	8.011E-07	5.036E-07	3.485E-07	2.573E-07	1.989E-07	1.592E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.005E-07	4.907E-08	3.037E-08	1.613E-08	1.024E-08	7.161E-09	5.323E-09	4.127E-09	3.300E-09	2.702E-09	2.254E-09
SSW	6.499E-08	3.121E-08	1.909E-08	9.982E-09	6.273E-09	4.353E-09	3.217E-09	2.483E-09	1.979E-09	1.615E-09	1.344E-09
SW	2.676E-08	1.250E-08	7.494E-09	3.805E-09	2.340E-09	1.597E-09	1.164E-09	8.880E-10	7.006E-10	5.670E-10	4.683E-10
WSW	2.371E-08	1.107E-08	6.630E-09	3.361E-09	2.063E-09	1.406E-09	1.024E-09	7.803E-10	6.151E-10	4.976E-10	4.107E-10
W	4.165E-08	2.001E-08	1.224E-08	6.397E-09	4.010E-09	2.777E-09	2.047E-09	1.576E-09	1.252E-09	1.020E-09	8.464E-10
WNW	3.735E-08	1.772E-08	1.075E-08	5.550E-09	3.458E-09	2.384E-09	1.753E-09	1.347E-09	1.070E-09	8.708E-10	7.229E-10
NW	5.415E-08	2.538E-08	1.526E-08	7.792E-09	4.819E-09	3.305E-09	2.420E-09	1.854E-09	1.469E-09	1.193E-09	9.885E-10
NNW	7.504E-08	3.643E-08	2.246E-08	1.187E-08	7.513E-09	5.242E-09	3.890E-09	3.012E-09	2.407E-09	1.969E-09	1.642E-09
N	1.394E-07	6.901E-08	4.312E-08	2.319E-08	1.484E-08	1.044E-08	7.792E-09	6.064E-09	4.864E-09	3.993E-09	3.339E-09
NNE	1.480E-07	7.435E-08	4.689E-08	2.552E-08	1.645E-08	1.163E-08	8.715E-09	6.800E-09	5.465E-09	4.492E-09	3.760E-09
NE	6.385E-08	3.200E-08	2.015E-08	1.095E-08	7.048E-09	4.977E-09	3.726E-09	2.904E-09	2.332E-09	1.916E-09	1.602E-09
ENE	6.042E-08	3.054E-08	1.934E-08	1.058E-08	6.836E-09	4.839E-09	3.629E-09	2.832E-09	2.276E-09	1.871E-09	1.565E-09
E	7.460E-08	3.779E-08	2.396E-08	1.314E-08	8.501E-09	6.025E-09	4.523E-09	3.533E-09	2.841E-09	2.337E-09	1.956E-09
ESE	8.693E-08	4.404E-08	2.793E-08	1.531E-08	9.905E-09	7.018E-09	5.266E-09	4.112E-09	3.306E-09	2.718E-09	2.274E-09
SE	1.074E-07	5.426E-08	3.435E-08	1.879E-08	1.214E-08	8.600E-09	6.453E-09	5.039E-09	4.052E-09	3.333E-09	2.790E-09
SSE	1.309E-07	6.543E-08	4.114E-08	2.231E-08	1.435E-08	1.012E-08	7.577E-09	5.905E-09	4.742E-09	3.895E-09	3.257E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE										
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	6.320E-06	1.413E-06	4.197E-07	2.053E-07	1.241E-07	5.219E-08	1.668E-08	7.247E-09	4.154E-09	2.714E-09	
SSW	4.324E-06	9.676E-07	2.800E-07	1.349E-07	8.065E-08	3.333E-08	1.036E-08	4.411E-09	2.501E-09	1.623E-09	
SW	1.991E-06	4.317E-07	1.207E-07	5.690E-08	3.346E-08	1.344E-08	3.974E-09	1.622E-09	8.954E-10	5.700E-10	
WSW	1.743E-06	3.804E-07	1.067E-07	5.038E-08	2.965E-08	1.191E-08	3.511E-09	1.428E-09	7.869E-10	5.002E-10	
W	2.810E-06	6.119E-07	1.783E-07	8.623E-08	5.166E-08	2.137E-08	6.636E-09	2.814E-09	1.587E-09	1.025E-09	
WNW	2.585E-06	5.735E-07	1.637E-07	7.825E-08	4.649E-08	1.898E-08	5.775E-09	2.418E-09	1.358E-09	8.750E-10	
NW	3.975E-06	8.651E-07	2.428E-07	1.148E-07	6.764E-08	2.727E-08	8.130E-09	3.355E-09	1.869E-09	1.199E-09	
NNW	4.882E-06	1.077E-06	3.168E-07	1.541E-07	9.282E-08	3.880E-08	1.229E-08	5.307E-09	3.032E-09	1.978E-09	
N	8.235E-06	1.850E-06	5.649E-07	2.806E-07	1.714E-07	7.315E-08	2.391E-08	1.055E-08	6.100E-09	4.009E-09	
NNE	8.244E-06	1.859E-06	5.830E-07	2.938E-07	1.812E-07	7.852E-08	2.624E-08	1.175E-08	6.838E-09	4.509E-09	
NE	3.642E-06	8.088E-07	2.524E-07	1.270E-07	7.821E-08	3.381E-08	1.126E-08	5.029E-09	2.921E-09	1.923E-09	
ENE	3.269E-06	7.368E-07	2.344E-07	1.190E-07	7.380E-08	3.220E-08	1.086E-08	4.887E-09	2.848E-09	1.878E-09	
E	4.032E-06	9.024E-07	2.882E-07	1.467E-07	9.106E-08	3.982E-08	1.348E-08	6.084E-09	3.552E-09	2.345E-09	
ESE	4.731E-06	1.052E-06	3.358E-07	1.709E-07	1.061E-07	4.641E-08	1.571E-08	7.087E-09	4.135E-09	2.728E-09	
SE	5.909E-06	1.317E-06	4.178E-07	2.119E-07	1.312E-07	5.722E-08	1.929E-08	8.686E-09	5.067E-09	3.345E-09	
SSE	7.508E-06	1.679E-06	5.209E-07	2.611E-07	1.605E-07	6.919E-08	2.295E-08	1.023E-08	5.940E-09	3.910E-09	

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VENTS GROUND LEVEL RELEASES - APR-JUN 2022
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.093E-07	7.078E-08	3.634E-08	1.728E-08	6.206E-09	3.078E-09	1.812E-09	1.187E-09	8.350E-10	6.188E-10	4.769E-10
SSW	1.367E-07	4.621E-08	2.373E-08	1.128E-08	4.052E-09	2.010E-09	1.183E-09	7.748E-10	5.452E-10	4.040E-10	3.113E-10
SW	6.666E-08	2.254E-08	1.157E-08	5.502E-09	1.976E-09	9.801E-10	5.771E-10	3.779E-10	2.659E-10	1.971E-10	1.519E-10
WSW	6.126E-08	2.072E-08	1.064E-08	5.057E-09	1.816E-09	9.008E-10	5.304E-10	3.473E-10	2.444E-10	1.811E-10	1.396E-10
W	8.206E-08	2.775E-08	1.425E-08	6.773E-09	2.433E-09	1.207E-09	7.105E-10	4.652E-10	3.273E-10	2.426E-10	1.869E-10
WNW	9.135E-08	3.089E-08	1.586E-08	7.541E-09	2.709E-09	1.343E-09	7.909E-10	5.179E-10	3.644E-10	2.701E-10	2.081E-10
NW	2.246E-07	7.596E-08	3.900E-08	1.854E-08	6.661E-09	3.303E-09	1.945E-09	1.274E-09	8.961E-10	6.641E-10	5.118E-10
NNW	2.112E-07	7.143E-08	3.667E-08	1.744E-08	6.263E-09	3.106E-09	1.829E-09	1.197E-09	8.426E-10	6.245E-10	4.812E-10
N	3.670E-07	1.241E-07	6.372E-08	3.030E-08	1.088E-08	5.397E-09	3.178E-09	2.081E-09	1.464E-09	1.085E-09	8.361E-10
NNE	2.174E-07	7.352E-08	3.775E-08	1.795E-08	6.446E-09	3.197E-09	1.882E-09	1.233E-09	8.673E-10	6.427E-10	4.953E-10
NE	7.422E-08	2.510E-08	1.289E-08	6.126E-09	2.201E-09	1.091E-09	6.426E-10	4.207E-10	2.961E-10	2.194E-10	1.691E-10
ENE	5.927E-08	2.004E-08	1.029E-08	4.892E-09	1.757E-09	8.715E-10	5.132E-10	3.360E-10	2.364E-10	1.752E-10	1.350E-10
E	7.250E-08	2.451E-08	1.259E-08	5.984E-09	2.149E-09	1.066E-09	6.277E-10	4.110E-10	2.892E-10	2.143E-10	1.652E-10
ESE	9.219E-08	3.118E-08	1.601E-08	7.610E-09	2.734E-09	1.356E-09	7.982E-10	5.227E-10	3.678E-10	2.726E-10	2.100E-10
SE	1.461E-07	4.941E-08	2.537E-08	1.206E-08	4.332E-09	2.148E-09	1.265E-09	8.283E-10	5.828E-10	4.319E-10	3.329E-10
SSE	2.041E-07	6.903E-08	3.544E-08	1.685E-08	6.053E-09	3.002E-09	1.767E-09	1.157E-09	8.143E-10	6.035E-10	4.651E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	3.789E-10	1.683E-10	1.019E-10	5.153E-11	3.119E-11	2.091E-11	1.498E-11	1.125E-11	8.748E-12	6.988E-12	5.704E-12
SSW	2.473E-10	1.099E-10	6.656E-11	3.364E-11	2.036E-11	1.365E-11	9.783E-12	7.346E-12	5.711E-12	4.562E-12	3.724E-12
SW	1.206E-10	5.359E-11	3.246E-11	1.641E-11	9.932E-12	6.659E-12	4.772E-12	3.583E-12	2.786E-12	2.225E-12	1.816E-12
WSW	1.109E-10	4.925E-11	2.984E-11	1.508E-11	9.127E-12	6.120E-12	4.385E-12	3.293E-12	2.560E-12	2.045E-12	1.669E-12
W	1.485E-10	6.598E-11	3.997E-11	2.020E-11	1.223E-11	8.197E-12	5.874E-12	4.411E-12	3.429E-12	2.739E-12	2.236E-12
WNW	1.653E-10	7.345E-11	4.449E-11	2.249E-11	1.361E-11	9.126E-12	6.539E-12	4.910E-12	3.818E-12	3.050E-12	2.489E-12
NW	4.066E-10	1.806E-10	1.094E-10	5.530E-11	3.347E-11	2.244E-11	1.608E-11	1.207E-11	9.388E-12	7.500E-12	6.121E-12
NNW	3.823E-10	1.698E-10	1.029E-10	5.200E-11	3.147E-11	2.110E-11	1.512E-11	1.135E-11	8.828E-12	7.052E-12	5.756E-12
N	6.643E-10	2.951E-10	1.788E-10	9.035E-11	5.468E-11	3.666E-11	2.627E-11	1.973E-11	1.534E-11	1.225E-11	1.000E-11
NNE	3.935E-10	1.748E-10	1.059E-10	5.352E-11	3.239E-11	2.172E-11	1.556E-11	1.169E-11	9.086E-12	7.258E-12	5.924E-12
NE	1.343E-10	5.967E-11	3.615E-11	1.827E-11	1.106E-11	7.414E-12	5.313E-12	3.989E-12	3.102E-12	2.478E-12	2.022E-12
ENE	1.073E-10	4.765E-11	2.887E-11	1.459E-11	8.831E-12	5.921E-12	4.243E-12	3.186E-12	2.477E-12	1.979E-12	1.615E-12
E	1.312E-10	5.829E-11	3.531E-11	1.785E-11	1.080E-11	7.242E-12	5.189E-12	3.897E-12	3.030E-12	2.420E-12	1.975E-12
ESE	1.669E-10	7.413E-11	4.490E-11	2.270E-11	1.374E-11	9.210E-12	6.599E-12	4.955E-12	3.853E-12	3.078E-12	2.512E-12
SE	2.644E-10	1.175E-10	7.116E-11	3.597E-11	2.177E-11	1.460E-11	1.046E-11	7.853E-12	6.106E-12	4.878E-12	3.981E-12
SSE	3.695E-10	1.641E-10	9.942E-11	5.025E-11	3.042E-11	2.039E-11	1.461E-11	1.097E-11	8.531E-12	6.815E-12	5.563E-12

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.552E-08	7.276E-09	1.900E-09	8.531E-10	4.826E-10	1.856E-10	5.369E-11	2.128E-11	1.136E-11	7.034E-12
SSW	2.319E-08	4.751E-09	1.240E-09	5.570E-10	3.151E-10	1.212E-10	3.506E-11	1.389E-11	7.419E-12	4.592E-12
SW	1.131E-08	2.317E-09	6.049E-10	2.717E-10	1.537E-10	5.910E-11	1.710E-11	6.777E-12	3.619E-12	2.240E-12
WSW	1.040E-08	2.129E-09	5.559E-10	2.497E-10	1.412E-10	5.432E-11	1.571E-11	6.228E-12	3.326E-12	2.059E-12
W	1.393E-08	2.852E-09	7.447E-10	3.344E-10	1.892E-10	7.276E-11	2.105E-11	8.342E-12	4.455E-12	2.757E-12
WNW	1.550E-08	3.176E-09	8.290E-10	3.723E-10	2.106E-10	8.100E-11	2.343E-11	9.287E-12	4.959E-12	3.070E-12
NW	3.812E-08	7.809E-09	2.039E-09	9.156E-10	5.180E-10	1.992E-10	5.762E-11	2.284E-11	1.220E-11	7.549E-12
NNW	3.585E-08	7.343E-09	1.917E-09	8.609E-10	4.870E-10	1.873E-10	5.418E-11	2.147E-11	1.147E-11	7.098E-12
N	6.229E-08	1.276E-08	3.331E-09	1.496E-09	8.462E-10	3.254E-10	9.414E-11	3.731E-11	1.993E-11	1.233E-11
NNE	3.690E-08	7.558E-09	1.973E-09	8.861E-10	5.013E-10	1.928E-10	5.577E-11	2.210E-11	1.180E-11	7.306E-12
NE	1.260E-08	2.580E-09	6.735E-10	3.025E-10	1.711E-10	6.581E-11	1.904E-11	7.545E-12	4.029E-12	2.494E-12
ENE	1.006E-08	2.060E-09	5.379E-10	2.416E-10	1.367E-10	5.255E-11	1.520E-11	6.026E-12	3.218E-12	1.992E-12
E	1.230E-08	2.520E-09	6.579E-10	2.955E-10	1.671E-10	6.428E-11	1.860E-11	7.370E-12	3.936E-12	2.436E-12
ESE	1.565E-08	3.205E-09	8.366E-10	3.758E-10	2.126E-10	8.175E-11	2.365E-11	9.373E-12	5.005E-12	3.098E-12
SE	2.480E-08	5.079E-09	1.326E-09	5.955E-10	3.369E-10	1.295E-10	3.748E-11	1.485E-11	7.932E-12	4.910E-12
SSE	3.464E-08	7.096E-09	1.853E-09	8.320E-10	4.707E-10	1.810E-10	5.236E-11	2.075E-11	1.108E-11	6.860E-12

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VENTS GROUND LEVEL RELEASES - APR-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	X/Q	X/Q	X/Q	D/Q	
			(SEC/M3)	(SEC/M3)	(SEC/M3)	(PER SQ.METER)	
			NO	2.26 DAY	8.0 DAY		
			DECAY	DECAY	DECAY		
			UNDEPLETED	UNDEPLETED	DEPLETED		
A	Site Boundary	S	.80	6.3E-06	6.2E-06	5.5E-06	3.1E-08
A	Site Boundary	SSW	.82	4.0E-06	4.0E-06	3.6E-06	1.9E-08
A	Site Boundary	SW	.97	1.2E-06	1.2E-06	1.1E-06	5.9E-09
A	Site Boundary	WSW	.93	1.2E-06	1.2E-06	1.1E-06	6.2E-09
A	Site Boundary	W	.91	2.0E-06	2.0E-06	1.7E-06	8.6E-09
A	Site Boundary	WNW	.94	1.8E-06	1.8E-06	1.5E-06	8.9E-09
A	Site Boundary	NW	.81	3.8E-06	3.8E-06	3.4E-06	3.2E-08
A	Site Boundary	NNW	.69	6.4E-06	6.4E-06	5.7E-06	4.2E-08
A	Site Boundary	N	.67	1.1E-05	1.1E-05	9.9E-06	7.6E-08
A	Site Boundary	NNE	.60	1.3E-05	1.3E-05	1.2E-05	5.5E-08
A	Site Boundary	NE	.62	5.5E-06	5.5E-06	5.0E-06	1.8E-08
A	Site Boundary	ENE	.59	5.5E-06	5.5E-06	5.0E-06	1.5E-08
A	Site Boundary	E	.53	8.2E-06	8.2E-06	7.5E-06	2.3E-08
A	Site Boundary	ESE	.54	9.3E-06	9.2E-06	8.4E-06	2.8E-08
A	Site Boundary	SE	.65	8.4E-06	8.3E-06	7.5E-06	3.2E-08
A	Site Boundary	SSE	.81	7.0E-06	7.0E-06	6.2E-06	2.9E-08
A	Nearest Res	SW	1.30	6.1E-07	6.1E-07	5.3E-07	2.8E-09
A	Nearest Res	WSW	1.80	2.6E-07	2.6E-07	2.2E-07	1.2E-09
A	Nearest Res	WNW	2.40	2.1E-07	2.1E-07	1.7E-07	8.7E-10
A	Nearest Res	NW	.90	3.0E-06	2.9E-06	2.6E-06	2.4E-08
A	Nearest Res	NNW	1.90	6.7E-07	6.6E-07	5.5E-07	3.5E-09
A	Nearest Res	NE	1.60	7.4E-07	7.3E-07	6.2E-07	1.9E-09
A	Nearest Res	E	2.00	5.3E-07	5.2E-07	4.4E-07	1.1E-09
A	Nearest Cow	NNW	3.50	2.0E-07	1.9E-07	1.5E-07	8.4E-10
A	Nearest Garde	SW	2.20	1.9E-07	1.9E-07	1.5E-07	7.8E-10
A	Nearest Garde	WSW	1.80	2.6E-07	2.6E-07	2.2E-07	1.2E-09
A	Nearest Garde	WNW	2.60	1.8E-07	1.8E-07	1.4E-07	7.2E-10
A	Nearest Garde	NW	1.90	5.2E-07	5.2E-07	4.3E-07	3.7E-09
A	Nearest Garde	NNW	2.80	3.0E-07	3.0E-07	2.4E-07	1.4E-09
A	Nearest Garde	ENE	1.70	6.0E-07	5.9E-07	5.0E-07	1.3E-09
A	Nearest Garde	ESE	2.30	4.7E-07	4.6E-07	3.8E-07	9.7E-10

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Atmospheric Diffusion Estimates

Ground Level Releases

January-June 2022

VENTS GROUND LEVEL RELEASES - JAN-JUN 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.918E-05	1.288E-05	6.804E-06	3.387E-06	1.358E-06	7.351E-07	4.658E-07	3.251E-07	2.422E-07	1.889E-07	1.526E-07
SSW	2.719E-05	9.240E-06	4.969E-06	2.486E-06	9.861E-07	5.292E-07	3.331E-07	2.313E-07	1.714E-07	1.332E-07	1.072E-07
SW	1.229E-05	4.179E-06	2.188E-06	1.079E-06	4.272E-07	2.290E-07	1.440E-07	9.992E-08	7.403E-08	5.750E-08	4.625E-08
WSW	7.527E-06	2.691E-06	1.451E-06	7.219E-07	2.830E-07	1.506E-07	9.412E-08	6.496E-08	4.792E-08	3.706E-08	2.970E-08
W	1.208E-05	4.115E-06	2.166E-06	1.072E-06	4.276E-07	2.303E-07	1.453E-07	1.011E-07	7.508E-08	5.842E-08	4.707E-08
WNW	1.202E-05	4.258E-06	2.339E-06	1.176E-06	4.629E-07	2.470E-07	1.548E-07	1.070E-07	7.906E-08	6.124E-08	4.915E-08
NW	2.022E-05	6.998E-06	3.738E-06	1.859E-06	7.344E-07	3.930E-07	2.469E-07	1.711E-07	1.266E-07	9.825E-08	7.897E-08
NNW	3.317E-05	1.091E-05	5.818E-06	2.915E-06	1.179E-06	6.414E-07	4.080E-07	2.857E-07	2.133E-07	1.668E-07	1.349E-07
N	6.825E-05	2.155E-05	1.140E-05	5.734E-06	2.367E-06	1.305E-06	8.389E-07	5.921E-07	4.451E-07	3.499E-07	2.845E-07
NNE	5.946E-05	1.817E-05	9.402E-06	4.701E-06	1.970E-06	1.098E-06	7.110E-07	5.049E-07	3.814E-07	3.011E-07	2.457E-07
NE	2.515E-05	8.035E-06	4.182E-06	2.081E-06	8.558E-07	4.710E-07	3.022E-07	2.131E-07	1.600E-07	1.257E-07	1.021E-07
ENE	2.164E-05	6.703E-06	3.495E-06	1.751E-06	7.278E-07	4.033E-07	2.601E-07	1.841E-07	1.387E-07	1.093E-07	8.899E-08
E	2.431E-05	7.501E-06	3.871E-06	1.930E-06	8.056E-07	4.478E-07	2.894E-07	2.052E-07	1.548E-07	1.221E-07	9.958E-08
ESE	2.712E-05	8.427E-06	4.353E-06	2.168E-06	9.037E-07	5.018E-07	3.242E-07	2.298E-07	1.733E-07	1.367E-07	1.114E-07
SE	3.498E-05	1.133E-05	5.963E-06	2.977E-06	1.216E-06	6.658E-07	4.257E-07	2.992E-07	2.241E-07	1.757E-07	1.425E-07
SSE	4.699E-05	1.525E-05	8.023E-06	4.001E-06	1.623E-06	8.848E-07	5.638E-07	3.952E-07	2.954E-07	2.311E-07	1.872E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.266E-07	6.578E-08	4.298E-08	2.497E-08	1.708E-08	1.275E-08	1.005E-08	8.231E-09	6.927E-09	5.953E-09	5.200E-09
SSW	8.863E-08	4.543E-08	2.940E-08	1.683E-08	1.139E-08	8.432E-09	6.604E-09	5.376E-09	4.502E-09	3.852E-09	3.351E-09
SW	3.824E-08	1.959E-08	1.267E-08	7.258E-09	4.916E-09	3.643E-09	2.856E-09	2.328E-09	1.951E-09	1.671E-09	1.455E-09
WSW	2.447E-08	1.235E-08	7.902E-09	4.449E-09	2.971E-09	2.177E-09	1.691E-09	1.367E-09	1.137E-09	9.675E-10	8.376E-10
W	3.896E-08	2.003E-08	1.299E-08	7.463E-09	5.060E-09	3.753E-09	2.944E-09	2.400E-09	2.013E-09	1.724E-09	1.502E-09
WNW	4.054E-08	2.055E-08	1.318E-08	7.454E-09	4.996E-09	3.670E-09	2.856E-09	2.312E-09	1.926E-09	1.640E-09	1.421E-09
NW	6.523E-08	3.327E-08	2.145E-08	1.223E-08	8.249E-09	6.092E-09	4.762E-09	3.871E-09	3.237E-09	2.767E-09	2.405E-09
NNW	1.121E-07	5.853E-08	3.836E-08	2.236E-08	1.531E-08	1.144E-08	9.030E-09	7.398E-09	6.229E-09	5.355E-09	4.679E-09
N	2.374E-07	1.258E-07	8.332E-08	4.925E-08	3.405E-08	2.562E-08	2.033E-08	1.673E-08	1.415E-08	1.220E-08	1.070E-08
NNE	2.057E-07	1.104E-07	7.374E-08	4.410E-08	3.073E-08	2.327E-08	1.856E-08	1.534E-08	1.301E-08	1.126E-08	9.897E-09
NE	8.517E-08	4.505E-08	2.980E-08	1.759E-08	1.216E-08	9.147E-09	7.259E-09	5.976E-09	5.052E-09	4.359E-09	3.821E-09
ENE	7.437E-08	3.964E-08	2.636E-08	1.567E-08	1.088E-08	8.209E-09	6.532E-09	5.388E-09	4.563E-09	3.943E-09	3.461E-09
E	8.331E-08	4.457E-08	2.971E-08	1.772E-08	1.233E-08	9.326E-09	7.431E-09	6.138E-09	5.204E-09	4.501E-09	3.955E-09
ESE	9.318E-08	4.981E-08	3.319E-08	1.979E-08	1.376E-08	1.041E-08	8.291E-09	6.847E-09	5.805E-09	5.020E-09	4.410E-09
SE	1.187E-07	6.241E-08	4.111E-08	2.413E-08	1.661E-08	1.246E-08	9.863E-09	8.102E-09	6.837E-09	5.890E-09	5.156E-09
SSE	1.556E-07	8.141E-08	5.344E-08	3.123E-08	2.145E-08	1.606E-08	1.269E-08	1.041E-08	8.779E-09	7.555E-09	6.609E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	6.636E-06	1.532E-06	4.813E-07	2.456E-07	1.537E-07	6.917E-08	2.546E-08	1.282E-08	8.254E-09	5.963E-09
SSW	4.815E-06	1.116E-06	3.447E-07	1.740E-07	1.080E-07	4.791E-08	1.721E-08	8.490E-09	5.394E-09	3.859E-09
SW	2.138E-06	4.840E-07	1.490E-07	7.513E-08	4.661E-08	2.066E-08	7.420E-09	3.668E-09	2.335E-09	1.674E-09
WSW	1.402E-06	3.217E-07	9.751E-08	4.865E-08	2.995E-08	1.307E-08	4.559E-09	2.194E-09	1.372E-09	9.697E-10
W	2.113E-06	4.832E-07	1.503E-07	7.617E-08	4.743E-08	2.111E-08	7.623E-09	3.778E-09	2.408E-09	1.728E-09
WNW	2.249E-06	5.255E-07	1.603E-07	8.026E-08	4.954E-08	2.172E-08	7.635E-09	3.698E-09	2.320E-09	1.644E-09
NW	3.627E-06	8.325E-07	2.555E-07	1.285E-07	7.960E-08	3.512E-08	1.251E-08	6.135E-09	3.884E-09	2.772E-09
NNW	5.660E-06	1.326E-06	4.213E-07	2.163E-07	1.359E-07	6.148E-08	2.278E-08	1.151E-08	7.419E-09	5.364E-09
N	1.114E-05	2.643E-06	8.646E-07	4.508E-07	2.864E-07	1.317E-07	5.006E-08	2.575E-08	1.678E-08	1.222E-08
NNE	9.260E-06	2.189E-06	7.317E-07	3.861E-07	2.473E-07	1.153E-07	4.475E-08	2.338E-08	1.537E-08	1.128E-08
NE	4.104E-06	9.570E-07	3.116E-07	1.621E-07	1.028E-07	4.719E-08	1.789E-08	9.195E-09	5.991E-09	4.365E-09
ENE	3.433E-06	8.109E-07	2.679E-07	1.405E-07	8.958E-08	4.146E-08	1.591E-08	8.249E-09	5.401E-09	3.948E-09
E	3.815E-06	8.963E-07	2.980E-07	1.568E-07	1.002E-07	4.657E-08	1.799E-08	9.369E-09	6.152E-09	4.507E-09
ESE	4.287E-06	1.006E-06	3.338E-07	1.755E-07	1.121E-07	5.206E-08	2.009E-08	1.046E-08	6.863E-09	5.026E-09
SE	5.828E-06	1.363E-06	4.391E-07	2.271E-07	1.435E-07	6.545E-08	2.456E-08	1.253E-08	8.123E-09	5.899E-09
SSE	7.842E-06	1.823E-06	5.820E-07	2.994E-07	1.885E-07	8.547E-08	3.182E-08	1.615E-08	1.044E-08	7.567E-09

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VENTS GROUND LEVEL RELEASES - JAN-JUN 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.913E-05	1.285E-05	6.780E-06	3.371E-06	1.348E-06	7.275E-07	4.597E-07	3.200E-07	2.376E-07	1.848E-07	1.488E-07
SSW	2.716E-05	9.220E-06	4.953E-06	2.476E-06	9.795E-07	5.244E-07	3.293E-07	2.280E-07	1.686E-07	1.307E-07	1.049E-07
SW	1.227E-05	4.169E-06	2.180E-06	1.074E-06	4.241E-07	2.267E-07	1.422E-07	9.838E-08	7.269E-08	5.630E-08	4.516E-08
WSW	7.519E-06	2.686E-06	1.446E-06	7.191E-07	2.813E-07	1.493E-07	9.314E-08	6.414E-08	4.721E-08	3.643E-08	2.913E-08
W	1.207E-05	4.104E-06	2.157E-06	1.067E-06	4.242E-07	2.278E-07	1.433E-07	9.942E-08	7.360E-08	5.709E-08	4.586E-08
WNW	1.201E-05	4.250E-06	2.332E-06	1.172E-06	4.605E-07	2.452E-07	1.534E-07	1.059E-07	7.807E-08	6.037E-08	4.835E-08
NW	2.020E-05	6.984E-06	3.727E-06	1.852E-06	7.301E-07	3.899E-07	2.444E-07	1.690E-07	1.248E-07	9.662E-08	7.749E-08
NNW	3.313E-05	1.089E-05	5.798E-06	2.902E-06	1.171E-06	6.353E-07	4.031E-07	2.815E-07	2.096E-07	1.635E-07	1.319E-07
N	6.815E-05	2.150E-05	1.136E-05	5.704E-06	2.348E-06	1.291E-06	8.273E-07	5.822E-07	4.363E-07	3.420E-07	2.772E-07
NNE	5.934E-05	1.810E-05	9.352E-06	4.668E-06	1.949E-06	1.082E-06	6.980E-07	4.938E-07	3.716E-07	2.922E-07	2.376E-07
NE	2.512E-05	8.012E-06	4.165E-06	2.070E-06	8.488E-07	4.657E-07	2.979E-07	2.094E-07	1.568E-07	1.228E-07	9.947E-08
ENE	2.160E-05	6.681E-06	3.478E-06	1.740E-06	7.207E-07	3.980E-07	2.558E-07	1.804E-07	1.354E-07	1.063E-07	8.629E-08
E	2.426E-05	7.476E-06	3.852E-06	1.917E-06	7.977E-07	4.418E-07	2.846E-07	2.011E-07	1.512E-07	1.188E-07	9.652E-08
ESE	2.707E-05	8.398E-06	4.331E-06	2.153E-06	8.944E-07	4.948E-07	3.185E-07	2.249E-07	1.690E-07	1.328E-07	1.078E-07
SE	3.494E-05	1.130E-05	5.940E-06	2.963E-06	1.207E-06	6.589E-07	4.201E-07	2.944E-07	2.199E-07	1.719E-07	1.390E-07
SSE	4.692E-05	1.521E-05	7.991E-06	3.980E-06	1.610E-06	8.749E-07	5.557E-07	3.884E-07	2.894E-07	2.257E-07	1.822E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.232E-07	6.305E-08	4.059E-08	2.289E-08	1.521E-08	1.103E-08	8.458E-09	6.738E-09	5.521E-09	4.621E-09	3.934E-09
SSW	8.654E-08	4.380E-08	2.798E-08	1.562E-08	1.031E-08	7.441E-09	5.686E-09	4.518E-09	3.694E-09	3.086E-09	2.623E-09
SW	3.723E-08	1.880E-08	1.199E-08	6.676E-09	4.396E-09	3.169E-09	2.418E-09	1.918E-09	1.566E-09	1.307E-09	1.110E-09
WSW	2.395E-08	1.195E-08	7.557E-09	4.157E-09	2.714E-09	1.943E-09	1.475E-09	1.166E-09	9.491E-10	7.900E-10	6.693E-10
W	3.784E-08	1.915E-08	1.223E-08	6.804E-09	4.471E-09	3.214E-09	2.446E-09	1.935E-09	1.575E-09	1.311E-09	1.110E-09
WNW	3.981E-08	1.999E-08	1.271E-08	7.057E-09	4.645E-09	3.351E-09	2.561E-09	2.036E-09	1.667E-09	1.395E-09	1.187E-09
NW	6.386E-08	3.220E-08	2.053E-08	1.143E-08	7.535E-09	5.440E-09	4.159E-09	3.307E-09	2.707E-09	2.264E-09	1.928E-09
NNW	1.093E-07	5.631E-08	3.641E-08	2.067E-08	1.379E-08	1.004E-08	7.728E-09	6.178E-09	5.078E-09	4.263E-09	3.640E-09
N	2.306E-07	1.204E-07	7.856E-08	4.508E-08	3.028E-08	2.215E-08	1.710E-08	1.370E-08	1.128E-08	9.487E-09	8.109E-09
NNE	1.981E-07	1.043E-07	6.833E-08	3.935E-08	2.644E-08	1.932E-08	1.488E-08	1.189E-08	9.759E-09	8.178E-09	6.966E-09
NE	8.270E-08	4.308E-08	2.806E-08	1.607E-08	1.078E-08	7.882E-09	6.082E-09	4.871E-09	4.010E-09	3.371E-09	2.881E-09
ENE	7.186E-08	3.763E-08	2.458E-08	1.411E-08	9.471E-09	6.917E-09	5.329E-09	4.261E-09	3.500E-09	2.936E-09	2.503E-09
E	8.046E-08	4.228E-08	2.768E-08	1.594E-08	1.072E-08	7.844E-09	6.052E-09	4.844E-09	3.983E-09	3.344E-09	2.854E-09
ESE	8.984E-08	4.714E-08	3.083E-08	1.771E-08	1.189E-08	8.680E-09	6.684E-09	5.341E-09	4.384E-09	3.674E-09	3.131E-09
SE	1.154E-07	5.982E-08	3.883E-08	2.214E-08	1.481E-08	1.080E-08	8.320E-09	6.654E-09	5.471E-09	4.595E-09	3.923E-09
SSE	1.510E-07	7.772E-08	5.020E-08	2.841E-08	1.890E-08	1.371E-08	1.052E-08	8.375E-09	6.858E-09	5.736E-09	4.880E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	6.614E-06	1.522E-06	4.752E-07	2.410E-07	1.500E-07	6.642E-08	2.341E-08	1.112E-08	6.766E-09	4.633E-09
SSW	4.800E-06	1.110E-06	3.408E-07	1.712E-07	1.057E-07	4.627E-08	1.600E-08	7.503E-09	4.538E-09	3.095E-09
SW	2.131E-06	4.808E-07	1.472E-07	7.379E-08	4.552E-08	1.987E-08	6.844E-09	3.196E-09	1.927E-09	1.311E-09
WSW	1.398E-06	3.199E-07	9.652E-08	4.794E-08	2.938E-08	1.266E-08	4.271E-09	1.962E-09	1.172E-09	7.924E-10
W	2.105E-06	4.797E-07	1.483E-07	7.469E-08	4.622E-08	2.023E-08	6.972E-09	3.242E-09	1.944E-09	1.315E-09
WNW	2.243E-06	5.230E-07	1.589E-07	7.927E-08	4.875E-08	2.116E-08	7.241E-09	3.380E-09	2.045E-09	1.398E-09
NW	3.617E-06	8.282E-07	2.530E-07	1.267E-07	7.811E-08	3.405E-08	1.172E-08	5.486E-09	3.322E-09	2.271E-09
NNW	5.641E-06	1.317E-06	4.164E-07	2.126E-07	1.329E-07	5.925E-08	2.111E-08	1.012E-08	6.202E-09	4.274E-09
N	1.110E-05	2.624E-06	8.529E-07	4.421E-07	2.792E-07	1.263E-07	4.594E-08	2.230E-08	1.375E-08	9.509E-09
NNE	9.214E-06	2.168E-06	7.187E-07	3.763E-07	2.392E-07	1.092E-07	4.005E-08	1.944E-08	1.193E-08	8.198E-09
NE	4.088E-06	9.498E-07	3.073E-07	1.589E-07	1.002E-07	4.521E-08	1.639E-08	7.936E-09	4.889E-09	3.379E-09
ENE	3.417E-06	8.038E-07	2.636E-07	1.372E-07	8.688E-08	3.944E-08	1.438E-08	6.963E-09	4.276E-09	2.943E-09
E	3.798E-06	8.883E-07	2.931E-07	1.531E-07	9.718E-08	4.428E-08	1.623E-08	7.894E-09	4.861E-09	3.352E-09
ESE	4.267E-06	9.966E-07	3.281E-07	1.712E-07	1.086E-07	4.938E-08	1.804E-08	8.737E-09	5.360E-09	3.683E-09
SE	5.808E-06	1.353E-06	4.335E-07	2.229E-07	1.400E-07	6.285E-08	2.259E-08	1.088E-08	6.680E-09	4.606E-09
SSE	7.813E-06	1.810E-06	5.739E-07	2.934E-07	1.835E-07	8.177E-08	2.902E-08	1.382E-08	8.409E-09	5.751E-09

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VENTS GROUND LEVEL RELEASES - JAN-JUN 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.707E-05	1.176E-05	6.057E-06	2.961E-06	1.151E-06	6.069E-07	3.759E-07	2.571E-07	1.879E-07	1.441E-07	1.145E-07
SSW	2.573E-05	8.432E-06	4.424E-06	2.174E-06	8.359E-07	4.371E-07	2.690E-07	1.830E-07	1.331E-07	1.017E-07	8.054E-08
SW	1.163E-05	3.814E-06	1.948E-06	9.434E-07	3.621E-07	1.891E-07	1.162E-07	7.902E-08	5.747E-08	4.387E-08	3.473E-08
WSW	7.121E-06	2.456E-06	1.291E-06	6.312E-07	2.399E-07	1.244E-07	7.602E-08	5.141E-08	3.723E-08	2.831E-08	2.234E-08
W	1.143E-05	3.755E-06	1.928E-06	9.374E-07	3.623E-07	1.901E-07	1.173E-07	7.992E-08	5.825E-08	4.455E-08	3.532E-08
WNW	1.137E-05	3.886E-06	2.082E-06	1.029E-06	3.926E-07	2.041E-07	1.250E-07	8.474E-08	6.147E-08	4.682E-08	3.699E-08
NW	1.913E-05	6.387E-06	3.328E-06	1.625E-06	6.227E-07	3.247E-07	1.994E-07	1.354E-07	9.840E-08	7.507E-08	5.938E-08
NNW	3.138E-05	9.958E-06	5.180E-06	2.548E-06	9.992E-07	5.296E-07	3.294E-07	2.260E-07	1.656E-07	1.273E-07	1.014E-07
N	6.457E-05	1.967E-05	1.015E-05	5.012E-06	2.005E-06	1.078E-06	6.769E-07	4.681E-07	3.453E-07	2.669E-07	2.135E-07
NNE	5.624E-05	1.657E-05	8.366E-06	4.107E-06	1.668E-06	9.053E-07	5.729E-07	3.985E-07	2.954E-07	2.292E-07	1.840E-07
NE	2.380E-05	7.331E-06	3.722E-06	1.819E-06	7.251E-07	3.887E-07	2.438E-07	1.684E-07	1.241E-07	9.584E-08	7.664E-08
ENE	2.047E-05	6.115E-06	3.110E-06	1.530E-06	6.164E-07	3.327E-07	2.097E-07	1.454E-07	1.075E-07	8.323E-08	6.669E-08
E	2.299E-05	6.843E-06	3.445E-06	1.686E-06	6.823E-07	3.694E-07	2.333E-07	1.621E-07	1.200E-07	9.302E-08	7.462E-08
ESE	2.566E-05	7.688E-06	3.874E-06	1.894E-06	7.652E-07	4.139E-07	2.613E-07	1.814E-07	1.343E-07	1.040E-07	8.344E-08
SE	3.310E-05	1.034E-05	5.308E-06	2.603E-06	1.030E-06	5.497E-07	3.435E-07	2.366E-07	1.740E-07	1.341E-07	1.070E-07
SSE	4.445E-05	1.392E-05	7.141E-06	3.497E-06	1.375E-06	7.303E-07	4.548E-07	3.124E-07	2.291E-07	1.762E-07	1.404E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	9.363E-08	4.581E-08	2.840E-08	1.513E-08	9.635E-09	6.753E-09	5.031E-09	3.908E-09	3.131E-09	2.568E-09	2.146E-09
SSW	6.562E-08	3.169E-08	1.947E-08	1.024E-08	6.460E-09	4.496E-09	3.331E-09	2.576E-09	2.056E-09	1.681E-09	1.400E-09
SW	2.829E-08	1.365E-08	8.378E-09	4.405E-09	2.778E-09	1.934E-09	1.433E-09	1.108E-09	8.844E-10	7.231E-10	6.026E-10
WSW	1.813E-08	8.626E-09	5.241E-09	2.713E-09	1.690E-09	1.165E-09	8.564E-10	6.580E-10	5.222E-10	4.249E-10	3.525E-10
W	2.880E-08	1.394E-08	8.575E-09	4.517E-09	2.849E-09	1.982E-09	1.468E-09	1.135E-09	9.048E-10	7.392E-10	6.154E-10
WNW	3.006E-08	1.437E-08	8.765E-09	4.563E-09	2.857E-09	1.978E-09	1.459E-09	1.125E-09	8.954E-10	7.305E-10	6.075E-10
NW	4.833E-08	2.324E-08	1.423E-08	7.455E-09	4.690E-09	3.258E-09	2.411E-09	1.862E-09	1.485E-09	1.213E-09	1.011E-09
NNW	8.298E-08	4.081E-08	2.538E-08	1.358E-08	8.669E-09	6.088E-09	4.542E-09	3.534E-09	2.835E-09	2.328E-09	1.947E-09
N	1.755E-07	8.759E-08	5.503E-08	2.984E-08	1.920E-08	1.357E-08	1.017E-08	7.943E-09	6.392E-09	5.263E-09	4.413E-09
NNE	1.517E-07	7.657E-08	4.846E-08	2.652E-08	1.716E-08	1.217E-08	9.151E-09	7.160E-09	5.770E-09	4.755E-09	3.989E-09
NE	6.296E-08	3.135E-08	1.967E-08	1.065E-08	6.851E-09	4.839E-09	3.627E-09	2.832E-09	2.279E-09	1.877E-09	1.573E-09
ENE	5.490E-08	2.753E-08	1.735E-08	9.448E-09	6.095E-09	4.314E-09	3.238E-09	2.530E-09	2.037E-09	1.678E-09	1.407E-09
E	6.148E-08	3.094E-08	1.955E-08	1.068E-08	6.907E-09	4.897E-09	3.680E-09	2.880E-09	2.321E-09	1.913E-09	1.605E-09
ESE	6.873E-08	3.456E-08	2.182E-08	1.191E-08	7.695E-09	5.452E-09	4.095E-09	3.202E-09	2.579E-09	2.124E-09	1.782E-09
SE	8.776E-08	4.346E-08	2.716E-08	1.463E-08	9.374E-09	6.603E-09	4.938E-09	3.849E-09	3.092E-09	2.542E-09	2.129E-09
SSE	1.150E-07	5.663E-08	3.526E-08	1.889E-08	1.206E-08	8.472E-09	6.321E-09	4.916E-09	3.942E-09	3.235E-09	2.705E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE										
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	5.948E-06	1.311E-06	3.900E-07	1.910E-07	1.156E-07	4.870E-08	1.564E-08	6.833E-09	3.933E-09	2.579E-09	
SSW	4.315E-06	9.560E-07	2.794E-07	1.354E-07	8.128E-08	3.380E-08	1.061E-08	4.554E-09	2.593E-09	1.688E-09	
SW	1.916E-06	4.144E-07	1.208E-07	5.845E-08	3.505E-08	1.456E-08	4.565E-09	1.958E-09	1.116E-09	7.263E-10	
WSW	1.257E-06	2.755E-07	7.907E-08	3.789E-08	2.255E-08	9.234E-09	2.820E-09	1.182E-09	6.630E-10	4.269E-10	
W	1.894E-06	4.136E-07	1.217E-07	5.922E-08	3.564E-08	1.486E-08	4.677E-09	2.008E-09	1.142E-09	7.424E-10	
WNW	2.015E-06	4.502E-07	1.300E-07	6.254E-08	3.734E-08	1.537E-08	4.739E-09	2.005E-09	1.133E-09	7.338E-10	
NW	3.251E-06	7.131E-07	2.072E-07	1.001E-07	5.994E-08	2.481E-08	7.731E-09	3.301E-09	1.875E-09	1.219E-09	
NNW	5.072E-06	1.135E-06	3.414E-07	1.683E-07	1.022E-07	4.332E-08	1.402E-08	6.158E-09	3.556E-09	2.337E-09	
N	9.981E-06	2.261E-06	7.002E-07	3.505E-07	2.152E-07	9.265E-08	3.071E-08	1.371E-08	7.989E-09	5.283E-09	
NNE	8.297E-06	1.871E-06	5.918E-07	2.996E-07	1.854E-07	8.077E-08	2.724E-08	1.230E-08	7.199E-09	4.772E-09	
NE	3.678E-06	8.186E-07	2.523E-07	1.260E-07	7.726E-08	3.318E-08	1.097E-08	4.891E-09	2.849E-09	1.884E-09	
ENE	3.076E-06	6.933E-07	2.168E-07	1.091E-07	6.722E-08	2.909E-08	9.714E-09	4.358E-09	2.545E-09	1.684E-09	
E	3.418E-06	7.662E-07	2.411E-07	1.217E-07	7.521E-08	3.267E-08	1.098E-08	4.946E-09	2.896E-09	1.920E-09	
ESE	3.842E-06	8.599E-07	2.700E-07	1.362E-07	8.410E-08	3.649E-08	1.224E-08	5.507E-09	3.219E-09	2.132E-09	
SE	5.223E-06	1.166E-06	3.557E-07	1.766E-07	1.079E-07	4.606E-08	1.508E-08	6.676E-09	3.872E-09	2.552E-09	
SSE	7.027E-06	1.560E-06	4.713E-07	2.328E-07	1.416E-07	6.010E-08	1.949E-08	8.569E-09	4.946E-09	3.248E-09	

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VENTS GROUND LEVEL RELEASES - JAN-JUN 2022
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.560E-07	8.656E-08	4.444E-08	2.113E-08	7.589E-09	3.764E-09	2.216E-09	1.451E-09	1.021E-09	7.567E-10	5.831E-10
SSW	1.633E-07	5.522E-08	2.835E-08	1.348E-08	4.842E-09	2.401E-09	1.414E-09	9.258E-10	6.514E-10	4.828E-10	3.720E-10
SW	5.683E-08	1.922E-08	9.866E-09	4.691E-09	1.685E-09	8.356E-10	4.920E-10	3.222E-10	2.267E-10	1.680E-10	1.295E-10
WSW	4.107E-08	1.389E-08	7.130E-09	3.390E-09	1.218E-09	6.039E-10	3.556E-10	2.328E-10	1.638E-10	1.214E-10	9.356E-11
W	5.471E-08	1.850E-08	9.500E-09	4.516E-09	1.622E-09	8.045E-10	4.737E-10	3.102E-10	2.183E-10	1.618E-10	1.246E-10
WNW	7.398E-08	2.502E-08	1.284E-08	6.107E-09	2.193E-09	1.088E-09	6.405E-10	4.194E-10	2.951E-10	2.187E-10	1.685E-10
NW	1.486E-07	5.026E-08	2.581E-08	1.227E-08	4.407E-09	2.186E-09	1.287E-09	8.427E-10	5.929E-10	4.394E-10	3.386E-10
NNW	1.792E-07	6.059E-08	3.111E-08	1.479E-08	5.313E-09	2.635E-09	1.551E-09	1.016E-09	7.148E-10	5.297E-10	4.082E-10
N	3.345E-07	1.131E-07	5.807E-08	2.761E-08	9.917E-09	4.918E-09	2.896E-09	1.896E-09	1.334E-09	9.888E-10	7.620E-10
NNE	1.897E-07	6.414E-08	3.293E-08	1.566E-08	5.624E-09	2.789E-09	1.642E-09	1.075E-09	7.567E-10	5.608E-10	4.321E-10
NE	9.930E-08	3.358E-08	1.724E-08	8.197E-09	2.944E-09	1.460E-09	8.597E-10	5.630E-10	3.961E-10	2.936E-10	2.262E-10
ENE	7.291E-08	2.466E-08	1.266E-08	6.018E-09	2.162E-09	1.072E-09	6.313E-10	4.133E-10	2.908E-10	2.155E-10	1.661E-10
E	7.949E-08	2.688E-08	1.380E-08	6.562E-09	2.357E-09	1.169E-09	6.883E-10	4.507E-10	3.171E-10	2.350E-10	1.811E-10
ESE	9.039E-08	3.057E-08	1.569E-08	7.462E-09	2.680E-09	1.329E-09	7.826E-10	5.125E-10	3.606E-10	2.672E-10	2.059E-10
SE	1.939E-07	6.557E-08	3.367E-08	1.601E-08	5.749E-09	2.851E-09	1.679E-09	1.099E-09	7.735E-10	5.733E-10	4.418E-10
SSE	2.822E-07	9.543E-08	4.900E-08	2.329E-08	8.367E-09	4.149E-09	2.443E-09	1.600E-09	1.126E-09	8.343E-10	6.429E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	4.633E-10	2.058E-10	1.247E-10	6.301E-11	3.814E-11	2.557E-11	1.832E-11	1.376E-11	1.070E-11	8.545E-12	6.975E-12
SSW	2.956E-10	1.313E-10	7.954E-11	4.020E-11	2.433E-11	1.631E-11	1.169E-11	8.778E-12	6.825E-12	5.452E-12	4.450E-12
SW	1.028E-10	4.569E-11	2.768E-11	1.399E-11	8.467E-12	5.677E-12	4.068E-12	3.054E-12	2.375E-12	1.897E-12	1.548E-12
WSW	7.433E-11	3.302E-11	2.000E-11	1.011E-11	6.119E-12	4.103E-12	2.940E-12	2.207E-12	1.716E-12	1.371E-12	1.119E-12
W	9.903E-11	4.399E-11	2.665E-11	1.347E-11	8.152E-12	5.466E-12	3.917E-12	2.941E-12	2.287E-12	1.827E-12	1.491E-12
WNW	1.339E-10	5.948E-11	3.603E-11	1.821E-11	1.102E-11	7.390E-12	5.296E-12	3.976E-12	3.092E-12	2.470E-12	2.016E-12
NW	2.690E-10	1.195E-10	7.239E-11	3.659E-11	2.215E-11	1.485E-11	1.064E-11	7.990E-12	6.212E-12	4.962E-12	4.050E-12
NNW	3.243E-10	1.441E-10	8.727E-11	4.411E-11	2.670E-11	1.790E-11	1.283E-11	9.631E-12	7.488E-12	5.982E-12	4.882E-12
N	6.054E-10	2.689E-10	1.629E-10	8.234E-11	4.984E-11	3.341E-11	2.394E-11	1.798E-11	1.398E-11	1.117E-11	9.114E-12
NNE	3.433E-10	1.525E-10	9.238E-11	4.669E-11	2.826E-11	1.895E-11	1.358E-11	1.020E-11	7.927E-12	6.332E-12	5.169E-12
NE	1.797E-10	7.984E-11	4.836E-11	2.445E-11	1.480E-11	9.920E-12	7.108E-12	5.337E-12	4.150E-12	3.315E-12	2.706E-12
ENE	1.320E-10	5.862E-11	3.551E-11	1.795E-11	1.086E-11	7.284E-12	5.219E-12	3.919E-12	3.047E-12	2.434E-12	1.987E-12
E	1.439E-10	6.391E-11	3.872E-11	1.957E-11	1.184E-11	7.941E-12	5.690E-12	4.273E-12	3.322E-12	2.654E-12	2.166E-12
ESE	1.636E-10	7.268E-11	4.403E-11	2.225E-11	1.347E-11	9.030E-12	6.471E-12	4.859E-12	3.778E-12	3.018E-12	2.463E-12
SE	3.510E-10	1.559E-10	9.444E-11	4.774E-11	2.889E-11	1.937E-11	1.388E-11	1.042E-11	8.104E-12	6.473E-12	5.284E-12
SSE	5.108E-10	2.269E-10	1.374E-10	6.947E-11	4.205E-11	2.819E-11	2.020E-11	1.517E-11	1.179E-11	9.421E-12	7.690E-12

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.344E-08	8.898E-09	2.323E-09	1.043E-09	5.902E-10	2.270E-10	6.566E-11	2.602E-11	1.390E-11	8.601E-12
SSW	2.771E-08	5.677E-09	1.482E-09	6.656E-10	3.765E-10	1.448E-10	4.189E-11	1.660E-11	8.866E-12	5.488E-12
SW	9.644E-09	1.975E-09	5.157E-10	2.316E-10	1.310E-10	5.039E-11	1.458E-11	5.777E-12	3.085E-12	1.910E-12
WSW	6.969E-09	1.428E-09	3.727E-10	1.674E-10	9.469E-11	3.641E-11	1.053E-11	4.175E-12	2.230E-12	1.380E-12
W	9.285E-09	1.902E-09	4.965E-10	2.230E-10	1.262E-10	4.851E-11	1.403E-11	5.562E-12	2.970E-12	1.839E-12
WNW	1.255E-08	2.572E-09	6.713E-10	3.015E-10	1.706E-10	6.559E-11	1.898E-11	7.521E-12	4.016E-12	2.486E-12
NW	2.523E-08	5.167E-09	1.349E-09	6.058E-10	3.427E-10	1.318E-10	3.813E-11	1.511E-11	8.070E-12	4.995E-12
NNW	3.041E-08	6.229E-09	1.626E-09	7.303E-10	4.131E-10	1.589E-10	4.596E-11	1.822E-11	9.728E-12	6.021E-12
N	5.676E-08	1.163E-08	3.035E-09	1.363E-09	7.712E-10	2.966E-10	8.580E-11	3.400E-11	1.816E-11	1.124E-11
NNE	3.219E-08	6.594E-09	1.721E-09	7.731E-10	4.373E-10	1.682E-10	4.865E-11	1.928E-11	1.030E-11	6.374E-12
NE	1.685E-08	3.452E-09	9.011E-10	4.047E-10	2.290E-10	8.805E-11	2.547E-11	1.010E-11	5.391E-12	3.337E-12
ENE	1.237E-08	2.534E-09	6.616E-10	2.972E-10	1.681E-10	6.465E-11	1.870E-11	7.412E-12	3.958E-12	2.450E-12
E	1.349E-08	2.763E-09	7.214E-10	3.240E-10	1.833E-10	7.048E-11	2.039E-11	8.082E-12	4.316E-12	2.671E-12
ESE	1.534E-08	3.142E-09	8.203E-10	3.684E-10	2.084E-10	8.015E-11	2.319E-11	9.190E-12	4.908E-12	3.038E-12
SE	3.291E-08	6.741E-09	1.760E-09	7.903E-10	4.471E-10	1.719E-10	4.974E-11	1.971E-11	1.053E-11	6.516E-12
SSE	4.789E-08	9.810E-09	2.561E-09	1.150E-09	6.507E-10	2.502E-10	7.239E-11	2.869E-11	1.532E-11	9.483E-12

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VENTS GROUND LEVEL RELEASES - JAN-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	X/Q (SEC/M3)			D/Q (PER SQ.METER)	
			NO DECAY	2.26 DAY DECAY	8.0 DAY DECAY		
			UNDEPLETED	UNDEPLETED	DEPLETED		
A	Site Boundary	S	.80	5.8E-06	5.8E-06	5.2E-06	3.8E-08
A	Site Boundary	SSW	.82	4.0E-06	3.9E-06	3.5E-06	2.2E-08
A	Site Boundary	SW	.97	1.1E-06	1.1E-06	1.0E-06	5.0E-09
A	Site Boundary	WSW	.93	8.7E-07	8.7E-07	7.7E-07	4.1E-09
A	Site Boundary	W	.91	1.3E-06	1.3E-06	1.2E-06	5.7E-09
A	Site Boundary	WNW	.94	1.4E-06	1.4E-06	1.2E-06	7.2E-09
A	Site Boundary	NW	.81	3.1E-06	3.1E-06	2.7E-06	2.1E-08
A	Site Boundary	NNW	.69	6.7E-06	6.6E-06	6.0E-06	3.6E-08
A	Site Boundary	N	.67	1.3E-05	1.3E-05	1.2E-05	6.9E-08
A	Site Boundary	NNE	.60	1.3E-05	1.3E-05	1.2E-05	4.8E-08
A	Site Boundary	NE	.62	5.6E-06	5.6E-06	5.0E-06	2.3E-08
A	Site Boundary	ENE	.59	5.2E-06	5.1E-06	4.7E-06	1.9E-08
A	Site Boundary	E	.53	6.9E-06	6.9E-06	6.3E-06	2.5E-08
A	Site Boundary	ESE	.54	7.5E-06	7.4E-06	6.8E-06	2.7E-08
A	Site Boundary	SE	.65	7.4E-06	7.4E-06	6.7E-06	4.3E-08
A	Site Boundary	SSE	.81	6.6E-06	6.6E-06	5.9E-06	4.0E-08
A	Nearest Res	SW	1.30	5.9E-07	5.9E-07	5.0E-07	2.4E-09
A	Nearest Res	WSW	1.80	1.9E-07	1.9E-07	1.6E-07	7.8E-10
A	Nearest Res	WNW	2.40	1.7E-07	1.7E-07	1.4E-07	7.1E-10
A	Nearest Res	NW	.90	2.4E-06	2.4E-06	2.1E-06	1.6E-08
A	Nearest Res	NNW	1.90	7.1E-07	7.1E-07	5.9E-07	3.0E-09
A	Nearest Res	NE	1.60	7.5E-07	7.4E-07	6.3E-07	2.5E-09
A	Nearest Res	E	2.00	4.5E-07	4.4E-07	3.7E-07	1.2E-09
A	Nearest Cow	NNW	3.50	2.1E-07	2.1E-07	1.7E-07	7.1E-10
A	Nearest Garde	SW	2.20	1.9E-07	1.9E-07	1.5E-07	6.7E-10
A	Nearest Garde	WSW	1.80	1.9E-07	1.9E-07	1.6E-07	7.8E-10
A	Nearest Garde	WNW	2.60	1.4E-07	1.4E-07	1.1E-07	5.8E-10
A	Nearest Garde	NW	1.90	4.4E-07	4.4E-07	3.6E-07	2.5E-09
A	Nearest Garde	NNW	2.80	3.3E-07	3.2E-07	2.6E-07	1.2E-09
A	Nearest Garde	ENE	1.70	5.6E-07	5.6E-07	4.7E-07	1.6E-09
A	Nearest Garde	ESE	2.30	3.8E-07	3.7E-07	3.1E-07	9.5E-10

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Atmospheric Diffusion Estimates

Ground Level Releases

July-September 2022

VENTS GROUND LEVEL RELEASES - JUL-SEP 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	9.191E-05	2.906E-05	1.564E-05	7.943E-06	3.273E-06	1.802E-06	1.156E-06	8.152E-07	6.121E-07	4.807E-07	3.905E-07
SSW	3.946E-05	1.398E-05	7.707E-06	3.891E-06	1.536E-06	8.208E-07	5.149E-07	3.564E-07	2.634E-07	2.042E-07	1.639E-07
SW	2.991E-05	1.049E-05	5.705E-06	2.863E-06	1.129E-06	6.035E-07	3.785E-07	2.619E-07	1.936E-07	1.501E-07	1.205E-07
WSW	2.853E-05	1.001E-05	5.421E-06	2.716E-06	1.069E-06	5.704E-07	3.573E-07	2.469E-07	1.824E-07	1.412E-07	1.133E-07
W	2.544E-05	8.912E-06	4.795E-06	2.394E-06	9.395E-07	5.001E-07	3.127E-07	2.158E-07	1.592E-07	1.231E-07	9.867E-08
WNW	2.391E-05	8.337E-06	4.554E-06	2.290E-06	8.981E-07	4.777E-07	2.986E-07	2.061E-07	1.520E-07	1.175E-07	9.417E-08
NW	3.373E-05	1.171E-05	6.331E-06	3.167E-06	1.244E-06	6.629E-07	4.149E-07	2.866E-07	2.116E-07	1.638E-07	1.314E-07
NNW	5.470E-05	1.863E-05	1.021E-05	5.167E-06	2.066E-06	1.114E-06	7.042E-07	4.902E-07	3.642E-07	2.835E-07	2.285E-07
N	1.186E-04	3.786E-05	2.049E-05	1.042E-05	4.279E-06	2.351E-06	1.506E-06	1.061E-06	7.955E-07	6.242E-07	5.067E-07
NNE	1.003E-04	3.069E-05	1.594E-05	7.988E-06	3.357E-06	1.873E-06	1.214E-06	8.629E-07	6.522E-07	5.151E-07	4.205E-07
NE	4.758E-05	1.436E-05	7.633E-06	3.887E-06	1.629E-06	9.069E-07	5.867E-07	4.162E-07	3.141E-07	2.477E-07	2.020E-07
ENE	6.348E-05	1.892E-05	9.500E-06	4.696E-06	2.014E-06	1.139E-06	7.458E-07	5.341E-07	4.063E-07	3.227E-07	2.646E-07
E	3.451E-05	1.032E-05	5.378E-06	2.714E-06	1.148E-06	6.431E-07	4.180E-07	2.977E-07	2.253E-07	1.782E-07	1.457E-07
ESE	6.242E-05	1.832E-05	9.152E-06	4.526E-06	1.951E-06	1.107E-06	7.261E-07	5.209E-07	3.967E-07	3.154E-07	2.589E-07
SE	6.142E-05	1.838E-05	9.354E-06	4.657E-06	1.986E-06	1.119E-06	7.306E-07	5.220E-07	3.964E-07	3.143E-07	2.574E-07
SSE	9.881E-05	2.988E-05	1.539E-05	7.700E-06	3.254E-06	1.822E-06	1.185E-06	8.435E-07	6.387E-07	5.052E-07	4.130E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.256E-07	1.719E-07	1.136E-07	6.683E-08	4.605E-08	3.455E-08	2.736E-08	2.248E-08	1.897E-08	1.634E-08	1.430E-08
SSW	1.352E-07	6.860E-08	4.403E-08	2.489E-08	1.666E-08	1.222E-08	9.502E-09	7.685E-09	6.398E-09	5.445E-09	4.715E-09
SW	9.941E-08	5.044E-08	3.239E-08	1.834E-08	1.230E-08	9.040E-09	7.038E-09	5.700E-09	4.752E-09	4.049E-09	3.510E-09
WSW	9.339E-08	4.728E-08	3.030E-08	1.710E-08	1.144E-08	8.391E-09	6.522E-09	5.275E-09	4.392E-09	3.738E-09	3.238E-09
W	8.128E-08	4.100E-08	2.621E-08	1.475E-08	9.843E-09	7.209E-09	5.597E-09	4.522E-09	3.763E-09	3.201E-09	2.771E-09
WNW	7.757E-08	3.912E-08	2.501E-08	1.407E-08	9.406E-09	6.894E-09	5.355E-09	4.329E-09	3.602E-09	3.064E-09	2.653E-09
NW	1.083E-07	5.485E-08	3.517E-08	1.988E-08	1.332E-08	9.786E-09	7.616E-09	6.167E-09	5.140E-09	4.379E-09	3.796E-09
NNW	1.892E-07	9.730E-08	6.308E-08	3.618E-08	2.448E-08	1.811E-08	1.418E-08	1.154E-08	9.657E-09	8.257E-09	7.181E-09
N	4.222E-07	2.224E-07	1.466E-07	8.606E-08	5.918E-08	4.435E-08	3.507E-08	2.878E-08	2.427E-08	2.089E-08	1.827E-08
NNE	3.522E-07	1.891E-07	1.263E-07	7.552E-08	5.261E-08	3.981E-08	3.174E-08	2.623E-08	2.224E-08	1.924E-08	1.691E-08
NE	1.690E-07	9.033E-08	6.015E-08	3.580E-08	2.486E-08	1.876E-08	1.492E-08	1.231E-08	1.042E-08	9.002E-09	7.900E-09
ENE	2.225E-07	1.213E-07	8.186E-08	4.963E-08	3.489E-08	2.659E-08	2.132E-08	1.770E-08	1.507E-08	1.308E-08	1.153E-08
E	1.221E-07	6.579E-08	4.405E-08	2.641E-08	1.843E-08	1.397E-08	1.115E-08	9.218E-09	7.823E-09	6.772E-09	5.953E-09
ESE	2.179E-07	1.191E-07	8.052E-08	4.893E-08	3.446E-08	2.629E-08	2.110E-08	1.753E-08	1.493E-08	1.297E-08	1.144E-08
SE	2.162E-07	1.173E-07	7.893E-08	4.765E-08	3.341E-08	2.541E-08	2.033E-08	1.686E-08	1.433E-08	1.243E-08	1.095E-08
SSE	3.462E-07	1.867E-07	1.250E-07	7.506E-08	5.242E-08	3.975E-08	3.174E-08	2.626E-08	2.230E-08	1.931E-08	1.698E-08

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.520E-05	3.657E-06	1.192E-06	6.201E-07	3.932E-07	1.801E-07	6.798E-08	3.474E-08	2.253E-08	1.636E-08
SSW	7.405E-06	1.741E-06	5.330E-07	2.674E-07	1.652E-07	7.249E-08	2.548E-08	1.232E-08	7.714E-09	5.457E-09
SW	5.505E-06	1.281E-06	3.919E-07	1.966E-07	1.214E-07	5.330E-08	1.878E-08	9.108E-09	5.721E-09	4.058E-09
WSW	5.238E-06	1.213E-06	3.700E-07	1.851E-07	1.142E-07	4.998E-08	1.752E-08	8.456E-09	5.295E-09	3.747E-09
W	4.643E-06	1.067E-06	3.239E-07	1.616E-07	9.947E-08	4.338E-08	1.512E-08	7.266E-09	4.540E-09	3.208E-09
WNW	4.389E-06	1.021E-06	3.094E-07	1.543E-07	9.494E-08	4.139E-08	1.443E-08	6.948E-09	4.345E-09	3.071E-09
NW	6.121E-06	1.413E-06	4.297E-07	2.148E-07	1.324E-07	5.798E-08	2.036E-08	9.861E-09	6.190E-09	4.389E-09
NNW	9.839E-06	2.332E-06	7.280E-07	3.695E-07	2.302E-07	1.025E-07	3.696E-08	1.824E-08	1.158E-08	8.273E-09
N	1.987E-05	4.786E-06	1.553E-06	8.060E-07	5.102E-07	2.331E-07	8.757E-08	4.459E-08	2.886E-08	2.092E-08
NNE	1.568E-05	3.727E-06	1.249E-06	6.602E-07	4.232E-07	1.974E-07	7.662E-08	4.000E-08	2.628E-08	1.927E-08
NE	7.462E-06	1.810E-06	6.039E-07	3.180E-07	2.033E-07	9.439E-08	3.635E-08	1.885E-08	1.234E-08	9.015E-09
ENE	9.458E-06	2.221E-06	7.660E-07	4.110E-07	2.662E-07	1.263E-07	5.024E-08	2.670E-08	1.773E-08	1.310E-08
E	5.292E-06	1.272E-06	4.299E-07	2.281E-07	1.466E-07	6.864E-08	2.679E-08	1.403E-08	9.238E-09	6.780E-09
ESE	9.134E-06	2.148E-06	7.455E-07	4.012E-07	2.604E-07	1.239E-07	4.952E-08	2.639E-08	1.756E-08	1.299E-08
SE	9.271E-06	2.194E-06	7.507E-07	4.010E-07	2.590E-07	1.222E-07	4.827E-08	2.551E-08	1.689E-08	1.244E-08
SSE	1.519E-05	3.606E-06	1.218E-06	6.464E-07	4.156E-07	1.947E-07	7.611E-08	3.993E-08	2.632E-08	1.933E-08

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VENTS GROUND LEVEL RELEASES - JUL-SEP 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	9.170E-05	2.893E-05	1.554E-05	7.874E-06	3.230E-06	1.770E-06	1.131E-06	7.934E-07	5.929E-07	4.635E-07	3.748E-07
SSW	3.940E-05	1.394E-05	7.673E-06	3.868E-06	1.522E-06	8.109E-07	5.071E-07	3.499E-07	2.578E-07	1.992E-07	1.594E-07
SW	2.986E-05	1.046E-05	5.677E-06	2.844E-06	1.118E-06	5.953E-07	3.721E-07	2.566E-07	1.890E-07	1.459E-07	1.168E-07
WSW	2.848E-05	9.977E-06	5.396E-06	2.699E-06	1.059E-06	5.631E-07	3.515E-07	2.421E-07	1.782E-07	1.375E-07	1.099E-07
W	2.540E-05	8.884E-06	4.773E-06	2.379E-06	9.306E-07	4.937E-07	3.077E-07	2.116E-07	1.556E-07	1.199E-07	9.576E-08
WNW	2.388E-05	8.315E-06	4.535E-06	2.278E-06	8.905E-07	4.723E-07	2.944E-07	2.025E-07	1.489E-07	1.148E-07	9.174E-08
NW	3.368E-05	1.168E-05	6.306E-06	3.150E-06	1.234E-06	6.556E-07	4.091E-07	2.818E-07	2.074E-07	1.601E-07	1.280E-07
NNW	5.461E-05	1.857E-05	1.016E-05	5.135E-06	2.046E-06	1.100E-06	6.929E-07	4.807E-07	3.560E-07	2.761E-07	2.218E-07
N	1.183E-04	3.772E-05	2.038E-05	1.034E-05	4.233E-06	2.317E-06	1.479E-06	1.037E-06	7.750E-07	6.058E-07	4.899E-07
NNE	1.001E-04	3.053E-05	1.581E-05	7.907E-06	3.305E-06	1.834E-06	1.182E-06	8.357E-07	6.281E-07	4.934E-07	4.006E-07
NE	4.744E-05	1.428E-05	7.572E-06	3.846E-06	1.603E-06	8.875E-07	5.710E-07	4.028E-07	3.023E-07	2.371E-07	1.923E-07
ENE	6.328E-05	1.880E-05	9.412E-06	4.639E-06	1.977E-06	1.111E-06	7.230E-07	5.145E-07	3.889E-07	3.070E-07	2.502E-07
E	3.441E-05	1.026E-05	5.333E-06	2.684E-06	1.129E-06	6.287E-07	4.063E-07	2.876E-07	2.165E-07	1.703E-07	1.384E-07
ESE	6.221E-05	1.820E-05	9.063E-06	4.468E-06	1.913E-06	1.078E-06	7.027E-07	5.007E-07	3.789E-07	2.992E-07	2.440E-07
SE	6.123E-05	1.827E-05	9.271E-06	4.603E-06	1.951E-06	1.093E-06	7.091E-07	5.036E-07	3.800E-07	2.995E-07	2.438E-07
SSE	9.853E-05	2.971E-05	1.527E-05	7.617E-06	3.200E-06	1.782E-06	1.152E-06	8.154E-07	6.138E-07	4.828E-07	3.923E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.110E-07	1.605E-07	1.036E-07	5.828E-08	3.844E-08	2.765E-08	2.101E-08	1.659E-08	1.347E-08	1.118E-08	9.441E-09
SSW	1.311E-07	6.549E-08	4.139E-08	2.269E-08	1.474E-08	1.051E-08	7.938E-09	6.244E-09	5.058E-09	4.191E-09	3.535E-09
SW	9.598E-08	4.783E-08	3.016E-08	1.647E-08	1.067E-08	7.575E-09	5.701E-09	4.467E-09	3.605E-09	2.976E-09	2.501E-09
WSW	9.032E-08	4.493E-08	2.830E-08	1.543E-08	9.973E-09	7.073E-09	5.320E-09	4.166E-09	3.361E-09	2.774E-09	2.331E-09
W	7.861E-08	3.896E-08	2.448E-08	1.330E-08	8.574E-09	6.069E-09	4.557E-09	3.564E-09	2.872E-09	2.368E-09	1.988E-09
WNW	7.534E-08	3.743E-08	2.358E-08	1.289E-08	8.369E-09	5.965E-09	4.508E-09	3.547E-09	2.875E-09	2.383E-09	2.012E-09
NW	1.052E-07	5.247E-08	3.314E-08	1.817E-08	1.182E-08	8.437E-09	6.383E-09	5.027E-09	4.078E-09	3.384E-09	2.859E-09
NNW	1.830E-07	9.253E-08	5.898E-08	3.271E-08	2.142E-08	1.535E-08	1.165E-08	9.196E-09	7.473E-09	6.209E-09	5.250E-09
N	4.066E-07	2.101E-07	1.359E-07	7.684E-08	5.095E-08	3.686E-08	2.818E-08	2.238E-08	1.828E-08	1.525E-08	1.295E-08
NNE	3.336E-07	1.743E-07	1.133E-07	6.426E-08	4.252E-08	3.062E-08	2.327E-08	1.835E-08	1.488E-08	1.233E-08	1.039E-08
NE	1.600E-07	8.321E-08	5.393E-08	3.045E-08	2.008E-08	1.443E-08	1.094E-08	8.614E-09	6.974E-09	5.769E-09	4.854E-09
ENE	2.091E-07	1.105E-07	7.233E-08	4.132E-08	2.743E-08	1.977E-08	1.503E-08	1.185E-08	9.598E-09	7.941E-09	6.682E-09
E	1.153E-07	6.038E-08	3.931E-08	2.231E-08	1.476E-08	1.063E-08	8.071E-09	6.362E-09	5.156E-09	4.268E-09	3.593E-09
ESE	2.040E-07	1.080E-07	7.069E-08	4.035E-08	2.675E-08	1.925E-08	1.460E-08	1.149E-08	9.287E-09	7.667E-09	6.437E-09
SE	2.035E-07	1.072E-07	6.999E-08	3.987E-08	2.642E-08	1.903E-08	1.445E-08	1.138E-08	9.217E-09	7.623E-09	6.412E-09
SSE	3.270E-07	1.713E-07	1.116E-07	6.337E-08	4.195E-08	3.020E-08	2.294E-08	1.808E-08	1.465E-08	1.213E-08	1.021E-08

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.511E-05	3.613E-06	1.166E-06	6.009E-07	3.775E-07	1.686E-07	5.953E-08	2.787E-08	1.667E-08	1.122E-08
SSW	7.374E-06	1.727E-06	5.252E-07	2.618E-07	1.607E-07	6.936E-08	2.331E-08	1.061E-08	6.276E-09	4.205E-09
SW	5.480E-06	1.269E-06	3.854E-07	1.919E-07	1.177E-07	5.068E-08	1.694E-08	7.650E-09	4.491E-09	2.987E-09
WSW	5.216E-06	1.203E-06	3.642E-07	1.810E-07	1.108E-07	4.763E-08	1.587E-08	7.145E-09	4.189E-09	2.784E-09
W	4.623E-06	1.058E-06	3.189E-07	1.580E-07	9.656E-08	4.134E-08	1.368E-08	6.132E-09	3.584E-09	2.376E-09
WNW	4.372E-06	1.013E-06	3.051E-07	1.512E-07	9.250E-08	3.970E-08	1.325E-08	6.023E-09	3.565E-09	2.391E-09
NW	6.099E-06	1.403E-06	4.239E-07	2.106E-07	1.291E-07	5.560E-08	1.868E-08	8.518E-09	5.053E-09	3.395E-09
NNW	9.797E-06	2.312E-06	7.167E-07	3.612E-07	2.235E-07	9.773E-08	3.353E-08	1.549E-08	9.240E-09	6.228E-09
N	1.977E-05	4.739E-06	1.526E-06	7.855E-07	4.934E-07	2.208E-07	7.845E-08	3.714E-08	2.247E-08	1.529E-08
NNE	1.557E-05	3.674E-06	1.218E-06	6.361E-07	4.033E-07	1.826E-07	6.550E-08	3.085E-08	1.844E-08	1.237E-08
NE	7.407E-06	1.783E-06	5.881E-07	3.062E-07	1.936E-07	8.725E-08	3.106E-08	1.454E-08	8.654E-09	5.787E-09
ENE	9.377E-06	2.184E-06	7.431E-07	3.936E-07	2.518E-07	1.154E-07	4.203E-08	1.992E-08	1.190E-08	7.966E-09
E	5.251E-06	1.252E-06	4.181E-07	2.192E-07	1.393E-07	6.322E-08	2.273E-08	1.071E-08	6.391E-09	4.281E-09
ESE	9.051E-06	2.110E-06	7.220E-07	3.834E-07	2.456E-07	1.127E-07	4.105E-08	1.939E-08	1.154E-08	7.692E-09
SE	9.195E-06	2.159E-06	7.292E-07	3.847E-07	2.454E-07	1.121E-07	4.058E-08	1.917E-08	1.143E-08	7.647E-09
SSE	1.508E-05	3.551E-06	1.185E-06	6.215E-07	3.950E-07	1.794E-07	6.456E-08	3.043E-08	1.816E-08	1.217E-08

B260

VENTS GROUND LEVEL RELEASES - JUL-SEP 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	8.693E-05	2.650E-05	1.391E-05	6.935E-06	2.769E-06	1.485E-06	9.308E-07	6.425E-07	4.733E-07	3.652E-07	2.918E-07
SSW	3.733E-05	1.275E-05	6.859E-06	3.400E-06	1.301E-06	6.773E-07	4.153E-07	2.816E-07	2.043E-07	1.556E-07	1.230E-07
SW	2.829E-05	9.571E-06	5.077E-06	2.501E-06	9.564E-07	4.978E-07	3.051E-07	2.068E-07	1.501E-07	1.143E-07	9.028E-08
WSW	2.699E-05	9.132E-06	4.825E-06	2.373E-06	9.055E-07	4.706E-07	2.881E-07	1.951E-07	1.414E-07	1.076E-07	8.491E-08
W	2.407E-05	8.131E-06	4.267E-06	2.092E-06	7.957E-07	4.126E-07	2.521E-07	1.705E-07	1.234E-07	9.380E-08	7.397E-08
WNW	2.262E-05	7.608E-06	4.053E-06	2.002E-06	7.609E-07	3.943E-07	2.409E-07	1.629E-07	1.179E-07	8.962E-08	7.067E-08
NW	3.191E-05	1.069E-05	5.635E-06	2.768E-06	1.054E-06	5.472E-07	3.347E-07	2.266E-07	1.642E-07	1.249E-07	9.858E-08
NNW	5.174E-05	1.700E-05	9.085E-06	4.515E-06	1.750E-06	9.195E-07	5.678E-07	3.872E-07	2.824E-07	2.160E-07	1.713E-07
N	1.121E-04	3.454E-05	1.823E-05	9.100E-06	3.623E-06	1.939E-06	1.214E-06	8.371E-07	6.161E-07	4.751E-07	3.794E-07
NNE	9.488E-05	2.799E-05	1.417E-05	6.972E-06	2.838E-06	1.542E-06	9.762E-07	6.792E-07	5.035E-07	3.906E-07	3.136E-07
NE	4.499E-05	1.309E-05	6.787E-06	3.393E-06	1.377E-06	7.463E-07	4.716E-07	3.275E-07	2.424E-07	1.878E-07	1.506E-07
ENE	6.002E-05	1.725E-05	8.444E-06	4.097E-06	1.701E-06	9.366E-07	5.988E-07	4.198E-07	3.131E-07	2.442E-07	1.969E-07
E	3.263E-05	9.408E-06	4.781E-06	2.368E-06	9.702E-07	5.291E-07	3.359E-07	2.341E-07	1.738E-07	1.350E-07	1.085E-07
ESE	5.901E-05	1.670E-05	8.133E-06	3.947E-06	1.648E-06	9.096E-07	5.827E-07	4.091E-07	3.055E-07	2.385E-07	1.925E-07
SE	5.808E-05	1.675E-05	8.315E-06	4.063E-06	1.678E-06	9.204E-07	5.868E-07	4.104E-07	3.056E-07	2.380E-07	1.916E-07
SSE	9.344E-05	2.724E-05	1.369E-05	6.719E-06	2.750E-06	1.499E-06	9.519E-07	6.636E-07	4.928E-07	3.828E-07	3.077E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	2.395E-07	1.188E-07	7.428E-08	3.991E-08	2.548E-08	1.787E-08	1.330E-08	1.032E-08	8.257E-09	6.758E-09	5.634E-09
SSW	9.992E-08	4.772E-08	2.905E-08	1.506E-08	9.384E-09	6.465E-09	4.747E-09	3.643E-09	2.887E-09	2.345E-09	1.942E-09
SW	7.336E-08	3.502E-08	2.132E-08	1.105E-08	6.886E-09	4.744E-09	3.483E-09	2.671E-09	2.116E-09	1.718E-09	1.422E-09
WSW	6.895E-08	3.284E-08	1.996E-08	1.032E-08	6.414E-09	4.411E-09	3.233E-09	2.477E-09	1.960E-09	1.590E-09	1.315E-09
W	6.001E-08	2.848E-08	1.726E-08	8.895E-09	5.518E-09	3.788E-09	2.773E-09	2.122E-09	1.678E-09	1.360E-09	1.124E-09
WNW	5.734E-08	2.723E-08	1.652E-08	8.528E-09	5.307E-09	3.654E-09	2.681E-09	2.057E-09	1.630E-09	1.324E-09	1.097E-09
NW	8.006E-08	3.817E-08	2.322E-08	1.204E-08	7.508E-09	5.178E-09	3.805E-09	2.923E-09	2.318E-09	1.885E-09	1.562E-09
NNW	1.397E-07	6.761E-08	4.156E-08	2.184E-08	1.374E-08	9.534E-09	7.042E-09	5.430E-09	4.321E-09	3.522E-09	2.927E-09
N	3.113E-07	1.542E-07	9.633E-08	5.175E-08	3.304E-08	2.319E-08	1.728E-08	1.343E-08	1.075E-08	8.811E-09	7.356E-09
NNE	2.585E-07	1.302E-07	8.222E-08	4.478E-08	2.883E-08	2.034E-08	1.521E-08	1.185E-08	9.499E-09	7.792E-09	6.506E-09
NE	1.240E-07	6.219E-08	3.915E-08	2.123E-08	1.362E-08	9.588E-09	7.157E-09	5.563E-09	4.455E-09	3.649E-09	3.044E-09
ENE	1.629E-07	8.324E-08	5.306E-08	2.924E-08	1.897E-08	1.346E-08	1.010E-08	7.891E-09	6.343E-09	5.212E-09	4.359E-09
E	8.954E-08	4.524E-08	2.863E-08	1.563E-08	1.007E-08	7.116E-09	5.325E-09	4.148E-09	3.327E-09	2.730E-09	2.280E-09
ESE	1.594E-07	8.161E-08	5.209E-08	2.875E-08	1.866E-08	1.324E-08	9.945E-09	7.766E-09	6.242E-09	5.128E-09	4.287E-09
SE	1.584E-07	8.057E-08	5.121E-08	2.812E-08	1.819E-08	1.288E-08	9.657E-09	7.533E-09	6.049E-09	4.967E-09	4.151E-09
SSE	2.539E-07	1.284E-07	8.127E-08	4.440E-08	2.864E-08	2.024E-08	1.515E-08	1.181E-08	9.473E-09	7.773E-09	6.493E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.361E-05	3.124E-06	9.632E-07	4.805E-07	2.942E-07	1.258E-07	4.113E-08	1.807E-08	1.039E-08	6.786E-09
SSW	6.632E-06	1.490E-06	4.317E-07	2.078E-07	1.241E-07	5.102E-08	1.565E-08	6.557E-09	3.670E-09	2.356E-09
SW	4.931E-06	1.096E-06	3.172E-07	1.527E-07	9.113E-08	3.745E-08	1.148E-08	4.811E-09	2.692E-09	1.726E-09
WSW	4.692E-06	1.038E-06	2.995E-07	1.438E-07	8.572E-08	3.514E-08	1.073E-08	4.474E-09	2.496E-09	1.598E-09
W	4.159E-06	9.134E-07	2.623E-07	1.256E-07	7.468E-08	3.050E-08	9.254E-09	3.843E-09	2.139E-09	1.367E-09
WNW	3.931E-06	8.737E-07	2.506E-07	1.200E-07	7.135E-08	2.916E-08	8.872E-09	3.706E-09	2.073E-09	1.330E-09
NW	5.484E-06	1.210E-06	3.481E-07	1.670E-07	9.952E-08	4.084E-08	1.251E-08	5.250E-09	2.945E-09	1.894E-09
NNW	8.813E-06	1.995E-06	5.893E-07	2.870E-07	1.728E-07	7.205E-08	2.262E-08	9.658E-09	5.468E-09	3.538E-09
N	1.780E-05	4.091E-06	1.256E-06	6.255E-07	3.825E-07	1.634E-07	5.334E-08	2.345E-08	1.351E-08	8.847E-09
NNE	1.404E-05	3.181E-06	1.008E-06	5.107E-07	3.160E-07	1.374E-07	4.601E-08	2.055E-08	1.191E-08	7.821E-09
NE	6.679E-06	1.545E-06	4.872E-07	2.459E-07	1.518E-07	6.568E-08	2.183E-08	9.691E-09	5.596E-09	3.664E-09
ENE	8.468E-06	1.894E-06	6.173E-07	3.173E-07	1.983E-07	8.753E-08	2.997E-08	1.358E-08	7.933E-09	5.231E-09
E	4.737E-06	1.085E-06	3.467E-07	1.763E-07	1.094E-07	4.770E-08	1.605E-08	7.189E-09	4.172E-09	2.740E-09
ESE	8.177E-06	1.831E-06	6.004E-07	3.096E-07	1.938E-07	8.577E-08	2.945E-08	1.337E-08	7.808E-09	5.146E-09
SE	8.300E-06	1.871E-06	6.052E-07	3.098E-07	1.930E-07	8.481E-08	2.884E-08	1.301E-08	7.575E-09	4.985E-09
SSE	1.360E-05	3.076E-06	9.826E-07	4.997E-07	3.100E-07	1.353E-07	4.559E-08	2.044E-08	1.187E-08	7.802E-09

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VENTS GROUND LEVEL RELEASES - JUL-SEP 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION		DISTANCES IN MILES										
FROM SITE		.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S		2.265E-07	7.661E-08	3.933E-08	1.870E-08	6.717E-09	3.331E-09	1.961E-09	1.284E-09	9.037E-10	6.697E-10	5.161E-10
SSW		1.505E-07	5.091E-08	2.614E-08	1.243E-08	4.464E-09	2.214E-09	1.303E-09	8.535E-10	6.005E-10	4.451E-10	3.430E-10
SW		9.637E-08	3.259E-08	1.673E-08	7.955E-09	2.857E-09	1.417E-09	8.344E-10	5.464E-10	3.844E-10	2.849E-10	2.196E-10
WSW		1.057E-07	3.576E-08	1.836E-08	8.729E-09	3.135E-09	1.555E-09	9.156E-10	5.995E-10	4.218E-10	3.126E-10	2.409E-10
W		9.925E-08	3.356E-08	1.723E-08	8.193E-09	2.943E-09	1.459E-09	8.593E-10	5.627E-10	3.959E-10	2.934E-10	2.261E-10
WNV		1.023E-07	3.459E-08	1.776E-08	8.443E-09	3.033E-09	1.504E-09	8.855E-10	5.799E-10	4.080E-10	3.024E-10	2.330E-10
NW		1.851E-07	6.258E-08	3.213E-08	1.528E-08	5.487E-09	2.721E-09	1.602E-09	1.049E-09	7.383E-10	5.471E-10	4.216E-10
NNW		2.275E-07	7.692E-08	3.949E-08	1.878E-08	6.744E-09	3.345E-09	1.969E-09	1.290E-09	9.074E-10	6.724E-10	5.182E-10
N		4.021E-07	1.360E-07	6.982E-08	3.319E-08	1.192E-08	5.913E-09	3.482E-09	2.280E-09	1.604E-09	1.189E-09	9.161E-10
NNE		2.068E-07	6.994E-08	3.591E-08	1.707E-08	6.132E-09	3.041E-09	1.791E-09	1.172E-09	8.250E-10	6.114E-10	4.712E-10
NE		8.074E-08	2.730E-08	1.402E-08	6.665E-09	2.394E-09	1.187E-09	6.991E-10	4.577E-10	3.221E-10	2.387E-10	1.839E-10
ENE		6.850E-08	2.316E-08	1.189E-08	5.654E-09	2.031E-09	1.007E-09	5.931E-10	3.883E-10	2.733E-10	2.025E-10	1.561E-10
E		4.703E-08	1.590E-08	8.165E-09	3.882E-09	1.394E-09	6.915E-10	4.072E-10	2.666E-10	1.876E-10	1.390E-10	1.071E-10
ESE		5.916E-08	2.000E-08	1.027E-08	4.883E-09	1.754E-09	8.698E-10	5.122E-10	3.354E-10	2.360E-10	1.749E-10	1.348E-10
SE		8.513E-08	2.879E-08	1.478E-08	7.027E-09	2.524E-09	1.252E-09	7.371E-10	4.826E-10	3.396E-10	2.517E-10	1.939E-10
SSE		1.733E-07	5.859E-08	3.008E-08	1.430E-08	5.138E-09	2.548E-09	1.500E-09	9.823E-10	6.912E-10	5.123E-10	3.948E-10
DIRECTION		DISTANCES IN MILES										
FROM SITE		5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S		4.100E-10	1.821E-10	1.103E-10	5.577E-11	3.375E-11	2.263E-11	1.622E-11	1.218E-11	9.468E-12	7.563E-12	6.173E-12
SSW		2.725E-10	1.210E-10	7.332E-11	3.706E-11	2.243E-11	1.504E-11	1.078E-11	8.092E-12	6.292E-12	5.026E-12	4.102E-12
SW		1.744E-10	7.748E-11	4.694E-11	2.372E-11	1.436E-11	9.627E-12	6.899E-12	5.180E-12	4.028E-12	3.217E-12	2.626E-12
WSW		1.914E-10	8.502E-11	5.150E-11	2.603E-11	1.576E-11	1.056E-11	7.570E-12	5.684E-12	4.419E-12	3.530E-12	2.882E-12
W		1.796E-10	7.980E-11	4.834E-11	2.443E-11	1.479E-11	9.915E-12	7.105E-12	5.335E-12	4.148E-12	3.313E-12	2.705E-12
WNV		1.851E-10	8.224E-11	4.981E-11	2.518E-11	1.524E-11	1.022E-11	7.321E-12	5.498E-12	4.275E-12	3.415E-12	2.787E-12
NW		3.350E-10	1.488E-10	9.014E-11	4.556E-11	2.758E-11	1.849E-11	1.325E-11	9.948E-12	7.735E-12	6.178E-12	5.043E-12
NNW		4.117E-10	1.829E-10	1.108E-10	5.599E-11	3.389E-11	2.272E-11	1.628E-11	1.223E-11	9.506E-12	7.594E-12	6.198E-12
N		7.278E-10	3.233E-10	1.958E-10	9.899E-11	5.991E-11	4.017E-11	2.878E-11	2.161E-11	1.681E-11	1.342E-11	1.096E-11
NNE		3.743E-10	1.663E-10	1.007E-10	5.091E-11	3.081E-11	2.066E-11	1.480E-11	1.112E-11	8.643E-12	6.904E-12	5.635E-12
NE		1.461E-10	6.492E-11	3.932E-11	1.988E-11	1.203E-11	8.066E-12	5.780E-12	4.340E-12	3.374E-12	2.696E-12	2.200E-12
ENE		1.240E-10	5.508E-11	3.336E-11	1.686E-11	1.021E-11	6.843E-12	4.903E-12	3.682E-12	2.863E-12	2.287E-12	1.867E-12
E		8.511E-11	3.781E-11	2.290E-11	1.158E-11	7.007E-12	4.698E-12	3.366E-12	2.528E-12	1.965E-12	1.570E-12	1.281E-12
ESE		1.071E-10	4.756E-11	2.881E-11	1.456E-11	8.814E-12	5.910E-12	4.234E-12	3.180E-12	2.472E-12	1.975E-12	1.612E-12
SE		1.541E-10	6.845E-11	4.146E-11	2.096E-11	1.268E-11	8.505E-12	6.094E-12	4.576E-12	3.558E-12	2.842E-12	2.320E-12
SSE		3.136E-10	1.393E-10	8.439E-11	4.266E-11	2.582E-11	1.731E-11	1.240E-11	9.314E-12	7.242E-12	5.785E-12	4.722E-12

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***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****											
DIRECTION		SEGMENT BOUNDARIES IN MILES									
FROM SITE		.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S		3.845E-08	7.875E-09	2.056E-09	9.233E-10	5.223E-10	2.009E-10	5.811E-11	2.303E-11	1.230E-11	7.613E-12
SSW		2.555E-08	5.233E-09	1.366E-09	6.136E-10	3.471E-10	1.335E-10	3.862E-11	1.530E-11	8.173E-12	5.059E-12
SW		1.635E-08	3.350E-09	8.746E-10	3.928E-10	2.222E-10	8.545E-11	2.472E-11	9.798E-12	5.232E-12	3.238E-12
WSW		1.795E-08	3.676E-09	9.596E-10	4.310E-10	2.438E-10	9.376E-11	2.713E-11	1.075E-11	5.741E-12	3.553E-12
W		1.684E-08	3.450E-09	9.007E-10	4.045E-10	2.288E-10	8.800E-11	2.546E-11	1.009E-11	5.388E-12	3.335E-12
WNV		1.736E-08	3.555E-09	9.282E-10	4.169E-10	2.358E-10	9.069E-11	2.624E-11	1.040E-11	5.553E-12	3.437E-12
NW		3.141E-08	6.433E-09	1.679E-09	7.543E-10	4.267E-10	1.641E-10	4.747E-11	1.882E-11	1.005E-11	6.219E-12
NNW		3.860E-08	7.907E-09	2.064E-09	9.271E-10	5.244E-10	2.017E-10	5.835E-11	2.312E-11	1.235E-11	7.643E-12
N		6.824E-08	1.398E-08	3.649E-09	1.639E-09	9.272E-10	3.565E-10	1.031E-10	4.088E-11	2.183E-11	1.351E-11
NNE		3.510E-08	7.189E-09	1.877E-09	8.429E-10	4.768E-10	1.834E-10	5.305E-11	2.103E-11	1.123E-11	6.950E-12
NE		1.370E-08	2.807E-09	7.327E-10	3.291E-10	1.862E-10	7.159E-11	2.071E-11	8.209E-12	4.384E-12	2.713E-12
ENE		1.162E-08	2.381E-09	6.216E-09	2.792E-10	1.579E-10	6.074E-11	1.757E-11	6.964E-12	3.719E-12	2.302E-12
E		7.981E-09	1.635E-09	4.268E-10	1.917E-10	1.084E-10	4.170E-11	1.206E-11	4.781E-12	2.553E-12	1.580E-12
ESE		1.004E-08	2.056E-09	5.368E-10	2.411E-10	1.364E-10	5.245E-11	1.517E-11	6.014E-12	3.212E-12	1.988E-12
SE		1.445E-08	2.959E-09	7.725E-10	3.470E-10	1.963E-10	7.548E-11	2.184E-11	8.655E-12	4.622E-12	2.861E-12
SSE		2.941E-08	6.023E-09	1.572E-09	7.062E-10	3.995E-10	1.536E-10	4.445E-11	1.762E-11	9.407E-12	5.823E-12

VENTS GROUND LEVEL RELEASES - JUL-SEP 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

ID	RELEASE TYPE OF LOCATION	DIRECTION	DIST. FROM SITE (MI)	X/Q	X/Q	X/Q	D/Q
				(SEC/M3)	(SEC/M3)	(SEC/M3)	(PER SQ. METER)
				NO	2.26 DAY	8.0 DAY	
				DECAY	DECAY	DECAY	
				UNDEPLETED	UNDEPLETED	DEPLETED	
A	Site Boundary	S	.80	1.3E-05	1.3E-05	1.2E-05	3.3E-08
A	Site Boundary	SSW	.82	6.2E-06	6.1E-06	5.5E-06	2.1E-08
A	Site Boundary	SW	.97	3.0E-06	3.0E-06	2.7E-06	8.5E-09
A	Site Boundary	WSW	.93	3.3E-06	3.3E-06	2.9E-06	1.1E-08
A	Site Boundary	W	.91	3.0E-06	3.0E-06	2.6E-06	1.0E-08
A	Site Boundary	WNW	.94	2.7E-06	2.7E-06	2.3E-06	1.0E-08
A	Site Boundary	NW	.81	5.2E-06	5.2E-06	4.6E-06	2.6E-08
A	Site Boundary	NNW	.69	1.2E-05	1.2E-05	1.0E-05	4.6E-08
A	Site Boundary	N	.67	2.4E-05	2.4E-05	2.1E-05	8.3E-08
A	Site Boundary	NNE	.60	2.3E-05	2.3E-05	2.1E-05	5.2E-08
A	Site Boundary	NE	.62	1.0E-05	1.0E-05	9.0E-06	1.9E-08
A	Site Boundary	ENE	.59	1.4E-05	1.4E-05	1.3E-05	1.8E-08
A	Site Boundary	E	.53	9.5E-06	9.4E-06	8.6E-06	1.5E-08
A	Site Boundary	ESE	.54	1.6E-05	1.6E-05	1.5E-05	1.8E-08
A	Site Boundary	SE	.65	1.2E-05	1.2E-05	1.1E-05	1.9E-08
A	Site Boundary	SSE	.81	1.3E-05	1.3E-05	1.1E-05	2.5E-08
A	Nearest Res	SW	1.30	1.6E-06	1.5E-06	1.3E-06	4.1E-09
A	Nearest Res	WSW	1.80	7.2E-07	7.1E-07	6.0E-07	2.0E-09
A	Nearest Res	WNW	2.40	3.3E-07	3.2E-07	2.6E-07	9.7E-10
A	Nearest Res	NW	.90	4.1E-06	4.1E-06	3.6E-06	2.0E-08
A	Nearest Res	NNW	1.90	1.2E-06	1.2E-06	1.0E-06	3.8E-09
A	Nearest Res	NE	1.60	1.4E-06	1.4E-06	1.2E-06	2.0E-09
A	Nearest Res	E	2.00	6.4E-07	6.3E-07	5.3E-07	6.9E-10
A	Nearest Cow	NNW	3.50	3.6E-07	3.6E-07	2.8E-07	9.1E-10
A	Nearest Garde	SW	2.20	4.9E-07	4.9E-07	4.0E-07	1.1E-09
A	Nearest Garde	WSW	1.80	7.2E-07	7.1E-07	6.0E-07	2.0E-09
A	Nearest Garde	WNW	2.60	2.8E-07	2.7E-07	2.2E-07	8.1E-10
A	Nearest Garde	NW	1.90	7.4E-07	7.3E-07	6.1E-07	3.1E-09
A	Nearest Garde	NNW	2.80	5.6E-07	5.5E-07	4.5E-07	1.5E-09
A	Nearest Garde	ENE	1.70	1.6E-06	1.5E-06	1.3E-06	1.5E-09
A	Nearest Garde	ESE	2.30	8.5E-07	8.2E-07	6.9E-07	6.2E-10

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Atmospheric Diffusion Estimates

Ground Level Releases

October-December 2022

VENTS GROUND LEVEL RELEASES - OCT-DEC 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.908E-05	1.562E-05	8.396E-06	4.253E-06	1.744E-06	9.571E-07	6.129E-07	4.313E-07	3.233E-07	2.537E-07	2.058E-07
SSW	3.219E-05	1.004E-05	5.164E-06	2.564E-06	1.071E-06	5.951E-07	3.847E-07	2.728E-07	2.059E-07	1.624E-07	1.324E-07
SW	1.271E-05	3.996E-06	2.062E-06	1.024E-06	4.266E-07	2.368E-07	1.530E-07	1.084E-07	8.176E-08	6.447E-08	5.255E-08
WSW	8.577E-06	2.823E-06	1.484E-06	7.385E-07	3.014E-07	1.650E-07	1.055E-07	7.413E-08	5.552E-08	4.352E-08	3.529E-08
W	1.867E-05	5.928E-06	3.051E-06	1.511E-06	6.279E-07	3.479E-07	2.244E-07	1.589E-07	1.197E-07	9.434E-08	7.685E-08
WNW	2.334E-05	7.629E-06	4.100E-06	2.066E-06	8.369E-07	4.556E-07	2.900E-07	2.031E-07	1.517E-07	1.186E-07	9.595E-08
NW	3.888E-05	1.270E-05	6.645E-06	3.300E-06	1.336E-06	7.276E-07	4.632E-07	3.245E-07	2.424E-07	1.896E-07	1.535E-07
NNW	9.198E-05	2.782E-05	1.397E-05	6.883E-06	2.924E-06	1.644E-06	1.072E-06	7.655E-07	5.808E-07	4.603E-07	3.769E-07
N	1.304E-04	3.920E-05	1.980E-05	9.804E-06	4.174E-06	2.350E-06	1.533E-06	1.095E-06	8.315E-07	6.592E-07	5.399E-07
NNE	8.767E-05	2.654E-05	1.349E-05	6.694E-06	2.838E-06	1.593E-06	1.038E-06	7.401E-07	5.611E-07	4.444E-07	3.636E-07
NE	3.282E-05	1.009E-05	5.197E-06	2.589E-06	1.085E-06	6.044E-07	3.914E-07	2.779E-07	2.099E-07	1.657E-07	1.352E-07
ENE	4.208E-05	1.270E-05	6.471E-06	3.217E-06	1.362E-06	7.641E-07	4.973E-07	3.545E-07	2.687E-07	2.127E-07	1.740E-07
E	2.671E-05	8.457E-06	4.405E-06	2.197E-06	9.113E-07	5.043E-07	3.250E-07	2.299E-07	1.731E-07	1.363E-07	1.109E-07
ESE	4.421E-05	1.402E-05	7.322E-06	3.657E-06	1.507E-06	8.303E-07	5.332E-07	3.761E-07	2.826E-07	2.221E-07	1.805E-07
SE	6.199E-05	1.959E-05	1.008E-05	4.994E-06	2.067E-06	1.142E-06	7.350E-07	5.194E-07	3.908E-07	3.075E-07	2.502E-07
SSE	9.047E-05	2.803E-05	1.426E-05	7.049E-06	2.948E-06	1.640E-06	1.061E-06	7.532E-07	5.687E-07	4.488E-07	3.662E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.715E-07	9.029E-08	5.952E-08	3.495E-08	2.405E-08	1.803E-08	1.427E-08	1.172E-08	9.884E-09	8.510E-09	7.446E-09
SSW	1.108E-07	5.928E-08	3.952E-08	2.357E-08	1.640E-08	1.240E-08	9.877E-09	8.157E-09	6.916E-09	5.981E-09	5.254E-09
SW	4.395E-08	2.349E-08	1.564E-08	9.323E-09	6.482E-09	4.899E-09	3.902E-09	3.221E-09	2.730E-09	2.361E-09	2.073E-09
WSW	2.938E-08	1.543E-08	1.016E-08	5.957E-09	4.094E-09	3.068E-09	2.426E-09	1.992E-09	1.680E-09	1.446E-09	1.266E-09
W	6.423E-08	3.426E-08	2.279E-08	1.355E-08	9.408E-09	7.103E-09	5.652E-09	4.663E-09	3.950E-09	3.414E-09	2.998E-09
WNW	7.973E-08	4.157E-08	2.722E-08	1.585E-08	1.085E-08	8.107E-09	6.396E-09	5.238E-09	4.409E-09	3.789E-09	3.310E-09
NW	1.276E-07	6.667E-08	4.373E-08	2.554E-08	1.752E-08	1.311E-08	1.036E-08	8.502E-09	7.167E-09	6.168E-09	5.395E-09
NNW	3.164E-07	1.716E-07	1.154E-07	6.967E-08	4.887E-08	3.718E-08	2.977E-08	2.469E-08	2.100E-08	1.822E-08	1.605E-08
N	4.534E-07	2.460E-07	1.656E-07	9.999E-08	7.013E-08	5.335E-08	4.271E-08	3.542E-08	3.013E-08	2.613E-08	2.302E-08
NNE	3.051E-07	1.650E-07	1.108E-07	6.673E-08	4.672E-08	3.549E-08	2.838E-08	2.351E-08	1.999E-08	1.732E-08	1.525E-08
NE	1.132E-07	6.072E-08	4.054E-08	2.423E-08	1.688E-08	1.278E-08	1.019E-08	8.423E-09	7.146E-09	6.183E-09	5.434E-09
ENE	1.459E-07	7.891E-08	5.297E-08	3.189E-08	2.232E-08	1.695E-08	1.355E-08	1.122E-08	9.538E-09	8.266E-09	7.275E-09
E	9.269E-08	4.933E-08	3.277E-08	1.945E-08	1.348E-08	1.016E-08	8.079E-09	6.660E-09	5.637E-09	4.868E-09	4.271E-09
ESE	1.506E-07	7.973E-08	5.278E-08	3.118E-08	2.154E-08	1.621E-08	1.286E-08	1.059E-08	8.951E-09	7.722E-09	6.769E-09
SE	2.090E-07	1.111E-07	7.371E-08	4.371E-08	3.029E-08	2.284E-08	1.816E-08	1.497E-08	1.267E-08	1.095E-08	9.607E-09
SSE	3.065E-07	1.643E-07	1.097E-07	6.554E-08	4.566E-08	3.457E-08	2.757E-08	2.279E-08	1.934E-08	1.673E-08	1.471E-08

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.160E-06	1.952E-06	6.320E-07	3.276E-07	2.073E-07	9.466E-08	3.557E-08	1.813E-08	1.175E-08	8.523E-09
SSW	5.093E-06	1.191E-06	3.960E-07	2.084E-07	1.333E-07	6.194E-08	2.393E-08	1.246E-08	8.176E-09	5.989E-09
SW	2.030E-06	4.750E-07	1.575E-07	8.279E-08	5.289E-08	2.455E-08	9.465E-09	4.922E-09	3.229E-09	2.364E-09
WSW	1.450E-06	3.379E-07	1.088E-07	5.626E-08	3.554E-08	1.619E-08	6.063E-09	3.085E-09	1.997E-09	1.449E-09
W	3.006E-06	6.997E-07	2.312E-07	1.212E-07	7.736E-08	3.582E-08	1.376E-08	7.137E-09	4.674E-09	3.419E-09
WNW	3.980E-06	9.406E-07	2.994E-07	1.538E-07	9.665E-08	4.367E-08	1.616E-08	8.155E-09	5.253E-09	3.795E-09
NW	6.504E-06	1.502E-06	4.782E-07	2.458E-07	1.546E-07	7.001E-08	2.602E-08	1.319E-08	8.526E-09	6.178E-09
NNW	1.390E-05	3.235E-06	1.102E-06	5.877E-07	3.792E-07	1.788E-07	7.059E-08	3.733E-08	2.474E-08	1.824E-08
N	1.967E-05	4.614E-06	1.576E-06	8.413E-07	5.432E-07	2.564E-07	1.013E-07	5.357E-08	3.549E-08	2.616E-08
NNE	1.337E-05	3.142E-06	1.067E-06	5.678E-07	3.658E-07	1.720E-07	6.763E-08	3.564E-08	2.356E-08	1.735E-08
NE	5.125E-06	1.206E-06	4.028E-07	2.125E-07	1.361E-07	6.341E-08	2.459E-08	1.284E-08	8.442E-09	6.191E-09
ENE	6.408E-06	1.508E-06	5.113E-07	2.719E-07	1.751E-07	8.228E-08	3.232E-08	1.702E-08	1.125E-08	8.276E-09
E	4.324E-06	1.016E-06	3.348E-07	1.753E-07	1.117E-07	5.161E-08	1.975E-08	1.021E-08	6.676E-09	4.875E-09
ESE	7.180E-06	1.684E-06	5.496E-07	2.863E-07	1.817E-07	8.350E-08	3.170E-08	1.629E-08	1.061E-08	7.733E-09
SE	9.932E-06	2.306E-06	7.573E-07	3.958E-07	2.519E-07	1.162E-07	4.442E-08	2.295E-08	1.501E-08	1.096E-08
SSE	1.412E-05	3.278E-06	1.093E-06	5.758E-07	3.686E-07	1.716E-07	6.651E-08	3.472E-08	2.284E-08	1.676E-08

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VENTS GROUND LEVEL RELEASES - OCT-DEC 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.900E-05	1.557E-05	8.353E-06	4.225E-06	1.726E-06	9.438E-07	6.021E-07	4.222E-07	3.153E-07	2.465E-07	1.993E-07
SSW	3.211E-05	9.997E-06	5.130E-06	2.542E-06	1.056E-06	5.845E-07	3.761E-07	2.655E-07	1.994E-07	1.566E-07	1.271E-07
SW	1.268E-05	3.977E-06	2.047E-06	1.014E-06	4.206E-07	2.323E-07	1.493E-07	1.053E-07	7.904E-08	6.202E-08	5.031E-08
WSW	8.558E-06	2.811E-06	1.474E-06	7.322E-07	2.975E-07	1.621E-07	1.032E-07	7.217E-08	5.381E-08	4.198E-08	3.389E-08
W	1.863E-05	5.901E-06	3.030E-06	1.497E-06	6.193E-07	3.416E-07	2.193E-07	1.545E-07	1.159E-07	9.086E-08	7.366E-08
WNW	2.330E-05	7.604E-06	4.080E-06	2.053E-06	8.287E-07	4.496E-07	2.852E-07	1.990E-07	1.481E-07	1.154E-07	9.304E-08
NW	3.881E-05	1.266E-05	6.615E-06	3.280E-06	1.324E-06	7.184E-07	4.558E-07	3.182E-07	2.369E-07	1.846E-07	1.489E-07
NNW	9.176E-05	2.769E-05	1.387E-05	6.821E-06	2.884E-06	1.614E-06	1.047E-06	7.442E-07	5.620E-07	4.432E-07	3.611E-07
N	1.301E-04	3.903E-05	1.968E-05	9.722E-06	4.121E-06	2.310E-06	1.501E-06	1.067E-06	8.066E-07	6.366E-07	5.191E-07
NNE	8.746E-05	2.641E-05	1.340E-05	6.634E-06	2.800E-06	1.565E-06	1.014E-06	7.198E-07	5.432E-07	4.281E-07	3.486E-07
NE	3.276E-05	1.005E-05	5.166E-06	2.570E-06	1.072E-06	5.948E-07	3.835E-07	2.712E-07	2.040E-07	1.603E-07	1.303E-07
ENE	4.199E-05	1.264E-05	6.429E-06	3.189E-06	1.344E-06	7.508E-07	4.864E-07	3.452E-07	2.604E-07	2.052E-07	1.671E-07
E	2.666E-05	8.425E-06	4.380E-06	2.181E-06	9.011E-07	4.967E-07	3.188E-07	2.246E-07	1.684E-07	1.321E-07	1.071E-07
ESE	4.413E-05	1.397E-05	7.285E-06	3.632E-06	1.492E-06	8.188E-07	5.239E-07	3.682E-07	2.756E-07	2.157E-07	1.747E-07
SE	6.188E-05	1.952E-05	1.003E-05	4.961E-06	2.046E-06	1.126E-06	7.221E-07	5.083E-07	3.810E-07	2.987E-07	2.421E-07
SSE	9.028E-05	2.792E-05	1.418E-05	6.994E-06	2.912E-06	1.614E-06	1.040E-06	7.345E-07	5.522E-07	4.339E-07	3.524E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.654E-07	8.549E-08	5.533E-08	3.134E-08	2.082E-08	1.508E-08	1.154E-08	9.169E-09	7.491E-09	6.252E-09	5.306E-09
SSW	1.058E-07	5.533E-08	3.605E-08	2.056E-08	1.369E-08	9.921E-09	7.585E-09	6.018E-09	4.907E-09	4.085E-09	3.459E-09
SW	4.187E-08	2.184E-08	1.420E-08	8.071E-09	5.360E-09	3.874E-09	2.954E-09	2.338E-09	1.902E-09	1.580E-09	1.334E-09
WSW	2.808E-08	1.442E-08	9.278E-09	5.201E-09	3.421E-09	2.456E-09	1.863E-09	1.468E-09	1.190E-09	9.859E-10	8.307E-10
W	6.128E-08	3.191E-08	2.073E-08	1.177E-08	7.811E-09	5.643E-09	4.302E-09	3.405E-09	2.770E-09	2.301E-09	1.944E-09
WNW	7.704E-08	3.947E-08	2.540E-08	1.429E-08	9.458E-09	6.836E-09	5.223E-09	4.146E-09	3.385E-09	2.824E-09	2.396E-09
NW	1.233E-07	6.331E-08	4.080E-08	2.299E-08	1.524E-08	1.102E-08	8.429E-09	6.695E-09	5.469E-09	4.565E-09	3.875E-09
NNW	3.018E-07	1.598E-07	1.050E-07	6.050E-08	4.058E-08	2.956E-08	2.269E-08	1.806E-08	1.477E-08	1.233E-08	1.001E-08
N	4.340E-07	2.304E-07	1.517E-07	8.778E-08	5.907E-08	4.317E-08	3.325E-08	2.655E-08	2.178E-08	1.823E-08	1.552E-08
NNE	2.911E-07	1.538E-07	1.009E-07	5.809E-08	3.892E-08	2.833E-08	2.174E-08	1.730E-08	1.414E-08	1.180E-08	1.001E-08
NE	1.086E-07	5.703E-08	3.729E-08	2.139E-08	1.432E-08	1.042E-08	8.002E-09	6.374E-09	5.217E-09	4.360E-09	3.704E-09
ENE	1.396E-07	7.380E-08	4.846E-08	2.793E-08	1.875E-08	1.367E-08	1.051E-08	8.377E-09	6.860E-09	5.734E-09	4.873E-09
E	8.913E-08	4.650E-08	3.028E-08	1.728E-08	1.153E-08	8.378E-09	6.425E-09	5.115E-09	4.185E-09	3.496E-09	2.971E-09
ESE	1.452E-07	7.544E-08	4.900E-08	2.789E-08	1.859E-08	1.350E-08	1.035E-08	8.242E-09	6.745E-09	5.638E-09	4.792E-09
SE	2.014E-07	1.050E-07	6.833E-08	3.899E-08	2.602E-08	1.891E-08	1.451E-08	1.155E-08	9.455E-09	7.903E-09	6.717E-09
SSE	2.936E-07	1.540E-07	1.005E-07	5.754E-08	3.843E-08	2.793E-08	2.140E-08	1.702E-08	1.391E-08	1.160E-08	9.841E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.121E-06	1.934E-06	6.213E-07	3.196E-07	2.007E-07	8.984E-08	3.199E-08	1.519E-08	9.207E-09	6.268E-09
SSW	5.061E-06	1.177E-06	3.874E-07	2.019E-07	1.279E-07	5.798E-08	2.095E-08	9.991E-09	6.042E-09	4.096E-09
SW	2.017E-06	4.689E-07	1.539E-07	8.006E-08	5.065E-08	2.289E-08	8.228E-09	3.902E-09	2.348E-09	1.584E-09
WSW	1.441E-06	3.339E-07	1.065E-07	5.455E-08	3.414E-08	1.517E-08	5.316E-09	2.476E-09	1.475E-09	9.890E-10
W	2.987E-06	6.910E-07	2.260E-07	1.174E-07	7.417E-08	3.347E-08	1.200E-08	5.685E-09	3.419E-09	2.307E-09
WNW	3.962E-06	9.323E-07	2.946E-07	1.502E-07	9.374E-08	4.156E-08	1.461E-08	6.890E-09	4.164E-09	2.832E-09
NW	6.476E-06	1.489E-06	4.708E-07	2.402E-07	1.500E-07	6.665E-08	2.350E-08	1.111E-08	6.724E-09	4.577E-09
NNW	1.381E-05	3.194E-06	1.077E-06	5.688E-07	3.635E-07	1.670E-07	6.153E-08	2.975E-08	1.813E-08	1.236E-08
N	1.955E-05	4.561E-06	1.543E-06	8.163E-07	5.224E-07	2.406E-07	8.922E-08	4.344E-08	2.665E-08	1.828E-08
NNE	1.328E-05	3.103E-06	1.043E-06	5.498E-07	3.509E-07	1.608E-07	5.909E-08	2.852E-08	1.736E-08	1.183E-08
NE	5.098E-06	1.193E-06	3.949E-07	2.065E-07	1.312E-07	5.972E-08	2.178E-08	1.049E-08	6.398E-09	4.371E-09
ENE	6.370E-06	1.491E-06	5.004E-07	2.636E-07	1.682E-07	7.715E-08	2.841E-08	1.376E-08	8.407E-09	5.749E-09
E	4.302E-06	1.006E-06	3.286E-07	1.706E-07	1.079E-07	4.876E-08	1.761E-08	8.437E-09	5.135E-09	3.506E-09
ESE	7.146E-06	1.668E-06	5.402E-07	2.792E-07	1.759E-07	7.919E-08	2.845E-08	1.360E-08	8.275E-09	5.653E-09
SE	9.886E-06	2.285E-06	7.443E-07	3.860E-07	2.438E-07	1.101E-07	3.974E-08	1.905E-08	1.160E-08	7.924E-09
SSE	1.404E-05	3.242E-06	1.071E-06	5.592E-07	3.548E-07	1.613E-07	5.860E-08	2.812E-08	1.709E-08	1.163E-08

B266

VENTS GROUND LEVEL RELEASES - OCT-DEC 2022
 8,000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.643E-05	1.425E-05	7.471E-06	3.716E-06	1.477E-06	7.894E-07	4.940E-07	3.405E-07	2.505E-07	1.931E-07	1.542E-07
SSW	3.044E-05	9.158E-06	4.593E-06	2.239E-06	9.058E-07	4.902E-07	3.096E-07	2.150E-07	1.592E-07	1.234E-07	9.894E-08
SW	1.202E-05	3.644E-06	1.834E-06	8.939E-07	3.608E-07	1.950E-07	1.231E-07	8.540E-08	6.319E-08	4.894E-08	3.924E-08
WSW	8.112E-06	2.575E-06	1.320E-06	6.449E-07	2.550E-07	1.360E-07	8.491E-08	5.843E-08	4.294E-08	3.307E-08	2.637E-08
W	1.766E-05	5.407E-06	2.714E-06	1.319E-06	5.312E-07	2.866E-07	1.806E-07	1.252E-07	9.256E-08	7.165E-08	5.740E-08
WNW	2.208E-05	6.960E-06	3.649E-06	1.805E-06	7.087E-07	3.759E-07	2.338E-07	1.604E-07	1.175E-07	9.032E-08	7.191E-08
NW	3.678E-05	1.159E-05	5.914E-06	2.883E-06	1.132E-06	6.003E-07	3.735E-07	2.563E-07	1.879E-07	1.445E-07	1.151E-07
NNW	8.699E-05	2.537E-05	1.242E-05	6.009E-06	2.474E-06	1.354E-06	8.628E-07	6.032E-07	4.490E-07	3.496E-07	2.815E-07
N	1.234E-04	3.575E-05	1.761E-05	8.561E-06	3.532E-06	1.936E-06	1.235E-06	8.637E-07	6.432E-07	5.010E-07	4.036E-07
NNE	8.292E-05	2.420E-05	1.200E-05	5.845E-06	2.401E-06	1.313E-06	8.351E-07	5.833E-07	4.338E-07	3.375E-07	2.716E-07
NE	3.105E-05	9.204E-06	4.623E-06	2.262E-06	9.183E-07	4.982E-07	3.152E-07	2.192E-07	1.624E-07	1.260E-07	1.011E-07
ENE	3.980E-05	1.158E-05	5.756E-06	2.809E-06	1.152E-06	6.296E-07	4.003E-07	2.795E-07	2.078E-07	1.616E-07	1.300E-07
E	2.526E-05	7.714E-06	3.919E-06	1.919E-06	7.715E-07	4.158E-07	2.618E-07	1.814E-07	1.340E-07	1.037E-07	8.304E-08
ESE	4.182E-05	1.279E-05	6.515E-06	3.195E-06	1.276E-06	6.848E-07	4.298E-07	2.969E-07	2.189E-07	1.691E-07	1.352E-07
SE	5.864E-05	1.787E-05	8.967E-06	4.363E-06	1.750E-06	9.419E-07	5.924E-07	4.100E-07	3.027E-07	2.341E-07	1.874E-07
SSE	8.557E-05	2.557E-05	1.269E-05	6.157E-06	2.495E-06	1.352E-06	8.547E-07	5.940E-07	4.400E-07	3.412E-07	2.738E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.265E-07	6.266E-08	3.915E-08	2.105E-08	1.346E-08	9.456E-09	7.055E-09	5.486E-09	4.397E-09	3.607E-09	3.014E-09
SSW	8.150E-08	4.097E-08	2.585E-08	1.408E-08	9.076E-09	6.415E-09	4.807E-09	3.751E-09	3.014E-09	2.478E-09	2.074E-09
SW	3.231E-08	1.621E-08	1.022E-08	5.557E-09	3.578E-09	2.526E-09	1.891E-09	1.474E-09	1.184E-09	9.723E-10	8.131E-10
WSW	2.162E-08	1.067E-08	6.649E-09	3.560E-09	2.267E-09	1.588E-09	1.181E-09	9.160E-10	7.322E-10	5.992E-10	4.994E-10
W	4.724E-08	2.366E-08	1.490E-08	8.087E-09	5.199E-09	3.668E-09	2.744E-09	2.138E-09	1.716E-09	1.409E-09	1.178E-09
WNW	5.885E-08	2.887E-08	1.793E-08	9.561E-09	6.085E-09	4.262E-09	3.171E-09	2.461E-09	1.969E-09	1.613E-09	1.346E-09
NW	9.419E-08	4.630E-08	2.879E-08	1.540E-08	9.815E-09	6.885E-09	5.130E-09	3.986E-09	3.192E-09	2.618E-09	2.186E-09
NNW	2.327E-07	1.185E-07	7.542E-08	4.156E-08	2.700E-08	1.920E-08	1.445E-08	1.132E-08	9.125E-09	7.522E-09	6.310E-09
N	3.338E-07	1.702E-07	1.084E-07	5.984E-08	3.891E-08	2.769E-08	2.086E-08	1.635E-08	1.319E-08	1.089E-08	9.139E-09
NNE	2.244E-07	1.140E-07	7.246E-08	3.984E-08	2.584E-08	1.835E-08	1.380E-08	1.080E-08	8.700E-09	7.167E-09	6.009E-09
NE	8.338E-08	4.204E-08	2.658E-08	1.453E-08	9.387E-09	6.649E-09	4.992E-09	3.901E-09	3.140E-09	2.585E-09	2.166E-09
ENE	1.074E-07	5.457E-08	3.468E-08	1.907E-08	1.237E-08	8.789E-09	6.613E-09	5.177E-09	4.173E-09	3.439E-09	2.885E-09
E	6.832E-08	3.419E-08	2.151E-08	1.168E-08	7.513E-09	5.304E-09	3.972E-09	3.098E-09	2.490E-09	2.047E-09	1.713E-09
ESE	1.111E-07	5.532E-08	3.470E-08	1.876E-08	1.204E-08	8.486E-09	6.347E-09	4.946E-09	3.972E-09	3.264E-09	2.731E-09
SE	1.541E-07	7.703E-08	4.844E-08	2.628E-08	1.690E-08	1.193E-08	8.938E-09	6.972E-09	5.603E-09	4.607E-09	3.857E-09
SSE	2.257E-07	1.137E-07	7.183E-08	3.922E-08	2.533E-08	1.793E-08	1.346E-08	1.051E-08	8.456E-09	6.958E-09	5.828E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	7.309E-06	1.669E-06	5.114E-07	2.544E-07	1.555E-07	6.640E-08	2.170E-08	9.563E-09	5.520E-09	3.622E-09
SSW	4.561E-06	1.017E-06	3.199E-07	1.615E-07	9.971E-08	4.326E-08	1.447E-08	6.482E-09	3.772E-09	2.487E-09
SW	1.818E-06	4.056E-07	1.272E-07	6.411E-08	3.955E-08	1.713E-08	5.714E-09	2.553E-09	1.483E-09	9.760E-10
WSW	1.299E-06	2.887E-07	8.793E-08	4.360E-08	2.660E-08	1.132E-08	3.672E-09	1.606E-09	9.218E-10	6.016E-10
W	2.692E-06	5.976E-07	1.867E-07	9.392E-08	5.786E-08	2.501E-08	8.317E-09	3.707E-09	2.150E-09	1.414E-09
WNW	3.565E-06	8.045E-07	2.423E-07	1.194E-07	7.253E-08	3.067E-08	9.874E-09	4.312E-09	2.477E-09	1.620E-09
NW	5.828E-06	1.285E-06	3.871E-07	1.909E-07	1.160E-07	4.916E-08	1.589E-08	6.965E-09	4.011E-09	2.628E-09
NNW	1.245E-05	2.762E-06	8.900E-07	4.552E-07	2.836E-07	1.247E-07	4.262E-08	1.938E-08	1.138E-08	7.548E-09
N	1.762E-05	3.941E-06	1.273E-06	6.521E-07	4.066E-07	1.791E-07	6.134E-08	2.795E-08	1.644E-08	1.092E-08
NNE	1.198E-05	2.683E-06	8.617E-07	4.398E-07	2.736E-07	1.201E-07	4.087E-08	1.853E-08	1.086E-08	7.193E-09
NE	4.592E-06	1.030E-06	3.256E-07	1.648E-07	1.019E-07	4.436E-08	1.492E-08	6.716E-09	3.923E-09	2.594E-09
ENE	5.741E-06	1.288E-06	4.131E-07	2.107E-07	1.310E-07	5.747E-08	1.956E-08	8.874E-09	5.205E-09	3.451E-09
E	3.874E-06	8.684E-07	2.707E-07	1.360E-07	8.371E-08	3.614E-08	1.201E-08	5.361E-09	3.116E-09	2.055E-09
ESE	6.433E-06	1.440E-06	4.447E-07	2.222E-07	1.363E-07	5.854E-08	1.932E-08	8.578E-09	4.975E-09	3.276E-09
SE	8.900E-06	1.972E-06	6.126E-07	3.072E-07	1.889E-07	8.145E-08	2.704E-08	1.206E-08	7.012E-09	4.625E-09
SSE	1.265E-05	2.801E-06	8.831E-07	4.464E-07	2.760E-07	1.200E-07	4.029E-08	1.811E-08	1.057E-08	6.984E-09

B267

VENTS GROUND LEVEL RELEASES - OCT-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION FROM SITE												
DISTANCES IN MILES												
	.25	50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
S	1.623E-07	5.488E-08	2.818E-08	1.340E-08	4.812E-09	2.386E-09	1.405E-09	9.201E-10	6.474E-10	4.798E-10	3.698E-10	
SSW	6.347E-08	2.146E-08	1.102E-08	5.239E-09	1.882E-09	9.333E-10	5.496E-10	3.598E-10	2.532E-10	1.876E-10	1.446E-10	
SW	1.959E-08	6.623E-09	3.401E-09	1.617E-09	5.807E-10	2.880E-10	1.696E-10	1.110E-10	7.813E-11	5.790E-11	4.462E-11	
WSW	1.830E-08	6.189E-09	3.177E-09	1.511E-09	5.426E-10	2.691E-10	1.584E-10	1.038E-10	7.300E-11	5.410E-11	4.169E-11	
W	3.138E-08	1.061E-08	5.448E-09	2.590E-09	9.303E-10	4.614E-10	2.717E-10	1.779E-10	1.252E-10	9.276E-11	7.148E-11	
WNW	8.999E-08	3.043E-08	1.562E-08	7.428E-09	2.668E-09	1.323E-09	7.791E-10	5.102E-10	3.590E-10	2.660E-10	2.050E-10	
NW	1.805E-07	6.105E-08	3.135E-08	1.490E-08	5.353E-09	2.655E-09	1.563E-09	1.024E-09	7.202E-10	5.337E-10	4.113E-10	
NNW	1.711E-07	5.787E-08	2.971E-08	1.413E-08	5.074E-09	2.516E-09	1.482E-09	9.702E-10	6.827E-10	5.059E-10	3.899E-10	
N	3.486E-07	1.179E-07	6.053E-08	2.878E-08	1.034E-08	5.126E-09	3.018E-09	1.976E-09	1.391E-09	1.031E-09	7.942E-10	
NNE	1.984E-07	6.707E-08	3.444E-08	1.637E-08	5.881E-09	2.917E-09	1.717E-09	1.124E-09	7.912E-10	5.864E-10	4.519E-10	
NE	9.572E-08	3.237E-08	1.662E-08	7.901E-09	2.838E-09	1.408E-09	8.288E-10	5.427E-10	3.819E-10	2.830E-10	2.181E-10	
ENE	8.687E-08	2.938E-08	1.508E-08	7.171E-09	2.576E-09	1.277E-09	7.521E-10	4.925E-10	3.465E-10	2.568E-10	1.979E-10	
E	7.870E-08	2.661E-08	1.366E-08	6.496E-09	2.333E-09	1.157E-09	6.814E-10	4.462E-10	3.139E-10	2.327E-10	1.793E-10	
ESE	1.831E-07	6.190E-08	3.178E-08	1.511E-08	5.428E-09	2.692E-09	1.585E-09	1.038E-09	7.302E-10	5.412E-10	4.170E-10	
SE	2.822E-07	9.542E-08	4.899E-08	2.329E-08	8.366E-09	4.149E-09	2.443E-09	1.600E-09	1.126E-09	8.342E-10	6.428E-10	
SSE	3.058E-07	1.034E-07	5.310E-08	2.524E-08	9.068E-09	4.497E-09	2.648E-09	1.734E-09	1.220E-09	9.041E-10	6.968E-10	
DIRECTION FROM SITE												
DISTANCES IN MILES												
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	
S	2.937E-10	1.305E-10	7.905E-11	3.995E-11	2.418E-11	1.621E-11	1.162E-11	8.724E-12	6.783E-12	5.418E-12	4.423E-12	
SSW	1.149E-10	5.103E-11	3.091E-11	1.563E-11	9.457E-12	6.341E-12	4.544E-12	3.412E-12	2.653E-12	2.119E-12	1.730E-12	
SW	3.545E-11	1.575E-11	9.539E-12	4.821E-12	2.918E-12	1.957E-12	1.402E-12	1.053E-12	8.185E-13	6.538E-13	5.337E-13	
WSW	3.312E-11	1.471E-11	8.913E-12	4.505E-12	2.727E-12	1.828E-12	1.310E-12	9.837E-13	7.648E-13	6.110E-13	4.987E-13	
W	5.679E-11	2.523E-11	1.528E-11	7.724E-12	4.675E-12	3.134E-12	2.246E-12	1.687E-12	1.311E-12	1.047E-12	8.550E-13	
WNW	1.629E-10	7.235E-11	4.383E-11	2.215E-11	1.341E-11	8.990E-12	6.442E-12	4.837E-12	3.761E-12	3.004E-12	2.452E-12	
NW	3.268E-10	1.452E-10	8.793E-11	4.444E-11	2.690E-11	1.804E-11	1.292E-11	9.704E-12	7.545E-12	6.027E-12	4.920E-12	
NNW	3.097E-10	1.376E-10	8.335E-11	4.213E-11	2.550E-11	1.710E-11	1.225E-11	9.199E-12	7.152E-12	5.713E-12	4.663E-12	
N	6.310E-10	2.803E-10	1.698E-10	8.582E-11	5.194E-11	3.483E-11	2.495E-11	1.874E-11	1.457E-11	1.164E-11	9.500E-12	
NNE	3.590E-10	1.595E-10	9.660E-11	4.883E-11	2.955E-11	1.981E-11	1.420E-11	1.066E-11	8.290E-12	6.622E-12	5.405E-12	
NE	1.732E-10	7.696E-11	4.662E-11	2.356E-11	1.426E-11	9.563E-12	6.852E-12	5.145E-12	4.001E-12	3.196E-12	2.608E-12	
ENE	1.572E-10	6.985E-11	4.231E-11	2.139E-11	1.294E-11	8.678E-12	6.218E-12	4.669E-12	3.631E-12	2.900E-12	2.367E-12	
E	1.424E-10	6.328E-11	3.833E-11	1.937E-11	1.173E-11	7.862E-12	5.634E-12	4.230E-12	3.289E-12	2.627E-12	2.144E-12	
ESE	3.313E-10	1.472E-10	8.916E-11	4.506E-11	2.728E-11	1.829E-11	1.310E-11	9.840E-12	7.651E-12	6.111E-12	4.988E-12	
SE	5.107E-10	2.269E-10	1.374E-10	6.946E-11	4.204E-11	2.819E-11	2.020E-11	1.517E-11	1.179E-11	9.420E-12	7.689E-12	
SSE	5.535E-10	2.459E-10	1.490E-10	7.529E-11	4.557E-11	3.055E-11	2.189E-11	1.644E-11	1.278E-11	1.021E-11	8.334E-12	

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***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****											
DIRECTION FROM SITE											
SEGMENT BOUNDARIES IN MILES											
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	2.754E-08	5.642E-09	1.473E-09	6.615E-10	3.742E-10	1.439E-10	4.163E-11	1.650E-11	8.811E-12	5.454E-12	
SSW	1.077E-08	2.206E-09	5.760E-10	2.587E-10	1.464E-10	5.628E-11	1.628E-11	6.453E-12	3.446E-12	2.133E-12	
SW	3.324E-09	6.808E-10	1.777E-10	7.982E-11	4.516E-11	1.737E-11	5.024E-12	1.991E-12	1.063E-12	6.581E-13	
WSW	3.106E-09	6.362E-10	1.661E-10	7.459E-11	4.220E-11	1.623E-11	4.694E-12	1.861E-12	9.935E-13	6.150E-13	
W	5.325E-09	1.091E-09	2.847E-10	1.279E-10	7.234E-11	2.782E-11	8.048E-12	3.190E-12	1.703E-12	1.054E-12	
WNW	1.527E-08	3.128E-09	8.166E-10	3.668E-10	2.075E-10	7.979E-11	2.308E-11	9.149E-12	4.886E-12	3.024E-12	
NW	3.064E-08	6.276E-09	1.638E-09	7.358E-10	4.163E-10	1.601E-10	4.631E-11	1.835E-11	9.802E-12	6.067E-12	
NNW	2.904E-08	5.949E-09	1.553E-09	6.975E-10	3.946E-10	1.517E-10	4.390E-11	1.740E-11	9.291E-12	5.751E-12	
N	5.916E-08	1.212E-08	3.164E-09	1.421E-09	8.038E-10	3.091E-10	8.942E-11	3.544E-11	1.893E-11	1.171E-11	
NNE	3.366E-08	6.895E-09	1.800E-09	8.084E-10	4.573E-10	1.759E-10	5.088E-11	2.017E-11	1.077E-11	6.665E-12	
NE	1.625E-08	3.328E-09	8.687E-10	3.901E-10	2.207E-10	8.487E-11	2.455E-11	9.732E-12	5.197E-12	3.217E-12	
ENE	1.474E-08	3.020E-09	7.883E-10	3.541E-10	2.003E-10	7.703E-11	2.228E-11	8.832E-12	4.716E-12	2.919E-12	
E	1.336E-08	2.736E-09	7.142E-10	3.208E-10	1.815E-10	6.978E-11	2.019E-11	8.001E-12	4.273E-12	2.645E-12	
ESE	3.107E-08	6.363E-09	1.661E-09	7.461E-10	4.221E-10	1.623E-10	4.696E-11	1.861E-11	9.938E-12	6.151E-12	
SE	4.789E-08	9.808E-09	2.561E-09	1.150E-09	6.506E-10	2.502E-10	7.238E-11	2.869E-11	1.532E-11	9.482E-12	
SSE	5.190E-08	1.063E-08	2.775E-09	1.246E-09	7.052E-10	2.712E-10	7.845E-11	3.109E-11	1.660E-11	1.028E-11	

VENTS GROUND LEVEL RELEASES - OCT-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST. (MI)	X/Q (SEC/M3)			D/Q (PER SQ.METER)
				NO DEPLETION	2.26 DAY DECAY UNDEPLETED	8.0 DAY DECAY DEPLETED	
A	Site Boundary	S	.80	7.2E-06	7.2E-06	6.4E-06	2.4E-08
A	Site Boundary	SSW	.82	4.1E-06	4.1E-06	3.6E-06	8.7E-09
A	Site Boundary	SW	.97	1.1E-06	1.1E-06	9.5E-07	1.7E-09
A	Site Boundary	WSW	.93	8.9E-07	8.8E-07	7.8E-07	1.8E-09
A	Site Boundary	W	.91	1.9E-06	1.9E-06	1.7E-06	3.3E-09
A	Site Boundary	WNW	.94	2.4E-06	2.4E-06	2.1E-06	8.8E-09
A	Site Boundary	NW	.81	5.5E-06	5.5E-06	4.9E-06	2.6E-08
A	Site Boundary	NNW	.69	1.6E-05	1.6E-05	1.4E-05	3.4E-08
A	Site Boundary	N	.67	2.3E-05	2.3E-05	2.1E-05	7.2E-08
A	Site Boundary	NNE	.60	2.0E-05	1.9E-05	1.8E-05	5.0E-08
A	Site Boundary	NE	.62	7.0E-06	6.9E-06	6.2E-06	2.3E-08
A	Site Boundary	ENE	.59	9.7E-06	9.6E-06	8.7E-06	2.3E-08
A	Site Boundary	E	.53	7.8E-06	7.8E-06	7.1E-06	2.5E-08
A	Site Boundary	ESE	.54	1.2E-05	1.2E-05	1.1E-05	5.5E-08
A	Site Boundary	SE	.65	1.3E-05	1.3E-05	1.1E-05	6.2E-08
A	Site Boundary	SSE	.81	1.2E-05	1.2E-05	1.0E-05	4.3E-08
A	Nearest Res	SW	1.30	5.8E-07	5.7E-07	4.9E-07	8.3E-10
A	Nearest Res	WSW	1.80	2.1E-07	2.0E-07	1.7E-07	3.5E-10
A	Nearest Res	WNW	2.40	3.1E-07	3.1E-07	2.5E-07	8.6E-10
A	Nearest Res	NW	.90	4.3E-06	4.2E-06	3.7E-06	2.0E-08
A	Nearest Res	NNW	1.90	1.8E-06	1.8E-06	1.5E-06	2.8E-09
A	Nearest Res	NE	1.60	9.5E-07	9.4E-07	8.0E-07	2.4E-09
A	Nearest Res	E	2.00	5.0E-07	5.0E-07	4.2E-07	1.2E-09
A	Nearest Cow	NNW	3.50	5.8E-07	5.6E-07	4.5E-07	6.8E-10
A	Nearest Garde	SW	2.20	2.0E-07	1.9E-07	1.6E-07	2.3E-10
A	Nearest Garde	WSW	1.80	2.1E-07	2.0E-07	1.7E-07	3.5E-10
A	Nearest Garde	WNW	2.60	2.7E-07	2.6E-07	2.2E-07	7.1E-10
A	Nearest Garde	NW	1.90	8.1E-07	8.0E-07	6.7E-07	3.0E-09
A	Nearest Garde	NNW	2.80	8.7E-07	8.5E-07	6.9E-07	1.1E-09
A	Nearest Garde	ENE	1.70	1.1E-06	1.0E-06	8.8E-07	1.9E-09
A	Nearest Garde	ESE	2.30	6.3E-07	6.2E-07	5.1E-07	1.9E-09

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Atmospheric Diffusion Estimates

Ground Level Releases

July-December 2022

VENTS GROUND LEVEL RELEASES - JUL-DEC 2022
 NO DECAY, UNDELETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	6.941E-05	2.203E-05	1.187E-05	6.026E-06	2.477E-06	1.361E-06	8.725E-07	6.145E-07	4.610E-07	3.618E-07	2.937E-07	
SSW	3.689E-05	1.232E-05	6.581E-06	3.298E-06	1.334E-06	7.259E-07	4.617E-07	3.232E-07	2.413E-07	1.886E-07	1.525E-07	
SW	2.152E-05	7.302E-06	3.911E-06	1.957E-06	7.839E-07	4.236E-07	2.681E-07	1.869E-07	1.390E-07	1.083E-07	8.739E-08	
WSW	1.846E-05	6.385E-06	3.435E-06	1.718E-06	6.816E-07	3.657E-07	2.302E-07	1.597E-07	1.183E-07	9.188E-08	7.390E-08	
W	2.246E-05	7.530E-06	3.974E-06	1.977E-06	7.947E-07	4.305E-07	2.729E-07	1.905E-07	1.419E-07	1.107E-07	8.939E-08	
WNW	2.407E-05	8.110E-06	4.391E-06	2.210E-06	8.814E-07	4.746E-07	2.995E-07	2.083E-07	1.547E-07	1.203E-07	9.695E-08	
NW	3.699E-05	1.240E-05	6.582E-06	3.279E-06	1.310E-06	7.069E-07	4.468E-07	3.112E-07	2.313E-07	1.801E-07	1.452E-07	
NNW	7.704E-05	2.429E-05	1.260E-05	6.273E-06	2.604E-06	1.442E-06	9.297E-07	6.578E-07	4.955E-07	3.903E-07	3.178E-07	
N	1.275E-04	3.940E-05	2.056E-05	1.031E-05	4.314E-06	2.401E-06	1.553E-06	1.102E-06	8.321E-07	6.566E-07	5.355E-07	
NNE	9.339E-05	2.843E-05	1.462E-05	7.299E-06	3.079E-06	1.723E-06	1.119E-06	7.965E-07	6.028E-07	4.767E-07	3.896E-07	
NE	3.964E-05	1.206E-05	6.329E-06	3.194E-06	1.338E-06	7.451E-07	4.822E-07	3.421E-07	2.583E-07	2.038E-07	1.662E-07	
ENE	5.097E-05	1.529E-05	7.744E-06	3.841E-06	1.637E-06	9.218E-07	6.017E-07	4.299E-07	3.264E-07	2.588E-07	2.120E-07	
E	2.984E-05	9.162E-06	4.777E-06	2.399E-06	1.005E-06	5.599E-07	3.624E-07	2.573E-07	1.943E-07	1.533E-07	1.251E-07	
ESE	5.071E-05	1.541E-05	7.876E-06	3.917E-06	1.652E-06	9.244E-07	6.005E-07	4.274E-07	3.235E-07	2.558E-07	2.090E-07	
SE	6.053E-05	1.865E-05	9.556E-06	4.749E-06	1.992E-06	1.111E-06	7.197E-07	5.112E-07	3.863E-07	3.051E-07	2.490E-07	
SSE	9.358E-05	2.865E-05	1.468E-05	7.301E-06	3.069E-06	1.713E-06	1.111E-06	7.896E-07	5.970E-07	4.717E-07	3.851E-07	

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	
S	2.448E-07	1.290E-07	8.512E-08	5.002E-08	3.443E-08	2.582E-08	2.043E-08	1.678E-08	1.415E-08	1.218E-08	1.066E-08	
SSW	1.267E-07	6.599E-08	4.318E-08	2.509E-08	1.714E-08	1.278E-08	1.007E-08	8.239E-09	6.929E-09	5.950E-09	5.194E-09	
SW	7.242E-08	3.738E-08	2.431E-08	1.401E-08	9.518E-09	7.067E-09	5.549E-09	4.527E-09	3.798E-09	3.255E-09	2.836E-09	
WSW	6.107E-08	3.120E-08	2.013E-08	1.147E-08	7.729E-09	5.702E-09	4.453E-09	3.616E-09	3.022E-09	2.580E-09	2.241E-09	
W	7.414E-08	3.840E-08	2.504E-08	1.448E-08	9.864E-09	7.340E-09	5.773E-09	4.717E-09	3.963E-09	3.401E-09	2.967E-09	
WNW	8.024E-08	4.122E-08	2.671E-08	1.532E-08	1.039E-08	7.696E-09	6.032E-09	4.914E-09	4.117E-09	3.523E-09	3.067E-09	
NW	1.203E-07	6.208E-08	4.035E-08	2.326E-08	1.582E-08	1.175E-08	9.234E-09	7.538E-09	6.328E-09	5.425E-09	4.730E-09	
NNW	2.656E-07	1.415E-07	9.406E-08	5.589E-08	3.878E-08	2.926E-08	2.328E-08	1.920E-08	1.626E-08	1.405E-08	1.233E-08	
N	4.481E-07	2.399E-07	1.600E-07	9.544E-08	6.637E-08	5.016E-08	3.995E-08	3.299E-08	2.796E-08	2.417E-08	2.123E-08	
NNE	3.265E-07	1.759E-07	1.178E-07	7.065E-08	4.932E-08	3.739E-08	2.985E-08	2.469E-08	2.097E-08	1.815E-08	1.596E-08	
NE	1.391E-07	7.444E-08	4.962E-08	2.958E-08	2.057E-08	1.554E-08	1.237E-08	1.021E-08	8.655E-09	7.481E-09	6.569E-09	
ENE	1.780E-07	9.665E-08	6.505E-08	3.929E-08	2.756E-08	2.097E-08	1.679E-08	1.392E-08	1.184E-08	1.027E-08	9.045E-09	
E	1.047E-07	5.608E-08	3.741E-08	2.232E-08	1.553E-08	1.174E-08	9.352E-09	7.722E-09	6.546E-09	5.660E-09	4.971E-09	
ESE	1.752E-07	9.442E-08	6.324E-08	3.796E-08	2.651E-08	2.011E-08	1.606E-08	1.329E-08	1.129E-08	9.775E-09	8.598E-09	
SE	2.085E-07	1.119E-07	7.477E-08	4.473E-08	3.117E-08	2.360E-08	1.882E-08	1.556E-08	1.320E-08	1.143E-08	1.004E-08	
SSE	3.226E-07	1.734E-07	1.159E-07	6.944E-08	4.843E-08	3.669E-08	2.928E-08	2.421E-08	2.055E-08	1.779E-08	1.564E-08	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.153E-05	2.770E-06	8.997E-07	4.671E-07	2.958E-07	1.352E-07	5.089E-08	2.596E-08	1.682E-08	1.220E-08
SSW	6.397E-06	1.500E-06	4.768E-07	2.446E-07	1.536E-07	6.934E-08	2.558E-08	1.286E-08	8.263E-09	5.960E-09
SW	3.796E-06	8.844E-07	2.771E-07	1.410E-07	8.805E-08	3.936E-08	1.430E-08	7.114E-09	4.542E-09	3.261E-09
WSW	3.327E-06	7.715E-07	2.381E-07	1.201E-07	7.447E-08	3.292E-08	1.173E-08	5.743E-09	3.629E-09	2.586E-09
W	3.876E-06	8.955E-07	2.820E-07	1.439E-07	9.005E-08	4.040E-08	1.477E-08	7.386E-09	4.732E-09	3.407E-09
WNW	4.248E-06	9.959E-07	3.098E-07	1.569E-07	9.769E-08	4.344E-08	1.566E-08	7.748E-09	4.930E-09	3.530E-09
NW	6.408E-06	1.480E-06	4.619E-07	2.346E-07	1.464E-07	6.537E-08	2.375E-08	1.183E-08	7.562E-09	5.435E-09
NNW	1.239E-05	2.903E-06	9.576E-07	5.018E-07	3.199E-07	1.480E-07	5.677E-08	2.941E-08	1.924E-08	1.407E-08
N	2.019E-05	4.796E-06	1.599E-06	8.424E-07	5.390E-07	2.507E-07	9.686E-08	5.040E-08	3.306E-08	2.420E-08
NNE	1.444E-05	3.414E-06	1.151E-06	6.101E-07	3.920E-07	1.835E-07	7.164E-08	3.756E-08	2.475E-08	1.818E-08
NE	6.210E-06	1.487E-06	4.963E-07	2.615E-07	1.673E-07	7.777E-08	3.003E-08	1.561E-08	1.024E-08	7.491E-09
ENE	7.686E-06	1.809E-06	6.184E-07	3.302E-07	2.133E-07	1.007E-07	3.980E-08	2.105E-08	1.395E-08	1.028E-08
E	4.694E-06	1.117E-06	3.730E-07	1.967E-07	1.259E-07	5.858E-08	2.266E-08	1.180E-08	7.740E-09	5.667E-09
ESE	7.792E-06	1.832E-06	6.176E-07	3.274E-07	2.104E-07	9.852E-08	3.849E-08	2.020E-08	1.332E-08	9.786E-09
SE	9.440E-06	2.213E-06	7.406E-07	3.910E-07	2.506E-07	1.169E-07	4.538E-08	2.371E-08	1.559E-08	1.144E-08
SSE	1.450E-05	3.407E-06	1.143E-06	6.043E-07	3.876E-07	1.810E-07	7.044E-08	3.686E-08	2.427E-08	1.781E-08

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VENTS GROUND LEVEL RELEASES - JUL-DEC 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE									
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500			
S	6.926E-05	2.194E-05	1.180E-05	5.979E-06	2.447E-06	1.340E-06	8.550E-07	5.996E-07	4.480E-07	3.501E-07	2.830E-07			
SSW	3.682E-05	1.227E-05	6.544E-06	3.274E-06	1.319E-06	7.147E-07	4.528E-07	3.157E-07	2.347E-07	1.827E-07	1.471E-07			
SW	2.147E-05	7.274E-06	3.889E-06	1.942E-06	7.750E-07	4.171E-07	2.629E-07	1.825E-07	1.352E-07	1.049E-07	8.429E-08			
WSW	1.843E-05	6.363E-06	3.418E-06	1.707E-06	6.747E-07	3.607E-07	2.262E-07	1.564E-07	1.154E-07	8.929E-08	7.155E-08			
W	2.241E-05	7.501E-06	3.952E-06	1.962E-06	7.856E-07	4.238E-07	2.675E-07	1.860E-07	1.379E-07	1.071E-07	8.616E-08			
WNW	2.404E-05	8.085E-06	4.370E-06	2.197E-06	8.730E-07	4.685E-07	2.947E-07	2.043E-07	1.511E-07	1.172E-07	9.407E-08			
NW	3.693E-05	1.237E-05	6.553E-06	3.260E-06	1.298E-06	6.980E-07	4.397E-07	3.052E-07	2.261E-07	1.754E-07	1.410E-07			
NNW	7.686E-05	2.418E-05	1.252E-05	6.220E-06	2.570E-06	1.417E-06	9.090E-07	6.402E-07	4.800E-07	3.763E-07	3.050E-07			
N	1.272E-04	3.923E-05	2.043E-05	1.023E-05	4.261E-06	2.361E-06	1.521E-06	1.075E-06	8.078E-07	6.346E-07	5.154E-07			
NNE	9.315E-05	2.829E-05	1.452E-05	7.229E-06	3.034E-06	1.689E-06	1.092E-06	7.731E-07	5.822E-07	4.580E-07	3.724E-07			
NE	3.955E-05	1.200E-05	6.285E-06	3.165E-06	1.320E-06	7.311E-07	4.708E-07	3.324E-07	2.497E-07	1.961E-07	1.591E-07			
ENE	5.084E-05	1.521E-05	7.684E-06	3.802E-06	1.611E-06	9.027E-07	5.861E-07	4.165E-07	3.146E-07	2.481E-07	1.999E-07			
E	2.977E-05	9.119E-06	4.745E-06	2.377E-06	9.914E-07	5.496E-07	3.540E-07	2.501E-07	1.880E-07	1.476E-07	1.199E-07			
ESE	5.058E-05	1.534E-05	7.820E-06	3.880E-06	1.628E-06	9.066E-07	5.859E-07	4.149E-07	3.124E-07	2.458E-07	1.999E-07			
SE	6.039E-05	1.856E-05	9.494E-06	4.707E-06	1.966E-06	1.091E-06	7.033E-07	4.972E-07	3.739E-07	2.938E-07	2.387E-07			
SSE	9.335E-05	2.851E-05	1.458E-05	7.234E-06	3.025E-06	1.680E-06	1.084E-06	7.669E-07	5.769E-07	4.535E-07	3.684E-07			

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE									
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000			
S	2.349E-07	1.213E-07	7.834E-08	4.420E-08	2.925E-08	2.110E-08	1.609E-08	1.274E-08	1.038E-08	8.636E-09	7.310E-09			
SSW	1.217E-07	6.210E-08	3.980E-08	2.221E-08	1.458E-08	1.046E-08	7.937E-09	6.260E-09	5.079E-09	4.212E-09	3.555E-09			
SW	6.957E-08	3.517E-08	2.240E-08	1.239E-08	8.086E-09	5.773E-09	4.362E-09	3.428E-09	2.772E-09	2.292E-09	1.928E-09			
WSW	5.891E-08	2.953E-08	1.870E-08	1.027E-08	6.670E-09	4.746E-09	3.578E-09	2.807E-09	2.268E-09	1.874E-09	1.576E-09			
W	7.115E-08	3.608E-08	2.302E-08	1.276E-08	8.334E-09	5.952E-09	4.498E-09	3.535E-09	2.859E-09	2.364E-09	1.988E-09			
WNW	7.759E-08	3.917E-08	2.495E-08	1.383E-08	9.067E-09	6.504E-09	4.939E-09	3.900E-09	3.170E-09	2.635E-09	2.228E-09			
NW	1.164E-07	5.898E-08	3.767E-08	2.096E-08	1.377E-08	9.892E-09	7.521E-09	5.946E-09	4.838E-09	4.024E-09	3.406E-09			
NNW	2.536E-07	1.320E-07	8.571E-08	4.864E-08	3.227E-08	2.332E-08	1.778E-08	1.408E-08	1.146E-08	9.529E-09	8.058E-09			
N	4.294E-07	2.250E-07	1.468E-07	8.395E-08	5.604E-08	4.071E-08	3.121E-08	2.483E-08	2.030E-08	1.695E-08	1.440E-08			
NNE	3.105E-07	1.631E-07	1.065E-07	6.085E-08	4.052E-08	2.934E-08	2.240E-08	1.775E-08	1.446E-08	1.202E-08	1.017E-08			
NE	1.325E-07	6.922E-08	4.505E-08	2.562E-08	1.702E-08	1.230E-08	9.384E-09	7.431E-09	6.048E-09	5.028E-09	4.251E-09			
ENE	1.689E-07	8.929E-08	5.856E-08	3.362E-08	2.246E-08	1.630E-08	1.246E-08	9.889E-09	8.060E-09	6.708E-09	5.676E-09			
E	9.983E-08	5.222E-08	3.402E-08	1.938E-08	1.289E-08	9.330E-09	7.126E-09	5.649E-09	4.603E-09	3.831E-09	3.242E-09			
ESE	1.667E-07	8.757E-08	5.721E-08	3.269E-08	2.178E-08	1.577E-08	1.205E-08	9.550E-09	7.779E-09	6.471E-09	5.473E-09			
SE	1.989E-07	1.042E-07	6.796E-08	3.878E-08	2.581E-08	1.870E-08	1.428E-08	1.133E-08	9.229E-09	7.681E-09	6.501E-09			
SSE	3.071E-07	1.610E-07	1.050E-07	5.987E-08	3.983E-08	2.882E-08	2.200E-08	1.742E-08	1.418E-08	1.179E-08	9.971E-09			

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.147E-05	2.740E-06	8.821E-07	4.540E-07	2.851E-07	1.274E-07	4.514E-08	2.127E-08	1.280E-08	8.661E-09
SSW	6.363E-06	1.485E-06	4.678E-07	2.380E-07	1.482E-07	6.544E-08	2.273E-08	1.055E-08	6.289E-09	4.226E-09
SW	3.776E-06	8.753E-07	2.719E-07	1.372E-07	8.495E-08	3.714E-08	1.270E-08	5.825E-09	3.445E-09	2.300E-09
WSW	3.312E-06	7.644E-07	2.341E-07	1.172E-07	7.213E-08	3.125E-08	1.054E-08	4.792E-09	2.822E-09	1.880E-09
W	3.856E-06	8.862E-07	2.766E-07	1.399E-07	8.682E-08	3.807E-08	1.307E-08	6.006E-09	3.553E-09	2.371E-09
WNW	4.230E-06	9.874E-07	3.049E-07	1.534E-07	9.481E-08	4.139E-08	1.418E-08	6.561E-09	3.919E-09	2.643E-09
NW	6.381E-06	1.467E-06	4.548E-07	2.294E-07	1.421E-07	6.226E-08	2.148E-08	9.977E-09	5.974E-09	4.036E-09
NNW	1.231E-05	2.868E-06	9.369E-07	4.863E-07	3.071E-07	1.385E-07	4.960E-08	2.349E-08	1.414E-08	9.557E-09
N	2.007E-05	4.743E-06	1.567E-06	8.181E-07	5.188E-07	2.357E-07	8.552E-08	4.100E-08	2.493E-08	1.700E-08
NNE	1.434E-05	3.369E-06	1.124E-06	5.894E-07	3.749E-07	1.707E-07	6.196E-08	2.954E-08	1.783E-08	1.206E-08
NE	6.170E-06	1.468E-06	4.849E-07	2.529E-07	1.602E-07	7.254E-08	2.611E-08	1.239E-08	7.462E-09	5.042E-09
ENE	7.631E-06	1.783E-06	6.027E-07	3.184E-07	2.034E-07	9.331E-08	3.420E-08	1.641E-08	9.928E-09	6.727E-09
E	4.665E-06	1.103E-06	3.646E-07	1.903E-07	1.207E-07	5.471E-08	1.975E-08	9.398E-09	5.673E-09	3.842E-09
ESE	7.740E-06	1.808E-06	6.030E-07	3.163E-07	2.012E-07	9.165E-08	3.329E-08	1.588E-08	9.589E-09	6.489E-09
SE	9.382E-06	2.186E-06	7.242E-07	3.786E-07	2.403E-07	1.091E-07	3.950E-08	1.883E-08	1.137E-08	7.703E-09
SSE	1.441E-05	3.363E-06	1.116E-06	5.841E-07	3.709E-07	1.685E-07	6.099E-08	2.903E-08	1.750E-08	1.183E-08

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VENTS GROUND LEVEL RELEASES - JUL-DEC 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	6.565E-05	2.009E-05	1.056E-05	5.263E-06	2.096E-06	1.122E-06	7.027E-07	4.847E-07	3.568E-07	2.752E-07	2.197E-07
SSW	3.489E-05	1.123E-05	5.856E-06	2.881E-06	1.130E-06	5.985E-07	3.720E-07	2.550E-07	1.868E-07	1.435E-07	1.141E-07
SW	2.035E-05	6.661E-06	3.480E-06	1.709E-06	6.636E-07	3.492E-07	2.159E-07	1.474E-07	1.076E-07	8.240E-08	6.540E-08
WSW	1.746E-05	5.825E-06	3.056E-06	1.501E-06	5.772E-07	3.017E-07	1.855E-07	1.261E-07	9.168E-08	6.996E-08	5.536E-08
W	2.124E-05	6.869E-06	3.536E-06	1.727E-06	6.727E-07	3.549E-07	2.198E-07	1.503E-07	1.098E-07	8.419E-08	6.688E-08
WNW	2.277E-05	7.400E-06	3.908E-06	1.931E-06	7.465E-07	3.916E-07	2.415E-07	1.646E-07	1.199E-07	9.168E-08	7.267E-08
NW	3.500E-05	1.132E-05	5.858E-06	2.866E-06	1.110E-06	5.832E-07	3.603E-07	2.458E-07	1.793E-07	1.372E-07	1.089E-07
NNW	7.286E-05	2.215E-05	1.121E-05	5.478E-06	2.203E-06	1.188E-06	7.483E-07	5.185E-07	3.831E-07	2.965E-07	2.375E-07
N	1.206E-04	3.593E-05	1.829E-05	9.004E-06	3.651E-06	1.979E-06	1.251E-06	8.692E-07	6.438E-07	4.991E-07	4.005E-07
NNE	8.832E-05	2.593E-05	1.301E-05	6.372E-06	2.604E-06	1.419E-06	9.002E-07	6.273E-07	4.657E-07	3.618E-07	2.908E-07
NE	3.749E-05	1.100E-05	5.629E-06	2.789E-06	1.132E-06	6.137E-07	3.879E-07	2.695E-07	1.996E-07	1.547E-07	1.241E-07
ENE	4.821E-05	1.394E-05	6.885E-06	3.352E-06	1.384E-06	7.588E-07	4.838E-07	3.384E-07	2.520E-07	1.963E-07	1.581E-07
E	2.822E-05	8.355E-06	4.249E-06	2.094E-06	8.503E-07	4.612E-07	2.916E-07	2.027E-07	1.502E-07	1.164E-07	9.342E-08
ESE	4.796E-05	1.406E-05	7.005E-06	3.420E-06	1.397E-06	7.612E-07	4.830E-07	3.366E-07	2.499E-07	1.941E-07	1.560E-07
SE	5.725E-05	1.701E-05	8.500E-06	4.146E-06	1.685E-06	9.150E-07	5.792E-07	4.029E-07	2.986E-07	2.317E-07	1.860E-07
SSE	8.851E-05	2.613E-05	1.305E-05	6.374E-06	2.596E-06	1.411E-06	8.936E-07	6.220E-07	4.613E-07	3.580E-07	2.875E-07

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.803E-07	8.935E-08	5.582E-08	2.999E-08	1.915E-08	1.344E-08	1.002E-08	7.778E-09	6.226E-09	5.101E-09	4.257E-09
SSW	9.337E-08	4.571E-08	2.833E-08	1.505E-08	9.541E-09	6.658E-09	4.939E-09	3.821E-09	3.049E-09	2.491E-09	2.074E-09
SW	5.337E-08	2.589E-08	1.595E-08	8.403E-09	5.296E-09	3.680E-09	2.720E-09	2.098E-09	1.670E-09	1.361E-09	1.131E-09
WSW	4.506E-08	2.165E-08	1.324E-08	6.906E-09	4.321E-09	2.986E-09	2.198E-09	1.689E-09	1.340E-09	1.090E-09	9.035E-10
W	5.462E-08	2.659E-08	1.641E-08	8.676E-09	5.479E-09	3.813E-09	2.822E-09	2.179E-09	1.736E-09	1.416E-09	1.177E-09
WNW	5.924E-08	2.864E-08	1.759E-08	9.246E-09	5.825E-09	4.048E-09	2.993E-09	2.310E-09	1.840E-09	1.501E-09	1.248E-09
NW	8.884E-08	4.312E-08	2.657E-08	1.403E-08	8.861E-09	6.171E-09	4.572E-09	3.534E-09	2.819E-09	2.302E-09	1.916E-09
NNW	1.954E-07	9.777E-08	6.151E-08	3.336E-08	2.144E-08	1.511E-08	1.130E-08	8.802E-09	7.062E-09	5.796E-09	4.844E-09
N	3.300E-07	1.660E-07	1.048E-07	5.714E-08	3.684E-08	2.605E-08	1.952E-08	1.524E-08	1.225E-08	1.007E-08	8.431E-09
NNE	2.399E-07	1.213E-07	7.684E-08	4.204E-08	2.716E-08	1.922E-08	1.442E-08	1.125E-08	9.045E-09	7.435E-09	6.222E-09
NE	1.022E-07	5.139E-08	3.241E-08	1.763E-08	1.135E-08	8.012E-09	5.996E-09	4.672E-09	3.750E-09	3.079E-09	2.574E-09
ENE	1.307E-07	6.660E-08	4.239E-08	2.334E-08	1.514E-08	1.075E-08	8.082E-09	6.321E-09	5.089E-09	4.189E-09	3.509E-09
E	7.698E-08	3.873E-08	2.445E-08	1.331E-08	8.578E-09	6.060E-09	4.538E-09	3.538E-09	2.841E-09	2.334E-09	1.952E-09
ESE	1.287E-07	6.513E-08	4.127E-08	2.259E-08	1.460E-08	1.034E-08	7.755E-09	6.055E-09	4.868E-09	4.002E-09	3.350E-09
SE	1.533E-07	7.729E-08	4.886E-08	2.666E-08	1.720E-08	1.217E-08	9.119E-09	7.115E-09	5.717E-09	4.699E-09	3.931E-09
SSE	2.371E-07	1.196E-07	7.568E-08	4.133E-08	2.668E-08	1.887E-08	1.414E-08	1.104E-08	8.868E-09	7.288E-09	6.096E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.032E-05	2.367E-06	7.273E-07	3.622E-07	2.216E-07	9.466E-08	3.091E-08	1.359E-08	7.826E-09	5.122E-09
SSW	5.729E-06	1.283E-06	3.856E-07	1.898E-07	1.151E-07	4.858E-08	1.555E-08	6.739E-09	3.847E-09	2.502E-09
SW	3.400E-06	7.562E-07	2.241E-07	1.094E-07	6.598E-08	2.758E-08	8.698E-09	3.727E-09	2.113E-09	1.368E-09
WSW	2.980E-06	6.600E-07	1.927E-07	9.323E-08	5.587E-08	2.311E-08	7.164E-09	3.026E-09	1.702E-09	1.095E-09
W	3.472E-06	7.657E-07	2.280E-07	1.116E-07	6.747E-08	2.830E-08	8.975E-09	3.861E-09	2.194E-09	1.422E-09
WNW	3.805E-06	8.521E-07	2.507E-07	1.219E-07	7.333E-08	3.053E-08	9.580E-09	4.100E-09	2.326E-09	1.508E-09
NW	5.741E-06	1.266E-06	3.739E-07	1.823E-07	1.099E-07	4.593E-08	1.452E-08	6.249E-09	3.558E-09	2.312E-09
NNW	1.109E-05	2.480E-06	7.736E-07	3.888E-07	2.394E-07	1.033E-07	3.431E-08	1.527E-08	8.853E-09	5.818E-09
N	1.808E-05	4.097E-06	1.292E-06	6.531E-07	4.036E-07	1.753E-07	5.871E-08	2.632E-08	1.532E-08	1.011E-08
NNE	1.293E-05	2.915E-06	9.293E-07	4.723E-07	2.930E-07	1.279E-07	4.316E-08	1.942E-08	1.132E-08	7.463E-09
NE	5.560E-06	1.270E-06	4.008E-07	2.025E-07	1.251E-07	5.426E-08	1.812E-08	8.096E-09	4.699E-09	3.091E-09
ENE	6.884E-06	1.543E-06	4.990E-07	2.555E-07	1.593E-07	7.009E-08	2.393E-08	1.085E-08	6.355E-09	4.204E-09
E	4.204E-06	9.538E-07	3.013E-07	1.523E-07	9.415E-08	4.088E-08	1.368E-08	6.122E-09	3.558E-09	2.343E-09
ESE	6.978E-06	1.564E-06	4.987E-07	2.534E-07	1.572E-07	6.866E-08	2.319E-08	1.044E-08	6.088E-09	4.017E-09
SE	8.456E-06	1.890E-06	5.982E-07	3.029E-07	1.874E-07	8.155E-08	2.739E-08	1.229E-08	7.155E-09	4.716E-09
SSE	1.299E-05	2.909E-06	9.229E-07	4.679E-07	2.897E-07	1.262E-07	4.245E-08	1.906E-08	1.110E-08	7.315E-09

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VENTS GROUND LEVEL RELEASES - JUL-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION		DISTANCES IN MILES										
FROM SITE		.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S		1.941E-07	6.564E-08	3.370E-08	1.602E-08	5.755E-09	2.854E-09	1.681E-09	1.100E-09	7.743E-10	5.738E-10	4.422E-10
SSW		1.070E-07	3.620E-08	1.859E-08	8.836E-09	3.174E-09	1.574E-09	9.268E-10	6.068E-10	4.270E-10	3.164E-10	2.439E-10
SW		5.787E-08	1.957E-08	1.005E-08	4.776E-09	1.716E-09	8.509E-10	5.010E-10	3.281E-10	2.308E-10	1.711E-10	1.318E-10
WSW		6.181E-08	2.090E-08	1.073E-08	5.102E-09	1.833E-09	9.089E-10	5.352E-10	3.504E-10	2.466E-10	1.827E-10	1.408E-10
W		6.524E-08	2.206E-08	1.133E-08	5.385E-09	1.934E-09	9.593E-10	5.648E-10	3.699E-10	2.602E-10	1.929E-10	1.486E-10
WNNW		9.621E-08	3.253E-08	1.670E-08	7.941E-09	2.853E-09	1.415E-09	8.330E-10	5.454E-10	3.838E-10	2.844E-10	2.192E-10
NW		1.829E-07	6.186E-08	3.176E-08	1.510E-08	5.424E-09	2.690E-09	1.584E-09	1.037E-09	7.297E-10	5.408E-10	4.168E-10
NNW		1.999E-07	6.760E-08	3.471E-08	1.650E-08	5.927E-09	2.940E-09	1.731E-09	1.133E-09	7.975E-10	5.910E-10	4.554E-10
N		3.759E-07	1.271E-07	6.526E-08	3.102E-08	1.114E-08	5.527E-09	3.254E-09	2.131E-09	1.499E-09	1.111E-09	8.563E-10
NNE		2.024E-07	6.846E-08	3.515E-08	1.671E-08	6.002E-09	2.977E-09	1.753E-09	1.148E-09	8.076E-10	5.985E-10	4.612E-10
NE		8.813E-08	2.980E-08	1.530E-08	7.275E-09	2.613E-09	1.296E-09	7.630E-10	4.996E-10	3.516E-10	2.605E-10	2.008E-10
ENE		7.741E-08	2.618E-08	1.344E-08	6.390E-09	2.295E-09	1.138E-09	6.702E-10	4.389E-10	3.088E-10	2.289E-10	1.764E-10
E		6.275E-08	2.122E-08	1.090E-08	5.180E-09	1.861E-09	9.227E-10	5.433E-10	3.557E-10	2.503E-10	1.855E-10	1.430E-10
ESE		1.209E-07	4.087E-08	2.098E-08	9.976E-09	3.583E-09	1.777E-09	1.046E-09	6.852E-10	4.821E-10	3.573E-10	2.753E-10
SE		1.838E-07	6.217E-08	3.192E-08	1.518E-08	5.451E-09	2.703E-09	1.592E-09	1.042E-09	7.334E-10	5.435E-10	4.188E-10
SSE		2.396E-07	8.103E-08	4.161E-08	1.978E-08	7.105E-09	3.523E-09	2.075E-09	1.358E-09	9.559E-10	7.084E-10	5.459E-10
DIRECTION		DISTANCES IN MILES										
FROM SITE		5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S		3.513E-10	1.561E-10	9.454E-11	4.778E-11	2.892E-11	1.939E-11	1.389E-11	1.043E-11	8.112E-12	6.480E-12	5.289E-12
SSW		1.937E-10	8.606E-11	5.213E-11	2.635E-11	1.595E-11	1.069E-11	7.662E-12	5.754E-12	4.474E-12	3.573E-12	2.917E-12
SW		1.047E-10	4.652E-11	2.818E-11	1.424E-11	8.622E-12	5.781E-12	4.142E-12	3.110E-12	2.418E-12	1.932E-12	1.577E-12
WSW		1.119E-10	4.970E-11	3.011E-11	1.522E-11	9.210E-12	6.175E-12	4.425E-12	3.323E-12	2.583E-12	2.064E-12	1.684E-12
W		1.181E-10	5.245E-11	3.177E-11	1.606E-11	9.720E-12	6.517E-12	4.670E-12	3.507E-12	2.727E-12	2.178E-12	1.778E-12
WNNW		1.741E-10	7.735E-11	4.686E-11	2.368E-11	1.433E-11	9.611E-12	6.887E-12	5.171E-12	4.021E-12	3.212E-12	2.622E-12
NW		3.311E-10	1.471E-10	8.910E-11	4.503E-11	2.726E-11	1.827E-11	1.309E-11	9.833E-12	7.645E-12	6.107E-12	4.985E-12
NNW		3.618E-10	1.607E-10	9.736E-11	4.921E-11	2.979E-11	1.997E-11	1.431E-11	1.075E-11	8.355E-12	6.674E-12	5.447E-12
N		6.803E-10	3.022E-10	1.831E-10	9.253E-11	5.600E-11	3.755E-11	2.690E-11	2.020E-11	1.571E-11	1.255E-11	1.024E-11
NNE		3.664E-10	1.628E-10	9.860E-11	4.983E-11	3.016E-11	2.022E-11	1.449E-11	1.088E-11	8.460E-12	6.758E-12	5.516E-12
NE		1.595E-10	7.086E-11	4.292E-11	2.170E-11	1.313E-11	8.804E-12	6.308E-12	4.737E-12	3.683E-12	2.942E-12	2.401E-12
ENE		1.401E-10	6.224E-11	3.770E-11	1.906E-11	1.153E-11	7.733E-12	5.541E-12	4.161E-12	3.235E-12	2.584E-12	2.109E-12
E		1.136E-10	5.045E-11	3.056E-11	1.545E-11	9.350E-12	6.269E-12	4.492E-12	3.373E-12	2.622E-12	2.095E-12	1.710E-12
ESE		2.187E-10	9.717E-11	5.886E-11	2.975E-11	1.801E-11	1.207E-11	8.651E-12	6.496E-12	5.051E-12	4.035E-12	3.293E-12
SE		3.327E-10	1.478E-10	8.954E-11	4.526E-11	2.739E-11	1.837E-11	1.316E-11	9.882E-12	7.684E-12	6.138E-12	5.010E-12
SSE		4.337E-10	1.927E-10	1.167E-10	5.899E-11	3.570E-11	2.394E-11	1.715E-11	1.288E-11	1.001E-11	8.000E-12	6.530E-12

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***** RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS *****											
DIRECTION		SEGMENT BOUNDARIES IN MILES									
FROM SITE		.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S		3.294E-08	6.747E-09	1.761E-09	7.911E-10	4.475E-10	1.721E-10	4.979E-11	1.973E-11	1.054E-11	6.522E-12
SSW		1.817E-08	3.721E-09	9.714E-10	4.363E-10	2.468E-10	9.491E-11	2.746E-11	1.088E-11	5.811E-12	3.597E-12
SW		9.820E-09	2.011E-09	5.251E-10	2.358E-10	1.334E-10	5.131E-11	1.484E-11	5.883E-12	3.142E-12	1.944E-12
WSW		1.049E-08	2.149E-09	5.609E-10	2.519E-10	1.425E-10	5.481E-11	1.586E-11	6.284E-12	3.356E-12	2.077E-12
W		1.107E-08	2.268E-09	5.920E-10	2.659E-10	1.504E-10	5.785E-11	1.673E-11	6.633E-12	3.542E-12	2.192E-12
WNNW		1.633E-08	3.344E-09	8.731E-10	3.921E-10	2.218E-10	8.530E-11	2.468E-11	9.781E-12	5.223E-12	3.233E-12
NW		3.105E-08	6.359E-09	1.660E-09	7.456E-10	4.218E-10	1.622E-10	4.692E-11	1.860E-11	9.931E-12	6.147E-12
NNW		3.393E-08	6.949E-09	1.814E-09	8.148E-10	4.609E-10	1.773E-10	5.128E-11	2.032E-11	1.085E-11	6.718E-12
N		6.379E-08	1.307E-08	3.411E-09	1.532E-09	8.666E-10	3.333E-10	9.641E-11	3.821E-11	2.041E-11	1.263E-11
NNE		3.436E-08	7.037E-09	1.837E-09	8.251E-10	4.668E-10	1.795E-10	5.193E-11	2.058E-11	1.099E-11	6.803E-12
NE		1.496E-08	3.064E-09	7.998E-10	3.592E-10	2.032E-10	7.814E-11	2.261E-11	8.960E-12	4.785E-12	2.961E-12
ENE		1.314E-08	2.691E-09	7.025E-10	3.155E-10	1.785E-10	6.864E-11	1.986E-11	7.870E-12	4.203E-12	2.601E-12
E		1.065E-08	2.181E-09	5.694E-10	2.558E-10	1.447E-10	5.564E-11	1.610E-11	6.380E-12	3.407E-12	2.109E-12
ESE		2.051E-08	4.201E-09	1.097E-09	4.926E-10	2.787E-10	1.072E-10	3.100E-11	1.229E-11	6.561E-12	4.061E-12
SE		3.120E-08	6.391E-09	1.668E-09	7.493E-10	4.239E-10	1.630E-10	4.716E-11	1.869E-11	9.981E-12	6.178E-12
SSE		4.067E-08	8.330E-09	2.175E-09	9.766E-10	5.525E-10	2.125E-10	6.147E-11	2.436E-11	1.301E-11	8.052E-12

VENTS GROUND LEVEL RELEASES - JUL-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	X/Q (SEC/M3)			D/Q (PER SQ.METER)	
			NO DEPLETION	2.26 DAY DECAY UNDEPLETED	8.0 DAY DECAY DEPLETED		
A	Site Boundary	S	.80	1.0E-05	1.0E-05	9.1E-06	2.9E-08
A	Site Boundary	SSW	.82	5.2E-06	5.2E-06	4.6E-06	1.5E-08
A	Site Boundary	SW	.97	2.1E-06	2.1E-06	1.8E-06	5.1E-09
A	Site Boundary	WSW	.93	2.1E-06	2.1E-06	1.8E-06	6.2E-09
A	Site Boundary	W	.91	2.5E-06	2.4E-06	2.2E-06	6.8E-09
A	Site Boundary	WNW	.94	2.6E-06	2.6E-06	2.3E-06	9.4E-09
A	Site Boundary	NW	.81	5.4E-06	5.4E-06	4.8E-06	2.6E-08
A	Site Boundary	NNW	.69	1.4E-05	1.4E-05	1.3E-05	4.0E-08
A	Site Boundary	N	.67	2.4E-05	2.4E-05	2.2E-05	7.8E-08
A	Site Boundary	NNE	.60	2.1E-05	2.1E-05	1.9E-05	5.1E-08
A	Site Boundary	NE	.62	8.4E-06	8.3E-06	7.5E-06	2.1E-08
A	Site Boundary	ENE	.59	1.2E-05	1.2E-05	1.1E-05	2.0E-08
A	Site Boundary	E	.53	8.4E-06	8.4E-06	7.7E-06	2.0E-08
A	Site Boundary	ESE	.54	1.4E-05	1.4E-05	1.2E-05	3.6E-08
A	Site Boundary	SE	.65	1.2E-05	1.2E-05	1.1E-05	4.1E-08
A	Site Boundary	SSE	.81	1.2E-05	1.2E-05	1.1E-05	3.4E-08
A	Nearest Res	SW	1.30	1.1E-06	1.1E-06	9.2E-07	2.5E-09
A	Nearest Res	WSW	1.80	4.6E-07	4.5E-07	3.8E-07	1.2E-09
A	Nearest Res	WNW	2.40	3.3E-07	3.2E-07	2.6E-07	9.2E-10
A	Nearest Res	NW	.90	4.2E-06	4.2E-06	3.7E-06	2.0E-08
A	Nearest Res	NNW	1.90	1.6E-06	1.6E-06	1.3E-06	3.3E-09
A	Nearest Res	NE	1.60	1.2E-06	1.2E-06	9.9E-07	2.2E-09
A	Nearest Res	E	2.00	5.6E-07	5.5E-07	4.6E-07	9.2E-10
A	Nearest Cow	NNW	3.50	5.0E-07	4.8E-07	3.8E-07	8.0E-10
A	Nearest Garde	SW	2.20	3.5E-07	3.4E-07	2.8E-07	6.8E-10
A	Nearest Garde	WSW	1.80	4.6E-07	4.5E-07	3.8E-07	1.2E-09
A	Nearest Garde	WNW	2.60	2.8E-07	2.7E-07	2.2E-07	7.6E-10
A	Nearest Garde	NW	1.90	7.9E-07	7.8E-07	6.5E-07	3.0E-09
A	Nearest Garde	NNW	2.80	7.5E-07	7.3E-07	6.0E-07	1.3E-09
A	Nearest Garde	ENE	1.70	1.3E-06	1.2E-06	1.1E-06	1.7E-09
A	Nearest Garde	ESE	2.30	7.0E-07	6.9E-07	5.7E-07	1.3E-09

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Atmospheric Diffusion Estimates

Ground Level Releases

January-December 2022

VENTS GROUND LEVEL RELEASES - JAN-DEC 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										DISTANCE IN MILES FROM THE SITE										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	2.500	3.000	3.500	4.000	4.500	5.000	5.500	6.000	6.500	7.000
S	5.442E-05	1.749E-05	9.353E-06	4.714E-06	1.921E-06	1.050E-06	6.706E-07	4.708E-07	3.524E-07	2.760E-07	2.237E-07	1.618E-07	1.306E-07	1.063E-07	8.276E-08	6.670E-08	5.162E-08	4.076E-08	3.131E-08	2.461E-08	1.962E-08
SSW	3.220E-05	1.082E-05	5.801E-06	2.906E-06	1.166E-06	6.307E-07	3.995E-07	2.787E-07	2.075E-07	1.618E-07	1.306E-07	1.063E-07	8.276E-08	6.425E-08	5.162E-08	4.076E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08
SW	1.688E-05	5.732E-06	3.044E-06	1.515E-06	6.043E-07	3.257E-07	2.057E-07	1.431E-07	1.063E-07	8.276E-08	6.670E-08	5.162E-08	4.076E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08	8.746E-09	6.839E-09	5.385E-09
WSW	1.296E-05	4.528E-06	2.437E-06	1.217E-06	4.810E-07	2.574E-07	1.616E-07	1.120E-07	8.284E-08	6.425E-08	5.162E-08	4.076E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08	8.746E-09	6.839E-09	5.385E-09	4.119E-09
W	1.732E-05	5.836E-06	3.076E-06	1.527E-06	6.124E-07	3.311E-07	2.096E-07	1.461E-07	1.087E-07	8.476E-08	6.839E-08	5.385E-08	4.119E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08	8.746E-09	6.839E-09	5.385E-09
WNW	1.806E-05	6.194E-06	3.371E-06	1.697E-06	6.732E-07	3.613E-07	2.274E-07	1.579E-07	1.170E-07	9.088E-08	7.311E-08	5.732E-08	4.444E-08	3.443E-08	2.738E-08	2.184E-08	1.718E-08	1.342E-08	1.044E-08	8.044E-09	6.269E-09
NW	2.865E-05	9.718E-06	5.168E-06	2.573E-06	1.024E-06	5.507E-07	3.473E-07	2.415E-07	1.792E-07	1.394E-07	1.123E-07	8.746E-08	6.839E-08	5.385E-08	4.119E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08	8.746E-09
NNW	5.495E-05	1.755E-05	9.187E-06	4.583E-06	1.887E-06	1.039E-06	6.671E-07	4.705E-07	3.534E-07	2.777E-07	2.257E-07	1.718E-07	1.342E-07	1.044E-07	8.044E-08	6.269E-08	4.888E-08	3.807E-08	2.999E-08	2.343E-08	1.827E-08
N	9.830E-05	3.060E-05	1.605E-05	8.056E-06	3.355E-06	1.861E-06	1.202E-06	8.510E-07	6.414E-07	5.055E-07	4.119E-07	3.269E-07	2.552E-07	2.022E-07	1.579E-07	1.237E-07	9.667E-08	7.511E-08	5.862E-08	4.550E-08	3.538E-08
NNE	7.727E-05	2.354E-05	1.214E-05	6.063E-06	2.552E-06	1.426E-06	9.251E-07	6.579E-07	4.976E-07	3.933E-07	3.212E-07	2.552E-07	2.022E-07	1.579E-07	1.237E-07	9.667E-08	7.511E-08	5.862E-08	4.550E-08	3.538E-08	2.738E-08
NE	3.242E-05	1.005E-05	5.255E-06	2.637E-06	1.097E-06	6.080E-07	3.922E-07	2.776E-07	2.092E-07	1.648E-07	1.342E-07	1.044E-07	8.044E-08	6.269E-08	4.888E-08	3.807E-08	2.999E-08	2.343E-08	1.827E-08	1.419E-08	1.094E-08
ENE	3.632E-05	1.100E-05	5.622E-06	2.798E-06	1.183E-06	6.630E-07	4.312E-07	3.072E-07	2.327E-07	1.842E-07	1.506E-07	1.196E-07	9.318E-08	7.273E-08	5.669E-08	4.390E-08	3.403E-08	2.669E-08	2.084E-08	1.604E-08	1.244E-08
E	2.738E-05	8.418E-06	4.366E-06	2.184E-06	9.143E-07	5.090E-07	3.294E-07	2.337E-07	1.765E-07	1.393E-07	1.136E-07	8.746E-08	6.839E-08	5.385E-08	4.119E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08	1.136E-08	8.746E-09
ESE	3.918E-05	1.200E-05	6.157E-06	3.063E-06	1.287E-06	7.181E-07	4.655E-07	3.309E-07	2.501E-07	1.976E-07	1.613E-07	1.276E-07	9.918E-08	7.727E-08	6.063E-08	4.705E-08	3.632E-08	2.807E-08	2.184E-08	1.697E-08	1.311E-08
SE	4.786E-05	1.502E-05	7.779E-06	3.873E-06	1.608E-06	8.904E-07	5.740E-07	4.062E-07	3.059E-07	2.409E-07	1.962E-07	1.532E-07	1.136E-07	8.746E-08	6.839E-08	5.385E-08	4.119E-08	3.131E-08	2.461E-08	1.962E-08	1.532E-08
SSE	7.045E-05	2.201E-05	1.138E-05	5.668E-06	2.353E-06	1.303E-06	8.397E-07	5.941E-07	4.474E-07	3.524E-07	2.869E-07	2.237E-07	1.718E-07	1.342E-07	1.044E-07	8.044E-08	6.269E-08	4.888E-08	3.807E-08	2.999E-08	2.343E-08

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										DISTANCE IN MILES FROM THE SITE										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	55.000	60.000	65.000
S	1.862E-07	9.767E-08	6.423E-08	3.760E-08	2.583E-08	1.934E-08	1.529E-08	1.254E-08	1.057E-08	9.099E-09	7.958E-09	7.099E-09	6.423E-09	5.862E-09	5.385E-09	4.976E-09	4.622E-09	4.284E-09	3.951E-09	3.632E-09	3.327E-09
SSW	1.083E-07	5.603E-08	3.650E-08	2.109E-08	1.435E-08	1.067E-08	8.390E-09	6.851E-09	5.752E-09	4.932E-09	4.300E-09	3.807E-09	3.443E-09	3.131E-09	2.869E-09	2.629E-09	2.403E-09	2.196E-09	2.004E-09	1.827E-09	1.669E-09
SW	5.524E-08	2.844E-08	1.846E-08	1.062E-08	7.208E-09	5.349E-09	4.199E-09	3.424E-09	2.872E-09	2.461E-09	2.144E-09	1.888E-09	1.669E-09	1.476E-09	1.306E-09	1.162E-09	1.044E-09	9.444E-10	8.550E-10	7.767E-10	7.099E-10
WSW	4.262E-08	2.169E-08	1.396E-08	7.928E-09	5.327E-09	3.922E-09	3.058E-09	2.480E-09	2.070E-09	1.765E-09	1.532E-09	1.342E-09	1.196E-09	1.076E-09	9.727E-10	8.839E-10	8.044E-10	7.343E-10	6.727E-10	6.196E-10	5.732E-10
W	5.669E-08	2.930E-08	1.907E-08	1.101E-08	7.486E-09	5.565E-09	4.373E-09	3.571E-09	2.999E-09	2.572E-09	2.243E-09	1.962E-09	1.718E-09	1.506E-09	1.342E-09	1.196E-09	1.076E-09	9.727E-10	8.839E-10	8.044E-10	7.343E-10
WNW	6.044E-08	3.090E-08	1.995E-08	1.139E-08	7.690E-09	5.682E-09	4.442E-09	3.611E-09	3.020E-09	2.580E-09	2.242E-09	1.962E-09	1.718E-09	1.506E-09	1.342E-09	1.196E-09	1.076E-09	9.727E-10	8.839E-10	8.044E-10	7.343E-10
NW	9.291E-08	4.774E-08	3.095E-08	1.777E-08	1.205E-08	8.936E-09	7.009E-09	5.713E-09	4.790E-09	4.102E-09	3.573E-09	3.131E-09	2.760E-09	2.444E-09	2.184E-09	1.962E-09	1.765E-09	1.594E-09	1.444E-09	1.306E-09	1.188E-09
NNW	1.883E-07	9.972E-08	6.601E-08	3.900E-08	2.696E-08	2.028E-08	1.610E-08	1.325E-08	1.120E-08	9.667E-09	8.474E-09	7.511E-09	6.727E-09	6.063E-09	5.506E-09	5.004E-09	4.550E-09	4.149E-09	3.787E-09	3.469E-09	3.188E-09
N	3.443E-07	1.837E-07	1.222E-07	7.268E-08	5.044E-08	3.807E-08	3.028E-08	2.498E-08	2.115E-08	1.827E-08	1.604E-08	1.419E-08	1.269E-08	1.144E-08	1.044E-08	9.550E-09	8.767E-09	8.044E-09	7.343E-09	6.727E-09	6.196E-09
NNE	2.691E-07	1.448E-07	9.686E-08	5.804E-08	4.050E-08	3.069E-08	2.449E-08	2.025E-08	1.719E-08	1.488E-08	1.308E-08	1.162E-08	1.044E-08	9.444E-09	8.550E-09	7.767E-09	7.099E-09	6.423E-09	5.862E-09	5.385E-09	4.976E-09
NE	1.122E-07	5.978E-08	3.974E-08	2.361E-08	1.638E-08	1.236E-08	9.828E-09	8.105E-09	6.862E-09	5.928E-09	5.202E-09	4.622E-09	4.149E-09	3.727E-09	3.355E-09	3.020E-09	2.738E-09	2.498E-09	2.269E-09	2.063E-09	1.876E-09
ENE	1.263E-07	6.819E-08	4.573E-08	2.750E-08	1.923E-08	1.460E-08	1.167E-08	9.659E-09	8.206E-09	7.110E-09	6.256E-09	5.506E-09	4.918E-09	4.390E-09	3.933E-09	3.524E-09	3.169E-09	2.869E-09	2.629E-09	2.403E-09	2.196E-09
E	9.506E-08	5.091E-08	3.396E-08	2.027E-08	1.411E-08	1.067E-08	8.501E-09	7.021E-09	5.953E-09	5.148E-09	4.523E-09	4.044E-09	3.632E-09	3.269E-09	2.930E-09	2.629E-09	2.343E-09	2.084E-09	1.844E-09	1.632E-09	1.444E-09
ESE	1.351E-07	7.262E-08	4.856E-08	2.908E-08	2.028E-08	1.537E-08	1.226E-08	1.014E-08	8.606E-09	7.450E-09	6.550E-09	5.862E-09	5.269E-09	4.767E-09	4.343E-09	3.976E-09	3.655E-09	3.376E-09	3.131E-09	2.918E-09	2.727E-09
SE	1.640E-07	8.735E-08	5.806E-08	3.450E-08	2.394E-08	1.807E-08	1.437E-08	1.185E-08	1.004E-08	8.674E-09	7.614E-09	6.727E-09	5.918E-09	5.202E-09	4.586E-09	4.063E-09	3.632E-09	3.243E-09	2.904E-09	2.629E-09	2.403E-09
SSE	2.398E-07	1.277E-07	8.491E-08	5.046E-08	3.502E-08	2.643E-08	2.103E-08	1.735E-08	1.470E-08	1.270E-08	1.115E-08	1.004E-08	9.044E-09	8.149E-09	7.343E-09	6.629E-09	6.004E-09	5.476E-09	4.948E-09	4.523E-09	4.149E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.100E-06	2.155E-06	6.920E-07	3.571E-07	2.253E-07	1.025E-07	3.829E-08	1.945E-08	1.258E-08	9.114E-09
SSW	5.630E-06	1.315E-06	4.129E-07	2.104E-07	1.316E-07	5.896E-08	2.152E-08	1.074E-08	6.872E-09	4.941E-09
SW	2.961E-06	6.827E-07	2.126E-07	1.079E-07	6.721E-08	2.996E-08	1.085E-08	5.385E-09	3.435E-09	2.465E-09
WSW	2.359E-06	5.451E-07	1.673E-07	8.408E-08	5.203E-08	2.291E-08	8.113E-09	3.951E-09	2.489E-09	1.769E-09
W	3.001E-06	6.907E-07	2.166E-07	1.103E-07	6.891E-08	3.084E-08	1.123E-08	5.600E-09	3.582E-09	2.576E-09
WNW	3.254E-06	7.620E-07	2.353E-07	1.187E-07	7.368E-08	3.260E-08	1.165E-08	5.721E-09	3.623E-09	2.585E-09
NW	5.026E-06	1.158E-06	3.592E-07	1.818E-07	1.131E-07	5.032E-08	1.816E-08	8.995E-09	5.732E-09	4.110E-09
NNW	9.000E-06	2.109E-06	6.876E-07	3.580E-07	2.273E-07	1.044E-07	3.965E-08	2.039E-08	1.329E-08	9.680E-09
N	1.573E-05	3.736E-06	1.237E-06	6.495E-07	4.146E-07	1.921E-07	7.380E-08	3.825E-08	2.503E-08	1.830E-08
NNE	1.197E-05	2.832E-06	9.517E-07	5.037E-07	3.233E-07	1.511E-07	5.887E-08	3.082E-08	2.030E-08	1.490E-08
NE	5.158E-06	1.222E-06	4.039E-07	2.118E-07	1.351E-07	6.251E-08	2.398E-08	1.242		

VENTS GROUND LEVEL RELEASES - JAN-DEC 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	5.432E-05	1.743E-05	9.306E-06	4.683E-06	1.901E-06	1.036E-06	6.588E-07	4.608E-07	3.436E-07	2.681E-07	2.165E-07	
SSW	3.214E-05	1.079E-05	5.774E-06	2.888E-06	1.155E-06	6.226E-07	3.930E-07	2.732E-07	2.027E-07	1.575E-07	1.267E-07	
SW	1.685E-05	5.713E-06	3.029E-06	1.505E-06	5.984E-07	3.213E-07	2.022E-07	1.402E-07	1.038E-07	8.049E-08	6.464E-08	
WSW	1.294E-05	4.515E-06	2.426E-06	1.210E-06	4.767E-07	2.543E-07	1.592E-07	1.099E-07	8.108E-08	6.269E-08	5.020E-08	
W	1.728E-05	5.816E-06	3.061E-06	1.517E-06	6.061E-07	3.265E-07	2.059E-07	1.430E-07	1.060E-07	8.232E-08	6.617E-08	
WNW	1.804E-05	6.178E-06	3.358E-06	1.688E-06	6.678E-07	3.574E-07	2.243E-07	1.553E-07	1.147E-07	8.887E-08	7.129E-08	
NW	2.861E-05	9.692E-06	5.148E-06	2.560E-06	1.016E-06	5.448E-07	3.426E-07	2.374E-07	1.757E-07	1.362E-07	1.094E-07	
NNW	5.484E-05	1.749E-05	9.137E-06	4.551E-06	1.866E-06	1.024E-06	6.545E-07	4.598E-07	3.440E-07	2.692E-07	2.179E-07	
N	9.811E-05	3.049E-05	1.596E-05	8.000E-06	3.319E-06	1.834E-06	1.179E-06	8.321E-07	6.248E-07	4.905E-07	3.980E-07	
NNE	7.709E-05	2.344E-05	1.206E-05	6.010E-06	2.518E-06	1.400E-06	9.044E-07	6.402E-07	4.819E-07	3.791E-07	3.082E-07	
NE	3.235E-05	1.001E-05	5.225E-06	2.616E-06	1.084E-06	5.984E-07	3.844E-07	2.710E-07	2.033E-07	1.595E-07	1.294E-07	
ENE	3.624E-05	1.095E-05	5.584E-06	2.773E-06	1.167E-06	6.509E-07	4.213E-07	2.987E-07	2.252E-07	1.774E-07	1.443E-07	
E	2.732E-05	8.383E-06	4.339E-06	2.167E-06	9.032E-07	5.006E-07	3.225E-07	2.279E-07	1.713E-07	1.346E-07	1.093E-07	
ESE	3.909E-05	1.195E-05	6.117E-06	3.037E-06	1.270E-06	7.055E-07	4.553E-07	3.221E-07	2.423E-07	1.906E-07	1.549E-07	
SE	4.776E-05	1.497E-05	7.737E-06	3.845E-06	1.590E-06	8.769E-07	5.630E-07	3.967E-07	2.976E-07	2.334E-07	1.893E-07	
SSE	7.030E-05	2.192E-05	1.132E-05	5.624E-06	2.324E-06	1.281E-06	8.223E-07	5.792E-07	4.343E-07	3.405E-07	2.760E-07	

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	
S	1.795E-07	9.240E-08	5.963E-08	3.365E-08	2.230E-08	1.612E-08	1.231E-08	9.773E-09	7.976E-09	6.651E-09	5.641E-09	
SSW	1.047E-07	5.322E-08	3.406E-08	1.901E-08	1.250E-08	8.991E-09	6.840E-09	5.410E-09	4.403E-09	3.662E-09	3.099E-09	
SW	5.333E-08	2.696E-08	1.718E-08	9.530E-09	6.242E-09	4.473E-09	3.392E-09	2.675E-09	2.172E-09	1.802E-09	1.521E-09	
WSW	4.131E-08	2.069E-08	1.310E-08	7.200E-09	4.685E-09	3.341E-09	2.525E-09	1.986E-09	1.609E-09	1.333E-09	1.124E-09	
W	5.464E-08	2.769E-08	1.767E-08	9.812E-09	6.423E-09	4.598E-09	3.483E-09	2.744E-09	2.224E-09	1.843E-09	1.554E-09	
WNW	5.876E-08	2.961E-08	1.885E-08	1.045E-08	6.863E-09	4.933E-09	3.754E-09	2.972E-09	2.422E-09	2.018E-09	1.711E-09	
NW	9.026E-08	4.567E-08	2.915E-08	1.623E-08	1.067E-08	7.682E-09	5.852E-09	4.637E-09	3.781E-09	3.152E-09	2.673E-09	
NNW	1.811E-07	9.395E-08	6.094E-08	3.460E-08	2.300E-08	1.667E-08	1.275E-08	1.013E-08	8.272E-09	6.901E-09	5.855E-09	
N	3.315E-07	1.734E-07	1.132E-07	6.479E-08	4.334E-08	3.156E-08	2.425E-08	1.934E-08	1.585E-08	1.327E-08	1.129E-08	
NNE	2.570E-07	1.351E-07	8.831E-08	5.058E-08	3.378E-08	2.453E-08	1.879E-08	1.493E-08	1.219E-08	1.017E-08	8.619E-09	
NE	1.077E-07	5.619E-08	3.658E-08	2.087E-08	1.392E-08	1.011E-08	7.744E-09	6.160E-09	5.037E-09	4.206E-09	3.572E-09	
ENE	1.205E-07	6.352E-08	4.162E-08	2.390E-08	1.599E-08	1.163E-08	8.914E-09	7.090E-09	5.794E-09	4.834E-09	4.100E-09	
E	9.108E-08	4.774E-08	3.116E-08	1.783E-08	1.191E-08	8.660E-09	6.641E-09	5.285E-09	4.322E-09	3.610E-09	3.066E-09	
ESE	1.291E-07	6.780E-08	4.430E-08	2.536E-08	1.693E-08	1.230E-08	9.418E-09	7.485E-09	6.112E-09	5.097E-09	4.322E-09	
SE	1.575E-07	8.219E-08	5.351E-08	3.052E-08	2.035E-08	1.478E-08	1.133E-08	9.009E-09	7.366E-09	6.151E-09	5.224E-09	
SSE	2.296E-07	1.197E-07	7.779E-08	4.426E-08	2.944E-08	2.132E-08	1.630E-08	1.294E-08	1.055E-08	8.790E-09	7.447E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	9.057E-06	2.135E-06	6.801E-07	3.483E-07	2.181E-07	9.719E-08	3.438E-08	1.624E-08	9.814E-09	6.669E-09
SSW	5.606E-06	1.303E-06	4.063E-07	2.056E-07	1.277E-07	5.614E-08	1.946E-08	9.067E-09	5.435E-09	3.673E-09
SW	2.948E-06	6.767E-07	2.092E-07	1.053E-07	6.515E-08	2.847E-08	9.769E-09	4.512E-09	2.688E-09	1.807E-09
WSW	2.350E-06	5.408E-07	1.649E-07	8.232E-08	5.061E-08	2.190E-08	7.393E-09	3.373E-09	1.997E-09	1.337E-09
W	2.987E-06	6.843E-07	2.129E-07	1.076E-07	6.669E-08	2.923E-08	1.005E-08	4.639E-09	2.757E-09	1.849E-09
WNW	3.242E-06	7.565E-07	2.322E-07	1.165E-07	7.186E-08	3.130E-08	1.072E-08	4.976E-09	2.986E-09	2.024E-09
NW	5.007E-06	1.150E-06	3.544E-07	1.783E-07	1.103E-07	4.823E-08	1.663E-08	7.748E-09	4.658E-09	3.161E-09
NNW	8.955E-06	2.088E-06	6.750E-07	3.486E-07	2.195E-07	9.864E-08	3.530E-08	1.679E-08	1.017E-08	6.920E-09
N	1.565E-05	3.699E-06	1.215E-06	6.328E-07	4.008E-07	1.818E-07	6.601E-08	3.178E-08	1.941E-08	1.330E-08
NNE	1.190E-05	2.797E-06	9.310E-07	4.880E-07	3.103E-07	1.414E-07	5.149E-08	2.470E-08	1.499E-08	1.019E-08
NE	5.130E-06	1.209E-06	3.961E-07	2.060E-07	1.303E-07	5.891E-08	2.127E-08	1.018E-08	6.185E-09	4.217E-09
ENE	5.527E-06	1.294E-06	4.335E-07	2.280E-07	1.453E-07	6.644E-08	2.432E-08	1.171E-08	7.117E-09	4.847E-09
E	4.272E-06	1.005E-06	3.322E-07	1.735E-07	1.101E-07	5.000E-08	1.816E-08	8.720E-09	5.305E-09	3.619E-09
ESE	6.045E-06	1.412E-06	4.687E-07	2.454E-07	1.559E-07	7.098E-08	2.582E-08	1.238E-08	7.514E-09	5.111E-09
SE	7.614E-06	1.774E-06	5.802E-07	3.015E-07	1.906E-07	8.618E-08	3.111E-08	1.488E-08	9.045E-09	6.168E-09
SSE	1.114E-05	2.594E-06	8.475E-07	4.400E-07	2.780E-07	1.255E-07	4.512E-08	2.148E-08	1.299E-08	8.815E-09

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VENTS GROUND LEVEL RELEASES - JAN-DEC 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	DISTANCE IN MILES FROM THE SITE						
S	5.147E-05	1.596E-05	8.323E-06	4.119E-06	1.627E-06	8.662E-07	5.405E-07	3.717E-07	2.730E-07	2.101E-07	1.675E-07
SSW	3.046E-05	9.875E-06	5.163E-06	2.539E-06	9.875E-07	5.204E-07	3.221E-07	2.201E-07	1.608E-07	1.232E-07	9.787E-08
SW	1.597E-05	5.229E-06	2.708E-06	1.323E-06	5.118E-07	2.686E-07	1.658E-07	1.130E-07	8.240E-08	6.303E-08	4.998E-08
WSW	1.226E-05	4.132E-06	2.169E-06	1.063E-06	4.075E-07	2.124E-07	1.304E-07	8.848E-08	6.425E-08	4.898E-08	3.872E-08
W	1.638E-05	5.324E-06	2.737E-06	1.334E-06	5.186E-07	2.731E-07	1.689E-07	1.154E-07	8.424E-08	6.453E-08	5.123E-08
WNW	1.709E-05	5.652E-06	3.000E-06	1.483E-06	5.705E-07	2.983E-07	1.835E-07	1.248E-07	9.079E-08	6.932E-08	5.488E-08
NW	2.711E-05	8.867E-06	4.600E-06	2.249E-06	8.676E-07	4.546E-07	2.802E-07	1.909E-07	1.391E-07	1.063E-07	8.426E-08
NNW	5.197E-05	1.601E-05	8.174E-06	4.004E-06	1.597E-06	8.567E-07	5.374E-07	3.713E-07	2.737E-07	2.113E-07	1.690E-07
N	9.298E-05	2.792E-05	1.428E-05	7.038E-06	2.841E-06	1.535E-06	9.681E-07	6.716E-07	4.968E-07	3.847E-07	3.084E-07
NNE	7.308E-05	2.147E-05	1.080E-05	5.294E-06	2.159E-06	1.175E-06	7.446E-07	5.185E-07	3.848E-07	2.988E-07	2.400E-07
NE	3.066E-05	9.171E-06	4.676E-06	2.303E-06	9.284E-07	5.012E-07	3.159E-07	2.190E-07	1.619E-07	1.253E-07	1.004E-07
ENE	3.435E-05	1.003E-05	5.001E-06	2.443E-06	1.001E-06	5.461E-07	3.470E-07	2.421E-07	1.799E-07	1.399E-07	1.125E-07
E	2.590E-05	7.678E-06	3.884E-06	1.908E-06	7.738E-07	4.195E-07	2.652E-07	1.843E-07	1.365E-07	1.059E-07	8.494E-08
ESE	3.706E-05	1.095E-05	5.477E-06	2.675E-06	1.089E-06	5.916E-07	3.747E-07	2.608E-07	1.934E-07	1.501E-07	1.206E-07
SE	4.527E-05	1.371E-05	6.922E-06	3.383E-06	1.361E-06	7.341E-07	4.624E-07	3.205E-07	2.368E-07	1.833E-07	1.468E-07
SSE	6.663E-05	2.007E-05	1.013E-05	4.951E-06	1.991E-06	1.074E-06	6.761E-07	4.685E-07	3.462E-07	2.679E-07	2.146E-07

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	DISTANCE IN MILES FROM THE SITE						
S	1.373E-07	6.776E-08	4.223E-08	2.263E-08	1.444E-08	1.013E-08	7.547E-09	5.862E-09	4.694E-09	3.848E-09	3.212E-09
SSW	7.993E-08	3.892E-08	2.404E-08	1.272E-08	8.046E-09	5.609E-09	4.158E-09	3.216E-09	2.566E-09	2.097E-09	1.746E-09
SW	4.076E-08	1.974E-08	1.215E-08	6.397E-09	4.034E-09	2.805E-09	2.075E-09	1.603E-09	1.277E-09	1.042E-09	8.668E-10
WSW	3.149E-08	1.508E-08	9.208E-09	4.793E-09	2.995E-09	2.069E-09	1.522E-09	1.170E-09	9.286E-10	7.553E-10	6.263E-10
W	4.182E-08	2.032E-08	1.253E-08	6.617E-09	4.177E-09	2.907E-09	2.152E-09	1.662E-09	1.325E-09	1.081E-09	8.993E-10
WNW	4.469E-08	2.152E-08	1.319E-08	6.907E-09	4.342E-09	3.014E-09	2.227E-09	1.718E-09	1.368E-09	1.116E-09	9.281E-10
NW	6.869E-08	3.323E-08	2.043E-08	1.076E-08	6.786E-09	4.723E-09	3.497E-09	2.703E-09	2.156E-09	1.761E-09	1.466E-09
NNW	1.388E-07	6.910E-08	4.333E-08	2.341E-08	1.501E-08	1.057E-08	7.903E-09	6.154E-09	4.937E-09	4.054E-09	3.389E-09
N	2.539E-07	1.274E-07	8.029E-08	4.368E-08	2.815E-08	1.990E-08	1.491E-08	1.164E-08	9.361E-09	7.701E-09	6.450E-09
NNE	1.980E-07	1.000E-07	6.335E-08	3.466E-08	2.240E-08	1.587E-08	1.191E-08	9.302E-09	7.483E-09	6.157E-09	5.156E-09
NE	8.263E-08	4.139E-08	2.606E-08	1.416E-08	9.110E-09	6.433E-09	4.818E-09	3.757E-09	3.019E-09	2.482E-09	2.077E-09
ENE	9.287E-08	4.710E-08	2.989E-08	1.641E-08	1.063E-08	7.539E-09	5.665E-09	4.430E-09	3.567E-09	2.937E-09	2.461E-09
E	6.999E-08	3.523E-08	2.225E-08	1.214E-08	7.832E-09	5.541E-09	4.156E-09	3.245E-09	2.610E-09	2.147E-09	1.798E-09
ESE	9.942E-08	5.019E-08	3.176E-08	1.737E-08	1.122E-08	7.947E-09	5.964E-09	4.658E-09	3.747E-09	3.083E-09	2.582E-09
SE	1.208E-07	6.050E-08	3.809E-08	2.069E-08	1.332E-08	9.403E-09	7.042E-09	5.493E-09	4.413E-09	3.628E-09	3.036E-09
SSE	1.765E-07	8.836E-08	5.561E-08	3.018E-08	1.942E-08	1.370E-08	1.026E-08	7.995E-09	6.420E-09	5.274E-09	4.411E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	8.152E-06	1.843E-06	5.598E-07	2.773E-07	1.690E-07	7.187E-08	2.334E-08	1.025E-08	5.899E-09	3.863E-09
SSW	5.044E-06	1.125E-06	3.342E-07	1.634E-07	9.874E-08	4.142E-08	1.316E-08	5.678E-09	3.238E-09	2.106E-09
SW	2.653E-06	5.841E-07	1.721E-07	8.377E-08	5.043E-08	2.104E-08	6.625E-09	2.841E-09	1.614E-09	1.047E-09
WSW	2.114E-06	4.665E-07	1.355E-07	6.535E-08	3.908E-08	1.612E-08	4.975E-09	2.097E-09	1.179E-09	7.589E-10
W	2.689E-06	5.908E-07	1.753E-07	8.563E-08	5.168E-08	2.163E-08	6.847E-09	2.944E-09	1.674E-09	1.086E-09
WNW	2.915E-06	6.522E-07	1.906E-07	9.233E-08	5.539E-08	2.296E-08	7.162E-09	3.053E-09	1.730E-09	1.121E-09
NW	4.503E-06	9.910E-07	2.910E-07	1.414E-07	8.502E-08	3.542E-08	1.114E-08	4.783E-09	2.721E-09	1.769E-09
NNW	8.063E-06	1.803E-06	5.561E-07	2.778E-07	1.703E-07	7.313E-08	2.410E-08	1.069E-08	6.190E-09	4.069E-09
N	1.409E-05	3.193E-06	1.001E-06	5.040E-07	3.108E-07	1.346E-07	4.491E-08	2.010E-08	1.171E-08	7.729E-09
NNE	1.072E-05	2.418E-06	7.688E-07	3.902E-07	2.418E-07	1.055E-07	3.559E-08	1.603E-08	9.354E-09	6.179E-09
NE	4.620E-06	1.044E-06	3.266E-07	1.643E-07	1.012E-07	4.374E-08	1.456E-08	6.501E-09	3.779E-09	2.491E-09
ENE	4.982E-06	1.119E-06	3.581E-07	1.824E-07	1.133E-07	4.962E-08	1.684E-08	7.613E-09	4.454E-09	2.947E-09
E	3.849E-06	8.683E-07	2.740E-07	1.385E-07	8.561E-08	3.719E-08	1.247E-08	5.598E-09	3.263E-09	2.155E-09
ESE	5.447E-06	1.220E-06	3.870E-07	1.962E-07	1.215E-07	5.294E-08	1.783E-08	8.027E-09	4.684E-09	3.094E-09
SE	6.856E-06	1.532E-06	4.781E-07	2.403E-07	1.480E-07	6.395E-08	2.128E-08	9.502E-09	5.524E-09	3.641E-09
SSE	1.004E-05	2.241E-06	6.991E-07	3.513E-07	2.163E-07	9.340E-08	3.105E-08	1.385E-08	8.042E-09	5.294E-09

VENTS GROUND LEVEL RELEASES - JAN-DEC 2022
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION		DISTANCES IN MILES										
FROM SITE		.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S		2.246E-07	7.596E-08	3.900E-08	1.854E-08	6.660E-09	3.303E-09	1.945E-09	1.273E-09	8.961E-10	6.641E-10	5.117E-10
SSW		1.349E-07	4.560E-08	2.341E-08	1.113E-08	3.999E-09	1.983E-09	1.168E-09	7.645E-10	5.380E-10	3.987E-10	3.072E-10
SW		5.731E-08	1.938E-08	9.951E-09	4.731E-09	1.699E-09	8.427E-10	4.962E-10	3.249E-10	2.286E-10	1.694E-10	1.306E-10
WSW		5.153E-08	1.743E-08	8.947E-09	4.254E-09	1.528E-09	7.577E-10	4.462E-10	2.921E-10	2.056E-10	1.523E-10	1.174E-10
W		6.003E-08	2.030E-08	1.042E-08	4.955E-09	1.780E-09	8.826E-10	5.197E-10	3.403E-10	2.395E-10	1.775E-10	1.368E-10
WNW		8.522E-08	2.882E-08	1.480E-08	7.035E-09	2.527E-09	1.253E-09	7.379E-10	4.832E-10	3.400E-10	2.519E-10	1.942E-10
NW		1.660E-07	5.613E-08	2.882E-08	1.370E-08	4.921E-09	2.441E-09	1.437E-09	9.410E-10	6.621E-10	4.907E-10	3.781E-10
NNW		1.896E-07	6.410E-08	3.291E-08	1.565E-08	5.621E-09	2.787E-09	1.641E-09	1.075E-09	7.562E-10	5.604E-10	4.319E-10
N		3.554E-07	1.202E-07	6.171E-08	2.934E-08	1.054E-08	5.226E-09	3.077E-09	2.015E-09	1.418E-09	1.051E-09	8.098E-10
NNE		1.963E-07	6.638E-08	3.408E-08	1.620E-08	5.820E-09	2.886E-09	1.699E-09	1.113E-09	7.830E-10	5.803E-10	4.472E-10
NE		9.362E-08	3.166E-08	1.625E-08	7.728E-09	2.776E-09	1.377E-09	8.106E-10	5.308E-10	3.735E-10	2.768E-10	2.133E-10
ENE		7.515E-08	2.541E-08	1.305E-08	6.203E-09	2.228E-09	1.105E-09	6.507E-10	4.261E-10	2.998E-10	2.222E-10	1.712E-10
E		7.107E-08	2.403E-08	1.234E-08	5.866E-09	2.107E-09	1.045E-09	6.153E-10	4.029E-10	2.835E-10	2.101E-10	1.619E-10
ESE		1.059E-07	3.579E-08	1.838E-08	8.737E-09	3.139E-09	1.556E-09	9.165E-10	6.001E-10	4.223E-10	3.129E-10	2.412E-10
SE		1.888E-07	6.385E-08	3.279E-08	1.559E-08	5.599E-09	2.777E-09	1.635E-09	1.071E-09	7.533E-10	5.582E-10	4.302E-10
SSE		2.607E-07	8.815E-08	4.526E-08	2.152E-08	7.729E-09	3.833E-09	2.257E-09	1.478E-09	1.040E-09	7.706E-10	5.939E-10
DIRECTION		DISTANCES IN MILES										
FROM SITE		5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S		4.065E-10	1.806E-10	1.094E-10	5.530E-11	3.347E-11	2.244E-11	1.608E-11	1.207E-11	9.388E-12	7.499E-12	6.121E-12
SSW		2.441E-10	1.084E-10	6.568E-11	3.320E-11	2.009E-11	1.347E-11	9.653E-12	7.249E-12	5.636E-12	4.502E-12	3.675E-12
SW		1.037E-10	4.608E-11	2.791E-11	1.411E-11	8.539E-12	5.725E-12	4.103E-12	3.081E-12	2.395E-12	1.913E-12	1.562E-12
WSW		9.327E-11	4.143E-11	2.510E-11	1.269E-11	7.678E-12	5.148E-12	3.689E-12	2.770E-12	2.154E-12	1.720E-12	1.404E-12
W		1.086E-10	4.826E-11	2.924E-11	1.478E-11	8.944E-12	5.997E-12	4.297E-12	3.226E-12	2.509E-12	2.004E-12	1.636E-12
WNW		1.542E-10	6.852E-11	4.151E-11	2.098E-11	1.270E-11	8.514E-12	6.101E-12	4.581E-12	3.562E-12	2.845E-12	2.322E-12
NW		3.004E-10	1.334E-10	8.084E-11	4.086E-11	2.473E-11	1.658E-11	1.188E-11	8.921E-12	6.937E-12	5.541E-12	4.523E-12
NNW		3.431E-10	1.524E-10	9.233E-11	4.667E-11	2.824E-11	1.894E-11	1.357E-11	1.019E-11	7.922E-12	6.329E-12	5.166E-12
N		6.433E-10	2.858E-10	1.731E-10	8.750E-11	5.296E-11	3.551E-11	2.544E-11	1.911E-11	1.485E-11	1.187E-11	9.685E-12
NNE		3.553E-10	1.578E-10	9.560E-11	4.832E-11	2.925E-11	1.961E-11	1.405E-11	1.055E-11	8.203E-12	6.553E-12	5.349E-12
NE		1.694E-10	7.527E-11	4.560E-11	2.305E-11	1.395E-11	9.353E-12	6.702E-12	5.032E-12	3.913E-12	3.125E-12	2.551E-12
ENE		1.360E-10	6.042E-11	3.660E-11	1.850E-11	1.120E-11	7.508E-12	5.380E-12	4.040E-12	3.141E-12	2.509E-12	2.048E-12
E		1.286E-10	5.714E-11	3.461E-11	1.750E-11	1.059E-11	7.100E-12	5.087E-12	3.820E-12	2.970E-12	2.373E-12	1.937E-12
ESE		1.916E-10	8.511E-11	5.155E-11	2.606E-11	1.577E-11	1.057E-11	7.577E-12	5.690E-12	4.424E-12	3.534E-12	2.884E-12
SE		3.418E-10	1.518E-10	9.197E-11	4.648E-11	2.813E-11	1.886E-11	1.352E-11	1.015E-11	7.892E-12	6.304E-12	5.145E-12
SSE		4.718E-10	2.096E-10	1.270E-10	6.417E-11	3.884E-11	2.604E-11	1.866E-11	1.401E-11	1.089E-11	8.702E-12	7.103E-12

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***** RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS *****											
DIRECTION		SEGMENT BOUNDARIES IN MILES									
FROM SITE		.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S		3.812E-08	7.808E-09	2.038E-09	9.155E-10	5.179E-10	1.992E-10	5.762E-11	2.284E-11	1.219E-11	7.548E-12
SSW		2.289E-08	4.688E-09	1.224E-09	5.496E-10	3.109E-10	1.196E-10	3.459E-11	1.371E-11	7.321E-12	4.532E-12
SW		9.726E-09	1.992E-09	5.201E-10	2.336E-10	1.321E-10	5.082E-11	1.470E-11	5.827E-12	3.112E-12	1.926E-12
WSW		8.745E-09	1.791E-09	4.676E-10	2.100E-10	1.188E-10	4.569E-11	1.322E-11	5.239E-12	2.798E-12	1.732E-12
W		1.019E-08	2.087E-09	5.447E-10	2.446E-10	1.384E-10	5.322E-11	1.540E-11	6.103E-12	3.259E-12	2.017E-12
WNW		1.446E-08	2.963E-09	7.734E-10	3.473E-10	1.965E-10	7.556E-11	2.186E-11	8.664E-12	4.627E-12	2.864E-12
NW		2.817E-08	5.770E-09	1.506E-09	6.765E-10	3.827E-10	1.472E-10	4.257E-11	1.687E-11	9.011E-12	5.577E-12
NNW		3.217E-08	6.590E-09	1.720E-09	7.726E-10	4.371E-10	1.681E-10	4.863E-11	1.927E-11	1.029E-11	6.370E-12
N		6.032E-08	1.236E-08	3.226E-09	1.449E-09	8.195E-10	3.152E-10	9.117E-11	3.614E-11	1.930E-11	1.194E-11
NNE		3.331E-08	6.823E-09	1.781E-09	8.000E-10	4.526E-10	1.740E-10	5.035E-11	1.996E-11	1.066E-11	6.596E-12
NE		1.589E-08	3.254E-09	8.496E-10	3.816E-10	2.159E-10	8.301E-11	2.401E-11	9.518E-12	5.083E-12	3.146E-12
ENE		1.275E-08	2.612E-09	6.820E-10	3.063E-10	1.733E-10	6.664E-11	1.928E-11	7.640E-12	4.080E-12	2.525E-12
E		1.206E-08	2.470E-09	6.449E-10	2.897E-10	1.639E-10	6.301E-11	1.823E-11	7.225E-12	3.858E-12	2.388E-12
ESE		1.796E-08	3.680E-09	9.606E-10	4.314E-10	2.441E-10	9.386E-11	2.715E-11	1.076E-11	5.747E-12	3.557E-12
SE		3.205E-08	6.564E-09	1.714E-09	7.696E-10	4.354E-10	1.674E-10	4.844E-11	1.920E-11	1.025E-11	6.345E-12
SSE		4.424E-08	9.061E-09	2.366E-09	1.062E-09	6.010E-10	2.311E-10	6.686E-11	2.650E-11	1.415E-11	8.759E-12

VENTS GROUND LEVEL RELEASES - JAN-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	X/Q (SEC/M3) NO DEPLETION	X/Q (SEC/M3) UNDEPLETED	X/Q (SEC/M3) DEPLETED	D/Q (PER SQ.METER)
A	Site Boundary	S	.80 8.1E-06	8.0E-06	7.1E-06	3.3E-08
A	Site Boundary	SSW	.82 4.6E-06	4.6E-06	4.1E-06	1.8E-08
A	Site Boundary	SW	.97 1.6E-06	1.6E-06	1.4E-06	5.1E-09
A	Site Boundary	WSW	.93 1.5E-06	1.5E-06	1.3E-06	5.2E-09
A	Site Boundary	W	.91 1.9E-06	1.9E-06	1.7E-06	6.3E-09
A	Site Boundary	WNW	.94 2.0E-06	2.0E-06	1.7E-06	8.3E-09
A	Site Boundary	NW	.81 4.3E-06	4.3E-06	3.8E-06	2.4E-08
A	Site Boundary	NNW	.69 1.1E-05	1.0E-05	9.4E-06	3.8E-08
A	Site Boundary	N	.67 1.9E-05	1.9E-05	1.7E-05	7.4E-08
A	Site Boundary	NNE	.60 1.7E-05	1.7E-05	1.6E-05	4.9E-08
A	Site Boundary	NE	.62 7.0E-06	6.9E-06	6.3E-06	2.2E-08
A	Site Boundary	ENE	.59 8.4E-06	8.4E-06	7.6E-06	2.0E-08
A	Site Boundary	E	.53 7.7E-06	7.7E-06	7.0E-06	2.2E-08
A	Site Boundary	ESE	.54 1.1E-05	1.1E-05	9.6E-06	3.2E-08
A	Site Boundary	SE	.65 9.8E-06	9.7E-06	8.7E-06	4.2E-08
A	Site Boundary	SSE	.81 9.4E-06	9.3E-06	8.3E-06	3.7E-08
A	Nearest Res	SW	1.30 8.3E-07	8.2E-07	7.1E-07	2.4E-09
A	Nearest Res	WSW	1.80 3.2E-07	3.2E-07	2.7E-07	9.8E-10
A	Nearest Res	WNW	2.40 2.5E-07	2.4E-07	2.0E-07	8.1E-10
A	Nearest Res	NW	.90 3.3E-06	3.3E-06	2.9E-06	1.8E-08
A	Nearest Res	NNW	1.90 1.2E-06	1.1E-06	9.6E-07	3.2E-09
A	Nearest Res	NE	1.60 9.6E-07	9.5E-07	8.1E-07	2.4E-09
A	Nearest Res	E	2.00 5.1E-07	5.0E-07	4.2E-07	1.0E-09
A	Nearest Cow	NNW	3.50 3.5E-07	3.4E-07	2.7E-07	7.6E-10
A	Nearest Garde	SW	2.20 2.7E-07	2.6E-07	2.2E-07	6.7E-10
A	Nearest Garde	WSW	1.80 3.2E-07	3.2E-07	2.7E-07	9.8E-10
A	Nearest Garde	WNW	2.60 2.1E-07	2.1E-07	1.7E-07	6.7E-10
A	Nearest Garde	NW	1.90 6.1E-07	6.1E-07	5.1E-07	2.8E-09
A	Nearest Garde	NNW	2.80 5.4E-07	5.3E-07	4.3E-07	1.3E-09
A	Nearest Garde	ENE	1.70 9.2E-07	9.0E-07	7.7E-07	1.6E-09
A	Nearest Garde	ESE	2.30 5.5E-07	5.4E-07	4.4E-07	1.1E-09

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Atmospheric Diffusion Estimates

Elevated Releases

January-March 2022

ERP ELEVATED STACK RELEASES - JAN-MAR 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.123E-15	2.566E-09	3.746E-08	6.916E-08	8.274E-08	7.200E-08	5.920E-08	4.859E-08	4.038E-08	4.406E-08	4.469E-08
SSW	1.194E-15	1.136E-09	1.921E-08	3.862E-08	5.168E-08	4.827E-08	4.167E-08	4.664E-08	4.767E-08	4.115E-08	3.587E-08
SW	3.748E-16	3.949E-10	1.582E-08	4.402E-08	7.590E-08	5.130E-08	3.679E-08	2.778E-08	2.184E-08	1.772E-08	1.475E-08
WSW	2.973E-11	1.831E-09	1.244E-08	3.073E-08	4.992E-08	3.169E-08	2.199E-08	1.627E-08	1.262E-08	1.014E-08	8.381E-09
W	2.907E-14	3.997E-09	3.468E-08	5.974E-08	6.915E-08	4.513E-08	3.185E-08	2.385E-08	1.867E-08	1.513E-08	1.258E-08
WNW	6.013E-15	1.498E-09	2.774E-08	7.612E-08	1.336E-07	8.348E-08	5.716E-08	4.362E-08	3.451E-08	2.731E-08	2.229E-08
NW	4.763E-16	3.188E-10	1.640E-08	5.442E-08	1.229E-07	7.394E-08	4.970E-08	3.680E-08	2.859E-08	2.263E-08	1.847E-08
NNW	7.392E-16	7.111E-10	2.144E-08	5.571E-08	1.027E-07	1.086E-07	1.047E-07	9.592E-08	8.735E-08	6.911E-08	5.642E-08
N	1.329E-15	9.779E-10	1.523E-08	3.036E-08	4.221E-08	4.230E-08	3.848E-08	3.338E-08	2.901E-08	2.542E-08	2.248E-08
NNE	9.423E-16	7.946E-10	1.301E-08	2.595E-08	3.453E-08	3.222E-08	2.789E-08	2.388E-08	2.057E-08	1.791E-08	1.579E-08
NE	6.941E-16	6.409E-10	1.057E-08	2.099E-08	2.790E-08	2.611E-08	2.270E-08	1.950E-08	1.685E-08	1.471E-08	1.299E-08
ENE	1.153E-08	3.905E-09	1.202E-08	2.390E-08	3.332E-08	3.164E-08	2.754E-08	2.357E-08	2.024E-08	1.754E-08	1.538E-08
E	2.924E-16	3.896E-10	7.067E-09	1.437E-08	1.894E-08	1.739E-08	1.487E-08	1.261E-08	1.079E-08	9.348E-09	8.208E-09
ESE	7.648E-09	2.661E-09	1.006E-08	2.007E-08	2.767E-08	2.613E-08	2.266E-08	1.933E-08	1.656E-08	1.431E-08	1.251E-08
SE	3.071E-15	2.069E-09	3.037E-08	5.658E-08	6.971E-08	6.247E-08	5.267E-08	4.417E-08	3.739E-08	3.206E-08	2.784E-08
SSE	5.903E-15	3.934E-09	5.729E-08	1.060E-07	1.291E-07	1.145E-07	9.576E-08	7.977E-08	6.713E-08	5.726E-08	4.951E-08

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.870E-08	2.253E-08	1.430E-08	7.930E-09	5.314E-09	3.889E-09	2.986E-09	2.391E-09	1.979E-09	1.675E-09	1.440E-09
SSW	3.225E-08	2.035E-08	1.295E-08	7.217E-09	4.855E-09	3.540E-09	2.726E-09	2.187E-09	1.808E-09	1.529E-09	1.317E-09
SW	1.334E-08	9.701E-09	6.371E-09	3.704E-09	2.658E-09	2.046E-09	1.658E-09	1.346E-09	1.124E-09	9.591E-10	8.328E-10
WSW	7.374E-09	4.755E-09	3.357E-09	2.059E-09	1.381E-09	1.016E-09	7.914E-10	6.414E-10	5.350E-10	4.562E-10	3.958E-10
W	1.069E-08	5.961E-09	4.373E-09	2.956E-09	2.239E-09	1.667E-09	1.305E-09	1.063E-09	8.899E-10	7.615E-10	6.628E-10
WNW	1.877E-08	1.013E-08	6.693E-09	3.887E-09	2.614E-09	1.922E-09	1.497E-09	1.210E-09	1.006E-09	8.553E-10	7.397E-10
NW	1.560E-08	8.539E-09	5.731E-09	3.394E-09	2.282E-09	1.681E-09	1.322E-09	1.074E-09	8.956E-10	7.634E-10	6.620E-10
NNW	4.822E-08	2.745E-08	1.790E-08	1.034E-08	7.024E-09	5.214E-09	4.126E-09	3.385E-09	2.874E-09	2.468E-09	2.147E-09
N	2.012E-08	1.320E-08	1.140E-08	9.873E-09	8.868E-09	7.555E-09	5.973E-09	4.878E-09	4.091E-09	3.505E-09	3.054E-09
NNE	1.794E-08	3.807E-08	2.505E-08	1.468E-08	1.008E-08	7.552E-09	5.972E-09	4.901E-09	4.133E-09	3.558E-09	3.113E-09
NE	1.488E-08	2.703E-08	1.768E-08	1.028E-08	7.024E-09	5.239E-09	4.175E-09	3.441E-09	2.911E-09	2.498E-09	2.179E-09
ENE	1.633E-08	2.362E-08	1.561E-08	9.155E-09	6.282E-09	4.696E-09	3.873E-09	3.253E-09	2.730E-09	2.340E-09	2.039E-09
E	8.949E-09	1.682E-08	1.125E-08	6.713E-09	4.657E-09	3.510E-09	2.788E-09	2.296E-09	2.020E-09	1.790E-09	1.565E-09
ESE	1.287E-08	1.739E-08	1.172E-08	7.049E-09	4.911E-09	3.711E-09	2.952E-09	2.434E-09	2.060E-09	1.779E-09	1.560E-09
SE	2.446E-08	1.503E-08	1.161E-08	8.252E-09	5.968E-09	4.633E-09	3.763E-09	3.153E-09	2.634E-09	2.247E-09	1.950E-09
SSE	5.173E-08	5.088E-08	3.243E-08	1.816E-08	1.208E-08	8.826E-09	6.837E-09	5.514E-09	4.580E-09	3.890E-09	3.363E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.380E-08	7.495E-08	5.837E-08	4.413E-08	4.229E-08	2.247E-08	8.182E-09	3.908E-09	2.404E-09	1.678E-09
SSW	2.382E-08	4.726E-08	4.542E-08	4.489E-08	3.609E-08	1.971E-08	7.442E-09	3.565E-09	2.196E-09	1.533E-09
SW	2.493E-08	5.788E-08	3.705E-08	2.197E-08	1.511E-08	9.029E-09	3.832E-09	2.054E-09	1.350E-09	9.611E-10
WSW	1.821E-08	3.756E-08	2.229E-08	1.272E-08	8.530E-09	4.715E-09	2.046E-09	1.024E-09	6.438E-10	4.572E-10
W	3.900E-08	5.638E-08	3.219E-08	1.880E-08	1.263E-08	6.306E-09	2.952E-09	1.675E-09	1.066E-09	7.630E-10
WNW	4.341E-08	9.856E-08	5.876E-08	3.437E-08	2.247E-08	1.052E-08	3.945E-09	1.936E-09	1.214E-09	8.573E-10
NW	2.973E-08	8.592E-08	5.100E-08	2.866E-08	1.864E-08	8.860E-09	3.419E-09	1.698E-09	1.077E-09	7.650E-10
NNW	3.206E-08	9.488E-08	1.022E-07	8.285E-08	5.714E-08	2.782E-08	1.054E-08	5.261E-09	3.402E-09	2.469E-09
N	1.879E-08	3.962E-08	3.746E-08	2.889E-08	2.247E-08	1.394E-08	9.766E-09	7.272E-09	4.891E-09	3.512E-09
NNE	1.605E-08	3.160E-08	2.744E-08	2.050E-08	1.721E-08	2.781E-08	1.494E-08	7.595E-09	4.915E-09	3.564E-09
NE	1.299E-08	2.557E-08	2.233E-08	1.679E-08	1.420E-08	2.018E-08	1.048E-08	5.289E-09	3.449E-09	2.502E-09
ENE	1.550E-08	3.048E-08	2.704E-08	2.016E-08	1.637E-08	1.844E-08	9.312E-09	4.790E-09	3.231E-09	2.344E-09
E	8.827E-09	1.723E-08	1.464E-08	1.076E-08	8.820E-09	1.260E-08	6.808E-09	3.527E-09	2.332E-09	1.775E-09
ESE	1.286E-08	2.530E-08	2.225E-08	1.649E-08	1.318E-08	1.387E-08	7.137E-09	3.727E-09	2.440E-09	1.781E-09
SE	3.573E-08	6.358E-08	5.188E-08	3.730E-08	2.784E-08	1.561E-08	7.984E-09	4.641E-09	3.130E-09	2.252E-09
SSE	6.710E-08	1.175E-07	9.436E-08	6.698E-08	5.263E-08	4.287E-08	1.863E-08	8.899E-09	5.536E-09	3.899E-09

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ERP ELEVATED STACK RELEASES - JAN-MAR 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.123E-15	2.565E-09	3.743E-08	6.910E-08	8.261E-08	7.184E-08	5.904E-08	4.843E-08	4.022E-08	4.386E-08	4.445E-08
SSW	1.194E-15	1.135E-09	1.919E-08	3.856E-08	5.154E-08	4.810E-08	4.149E-08	4.639E-08	4.737E-08	4.086E-08	3.559E-08
SW	3.747E-16	3.946E-10	1.580E-08	4.393E-08	7.566E-08	5.108E-08	3.659E-08	2.759E-08	2.166E-08	1.756E-08	1.460E-08
WSW	2.972E-11	1.830E-09	1.242E-08	3.065E-08	4.971E-08	3.151E-08	2.183E-08	1.613E-08	1.249E-08	1.003E-08	8.272E-09
W	2.906E-14	3.992E-09	3.460E-08	5.956E-08	6.886E-08	4.489E-08	3.163E-08	2.366E-08	1.851E-08	1.497E-08	1.244E-08
WNW	6.012E-15	1.498E-09	2.770E-08	7.597E-08	1.332E-07	8.311E-08	5.684E-08	4.333E-08	3.424E-08	2.707E-08	2.206E-08
NW	4.762E-16	3.187E-10	1.639E-08	5.436E-08	1.226E-07	7.370E-08	4.949E-08	3.662E-08	2.842E-08	2.248E-08	1.833E-08
NNW	7.390E-16	7.106E-10	2.142E-08	5.563E-08	1.025E-07	1.083E-07	1.043E-07	9.547E-08	8.687E-08	6.867E-08	5.602E-08
N	1.329E-15	9.774E-10	1.522E-08	3.032E-08	4.213E-08	4.219E-08	3.836E-08	3.325E-08	2.889E-08	2.529E-08	2.236E-08
NNE	9.421E-16	7.941E-10	1.300E-08	2.591E-08	3.444E-08	3.211E-08	2.778E-08	2.376E-08	2.045E-08	1.779E-08	1.567E-08
NE	6.940E-16	6.405E-10	1.056E-08	2.096E-08	2.784E-08	2.604E-08	2.262E-08	1.942E-08	1.677E-08	1.463E-08	1.292E-08
ENE	1.152E-08	3.903E-09	1.200E-08	2.385E-08	3.320E-08	3.148E-08	2.737E-08	2.340E-08	2.007E-08	1.738E-08	1.521E-08
E	2.923E-16	3.893E-10	7.058E-09	1.434E-08	1.889E-08	1.733E-08	1.481E-08	1.255E-08	1.073E-08	9.286E-09	8.146E-09
ESE	7.646E-09	2.660E-09	1.004E-08	2.002E-08	2.758E-08	2.600E-08	2.252E-08	1.919E-08	1.641E-08	1.417E-08	1.237E-08
SE	3.070E-15	2.068E-09	3.035E-08	5.652E-08	6.961E-08	6.233E-08	5.252E-08	4.402E-08	3.724E-08	3.190E-08	2.768E-08
SSE	5.902E-15	3.933E-09	5.725E-08	1.059E-07	1.289E-07	1.143E-07	9.551E-08	7.952E-08	6.688E-08	5.701E-08	4.928E-08

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.847E-08	2.232E-08	1.412E-08	7.780E-09	5.179E-09	3.764E-09	2.871E-09	2.283E-09	1.878E-09	1.578E-09	1.348E-09
SSW	3.196E-08	2.008E-08	1.272E-08	7.030E-09	4.688E-09	3.389E-09	2.587E-09	2.058E-09	1.687E-09	1.415E-09	1.209E-09
SW	1.318E-08	9.483E-09	6.177E-09	3.531E-09	2.485E-09	1.876E-09	1.490E-09	1.187E-09	9.736E-10	8.159E-10	6.956E-10
WSW	7.269E-09	4.657E-09	3.266E-09	1.978E-09	1.310E-09	9.513E-10	7.318E-10	5.857E-10	4.825E-10	4.064E-10	3.483E-10
W	1.055E-08	5.852E-09	4.270E-09	2.856E-09	2.140E-09	1.576E-09	1.221E-09	9.839E-10	8.155E-10	6.907E-10	5.950E-10
WNW	1.856E-08	9.966E-09	6.546E-09	3.760E-09	2.502E-09	1.821E-09	1.403E-09	1.123E-09	9.245E-10	7.779E-10	6.662E-10
NW	1.547E-08	8.431E-09	5.634E-09	3.309E-09	2.206E-09	1.611E-09	1.257E-09	1.013E-09	8.376E-10	7.082E-10	6.092E-10
NNW	4.783E-08	2.712E-08	1.761E-08	1.009E-08	6.797E-09	5.004E-09	3.928E-09	3.196E-09	2.692E-09	2.293E-09	1.978E-09
N	1.999E-08	1.309E-08	1.127E-08	9.701E-09	8.663E-09	7.337E-09	5.767E-09	4.683E-09	3.905E-09	3.326E-09	2.881E-09
NNE	1.780E-08	3.761E-08	2.464E-08	1.432E-08	9.758E-09	7.250E-09	5.687E-09	4.630E-09	3.873E-09	3.307E-09	2.871E-09
NE	1.478E-08	2.673E-08	1.742E-08	1.005E-08	6.814E-09	5.044E-09	3.989E-09	3.262E-09	2.739E-09	2.332E-09	2.019E-09
ENE	1.614E-08	2.333E-08	1.536E-08	8.942E-09	6.091E-09	4.522E-09	3.705E-09	3.091E-09	2.577E-09	2.194E-09	1.900E-09
E	8.875E-09	1.661E-08	1.107E-08	6.551E-09	4.509E-09	3.372E-09	2.657E-09	2.172E-09	1.896E-09	1.667E-09	1.447E-09
ESE	1.272E-08	1.714E-08	1.150E-08	6.858E-09	4.737E-09	3.550E-09	2.802E-09	2.292E-09	1.924E-09	1.648E-09	1.434E-09
SE	2.431E-08	1.488E-08	1.146E-08	8.078E-09	5.799E-09	4.468E-09	3.603E-09	2.997E-09	2.484E-09	2.105E-09	1.813E-09
SSE	5.145E-08	5.043E-08	3.204E-08	1.784E-08	1.180E-08	8.564E-09	6.593E-09	5.285E-09	4.363E-09	3.683E-09	3.164E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.376E-08	7.482E-08	5.821E-08	4.395E-08	4.206E-08	2.227E-08	8.033E-09	3.784E-09	2.297E-09	1.582E-09
SSW	2.379E-08	4.713E-08	4.521E-08	4.461E-08	3.581E-08	1.945E-08	7.254E-09	3.415E-09	2.068E-09	1.419E-09
SW	2.488E-08	5.769E-08	3.685E-08	2.179E-08	1.495E-08	8.834E-09	3.654E-09	1.884E-09	1.192E-09	8.181E-10
WSW	1.817E-08	3.739E-08	2.213E-08	1.259E-08	8.420E-09	4.619E-09	1.967E-09	9.592E-10	5.881E-10	4.074E-10
W	3.889E-08	5.614E-08	3.198E-08	1.863E-08	1.249E-08	6.193E-09	2.852E-09	1.585E-09	9.875E-10	6.922E-10
WNW	4.333E-08	9.822E-08	5.844E-08	3.411E-08	2.225E-08	1.036E-08	3.820E-09	1.835E-09	1.127E-09	7.800E-10
NW	2.969E-08	8.570E-08	5.080E-08	2.850E-08	1.850E-08	8.753E-09	3.336E-09	1.628E-09	1.016E-09	7.099E-10
NNW	3.202E-08	9.466E-08	1.018E-07	8.239E-08	5.673E-08	2.750E-08	1.030E-08	5.052E-09	3.213E-09	2.294E-09
N	1.877E-08	3.953E-08	3.734E-08	2.877E-08	2.235E-08	1.381E-08	9.588E-09	7.063E-09	4.696E-09	3.333E-09
NNE	1.603E-08	3.151E-08	2.732E-08	2.038E-08	1.709E-08	2.744E-08	1.459E-08	7.294E-09	4.643E-09	3.313E-09
NE	1.298E-08	2.551E-08	2.225E-08	1.671E-08	1.412E-08	1.994E-08	1.025E-08	5.094E-09	3.270E-09	2.337E-09
ENE	1.547E-08	3.036E-08	2.688E-08	2.000E-08	1.620E-08	1.819E-08	9.100E-09	4.614E-09	3.071E-09	2.198E-09
E	8.813E-09	1.719E-08	1.458E-08	1.070E-08	8.754E-09	1.243E-08	6.648E-09	3.389E-09	2.206E-09	1.653E-09
ESE	1.284E-08	2.520E-08	2.212E-08	1.635E-08	1.303E-08	1.365E-08	6.948E-09	3.567E-09	2.297E-09	1.651E-09
SE	3.570E-08	6.347E-08	5.174E-08	3.714E-08	2.768E-08	1.545E-08	7.816E-09	4.477E-09	2.975E-09	2.109E-09
SSE	6.704E-08	1.173E-07	9.411E-08	6.673E-08	5.237E-08	4.248E-08	1.831E-08	8.637E-09	5.308E-09	3.692E-09

B284

ERP ELEVATED STACK RELEASES - JAN-MAR 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	4.123E-15	2.566E-09	3.745E-08	6.915E-08	8.196E-08	7.066E-08	5.759E-08	4.689E-08	3.868E-08	4.204E-08	4.250E-08
SSW	1.194E-15	1.136E-09	1.921E-08	3.860E-08	5.121E-08	4.744E-08	4.066E-08	4.532E-08	4.617E-08	3.968E-08	3.445E-08
SW	3.747E-16	3.948E-10	1.582E-08	4.399E-08	7.507E-08	5.029E-08	3.580E-08	2.686E-08	2.101E-08	1.697E-08	1.406E-08
WSW	2.973E-11	1.815E-09	1.236E-08	3.061E-08	4.920E-08	3.090E-08	2.125E-08	1.561E-08	1.203E-08	9.616E-09	7.906E-09
W	2.906E-14	3.996E-09	3.458E-08	5.948E-08	6.836E-08	4.435E-08	3.114E-08	2.323E-08	1.812E-08	1.463E-08	1.214E-08
WNW	6.013E-15	1.498E-09	2.768E-08	7.574E-08	1.326E-07	8.244E-08	5.625E-08	4.282E-08	3.380E-08	2.666E-08	2.165E-08
NW	4.763E-16	3.188E-10	1.639E-08	5.419E-08	1.218E-07	7.295E-08	4.885E-08	3.608E-08	2.796E-08	2.205E-08	1.791E-08
NNW	7.392E-16	7.109E-10	2.144E-08	5.568E-08	1.019E-07	1.073E-07	1.032E-07	9.439E-08	8.590E-08	6.768E-08	5.499E-08
N	1.329E-15	9.778E-10	1.523E-08	3.035E-08	4.187E-08	4.170E-08	3.775E-08	3.260E-08	2.824E-08	2.466E-08	2.175E-08
NNE	9.422E-16	7.945E-10	1.301E-08	2.594E-08	3.422E-08	3.167E-08	2.722E-08	2.316E-08	1.984E-08	1.720E-08	1.509E-08
NE	6.941E-16	6.408E-10	1.056E-08	2.098E-08	2.765E-08	2.569E-08	2.219E-08	1.896E-08	1.630E-08	1.418E-08	1.248E-08
ENE	1.153E-08	3.875E-09	1.199E-08	2.387E-08	3.299E-08	3.106E-08	2.683E-08	2.280E-08	1.946E-08	1.677E-08	1.463E-08
E	2.924E-16	3.895E-10	7.064E-09	1.436E-08	1.876E-08	1.708E-08	1.449E-08	1.221E-08	1.038E-08	8.948E-09	7.821E-09
ESE	7.648E-09	2.641E-09	1.004E-08	2.004E-08	2.740E-08	2.565E-08	2.207E-08	1.870E-08	1.591E-08	1.367E-08	1.189E-08
SE	3.071E-15	2.069E-09	3.036E-08	5.656E-08	6.909E-08	6.139E-08	5.138E-08	4.281E-08	3.603E-08	3.072E-08	2.655E-08
SSE	5.903E-15	3.934E-09	5.728E-08	1.060E-07	1.279E-07	1.125E-07	9.335E-08	7.722E-08	6.458E-08	5.477E-08	4.712E-08

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.663E-08	2.077E-08	1.277E-08	6.679E-09	4.217E-09	2.934E-09	2.161E-09	1.666E-09	1.335E-09	1.097E-09	9.182E-10
SSW	3.088E-08	1.904E-08	1.172E-08	6.124E-09	3.861E-09	2.703E-09	2.007E-09	1.559E-09	1.251E-09	1.028E-09	8.627E-10
SW	1.268E-08	9.093E-09	5.775E-09	3.136E-09	2.084E-09	1.503E-09	1.166E-09	9.121E-10	7.359E-10	6.083E-10	5.124E-10
WSW	6.937E-09	4.381E-09	3.003E-09	1.744E-09	1.118E-09	7.907E-10	5.945E-10	4.664E-10	3.776E-10	3.131E-10	2.646E-10
W	1.028E-08	5.666E-09	4.083E-09	2.593E-09	1.847E-09	1.322E-09	9.998E-10	7.887E-10	6.416E-10	5.344E-10	4.534E-10
WNW	1.815E-08	9.478E-09	6.040E-09	3.256E-09	2.018E-09	1.407E-09	1.050E-09	8.205E-10	6.607E-10	5.449E-10	4.581E-10
NW	1.505E-08	7.974E-09	5.167E-09	2.860E-09	1.813E-09	1.270E-09	9.609E-10	7.550E-10	6.109E-10	5.063E-10	4.276E-10
NNW	4.675E-08	2.578E-08	1.622E-08	8.696E-09	5.422E-09	3.743E-09	2.786E-09	2.183E-09	1.789E-09	1.488E-09	1.257E-09
N	1.942E-08	1.264E-08	1.091E-08	9.477E-09	8.305E-09	6.738E-09	5.170E-09	4.110E-09	3.363E-09	2.816E-09	2.401E-09
NNE	1.719E-08	3.682E-08	2.340E-08	1.294E-08	8.446E-09	6.058E-09	4.612E-09	3.658E-09	2.989E-09	2.500E-09	2.129E-09
NE	1.433E-08	2.613E-08	1.651E-08	9.041E-09	5.846E-09	4.161E-09	3.192E-09	2.548E-09	2.093E-09	1.748E-09	1.487E-09
ENE	1.553E-08	2.264E-08	1.447E-08	7.929E-09	5.032E-09	3.521E-09	2.739E-09	2.208E-09	1.796E-09	1.496E-09	1.269E-09
E	8.538E-09	1.626E-08	1.052E-08	5.844E-09	3.735E-09	2.626E-09	1.963E-09	1.531E-09	1.280E-09	1.087E-09	9.206E-10
ESE	1.222E-08	1.666E-08	1.088E-08	6.116E-09	3.944E-09	2.791E-09	2.095E-09	1.640E-09	1.323E-09	1.092E-09	9.187E-10
SE	2.323E-08	1.405E-08	1.077E-08	7.593E-09	5.446E-09	4.203E-09	3.398E-09	2.824E-09	2.302E-09	1.921E-09	1.633E-09
SSE	4.918E-08	4.801E-08	2.955E-08	1.560E-08	9.858E-09	6.893E-09	5.138E-09	4.003E-09	3.222E-09	2.658E-09	2.236E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	4.378E-08	7.409E-08	5.680E-08	4.230E-08	4.019E-08	2.074E-08	6.938E-09	2.967E-09	1.682E-09	1.102E-09
SSW	2.381E-08	4.673E-08	4.433E-08	4.345E-08	3.468E-08	1.842E-08	6.363E-09	2.733E-09	1.570E-09	1.033E-09
SW	2.491E-08	5.715E-08	3.609E-08	2.114E-08	1.441E-08	8.416E-09	3.255E-09	1.523E-09	9.176E-10	6.106E-10
WSW	1.813E-08	3.694E-08	2.157E-08	1.213E-08	8.054E-09	4.337E-09	1.746E-09	7.995E-10	4.692E-10	3.143E-10
W	3.885E-08	5.572E-08	3.150E-08	1.825E-08	1.219E-08	5.988E-09	2.592E-09	1.333E-09	7.930E-10	5.362E-10
WNW	4.322E-08	9.765E-08	5.786E-08	3.366E-08	2.184E-08	9.877E-09	3.324E-09	1.427E-09	8.252E-10	5.471E-10
NW	2.962E-08	8.508E-08	5.017E-08	2.803E-08	1.808E-08	8.298E-09	2.907E-09	1.291E-09	7.590E-10	5.081E-10
NNW	3.205E-08	9.402E-08	1.008E-07	8.138E-08	5.570E-08	2.619E-08	8.913E-09	3.808E-09	2.205E-09	1.492E-09
N	1.878E-08	3.924E-08	3.674E-08	2.812E-08	2.175E-08	1.338E-08	9.274E-09	6.528E-09	4.128E-09	2.824E-09
NNE	1.604E-08	3.124E-08	2.678E-08	1.978E-08	1.650E-08	2.650E-08	1.327E-08	6.116E-09	3.676E-09	2.507E-09
NE	1.299E-08	2.530E-08	2.183E-08	1.625E-08	1.367E-08	1.923E-08	9.282E-09	4.223E-09	2.559E-09	1.754E-09
ENE	1.547E-08	3.011E-08	2.634E-08	1.939E-08	1.560E-08	1.743E-08	8.095E-09	3.611E-09	2.203E-09	1.501E-09
E	8.823E-09	1.704E-08	1.427E-08	1.036E-08	8.421E-09	1.199E-08	5.945E-09	2.656E-09	1.559E-09	1.083E-09
ESE	1.284E-08	2.499E-08	2.167E-08	1.585E-08	1.254E-08	1.310E-08	6.208E-09	2.820E-09	1.649E-09	1.096E-09
SE	3.572E-08	6.288E-08	5.062E-08	3.594E-08	2.656E-08	1.463E-08	7.345E-09	4.212E-09	2.789E-09	1.927E-09
SSE	6.708E-08	1.162E-07	9.200E-08	6.446E-08	5.015E-08	4.007E-08	1.615E-08	6.982E-09	4.030E-09	2.668E-09

B285

ERP ELEVATED STACK RELEASES - JAN-MAR 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS											

DIRECTION	DISTANCES IN MILES										
FROM SITE	25	50	75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	2.654E-10	1.592E-09	3.390E-09	3.512E-09	2.193E-09	1.471E-09	1.039E-09	7.631E-10	5.780E-10	5.152E-10	4.338E-10
SSW	1.024E-10	6.142E-10	1.308E-09	1.355E-09	8.462E-10	5.674E-10	4.008E-10	2.944E-10	2.809E-10	2.124E-10	1.662E-10
SW	3.503E-11	2.101E-10	4.474E-10	4.635E-10	5.535E-10	3.039E-10	1.893E-10	1.290E-10	9.338E-11	7.068E-11	5.534E-11
WSW	2.774E-10	2.840E-10	3.278E-10	4.806E-10	2.880E-10	1.559E-10	9.629E-11	6.523E-11	4.708E-11	3.558E-11	2.784E-11
W	9.430E-12	3.220E-10	3.393E-10	3.265E-10	1.625E-10	8.732E-11	5.420E-11	3.741E-11	2.793E-11	2.213E-11	1.839E-11
WNW	2.290E-11	1.374E-10	1.117E-09	7.330E-10	5.091E-10	2.580E-10	1.575E-10	1.103E-10	8.664E-11	7.361E-11	6.636E-11
NW	3.098E-11	1.859E-10	3.958E-10	1.076E-09	7.153E-10	3.566E-10	2.120E-10	1.427E-10	1.055E-10	8.399E-11	7.097E-11
NNW	6.062E-11	3.637E-10	7.744E-10	8.022E-10	1.000E-09	5.440E-10	3.365E-10	2.959E-10	2.261E-10	1.867E-10	1.638E-10
N	9.295E-11	5.577E-10	1.187E-09	1.230E-09	7.683E-10	5.151E-10	3.639E-10	2.673E-10	2.024E-10	1.571E-10	1.244E-10
NNE	7.409E-11	4.445E-10	9.465E-10	9.804E-10	6.124E-10	4.106E-10	2.900E-10	2.131E-10	1.614E-10	1.252E-10	9.919E-11
NE	5.658E-11	3.395E-10	7.228E-10	7.487E-10	4.676E-10	3.136E-10	2.215E-10	1.627E-10	1.232E-10	9.564E-11	7.574E-11
ENE	3.138E-10	5.022E-10	7.924E-10	7.572E-10	4.557E-10	3.021E-10	2.122E-10	1.555E-10	1.176E-10	9.123E-11	7.225E-11
E	3.233E-11	1.940E-10	4.130E-10	4.278E-10	2.672E-10	1.792E-10	1.266E-10	9.297E-11	7.041E-11	5.465E-11	4.328E-11
ESE	3.098E-10	4.780E-10	7.408E-10	7.038E-10	4.223E-10	2.797E-10	1.964E-10	1.439E-10	1.088E-10	8.440E-11	6.684E-11
SE	1.994E-10	1.196E-09	2.547E-09	2.638E-09	1.648E-09	1.105E-09	7.805E-10	5.733E-10	4.342E-10	3.370E-10	2.669E-10
SSE	3.799E-10	2.279E-09	4.853E-09	5.027E-09	3.140E-09	2.105E-09	1.487E-09	1.092E-09	8.274E-10	6.422E-10	5.085E-10

RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS											

DIRECTION	DISTANCES IN MILES										
FROM SITE	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	3.487E-10	1.883E-10	1.181E-10	6.292E-11	3.879E-11	3.404E-11	2.436E-11	1.827E-11	1.441E-11	1.151E-11	9.392E-12
SSW	1.343E-10	9.957E-11	6.870E-11	4.007E-11	2.539E-11	1.789E-11	1.282E-11	9.628E-12	7.536E-12	6.020E-12	4.913E-12
SW	4.513E-11	3.667E-11	2.583E-11	1.533E-11	9.721E-12	6.614E-12	4.757E-12	3.572E-12	2.777E-12	2.219E-12	1.811E-12
WSW	2.239E-11	1.496E-11	1.008E-11	6.354E-12	3.844E-12	2.578E-12	1.928E-12	1.448E-12	1.126E-12	8.992E-13	7.339E-13
W	1.584E-11	9.363E-12	2.037E-11	1.328E-11	6.674E-12	4.637E-12	3.323E-12	2.495E-12	1.940E-12	1.550E-12	1.265E-12
WNW	6.388E-11	4.892E-11	3.842E-11	2.476E-11	1.397E-11	8.890E-12	6.236E-12	4.684E-12	3.691E-12	2.948E-12	2.406E-12
NW	6.301E-11	4.142E-11	3.072E-11	1.889E-11	1.152E-11	7.711E-12	5.387E-12	4.045E-12	3.145E-12	2.512E-12	2.050E-12
NNW	1.506E-10	1.086E-10	8.351E-11	5.302E-11	3.411E-11	2.252E-11	1.463E-11	1.021E-11	8.053E-12	6.433E-12	5.251E-12
N	1.002E-10	4.745E-11	2.892E-11	1.519E-11	6.569E-11	3.618E-11	2.592E-11	1.947E-11	1.514E-11	1.209E-11	9.869E-12
NNE	7.988E-11	1.776E-10	1.087E-10	5.560E-11	3.378E-11	2.263E-11	1.619E-11	1.214E-11	9.427E-12	7.523E-12	6.136E-12
NE	6.100E-11	1.491E-10	9.140E-11	4.689E-11	2.851E-11	1.909E-11	1.378E-11	1.032E-11	8.023E-12	6.408E-12	5.231E-12
ENE	5.821E-11	9.640E-11	7.391E-11	4.683E-11	3.013E-11	1.992E-11	1.394E-11	8.692E-12	6.768E-12	5.415E-12	4.427E-12
E	3.486E-11	6.300E-11	4.877E-11	3.110E-11	2.002E-11	1.322E-11	9.229E-12	6.719E-12	5.088E-12	3.542E-12	2.890E-12
ESE	5.385E-11	7.684E-11	5.779E-11	3.611E-11	2.316E-11	1.533E-11	1.074E-11	7.852E-12	5.969E-12	4.678E-12	3.755E-12
SE	2.150E-10	1.018E-10	6.202E-11	3.258E-11	1.981E-11	1.359E-11	1.013E-11	1.951E-11	1.498E-11	1.185E-11	9.611E-12
SSE	4.096E-10	4.551E-10	2.789E-10	1.429E-10	8.683E-11	5.816E-11	4.160E-11	3.118E-11	2.420E-11	1.930E-11	1.574E-11

RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS											

DIRECTION	SEGMENT BOUNDARIES IN MILES										
FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	3.045E-09	2.165E-09	1.044E-09	6.070E-10	4.264E-10	1.927E-10	6.445E-11	3.143E-11	1.854E-11	1.158E-11	
SSW	1.175E-09	8.353E-10	4.027E-10	2.587E-10	1.681E-10	9.356E-11	3.991E-11	1.786E-11	9.743E-12	6.059E-12	
SW	4.018E-10	4.226E-10	1.957E-10	9.490E-11	5.611E-11	3.373E-11	1.517E-11	6.700E-12	3.608E-12	2.233E-12	
WSW	3.860E-10	2.721E-10	9.977E-11	4.788E-11	2.811E-11	1.444E-11	6.066E-12	2.656E-12	1.462E-12	9.051E-13	
W	3.298E-10	1.655E-10	5.632E-11	2.843E-11	1.855E-11	1.569E-11	1.192E-11	4.655E-12	2.520E-12	1.560E-12	
WNW	7.286E-10	4.472E-10	1.654E-10	8.843E-11	6.759E-11	4.758E-11	2.300E-11	9.182E-12	4.749E-12	2.967E-12	
NW	6.516E-10	6.361E-10	2.228E-10	1.079E-10	7.188E-11	4.146E-11	1.825E-11	7.798E-12	4.085E-12	2.529E-12	
NNW	6.955E-10	7.534E-10	3.756E-10	2.310E-10	1.657E-10	1.068E-10	5.139E-11	2.245E-11	1.065E-11	6.475E-12	
N	1.066E-09	7.584E-10	3.656E-10	2.037E-10	1.252E-10	5.094E-11	4.069E-11	3.994E-11	1.966E-11	1.217E-11	
NNE	8.500E-10	6.045E-10	2.914E-10	1.624E-10	9.976E-11	1.253E-10	5.770E-11	2.303E-11	1.226E-11	7.574E-12	
NE	6.491E-10	4.616E-10	2.225E-10	1.240E-10	7.618E-11	1.039E-10	4.861E-11	1.948E-11	1.043E-11	6.450E-12	
ENE	7.123E-10	4.544E-10	2.135E-10	1.184E-10	7.267E-11	7.792E-11	4.543E-11	2.025E-11	9.458E-12	5.450E-12	
E	3.709E-10	2.638E-10	1.272E-10	7.085E-11	4.353E-11	5.042E-11	3.010E-11	1.344E-11	6.815E-12	3.759E-12	
ESE	6.659E-10	4.214E-10	1.976E-10	1.095E-10	6.723E-11	6.326E-11	3.517E-11	1.558E-11	7.960E-12	4.719E-12	
SE	2.287E-09	1.627E-09	7.841E-10	4.369E-10	2.684E-10	1.093E-10	3.345E-11	1.387E-11	1.511E-11	1.195E-11	
SSE	4.358E-09	3.099E-09	1.494E-09	8.325E-10	5.115E-10	3.667E-10	1.482E-10	5.918E-11	3.150E-11	1.943E-11	

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ERP ELEVATED STACK RELEASES - JAN-MAR 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST. (MI)	X/Q (SEC/M3) NO DECAY	X/Q (SEC/M3) 2.26 DAY DECAY	X/Q (SEC/M3) 8.0 DAY DECAY	D/Q (PER SQ.METER)
A	Site Boundary	S	.80	4.5E-08	4.5E-08	4.5E-08	3.6E-09
A	Site Boundary	SSW	.82	2.6E-08	2.6E-08	2.6E-08	1.4E-09
A	Site Boundary	SW	.97	4.1E-08	4.1E-08	4.1E-08	4.8E-10
A	Site Boundary	WSW	.93	2.5E-08	2.5E-08	2.5E-08	4.8E-10
A	Site Boundary	W	.91	5.3E-08	5.3E-08	5.3E-08	2.7E-10
A	Site Boundary	WNW	.94	6.4E-08	6.3E-08	6.3E-08	8.1E-10
A	Site Boundary	NW	.81	2.4E-08	2.4E-08	2.4E-08	4.2E-10
A	Site Boundary	NNW	.69	1.3E-08	1.3E-08	1.3E-08	6.7E-10
A	Site Boundary	N	.67	9.2E-09	9.2E-09	9.2E-09	1.0E-09
A	Site Boundary	NNE	.60	3.8E-09	3.8E-09	3.8E-09	6.4E-10
A	Site Boundary	NE	.62	4.0E-09	4.0E-09	4.0E-09	5.3E-10
A	Site Boundary	ENE	.59	4.3E-09	4.3E-09	4.3E-09	6.0E-10
A	Site Boundary	E	.53	6.4E-10	6.3E-10	6.4E-10	2.1E-10
A	Site Boundary	ESE	.54	2.5E-09	2.5E-09	2.5E-09	5.1E-10
A	Site Boundary	SE	.65	1.5E-08	1.5E-08	1.5E-08	2.0E-09
A	Site Boundary	SSE	.81	7.2E-08	7.2E-08	7.2E-08	5.1E-09
A	Nearest Res	SW	1.30	6.9E-08	6.9E-08	6.8E-08	7.3E-10
A	Nearest Res	WSW	1.80	3.8E-08	3.7E-08	3.7E-08	1.9E-10
A	Nearest Res	WNW	2.40	6.1E-08	6.1E-08	6.0E-08	1.7E-10
A	Nearest Res	NW	.90	3.7E-08	3.7E-08	3.7E-08	1.2E-09
A	Nearest Res	NNW	1.90	1.1E-07	1.1E-07	1.1E-07	6.1E-10
A	Nearest Res	NE	1.60	2.8E-08	2.8E-08	2.8E-08	4.3E-10
A	Nearest Res	E	2.00	1.7E-08	1.7E-08	1.7E-08	1.8E-10
A	Nearest Cow	NNW	3.50	8.7E-08	8.7E-08	8.6E-08	2.3E-10
A	Nearest Garde	SW	2.20	4.5E-08	4.4E-08	4.4E-08	2.5E-10
A	Nearest Garde	WSW	1.80	3.8E-08	3.7E-08	3.7E-08	1.9E-10
A	Nearest Garde	WNW	2.60	5.4E-08	5.4E-08	5.3E-08	1.5E-10
A	Nearest Garde	NW	1.90	8.1E-08	8.1E-08	8.0E-08	4.0E-10
A	Nearest Garde	NNW	2.80	9.9E-08	9.9E-08	9.8E-08	3.3E-10
A	Nearest Garde	ENE	1.70	3.3E-08	3.3E-08	3.3E-08	3.8E-10
A	Nearest Garde	ESE	2.30	2.4E-08	2.4E-08	2.4E-08	2.2E-10
A	MAXIMUM CHI/Q	S	1.50	8.3E-08	8.3E-08	8.2E-08	2.2E-09
A	MAXIMUM CHI/Q	SSW	1.50	5.2E-08	5.2E-08	5.1E-08	8.5E-10
A	MAXIMUM CHI/Q	SW	1.50	7.6E-08	7.6E-08	7.5E-08	5.5E-10
A	MAXIMUM CHI/Q	WSW	1.50	5.0E-08	5.0E-08	4.9E-08	2.9E-10
A	MAXIMUM CHI/Q	W	1.50	6.9E-08	6.9E-08	6.8E-08	1.6E-10
A	MAXIMUM CHI/Q	WNW	1.50	1.3E-07	1.3E-07	1.3E-07	5.1E-10
A	MAXIMUM CHI/Q	NW	1.50	1.2E-07	1.2E-07	1.2E-07	7.2E-10
A	MAXIMUM CHI/Q	NNW	2.00	1.1E-07	1.1E-07	1.1E-07	5.4E-10
A	MAXIMUM CHI/Q	N	2.00	4.2E-08	4.2E-08	4.2E-08	5.2E-10
A	MAXIMUM CHI/Q	NNE	7.50	3.8E-08	3.8E-08	3.7E-08	1.8E-10
A	MAXIMUM CHI/Q	NE	1.50	2.8E-08	2.8E-08	2.8E-08	4.7E-10
A	MAXIMUM CHI/Q	ENE	1.50	3.3E-08	3.3E-08	3.3E-08	4.6E-10
A	MAXIMUM CHI/Q	E	1.50	1.9E-08	1.9E-08	1.9E-08	2.7E-10
A	MAXIMUM CHI/Q	ESE	1.50	2.8E-08	2.8E-08	2.7E-08	4.2E-10
A	MAXIMUM CHI/Q	SE	1.50	7.0E-08	7.0E-08	6.9E-08	1.6E-09
A	MAXIMUM CHI/Q	SSE	1.50	1.3E-07	1.3E-07	1.3E-07	3.1E-09

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Atmospheric Diffusion Estimates

Elevated Releases

April-June 2022

ERP ELEVATED STACK RELEASES - APR-JUN 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)										
SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.633E-15	1.244E-09	2.010E-08	3.974E-08	5.198E-08	4.780E-08	4.086E-08	3.459E-08	2.950E-08	3.607E-08	4.447E-08
SSW	5.845E-11	3.931E-09	1.719E-08	2.970E-08	3.891E-08	3.687E-08	3.232E-08	3.737E-08	4.003E-08	3.564E-08	3.221E-08
SW	4.728E-16	5.408E-10	2.272E-08	6.793E-08	1.341E-07	9.333E-08	6.806E-08	5.193E-08	4.111E-08	3.353E-08	2.801E-08
WSW	6.617E-16	6.304E-10	2.873E-08	8.348E-08	1.553E-07	9.916E-08	6.932E-08	5.172E-08	4.046E-08	3.280E-08	2.732E-08
W	2.548E-13	3.193E-08	1.676E-07	2.203E-07	2.079E-07	1.315E-07	9.132E-08	6.772E-08	5.265E-08	4.242E-08	3.513E-08
WNW	1.345E-14	4.797E-09	8.183E-08	1.860E-07	2.910E-07	1.830E-07	1.267E-07	9.878E-08	8.009E-08	6.404E-08	5.273E-08
NW	2.923E-11	3.189E-09	9.142E-08	2.737E-07	4.783E-07	2.799E-07	1.848E-07	1.345E-07	1.031E-07	8.099E-08	6.571E-08
NNW	1.673E-15	1.392E-09	4.135E-08	1.059E-07	1.842E-07	1.841E-07	1.684E-07	1.492E-07	1.340E-07	1.058E-07	8.631E-08
N	3.657E-10	1.972E-08	5.537E-08	7.718E-08	8.809E-08	8.170E-08	7.110E-08	6.001E-08	5.110E-08	4.404E-08	3.842E-08
NNE	2.442E-11	2.213E-09	1.632E-08	2.920E-08	3.719E-08	3.471E-08	3.030E-08	2.616E-08	2.272E-08	1.992E-08	1.766E-08
NE	3.690E-16	4.212E-10	7.610E-09	1.577E-08	2.174E-08	2.066E-08	1.807E-08	1.554E-08	1.340E-08	1.166E-08	1.025E-08
ENE	6.204E-16	4.787E-10	7.658E-09	1.509E-08	1.987E-08	1.845E-08	1.592E-08	1.359E-08	1.167E-08	1.014E-08	8.919E-09
E	4.635E-16	3.940E-10	6.494E-09	1.294E-08	1.741E-08	1.648E-08	1.442E-08	1.244E-08	1.076E-08	9.388E-09	8.279E-09
ESE	9.948E-16	6.587E-10	9.717E-09	1.825E-08	2.285E-08	2.075E-08	1.769E-08	1.498E-08	1.279E-08	1.105E-08	9.669E-09
SE	1.505E-15	1.012E-09	1.521E-08	2.893E-08	3.627E-08	3.256E-08	2.737E-08	2.287E-08	1.928E-08	1.647E-08	1.426E-08
SSE	2.779E-15	2.051E-09	3.083E-08	5.783E-08	7.077E-08	6.260E-08	5.217E-08	4.334E-08	3.642E-08	3.104E-08	2.685E-08

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)										
SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.188E-08	3.779E-08	2.557E-08	1.544E-08	1.171E-08	9.329E-09	7.377E-09	6.054E-09	5.196E-09	4.527E-09	3.956E-09
SSW	3.075E-08	3.186E-08	2.135E-08	1.276E-08	9.835E-09	7.681E-09	6.055E-09	4.957E-09	4.180E-09	3.592E-09	3.138E-09
SW	2.538E-08	1.772E-08	1.157E-08	6.672E-09	4.694E-09	3.559E-09	2.842E-09	2.301E-09	1.918E-09	1.634E-09	1.416E-09
WSW	2.448E-08	1.751E-08	1.314E-08	8.643E-09	5.891E-09	4.386E-09	3.452E-09	2.819E-09	2.367E-09	2.030E-09	1.770E-09
W	2.973E-08	1.637E-08	1.176E-08	7.708E-09	5.738E-09	4.261E-09	3.323E-09	2.696E-09	2.251E-09	1.920E-09	1.667E-09
WNW	4.501E-08	2.572E-08	1.771E-08	1.094E-08	7.558E-09	5.675E-09	4.508E-09	3.696E-09	3.101E-09	2.651E-09	2.305E-09
NW	5.509E-08	2.940E-08	1.942E-08	1.129E-08	7.523E-09	5.501E-09	4.301E-09	3.476E-09	2.887E-09	2.453E-09	2.120E-09
NNW	7.370E-08	4.203E-08	2.736E-08	1.576E-08	1.069E-08	7.925E-09	6.274E-09	5.151E-09	4.385E-09	3.771E-09	3.278E-09
N	3.398E-08	2.138E-08	1.743E-08	1.341E-08	1.081E-08	8.700E-09	6.815E-09	5.533E-09	4.613E-09	3.932E-09	3.410E-09
NNE	2.039E-08	3.358E-08	2.191E-08	1.268E-08	8.638E-09	6.424E-09	5.050E-09	4.124E-09	3.462E-09	2.969E-09	2.588E-09
NE	1.125E-08	1.419E-08	9.163E-09	5.224E-09	3.520E-09	2.596E-09	2.044E-09	1.668E-09	1.401E-09	1.195E-09	1.038E-09
ENE	9.649E-09	1.327E-08	8.725E-09	5.079E-09	3.463E-09	2.575E-09	2.083E-09	1.730E-09	1.447E-09	1.236E-09	1.075E-09
E	8.982E-09	1.582E-08	1.065E-08	6.399E-09	4.462E-09	3.375E-09	2.688E-09	2.219E-09	1.974E-09	1.765E-09	1.545E-09
ESE	1.008E-08	1.272E-08	8.487E-09	5.032E-09	3.471E-09	2.602E-09	2.058E-09	1.687E-09	1.421E-09	1.222E-09	1.068E-09
SE	1.249E-08	7.605E-09	5.835E-09	4.158E-09	3.024E-09	2.362E-09	1.930E-09	1.626E-09	1.359E-09	1.161E-09	1.008E-09
SSE	2.831E-08	3.915E-08	2.544E-08	1.464E-08	9.929E-09	7.363E-09	5.775E-09	4.707E-09	3.946E-09	3.379E-09	2.943E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.464E-08	4.740E-08	4.020E-08	3.346E-08	4.102E-08	3.327E-08	1.603E-08	9.182E-09	6.105E-09	4.513E-09
SSW	1.980E-08	3.596E-08	3.556E-08	3.760E-08	3.269E-08	2.694E-08	1.337E-08	7.605E-09	4.975E-09	3.598E-09
SW	3.789E-08	1.013E-07	6.834E-08	4.131E-08	2.867E-08	1.669E-08	6.882E-09	3.575E-09	2.310E-09	1.638E-09
WSW	4.682E-08	1.144E-07	7.024E-08	4.076E-08	2.789E-08	1.712E-08	8.420E-09	4.414E-09	2.828E-09	2.034E-09
W	1.609E-07	1.767E-07	9.259E-08	5.306E-08	3.529E-08	1.729E-08	7.733E-09	4.280E-09	2.705E-09	1.924E-09
WNW	1.110E-07	2.197E-07	1.305E-07	7.932E-08	5.323E-08	2.645E-08	1.094E-08	5.711E-09	3.702E-09	2.656E-09
NW	1.528E-07	3.446E-07	1.900E-07	1.036E-07	6.631E-08	3.068E-08	1.142E-08	5.560E-09	3.487E-09	2.458E-09
NNW	6.115E-08	1.667E-07	1.649E-07	1.276E-07	8.743E-08	4.254E-08	1.608E-08	8.002E-09	5.180E-09	3.771E-09
N	5.714E-08	8.283E-08	6.949E-08	5.095E-08	3.844E-08	2.243E-08	1.315E-08	8.507E-09	5.549E-09	3.940E-09
NNE	1.891E-08	3.431E-08	2.982E-08	2.264E-08	1.934E-08	2.546E-08	1.294E-08	6.465E-09	4.136E-09	2.974E-09
NE	9.637E-09	1.993E-08	1.775E-08	1.335E-08	1.104E-08	1.130E-08	5.342E-09	2.621E-09	1.674E-09	1.198E-09
ENE	9.366E-09	1.817E-08	1.566E-08	1.164E-08	9.552E-09	1.045E-08	5.171E-09	2.615E-09	1.723E-09	1.239E-09
E	8.004E-09	1.600E-08	1.418E-08	1.072E-08	8.868E-09	1.200E-08	6.482E-09	3.390E-09	2.260E-09	1.745E-09
ESE	1.149E-08	2.089E-08	1.742E-08	1.275E-08	1.023E-08	1.025E-08	5.106E-09	2.616E-09	1.692E-09	1.224E-09
SE	1.815E-08	3.299E-08	2.695E-08	1.924E-08	1.426E-08	7.904E-09	4.027E-09	2.365E-09	1.611E-09	1.163E-09
SSE	3.644E-08	6.426E-08	5.142E-08	3.635E-08	2.863E-08	3.065E-08	1.495E-08	7.412E-09	4.722E-09	3.385E-09

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ERP ELEVATED STACK RELEASES - APR-JUN 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE									
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500			
S	1.633E-15	1.243E-09	2.007E-08	3.967E-08	5.184E-08	4.762E-08	4.066E-08	3.438E-08	2.929E-08	3.574E-08	4.391E-08			
SSW	5.844E-11	3.929E-09	1.717E-08	2.964E-08	3.878E-08	3.670E-08	3.212E-08	3.707E-08	3.964E-08	3.523E-08	3.178E-08			
SW	4.727E-16	5.404E-10	2.269E-08	6.778E-08	1.336E-07	9.288E-08	6.764E-08	5.154E-08	4.075E-08	3.319E-08	2.769E-08			
WSW	6.615E-16	6.301E-10	2.870E-08	8.335E-08	1.548E-07	9.872E-08	6.892E-08	5.134E-08	4.010E-08	3.245E-08	2.699E-08			
W	2.547E-13	3.190E-08	1.673E-07	2.198E-07	2.071E-07	1.308E-07	9.065E-08	6.709E-08	5.207E-08	4.187E-08	3.460E-08			
WNW	1.344E-14	4.794E-09	8.173E-08	1.857E-07	2.901E-07	1.823E-07	1.260E-07	9.810E-08	7.942E-08	6.343E-08	5.215E-08			
NW	2.922E-11	3.187E-09	9.132E-08	2.733E-07	4.772E-07	2.790E-07	1.841E-07	1.339E-07	1.025E-07	8.049E-08	6.525E-08			
NNW	1.673E-15	1.391E-09	4.130E-08	1.057E-07	1.837E-07	1.834E-07	1.677E-07	1.484E-07	1.331E-07	1.051E-07	8.558E-08			
N	3.656E-10	1.972E-08	5.534E-08	7.709E-08	8.791E-08	8.147E-08	7.083E-08	5.972E-08	5.081E-08	4.375E-08	3.813E-08			
NNE	2.442E-11	2.212E-09	1.631E-08	2.917E-08	3.712E-08	3.462E-08	3.018E-08	2.604E-08	2.259E-08	1.979E-08	1.753E-08			
NE	3.689E-16	4.209E-10	7.600E-09	1.574E-08	2.167E-08	2.057E-08	1.797E-08	1.544E-08	1.330E-08	1.155E-08	1.014E-08			
ENE	6.203E-16	4.785E-10	7.650E-09	1.507E-08	1.982E-08	1.839E-08	1.585E-08	1.352E-08	1.160E-08	1.007E-08	8.843E-09			
E	4.634E-16	3.938E-10	6.487E-09	1.292E-08	1.737E-08	1.643E-08	1.437E-08	1.238E-08	1.070E-08	9.332E-09	8.223E-09			
ESE	9.947E-16	6.584E-10	9.710E-09	1.823E-08	2.281E-08	2.070E-08	1.763E-08	1.492E-08	1.273E-08	1.099E-08	9.607E-09			
SE	1.505E-15	1.012E-09	1.520E-08	2.890E-08	3.619E-08	3.246E-08	2.727E-08	2.276E-08	1.917E-08	1.636E-08	1.415E-08			
SSE	2.778E-15	2.050E-09	3.080E-08	5.777E-08	7.065E-08	6.245E-08	5.201E-08	4.318E-08	3.625E-08	3.088E-08	2.669E-08			

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)					DISTANCE IN MILES FROM THE SITE					
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.126E-08	3.676E-08	2.463E-08	1.459E-08	1.084E-08	8.469E-09	6.572E-09	5.294E-09	4.460E-09	3.814E-09	3.274E-09
SSW	3.028E-08	3.096E-08	2.053E-08	1.203E-08	9.071E-09	6.935E-09	5.357E-09	4.298E-09	3.551E-09	2.991E-09	2.562E-09
SW	2.505E-08	1.736E-08	1.125E-08	6.394E-09	4.431E-09	3.309E-09	2.602E-09	2.077E-09	1.706E-09	1.433E-09	1.225E-09
WSW	2.413E-08	1.708E-08	1.269E-08	8.175E-09	5.469E-09	3.996E-09	3.087E-09	2.475E-09	2.040E-09	1.718E-09	1.472E-09
W	2.923E-08	1.593E-08	1.132E-08	7.259E-09	5.283E-09	3.843E-09	2.938E-09	2.337E-09	1.914E-09	1.603E-09	1.365E-09
WNW	4.446E-08	2.522E-08	1.724E-08	1.050E-08	7.150E-09	5.294E-09	4.146E-09	3.353E-09	2.774E-09	2.340E-09	2.008E-09
NW	5.467E-08	2.906E-08	1.912E-08	1.103E-08	7.293E-09	5.293E-09	4.107E-09	3.295E-09	2.717E-09	2.291E-09	1.966E-09
NNW	7.300E-08	4.141E-08	2.682E-08	1.530E-08	1.027E-08	7.541E-09	5.911E-09	4.804E-09	4.048E-09	3.447E-09	2.968E-09
N	3.369E-08	2.110E-08	1.711E-08	1.303E-08	1.038E-08	8.265E-09	6.411E-09	5.154E-09	4.257E-09	3.594E-09	3.088E-09
NNE	2.021E-08	3.292E-08	2.134E-08	1.219E-08	8.186E-09	6.007E-09	4.659E-09	3.754E-09	3.110E-09	2.632E-09	2.265E-09
NE	1.112E-08	1.395E-08	8.956E-09	5.049E-09	3.364E-09	2.454E-09	1.911E-09	1.544E-09	1.283E-09	1.083E-09	9.300E-10
ENE	9.548E-09	1.292E-08	8.419E-09	4.811E-09	3.222E-09	2.354E-09	1.870E-09	1.525E-09	1.255E-09	1.055E-09	9.027E-10
E	8.915E-09	1.559E-08	1.044E-08	6.207E-09	4.281E-09	3.204E-09	2.525E-09	2.062E-09	1.812E-09	1.601E-09	1.386E-09
ESE	9.999E-09	1.249E-08	8.281E-09	4.847E-09	3.302E-09	2.445E-09	1.910E-09	1.547E-09	1.288E-09	1.095E-09	9.457E-10
SE	1.239E-08	7.502E-09	5.721E-09	4.021E-09	2.885E-09	2.233E-09	1.792E-09	1.490E-09	1.231E-09	1.039E-09	8.918E-10
SSE	2.810E-08	3.829E-08	2.468E-08	1.398E-08	9.335E-09	6.816E-09	5.265E-09	4.227E-09	3.491E-09	2.945E-09	2.528E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.460E-08	4.726E-08	4.000E-08	3.320E-08	4.051E-08	3.237E-08	1.515E-08	8.342E-09	5.341E-09	3.805E-09
SSW	1.977E-08	3.582E-08	3.532E-08	3.723E-08	3.225E-08	2.617E-08	1.260E-08	6.873E-09	4.316E-09	2.998E-09
SW	3.781E-08	1.009E-07	6.793E-08	4.095E-08	2.834E-08	1.635E-08	6.601E-09	3.325E-09	2.086E-09	1.437E-09
WSW	4.675E-08	1.140E-07	6.984E-08	4.040E-08	2.755E-08	1.669E-08	7.975E-09	4.025E-09	2.484E-09	1.722E-09
W	1.605E-07	1.760E-07	9.192E-08	5.247E-08	3.477E-08	1.684E-08	7.284E-09	3.865E-09	2.348E-09	1.607E-09
WNW	1.108E-07	2.190E-07	1.298E-07	7.867E-08	5.264E-08	2.595E-08	1.051E-08	5.330E-09	3.359E-09	2.346E-09
NW	1.526E-07	3.438E-07	1.893E-07	1.031E-07	6.585E-08	3.033E-08	1.117E-08	5.352E-09	3.307E-09	2.297E-09
NNW	6.106E-08	1.663E-07	1.642E-07	1.268E-07	8.669E-08	4.195E-08	1.562E-08	7.617E-09	4.832E-09	3.448E-09
N	5.709E-08	8.264E-08	6.923E-08	5.067E-08	3.815E-08	2.213E-08	1.276E-08	8.087E-09	5.171E-09	3.603E-09
NNE	1.889E-08	3.424E-08	2.971E-08	2.251E-08	1.919E-08	2.495E-08	1.244E-08	6.049E-09	3.767E-09	2.638E-09
NE	9.621E-09	1.987E-08	1.765E-08	1.324E-08	1.092E-08	1.110E-08	5.168E-09	2.480E-09	1.549E-09	1.085E-09
ENE	9.353E-09	1.813E-08	1.559E-08	1.156E-08	9.467E-09	1.017E-08	4.906E-09	2.392E-09	1.521E-09	1.058E-09
E	7.993E-09	1.596E-08	1.412E-08	1.066E-08	8.808E-09	1.182E-08	6.291E-09	3.220E-09	2.099E-09	1.584E-09
ESE	1.148E-08	2.085E-08	1.737E-08	1.269E-08	1.016E-08	1.007E-08	4.923E-09	2.459E-09	1.552E-09	1.097E-09
SE	1.813E-08	3.291E-08	2.685E-08	1.913E-08	1.415E-08	7.796E-09	3.894E-09	2.227E-09	1.478E-09	1.041E-09
SSE	3.640E-08	6.414E-08	5.126E-08	3.618E-08	2.845E-08	2.998E-08	1.429E-08	6.867E-09	4.243E-09	2.952E-09

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ERP ELEVATED STACK RELEASES - APR-JUN 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.633E-15	1.244E-09	2.009E-08	3.972E-08	5.149E-08	4.693E-08	3.980E-08	3.345E-08	2.834E-08	3.465E-08	4.286E-08	
SSW	5.845E-11	3.901E-09	1.707E-08	2.957E-08	3.848E-08	3.620E-08	3.151E-08	3.631E-08	3.881E-08	3.444E-08	3.104E-08	
SW	4.728E-16	5.407E-10	2.271E-08	6.789E-08	1.329E-07	9.180E-08	6.655E-08	5.052E-08	3.983E-08	3.235E-08	2.693E-08	
WSW	6.616E-16	6.303E-10	2.872E-08	8.330E-08	1.536E-07	9.739E-08	6.772E-08	5.031E-08	3.921E-08	3.168E-08	2.631E-08	
W	2.547E-13	3.192E-08	1.666E-07	2.177E-07	2.036E-07	1.278E-07	8.819E-08	6.504E-08	5.034E-08	4.039E-08	3.332E-08	
WNW	1.345E-14	4.796E-09	8.171E-08	1.847E-07	2.877E-07	1.800E-07	1.240E-07	9.645E-08	7.803E-08	6.215E-08	5.093E-08	
NW	2.923E-11	3.174E-09	9.131E-08	2.724E-07	4.723E-07	2.740E-07	1.797E-07	1.301E-07	9.927E-08	7.758E-08	6.256E-08	
NNW	1.673E-15	1.392E-09	4.133E-08	1.058E-07	1.826E-07	1.813E-07	1.652E-07	1.460E-07	1.309E-07	1.030E-07	8.351E-08	
N	3.657E-10	1.956E-08	5.479E-08	7.657E-08	8.698E-08	8.017E-08	6.935E-08	5.821E-08	4.932E-08	4.232E-08	3.677E-08	
NNE	2.442E-11	2.202E-09	1.628E-08	2.915E-08	3.685E-08	3.414E-08	2.962E-08	2.544E-08	2.200E-08	1.921E-08	1.698E-08	
NE	3.689E-16	4.211E-10	7.607E-09	1.576E-08	2.154E-08	2.031E-08	1.763E-08	1.507E-08	1.293E-08	1.119E-08	9.795E-09	
ENE	6.203E-16	4.787E-10	7.656E-09	1.508E-08	1.968E-08	1.813E-08	1.553E-08	1.318E-08	1.126E-08	9.731E-09	8.520E-09	
E	4.635E-16	3.939E-10	6.492E-09	1.294E-08	1.726E-08	1.621E-08	1.410E-08	1.210E-08	1.042E-08	9.054E-09	7.957E-09	
ESE	9.948E-16	6.586E-10	9.715E-09	1.824E-08	2.264E-08	2.040E-08	1.727E-08	1.453E-08	1.234E-08	1.061E-08	9.250E-09	
SE	1.505E-15	1.012E-09	1.521E-08	2.892E-08	3.593E-08	3.197E-08	2.666E-08	2.210E-08	1.851E-08	1.572E-08	1.353E-08	
SSE	2.779E-15	2.050E-09	3.082E-08	5.781E-08	7.011E-08	6.146E-08	5.080E-08	4.189E-08	3.496E-08	2.962E-08	2.547E-08	

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.032E-08	3.597E-08	2.350E-08	1.320E-08	9.199E-09	6.827E-09	5.087E-09	3.956E-09	3.243E-09	2.728E-09	2.308E-09	
SSW	2.961E-08	3.039E-08	1.965E-08	1.091E-08	7.734E-09	5.762E-09	4.365E-09	3.446E-09	2.809E-09	2.338E-09	1.983E-09	
SW	2.435E-08	1.672E-08	1.055E-08	5.675E-09	3.693E-09	2.624E-09	2.010E-09	1.570E-09	1.266E-09	1.046E-09	8.803E-10	
WSW	2.355E-08	1.652E-08	1.201E-08	7.454E-09	4.842E-09	3.457E-09	2.621E-09	2.069E-09	1.683E-09	1.402E-09	1.189E-09	
W	2.811E-08	1.525E-08	1.082E-08	6.696E-09	4.673E-09	3.327E-09	2.498E-09	1.958E-09	1.583E-09	1.311E-09	1.106E-09	
WNW	4.325E-08	2.394E-08	1.592E-08	9.127E-09	5.792E-09	4.081E-09	3.098E-09	2.448E-09	1.985E-09	1.644E-09	1.387E-09	
NW	5.214E-08	2.694E-08	1.721E-08	9.406E-09	5.932E-09	4.140E-09	3.118E-09	2.439E-09	1.966E-09	1.623E-09	1.367E-09	
NNW	7.092E-08	3.918E-08	2.462E-08	1.319E-08	8.240E-09	5.696E-09	4.250E-09	3.329E-09	2.732E-09	2.276E-09	1.920E-09	
N	3.240E-08	2.012E-08	1.633E-08	1.253E-08	9.859E-09	7.570E-09	5.747E-09	4.535E-09	3.685E-09	3.065E-09	2.599E-09	
NNE	1.965E-08	3.237E-08	2.038E-08	1.105E-08	7.046E-09	4.957E-09	3.711E-09	2.900E-09	2.338E-09	1.931E-09	1.626E-09	
NE	1.076E-08	1.355E-08	8.449E-09	4.527E-09	2.872E-09	2.013E-09	1.521E-09	1.199E-09	9.765E-10	8.098E-10	6.844E-10	
ENE	9.222E-09	1.271E-08	8.067E-09	4.369E-09	2.744E-09	1.903E-09	1.447E-09	1.141E-09	9.162E-10	7.539E-10	6.324E-10	
E	8.641E-09	1.533E-08	9.970E-09	5.574E-09	3.573E-09	2.517E-09	1.884E-09	1.470E-09	1.241E-09	1.059E-09	8.925E-10	
ESE	9.640E-09	1.222E-08	7.891E-09	4.372E-09	2.791E-09	1.959E-09	1.462E-09	1.138E-09	9.136E-10	7.511E-10	6.292E-10	
SE	1.179E-08	7.036E-09	5.341E-09	3.765E-09	2.708E-09	2.097E-09	1.702E-09	1.420E-09	1.163E-09	9.752E-10	8.318E-10	
SSE	2.683E-08	3.721E-08	2.332E-08	1.256E-08	7.963E-09	5.576E-09	4.157E-09	3.236E-09	2.601E-09	2.142E-09	1.798E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE										
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	2.463E-08	4.685E-08	3.916E-08	3.220E-08	3.949E-08	3.139E-08	1.371E-08	6.763E-09	4.008E-09	2.725E-09	
SSW	1.970E-08	3.549E-08	3.468E-08	3.643E-08	3.152E-08	2.544E-08	1.144E-08	5.729E-09	3.466E-09	2.346E-09	
SW	3.786E-08	1.002E-07	6.688E-08	4.004E-08	2.758E-08	1.567E-08	5.878E-09	2.663E-09	1.580E-09	1.050E-09	
WSW	4.674E-08	1.130E-07	6.867E-08	3.951E-08	2.688E-08	1.608E-08	7.305E-09	3.492E-09	2.080E-09	1.406E-09	
W	1.594E-07	1.731E-07	8.949E-08	5.075E-08	3.349E-08	1.614E-08	6.714E-09	3.354E-09	1.969E-09	1.316E-09	
WNW	1.104E-07	2.169E-07	1.279E-07	7.724E-08	5.141E-08	2.467E-08	9.154E-09	4.144E-09	2.457E-09	1.650E-09	
NW	1.522E-07	3.397E-07	1.850E-07	9.981E-08	6.315E-08	2.821E-08	9.596E-09	4.209E-09	2.453E-09	1.630E-09	
NNW	6.112E-08	1.650E-07	1.618E-07	1.246E-07	8.461E-08	3.976E-08	1.353E-08	5.796E-09	3.365E-09	2.279E-09	
N	5.664E-08	8.164E-08	6.778E-08	4.919E-08	3.680E-08	2.116E-08	1.219E-08	7.451E-09	4.557E-09	3.076E-09	
NNE	1.887E-08	3.394E-08	2.915E-08	2.192E-08	1.863E-08	2.422E-08	1.134E-08	5.015E-09	2.918E-09	1.939E-09	
NE	9.633E-09	1.971E-08	1.732E-08	1.288E-08	1.056E-08	1.066E-08	4.663E-09	2.045E-09	1.206E-09	8.127E-10	
ENE	9.362E-09	1.797E-08	1.528E-08	1.122E-08	9.139E-09	9.870E-09	4.469E-09	1.945E-09	1.143E-09	7.570E-10	
E	8.001E-09	1.583E-08	1.386E-08	1.038E-08	8.535E-09	1.146E-08	5.662E-09	2.545E-09	1.501E-09	1.051E-09	
ESE	1.149E-08	2.067E-08	1.701E-08	1.231E-08	9.799E-09	9.721E-09	4.451E-09	1.982E-09	1.145E-09	7.541E-10	
SE	1.815E-08	3.261E-08	2.625E-08	1.847E-08	1.353E-08	7.339E-09	3.646E-09	2.102E-09	1.403E-09	9.778E-10	
SSE	3.642E-08	6.353E-08	5.008E-08	3.490E-08	2.721E-08	2.873E-08	1.291E-08	5.645E-09	3.257E-09	2.150E-09	

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ERP ELEVATED STACK RELEASES - APR-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	1.233E-10	7.398E-10	1.575E-09	1.632E-09	1.019E-09	6.834E-10	4.827E-10	3.546E-10	2.686E-10	2.327E-10	2.015E-10
SSW	5.747E-10	7.339E-10	1.018E-09	9.296E-10	5.466E-10	3.597E-10	2.518E-10	1.842E-10	1.728E-10	1.307E-10	1.024E-10
SW	4.783E-11	2.869E-10	6.110E-10	6.329E-10	7.415E-10	4.091E-10	2.557E-10	1.746E-10	1.266E-10	9.591E-11	7.512E-11
WSW	5.301E-11	3.180E-10	6.772E-10	1.733E-09	8.675E-10	4.719E-10	2.919E-10	1.980E-10	1.429E-10	1.080E-10	8.450E-11
W	5.975E-11	3.033E-09	2.968E-09	2.054E-09	9.820E-10	5.315E-10	3.279E-10	2.220E-10	1.601E-10	1.210E-10	9.477E-11
WNW	6.100E-11	3.659E-10	2.726E-09	2.050E-09	1.313E-09	6.661E-10	4.015E-10	2.755E-10	2.149E-10	1.750E-10	1.514E-10
NW	3.973E-10	1.027E-09	1.913E-09	4.885E-09	3.249E-09	1.619E-09	9.594E-10	6.394E-10	4.660E-10	3.642E-10	3.015E-10
NNW	1.286E-10	7.716E-10	1.643E-09	1.702E-09	2.076E-09	1.135E-09	7.137E-10	6.024E-10	4.470E-10	3.567E-10	3.020E-10
N	4.591E-09	4.470E-09	4.888E-09	4.001E-09	2.210E-09	1.424E-09	9.865E-10	7.178E-10	5.410E-10	4.191E-10	3.319E-10
NNE	3.575E-10	7.879E-10	1.405E-09	1.393E-09	8.533E-10	5.687E-10	4.006E-10	2.939E-10	2.224E-10	1.726E-10	1.367E-10
NE	3.712E-11	2.227E-10	4.742E-10	4.912E-10	3.068E-10	2.057E-10	1.453E-10	1.067E-10	8.084E-11	6.274E-11	4.969E-11
ENE	4.639E-11	2.783E-10	5.926E-10	6.138E-10	3.834E-10	2.571E-10	1.816E-10	1.334E-10	1.010E-10	7.841E-11	6.210E-11
E	3.708E-11	2.225E-10	4.737E-10	4.907E-10	3.065E-10	2.055E-10	1.452E-10	1.066E-10	8.076E-11	6.268E-11	4.964E-11
ESE	6.489E-11	3.893E-10	8.290E-10	8.587E-10	5.363E-10	3.596E-10	2.540E-10	1.866E-10	1.413E-10	1.097E-10	8.687E-11
SE	1.007E-10	6.043E-10	1.287E-09	1.333E-09	8.325E-10	5.582E-10	3.943E-10	2.896E-10	2.194E-10	1.703E-10	1.348E-10
SSE	1.881E-10	1.128E-09	2.403E-09	2.489E-09	1.555E-09	1.042E-09	7.363E-10	5.409E-10	4.096E-10	3.179E-10	2.518E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.620E-10	1.285E-10	9.003E-11	5.320E-11	3.369E-11	2.399E-11	1.708E-11	1.272E-11	9.671E-12	7.663E-12	6.257E-12
SSW	8.325E-11	7.377E-11	5.298E-11	3.197E-11	1.927E-11	1.315E-11	9.425E-12	7.079E-12	5.578E-12	4.455E-12	3.637E-12
SW	6.165E-11	6.159E-11	4.515E-11	2.767E-11	1.768E-11	1.121E-11	7.944E-12	5.965E-12	4.638E-12	3.705E-12	3.024E-12
WSW	6.896E-11	5.931E-11	4.245E-11	2.624E-11	1.588E-11	1.065E-11	7.670E-12	5.760E-12	4.478E-12	3.577E-12	2.920E-12
W	7.635E-11	3.456E-11	3.964E-11	2.533E-11	1.611E-11	1.101E-11	7.889E-12	5.924E-12	4.606E-12	3.680E-12	3.003E-12
WNW	1.389E-10	9.725E-11	7.400E-11	4.662E-11	2.819E-11	1.800E-11	1.247E-11	9.364E-12	7.329E-12	5.855E-12	4.779E-12
NW	2.623E-10	1.623E-10	1.172E-10	7.178E-11	4.369E-11	2.925E-11	2.110E-11	1.584E-11	1.237E-11	9.878E-12	8.063E-12
NNW	2.685E-10	1.770E-10	1.314E-10	8.132E-11	5.201E-11	3.440E-11	2.304E-11	1.696E-11	1.316E-11	1.051E-11	8.583E-12
N	2.676E-10	1.271E-10	7.771E-11	4.114E-11	8.703E-11	5.510E-11	3.938E-11	2.957E-11	2.300E-11	1.837E-11	1.500E-11
NNE	1.101E-10	1.807E-10	1.122E-10	5.839E-11	3.565E-11	2.385E-11	1.703E-11	1.273E-11	9.863E-12	7.855E-12	6.394E-12
NE	4.002E-11	6.554E-11	4.050E-11	2.100E-11	1.281E-11	8.576E-12	6.415E-12	4.754E-12	3.697E-12	2.973E-12	2.426E-12
ENE	5.001E-11	5.111E-11	3.624E-11	2.163E-11	1.372E-11	9.097E-12	6.404E-12	4.876E-12	3.788E-12	3.024E-12	2.468E-12
E	3.998E-11	5.856E-11	4.417E-11	2.765E-11	1.773E-11	1.172E-11	8.200E-12	5.987E-12	4.546E-12	3.504E-12	2.847E-12
ESE	6.996E-11	7.024E-11	4.961E-11	2.951E-11	1.870E-11	1.241E-11	8.735E-12	6.427E-12	4.917E-12	3.877E-12	3.131E-12
SE	1.086E-10	5.142E-11	3.133E-11	1.645E-11	1.000E-11	6.852E-12	5.094E-12	8.766E-12	6.752E-12	5.361E-12	4.363E-12
SSE	2.028E-10	2.285E-10	1.411E-10	7.301E-11	4.450E-11	2.979E-11	2.128E-11	1.593E-11	1.235E-11	9.842E-12	8.017E-12

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.415E-09	1.006E-09	4.850E-10	2.795E-10	1.961E-10	1.188E-10	5.271E-11	2.381E-11	1.281E-11	7.737E-12
SSW	9.156E-10	5.486E-10	2.535E-10	1.600E-10	1.037E-10	6.663E-11	3.100E-11	1.329E-11	7.177E-12	4.485E-12
SW	5.487E-10	5.696E-10	2.642E-10	1.286E-10	7.629E-11	5.430E-11	2.711E-11	1.163E-11	6.025E-12	3.729E-12
WSW	1.067E-09	8.840E-10	3.024E-10	1.454E-10	8.571E-11	5.396E-11	2.524E-11	1.085E-11	5.817E-12	3.601E-12
W	2.576E-09	1.020E-09	3.398E-10	1.629E-10	9.573E-11	4.610E-11	2.441E-11	1.112E-11	5.984E-12	3.704E-12
WNW	1.901E-09	1.189E-09	4.216E-10	2.170E-10	1.538E-10	9.617E-11	4.451E-11	1.851E-11	9.477E-12	5.893E-12
NW	3.037E-09	2.888E-09	1.007E-09	4.768E-10	3.056E-10	1.645E-10	6.939E-11	2.984E-11	1.602E-11	9.943E-12
NNW	1.475E-09	1.575E-09	7.816E-10	4.570E-10	3.058E-10	1.771E-10	7.943E-11	3.455E-11	1.725E-11	1.058E-11
N	4.401E-09	2.258E-09	9.956E-10	5.451E-10	3.339E-10	1.364E-10	6.967E-11	5.733E-11	2.987E-11	1.849E-11
NNE	1.263E-09	8.468E-10	4.027E-10	2.238E-10	1.375E-10	1.345E-10	6.024E-11	2.427E-11	1.287E-11	7.909E-12
NE	4.258E-10	3.028E-10	1.460E-10	8.135E-11	4.998E-11	4.874E-11	2.169E-11	8.841E-12	4.826E-12	2.985E-12
ENE	5.322E-10	3.785E-10	1.824E-10	1.017E-10	6.246E-11	4.426E-11	2.136E-11	9.252E-12	4.898E-12	3.044E-12
E	4.254E-10	3.025E-10	1.458E-10	8.126E-11	4.993E-11	4.804E-11	2.691E-11	1.191E-11	6.070E-12	3.570E-12
ESE	7.445E-10	5.294E-10	2.552E-10	1.422E-10	8.737E-11	6.101E-11	2.918E-11	1.262E-11	6.511E-12	3.909E-12
SE	1.156E-09	8.218E-10	3.961E-10	2.207E-10	1.356E-10	5.520E-11	1.689E-11	6.990E-12	6.950E-12	5.403E-12
SSE	2.158E-09	1.535E-09	7.397E-10	4.122E-10	2.532E-10	1.840E-10	7.548E-11	3.031E-11	1.609E-11	9.909E-12

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ERP ELEVATED STACK RELEASES - APR-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE TYPE	DIRECTION	DIST.	X/Q (SEC/M3)	X/Q (SEC/M3)	X/Q (SEC/M3)	D/Q (PER SQ. METER)
ID	LOCATION	FROM SITE (MI)	NO DECAY	2.26 DAY DECAY	8.0 DAY DECAY	
			UNDEPLETED	UNDEPLETED	DEPLETED	
A	Site Boundary	S	.80	2.5E-08	2.5E-08	1.7E-09
A	Site Boundary	SSW	.82	2.1E-08	2.1E-08	1.0E-09
A	Site Boundary	SW	.97	6.3E-08	6.3E-08	6.5E-10
A	Site Boundary	WSW	.93	6.7E-08	6.7E-08	1.4E-09
A	Site Boundary	W	.91	2.1E-07	2.1E-07	2.2E-09
A	Site Boundary	WNW	.94	1.6E-07	1.6E-07	2.3E-09
A	Site Boundary	NW	.81	1.3E-07	1.3E-07	2.0E-09
A	Site Boundary	NNW	.69	2.5E-08	2.5E-08	1.4E-09
A	Site Boundary	N	.67	4.3E-08	4.3E-08	4.7E-09
A	Site Boundary	NNE	.60	6.0E-09	6.0E-09	1.0E-09
A	Site Boundary	NE	.62	2.8E-09	2.8E-09	3.5E-10
A	Site Boundary	ENE	.59	1.9E-09	1.9E-09	3.9E-10
A	Site Boundary	E	.53	6.3E-10	6.3E-10	2.5E-10
A	Site Boundary	ESE	.54	1.3E-09	1.3E-09	4.5E-10
A	Site Boundary	SE	.65	7.6E-09	7.6E-09	1.0E-09
A	Site Boundary	SSE	.81	3.9E-08	3.9E-08	2.5E-09
A	Nearest Res	SW	1.30	1.2E-07	1.2E-07	9.8E-10
A	Nearest Res	WSW	1.80	1.2E-07	1.2E-07	5.9E-10
A	Nearest Res	WNW	2.40	1.4E-07	1.3E-07	4.4E-10
A	Nearest Res	NW	.90	2.0E-07	2.0E-07	5.2E-09
A	Nearest Res	NNW	1.90	1.9E-07	1.8E-07	1.3E-09
A	Nearest Res	NE	1.60	2.2E-08	2.2E-08	2.8E-10
A	Nearest Res	E	2.00	1.6E-08	1.6E-08	2.1E-10
A	Nearest Cow	NNW	3.50	1.3E-07	1.3E-07	4.5E-10
A	Nearest Garde	SW	2.20	8.2E-08	8.1E-08	3.3E-10
A	Nearest Garde	WSW	1.80	1.2E-07	1.2E-07	5.9E-10
A	Nearest Garde	WNW	2.60	1.2E-07	1.2E-07	3.7E-10
A	Nearest Garde	NW	1.90	3.1E-07	3.0E-07	1.8E-09
A	Nearest Garde	NNW	2.80	1.6E-07	1.5E-07	6.8E-10
A	Nearest Garde	ENE	1.70	2.0E-08	2.0E-08	3.2E-10
A	Nearest Garde	ESE	2.30	1.9E-08	1.9E-08	2.9E-10
A	MAXIMUM CHI/Q	S	1.50	5.2E-08	5.2E-08	1.0E-09
A	MAXIMUM CHI/Q	SSW	3.50	4.0E-08	4.0E-08	1.7E-10
A	MAXIMUM CHI/Q	SW	1.50	1.3E-07	1.3E-07	7.4E-10
A	MAXIMUM CHI/Q	WSW	1.50	1.6E-07	1.5E-07	8.7E-10
A	MAXIMUM CHI/Q	W	1.00	2.2E-07	2.2E-07	2.1E-09
A	MAXIMUM CHI/Q	WNW	1.50	2.9E-07	2.9E-07	1.3E-09
A	MAXIMUM CHI/Q	NW	1.50	4.8E-07	4.7E-07	3.2E-09
A	MAXIMUM CHI/Q	NNW	1.50	1.8E-07	1.8E-07	2.1E-09
A	MAXIMUM CHI/Q	N	1.50	8.8E-08	8.7E-08	2.2E-09
A	MAXIMUM CHI/Q	NNE	1.50	3.7E-08	3.7E-08	8.5E-10
A	MAXIMUM CHI/Q	NE	1.50	2.2E-08	2.2E-08	3.1E-10
A	MAXIMUM CHI/Q	ENE	1.50	2.0E-08	2.0E-08	3.8E-10
A	MAXIMUM CHI/Q	E	1.50	1.7E-08	1.7E-08	3.1E-10
A	MAXIMUM CHI/Q	ESE	1.50	2.3E-08	2.3E-08	5.4E-10
A	MAXIMUM CHI/Q	SE	1.50	3.6E-08	3.6E-08	8.3E-10
A	MAXIMUM CHI/Q	SSE	1.50	7.1E-08	7.0E-08	1.6E-09

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Atmospheric Diffusion Estimates

Elevated Releases

January-June 2022

ERP ELEVATED STACK RELEASES - JAN-JUN 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)											
	SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.868E-15	1.899E-09	2.870E-08	5.432E-08	6.722E-08	5.979E-08	4.994E-08	4.151E-08	3.487E-08	3.998E-08	4.446E-08	
SSW	2.948E-11	2.546E-09	1.819E-08	3.412E-08	4.524E-08	4.252E-08	3.696E-08	4.197E-08	4.381E-08	3.837E-08	3.402E-08	
SW	4.242E-16	4.685E-10	1.930E-08	5.608E-08	1.053E-07	7.255E-08	5.262E-08	4.002E-08	3.162E-08	2.576E-08	2.150E-08	
WSW	1.474E-11	1.225E-09	2.065E-08	5.733E-08	1.030E-07	6.571E-08	4.586E-08	3.415E-08	2.667E-08	2.157E-08	1.794E-08	
W	1.429E-13	1.808E-08	1.017E-07	1.407E-07	1.390E-07	8.861E-08	6.177E-08	4.591E-08	3.575E-08	2.884E-08	2.391E-08	
WNW	9.762E-15	3.162E-09	5.501E-08	1.315E-07	2.129E-07	1.337E-07	9.219E-08	7.141E-08	5.747E-08	4.581E-08	3.762E-08	
NW	1.474E-11	1.766E-09	5.423E-08	1.650E-07	3.021E-07	1.777E-07	1.178E-07	8.602E-08	6.612E-08	5.203E-08	4.226E-08	
NNW	1.210E-15	1.054E-09	3.148E-08	8.101E-08	1.438E-07	1.467E-07	1.369E-07	1.230E-07	1.111E-07	8.782E-08	7.165E-08	
N	1.844E-10	1.043E-08	3.547E-08	5.397E-08	6.534E-08	6.216E-08	5.492E-08	4.679E-08	4.013E-08	3.479E-08	3.050E-08	
NNE	1.231E-11	1.510E-09	1.468E-08	2.759E-08	3.587E-08	3.348E-08	2.911E-08	2.504E-08	2.167E-08	1.894E-08	1.675E-08	
NE	5.301E-16	5.301E-10	9.075E-09	1.835E-08	2.479E-08	2.336E-08	2.036E-08	1.750E-08	1.511E-08	1.317E-08	1.161E-08	
ENE	5.714E-09	2.177E-09	9.822E-09	1.946E-08	2.654E-08	2.500E-08	2.170E-08	1.856E-08	1.595E-08	1.384E-08	1.215E-08	
E	3.787E-16	3.918E-10	6.778E-09	1.946E-08	1.817E-08	1.693E-08	1.464E-08	1.252E-08	1.078E-08	9.373E-09	8.250E-09	
ESE	3.791E-09	1.651E-09	9.886E-09	1.915E-08	2.524E-08	2.342E-08	2.017E-08	1.716E-08	1.468E-08	1.269E-08	1.111E-08	
SE	2.281E-15	1.536E-09	2.272E-08	4.264E-08	5.285E-08	4.738E-08	3.991E-08	3.342E-08	2.825E-08	2.419E-08	2.098E-08	
SSE	4.328E-15	2.984E-09	4.395E-08	8.173E-08	9.966E-08	8.832E-08	7.377E-08	6.139E-08	5.163E-08	4.403E-08	3.808E-08	

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)											
	SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.018E-08	3.009E-08	1.988E-08	1.166E-08	8.493E-09	6.598E-09	5.173E-09	4.216E-09	3.583E-09	3.097E-09	2.694E-09	
SSW	3.148E-08	2.613E-08	1.717E-08	1.000E-08	7.358E-09	5.622E-09	4.399E-09	3.580E-09	3.000E-09	2.566E-09	2.233E-09	
SW	1.948E-08	1.385E-08	9.071E-09	5.249E-09	3.721E-09	2.838E-09	2.279E-09	1.848E-09	1.541E-09	1.314E-09	1.140E-09	
WSW	1.600E-08	1.118E-08	8.286E-09	5.374E-09	3.652E-09	2.712E-09	2.131E-09	1.737E-09	1.457E-09	1.248E-09	1.088E-09	
W	2.025E-08	1.118E-08	8.075E-09	5.333E-09	3.987E-09	2.963E-09	2.313E-09	1.878E-09	1.569E-09	1.340E-09	1.164E-09	
WNW	3.199E-08	1.798E-08	1.224E-08	7.435E-09	5.101E-09	3.810E-09	3.012E-09	2.461E-09	2.060E-09	1.759E-09	1.527E-09	
NW	3.549E-08	1.904E-08	1.262E-08	7.368E-09	4.920E-09	3.604E-09	2.821E-09	2.283E-09	1.898E-09	1.614E-09	1.396E-09	
NNW	6.121E-08	3.490E-08	2.273E-08	1.311E-08	8.902E-09	6.603E-09	5.227E-09	4.291E-09	3.649E-09	3.137E-09	2.728E-09	
N	2.708E-08	1.731E-08	1.442E-08	1.164E-08	9.829E-09	8.119E-09	6.387E-09	5.200E-09	4.348E-09	3.714E-09	3.228E-09	
NNE	1.919E-08	3.579E-08	2.346E-08	1.367E-08	9.351E-09	6.981E-09	5.505E-09	4.508E-09	3.793E-09	3.259E-09	2.847E-09	
NE	1.306E-08	2.069E-08	1.348E-08	7.785E-09	5.295E-09	3.935E-09	3.123E-09	2.566E-09	2.166E-09	1.855E-09	1.616E-09	
ENE	1.299E-08	1.840E-08	1.213E-08	7.097E-09	4.858E-09	3.624E-09	2.968E-09	2.482E-09	2.080E-09	1.781E-09	1.551E-09	
E	8.981E-09	1.644E-08	1.103E-08	6.607E-09	4.595E-09	3.470E-09	2.760E-09	2.276E-09	2.013E-09	1.792E-09	1.567E-09	
ESE	1.149E-08	1.505E-08	1.010E-08	6.039E-09	4.189E-09	3.155E-09	2.503E-09	2.059E-09	1.739E-09	1.499E-09	1.312E-09	
SE	1.841E-08	1.127E-08	8.688E-09	6.176E-09	4.474E-09	3.480E-09	2.832E-09	2.377E-09	1.986E-09	1.695E-09	1.471E-09	
SSE	3.990E-08	4.486E-08	2.883E-08	1.634E-08	1.097E-08	8.066E-09	6.284E-09	5.093E-09	4.248E-09	3.622E-09	3.142E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.413E-08	6.105E-08	4.919E-08	3.871E-08	4.155E-08	2.780E-08	1.208E-08	6.534E-09	4.248E-09	3.092E-09
SSW	2.179E-08	4.156E-08	4.045E-08	4.121E-08	3.437E-08	2.334E-08	1.042E-08	5.596E-09	3.593E-09	2.571E-09
SW	3.146E-08	7.980E-08	5.289E-08	3.179E-08	2.202E-08	1.298E-08	5.419E-09	2.850E-09	1.854E-09	1.317E-09
WSW	3.264E-08	7.630E-08	4.647E-08	2.686E-08	1.830E-08	1.097E-08	5.256E-09	2.730E-09	1.743E-09	1.251E-09
W	1.004E-07	1.170E-07	6.258E-08	3.602E-08	2.402E-08	1.182E-08	5.344E-09	2.976E-09	1.885E-09	1.343E-09
WNW	7.750E-08	1.596E-07	9.493E-08	5.701E-08	3.796E-08	1.854E-08	7.466E-09	3.835E-09	2.466E-09	1.762E-09
NW	9.179E-08	2.163E-07	1.211E-07	6.643E-07	4.265E-08	1.984E-08	7.448E-09	3.642E-09	2.290E-09	1.617E-09
NNW	4.673E-08	1.311E-07	1.339E-07	1.056E-07	7.258E-08	3.534E-08	1.338E-08	6.666E-09	4.314E-09	3.137E-09
N	3.813E-08	6.140E-08	5.360E-08	4.000E-08	3.050E-08	1.820E-08	1.145E-08	7.882E-09	5.214E-09	3.722E-09
NNE	1.749E-08	3.297E-08	2.865E-08	2.159E-08	1.830E-08	2.662E-08	1.393E-08	7.022E-09	4.520E-09	3.265E-09
NE	1.130E-08	2.273E-08	2.002E-08	1.505E-08	1.261E-08	1.579E-08	7.943E-09	3.973E-09	2.573E-09	1.859E-09
ENE	1.241E-08	2.428E-08	2.132E-08	1.589E-08	1.296E-08	1.441E-08	7.221E-09	3.691E-09	2.468E-09	1.785E-09
E	8.412E-09	1.661E-08	1.441E-08	1.074E-08	8.854E-09	1.238E-08	6.696E-09	3.486E-09	2.314E-09	1.774E-09
ESE	1.217E-08	2.308E-08	1.983E-08	1.463E-08	1.172E-08	1.206E-08	6.120E-09	3.170E-09	2.064E-09	1.501E-09
SE	2.687E-08	4.815E-08	3.931E-08	2.818E-08	2.098E-08	1.171E-08	5.978E-09	3.486E-09	2.358E-09	1.699E-09
SSE	5.163E-08	9.064E-08	7.270E-08	5.153E-08	4.052E-08	3.663E-08	1.673E-08	8.127E-09	5.111E-09	3.630E-09

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ERP ELEVATED STACK RELEASES - JAN-JUN 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE										
SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.867E-15	1.898E-09	2.868E-08	5.426E-08	6.709E-08	5.962E-08	4.976E-08	4.133E-08	3.469E-08	3.971E-08	4.407E-08
SSW	2.947E-11	2.544E-09	1.817E-08	3.406E-08	4.511E-08	4.235E-08	3.677E-08	4.169E-08	4.347E-08	3.802E-08	3.366E-08
SW	4.241E-16	4.681E-10	1.927E-08	5.596E-08	1.049E-07	7.221E-08	5.231E-08	3.973E-08	3.135E-08	2.550E-08	2.126E-08
WSW	1.474E-11	1.225E-09	2.063E-08	5.723E-08	1.027E-07	6.540E-08	4.558E-08	3.389E-08	2.642E-08	2.134E-08	1.771E-08
W	1.428E-13	1.806E-08	1.015E-07	1.404E-07	1.385E-07	8.812E-08	6.133E-08	4.551E-08	3.538E-08	2.849E-08	2.358E-08
WNW	9.760E-15	3.160E-09	5.495E-08	1.313E-07	2.123E-07	1.331E-07	9.168E-08	7.093E-08	5.700E-08	4.538E-08	3.722E-08
NW	1.474E-11	1.765E-09	5.417E-08	1.647E-07	3.014E-07	1.772E-07	1.173E-07	8.562E-08	6.576E-08	5.170E-08	4.197E-08
NNW	1.210E-15	1.054E-09	3.145E-08	8.088E-08	1.434E-07	1.462E-07	1.364E-07	1.223E-07	1.104E-07	8.719E-08	7.107E-08
N	1.844E-10	1.043E-08	3.545E-08	5.391E-08	6.522E-08	6.199E-08	5.472E-08	4.659E-08	3.992E-08	3.458E-08	3.029E-08
NNE	1.231E-11	1.509E-09	1.467E-08	2.755E-08	3.580E-08	3.338E-08	2.900E-08	2.492E-08	2.154E-08	1.881E-08	1.662E-08
NE	5.300E-16	5.297E-10	9.065E-09	1.833E-08	2.473E-08	2.328E-08	2.027E-08	1.741E-08	1.502E-08	1.308E-08	1.152E-08
ENE	5.712E-09	2.176E-09	9.809E-09	1.942E-08	2.646E-08	2.489E-08	2.158E-08	1.844E-08	1.583E-08	1.372E-08	1.203E-08
E	3.786E-16	3.091E-10	6.770E-09	1.363E-08	1.812E-08	1.488E-08	1.459E-08	1.246E-08	1.072E-08	9.313E-09	8.191E-09
ESE	3.791E-09	1.650E-09	9.876E-09	1.912E-08	2.518E-08	2.334E-08	2.007E-08	1.706E-08	1.458E-08	1.259E-08	1.100E-08
SE	2.281E-15	1.536E-09	2.271E-08	4.259E-08	5.276E-08	4.727E-08	3.978E-08	3.329E-08	2.812E-08	2.406E-08	2.085E-08
SSE	4.327E-15	2.983E-09	4.391E-08	8.165E-08	9.951E-08	8.813E-08	7.357E-08	6.119E-08	5.143E-08	4.383E-08	3.788E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE										
SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.977E-08	2.949E-08	1.934E-08	1.117E-08	8.007E-09	6.119E-09	4.725E-09	3.793E-09	3.173E-09	2.700E-09	2.315E-09
SSW	3.110E-08	2.555E-08	1.665E-08	9.543E-09	6.893E-09	5.174E-09	3.981E-09	3.186E-09	2.626E-09	2.209E-09	1.890E-09
SW	1.923E-08	1.354E-08	8.795E-09	5.007E-09	3.488E-09	2.614E-09	2.062E-09	1.644E-09	1.349E-09	1.132E-09	9.662E-10
WSW	1.578E-08	1.092E-08	8.013E-09	5.100E-09	3.405E-09	2.485E-09	1.918E-09	1.537E-09	1.267E-09	1.068E-09	9.145E-10
W	1.994E-08	1.091E-08	7.808E-09	5.063E-09	3.715E-09	2.713E-09	2.082E-09	1.663E-09	1.367E-09	1.149E-09	9.820E-10
WNW	3.160E-08	1.765E-08	1.193E-08	7.152E-09	4.842E-09	3.570E-09	2.785E-09	2.246E-09	1.856E-09	1.565E-09	1.342E-09
NW	3.521E-08	1.882E-08	1.243E-08	7.197E-09	4.769E-09	3.466E-09	2.693E-09	2.163E-09	1.785E-09	1.506E-09	1.293E-09
NNW	6.065E-08	3.441E-08	2.230E-08	1.274E-08	8.567E-09	6.295E-09	4.936E-09	4.014E-09	3.381E-09	2.879E-09	2.480E-09
N	2.688E-08	1.711E-08	1.420E-08	1.137E-08	9.518E-09	7.799E-09	6.087E-09	4.917E-09	4.080E-09	3.460E-09	2.984E-09
NNE	1.902E-08	3.524E-08	2.297E-08	1.324E-08	8.964E-09	6.622E-09	5.167E-09	4.187E-09	3.488E-09	2.966E-09	2.565E-09
NE	1.294E-08	2.040E-08	1.322E-08	7.565E-09	5.097E-09	3.753E-09	2.952E-09	2.403E-09	2.010E-09	1.707E-09	1.474E-09
ENE	1.285E-08	1.808E-08	1.186E-08	6.857E-09	4.643E-09	3.427E-09	2.778E-09	2.301E-09	1.909E-09	1.619E-09	1.396E-09
E	8.909E-09	1.620E-08	1.082E-08	6.413E-09	4.416E-09	3.302E-09	2.601E-09	2.124E-09	1.860E-09	1.638E-09	1.420E-09
ESE	1.137E-08	1.481E-08	9.889E-09	5.849E-09	4.016E-09	2.995E-09	2.353E-09	1.917E-09	1.604E-09	1.369E-09	1.188E-09
SE	1.828E-08	1.115E-08	8.555E-09	6.024E-09	4.324E-09	3.332E-09	2.687E-09	2.234E-09	1.851E-09	1.566E-09	1.348E-09
SSE	3.966E-08	4.422E-08	2.828E-08	1.586E-08	1.054E-08	7.671E-09	5.915E-09	4.746E-09	3.919E-09	3.308E-09	2.841E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.410E-08	6.092E-08	4.901E-08	3.850E-08	4.119E-08	2.726E-08	1.158E-08	6.065E-09	3.823E-09	2.698E-09
SSW	2.176E-08	4.143E-08	4.023E-08	4.088E-08	3.400E-08	2.283E-08	9.944E-09	5.155E-09	3.200E-09	2.214E-09
SW	3.140E-08	7.951E-08	5.258E-08	3.152E-08	2.176E-08	1.270E-08	5.174E-09	2.626E-09	1.651E-09	1.135E-09
WSW	3.258E-08	7.602E-08	4.619E-08	2.662E-08	1.807E-08	1.071E-08	4.994E-09	2.504E-09	1.543E-09	1.070E-09
W	1.002E-07	1.165E-07	6.215E-08	3.565E-08	2.368E-08	1.154E-08	5.074E-09	2.728E-09	1.670E-09	1.152E-09
WNW	7.737E-08	1.591E-07	9.442E-08	5.655E-08	3.756E-08	1.821E-08	7.188E-09	3.595E-09	2.252E-09	1.569E-09
NW	9.167E-08	2.158E-07	1.206E-07	6.608E-08	4.235E-08	1.962E-08	7.280E-09	3.504E-09	2.170E-09	1.510E-09
NNW	4.667E-08	1.308E-07	1.334E-07	1.050E-07	7.199E-08	3.486E-08	1.301E-08	6.358E-09	4.036E-09	2.880E-09
N	3.809E-08	6.127E-08	5.341E-08	3.979E-08	3.030E-08	1.799E-08	1.117E-08	7.573E-09	4.932E-09	3.467E-09
NNE	1.747E-08	3.289E-08	2.853E-08	2.147E-08	1.816E-08	2.618E-08	1.350E-08	6.665E-09	4.201E-09	2.972E-09
NE	1.128E-08	2.266E-08	1.993E-08	1.496E-08	1.251E-08	1.555E-08	7.725E-09	3.791E-09	2.410E-09	1.710E-09
ENE	1.239E-08	2.420E-08	2.121E-08	1.577E-08	1.283E-08	1.415E-08	6.984E-09	3.492E-09	2.288E-09	1.623E-09
E	8.400E-09	1.657E-08	1.435E-08	1.068E-08	8.789E-09	1.219E-08	6.504E-09	3.319E-09	2.160E-09	1.623E-09
ESE	1.216E-08	2.301E-08	1.974E-08	1.453E-08	1.161E-08	1.186E-08	5.932E-09	3.010E-09	1.922E-09	1.372E-09
SE	2.684E-08	4.806E-08	3.918E-08	2.805E-08	2.085E-08	1.158E-08	5.831E-09	3.338E-09	2.217E-09	1.569E-09
SSE	5.159E-08	9.048E-08	7.250E-08	5.132E-08	4.030E-08	3.612E-08	1.626E-08	7.733E-09	4.765E-09	3.316E-09

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ERP ELEVATED STACK RELEASES - JAN-JUN 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	2.868E-15	1.899E-09	2.870E-08	5.431E-08	6.659E-08	5.869E-08	4.861E-08	4.009E-08	3.344E-08	3.826E-08	4.257E-08	
SSW	2.948E-11	2.530E-09	1.813E-08	3.405E-08	4.479E-08	4.177E-08	3.605E-08	4.078E-08	4.246E-08	3.703E-08	3.272E-08	
SW	4.242E-16	4.684E-10	1.929E-08	5.604E-08	1.042E-07	7.127E-08	5.137E-08	3.886E-08	3.056E-08	2.479E-08	2.061E-08	
WSW	1.474E-11	1.218E-09	2.061E-08	5.718E-08	1.018E-07	6.443E-08	4.469E-08	3.311E-08	2.574E-08	2.074E-08	1.719E-08	
W	1.429E-13	1.808E-08	1.012E-07	1.393E-07	1.365E-07	8.636E-08	5.984E-08	4.425E-08	3.432E-08	2.757E-08	2.278E-08	
WNW	9.761E-15	3.161E-09	5.493E-08	1.307E-07	2.107E-07	1.316E-07	9.039E-08	6.984E-08	5.608E-08	4.453E-08	3.640E-08	
NW	1.474E-11	1.758E-09	5.417E-08	1.642E-07	2.985E-07	1.743E-07	1.148E-07	8.344E-08	6.389E-08	5.002E-08	4.040E-08	
NNW	1.210E-15	1.054E-09	3.147E-08	8.097E-08	1.426E-07	1.446E-07	1.346E-07	1.206E-07	1.088E-07	8.566E-08	6.953E-08	
N	1.844E-10	1.035E-08	3.518E-08	5.366E-08	6.462E-08	6.109E-08	5.367E-08	4.550E-08	3.885E-08	3.355E-08	2.931E-08	
NNE	1.231E-11	1.504E-09	1.466E-08	2.756E-08	3.554E-08	3.292E-08	2.844E-08	2.432E-08	2.094E-08	1.823E-08	1.606E-08	
NE	5.301E-16	5.300E-10	9.072E-09	1.835E-08	2.457E-08	2.298E-08	1.989E-08	1.700E-08	1.460E-08	1.267E-08	1.113E-08	
ENE	5.714E-09	2.162E-09	9.806E-09	1.944E-08	2.628E-08	2.455E-08	2.115E-08	1.797E-08	1.535E-08	1.325E-08	1.157E-08	
E	3.787E-16	3.918E-10	6.776E-09	1.364E-08	1.800E-08	1.664E-08	1.430E-08	1.215E-08	1.040E-08	9.007E-09	7.895E-09	
ESE	3.791E-09	1.641E-09	9.875E-09	1.913E-08	2.501E-08	2.301E-08	1.966E-08	1.662E-08	1.413E-08	1.216E-08	1.058E-08	
SE	2.281E-15	1.536E-09	2.272E-08	4.262E-08	5.236E-08	4.655E-08	3.891E-08	3.236E-08	2.718E-08	2.314E-08	1.997E-08	
SSE	4.327E-15	2.984E-09	4.394E-08	8.170E-08	9.875E-08	8.675E-08	7.189E-08	5.940E-08	4.964E-08	4.208E-08	3.620E-08	

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	
S	3.837E-08	2.831E-08	1.810E-08	9.921E-09	6.698E-09	4.875E-09	3.621E-09	2.809E-09	2.288E-09	1.912E-09	1.613E-09	
SSW	3.022E-08	2.474E-08	1.571E-08	8.527E-09	5.808E-09	4.241E-09	3.193E-09	2.508E-09	2.034E-09	1.688E-09	1.426E-09	
SW	1.864E-08	1.304E-08	8.253E-09	4.455E-09	2.922E-09	2.087E-09	1.606E-09	1.255E-09	1.012E-09	8.358E-10	7.036E-10	
WSW	1.531E-08	1.050E-08	7.538E-09	4.619E-09	2.993E-09	2.133E-09	1.615E-09	1.273E-09	1.035E-09	8.611E-10	7.295E-10	
W	1.923E-08	1.047E-08	7.459E-09	4.645E-09	3.259E-09	2.324E-09	1.749E-09	1.373E-09	1.112E-09	9.226E-10	7.798E-10	
WNW	3.079E-08	1.676E-08	1.101E-08	6.210E-09	3.917E-09	2.753E-09	2.081E-09	1.640E-09	1.327E-09	1.098E-09	9.258E-10	
NW	3.373E-08	1.752E-08	1.123E-08	6.156E-09	3.887E-09	2.715E-09	2.047E-09	1.603E-09	1.293E-09	1.069E-09	9.006E-10	
NNW	5.908E-08	3.263E-08	2.051E-08	1.100E-08	6.862E-09	4.741E-09	3.534E-09	2.768E-09	2.270E-09	1.890E-09	1.595E-09	
N	2.594E-08	1.640E-08	1.363E-08	1.100E-08	9.076E-09	7.148E-09	5.454E-09	4.319E-09	3.521E-09	2.938E-09	2.498E-09	
NNE	1.844E-08	3.457E-08	2.187E-08	1.198E-08	7.738E-09	5.501E-09	4.156E-09	3.275E-09	2.660E-09	2.213E-09	1.875E-09	
NE	1.254E-08	1.991E-08	1.253E-08	6.808E-09	4.373E-09	3.096E-09	2.363E-09	1.878E-09	1.538E-09	1.282E-09	1.088E-09	
ENE	1.238E-08	1.762E-08	1.124E-08	6.130E-09	3.876E-09	2.704E-09	2.086E-09	1.669E-09	1.352E-09	1.121E-09	9.474E-10	
E	8.605E-09	1.591E-08	1.032E-08	5.750E-09	3.679E-09	2.589E-09	1.936E-09	1.510E-09	1.268E-09	1.080E-09	9.116E-10	
ESE	1.094E-08	1.443E-08	9.379E-09	5.240E-09	3.364E-09	2.372E-09	1.776E-09	1.387E-09	1.116E-09	9.200E-10	7.725E-10	
SE	1.745E-08	1.050E-08	8.022E-09	5.653E-09	4.058E-09	3.135E-09	2.538E-09	2.112E-09	1.724E-09	1.442E-09	1.227E-09	
SSE	3.790E-08	4.247E-08	2.635E-08	1.403E-08	8.882E-09	6.215E-09	4.633E-09	3.609E-09	2.903E-09	2.393E-09	2.011E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.412E-08	6.035E-08	4.789E-08	3.718E-08	3.974E-08	2.601E-08	1.031E-08	4.859E-09	2.843E-09	1.913E-09
SSW	2.174E-08	4.106E-08	3.947E-08	3.991E-08	3.307E-08	2.194E-08	8.914E-09	4.240E-09	2.523E-09	1.693E-09
SW	3.144E-08	7.888E-08	5.167E-08	3.073E-08	2.112E-08	1.216E-08	4.617E-09	2.117E-09	1.263E-09	8.390E-10
WSW	3.256E-08	7.528E-08	4.532E-08	2.594E-08	1.755E-08	1.025E-08	4.545E-09	2.155E-09	1.280E-09	8.640E-10
W	9.964E-08	1.148E-07	6.068E-08	3.459E-08	2.288E-08	1.108E-08	4.654E-09	2.343E-09	1.381E-09	9.259E-10
WNW	7.710E-08	1.578E-07	9.315E-08	5.561E-08	1.732E-08	6.732E-08	6.258E-09	2.794E-09	1.647E-09	1.102E-09
NW	9.145E-08	2.135E-07	1.181E-07	6.419E-08	4.078E-08	1.833E-08	6.275E-09	2.760E-09	1.612E-09	1.073E-09
NNW	4.671E-08	1.298E-07	1.317E-07	1.034E-07	7.044E-08	3.312E-08	1.127E-08	4.824E-09	2.797E-09	1.894E-09
N	3.787E-08	6.061E-08	5.238E-08	3.873E-08	2.932E-08	1.729E-08	1.073E-08	6.985E-09	4.339E-09	2.948E-09
NNE	1.747E-08	3.260E-08	2.799E-08	2.087E-08	1.758E-08	2.534E-08	1.229E-08	5.560E-09	3.293E-09	2.220E-09
NE	1.130E-08	2.248E-08	1.956E-08	1.455E-08	1.211E-08	1.499E-08	6.997E-09	3.143E-09	1.887E-09	1.286E-09
ENE	1.239E-08	2.399E-08	2.078E-08	1.530E-08	1.237E-08	1.362E-08	6.263E-09	2.769E-09	1.667E-09	1.125E-09
E	8.408E-09	1.643E-08	1.407E-08	1.037E-08	8.487E-09	1.180E-08	5.844E-09	2.618E-09	1.540E-09	1.073E-09
ESE	1.216E-08	2.281E-08	1.934E-08	1.409E-08	1.118E-08	1.141E-08	5.326E-09	2.398E-09	1.395E-09	9.236E-10
SE	2.686E-08	4.762E-08	3.833E-08	2.712E-08	1.998E-08	1.094E-08	5.471E-09	3.142E-09	2.086E-09	1.446E-09
SSE	5.162E-08	8.963E-08	7.086E-08	4.955E-08	3.857E-08	3.429E-08	1.448E-08	6.293E-09	3.633E-09	2.403E-09

B297

ERP ELEVATED STACK RELEASES - JAN-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	1.937E-10	1.162E-09	2.475E-09	2.563E-09	1.601E-09	1.074E-09	7.583E-10	5.570E-10	4.219E-10	3.727E-10	3.166E-10
SSW	3.406E-10	6.746E-10	1.162E-09	1.140E-09	6.951E-10	4.627E-10	3.257E-10	2.388E-10	2.264E-10	1.712E-10	1.340E-10
SW	4.148E-11	2.488E-10	5.298E-10	5.488E-10	6.483E-10	3.569E-10	2.228E-10	1.519E-10	1.101E-10	8.340E-11	6.531E-11
WSW	1.643E-10	3.013E-10	5.042E-10	1.112E-09	5.804E-10	3.154E-10	1.950E-10	1.322E-10	9.545E-11	7.213E-11	5.643E-11
W	3.481E-11	1.689E-09	1.665E-09	1.198E-09	5.758E-10	3.113E-10	1.922E-10	1.305E-10	9.461E-11	7.201E-11	5.691E-11
WNW	4.212E-11	2.527E-10	1.929E-09	1.397E-09	9.145E-10	4.638E-10	2.806E-10	1.936E-10	1.513E-10	1.248E-10	1.093E-10
NW	2.157E-10	6.097E-10	1.161E-09	2.997E-09	1.993E-09	9.933E-10	5.888E-10	3.931E-10	2.873E-10	2.253E-10	1.872E-10
NNW	9.488E-11	5.692E-10	1.212E-09	1.255E-09	1.542E-09	8.419E-10	5.266E-10	4.504E-10	3.375E-10	2.724E-10	2.335E-10
N	2.361E-09	2.530E-09	3.053E-09	2.627E-09	1.495E-09	9.731E-10	6.778E-10	4.944E-10	3.731E-10	2.892E-10	2.290E-10
NNE	2.170E-10	6.178E-10	1.178E-09	1.189E-09	7.340E-10	4.904E-10	3.458E-10	2.539E-10	1.922E-10	1.491E-10	1.181E-10
NE	4.676E-11	2.805E-10	5.973E-10	6.187E-10	3.865E-10	2.591E-10	1.830E-10	1.345E-10	1.018E-10	7.904E-11	6.259E-11
ENE	1.790E-10	3.896E-10	6.922E-10	6.855E-10	4.196E-10	2.796E-10	1.969E-10	1.445E-10	1.093E-10	8.484E-11	6.718E-11
E	3.473E-11	2.083E-10	4.436E-10	4.595E-10	2.870E-10	1.924E-10	1.359E-10	9.986E-11	7.563E-11	5.870E-11	4.649E-11
ESE	1.863E-10	4.335E-10	7.857E-10	7.823E-10	4.801E-10	3.202E-10	2.256E-10	1.655E-10	1.253E-10	9.721E-11	7.699E-11
SE	1.496E-10	8.976E-10	1.911E-09	1.980E-09	1.237E-09	8.291E-10	5.857E-10	4.302E-10	3.258E-10	2.529E-10	2.003E-10
SSE	2.832E-10	1.699E-09	3.617E-09	3.747E-09	2.340E-09	1.569E-09	1.108E-09	8.143E-10	6.167E-10	4.787E-10	3.791E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	2.545E-10	1.581E-10	1.039E-10	5.801E-11	3.621E-11	2.897E-11	2.068E-11	1.547E-11	1.202E-11	9.567E-12	7.809E-12
SSW	1.085E-10	8.656E-11	6.077E-11	3.599E-11	2.231E-11	1.550E-11	1.111E-11	8.343E-12	6.548E-12	5.231E-12	4.269E-12
SW	5.346E-11	4.925E-11	3.559E-11	2.156E-11	1.374E-11	8.936E-12	6.366E-12	4.781E-12	3.717E-12	2.969E-12	2.424E-12
WSW	4.589E-11	3.733E-11	2.640E-11	1.638E-11	9.915E-12	6.648E-12	4.824E-12	3.622E-12	2.816E-12	2.250E-12	1.836E-12
W	4.636E-11	2.207E-11	3.009E-11	1.935E-11	1.143E-11	7.850E-12	5.625E-12	4.224E-12	3.284E-12	2.623E-12	2.141E-12
WNW	1.017E-10	7.330E-11	5.636E-11	3.578E-11	2.114E-11	1.349E-11	9.380E-12	7.044E-12	5.525E-12	4.414E-12	3.603E-12
NW	1.635E-10	1.024E-10	7.434E-11	4.556E-11	2.774E-11	1.857E-11	1.331E-11	9.993E-12	7.794E-12	6.226E-12	5.082E-12
NNW	2.100E-10	1.431E-10	1.077E-10	6.730E-11	4.314E-11	2.852E-11	1.887E-11	1.362E-11	1.063E-11	8.491E-12	6.931E-12
N	1.846E-10	8.759E-11	5.352E-11	2.828E-11	7.645E-11	4.572E-11	3.271E-11	2.456E-11	1.910E-11	1.526E-11	1.245E-11
NNE	9.513E-11	1.792E-10	1.104E-10	5.701E-11	3.473E-11	2.325E-11	1.661E-11	1.244E-11	9.647E-12	7.690E-12	6.266E-12
NE	5.041E-11	1.070E-10	6.575E-11	3.384E-11	2.060E-11	1.379E-11	1.007E-11	7.514E-12	5.842E-12	4.677E-12	3.817E-12
ENE	5.412E-11	7.358E-11	5.492E-11	3.412E-11	2.186E-11	1.446E-11	1.014E-11	6.768E-12	5.266E-12	4.210E-12	3.439E-12
E	3.744E-11	6.078E-11	4.647E-11	2.937E-11	1.887E-11	1.247E-11	8.713E-12	6.352E-12	4.816E-12	3.524E-12	2.870E-12
ESE	6.201E-11	7.353E-11	5.367E-11	3.279E-11	2.092E-11	1.386E-11	9.730E-12	7.135E-12	5.439E-12	4.275E-12	3.441E-12
SE	1.613E-10	7.637E-11	4.654E-11	2.445E-11	1.486E-11	1.019E-11	7.592E-12	1.409E-11	1.083E-11	8.577E-12	6.964E-12
SSE	3.053E-10	3.408E-10	2.094E-10	1.076E-10	6.548E-11	4.385E-11	3.135E-11	2.348E-11	1.822E-11	1.453E-11	1.184E-11

***** RELATIVE DEPOSITION PER UNIT AREA (M**2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.222E-09	1.580E-09	7.619E-10	4.418E-10	3.102E-10	1.554E-10	5.852E-11	2.758E-11	1.564E-11	9.642E-12
SSW	1.044E-09	6.908E-10	3.275E-10	2.089E-10	1.356E-10	7.998E-11	3.541E-11	1.556E-11	8.449E-12	5.265E-12
SW	4.758E-10	4.967E-10	2.302E-10	1.119E-10	6.628E-11	4.411E-11	2.120E-11	9.189E-12	4.828E-12	2.989E-12
WSW	7.294E-10	5.808E-10	2.020E-10	9.707E-11	5.718E-11	3.438E-11	1.573E-11	6.790E-12	3.659E-12	2.265E-12
W	1.463E-09	5.965E-10	1.993E-10	9.625E-11	5.748E-11	3.103E-11	1.822E-11	7.915E-12	4.266E-12	2.641E-12
WNW	1.320E-09	8.215E-10	2.947E-10	1.533E-10	1.111E-10	7.209E-11	3.385E-11	1.388E-11	7.133E-12	4.443E-12
NW	1.854E-09	1.772E-09	6.184E-10	2.939E-10	1.897E-10	1.035E-10	4.404E-11	1.891E-11	1.010E-11	6.267E-12
NNW	1.088E-09	1.167E-09	5.802E-10	3.449E-10	2.363E-10	1.422E-10	6.554E-11	2.856E-11	1.398E-11	8.547E-12
N	2.747E-09	1.515E-09	6.832E-10	3.758E-10	2.304E-10	9.400E-11	5.530E-11	4.871E-11	2.481E-11	1.536E-11
NNE	1.058E-09	7.268E-10	3.476E-10	1.934E-10	1.188E-10	1.299E-10	5.898E-11	2.365E-11	1.257E-11	7.743E-12
NE	5.364E-10	3.815E-10	1.839E-10	1.025E-10	6.296E-11	7.608E-11	3.505E-11	1.412E-11	7.608E-12	4.704E-12
ENE	6.219E-10	4.164E-10	1.980E-10	1.100E-10	6.758E-11	6.096E-11	3.329E-11	1.470E-11	7.159E-12	4.237E-12
E	3.984E-10	2.833E-10	1.366E-10	7.610E-11	4.676E-11	4.923E-11	2.850E-11	1.267E-11	6.442E-12	3.665E-12
ESE	7.059E-10	4.762E-10	2.268E-10	1.261E-10	7.743E-11	6.215E-11	3.215E-11	1.409E-11	7.230E-12	4.311E-12
SE	1.716E-09	1.221E-09	5.884E-10	3.279E-10	2.014E-10	8.199E-11	2.510E-11	1.040E-11	1.099E-11	8.647E-12
SSE	3.249E-09	2.310E-09	1.114E-09	6.206E-10	3.813E-10	2.745E-10	1.115E-10	4.462E-11	2.373E-11	1.463E-11

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ERP ELEVATED STACK RELEASES - JAN-JUN 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST. (MI)	X/Q (SEC/M3) NO DEPLETION	X/Q (SEC/M3) 2.26 DAY DEPLETION	X/Q (SEC/M3) 8.0 DAY DEPLETION	D/Q (PER SQ. METER)
A	Site Boundary	S	.80	3.5E-08	3.5E-08	3.5E-08	2.6E-09
A	Site Boundary	SSW	.82	2.4E-08	2.4E-08	2.4E-08	1.2E-09
A	Site Boundary	SW	.97	5.2E-08	5.2E-08	5.2E-08	5.6E-10
A	Site Boundary	WSW	.93	4.6E-08	4.6E-08	4.6E-08	9.3E-10
A	Site Boundary	W	.91	1.3E-07	1.3E-07	1.3E-07	1.3E-09
A	Site Boundary	WNW	.94	1.1E-07	1.1E-07	1.1E-07	1.6E-09
A	Site Boundary	NW	.81	8.0E-08	7.9E-08	8.0E-08	1.2E-09
A	Site Boundary	NNW	.69	1.9E-08	1.9E-08	1.9E-08	1.0E-09
A	Site Boundary	N	.67	2.6E-08	2.6E-08	2.6E-08	2.9E-09
A	Site Boundary	NNE	.60	4.9E-09	4.9E-09	4.9E-09	8.3E-10
A	Site Boundary	NE	.62	3.4E-09	3.4E-09	3.4E-09	4.4E-10
A	Site Boundary	ENE	.59	3.1E-09	3.1E-09	3.1E-09	4.9E-10
A	Site Boundary	E	.53	6.3E-10	6.3E-10	6.3E-10	2.3E-10
A	Site Boundary	ESE	.54	1.9E-09	1.9E-09	1.9E-09	4.8E-10
A	Site Boundary	SE	.65	1.1E-08	1.1E-08	1.1E-08	1.5E-09
A	Site Boundary	SSE	.81	5.5E-08	5.5E-08	5.5E-08	3.8E-09
A	Nearest Res	SW	1.30	9.3E-08	9.2E-08	9.2E-08	8.6E-10
A	Nearest Res	WSW	1.80	7.8E-08	7.7E-08	7.6E-08	3.9E-10
A	Nearest Res	WNW	2.40	9.9E-08	9.8E-08	9.7E-08	3.1E-10
A	Nearest Res	NW	.90	1.2E-07	1.2E-07	1.2E-07	3.2E-09
A	Nearest Res	NNW	1.90	1.5E-07	1.5E-07	1.5E-07	9.4E-10
A	Nearest Res	NE	1.60	2.5E-08	2.5E-08	2.5E-08	3.6E-10
A	Nearest Res	E	2.00	1.7E-08	1.7E-08	1.7E-08	1.9E-10
A	Nearest Cow	NNW	3.50	1.1E-07	1.1E-07	1.1E-07	3.4E-10
A	Nearest Garde	SW	2.20	6.3E-08	6.3E-08	6.2E-08	2.9E-10
A	Nearest Garde	WSW	1.80	7.8E-08	7.7E-08	7.6E-08	3.9E-10
A	Nearest Garde	WNW	2.60	8.7E-08	8.7E-08	8.6E-08	2.6E-10
A	Nearest Garde	NW	1.90	2.0E-07	1.9E-07	1.9E-07	1.1E-09
A	Nearest Garde	NNW	2.80	1.3E-07	1.3E-07	1.3E-07	5.1E-10
A	Nearest Garde	ENE	1.70	2.6E-08	2.6E-08	2.6E-08	3.5E-10
A	Nearest Garde	ESE	2.30	2.1E-08	2.1E-08	2.1E-08	2.6E-10
A	MAXIMUM CHI/Q	S	1.50	6.7E-08	6.7E-08	6.7E-08	1.6E-09
A	MAXIMUM CHI/Q	SSW	1.50	4.5E-08	4.5E-08	4.5E-08	7.0E-10
A	MAXIMUM CHI/Q	SW	1.50	1.1E-07	1.0E-07	1.0E-07	6.5E-10
A	MAXIMUM CHI/Q	WSW	1.50	1.0E-07	1.0E-07	1.0E-07	5.8E-10
A	MAXIMUM CHI/Q	W	1.00	1.4E-07	1.4E-07	1.4E-07	1.2E-09
A	MAXIMUM CHI/Q	WNW	1.50	2.1E-07	2.1E-07	2.1E-07	9.1E-10
A	MAXIMUM CHI/Q	NW	1.50	3.0E-07	3.0E-07	3.0E-07	2.0E-09
A	MAXIMUM CHI/Q	NNW	2.00	1.5E-07	1.5E-07	1.4E-07	8.4E-10
A	MAXIMUM CHI/Q	N	1.50	6.5E-08	6.5E-08	6.5E-08	1.5E-09
A	MAXIMUM CHI/Q	NNE	1.50	3.6E-08	3.6E-08	3.6E-08	7.3E-10
A	MAXIMUM CHI/Q	NE	1.50	2.5E-08	2.5E-08	2.5E-08	3.9E-10
A	MAXIMUM CHI/Q	ENE	1.50	2.7E-08	2.6E-08	2.6E-08	4.2E-10
A	MAXIMUM CHI/Q	E	1.50	1.8E-08	1.8E-08	1.8E-08	2.9E-10
A	MAXIMUM CHI/Q	ESE	1.50	2.5E-08	2.5E-08	2.5E-08	4.8E-10
A	MAXIMUM CHI/Q	SE	1.50	5.3E-08	5.3E-08	5.2E-08	1.2E-09
A	MAXIMUM CHI/Q	SSE	1.50	1.0E-07	1.0E-07	9.9E-08	2.3E-09

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Atmospheric Diffusion Estimates

Elevated Releases

July-September 2022

ERP ELEVATED STACK RELEASES - JUL-SEP 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)															
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500					
SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
	2.425E-11	4.645E-16	7.645E-12	4.343E-16	6.400E-09	9.047E-15	9.961E-09	1.936E-10	2.425E-11	2.518E-09	2.817E-16	1.027E-16	7.760E-17	1.166E-16	2.401E-16	3.950E-09
	2.494E-09	8.087E-10	4.945E-09	7.710E-10	1.046E-07	7.210E-09	4.664E-08	1.176E-08	2.463E-09	1.248E-08	3.806E-10	1.418E-10	6.104E-11	1.321E-10	3.141E-10	2.107E-08
	2.333E-08	1.651E-08	4.092E-08	4.470E-08	3.322E-07	1.482E-07	1.768E-07	5.544E-08	2.229E-08	2.239E-08	7.139E-09	3.236E-09	9.199E-10	3.216E-09	5.672E-09	3.411E-08
	4.509E-08	3.622E-08	1.033E-07	1.429E-07	4.271E-07	4.438E-07	4.379E-07	1.140E-07	4.385E-08	2.998E-08	1.484E-08	1.321E-08	7.808E-09	8.286E-09	1.179E-08	3.953E-08
	5.948E-08	5.231E-08	1.998E-07	2.881E-07	4.035E-07	5.426E-07	7.949E-07	1.973E-07	6.209E-08	3.692E-08	2.002E-08	1.374E-08	2.563E-09	1.421E-08	1.649E-08	4.185E-08
	5.500E-08	5.040E-08	1.421E-07	1.877E-07	2.531E-07	3.442E-07	4.777E-07	2.143E-07	6.292E-08	3.546E-08	1.857E-08	1.263E-08	2.590E-09	1.485E-08	1.589E-08	3.777E-08
	4.704E-08	4.424E-08	1.056E-07	1.326E-07	1.742E-07	2.389E-07	3.214E-07	2.172E-07	5.765E-08	3.158E-08	1.597E-08	1.120E-08	2.409E-09	1.365E-08	1.407E-08	2.819E-08
	3.971E-08	5.074E-08	8.187E-08	9.952E-08	1.281E-07	1.861E-07	2.387E-07	2.078E-07	4.388E-08	2.759E-08	1.359E-08	9.867E-09	1.995E-09	1.208E-08	1.224E-08	2.449E-08
	3.371E-08	5.415E-08	6.573E-08	7.806E-08	9.897E-08	1.505E-07	1.863E-07	1.957E-07	3.859E-08	2.410E-08	1.167E-08	8.713E-09	1.821E-09	9.357E-09	9.376E-09	2.150E-08
	3.927E-08	4.807E-08	5.427E-08	6.333E-08	7.928E-08	1.202E-07	1.477E-07	1.556E-07	3.859E-08	2.118E-08	1.014E-08	8.713E-09	1.821E-09	8.302E-09	8.315E-09	1.909E-08
	4.260E-08	4.316E-08	4.583E-08	5.275E-08	6.533E-08	9.885E-08	1.208E-07	1.276E-07	3.424E-08	1.879E-08	8.930E-09	7.746E-09	1.672E-09	8.302E-09	8.315E-09	1.909E-08

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)															
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000					
SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
	3.771E-08	4.052E-08	4.286E-08	4.706E-08	5.506E-08	8.419E-08	1.024E-07	1.098E-07	3.073E-08	2.130E-08	1.021E-08	8.443E-09	2.118E-09	8.772E-09	7.444E-09	2.219E-08
	2.383E-08	3.345E-08	3.471E-08	3.167E-08	2.987E-08	4.759E-08	5.705E-08	6.407E-08	2.042E-08	4.187E-08	2.637E-08	1.603E-08	7.506E-09	1.386E-08	4.907E-09	3.447E-08
	1.533E-08	2.191E-08	2.304E-08	2.276E-08	2.118E-08	3.249E-08	3.891E-08	4.203E-08	1.794E-08	2.762E-08	1.745E-08	1.083E-08	5.171E-09	5.531E-09	9.138E-09	2.238E-08
	8.669E-09	9.205E-09	1.359E-08	1.425E-08	1.370E-08	1.980E-08	2.361E-08	2.447E-08	1.583E-08	1.624E-08	1.030E-08	6.535E-09	3.199E-09	5.870E-09	3.453E-09	1.286E-08
	5.934E-09	6.975E-09	9.879E-09	9.641E-09	1.014E-08	1.359E-08	1.592E-08	1.673E-08	1.433E-08	1.118E-08	7.110E-09	4.569E-09	2.272E-09	4.152E-09	2.721E-09	8.722E-09
	4.407E-09	5.451E-09	7.656E-09	7.135E-09	7.507E-09	1.016E-08	1.176E-08	1.247E-08	1.236E-08	8.388E-09	5.345E-09	3.463E-09	1.741E-09	3.172E-09	2.277E-09	6.466E-09
	3.410E-09	5.430E-09	6.214E-09	5.588E-09	5.850E-09	8.033E-09	9.345E-09	9.919E-09	9.806E-09	6.641E-09	4.309E-09	2.958E-09	1.401E-09	2.545E-09	1.977E-09	5.069E-09
	2.748E-09	4.430E-09	5.063E-09	4.546E-09	4.743E-09	6.567E-09	7.628E-09	8.172E-09	8.031E-09	5.456E-09	3.583E-09	2.547E-09	1.166E-09	2.112E-09	1.756E-09	4.130E-09
	2.291E-09	3.708E-09	4.242E-09	3.804E-09	3.959E-09	5.496E-09	6.372E-09	6.976E-09	6.738E-09	4.605E-09	3.060E-09	2.150E-09	1.054E-09	1.798E-09	1.756E-09	3.461E-09
	1.950E-09	3.169E-09	3.631E-09	3.253E-09	3.377E-09	4.691E-09	5.439E-09	6.015E-09	5.775E-09	3.967E-09	2.635E-09	1.852E-09	9.543E-10	1.560E-09	1.490E-09	2.962E-09
	1.684E-09	2.755E-09	3.161E-09	2.830E-09	2.931E-09	4.073E-09	4.723E-09	5.241E-09	5.033E-09	3.473E-09	2.305E-09	1.622E-09	8.388E-10	1.373E-09	1.289E-09	2.579E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION	SEGMENT BOUNDARIES IN MILES FROM THE SITE															
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50						
FROM SITE	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
	2.837E-08	2.178E-08	6.063E-08	7.857E-08	3.238E-07	2.038E-07	2.639E-07	7.176E-08	2.746E-08	2.356E-08	9.059E-09	4.641E-09	1.124E-09	4.784E-09	7.200E-09	3.362E-08
	5.429E-08	4.788E-08	1.527E-07	2.112E-07	3.419E-07	4.102E-07	5.746E-07	1.864E-07	5.841E-08	3.473E-08	1.822E-08	1.227E-08	2.407E-09	1.318E-08	1.518E-08	3.952E-08
	4.623E-08	4.848E-08	1.058E-07	1.341E-07	1.768E-07	2.458E-07	3.300E-07	1.265E-07	5.610E-08	3.102E-08	1.571E-08	1.235E-08	2.371E-09	1.334E-08	1.383E-08	3.225E-08
	3.754E-08	5.086E-08	6.598E-08	7.858E-08	9.980E-08	1.491E-07	1.866E-07	1.839E-07	4.369E-08	2.399E-08	1.164E-08	9.809E-09	1.985E-09	1.056E-08	1.063E-08	2.441E-08
	3.980E-08	4.364E-08	4.723E-08	5.377E-08	6.566E-08	9.975E-08	1.220E-07	1.293E-07	3.423E-08	2.043E-08	9.761E-09	8.291E-09	1.881E-09	1.789E-09	3.307E-09	2.095E-08
	2.314E-08	2.989E-08	1.404E-08	1.113E-08	3.161E-08	4.901E-08	5.907E-08	6.444E-08	2.161E-08	3.097E-08	1.881E-08	1.203E-08	5.271E-09	1.081E-08	5.129E-09	2.637E-08
	8.935E-09	1.320E-08	1.404E-08	1.409E-08	1.378E-08	1.986E-08	2.360E-08	2.493E-08	1.563E-08	1.652E-08	1.047E-08	6.615E-09	3.225E-09	5.920E-09	3.280E-09	1.314E-08
	4.416E-09	6.960E-09	7.672E-09	7.185E-09	7.546E-09	1.022E-08	1.190E-08	1.259E-08	1.186E-08	8.434E-09	5.402E-09	3.556E-09	1.746E-09	3.182E-09	2.275E-09	6.509E-09
	2.763E-09	4.447E-09	5.079E-09	4.561E-09	4.761E-09	6.578E-09	5.450E-09	8.215E-09	8.046E-09	5.470E-09	3.591E-09	2.513E-09	1.190E-09	2.116E-09	1.718E-09	4.144E-09
	1.953E-09	3.175E-09	3.638E-09	3.260E-09	3.384E-09	4.700E-09	5.450E-09	6.013E-09	5.786E-09	3.973E-09	2.639E-09	1.855E-09	9.412E-10	1.561E-09	1.291E-09	2.968E-09

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ERP ELEVATED STACK RELEASES - JUL-SEP 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.425E-11	2.493E-09	2.330E-08	4.501E-08	5.931E-08	5.478E-08	4.681E-08	3.947E-08	3.347E-08	3.895E-08	4.222E-08
SSW	4.644E-16	8.079E-10	1.649E-08	3.613E-08	5.211E-08	5.014E-08	4.396E-08	5.037E-08	5.370E-08	4.761E-08	4.271E-08
SW	7.634E-12	4.932E-09	4.081E-08	1.029E-07	1.989E-07	1.413E-07	1.048E-07	8.119E-08	6.510E-08	5.367E-08	4.526E-08
WSW	4.341E-16	7.703E-10	4.463E-08	1.426E-07	2.872E-07	1.869E-07	1.319E-07	9.888E-08	7.746E-08	6.277E-08	5.222E-08
W	6.398E-09	1.045E-07	3.316E-07	4.259E-07	4.018E-07	2.516E-07	1.729E-07	1.270E-07	9.794E-08	7.834E-08	6.446E-08
WNW	9.044E-15	7.202E-09	1.479E-07	3.429E-07	5.404E-07	3.423E-07	2.372E-07	1.845E-07	1.490E-07	1.188E-07	9.758E-08
NW	9.959E-09	4.661E-08	1.765E-07	4.370E-07	7.924E-07	4.757E-07	3.197E-07	2.372E-07	1.849E-07	1.465E-07	1.196E-07
NNW	1.936E-10	1.176E-08	5.538E-08	1.138E-07	1.969E-07	2.136E-07	2.163E-07	2.067E-07	1.945E-07	1.545E-07	1.266E-07
N	2.425E-11	2.461E-09	2.227E-08	4.378E-08	6.193E-08	6.270E-08	5.739E-08	5.000E-08	4.362E-08	3.832E-08	3.397E-08
NNE	2.518E-09	1.248E-08	2.237E-08	2.994E-08	3.682E-08	3.533E-08	3.143E-08	2.744E-08	2.394E-08	2.103E-08	1.863E-08
NE	2.816E-16	3.803E-10	7.129E-09	1.481E-08	1.995E-08	1.849E-08	1.588E-08	1.351E-08	1.158E-08	1.005E-08	8.844E-09
ENE	1.026E-16	1.416E-10	3.229E-09	7.919E-09	1.314E-08	1.364E-08	1.252E-08	1.108E-08	9.746E-09	8.591E-09	7.625E-09
E	7.759E-17	6.101E-11	9.192E-10	1.806E-09	2.559E-09	2.584E-09	2.402E-09	2.186E-09	1.986E-09	1.811E-09	1.663E-09
ESE	1.166E-16	1.319E-10	3.208E-09	8.254E-09	1.412E-08	1.473E-08	1.350E-08	1.193E-08	1.046E-08	9.198E-09	8.144E-09
SE	2.400E-16	3.139E-10	5.665E-09	1.177E-08	1.643E-08	1.582E-08	1.399E-08	1.216E-08	1.058E-08	9.282E-09	8.221E-09
SSE	3.949E-09	2.106E-08	3.409E-08	3.948E-08	4.176E-08	3.765E-08	3.256E-08	2.805E-08	2.434E-08	2.135E-08	1.894E-08

ANNUAL AVERAGE SECTOR	CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.733E-08	2.346E-08	1.502E-08	8.406E-09	5.696E-09	4.187E-09	3.208E-09	2.559E-09	2.113E-09	1.781E-09	1.523E-09
SSW	4.005E-08	3.283E-08	2.136E-08	1.223E-08	8.729E-09	6.521E-09	5.028E-09	4.032E-09	3.330E-09	2.808E-09	2.408E-09
SW	4.228E-08	3.399E-08	2.241E-08	1.303E-08	9.330E-09	7.123E-09	5.693E-09	4.572E-09	3.776E-09	3.186E-09	2.735E-09
WSW	4.653E-08	3.108E-08	2.217E-08	1.368E-08	9.126E-09	6.659E-09	5.142E-09	4.125E-09	3.405E-09	2.871E-09	2.463E-09
W	5.424E-08	2.920E-08	2.054E-08	1.308E-08	9.521E-09	6.940E-09	5.326E-09	4.252E-09	3.495E-09	2.936E-09	2.510E-09
WNW	8.299E-08	4.656E-08	3.154E-08	1.894E-08	1.281E-08	9.427E-09	7.345E-09	5.915E-09	4.877E-09	4.102E-09	3.509E-09
NW	1.013E-07	5.612E-08	3.807E-08	2.284E-08	1.524E-08	1.113E-08	8.748E-09	7.062E-09	5.836E-09	4.929E-09	4.235E-09
NNW	1.088E-07	6.313E-08	4.120E-08	2.375E-08	1.606E-08	1.186E-08	9.329E-09	7.605E-09	6.421E-09	5.477E-09	4.724E-09
N	3.047E-08	2.017E-08	1.766E-08	1.546E-08	1.384E-08	1.180E-08	9.270E-09	7.520E-09	6.251E-09	5.308E-09	4.584E-09
NNE	2.111E-08	4.112E-08	2.696E-08	1.565E-08	1.064E-08	7.882E-09	6.162E-09	4.999E-09	4.167E-09	3.545E-09	3.065E-09
NE	1.010E-08	2.588E-08	1.702E-08	9.921E-09	6.765E-09	5.023E-09	3.999E-09	3.284E-09	2.769E-09	2.356E-09	2.037E-09
ENE	8.303E-09	1.571E-08	1.055E-08	6.286E-09	4.340E-09	3.250E-09	2.742E-09	2.333E-09	1.945E-09	1.656E-09	1.433E-09
E	2.104E-09	7.376E-09	5.049E-09	3.084E-09	2.162E-09	1.635E-09	1.299E-09	1.067E-09	9.509E-10	8.482E-10	7.359E-10
ESE	8.592E-09	1.350E-08	9.199E-09	5.568E-09	3.872E-09	2.908E-09	2.294E-09	1.873E-09	1.568E-09	1.338E-09	1.159E-09
SE	7.348E-09	4.808E-09	4.022E-09	3.299E-09	2.556E-09	2.103E-09	1.794E-09	1.567E-09	1.308E-09	1.113E-09	9.620E-10
SSE	2.199E-08	3.401E-08	2.197E-08	1.252E-08	8.414E-09	6.183E-09	4.806E-09	3.882E-09	3.225E-09	2.737E-09	2.362E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.832E-08	5.412E-08	4.600E-08	3.727E-08	3.944E-08	2.279E-08	8.672E-09	4.198E-09	2.574E-09	1.784E-09
SSW	2.173E-08	4.768E-08	4.817E-08	5.043E-08	4.318E-08	2.934E-08	1.270E-08	6.513E-09	4.049E-09	2.814E-09
SW	6.044E-08	1.520E-07	1.051E-07	6.534E-08	4.665E-08	3.068E-08	1.347E-08	7.139E-09	4.589E-09	3.194E-09
WSW	7.841E-08	2.105E-07	1.334E-07	7.798E-08	5.324E-08	3.056E-08	1.354E-08	6.710E-09	4.141E-09	2.878E-09
W	3.231E-07	3.404E-07	1.755E-07	9.878E-08	6.478E-08	3.091E-08	1.316E-08	6.983E-09	4.270E-09	2.944E-09
WNW	2.033E-07	4.084E-07	2.442E-07	1.477E-07	9.847E-08	4.798E-08	1.901E-08	9.495E-09	5.928E-09	4.112E-09
NW	2.634E-07	5.727E-07	3.283E-07	1.852E-07	1.208E-07	5.814E-08	2.285E-08	1.127E-08	7.077E-09	4.940E-09
NNW	7.166E-08	1.859E-07	2.118E-07	1.827E-07	1.283E-07	6.354E-08	2.421E-08	1.197E-08	7.647E-09	5.478E-09
N	2.743E-08	5.824E-08	5.585E-08	4.343E-08	3.397E-08	2.134E-08	1.523E-08	1.133E-08	7.537E-09	5.319E-09
NNE	2.354E-08	3.463E-08	3.087E-08	2.383E-08	2.026E-08	3.038E-08	1.594E-08	7.930E-09	5.014E-09	3.551E-09
NE	9.043E-09	1.816E-08	1.563E-08	1.155E-08	6.66E-09	1.843E-08	1.010E-08	5.078E-09	3.292E-09	2.360E-09
ENE	4.627E-09	1.220E-08	1.224E-08	9.688E-09	8.162E-09	1.177E-08	6.368E-09	3.338E-09	2.302E-09	1.659E-09
E	1.123E-09	2.403E-09	2.364E-09	1.977E-09	1.870E-09	5.170E-09	3.111E-09	1.641E-09	1.089E-09	8.371E-10
ESE	4.767E-09	1.309E-08	1.320E-08	1.040E-08	8.622E-09	1.050E-08	5.621E-09	2.919E-09	1.877E-09	1.340E-09
SE	7.187E-09	1.513E-08	1.375E-08	1.054E-08	8.212E-09	5.023E-09	3.129E-09	2.100E-09	1.533E-09	1.115E-09
SSE	3.359E-08	3.943E-08	3.211E-08	2.426E-08	2.078E-08	2.599E-08	1.280E-08	6.227E-09	3.895E-09	2.743E-09

B302

ERP ELEVATED STACK RELEASES - JUL-SEP 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.425E-11	2.482E-09	2.328E-08	4.502E-08	5.889E-08	5.399E-08	4.582E-08	3.840E-08	3.239E-08	3.766E-08	4.084E-08	
SSW	4.645E-16	8.085E-10	1.650E-08	3.620E-08	5.181E-08	4.950E-08	4.312E-08	4.925E-08	5.244E-08	4.637E-08	4.152E-08	
SW	7.642E-12	4.902E-09	4.058E-08	1.028E-07	1.977E-07	1.396E-07	1.032E-07	7.964E-08	6.369E-08	5.240E-08	4.411E-08	
WSW	4.342E-16	7.708E-10	4.468E-08	1.427E-07	2.853E-07	1.846E-07	1.297E-07	9.690E-08	7.573E-08	6.124E-08	5.087E-08	
W	6.400E-09	1.032E-07	3.289E-07	4.214E-07	3.952E-07	2.459E-07	1.682E-07	1.231E-07	9.462E-08	7.549E-08	6.198E-08	
WNW	9.046E-15	7.207E-09	1.481E-07	3.418E-07	5.359E-07	3.378E-07	2.333E-07	1.812E-07	1.461E-07	1.162E-07	9.505E-08	
NW	9.961E-09	4.623E-08	1.754E-07	4.353E-07	7.848E-07	4.677E-07	3.126E-07	2.312E-07	1.796E-07	1.418E-07	1.153E-07	
NNW	1.936E-10	1.167E-08	5.501E-08	1.135E-07	1.956E-07	2.115E-07	2.141E-07	2.046E-07	1.927E-07	1.527E-07	1.246E-07	
N	2.425E-11	2.451E-09	2.225E-08	4.378E-08	6.155E-08	6.198E-08	5.648E-08	4.903E-08	4.264E-08	3.737E-08	3.306E-08	
NNE	2.518E-09	1.238E-08	2.211E-08	2.972E-08	3.648E-08	3.485E-08	3.089E-08	2.687E-08	2.339E-08	2.049E-08	1.811E-08	
NE	2.817E-16	3.806E-10	7.136E-09	1.483E-08	1.982E-08	1.823E-08	1.555E-08	1.314E-08	1.121E-08	9.691E-09	8.493E-09	
ENE	1.027E-16	1.417E-10	3.234E-09	7.937E-09	1.309E-08	1.350E-08	1.233E-08	1.087E-08	9.525E-09	8.371E-09	7.411E-09	
E	7.760E-17	6.103E-11	9.197E-10	1.807E-09	2.544E-09	2.558E-09	2.370E-09	2.152E-09	1.953E-09	1.779E-09	1.633E-09	
ESE	1.166E-16	1.320E-10	3.213E-09	8.277E-09	1.407E-08	1.458E-08	1.329E-08	1.169E-08	1.021E-08	8.947E-09	7.899E-09	
SE	2.400E-16	3.141E-10	5.670E-09	1.178E-08	1.634E-08	1.563E-08	1.375E-08	1.189E-08	1.031E-08	9.024E-09	7.973E-09	
SSE	3.949E-09	2.089E-08	3.361E-08	3.905E-08	4.123E-08	3.702E-08	3.189E-08	2.738E-08	2.369E-08	2.073E-08	1.836E-08	

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)	DISTANCE IN MILES FROM THE SITE											
	SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.602E-08	2.225E-08	1.386E-08	7.347E-09	4.692E-09	3.294E-09	2.443E-09	1.894E-09	1.527E-09	1.261E-09	1.059E-09	
SSW	3.892E-08	3.168E-08	2.005E-08	1.085E-08	7.299E-09	5.299E-09	3.989E-09	3.134E-09	2.541E-09	2.109E-09	1.782E-09	
SW	4.122E-08	3.298E-08	2.116E-08	1.162E-08	7.789E-09	5.637E-09	4.389E-09	3.450E-09	2.796E-09	2.321E-09	1.962E-09	
WSW	4.532E-08	2.985E-08	2.076E-08	1.229E-08	7.934E-09	5.640E-09	4.261E-09	3.355E-09	2.725E-09	2.265E-09	1.919E-09	
W	5.206E-08	2.785E-08	1.949E-08	1.191E-08	8.283E-09	5.890E-09	4.426E-09	3.472E-09	2.810E-09	2.330E-09	1.968E-09	
WNW	8.052E-08	4.407E-08	2.905E-08	1.646E-08	1.039E-08	7.250E-09	5.474E-09	4.312E-09	3.487E-09	2.882E-09	2.427E-09	
NW	9.717E-08	5.246E-08	3.461E-08	1.966E-08	1.246E-08	8.729E-09	6.663E-09	5.255E-09	4.252E-09	3.524E-09	2.976E-09	
NNW	1.067E-07	6.027E-08	3.813E-08	2.059E-08	1.289E-08	8.921E-09	6.656E-09	5.219E-09	4.292E-09	3.582E-09	3.028E-09	
N	2.960E-08	1.949E-08	1.712E-08	1.516E-08	1.340E-08	1.099E-08	8.454E-09	6.733E-09	5.507E-09	4.609E-09	3.928E-09	
NNE	2.058E-08	4.054E-08	2.581E-08	1.420E-08	9.131E-09	6.465E-09	4.864E-09	3.817E-09	3.089E-09	2.559E-09	2.160E-09	
NE	9.731E-09	2.551E-08	1.629E-08	9.002E-09	5.809E-09	4.125E-09	3.177E-09	2.552E-09	2.111E-09	1.766E-09	1.504E-09	
ENE	8.080E-09	1.550E-08	1.011E-08	5.678E-09	3.648E-09	2.575E-09	2.065E-09	1.692E-09	1.377E-09	1.146E-09	9.721E-10	
E	2.075E-09	7.371E-09	4.897E-09	2.804E-09	1.818E-09	1.291E-09	9.721E-10	7.620E-10	6.522E-10	5.621E-10	4.746E-10	
ESE	8.339E-09	1.334E-08	8.866E-09	5.086E-09	3.313E-09	2.358E-09	1.778E-09	1.395E-09	1.127E-09	9.316E-10	7.839E-10	
SE	7.114E-09	4.634E-09	3.896E-09	3.248E-09	2.549E-09	2.125E-09	1.839E-09	1.625E-09	1.352E-09	1.148E-09	9.909E-10	
SSE	2.141E-08	3.329E-08	2.086E-08	1.128E-08	7.228E-09	5.109E-09	3.843E-09	3.017E-09	2.443E-09	2.027E-09	1.714E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.832E-08	5.363E-08	4.503E-08	3.611E-08	3.811E-08	2.158E-08	7.613E-09	3.326E-09	1.911E-09	1.265E-09
SSW	2.177E-08	4.731E-08	4.727E-08	4.922E-08	4.199E-08	2.812E-08	1.132E-08	5.308E-09	3.153E-09	2.116E-09
SW	6.029E-08	1.508E-07	1.035E-07	6.394E-08	4.550E-08	2.956E-08	1.204E-08	5.712E-09	3.469E-09	2.329E-09
WSW	7.849E-08	2.088E-07	1.312E-07	7.626E-08	5.189E-08	2.925E-08	1.224E-08	5.701E-09	3.374E-09	2.273E-09
W	3.198E-07	3.347E-07	1.709E-07	9.547E-08	6.231E-08	2.951E-08	1.198E-08	5.942E-09	3.493E-09	2.338E-09
WNW	2.029E-07	4.047E-07	2.403E-07	1.447E-07	9.593E-08	4.549E-08	1.656E-08	7.378E-09	4.330E-09	2.893E-09
NW	2.622E-07	5.662E-07	3.214E-07	1.799E-07	1.164E-07	5.446E-08	1.978E-08	8.898E-09	5.275E-09	3.537E-09
NNW	7.139E-08	1.844E-07	2.096E-07	1.809E-07	1.263E-07	6.075E-08	2.106E-08	9.072E-09	5.276E-09	3.587E-09
N	2.742E-08	5.779E-08	5.497E-08	4.245E-08	3.305E-08	2.069E-08	1.482E-08	1.062E-08	6.758E-09	4.623E-09
NNE	2.333E-08	3.425E-08	3.034E-08	2.328E-08	1.973E-08	2.956E-08	1.453E-08	6.535E-09	3.839E-09	2.568E-09
NE	9.055E-09	1.800E-08	1.530E-08	1.118E-08	9.307E-09	1.791E-08	9.203E-09	4.195E-09	2.563E-09	1.771E-09
ENE	4.637E-09	1.213E-08	1.206E-08	9.471E-09	7.943E-09	1.146E-08	5.761E-09	2.657E-09	1.679E-09	1.150E-09
E	1.123E-09	2.386E-09	2.333E-09	1.944E-09	1.840E-09	5.094E-09	2.831E-09	1.304E-09	7.802E-10	5.564E-10
ESE	4.779E-09	1.301E-08	1.300E-08	1.015E-08	8.372E-09	1.024E-08	5.138E-09	2.381E-09	1.402E-09	9.348E-10
SE	7.196E-09	1.501E-08	1.351E-08	1.027E-08	7.966E-09	4.857E-09	3.081E-09	2.123E-09	1.582E-09	1.150E-09
SSE	3.320E-08	3.888E-08	3.145E-08	2.362E-08	2.019E-08	2.512E-08	1.161E-08	5.168E-09	3.034E-09	2.034E-09

B303

ERP ELEVATED STACK RELEASES - JUL-SEP 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****											
DIRECTIONS FROM SITE											
DISTANCES IN MILES											
DIRECTION FROM SITE	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	3.748E-10	9.007E-10	1.647E-09	1.644E-09	1.010E-09	6.740E-10	4.749E-10	3.485E-10	2.638E-10	2.169E-10	1.976E-10
SSW	7.234E-11	4.340E-10	9.241E-10	9.572E-10	5.979E-10	4.009E-10	2.832E-10	2.080E-10	1.951E-10	1.478E-10	1.157E-10
SW	3.038E-10	4.746E-10	7.401E-10	7.045E-10	7.356E-10	4.104E-10	2.588E-10	1.778E-10	1.294E-10	9.828E-11	7.708E-11
WSW	6.445E-11	3.867E-10	8.233E-10	1.451E-09	1.057E-09	5.752E-10	3.558E-10	2.412E-10	1.742E-10	1.316E-10	1.030E-10
W	2.117E-09	5.716E-09	4.672E-09	3.114E-09	1.420E-09	7.653E-10	4.718E-10	3.196E-10	2.309E-10	1.748E-10	1.372E-10
WNW	8.549E-11	5.129E-10	2.114E-09	2.766E-09	1.562E-09	8.246E-10	5.046E-10	3.479E-10	2.906E-10	2.322E-10	1.966E-10
NW	3.724E-09	3.472E-09	3.606E-09	5.913E-09	3.777E-09	1.892E-09	1.127E-09	7.570E-10	5.565E-10	4.391E-10	3.667E-10
NNW	1.891E-09	1.910E-09	2.173E-09	1.816E-09	1.871E-09	1.016E-09	6.327E-10	5.533E-10	4.276E-10	3.572E-10	3.169E-10
N	3.695E-10	8.691E-10	1.580E-09	1.575E-09	9.667E-10	6.448E-10	4.543E-10	3.334E-10	2.523E-10	1.958E-10	1.551E-10
NNE	1.591E-09	1.459E-09	1.483E-09	1.164E-09	6.258E-10	3.992E-10	2.753E-10	1.998E-10	1.504E-10	1.165E-10	9.222E-11
NE	3.288E-11	1.973E-10	4.201E-10	4.351E-10	2.718E-10	1.822E-10	1.287E-10	9.455E-11	7.161E-11	5.558E-11	4.402E-11
ENE	1.578E-11	9.469E-11	2.016E-10	2.088E-10	1.305E-10	8.747E-11	6.178E-11	4.539E-11	3.437E-11	2.668E-11	2.113E-11
E	5.261E-12	3.156E-11	6.721E-11	6.962E-11	4.348E-11	2.916E-11	2.059E-11	1.513E-11	1.146E-11	8.893E-12	7.043E-12
ESE	1.710E-11	1.026E-10	2.184E-10	2.263E-10	1.413E-10	9.476E-11	6.693E-11	4.917E-11	3.724E-11	2.890E-11	2.289E-11
SE	2.631E-11	1.578E-10	3.360E-10	3.481E-10	2.174E-10	1.458E-10	1.030E-10	7.564E-11	5.729E-11	4.447E-11	3.521E-11
SSE	2.367E-09	2.070E-09	1.973E-09	1.485E-09	7.756E-10	4.894E-10	3.357E-10	2.430E-10	1.827E-10	1.413E-10	1.119E-10

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****											
DIRECTIONS FROM SITE											
DISTANCES IN MILES											
DIRECTION FROM SITE	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.589E-10	1.216E-10	8.456E-11	4.966E-11	3.142E-11	2.119E-11	1.517E-11	1.137E-11	9.159E-12	7.303E-12	5.963E-12
SSW	9.492E-11	9.703E-11	7.144E-11	4.392E-11	2.378E-11	1.724E-11	1.236E-11	9.284E-12	7.364E-12	5.883E-12	4.802E-12
SW	6.458E-11	8.759E-11	6.711E-11	4.250E-11	2.738E-11	1.545E-11	1.124E-11	8.438E-12	6.560E-12	5.241E-12	4.277E-12
WSW	8.590E-11	9.677E-11	7.275E-11	4.305E-11	2.605E-11	1.747E-11	1.263E-11	9.487E-12	7.377E-12	5.893E-12	4.810E-12
W	1.107E-10	5.065E-11	6.768E-11	4.452E-11	2.661E-11	1.826E-11	1.309E-11	9.827E-12	7.641E-12	6.103E-12	4.982E-12
WNW	1.777E-10	1.181E-10	8.786E-11	5.450E-11	3.488E-11	2.206E-11	1.494E-11	1.122E-11	8.892E-12	7.103E-12	5.798E-12
NW	3.213E-10	2.027E-10	1.477E-10	8.842E-11	5.413E-11	3.621E-11	2.608E-11	1.959E-11	1.544E-11	1.234E-11	1.007E-11
NNW	2.937E-10	2.159E-10	1.673E-10	1.069E-10	6.897E-11	4.563E-11	2.976E-11	2.044E-11	1.589E-11	1.270E-11	1.037E-11
N	1.249E-10	5.916E-11	3.607E-11	1.898E-11	9.072E-11	4.900E-11	3.506E-11	2.633E-11	2.048E-11	1.636E-11	1.336E-11
NNE	7.438E-11	1.730E-10	1.084E-10	5.706E-11	3.495E-11	2.336E-11	1.666E-11	1.243E-11	9.622E-12	7.654E-12	6.226E-12
NE	3.545E-11	7.630E-11	4.863E-11	2.607E-11	1.606E-11	1.072E-11	7.673E-12	5.669E-12	4.408E-12	3.541E-12	2.890E-12
ENE	1.702E-11	3.927E-11	3.109E-11	2.014E-11	1.302E-11	8.586E-12	5.992E-12	3.546E-12	2.755E-12	2.201E-12	1.797E-12
E	5.672E-12	1.929E-11	1.570E-11	1.035E-11	6.713E-12	4.423E-12	3.076E-12	2.229E-12	1.680E-12	1.170E-12	9.481E-13
ESE	1.843E-11	3.288E-11	2.538E-11	1.615E-11	1.040E-11	6.870E-12	4.799E-12	3.495E-12	2.648E-12	2.069E-12	1.655E-12
SE	2.836E-11	1.343E-11	8.183E-12	4.300E-12	2.634E-12	1.842E-12	1.425E-12	4.418E-12	3.385E-12	2.676E-12	2.174E-12
SSE	9.030E-11	1.726E-10	1.073E-10	5.590E-11	3.415E-11	2.284E-11	1.630E-11	1.219E-11	9.439E-12	7.516E-12	6.118E-12

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****											
SEGMENT BOUNDARIES IN MILES											
DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50	
S	1.480E-09	1.002E-09	4.774E-10	2.701E-10	1.890E-10	1.134E-10	4.931E-11	2.151E-11	1.161E-11	7.357E-12	
SSW	8.299E-10	5.902E-10	2.845E-10	1.807E-10	1.175E-10	8.519E-11	4.108E-11	1.703E-11	9.431E-12	5.921E-12	
SW	6.653E-10	5.841E-10	2.668E-10	1.314E-10	7.873E-11	7.337E-11	4.125E-11	1.695E-11	8.522E-12	5.275E-12	
WSW	1.005E-09	9.304E-10	3.685E-10	1.771E-10	1.051E-10	8.368E-11	4.209E-11	1.782E-11	9.583E-12	5.931E-12	
W	4.211E-09	1.505E-09	4.892E-10	2.348E-10	1.385E-10	7.157E-11	4.171E-11	1.842E-11	9.926E-12	6.144E-12	
WNW	2.048E-09	1.502E-09	5.273E-10	2.847E-10	2.002E-10	1.179E-10	5.320E-11	2.263E-11	1.140E-11	7.150E-12	
NW	4.602E-09	3.414E-09	1.183E-09	5.691E-10	3.714E-10	2.046E-10	8.635E-11	3.694E-11	1.986E-11	1.242E-11	
NNW	1.956E-09	1.479E-09	7.030E-10	4.367E-10	3.202E-10	2.116E-10	1.035E-10	4.551E-11	2.137E-11	1.278E-11	
N	1.420E-09	9.588E-10	4.567E-10	2.539E-10	1.560E-10	6.350E-11	5.466E-11	5.455E-11	2.660E-11	1.647E-11	
NNE	1.336E-09	6.447E-10	2.781E-10	1.516E-10	9.279E-11	1.224E-10	5.865E-11	2.377E-11	1.257E-11	7.708E-12	
NE	3.772E-10	2.683E-10	1.293E-10	7.206E-11	4.427E-11	5.493E-11	2.664E-11	1.093E-11	5.761E-12	3.557E-12	
ENE	1.811E-10	1.288E-10	6.207E-11	3.459E-11	2.125E-11	3.069E-11	1.941E-11	8.730E-12	3.943E-12	2.215E-12	
E	6.036E-11	4.292E-11	2.069E-11	1.153E-11	7.084E-12	1.467E-11	9.923E-12	4.495E-12	2.262E-12	1.239E-12	
ESE	1.962E-10	1.395E-10	6.725E-11	3.747E-11	2.302E-11	2.633E-11	1.564E-11	6.983E-12	3.545E-12	2.087E-12	
SE	3.018E-10	2.146E-10	1.035E-10	5.765E-11	3.542E-11	1.442E-11	4.422E-12	1.886E-12	3.169E-12	2.700E-12	
SSE	1.777E-09	8.060E-10	3.396E-10	1.842E-10	1.126E-10	1.253E-10	5.765E-11	2.324E-11	1.232E-11	7.568E-12	

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ERP ELEVATED STACK RELEASES - JUL-SEP 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE	TYPE OF	DIRECTION	DIST.	X/Q	X/Q	X/Q	D/Q
ID	LOCATION	FROM SITE	(MI)	(SEC/M3)	(SEC/M3)	(SEC/M3)	(PER SQ.METER)
				NO	2.26 DAY	8.0 DAY	
				DECAY	DECAY	DECAY	
				UNDEPLETED	UNDEPLETED	DEPLETED	
A	Site Boundary	S	.80	2.8E-08	2.8E-08	2.8E-08	1.7E-09
A	Site Boundary	SSW	.82	2.3E-08	2.3E-08	2.3E-08	9.8E-10
A	Site Boundary	SW	.97	9.7E-08	9.6E-08	9.6E-08	7.3E-10
A	Site Boundary	WSW	.93	1.1E-07	1.1E-07	1.1E-07	1.1E-09
A	Site Boundary	W	.91	4.1E-07	4.1E-07	4.0E-07	3.4E-09
A	Site Boundary	WNW	.94	3.0E-07	3.0E-07	3.0E-07	3.1E-09
A	Site Boundary	NW	.81	2.4E-07	2.4E-07	2.3E-07	3.5E-09
A	Site Boundary	NNW	.69	3.9E-08	3.9E-08	3.9E-08	2.1E-09
A	Site Boundary	N	.67	1.4E-08	1.4E-08	1.4E-08	1.4E-09
A	Site Boundary	NNE	.60	1.5E-08	1.5E-08	1.5E-08	1.4E-09
A	Site Boundary	NE	.62	2.6E-09	2.6E-09	2.6E-09	3.1E-10
A	Site Boundary	ENE	.59	6.6E-10	6.6E-10	6.6E-10	1.3E-10
A	Site Boundary	E	.53	9.7E-11	9.7E-11	9.7E-11	3.5E-11
A	Site Boundary	ESE	.54	2.8E-10	2.8E-10	2.8E-10	1.2E-10
A	Site Boundary	SE	.65	2.7E-09	2.7E-09	2.7E-09	2.6E-10
A	Site Boundary	SSE	.81	3.6E-08	3.6E-08	3.5E-08	1.9E-09
A	Nearest Res	SW	1.30	1.7E-07	1.7E-07	1.7E-07	9.7E-10
A	Nearest Res	WSW	1.80	2.2E-07	2.2E-07	2.2E-07	7.2E-10
A	Nearest Res	WNW	2.40	2.6E-07	2.5E-07	2.5E-07	5.5E-10
A	Nearest Res	NW	.90	3.3E-07	3.3E-07	3.3E-07	5.8E-09
A	Nearest Res	NNW	1.90	2.1E-07	2.1E-07	2.1E-07	1.1E-09
A	Nearest Res	NE	1.60	2.0E-08	2.0E-08	2.0E-08	2.5E-10
A	Nearest Res	E	2.00	2.6E-09	2.6E-09	2.6E-09	2.9E-11
A	Nearest Cow	NNW	3.50	2.0E-07	1.9E-07	1.9E-07	4.3E-10
A	Nearest Garde	SW	2.20	1.3E-07	1.2E-07	1.2E-07	3.4E-10
A	Nearest Garde	WSW	1.80	2.2E-07	2.2E-07	2.2E-07	7.2E-10
A	Nearest Garde	WNW	2.60	2.3E-07	2.2E-07	2.2E-07	4.6E-10
A	Nearest Garde	NW	1.90	5.2E-07	5.2E-07	5.1E-07	2.1E-09
A	Nearest Garde	NNW	2.80	2.1E-07	2.1E-07	2.1E-07	6.1E-10
A	Nearest Garde	ENE	1.70	1.4E-08	1.4E-08	1.4E-08	1.1E-10
A	Nearest Garde	ESE	2.30	1.4E-08	1.4E-08	1.4E-08	7.7E-11
A	MAXIMUM CHI/Q	S	1.50	5.9E-08	5.9E-08	5.9E-08	1.0E-09
A	MAXIMUM CHI/Q	SSW	3.50	5.4E-08	5.4E-08	5.2E-08	2.0E-10
A	MAXIMUM CHI/Q	SW	1.50	2.0E-07	2.0E-07	2.0E-07	7.4E-10
A	MAXIMUM CHI/Q	WSW	1.50	2.9E-07	2.9E-07	2.9E-07	1.1E-09
A	MAXIMUM CHI/Q	W	1.00	4.3E-07	4.3E-07	4.2E-07	3.1E-09
A	MAXIMUM CHI/Q	WNW	1.50	5.4E-07	5.4E-07	5.4E-07	1.6E-09
A	MAXIMUM CHI/Q	NW	1.50	7.9E-07	7.9E-07	7.8E-07	3.8E-09
A	MAXIMUM CHI/Q	NNW	2.50	2.2E-07	2.2E-07	2.1E-07	6.3E-10
A	MAXIMUM CHI/Q	N	2.00	6.3E-08	6.3E-08	6.2E-08	6.4E-10
A	MAXIMUM CHI/Q	NNE	7.50	4.2E-08	4.1E-08	4.1E-08	1.7E-10
A	MAXIMUM CHI/Q	NE	7.50	2.6E-08	2.6E-08	2.6E-08	7.6E-11
A	MAXIMUM CHI/Q	ENE	7.50	1.6E-08	1.6E-08	1.5E-08	3.9E-11
A	MAXIMUM CHI/Q	E	7.50	7.5E-09	7.4E-09	7.4E-09	1.9E-11
A	MAXIMUM CHI/Q	ESE	2.00	1.5E-08	1.5E-08	1.5E-08	9.5E-11
A	MAXIMUM CHI/Q	SE	1.50	1.6E-08	1.6E-08	1.6E-08	2.2E-10
A	MAXIMUM CHI/Q	SSE	1.50	4.2E-08	4.2E-08	4.1E-08	7.8E-10

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Atmospheric Diffusion Estimates

Elevated Releases

October-December 2022

ERP ELEVATED STACK RELEASES - OCT-DEC 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)		DISTANCE IN MILES FROM THE SITE									
SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.773E-09	1.190E-08	2.292E-08	3.069E-08	3.356E-08	2.912E-08	2.411E-08	1.995E-08	1.670E-08	1.904E-08	2.074E-08
SSW	1.387E-09	5.588E-09	8.636E-09	1.113E-08	1.302E-08	1.192E-08	1.022E-08	1.144E-08	1.221E-08	1.097E-08	1.009E-08
SW	3.556E-17	7.131E-11	3.727E-09	1.320E-08	3.335E-08	2.478E-08	1.892E-08	1.496E-08	1.220E-08	1.021E-08	8.724E-09
WSW	1.202E-16	1.618E-10	9.693E-09	3.108E-08	6.577E-08	4.585E-08	3.408E-08	2.659E-08	2.152E-08	1.791E-08	1.525E-08
W	9.551E-14	1.429E-08	7.802E-08	1.068E-07	1.116E-07	7.267E-08	5.141E-08	3.862E-08	3.032E-08	2.461E-08	2.050E-08
WNW	9.027E-11	1.251E-08	1.158E-07	2.291E-07	3.443E-07	2.214E-07	1.557E-07	1.241E-07	1.024E-07	8.243E-08	6.825E-08
NW	1.650E-08	6.561E-08	1.396E-07	2.614E-07	4.520E-07	2.760E-07	1.879E-07	1.416E-07	1.118E-07	8.917E-08	7.328E-08
NNW	1.983E-09	1.241E-08	4.162E-08	8.049E-08	1.285E-07	1.297E-07	1.235E-07	1.150E-07	1.082E-07	8.590E-08	7.036E-08
N	1.315E-08	3.137E-08	5.451E-08	5.927E-08	5.649E-08	4.910E-08	4.143E-08	3.438E-08	2.897E-08	2.479E-08	2.152E-08
NNE	1.309E-15	1.055E-09	1.657E-08	3.172E-08	3.940E-08	3.499E-08	2.918E-08	2.423E-08	2.034E-08	1.732E-08	1.497E-08
NE	1.256E-10	8.133E-09	1.689E-08	1.928E-08	1.910E-08	1.645E-08	1.380E-08	1.165E-08	9.971E-09	8.665E-09	7.639E-09
ENE	3.168E-11	3.983E-09	1.471E-08	2.239E-08	2.581E-08	2.274E-08	1.901E-08	1.588E-08	1.343E-08	1.152E-08	1.003E-08
E	9.446E-11	7.742E-09	1.720E-08	1.986E-08	1.960E-08	1.672E-08	1.387E-08	1.156E-08	9.763E-09	8.373E-09	7.287E-09
ESE	1.408E-09	8.208E-09	3.214E-08	5.157E-08	5.899E-08	5.105E-08	4.202E-08	3.459E-08	2.885E-08	2.443E-08	2.100E-08
SE	8.388E-11	7.429E-09	4.403E-08	7.359E-08	8.496E-08	7.329E-08	6.001E-08	4.913E-08	4.075E-08	3.432E-08	2.934E-08
SSE	7.526E-09	1.141E-08	4.513E-08	7.101E-08	8.214E-08	7.247E-08	6.066E-08	5.065E-08	4.275E-08	3.658E-08	3.173E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)		DISTANCE IN MILES FROM THE SITE									
SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.849E-08	1.249E-08	8.116E-09	4.654E-09	3.267E-09	2.470E-09	1.923E-09	1.558E-09	1.309E-09	1.121E-09	9.721E-10
SSW	9.982E-09	1.264E-08	8.543E-09	5.170E-09	4.060E-09	3.178E-09	2.516E-09	2.068E-09	1.748E-09	1.506E-09	1.319E-09
SW	8.432E-09	8.417E-09	5.743E-09	3.509E-09	2.699E-09	2.175E-09	1.827E-09	1.500E-09	1.264E-09	1.088E-09	9.522E-10
WSW	1.421E-08	1.132E-08	8.716E-09	5.812E-09	3.982E-09	2.976E-09	2.349E-09	1.923E-09	1.618E-09	1.391E-09	1.215E-09
W	1.744E-08	9.763E-09	7.128E-09	4.709E-09	3.476E-09	2.578E-09	2.016E-09	1.640E-09	1.372E-09	1.172E-09	1.019E-09
WNW	5.867E-08	3.433E-08	2.396E-08	1.502E-08	1.045E-08	7.880E-09	6.284E-09	5.167E-09	4.342E-09	3.717E-09	3.237E-09
NW	6.254E-08	3.571E-08	2.474E-08	1.528E-08	1.037E-08	7.696E-09	6.152E-09	5.038E-09	4.220E-09	3.612E-09	3.145E-09
NNW	6.061E-08	3.557E-08	2.331E-08	1.356E-08	9.268E-09	6.911E-09	5.505E-09	4.542E-09	3.883E-09	3.346E-09	2.916E-09
N	1.896E-08	1.186E-08	9.862E-09	8.914E-09	8.857E-09	7.975E-09	6.346E-09	5.204E-09	4.380E-09	3.764E-09	3.289E-09
NNE	1.576E-08	4.124E-08	2.740E-08	1.627E-08	1.128E-08	8.514E-09	6.772E-09	5.586E-09	4.731E-09	4.088E-09	3.589E-09
NE	8.868E-09	2.557E-08	1.699E-08	1.009E-08	6.997E-09	5.278E-09	4.276E-09	3.569E-09	3.060E-09	2.639E-09	2.312E-09
ENE	1.065E-08	2.223E-08	1.508E-08	9.160E-09	6.432E-09	4.892E-09	4.207E-09	3.640E-09	3.076E-09	2.653E-09	2.326E-09
E	7.696E-09	1.260E-08	8.421E-09	5.023E-09	3.488E-09	2.631E-09	2.091E-09	1.723E-09	1.524E-09	1.356E-09	1.186E-09
ESE	2.074E-08	2.305E-08	1.539E-08	9.145E-09	6.327E-09	4.758E-09	3.772E-09	3.101E-09	2.618E-09	2.255E-09	1.975E-09
SE	2.543E-08	1.483E-08	1.085E-08	7.635E-09	5.803E-09	4.850E-09	4.282E-09	3.897E-09	3.308E-09	2.864E-09	2.517E-09
SSE	3.372E-08	4.257E-08	2.751E-08	1.571E-08	1.061E-08	7.841E-09	6.133E-09	4.987E-09	4.172E-09	3.567E-09	3.101E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.392E-08	3.095E-08	2.378E-08	1.852E-08	1.940E-08	1.188E-08	4.807E-09	2.464E-09	1.568E-09	1.122E-09
SSW	9.069E-09	1.211E-08	1.116E-08	1.152E-08	1.031E-08	1.023E-08	5.426E-09	3.149E-09	2.074E-09	1.509E-09
SW	7.123E-09	2.506E-08	1.890E-08	1.223E-08	9.055E-09	7.232E-09	3.645E-09	2.176E-09	1.504E-09	1.090E-09
WSW	1.708E-08	4.921E-08	3.422E-08	2.159E-08	1.565E-08	1.081E-08	5.644E-09	2.993E-09	1.929E-09	1.393E-09
W	7.664E-08	9.323E-08	5.196E-08	3.051E-08	2.058E-08	1.030E-08	4.699E-09	2.593E-09	1.645E-09	1.175E-09
WNW	1.432E-07	2.641E-07	1.606E-07	1.010E-07	6.890E-08	3.513E-08	1.497E-08	7.926E-09	5.172E-09	3.724E-09
NW	1.773E-07	3.314E-07	1.929E-07	1.117E-07	7.401E-08	3.680E-08	1.520E-08	7.791E-09	5.045E-09	3.619E-09
NNW	5.240E-08	1.184E-07	1.218E-07	1.016E-07	7.135E-08	3.568E-08	1.382E-08	6.977E-09	4.566E-09	3.346E-09
N	5.148E-08	5.382E-08	4.065E-08	2.892E-08	2.154E-08	1.255E-08	9.099E-09	7.558E-09	5.216E-09	3.770E-09
NNE	1.985E-08	3.573E-08	2.875E-08	2.031E-08	1.596E-08	2.943E-08	1.653E-08	8.556E-09	5.599E-09	4.094E-09
NE	1.601E-08	1.796E-08	1.365E-08	9.952E-09	8.398E-09	1.805E-08	1.025E-08	5.336E-09	3.577E-09	2.642E-09
ENE	1.574E-08	2.369E-08	1.876E-08	1.340E-08	1.070E-08	1.648E-08	9.264E-09	5.029E-09	3.587E-09	2.657E-09
E	1.628E-08	1.838E-08	1.370E-08	9.746E-09	7.760E-09	9.652E-09	5.096E-09	2.644E-09	1.753E-09	1.343E-09
ESE	3.546E-08	5.381E-08	4.146E-08	2.881E-08	2.192E-08	1.913E-08	9.279E-09	4.782E-09	3.109E-09	2.259E-09
SE	4.904E-08	7.725E-08	5.920E-08	4.070E-08	2.937E-08	1.542E-08	7.536E-09	4.877E-09	3.783E-09	2.867E-09
SSE	4.914E-08	7.537E-08	5.981E-08	4.266E-08	3.390E-08	3.391E-08	1.607E-08	7.896E-09	5.004E-09	3.574E-09

B307

ERP ELEVATED STACK RELEASES - OCT-DEC 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)											
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	2.773E-09	1.189E-08	2.290E-08	3.065E-08	3.349E-08	2.905E-08	2.403E-08	1.987E-08	1.663E-08	1.894E-08	2.061E-08	
SSW	1.386E-09	5.586E-09	8.628E-09	1.111E-08	1.298E-08	1.186E-08	1.016E-08	1.136E-08	1.211E-08	1.087E-08	9.986E-09	
SW	3.554E-17	7.123E-11	3.720E-09	1.316E-08	3.321E-08	2.464E-08	1.879E-08	1.484E-08	1.209E-08	1.010E-08	8.620E-09	
WSW	1.202E-16	1.616E-10	9.675E-09	3.099E-08	6.545E-08	4.554E-08	3.379E-08	2.632E-08	2.126E-08	1.766E-08	1.501E-08	
W	9.548E-14	1.427E-08	7.790E-08	1.066E-07	1.113E-07	7.238E-08	5.115E-08	3.838E-08	3.010E-08	2.441E-08	2.032E-08	
WNW	9.022E-11	1.250E-08	1.156E-07	2.287E-07	3.431E-07	2.203E-07	1.548E-07	1.231E-07	1.014E-07	8.155E-08	6.743E-08	
NW	1.650E-08	6.557E-08	1.395E-07	2.610E-07	4.508E-07	2.750E-07	1.870E-07	1.408E-07	1.110E-07	8.850E-08	7.266E-08	
NNW	1.982E-09	1.240E-08	4.158E-08	8.038E-08	1.282E-07	1.293E-07	1.231E-07	1.144E-07	1.076E-07	8.536E-08	6.987E-08	
N	1.315E-08	3.136E-08	5.447E-08	5.922E-08	5.641E-08	4.900E-08	4.132E-08	3.428E-08	2.887E-08	2.469E-08	2.142E-08	
NNE	1.309E-15	1.055E-09	1.655E-08	3.167E-08	3.932E-08	3.489E-08	2.907E-08	2.412E-08	2.023E-08	1.721E-08	1.486E-08	
NE	1.255E-10	8.129E-09	1.688E-08	1.925E-08	1.906E-08	1.640E-08	1.375E-08	1.159E-08	9.916E-09	8.611E-09	7.586E-09	
ENE	3.166E-11	3.979E-09	1.469E-08	2.235E-08	2.574E-08	2.266E-08	1.893E-08	1.580E-08	1.335E-08	1.144E-08	9.957E-09	
E	9.442E-11	7.736E-09	1.718E-08	1.983E-08	1.955E-08	1.667E-08	1.381E-08	1.150E-08	9.705E-09	8.317E-09	7.232E-09	
ESE	1.407E-09	8.204E-09	3.212E-08	5.152E-08	5.890E-08	5.095E-08	4.191E-08	3.448E-08	2.874E-08	2.432E-08	2.089E-08	
SE	8.386E-11	7.425E-09	4.400E-08	7.352E-08	8.482E-08	7.313E-08	5.984E-08	4.896E-08	4.058E-08	3.416E-08	2.919E-08	
SSE	7.525E-09	1.140E-08	4.509E-08	7.094E-08	8.200E-08	7.230E-08	6.047E-08	5.046E-08	4.256E-08	3.639E-08	3.155E-08	

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.836E-08	1.237E-08	8.007E-09	4.561E-09	3.181E-09	2.388E-09	1.848E-09	1.487E-09	1.241E-09	1.056E-09	9.095E-10
SSW	9.873E-09	1.241E-08	8.339E-09	4.984E-09	3.862E-09	2.983E-09	2.333E-09	1.894E-09	1.580E-09	1.346E-09	1.164E-09
SW	8.318E-09	8.206E-09	5.548E-09	3.327E-09	2.505E-09	1.976E-09	1.624E-09	1.307E-09	1.080E-09	9.117E-10	7.821E-10
WSW	1.396E-08	1.102E-08	8.397E-09	5.491E-09	3.691E-09	2.707E-09	2.097E-09	1.685E-09	1.392E-09	1.174E-09	1.007E-09
W	1.726E-08	9.616E-09	6.986E-09	4.569E-09	3.339E-09	2.452E-09	1.898E-09	1.528E-09	1.266E-09	1.072E-09	9.225E-10
WNW	5.788E-08	3.362E-08	2.328E-08	1.438E-08	9.851E-09	7.320E-09	5.750E-09	4.658E-09	3.856E-09	3.253E-09	2.790E-09
NW	6.195E-08	3.521E-08	2.427E-08	1.485E-08	9.986E-09	7.342E-09	5.814E-09	4.717E-09	3.916E-09	3.321E-09	2.865E-09
NNW	6.014E-08	3.516E-08	2.296E-08	1.326E-08	8.994E-09	6.658E-09	5.265E-09	4.313E-09	3.662E-09	3.132E-09	2.711E-09
N	1.887E-08	1.177E-08	9.765E-09	8.781E-09	8.677E-09	7.769E-09	6.150E-09	5.017E-09	4.201E-09	3.591E-09	3.122E-09
NNE	1.563E-08	4.066E-08	2.689E-08	1.582E-08	1.086E-08	8.118E-09	6.397E-09	5.226E-09	4.385E-09	3.754E-09	3.264E-09
NE	8.799E-09	2.513E-08	1.660E-08	9.741E-09	6.675E-09	4.976E-09	3.981E-09	3.282E-09	2.778E-09	2.367E-09	2.049E-09
ENE	1.057E-08	2.187E-08	1.475E-08	8.858E-09	6.147E-09	4.621E-09	3.921E-09	3.350E-09	2.797E-09	2.384E-09	2.065E-09
E	7.633E-09	1.241E-08	8.254E-09	4.871E-09	3.347E-09	2.498E-09	1.964E-09	1.601E-09	1.399E-09	1.230E-09	1.064E-09
ESE	2.062E-08	2.277E-08	1.513E-08	8.903E-09	6.099E-09	4.540E-09	3.562E-09	2.899E-09	2.422E-09	2.065E-09	1.789E-09
SE	2.528E-08	1.470E-08	1.073E-08	7.483E-09	5.634E-09	4.655E-09	4.058E-09	3.644E-09	3.061E-09	2.622E-09	2.281E-09
SSE	3.350E-08	4.206E-08	2.707E-08	1.534E-08	1.027E-08	7.525E-09	5.836E-09	4.707E-09	3.905E-09	3.310E-09	2.854E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.390E-08	3.089E-08	2.370E-08	1.843E-08	1.928E-08	1.176E-08	4.713E-09	2.383E-09	1.496E-09	1.057E-09
SSW	9.057E-09	1.207E-08	1.109E-08	1.143E-08	1.021E-08	1.004E-08	5.231E-09	2.958E-09	1.900E-09	1.348E-09
SW	7.105E-09	2.495E-08	1.877E-08	1.212E-08	8.947E-09	7.050E-09	3.456E-09	1.977E-09	1.311E-09	9.137E-10
WSW	1.703E-08	4.894E-08	3.393E-08	2.133E-08	1.541E-08	1.051E-08	5.337E-09	2.725E-09	1.691E-09	1.177E-09
W	7.651E-08	9.295E-08	5.170E-08	3.030E-08	2.040E-08	1.015E-08	4.559E-09	2.467E-09	1.534E-09	1.074E-09
WNW	1.429E-07	2.631E-07	1.596E-07	1.001E-07	6.808E-08	3.442E-08	1.435E-08	7.367E-09	4.664E-09	3.260E-09
NW	1.770E-07	3.305E-07	1.920E-07	1.110E-07	7.339E-08	3.629E-08	1.478E-08	7.436E-09	4.725E-09	3.328E-09
NNW	5.234E-08	1.181E-07	1.213E-07	1.011E-07	7.086E-08	3.529E-08	1.352E-08	6.724E-09	4.337E-09	3.133E-09
N	5.144E-08	5.374E-08	4.055E-08	2.882E-08	2.144E-08	1.246E-08	8.953E-09	7.364E-09	5.030E-09	3.598E-09
NNE	1.983E-08	3.565E-08	2.864E-08	2.020E-08	1.584E-08	2.898E-08	1.608E-08	8.162E-09	5.240E-09	3.759E-09
NE	1.599E-08	1.792E-08	1.359E-08	9.898E-09	8.339E-09	1.771E-08	9.903E-09	5.031E-09	3.290E-09	2.371E-09
ENE	1.571E-08	2.362E-08	1.868E-08	1.332E-08	1.062E-08	1.620E-08	8.964E-09	4.748E-09	3.303E-09	2.388E-09
E	1.626E-08	1.833E-08	1.365E-08	9.688E-09	7.702E-09	9.502E-09	4.945E-09	2.511E-09	1.628E-09	1.219E-09
ESE	3.543E-08	5.373E-08	4.135E-08	2.869E-08	2.180E-08	1.889E-08	9.040E-09	4.565E-09	2.907E-09	2.069E-09
SE	4.899E-08	7.711E-08	5.903E-08	4.053E-08	2.922E-08	1.529E-08	7.382E-09	4.677E-09	3.541E-09	2.626E-09
SSE	4.909E-08	7.523E-08	5.962E-08	4.247E-08	3.371E-08	3.350E-08	1.569E-08	7.581E-09	4.724E-09	3.317E-09

B308

ERP ELEVATED STACK RELEASES - OCT-DEC 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE									
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500			
S	2.773E-09	1.180E-08	2.268E-08	3.047E-08	3.313E-08	2.853E-08	2.344E-08	1.926E-08	1.602E-08	1.824E-08	1.987E-08			
SSW	1.386E-09	5.539E-09	8.521E-09	1.103E-08	1.285E-08	1.167E-08	9.937E-09	1.108E-08	1.180E-08	1.057E-08	9.697E-09			
SW	3.555E-17	7.129E-11	3.725E-09	1.319E-08	3.311E-08	2.449E-08	1.863E-08	1.469E-08	1.195E-08	9.978E-09	8.510E-09			
WSW	1.202E-16	1.617E-10	9.688E-09	3.103E-08	6.502E-08	4.498E-08	3.325E-08	2.583E-08	2.083E-08	1.729E-08	1.468E-08			
W	9.550E-14	1.428E-08	7.758E-08	1.056E-07	1.097E-07	7.102E-08	5.003E-08	3.745E-08	2.932E-08	2.374E-08	1.973E-08			
WNW	9.025E-11	1.246E-08	1.154E-07	2.273E-07	3.395E-07	2.170E-07	1.519E-07	1.207E-07	9.941E-08	7.970E-08	6.567E-08			
NW	1.650E-08	6.502E-08	1.380E-07	2.591E-07	4.458E-07	2.700E-07	1.828E-07	1.372E-07	1.080E-07	8.574E-08	7.010E-08			
NNW	1.982E-09	1.231E-08	4.130E-08	8.016E-08	1.272E-07	1.277E-07	1.213E-07	1.128E-07	1.060E-07	8.387E-08	6.836E-08			
N	1.315E-08	3.110E-08	5.364E-08	5.841E-08	5.551E-08	4.801E-08	4.030E-08	3.328E-08	2.792E-08	2.380E-08	2.058E-08			
NNE	1.309E-15	1.055E-09	1.657E-08	3.170E-08	3.902E-08	3.434E-08	2.839E-08	2.340E-08	1.950E-08	1.650E-08	1.417E-08			
NE	1.256E-10	8.061E-09	1.662E-08	1.900E-08	1.876E-08	1.607E-08	1.340E-08	1.126E-08	9.593E-09	8.304E-09	7.297E-09			
ENE	3.167E-11	3.951E-09	1.457E-08	2.223E-08	2.548E-08	2.227E-08	1.848E-08	1.533E-08	1.288E-08	1.099E-08	9.519E-09			
E	9.445E-11	7.674E-09	1.693E-08	1.957E-08	1.925E-08	1.632E-08	1.345E-08	1.114E-08	9.364E-09	7.992E-09	6.924E-09			
ESE	1.408E-09	8.149E-09	3.199E-08	5.142E-08	5.837E-08	5.008E-08	4.087E-08	3.339E-08	2.765E-08	2.327E-08	1.988E-08			
SE	8.388E-11	7.384E-09	4.385E-08	7.340E-08	8.406E-08	7.186E-08	5.833E-08	4.737E-08	3.900E-08	3.262E-08	2.771E-08			
SSE	7.526E-09	1.133E-08	4.484E-08	7.072E-08	8.123E-08	7.110E-08	5.907E-08	4.900E-08	4.110E-08	3.498E-08	3.019E-08			

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)					DISTANCE IN MILES FROM THE SITE									
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000				
S	1.766E-08	1.171E-08	7.366E-09	3.961E-09	2.591E-09	1.850E-09	1.385E-09	1.083E-09	8.820E-10	7.339E-10	6.193E-10				
SSW	9.603E-09	1.210E-08	7.904E-09	4.446E-09	3.231E-09	2.424E-09	1.849E-09	1.469E-09	1.203E-09	1.007E-09	8.583E-10				
SW	8.225E-09	8.111E-09	5.339E-09	3.022E-09	2.125E-09	1.591E-09	1.277E-09	1.010E-09	8.221E-10	6.849E-10	5.811E-10				
WSW	1.369E-08	1.073E-08	7.991E-09	5.031E-09	3.287E-09	2.357E-09	1.793E-09	1.419E-09	1.157E-09	9.658E-10	8.206E-10				
W	1.675E-08	9.298E-09	6.704E-09	4.158E-09	2.879E-09	2.054E-09	1.551E-09	1.223E-09	9.936E-10	8.269E-10	7.010E-10				
WNW	5.616E-08	3.186E-08	2.147E-08	1.251E-08	7.978E-09	5.609E-09	4.271E-09	3.384E-09	2.747E-09	2.277E-09	1.923E-09				
NW	5.951E-08	3.296E-08	2.209E-08	1.277E-08	8.160E-09	5.751E-09	4.421E-09	3.500E-09	2.842E-09	2.363E-09	2.002E-09				
NNW	5.859E-08	3.333E-08	2.109E-08	1.140E-08	7.162E-09	4.973E-09	3.734E-09	2.948E-09	2.435E-09	2.034E-09	1.722E-09				
N	1.808E-08	1.118E-08	9.282E-09	8.457E-09	8.241E-09	7.087E-09	5.474E-09	4.370E-09	3.588E-09	3.014E-09	2.578E-09				
NNE	1.490E-08	3.984E-08	2.556E-08	1.423E-08	9.245E-09	6.603E-09	5.006E-09	3.955E-09	3.220E-09	2.683E-09	2.277E-09				
NE	8.506E-09	2.483E-08	1.593E-08	8.841E-09	5.721E-09	4.071E-09	3.148E-09	2.538E-09	2.108E-09	1.766E-09	1.505E-09				
ENE	1.011E-08	2.148E-08	1.409E-08	7.964E-09	5.143E-09	3.644E-09	2.941E-09	2.421E-09	1.971E-09	1.643E-09	1.394E-09				
E	7.320E-09	1.212E-08	7.838E-09	4.356E-09	2.788E-09	1.963E-09	1.468E-09	1.145E-09	9.615E-10	8.187E-10	6.905E-10				
ESE	1.958E-08	2.185E-08	1.413E-08	7.880E-09	5.071E-09	3.583E-09	2.688E-09	2.102E-09	1.695E-09	1.399E-09	1.176E-09				
SE	2.386E-08	1.359E-08	9.796E-09	6.813E-09	5.149E-09	4.303E-09	3.807E-09	3.465E-09	2.879E-09	2.444E-09	2.109E-09				
SSE	3.209E-08	4.054E-08	2.530E-08	1.361E-08	8.694E-09	6.130E-09	4.600E-09	3.604E-09	2.914E-09	2.413E-09	2.037E-09				

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.372E-08	3.050E-08	2.313E-08	1.779E-08	1.857E-08	1.110E-08	4.109E-09	1.862E-09	1.093E-09	7.353E-10
SSW	8.973E-09	1.192E-08	1.086E-08	1.112E-08	9.920E-09	9.681E-09	4.675E-09	2.409E-09	1.476E-09	1.010E-09
SW	7.118E-09	2.485E-08	1.861E-08	1.198E-08	8.840E-09	6.904E-09	3.138E-09	1.608E-09	1.015E-09	6.871E-10
WSW	1.706E-08	4.856E-08	3.341E-08	2.091E-08	1.509E-08	1.017E-08	4.913E-09	2.379E-09	1.426E-09	9.688E-10
W	7.595E-08	9.158E-08	5.060E-08	2.952E-08	1.982E-08	9.801E-09	4.155E-09	2.073E-09	1.229E-09	8.297E-10
WNW	1.422E-07	2.601E-07	1.568E-07	9.798E-08	6.631E-08	3.264E-08	1.249E-08	5.706E-09	3.395E-09	2.285E-09
NW	1.756E-07	3.262E-07	1.878E-07	1.079E-07	7.081E-08	3.403E-08	1.279E-08	5.862E-09	3.512E-09	2.371E-09
NNW	5.213E-08	1.170E-07	1.196E-07	9.951E-08	6.934E-08	3.350E-08	1.167E-08	5.061E-09	2.977E-09	2.038E-09
N	5.075E-08	5.282E-08	3.955E-08	2.788E-08	2.061E-08	1.187E-08	8.544E-09	6.750E-09	4.388E-09	3.023E-09
NNE	1.985E-08	3.532E-08	2.798E-08	1.947E-08	1.513E-08	2.795E-08	1.453E-08	6.669E-09	3.975E-09	2.692E-09
NE	1.577E-08	1.762E-08	1.326E-08	9.577E-09	8.043E-09	1.725E-08	9.029E-09	4.142E-09	2.549E-09	1.771E-09
ENE	1.562E-08	2.333E-08	1.823E-08	1.286E-08	1.017E-08	1.567E-08	8.072E-09	3.763E-09	2.398E-09	1.648E-09
E	1.605E-08	1.802E-08	1.329E-08	9.350E-09	7.387E-09	9.151E-09	4.433E-09	1.985E-09	1.167E-09	8.135E-10
ESE	3.533E-08	5.314E-08	4.034E-08	2.762E-08	2.077E-08	1.792E-08	8.022E-09	3.622E-09	2.114E-09	1.404E-09
SE	4.888E-08	7.627E-08	5.756E-08	3.896E-08	2.774E-08	1.419E-08	6.736E-09	4.330E-09	3.340E-09	2.449E-09
SSE	4.889E-08	7.439E-08	5.825E-08	4.103E-08	3.231E-08	3.189E-08	1.402E-08	6.202E-09	3.626E-09	2.422E-09

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ERP ELEVATED STACK RELEASES - OCT-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	1.099E-09	1.223E-09	1.526E-09	1.333E-09	7.655E-10	4.997E-10	3.486E-10	2.544E-10	1.921E-10	1.642E-10	1.428E-10
SSW	5.291E-10	4.895E-10	5.035E-10	3.980E-10	2.150E-10	1.373E-10	9.481E-11	6.884E-11	6.295E-11	4.768E-11	3.736E-11
SW	6.550E-12	3.929E-11	8.367E-11	8.667E-11	8.667E-11	9.700E-11	5.414E-11	3.412E-11	2.343E-11	1.705E-11	1.294E-11
WSW	1.572E-11	9.431E-11	2.008E-10	4.065E-10	2.579E-10	1.403E-10	8.680E-11	5.885E-11	4.249E-11	3.211E-11	2.512E-11
W	2.489E-11	1.311E-09	1.275E-09	8.565E-10	4.020E-10	2.188E-10	1.355E-10	9.203E-11	6.666E-11	5.060E-11	3.980E-11
WNW	3.327E-10	6.534E-10	3.531E-09	2.667E-09	1.697E-09	8.589E-10	5.114E-10	3.457E-10	2.635E-10	2.074E-10	1.729E-10
NW	3.912E-09	3.333E-09	3.057E-09	4.311E-09	2.645E-09	1.322E-09	7.870E-10	5.275E-10	3.868E-10	3.043E-10	2.533E-10
NNW	1.625E-09	1.696E-09	1.996E-09	1.697E-09	1.753E-09	9.548E-10	6.010E-10	5.064E-10	3.793E-10	3.063E-10	2.624E-10
N	4.970E-09	4.312E-09	4.064E-09	3.035E-09	1.577E-09	9.927E-10	6.802E-10	4.920E-10	3.698E-10	2.861E-10	2.265E-10
NNE	9.694E-11	5.816E-10	1.238E-09	1.283E-09	8.012E-10	5.372E-10	3.794E-10	2.787E-10	2.111E-10	1.639E-10	1.298E-10
NE	1.045E-09	9.004E-10	8.397E-10	6.226E-10	3.216E-10	2.021E-10	1.383E-10	1.000E-10	7.515E-11	5.814E-11	4.603E-11
ENE	3.012E-10	4.648E-10	7.203E-10	6.843E-10	4.106E-10	2.719E-10	1.910E-10	1.399E-10	1.058E-10	8.207E-11	6.499E-11
E	8.002E-10	7.735E-10	8.390E-10	6.836E-10	3.766E-10	2.423E-10	1.678E-10	1.221E-10	9.202E-11	7.128E-11	5.644E-11
ESE	9.521E-10	1.685E-09	2.780E-09	2.694E-09	1.632E-09	1.084E-09	7.627E-10	5.590E-10	4.230E-10	3.281E-10	2.599E-10
SE	1.008E-09	2.023E-09	3.500E-09	3.440E-09	2.098E-09	1.397E-09	9.831E-10	7.210E-10	5.456E-10	4.233E-10	3.353E-10
SSE	1.251E-09	2.134E-09	3.467E-09	3.344E-09	2.021E-09	1.342E-09	9.434E-10	6.914E-10	5.230E-10	4.058E-10	3.213E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.148E-10	8.262E-11	5.667E-11	3.295E-11	2.084E-11	1.474E-11	1.056E-11	7.924E-12	6.242E-12	4.987E-12	4.071E-12
SSW	3.068E-11	3.693E-11	2.792E-11	1.754E-11	9.651E-12	6.567E-12	4.707E-12	3.536E-12	2.798E-12	2.235E-12	1.824E-12
SW	8.469E-12	2.057E-11	1.660E-11	1.089E-11	7.057E-12	3.740E-12	2.622E-12	1.969E-12	1.531E-12	1.223E-12	9.980E-13
WSW	2.019E-11	2.176E-11	1.616E-11	9.399E-12	5.686E-12	3.814E-12	2.850E-12	2.140E-12	1.664E-12	1.329E-12	1.085E-12
W	3.221E-11	1.485E-11	2.805E-11	1.757E-11	1.001E-11	6.764E-12	4.847E-12	3.639E-12	2.830E-12	2.260E-12	1.845E-12
WNW	1.522E-10	9.629E-11	7.019E-11	4.287E-11	2.887E-11	1.845E-11	1.223E-11	9.183E-12	7.236E-12	5.780E-12	4.718E-12
NW	2.211E-10	1.379E-10	1.000E-10	6.057E-11	3.699E-11	2.476E-11	1.779E-11	1.336E-11	1.048E-11	8.372E-12	6.834E-12
NNW	2.357E-10	1.597E-10	1.200E-10	7.497E-11	4.815E-11	3.192E-11	2.093E-11	1.534E-11	1.181E-11	9.434E-12	7.702E-12
N	1.828E-10	8.697E-11	5.330E-11	2.837E-11	7.285E-11	4.353E-11	3.119E-11	2.342E-11	1.821E-11	1.455E-11	1.188E-11
NNE	1.045E-10	1.652E-10	1.035E-10	5.446E-11	3.336E-11	2.230E-11	1.590E-11	1.187E-11	9.182E-12	7.305E-12	5.941E-12
NE	3.714E-11	8.695E-11	5.558E-11	2.986E-11	1.840E-11	1.228E-11	8.496E-12	6.318E-12	4.912E-12	3.924E-12	3.203E-12
ENE	5.236E-11	7.131E-11	5.328E-11	3.314E-11	2.123E-11	1.406E-11	9.854E-12	6.483E-12	5.047E-12	4.038E-12	3.302E-12
E	4.551E-11	5.770E-11	4.275E-11	2.645E-11	1.697E-11	1.127E-11	7.929E-12	5.823E-12	4.444E-12	3.416E-12	2.786E-12
ESE	2.093E-10	1.606E-10	1.060E-10	5.951E-11	3.724E-11	2.484E-11	1.766E-11	1.314E-11	1.015E-11	8.085E-12	6.590E-12
SE	2.701E-10	1.279E-10	7.801E-11	4.104E-11	2.497E-11	1.709E-11	1.265E-11	1.884E-11	1.455E-11	1.159E-11	9.454E-12
SSE	2.589E-10	3.162E-10	1.941E-10	9.966E-11	6.063E-11	4.061E-11	2.905E-11	2.177E-11	1.690E-11	1.348E-11	1.099E-11

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.373E-09	7.736E-10	3.512E-10	1.993E-10	1.388E-10	7.824E-11	3.284E-11	1.470E-11	8.036E-12	5.019E-12
SSW	4.535E-10	2.211E-10	9.576E-11	5.882E-11	3.794E-11	3.153E-11	1.634E-11	6.646E-12	3.589E-12	2.249E-12
SW	7.514E-11	7.565E-11	3.518E-11	1.731E-11	1.035E-11	1.612E-11	1.045E-11	4.177E-12	1.988E-12	1.231E-12
WSW	2.686E-10	2.387E-10	8.989E-11	4.321E-11	2.537E-11	1.892E-11	9.252E-12	3.928E-12	2.162E-12	1.338E-12
W	1.097E-09	4.216E-10	1.403E-10	6.779E-11	4.019E-11	2.458E-11	1.654E-11	6.863E-12	3.676E-12	2.275E-12
WNW	2.507E-09	1.540E-09	5.378E-10	2.656E-10	1.755E-10	9.712E-11	4.272E-11	1.874E-11	9.311E-12	5.818E-12
NW	3.676E-09	2.427E-09	8.259E-10	3.956E-10	2.565E-10	1.395E-10	5.885E-11	2.523E-11	1.353E-11	8.427E-12
NNW	1.796E-09	1.386E-09	6.575E-10	3.878E-10	2.655E-10	1.589E-10	7.305E-11	3.185E-11	1.559E-11	9.496E-12
N	3.662E-09	1.641E-09	6.882E-10	3.728E-10	2.280E-10	9.330E-11	5.368E-11	4.642E-11	2.366E-11	1.465E-11
NNE	1.112E-09	7.908E-10	3.812E-10	2.124E-10	1.305E-10	1.243E-10	5.599E-11	2.269E-11	1.200E-11	7.356E-12
NE	7.567E-10	3.354E-10	1.400E-10	7.577E-11	4.633E-11	6.194E-11	3.048E-11	1.240E-11	6.405E-12	3.950E-12
ENE	6.475E-10	4.098E-10	1.921E-10	1.065E-10	6.537E-11	5.909E-11	3.232E-11	1.429E-11	6.899E-12	4.064E-12
E	7.554E-10	3.851E-10	1.694E-10	9.271E-11	5.679E-11	4.835E-11	2.586E-11	1.145E-11	5.899E-12	3.487E-12
ESE	2.499E-09	1.625E-09	7.670E-10	4.257E-10	2.614E-10	1.472E-10	5.995E-11	2.527E-11	1.329E-11	8.144E-12
SE	3.145E-09	2.084E-09	9.885E-10	5.492E-10	3.372E-10	1.373E-10	4.211E-11	1.742E-11	1.544E-11	1.168E-11
SSE	3.116E-09	2.013E-09	9.488E-10	5.265E-10	3.232E-10	2.492E-10	1.033E-10	4.133E-11	2.200E-11	1.357E-11

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ERP ELEVATED STACK RELEASES - OCT-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

ID	RELEASE TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST. (MI)	X/Q	X/Q	X/Q	D/Q
				(SEC/M3)	(SEC/M3)	(SEC/M3)	(PER SQ.METER)
				NO	2.26 DAY	8.0 DAY	
				DECAY	DECAY	DECAY	
				UNDEPLETED	UNDEPLETED	DEPLETED	
A	Site Boundary	S	.80	2.5E-08	2.5E-08	2.5E-08	1.5E-09
A	Site Boundary	SSW	.82	9.4E-09	9.4E-09	9.3E-09	4.8E-10
A	Site Boundary	SW	.97	1.2E-08	1.2E-08	1.2E-08	8.9E-11
A	Site Boundary	WSW	.93	2.5E-08	2.4E-08	2.5E-08	2.9E-10
A	Site Boundary	W	.91	1.0E-07	1.0E-07	9.9E-08	9.6E-10
A	Site Boundary	WNW	.94	2.0E-07	2.0E-07	2.0E-07	3.0E-09
A	Site Boundary	NW	.81	1.7E-07	1.7E-07	1.7E-07	2.8E-09
A	Site Boundary	NNW	.69	3.1E-08	3.1E-08	3.0E-08	1.9E-09
A	Site Boundary	N	.67	4.7E-08	4.7E-08	4.7E-08	4.1E-09
A	Site Boundary	NNE	.60	4.9E-09	4.9E-09	4.9E-09	8.4E-10
A	Site Boundary	NE	.62	1.3E-08	1.3E-08	1.2E-08	8.5E-10
A	Site Boundary	ENE	.59	6.9E-09	6.8E-09	6.8E-09	5.5E-10
A	Site Boundary	E	.53	8.7E-09	8.7E-09	8.6E-09	7.8E-10
A	Site Boundary	ESE	.54	1.0E-08	1.0E-08	1.0E-08	1.8E-09
A	Site Boundary	SE	.65	2.5E-08	2.5E-08	2.5E-08	2.9E-09
A	Site Boundary	SSE	.81	5.3E-08	5.3E-08	5.3E-08	3.6E-09
A	Nearest Res	SW	1.30	2.6E-08	2.6E-08	2.6E-08	1.3E-10
A	Nearest Res	WSW	1.80	5.3E-08	5.2E-08	5.2E-08	1.8E-10
A	Nearest Res	WNW	2.40	1.7E-07	1.7E-07	1.6E-07	5.6E-10
A	Nearest Res	NW	.90	2.1E-07	2.1E-07	2.1E-07	4.6E-09
A	Nearest Res	NNW	1.90	1.3E-07	1.3E-07	1.3E-07	1.1E-09
A	Nearest Res	NE	1.60	1.9E-08	1.9E-08	1.8E-08	2.9E-10
A	Nearest Res	E	2.00	1.7E-08	1.7E-08	1.6E-08	2.4E-10
A	Nearest Cow	NNW	3.50	1.1E-07	1.1E-07	1.1E-07	3.8E-10
A	Nearest Garde	SW	2.20	2.2E-08	2.2E-08	2.2E-08	4.4E-11
A	Nearest Garde	WSW	1.80	5.3E-08	5.2E-08	5.2E-08	1.8E-10
A	Nearest Garde	WNW	2.60	1.5E-07	1.5E-07	1.4E-07	4.7E-10
A	Nearest Garde	NW	1.90	3.0E-07	3.0E-07	3.0E-07	1.5E-09
A	Nearest Garde	NNW	2.80	1.2E-07	1.2E-07	1.2E-07	5.8E-10
A	Nearest Garde	ENE	1.70	2.5E-08	2.5E-08	2.4E-08	3.4E-10
A	Nearest Garde	ESE	2.30	4.5E-08	4.5E-08	4.4E-08	8.7E-10
A	MAXIMUM CHI/Q	S	1.50	3.4E-08	3.3E-08	3.3E-08	7.7E-10
A	MAXIMUM CHI/Q	SSW	1.50	1.3E-08	1.3E-08	1.3E-08	2.1E-10
A	MAXIMUM CHI/Q	SW	1.50	3.3E-08	3.3E-08	3.3E-08	9.7E-11
A	MAXIMUM CHI/Q	WSW	1.50	6.6E-08	6.5E-08	6.5E-08	2.6E-10
A	MAXIMUM CHI/Q	W	1.50	1.1E-07	1.1E-07	1.1E-07	4.0E-10
A	MAXIMUM CHI/Q	WNW	1.50	3.4E-07	3.4E-07	3.4E-07	1.7E-09
A	MAXIMUM CHI/Q	NW	1.50	4.5E-07	4.5E-07	4.5E-07	2.6E-09
A	MAXIMUM CHI/Q	NNW	2.00	1.3E-07	1.3E-07	1.3E-07	9.5E-10
A	MAXIMUM CHI/Q	N	1.00	5.9E-08	5.9E-08	5.8E-08	3.0E-09
A	MAXIMUM CHI/Q	NNE	7.50	4.1E-08	4.1E-08	4.0E-08	1.7E-10
A	MAXIMUM CHI/Q	NE	7.50	2.6E-08	2.5E-08	2.5E-08	8.7E-11
A	MAXIMUM CHI/Q	ENE	1.50	2.6E-08	2.6E-08	2.5E-08	4.1E-10
A	MAXIMUM CHI/Q	E	1.00	2.0E-08	2.0E-08	2.0E-08	6.8E-10
A	MAXIMUM CHI/Q	ESE	1.50	5.9E-08	5.9E-08	5.8E-08	1.6E-09
A	MAXIMUM CHI/Q	SE	1.50	8.5E-08	8.5E-08	8.4E-08	2.1E-09
A	MAXIMUM CHI/Q	SSE	1.50	8.2E-08	8.2E-08	8.1E-08	2.0E-09

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Atmospheric Diffusion Estimates

Elevated Releases

July-December 2022

ERP ELEVATED STACK RELEASES - JUL-DEC 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)			DISTANCE IN MILES FROM THE SITE									
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500		
S	1.402E-09	7.205E-09	2.312E-08	3.787E-08	4.649E-08	4.203E-08	3.555E-08	2.981E-08	2.519E-08	2.913E-08	3.165E-08		
SSW	6.947E-10	3.203E-09	1.257E-08	2.365E-08	3.263E-08	3.112E-08	2.719E-08	3.105E-08	3.314E-08	2.948E-08	2.659E-08		
SW	3.815E-12	2.503E-09	2.229E-08	5.813E-08	1.164E-07	8.331E-08	6.216E-08	4.835E-08	3.891E-08	3.219E-08	2.724E-08		
WSW	2.769E-16	4.657E-10	2.716E-08	8.687E-08	1.767E-07	1.166E-07	8.326E-08	6.298E-08	4.973E-08	4.057E-08	3.396E-08		
W	3.194E-09	5.933E-08	2.049E-07	2.666E-07	2.573E-07	1.627E-07	1.127E-07	8.329E-08	6.457E-08	5.189E-08	4.287E-08		
WNW	4.523E-11	9.867E-09	1.320E-07	2.863E-07	4.432E-07	2.827E-07	1.972E-07	1.550E-07	1.264E-07	1.013E-07	8.352E-08		
NW	1.324E-08	5.615E-08	1.582E-07	3.495E-07	6.231E-07	3.766E-07	2.545E-07	1.901E-07	1.489E-07	1.184E-07	9.700E-08		
NNW	1.090E-09	1.209E-08	4.851E-08	9.721E-08	1.629E-07	1.719E-07	1.703E-07	1.613E-07	1.518E-07	1.207E-07	9.893E-08		
N	6.602E-09	1.695E-08	3.843E-08	5.157E-08	5.929E-08	5.600E-08	4.952E-08	4.231E-08	3.641E-08	3.168E-08	2.787E-08		
NNE	1.257E-09	6.758E-09	1.948E-08	3.085E-08	3.816E-08	3.523E-08	3.038E-08	2.591E-08	2.222E-08	1.925E-08	1.687E-08		
NE	6.291E-11	4.265E-09	1.203E-08	1.706E-08	1.956E-08	1.751E-08	1.488E-08	1.262E-08	1.082E-08	9.401E-09	8.283E-09		
ENE	1.587E-11	2.066E-09	8.986E-09	1.518E-08	1.952E-08	1.825E-08	1.583E-08	1.355E-08	1.165E-08	1.012E-08	8.891E-09		
E	4.733E-11	3.909E-09	9.078E-09	1.085E-08	1.110E-08	9.671E-09	8.149E-09	6.884E-09	5.887E-09	5.104E-09	4.485E-09		
ESE	7.052E-10	4.178E-09	1.771E-08	2.997E-08	3.665E-08	3.299E-08	2.786E-08	2.336E-08	1.975E-08	1.691E-08	1.466E-08		
SE	4.203E-11	3.879E-09	2.489E-08	4.275E-08	5.079E-08	4.465E-08	3.709E-08	3.073E-08	2.574E-08	2.187E-08	1.885E-08		
SSE	5.742E-09	1.623E-08	3.963E-08	5.531E-08	6.204E-08	5.515E-08	4.671E-08	3.944E-08	3.364E-08	2.905E-08	2.542E-08		

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)			DISTANCE IN MILES FROM THE SITE									
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000		
S	2.808E-08	1.815E-08	1.172E-08	6.657E-09	4.598E-09	3.437E-09	2.665E-09	2.152E-09	1.799E-09	1.535E-09	1.327E-09		
SSW	2.522E-08	2.302E-08	1.521E-08	8.931E-09	6.627E-09	5.072E-09	3.981E-09	3.247E-09	2.726E-09	2.336E-09	2.036E-09		
SW	2.561E-08	2.154E-08	1.438E-08	8.538E-09	6.281E-09	4.910E-09	4.016E-09	3.277E-09	2.750E-09	2.357E-09	2.055E-09		
WSW	3.060E-08	2.147E-08	1.572E-08	1.002E-08	6.806E-09	5.051E-09	3.965E-09	3.232E-09	2.709E-09	2.320E-09	2.021E-09		
W	3.621E-08	1.980E-08	1.414E-08	9.198E-09	6.800E-09	5.038E-09	3.929E-09	3.188E-09	2.662E-09	2.272E-09	1.973E-09		
WNW	7.141E-08	4.095E-08	2.821E-08	1.741E-08	1.202E-08	9.016E-09	7.157E-09	5.865E-09	4.918E-09	4.203E-09	3.654E-09		
NW	8.243E-08	4.636E-08	3.181E-08	1.944E-08	1.314E-08	9.722E-09	7.745E-09	6.330E-09	5.294E-09	4.524E-09	3.932E-09		
NNW	8.518E-08	4.979E-08	3.265E-08	1.901E-08	1.299E-08	9.686E-09	7.707E-09	6.353E-09	5.426E-09	4.678E-09	4.076E-09		
N	2.484E-08	1.613E-08	1.389E-08	1.237E-08	1.159E-08	1.016E-08	8.072E-09	6.615E-09	5.557E-09	4.768E-09	4.159E-09		
NNE	1.852E-08	4.155E-08	2.751E-08	1.626E-08	1.123E-08	8.451E-09	6.707E-09	5.521E-09	4.668E-09	4.028E-09	3.531E-09		
NE	9.536E-09	2.597E-08	1.722E-08	1.019E-08	7.054E-09	5.312E-09	4.293E-09	3.576E-09	3.060E-09	2.637E-09	2.309E-09		
ENE	9.550E-09	1.913E-08	1.296E-08	7.850E-09	5.502E-09	4.179E-09	3.584E-09	3.095E-09	2.614E-09	2.254E-09	1.974E-09		
E	4.912E-09	1.006E-08	6.800E-09	4.113E-09	2.881E-09	2.187E-09	1.747E-09	1.445E-09	1.290E-09	1.156E-09	1.013E-09		
ESE	1.477E-08	1.847E-08	1.246E-08	7.511E-09	5.242E-09	3.966E-09	3.159E-09	2.608E-09	2.209E-09	1.908E-09	1.675E-09		
SE	1.645E-08	9.881E-09	7.503E-09	5.548E-09	4.265E-09	3.566E-09	3.132E-09	2.829E-09	2.401E-09	2.078E-09	1.826E-09		
SSE	2.797E-08	3.853E-08	2.495E-08	1.429E-08	9.667E-09	7.154E-09	5.602E-09	4.560E-09	3.817E-09	3.265E-09	2.841E-09		

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.614E-08	4.259E-08	3.498E-08	2.801E-08	2.958E-08	1.750E-08	6.867E-09	3.438E-09	2.164E-09	1.536E-09
SSW	1.541E-08	2.996E-08	2.978E-08	3.115E-08	2.694E-08	2.004E-08	9.303E-09	5.050E-09	3.258E-09	2.340E-09
SW	3.382E-08	8.874E-08	6.228E-08	3.905E-08	2.810E-08	1.926E-08	8.832E-09	4.918E-09	3.288E-09	2.362E-09
WSW	4.776E-08	1.301E-07	8.405E-08	5.003E-08	3.467E-08	2.095E-08	9.860E-09	5.085E-09	3.242E-09	2.325E-09
W	2.000E-07	2.173E-07	1.143E-07	6.509E-08	4.308E-08	2.093E-08	9.230E-09	5.064E-09	3.200E-09	2.277E-09
WNW	1.734E-07	3.370E-07	2.031E-07	1.250E-07	8.430E-08	4.206E-08	1.741E-08	9.072E-09	5.873E-09	4.211E-09
NW	2.205E-07	4.528E-07	2.613E-07	1.491E-07	9.794E-08	4.791E-08	1.939E-08	9.843E-09	6.340E-09	4.533E-09
NNW	6.206E-08	1.523E-07	1.671E-07	1.427E-07	1.003E-07	5.003E-08	1.936E-08	9.776E-09	6.387E-09	4.677E-09
N	3.950E-08	5.611E-08	4.836E-08	3.629E-08	2.787E-08	1.707E-08	1.236E-08	9.707E-09	6.628E-09	4.776E-09
NNE	2.171E-08	3.523E-08	2.988E-08	2.214E-08	1.819E-08	3.020E-08	1.652E-08	8.495E-09	5.535E-09	4.033E-09
NE	1.254E-08	1.809E-08	1.468E-08	1.079E-08	9.078E-09	1.843E-08	1.036E-08	5.369E-09	3.584E-09	2.641E-09
ENE	1.020E-08	1.799E-08	1.556E-08	1.161E-08	9.500E-09	1.426E-08	7.942E-09	4.294E-09	3.051E-09	2.257E-09
E	8.719E-09	1.041E-08	8.049E-09	5.873E-09	4.827E-09	7.466E-09	4.163E-09	2.196E-09	1.472E-09	1.143E-09
ESE	2.015E-08	3.354E-08	2.743E-08	1.970E-08	1.537E-08	1.498E-08	7.603E-09	3.984E-09	2.613E-09	1.911E-09
SE	2.816E-08	4.628E-08	3.656E-08	2.569E-08	1.886E-08	1.028E-08	5.412E-09	3.579E-09	2.752E-09	2.080E-09
SSE	4.140E-08	5.748E-08	4.605E-08	3.355E-08	2.744E-08	3.015E-08	1.460E-08	7.204E-09	4.575E-09	3.272E-09

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ERP ELEVATED STACK RELEASES - JUL-DEC 2022
 2.260 DAY DECAY, UNDELETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	1.401E-09	7.202E-09	2.310E-08	3.782E-08	4.637E-08	4.189E-08	3.539E-08	2.965E-08	2.503E-08	2.893E-08	3.139E-08	
SSW	6.945E-10	3.202E-09	1.255E-08	2.360E-08	3.250E-08	3.096E-08	2.702E-08	3.082E-08	3.286E-08	2.921E-08	2.631E-08	
SW	3.809E-12	2.497E-09	2.223E-08	5.795E-08	1.159E-07	8.284E-08	6.173E-08	4.795E-08	3.854E-08	3.184E-08	2.690E-08	
WSW	2.768E-16	4.653E-10	2.712E-08	8.667E-08	1.761E-07	1.161E-07	8.276E-08	6.252E-08	4.930E-08	4.017E-08	3.358E-08	
W	3.193E-09	5.927E-08	2.045E-07	2.659E-07	2.562E-07	1.618E-07	1.119E-07	8.260E-08	6.395E-08	5.132E-08	4.234E-08	
WNW	4.520E-11	9.858E-09	1.317E-07	2.857E-07	4.415E-07	2.812E-07	1.959E-07	1.538E-07	1.252E-07	1.002E-07	8.247E-08	
NW	1.323E-08	5.611E-08	1.580E-07	3.488E-07	6.212E-07	3.751E-07	2.532E-07	1.889E-07	1.479E-07	1.174E-07	9.610E-08	
NNW	1.090E-09	1.208E-08	4.847E-08	9.707E-08	1.625E-07	1.714E-07	1.696E-07	1.605E-07	1.509E-07	1.199E-07	9.816E-08	
N	6.601E-09	1.694E-08	3.840E-08	5.151E-08	5.917E-08	5.584E-08	4.934E-08	4.213E-08	3.623E-08	3.149E-08	2.769E-08	
NNE	1.256E-09	6.756E-09	1.946E-08	3.081E-08	3.807E-08	3.511E-08	3.025E-08	2.578E-08	2.208E-08	1.912E-08	1.674E-08	
NE	6.289E-11	4.262E-09	1.201E-08	1.704E-08	1.950E-08	1.744E-08	1.481E-08	1.255E-08	1.075E-08	9.331E-09	8.213E-09	
ENE	1.586E-11	2.064E-09	8.972E-09	1.515E-08	1.946E-08	1.816E-08	1.573E-08	1.345E-08	1.155E-08	1.002E-08	8.794E-09	
E	4.731E-11	3.906E-09	9.067E-09	1.084E-08	1.107E-08	9.640E-09	8.116E-09	6.851E-09	5.853E-09	5.071E-09	4.453E-09	
ESE	7.051E-10	4.176E-09	1.770E-08	2.993E-08	3.656E-08	3.287E-08	2.773E-08	2.323E-08	1.962E-08	1.677E-08	1.453E-08	
SE	4.202E-11	3.877E-09	2.487E-08	4.271E-08	5.070E-08	4.453E-08	3.696E-08	3.060E-08	2.561E-08	2.175E-08	1.873E-08	
SSE	5.741E-09	1.622E-08	3.960E-08	5.524E-08	6.192E-08	5.501E-08	4.655E-08	3.928E-08	3.347E-08	2.888E-08	2.525E-08	

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)					DISTANCE IN MILES FROM THE SITE					
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	2.783E-08	1.790E-08	1.151E-08	6.480E-09	4.436E-09	3.286E-09	2.526E-09	2.022E-09	1.676E-09	1.418E-09	1.216E-09
SSW	2.493E-08	2.260E-08	1.484E-08	8.598E-09	6.291E-09	4.749E-09	3.678E-09	2.961E-09	2.453E-09	2.075E-09	1.785E-09
SW	2.526E-08	2.107E-08	1.396E-08	8.167E-09	5.911E-09	4.544E-09	3.654E-09	2.936E-09	2.425E-09	2.047E-09	1.756E-09
WSW	3.021E-08	2.103E-08	1.527E-08	9.577E-09	6.403E-09	4.679E-09	3.617E-09	2.903E-09	2.396E-09	2.021E-09	1.733E-09
W	3.571E-08	1.939E-08	1.375E-08	8.816E-09	6.424E-09	4.692E-09	3.609E-09	2.888E-09	2.378E-09	2.002E-09	1.714E-09
WNW	7.041E-08	4.008E-08	2.740E-08	1.665E-08	1.133E-08	8.371E-09	6.546E-09	5.285E-09	4.365E-09	3.676E-09	3.149E-09
NW	8.158E-08	4.564E-08	3.116E-08	1.884E-08	1.261E-08	9.231E-09	7.278E-09	5.887E-09	4.874E-09	4.123E-09	3.548E-09
NNW	8.443E-08	4.911E-08	3.206E-08	1.849E-08	1.252E-08	9.251E-09	7.293E-09	5.956E-09	5.039E-09	4.302E-09	3.715E-09
N	2.466E-08	1.596E-08	1.370E-08	1.211E-08	1.125E-08	9.781E-09	7.707E-09	6.266E-09	5.224E-09	4.448E-09	3.851E-09
NNE	1.836E-08	4.089E-08	2.692E-08	1.573E-08	1.075E-08	8.001E-09	6.280E-09	5.113E-09	4.276E-09	3.649E-09	3.165E-09
NE	9.445E-09	2.551E-08	1.681E-08	9.831E-09	6.720E-09	4.999E-09	3.990E-09	3.283E-09	2.773E-09	2.361E-09	2.043E-09
ENE	9.436E-09	1.880E-08	1.265E-08	7.575E-09	5.246E-09	3.937E-09	3.333E-09	2.842E-09	2.372E-09	2.021E-09	1.750E-09
E	4.874E-09	9.899E-09	6.655E-09	3.979E-09	2.755E-09	2.067E-09	1.632E-09	1.335E-09	1.175E-09	1.039E-09	9.003E-10
ESE	1.462E-08	1.814E-08	1.217E-08	7.239E-09	4.987E-09	3.726E-09	2.929E-09	2.387E-09	1.996E-09	1.702E-09	1.475E-09
SE	1.633E-08	9.766E-09	7.381E-09	5.395E-09	4.098E-09	3.382E-09	2.929E-09	2.608E-09	2.186E-09	1.869E-09	1.623E-09
SSE	2.776E-08	3.804E-08	2.453E-08	1.393E-08	9.343E-09	6.855E-09	5.322E-09	4.295E-09	3.565E-09	3.024E-09	2.609E-09

DIRECTION FROM SITE	CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.611E-08	4.248E-08	3.483E-08	2.783E-08	2.934E-08	1.727E-08	6.688E-09	3.289E-09	2.034E-09	1.419E-09
SSW	1.538E-08	2.984E-08	2.959E-08	3.089E-08	2.666E-08	1.967E-08	8.959E-09	4.732E-09	2.972E-09	2.080E-09
SW	3.372E-08	8.832E-08	6.185E-08	3.867E-08	2.776E-08	1.884E-08	8.451E-09	4.553E-09	2.947E-09	2.051E-09
WSW	4.766E-08	1.296E-07	8.356E-08	4.960E-08	3.428E-08	2.051E-08	9.432E-09	4.714E-09	2.914E-09	2.025E-09
W	1.995E-07	2.164E-07	1.135E-07	6.447E-08	4.255E-08	2.051E-08	8.849E-09	4.720E-09	2.899E-09	2.007E-09
WNW	1.731E-07	3.356E-07	2.018E-07	1.238E-07	8.324E-08	4.118E-08	1.667E-08	8.429E-09	5.295E-09	3.685E-09
NW	2.201E-07	4.513E-07	2.600E-07	1.480E-07	9.704E-08	4.719E-08	1.880E-08	9.350E-09	5.899E-09	4.133E-09
NNW	6.198E-08	1.519E-07	1.664E-07	1.418E-07	9.951E-08	4.938E-08	1.885E-08	9.340E-09	5.988E-09	4.303E-09
N	3.946E-08	5.599E-08	4.819E-08	3.611E-08	2.769E-08	1.689E-08	1.208E-08	9.344E-09	6.281E-09	4.457E-09
NNE	2.168E-08	3.514E-08	2.976E-08	2.201E-08	1.805E-08	2.968E-08	1.601E-08	8.046E-09	5.127E-09	3.655E-09
NE	1.252E-08	1.804E-08	1.461E-08	1.072E-08	9.001E-09	1.807E-08	9.999E-09	5.054E-09	3.291E-09	2.366E-09
ENE	1.018E-08	1.792E-08	1.547E-08	1.151E-08	9.395E-09	1.399E-08	7.668E-09	4.044E-09	2.803E-09	2.024E-09
E	8.707E-09	1.038E-08	8.016E-09	5.840E-09	4.792E-09	7.341E-09	4.030E-09	2.077E-09	1.359E-09	1.028E-09
ESE	2.013E-08	3.345E-08	2.730E-08	1.957E-08	1.523E-08	1.470E-08	7.334E-09	3.744E-09	2.393E-09	1.705E-09
SE	2.813E-08	4.618E-08	3.644E-08	2.556E-08	1.874E-08	1.017E-08	5.260E-09	3.391E-09	2.539E-09	1.872E-09
SSE	4.136E-08	5.736E-08	4.590E-08	3.338E-08	2.726E-08	2.975E-08	1.425E-08	6.905E-09	4.311E-09	3.031E-09

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ERP ELEVATED STACK RELEASES - JUL-DEC 2022
 8.000 DAY DECAY, DELETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)		DISTANCE IN MILES FROM THE SITE									
SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.401E-09	7.149E-09	2.298E-08	3.773E-08	4.599E-08	4.124E-08	3.461E-08	2.881E-08	2.419E-08	2.793E-08	3.033E-08
SSW	6.946E-10	3.179E-09	1.250E-08	2.359E-08	3.229E-08	3.055E-08	2.649E-08	3.013E-08	3.208E-08	2.843E-08	2.558E-08
SW	3.813E-12	2.481E-09	2.212E-08	5.789E-08	1.152E-07	8.194E-08	6.082E-08	4.710E-08	3.777E-08	3.114E-08	2.628E-08
WSW	2.769E-16	4.656E-10	2.715E-08	8.676E-08	1.749E-07	1.146E-07	8.139E-08	6.129E-08	4.822E-08	3.922E-08	3.274E-08
W	3.193E-09	5.863E-08	2.030E-07	2.632E-07	2.521E-07	1.583E-07	1.090E-07	8.018E-08	6.190E-08	4.956E-08	4.081E-08
WNW	4.522E-11	9.837E-09	1.317E-07	2.844E-07	4.375E-07	2.773E-07	1.925E-07	1.509E-07	1.227E-07	9.790E-08	8.033E-08
NW	1.324E-08	5.564E-08	1.567E-07	3.470E-07	6.150E-07	3.687E-07	2.476E-07	1.841E-07	1.437E-07	1.137E-07	9.264E-08
NNW	1.090E-09	1.199E-08	4.814E-08	9.681E-08	1.613E-07	1.695E-07	1.676E-07	1.586E-07	1.493E-07	1.182E-07	9.643E-08
N	6.602E-09	1.680E-08	3.798E-08	5.111E-08	5.853E-08	5.498E-08	4.837E-08	4.114E-08	3.526E-08	3.057E-08	2.681E-08
NNE	1.257E-09	6.704E-09	1.933E-08	3.071E-08	3.775E-08	3.460E-08	2.964E-08	2.513E-08	2.144E-08	1.849E-08	1.614E-08
NE	6.291E-11	4.229E-09	1.189E-08	1.692E-08	1.929E-08	1.715E-08	1.447E-08	1.220E-08	1.040E-08	8.996E-09	7.894E-09
ENE	1.587E-11	2.050E-09	8.914E-09	1.510E-08	1.929E-08	1.790E-08	1.541E-08	1.310E-08	1.120E-08	9.682E-09	8.467E-09
E	4.732E-11	3.875E-09	8.940E-09	1.071E-08	1.091E-08	9.455E-09	7.922E-09	6.657E-09	5.666E-09	4.892E-09	4.284E-09
ESE	7.052E-10	4.149E-09	1.763E-08	2.989E-08	3.626E-08	3.236E-08	2.711E-08	2.256E-08	1.895E-08	1.612E-08	1.390E-08
SE	4.202E-11	3.856E-09	2.480E-08	4.265E-08	5.027E-08	4.380E-08	3.609E-08	2.967E-08	2.468E-08	2.084E-08	1.786E-08
SSE	5.741E-09	1.610E-08	3.924E-08	5.492E-08	6.127E-08	5.409E-08	4.551E-08	3.821E-08	3.242E-08	2.787E-08	2.429E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)		DISTANCE IN MILES FROM THE SITE									
SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	2.682E-08	1.697E-08	1.060E-08	5.650E-09	3.639E-09	2.571E-09	1.913E-09	1.488E-09	1.204E-09	9.971E-10	8.389E-10
SSW	2.423E-08	2.187E-08	1.397E-08	7.642E-09	5.261E-09	3.858E-09	2.917E-09	2.300E-09	1.871E-09	1.557E-09	1.319E-09
SW	2.469E-08	2.052E-08	1.323E-08	7.313E-09	4.951E-09	3.610E-09	2.830E-09	2.227E-09	1.807E-09	1.501E-09	1.270E-09
WSW	2.947E-08	2.027E-08	1.436E-08	8.654E-09	6.06E-09	3.995E-09	3.025E-09	2.385E-09	1.939E-09	1.614E-09	1.379E-09
W	3.437E-08	1.855E-08	1.308E-08	8.027E-09	5.575E-09	3.968E-09	2.986E-09	2.345E-09	1.900E-09	1.577E-09	1.333E-09
WNW	6.832E-08	3.795E-08	2.525E-08	1.448E-08	9.182E-09	6.428E-09	4.872E-09	3.847E-09	3.116E-09	2.579E-09	2.175E-09
NW	7.830E-08	4.269E-08	2.834E-08	1.621E-08	1.031E-08	7.237E-09	5.540E-09	4.375E-09	3.546E-09	2.942E-09	2.488E-09
NNW	8.259E-08	4.678E-08	2.959E-08	1.599E-08	1.002E-08	6.943E-09	5.192E-09	4.081E-09	3.362E-09	2.807E-09	2.374E-09
N	2.383E-08	1.533E-08	1.320E-08	1.180E-08	1.082E-08	9.035E-09	6.961E-09	5.549E-09	4.546E-09	3.810E-09	3.252E-09
NNE	1.774E-08	4.019E-08	2.569E-08	1.421E-08	9.188E-09	6.534E-09	4.935E-09	3.886E-09	3.154E-09	2.621E-09	2.218E-09
NE	9.118E-09	2.517E-08	1.611E-08	8.922E-09	5.765E-09	4.098E-09	3.163E-09	2.545E-09	2.110E-09	1.766E-09	1.505E-09
ENE	9.099E-09	1.850E-08	1.211E-08	6.823E-09	4.397E-09	3.110E-09	2.504E-09	2.058E-09	1.675E-09	1.395E-09	1.183E-09
E	4.703E-09	9.752E-09	6.370E-09	3.582E-09	2.304E-09	1.628E-09	1.220E-09	9.538E-10	8.072E-10	6.906E-10	5.828E-10
ESE	1.397E-08	1.760E-08	1.151E-08	6.486E-09	4.194E-09	2.972E-09	2.234E-09	1.749E-09	1.411E-09	1.166E-09	9.804E-10
SE	1.550E-08	9.121E-09	6.852E-09	5.034E-09	3.852E-09	3.216E-09	2.825E-09	2.547E-09	2.117E-09	1.798E-09	1.551E-09
SSE	2.676E-08	3.692E-08	2.308E-08	1.245E-08	7.962E-09	5.620E-09	4.222E-09	3.311E-09	2.679E-09	2.220E-09	1.876E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	2.602E-08	4.204E-08	3.406E-08	2.693E-08	2.832E-08	1.633E-08	5.858E-09	2.593E-09	1.501E-09	9.997E-10
SSW	1.536E-08	2.958E-08	2.903E-08	3.013E-08	2.592E-08	1.888E-08	7.989E-09	3.856E-09	2.313E-09	1.562E-09
SW	3.365E-08	8.769E-08	6.096E-08	3.791E-08	2.713E-08	1.821E-08	7.579E-09	3.656E-09	2.239E-09	1.506E-09
WSW	4.771E-08	1.285E-07	8.222E-08	4.853E-08	3.345E-08	1.969E-08	8.568E-09	4.037E-09	2.398E-09	1.620E-09
W	1.976E-07	2.129E-07	1.106E-07	6.242E-08	4.102E-08	1.964E-08	8.061E-09	4.004E-09	2.359E-09	1.583E-09
WNW	1.725E-07	3.323E-07	1.985E-07	1.213E-07	8.109E-08	3.906E-08	1.452E-08	6.540E-09	3.861E-09	2.588E-09
NW	2.188E-07	4.460E-07	2.545E-07	1.438E-07	9.357E-08	4.423E-08	1.628E-08	7.377E-09	4.392E-09	2.953E-09
NNW	6.174E-08	1.506E-07	1.645E-07	1.401E-07	9.776E-08	4.710E-08	1.636E-08	7.063E-09	4.125E-09	2.811E-09
N	3.911E-08	5.530E-08	4.724E-08	3.515E-08	2.682E-08	1.627E-08	1.167E-08	8.680E-09	5.570E-09	3.821E-09
NNE	2.158E-08	3.479E-08	2.916E-08	2.137E-08	1.743E-08	2.875E-08	1.453E-08	6.602E-09	3.907E-09	2.630E-09
NE	1.242E-08	1.781E-08	1.428E-08	1.038E-08	8.674E-09	1.758E-08	9.116E-09	4.168E-09	2.556E-09	1.771E-09
ENE	1.014E-08	1.774E-08	1.515E-08	1.117E-08	9.061E-09	1.357E-08	6.919E-09	3.211E-09	2.039E-09	1.399E-09
E	8.600E-09	1.022E-08	7.825E-09	5.654E-09	4.619E-09	7.127E-09	3.634E-09	1.645E-09	9.741E-10	6.852E-10
ESE	2.009E-08	3.312E-08	2.669E-08	1.890E-08	1.458E-08	1.409E-08	6.583E-09	3.003E-09	1.759E-09	1.170E-09
SE	2.808E-08	4.570E-08	3.558E-08	2.465E-08	1.787E-08	9.531E-09	4.912E-09	3.229E-09	2.463E-09	1.801E-09
SSE	4.106E-08	5.667E-08	4.488E-08	3.234E-08	2.626E-08	2.851E-08	1.282E-08	5.686E-09	3.331E-09	2.229E-09

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ERP ELEVATED STACK RELEASES - JUL-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****												
DIRECTION FROM SITE	DISTANCES IN MILES											
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
S	7.375E-10	1.062E-09	1.586E-09	1.488E-09	8.876E-10	5.867E-10	4.116E-10	3.014E-10	2.279E-10	1.905E-10	1.702E-10	
SSW	3.012E-10	4.618E-10	7.134E-10	6.770E-10	4.060E-10	2.689E-10	1.888E-10	1.383E-10	1.289E-10	9.762E-11	7.646E-11	
SW	1.549E-10	2.565E-10	4.112E-10	3.950E-10	4.156E-10	2.319E-10	1.462E-10	1.004E-10	7.312E-11	5.553E-11	4.354E-11	
WSW	4.003E-11	2.402E-10	5.114E-10	9.275E-10	6.568E-10	3.573E-10	2.210E-10	1.499E-10	1.082E-10	8.176E-11	6.396E-11	
W	1.069E-09	3.509E-09	2.970E-09	1.983E-09	9.099E-10	4.915E-10	3.033E-10	2.056E-10	1.486E-10	1.126E-10	8.839E-11	
WNW	2.093E-10	5.833E-10	2.824E-09	2.717E-09	1.630E-09	8.418E-10	5.080E-10	3.468E-10	2.770E-10	2.197E-10	1.847E-10	
NW	3.818E-09	3.403E-09	3.331E-09	5.110E-09	3.210E-09	1.606E-09	9.568E-10	6.420E-10	4.715E-10	3.716E-10	3.099E-10	
NNW	1.758E-09	1.803E-09	2.084E-09	1.756E-09	1.812E-09	9.851E-10	6.168E-10	5.298E-10	4.034E-10	3.317E-10	2.896E-10	
N	2.674E-09	2.594E-09	2.825E-09	2.307E-09	1.272E-09	8.191E-10	5.675E-10	4.128E-10	3.112E-10	2.410E-10	1.909E-10	
NNE	8.425E-10	1.019E-09	1.360E-09	1.223E-09	7.136E-10	4.683E-10	3.275E-10	2.393E-10	1.808E-10	1.402E-10	1.110E-10	
NE	5.400E-10	5.496E-10	6.303E-10	5.291E-10	2.968E-10	1.922E-10	1.335E-10	9.729E-11	7.338E-11	5.686E-11	4.503E-11	
ENE	1.588E-10	2.801E-10	4.615E-10	4.471E-10	2.708E-10	1.799E-10	1.265E-10	9.273E-11	7.016E-11	5.443E-11	4.310E-11	
E	4.035E-10	4.033E-10	4.539E-10	3.773E-10	2.104E-10	1.360E-10	9.437E-11	6.872E-11	5.182E-11	4.015E-11	3.179E-11	
ESE	4.856E-10	8.955E-10	1.502E-09	1.463E-09	8.884E-10	5.906E-10	4.155E-10	3.046E-10	2.305E-10	1.788E-10	1.416E-10	
SE	5.184E-10	1.092E-09	1.921E-09	1.897E-09	1.160E-09	7.725E-10	5.440E-10	3.990E-10	3.020E-10	2.343E-10	1.855E-10	
SSE	1.808E-09	2.102E-09	2.721E-09	2.416E-09	1.400E-09	9.165E-10	6.402E-10	4.676E-10	3.532E-10	2.738E-10	2.168E-10	
DIRECTION FROM SITE	DISTANCES IN MILES											
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	
S	1.368E-10	1.021E-10	7.059E-11	4.129E-11	2.612E-11	1.796E-11	1.286E-11	9.646E-12	7.698E-12	6.143E-12	5.015E-12	
SSW	6.273E-11	6.692E-11	4.963E-11	3.070E-11	1.670E-11	1.189E-11	8.525E-12	6.404E-12	5.076E-12	4.055E-12	3.310E-12	
SW	3.646E-11	5.401E-11	4.181E-11	2.666E-11	1.720E-11	9.581E-12	6.920E-12	5.196E-12	4.040E-12	3.227E-12	2.634E-12	
WSW	5.298E-11	5.919E-11	4.440E-11	2.619E-11	1.585E-11	1.063E-11	7.733E-12	5.806E-12	4.515E-12	3.606E-12	2.944E-12	
W	7.139E-11	3.271E-11	4.783E-11	3.102E-11	1.829E-11	1.250E-11	8.959E-12	6.727E-12	5.230E-12	4.178E-12	3.410E-12	
WNW	1.649E-10	1.072E-10	7.901E-11	4.867E-11	3.187E-11	2.025E-11	1.358E-11	1.020E-11	8.062E-12	6.440E-12	5.257E-12	
NW	2.711E-10	1.702E-10	1.238E-10	7.446E-11	4.554E-11	3.048E-11	2.192E-11	1.647E-11	1.296E-11	1.035E-11	8.448E-12	
NNW	2.646E-10	1.878E-10	1.436E-10	9.090E-11	5.854E-11	3.876E-11	2.534E-11	1.788E-11	1.385E-11	1.106E-11	9.031E-12	
N	1.539E-10	7.309E-11	4.470E-11	2.369E-11	8.177E-11	4.626E-11	3.312E-11	2.488E-11	1.934E-11	1.545E-11	1.261E-11	
NNE	8.947E-11	1.691E-10	1.060E-10	5.576E-11	3.415E-11	2.283E-11	1.628E-11	1.215E-11	9.402E-12	7.479E-12	6.083E-12	
NE	3.630E-11	8.164E-11	5.211E-11	2.797E-11	1.723E-11	1.150E-11	8.085E-12	5.994E-12	4.661E-12	3.733E-12	3.047E-12	
ENE	3.472E-11	5.532E-11	4.221E-11	2.665E-11	1.713E-11	1.133E-11	7.927E-12	5.017E-12	3.903E-12	3.121E-12	2.551E-12	
E	2.563E-11	3.854E-11	2.925E-11	1.842E-11	1.185E-11	7.853E-12	5.507E-12	4.030E-12	3.065E-12	2.295E-12	1.869E-12	
ESE	1.141E-10	9.686E-11	6.579E-11	3.787E-11	2.385E-11	1.588E-11	1.124E-11	8.327E-12	6.409E-12	5.083E-12	4.128E-12	
SE	1.495E-10	7.080E-11	4.317E-11	2.271E-11	1.382E-11	9.480E-12	7.050E-12	1.164E-11	8.981E-12	7.142E-12	5.821E-12	
SSE	1.748E-10	2.445E-10	1.508E-10	7.783E-11	4.741E-11	3.175E-11	2.269E-11	1.699E-11	1.318E-11	1.051E-11	8.560E-12	

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***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****										
DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.426E-09	8.874E-10	4.142E-10	2.346E-10	1.638E-10	9.580E-11	4.106E-11	1.810E-11	9.821E-12	6.186E-12
SSW	6.413E-10	4.053E-10	1.899E-10	1.197E-10	7.765E-11	5.831E-11	2.869E-11	1.183E-11	6.504E-12	4.082E-12
SW	3.696E-10	3.294E-10	1.508E-10	7.422E-11	4.447E-11	4.469E-11	2.582E-11	1.055E-11	5.249E-12	3.249E-12
WSW	6.361E-10	5.839E-10	2.289E-10	1.100E-10	6.517E-11	5.123E-11	2.564E-11	1.086E-11	5.865E-12	3.630E-12
W	2.651E-09	9.624E-10	3.144E-10	1.511E-10	8.926E-11	4.802E-11	2.910E-11	1.263E-11	6.794E-12	4.205E-12
WNW	2.278E-09	1.521E-09	5.325E-10	2.751E-10	1.878E-10	1.075E-10	4.795E-11	2.068E-11	1.035E-11	6.483E-12
NW	4.138E-09	2.919E-09	1.004E-09	4.822E-10	3.138E-10	1.720E-10	7.257E-11	3.107E-11	1.669E-11	1.042E-11
NNW	1.876E-09	1.432E-09	6.802E-10	4.122E-10	2.928E-10	1.852E-10	8.823E-11	3.867E-11	1.848E-11	1.114E-11
N	2.543E-09	1.301E-09	5.727E-10	3.135E-10	1.920E-10	7.843E-11	5.417E-11	5.048E-11	2.512E-11	1.555E-11
NNE	1.224E-09	7.179E-10	3.298E-10	1.821E-10	1.117E-10	1.233E-10	5.732E-11	2.323E-11	1.228E-11	7.532E-12
NE	5.674E-10	3.019E-10	1.347E-10	7.392E-11	4.530E-11	5.844E-11	2.856E-11	1.166E-11	6.084E-12	3.754E-12
ENE	4.148E-10	2.696E-10	1.272E-10	7.062E-11	4.336E-11	4.492E-11	2.588E-11	1.152E-11	5.424E-12	3.142E-12
E	4.086E-10	2.144E-10	9.520E-11	5.220E-11	3.199E-11	3.154E-11	1.791E-11	7.981E-12	4.084E-12	2.365E-12
ESE	1.350E-09	8.837E-10	4.178E-10	2.320E-10	1.424E-10	8.688E-11	3.784E-11	1.615E-11	8.429E-12	5.122E-12
SE	1.726E-09	1.151E-09	5.469E-10	3.039E-10	1.866E-10	7.600E-11	2.331E-11	9.667E-12	9.317E-12	7.198E-12
SSE	2.448E-09	1.411E-09	6.448E-10	3.557E-10	2.181E-10	1.874E-10	8.052E-11	3.230E-11	1.717E-11	1.058E-11

ERP ELEVATED STACK RELEASES - JUL-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE TYPE	DIRECTION	DIST.	X/Q	X/Q	X/Q	D/Q	
ID	LOCATION	FROM SITE (MI)	(SEC/M3)	(SEC/M3)	(SEC/M3)	(PER SQ.METER)	
			NO	2.26 DAY	8.0 DAY		
			DECAY	DECAY	DECAY		
			UNDEPLETED	UNDEPLETED	DEPLETED		
A	Site Boundary	S	.80	2.7E-08	2.7E-08	2.6E-08	1.6E-09
A	Site Boundary	SSW	.82	1.6E-08	1.6E-08	1.6E-08	7.3E-10
A	Site Boundary	SW	.97	5.4E-08	5.4E-08	5.4E-08	4.1E-10
A	Site Boundary	WSW	.93	6.8E-08	6.8E-08	6.8E-08	7.1E-10
A	Site Boundary	W	.91	2.5E-07	2.5E-07	2.5E-07	2.2E-09
A	Site Boundary	WNW	.94	2.5E-07	2.5E-07	2.5E-07	3.0E-09
A	Site Boundary	NW	.81	2.0E-07	2.0E-07	2.0E-07	3.2E-09
A	Site Boundary	NNW	.69	3.5E-08	3.5E-08	3.5E-08	2.0E-09
A	Site Boundary	N	.67	3.1E-08	3.1E-08	3.0E-08	2.7E-09
A	Site Boundary	NNE	.60	1.0E-08	1.0E-08	1.0E-08	1.1E-09
A	Site Boundary	NE	.62	7.6E-09	7.6E-09	7.5E-09	5.8E-10
A	Site Boundary	ENE	.59	3.8E-09	3.8E-09	3.7E-09	3.4E-10
A	Site Boundary	E	.53	4.4E-09	4.4E-09	4.4E-09	4.1E-10
A	Site Boundary	ESE	.54	5.2E-09	5.2E-09	5.1E-09	9.8E-10
A	Site Boundary	SE	.65	1.4E-08	1.4E-08	1.4E-08	1.6E-09
A	Site Boundary	SSE	.81	4.4E-08	4.4E-08	4.4E-08	2.7E-09
A	Nearest Res	SW	1.30	9.9E-08	9.8E-08	9.8E-08	5.5E-10
A	Nearest Res	WSW	1.80	1.4E-07	1.4E-07	1.3E-07	4.5E-10
A	Nearest Res	WNW	2.40	2.1E-07	2.1E-07	2.1E-07	5.6E-10
A	Nearest Res	NW	.90	2.7E-07	2.7E-07	2.7E-07	5.2E-09
A	Nearest Res	NNW	1.90	1.7E-07	1.7E-07	1.7E-07	1.1E-09
A	Nearest Res	NE	1.60	1.9E-08	1.9E-08	1.9E-08	2.7E-10
A	Nearest Res	E	2.00	9.7E-09	9.6E-09	9.5E-09	1.4E-10
A	Nearest Cow	NNW	3.50	1.5E-07	1.5E-07	1.5E-07	4.0E-10
A	Nearest Garde	SW	2.20	7.4E-08	7.3E-08	7.2E-08	1.9E-10
A	Nearest Garde	WSW	1.80	1.4E-07	1.4E-07	1.3E-07	4.5E-10
A	Nearest Garde	WNW	2.60	1.9E-07	1.9E-07	1.8E-07	4.7E-10
A	Nearest Garde	NW	1.90	4.1E-07	4.1E-07	4.0E-07	1.8E-09
A	Nearest Garde	NNW	2.80	1.6E-07	1.6E-07	1.6E-07	6.0E-10
A	Nearest Garde	ENE	1.70	1.9E-08	1.9E-08	1.9E-08	2.3E-10
A	Nearest Garde	ESE	2.30	3.0E-08	3.0E-08	2.9E-08	4.8E-10
A	MAXIMUM CHI/Q	S	1.50	4.6E-08	4.6E-08	4.6E-08	8.9E-10
A	MAXIMUM CHI/Q	SSW	3.50	3.3E-08	3.3E-08	3.2E-08	1.3E-10
A	MAXIMUM CHI/Q	SW	1.50	1.2E-07	1.2E-07	1.2E-07	4.2E-10
A	MAXIMUM CHI/Q	WSW	1.50	1.8E-07	1.8E-07	1.7E-07	6.6E-10
A	MAXIMUM CHI/Q	W	1.00	2.7E-07	2.7E-07	2.6E-07	2.0E-09
A	MAXIMUM CHI/Q	WNW	1.50	4.4E-07	4.4E-07	4.4E-07	1.6E-09
A	MAXIMUM CHI/Q	NW	1.50	6.2E-07	6.2E-07	6.1E-07	3.2E-09
A	MAXIMUM CHI/Q	NNW	2.00	1.7E-07	1.7E-07	1.7E-07	9.9E-10
A	MAXIMUM CHI/Q	N	1.50	5.9E-08	5.9E-08	5.9E-08	1.3E-09
A	MAXIMUM CHI/Q	NNE	7.50	4.2E-08	4.1E-08	4.0E-08	1.7E-10
A	MAXIMUM CHI/Q	NE	7.50	2.6E-08	2.6E-08	2.5E-08	8.2E-11
A	MAXIMUM CHI/Q	ENE	1.50	2.0E-08	1.9E-08	1.9E-08	2.7E-10
A	MAXIMUM CHI/Q	E	1.50	1.1E-08	1.1E-08	1.1E-08	2.1E-10
A	MAXIMUM CHI/Q	ESE	1.50	3.7E-08	3.7E-08	3.6E-08	8.9E-10
A	MAXIMUM CHI/Q	SE	1.50	5.1E-08	5.1E-08	5.0E-08	1.2E-09
A	MAXIMUM CHI/Q	SSE	1.50	6.2E-08	6.2E-08	6.1E-08	1.4E-09

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Atmospheric Diffusion Estimates

Elevated Releases

January-December 2022

ERP ELEVATED STACK RELEASES - JAN-DEC 2022
 NO DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	7.069E-10	4.575E-09	2.589E-08	4.603E-08	5.677E-08	5.083E-08	4.268E-08	3.560E-08	2.998E-08	3.449E-08	3.793E-08	
SSW	3.650E-10	2.877E-09	1.535E-08	2.884E-08	3.888E-08	3.677E-08	3.203E-08	3.646E-08	3.842E-08	3.387E-08	3.025E-08	
SW	1.924E-12	1.495E-09	2.081E-08	5.711E-08	1.109E-07	7.797E-08	5.743E-08	4.421E-08	3.529E-08	2.900E-08	2.439E-08	
WSW	7.305E-12	8.423E-10	2.393E-08	7.223E-08	1.403E-07	9.148E-08	6.480E-08	4.877E-08	3.837E-08	3.121E-08	2.607E-08	
W	1.611E-09	3.888E-08	1.537E-07	2.042E-07	1.986E-07	1.259E-07	8.741E-08	6.474E-08	5.027E-08	4.045E-08	3.345E-08	
WNW	2.282E-11	6.544E-09	9.382E-08	2.096E-07	3.294E-07	2.092E-07	1.455E-07	1.139E-07	9.258E-08	7.409E-08	6.103E-08	
NW	6.684E-09	2.919E-08	1.067E-07	2.580E-07	4.642E-07	2.783E-07	1.869E-07	1.387E-07	1.081E-07	8.565E-08	7.000E-08	
NNW	5.497E-10	6.619E-09	4.007E-08	8.918E-08	1.534E-07	1.594E-07	1.538E-07	1.424E-07	1.318E-07	1.045E-07	8.551E-08	
N	3.421E-09	1.372E-08	3.697E-08	5.276E-08	6.229E-08	5.905E-08	5.219E-08	4.452E-08	3.824E-08	3.321E-08	2.916E-08	
NNE	6.399E-10	4.157E-09	1.710E-08	2.923E-08	3.703E-08	3.436E-08	2.975E-08	2.548E-08	2.194E-08	1.909E-08	1.681E-08	
NE	3.173E-11	2.414E-09	1.056E-08	1.770E-08	2.215E-08	2.041E-08	1.760E-08	1.504E-08	1.294E-08	1.127E-08	9.932E-09	
ENE	2.840E-09	2.121E-09	9.400E-09	1.730E-08	2.300E-08	2.159E-08	1.873E-08	1.602E-08	1.377E-08	1.195E-08	1.050E-08	
E	2.387E-11	2.166E-09	7.938E-09	1.224E-08	1.460E-08	1.327E-08	1.137E-08	9.681E-09	8.311E-09	7.220E-09	6.351E-09	
ESE	2.235E-09	2.926E-09	1.383E-08	2.461E-08	3.099E-08	2.825E-08	2.405E-08	2.029E-08	1.724E-08	1.482E-08	1.290E-08	
SE	2.120E-11	2.718E-09	2.382E-08	4.270E-08	5.181E-08	4.600E-08	3.848E-08	3.206E-08	2.698E-08	2.302E-08	1.990E-08	
SSE	2.896E-09	9.666E-09	4.177E-08	6.840E-08	8.069E-08	7.160E-08	6.012E-08	5.032E-08	4.256E-08	3.648E-08	3.169E-08	

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)					DISTANCE IN MILES FROM THE SITE					
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.400E-08	2.397E-08	1.570E-08	9.096E-09	6.498E-09	4.979E-09	3.889E-09	3.159E-09	2.669E-09	2.297E-09	1.994E-09
SSW	2.830E-08	2.453E-08	1.616E-08	9.447E-09	6.978E-09	5.336E-09	4.181E-09	3.406E-09	2.857E-09	2.446E-09	2.130E-09
SW	2.257E-08	1.772E-08	1.174E-08	6.905E-09	5.011E-09	3.882E-09	3.154E-09	2.568E-09	2.150E-09	1.840E-09	1.601E-09
WSW	2.342E-08	1.642E-08	1.208E-08	7.748E-09	5.263E-09	3.907E-09	3.068E-09	2.501E-09	2.097E-09	1.796E-09	1.564E-09
W	2.828E-08	1.552E-08	1.112E-08	7.276E-09	5.402E-09	4.006E-09	3.126E-09	2.537E-09	2.119E-09	1.809E-09	1.571E-09
WNW	5.211E-08	2.973E-08	2.042E-08	1.255E-08	8.648E-09	6.481E-09	5.139E-09	4.208E-09	3.527E-09	3.014E-09	2.619E-09
NW	5.929E-08	3.290E-08	2.236E-08	1.349E-08	9.093E-09	6.709E-09	5.321E-09	4.337E-09	3.622E-09	3.091E-09	2.683E-09
NNW	7.339E-08	4.247E-08	2.777E-08	1.611E-08	1.098E-08	8.171E-09	6.488E-09	5.340E-09	4.553E-09	3.921E-09	3.414E-09
N	2.594E-08	1.670E-08	1.414E-08	1.199E-08	1.070E-08	9.140E-09	7.229E-09	5.907E-09	4.952E-09	4.241E-09	3.693E-09
NNE	1.885E-08	3.866E-08	2.548E-08	1.496E-08	1.029E-08	7.714E-09	6.104E-09	5.013E-09	4.230E-09	3.643E-09	3.188E-09
NE	1.128E-08	2.338E-08	1.538E-08	9.011E-09	6.190E-09	4.635E-09	3.718E-09	3.080E-09	2.620E-09	2.253E-09	1.968E-09
ENE	1.124E-08	1.869E-08	1.250E-08	7.445E-09	5.160E-09	3.887E-09	3.264E-09	2.779E-09	2.339E-09	2.011E-09	1.757E-09
E	6.927E-09	1.319E-08	8.877E-09	5.337E-09	3.722E-09	2.816E-09	2.244E-09	1.852E-09	1.644E-09	1.467E-09	1.285E-09
ESE	1.314E-08	1.675E-08	1.128E-08	6.771E-09	4.712E-09	3.558E-09	2.829E-09	2.332E-09	1.973E-09	1.702E-09	1.492E-09
SE	1.742E-08	1.057E-08	8.092E-09	5.863E-09	4.373E-09	3.527E-09	2.987E-09	2.608E-09	2.198E-09	1.890E-09	1.652E-09
SSE	3.388E-08	4.159E-08	2.682E-08	1.528E-08	1.029E-08	7.591E-09	5.928E-09	4.814E-09	4.022E-09	3.435E-09	2.983E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.010E-08	5.174E-08	4.202E-08	3.330E-08	3.545E-08	2.252E-08	9.409E-09	4.948E-09	3.181E-09	2.295E-09
SSW	1.858E-08	3.571E-08	3.507E-08	3.612E-08	3.060E-08	2.165E-08	9.841E-09	5.312E-09	3.418E-09	2.451E-09
SW	3.265E-08	8.431E-08	5.762E-08	3.544E-08	2.508E-08	1.614E-08	7.138E-09	3.892E-09	2.576E-09	1.843E-09
WSW	4.027E-08	1.035E-07	6.550E-08	3.861E-08	2.661E-08	1.605E-08	7.606E-09	3.933E-09	2.509E-09	1.799E-09
W	1.506E-07	1.676E-07	8.862E-08	5.066E-08	3.361E-08	1.640E-08	7.298E-09	4.026E-09	2.546E-09	1.813E-09
WNW	1.259E-07	2.494E-07	1.499E-07	9.164E-08	6.159E-08	3.056E-08	1.256E-08	6.522E-09	4.215E-09	3.020E-09
NW	1.567E-07	3.358E-07	1.920E-07	1.083E-07	7.067E-08	3.408E-08	1.351E-08	6.789E-09	4.346E-09	3.097E-09
NNW	5.446E-08	1.418E-07	1.507E-07	1.244E-07	8.665E-08	4.281E-08	1.642E-08	8.247E-09	5.368E-09	3.920E-09
N	3.882E-08	5.873E-08	5.095E-08	3.812E-08	2.917E-08	1.762E-08	1.190E-08	8.793E-09	5.921E-09	4.249E-09
NNE	1.962E-08	3.411E-08	2.927E-08	2.187E-08	1.824E-08	2.840E-08	1.522E-08	7.757E-09	5.026E-09	3.648E-09
NE	1.193E-08	2.039E-08	1.732E-08	1.290E-08	1.083E-08	1.714E-08	9.174E-09	4.683E-09	3.087E-09	2.256E-09
ENE	1.129E-08	2.111E-08	1.841E-08	1.372E-08	1.120E-08	1.428E-08	7.553E-09	3.978E-09	2.750E-09	2.014E-09
E	8.567E-09	1.348E-08	1.120E-08	8.287E-09	6.822E-09	9.881E-09	5.406E-09	2.829E-09	1.885E-09	1.452E-09
ESE	1.620E-08	2.836E-08	2.367E-08	1.719E-08	1.356E-08	1.356E-08	6.858E-09	3.575E-09	2.337E-09	1.705E-09
SE	2.752E-08	4.720E-08	3.792E-08	2.692E-08	1.991E-08	1.099E-08	5.696E-09	3.536E-09	2.560E-09	1.893E-09
SSE	4.647E-08	7.392E-08	5.926E-08	4.246E-08	3.392E-08	3.332E-08	1.563E-08	7.646E-09	4.831E-09	3.442E-09

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ERP ELEVATED STACK RELEASES - JAN-DEC 2022
 2.260 DAY DECAY, UNDEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
SECTOR	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500	
S	7.067E-10	4.573E-09	2.587E-08	4.597E-08	5.664E-08	5.068E-08	4.251E-08	3.543E-08	2.981E-08	3.425E-08	3.762E-08	
SSW	3.649E-10	2.876E-09	1.534E-08	2.879E-08	3.875E-08	3.661E-08	3.185E-08	3.621E-08	3.811E-08	3.356E-08	2.994E-08	
SW	1.921E-12	1.491E-09	2.076E-08	5.696E-08	1.105E-07	7.757E-08	5.705E-08	4.387E-08	3.497E-08	2.869E-08	2.410E-08	
WSW	7.304E-12	8.417E-10	2.390E-08	7.208E-08	1.398E-07	9.104E-08	6.441E-08	4.840E-08	3.802E-08	3.089E-08	2.576E-08	
W	1.610E-09	3.885E-08	1.535E-07	2.037E-07	1.979E-07	1.253E-07	8.681E-08	6.419E-08	4.977E-08	3.999E-08	3.302E-08	
WNW	2.280E-11	6.538E-09	9.368E-08	2.091E-07	3.282E-07	2.081E-07	1.446E-07	1.130E-07	9.170E-08	7.328E-08	6.028E-08	
NW	6.682E-09	2.917E-08	1.065E-07	2.576E-07	4.629E-07	2.772E-07	1.861E-07	1.379E-07	1.073E-07	8.498E-08	6.939E-08	
NNW	5.496E-10	6.616E-09	4.003E-08	8.905E-08	1.530E-07	1.589E-07	1.532E-07	1.417E-07	1.310E-07	1.038E-07	8.482E-08	
N	3.421E-09	1.371E-08	3.694E-08	5.270E-08	6.216E-08	5.888E-08	5.200E-08	4.433E-08	3.805E-08	3.302E-08	2.897E-08	
NNE	6.398E-10	4.155E-09	1.709E-08	2.919E-08	3.694E-08	3.425E-08	2.963E-08	2.535E-08	2.181E-08	1.896E-08	1.668E-08	
NE	3.172E-11	2.412E-09	1.055E-08	1.768E-08	2.209E-08	2.034E-08	1.752E-08	1.496E-08	1.286E-08	1.119E-08	9.851E-09	
ENE	2.839E-09	2.120E-09	9.387E-09	1.727E-08	2.292E-08	2.149E-08	1.862E-08	1.591E-08	1.366E-08	1.184E-08	1.039E-08	
E	2.386E-11	2.164E-09	7.929E-09	1.222E-08	1.457E-08	1.323E-08	1.132E-08	9.634E-09	8.265E-09	7.174E-09	6.306E-09	
ESE	2.234E-09	2.924E-09	1.382E-08	2.457E-08	3.092E-08	2.815E-08	2.394E-08	2.017E-08	1.712E-08	1.470E-08	1.278E-08	
SE	2.119E-11	2.716E-09	2.380E-08	4.265E-08	5.172E-08	4.589E-08	3.836E-08	3.193E-08	2.685E-08	2.289E-08	1.978E-08	
SSE	2.895E-09	9.661E-09	4.174E-08	6.833E-08	8.055E-08	7.143E-08	5.994E-08	5.014E-08	4.237E-08	3.629E-08	3.151E-08	

ANNUAL AVERAGE	CHI/Q (SEC/METER CUBED)				DISTANCE IN MILES FROM THE SITE							
SECTOR	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000	
S	3.368E-08	2.357E-08	1.534E-08	8.779E-09	6.187E-09	4.677E-09	3.607E-09	2.893E-09	2.413E-09	2.050E-09	1.758E-09	
SSW	2.797E-08	2.403E-08	1.572E-08	9.056E-09	6.583E-09	4.955E-09	3.825E-09	3.070E-09	2.537E-09	2.140E-09	1.836E-09	
SW	2.227E-08	1.733E-08	1.140E-08	6.599E-09	4.709E-09	3.587E-09	2.865E-09	2.295E-09	1.892E-09	1.593E-09	1.365E-09	
WSW	2.311E-08	1.606E-08	1.171E-08	7.378E-09	4.929E-09	3.599E-09	2.780E-09	2.230E-09	1.840E-09	1.551E-09	1.329E-09	
W	2.788E-08	1.518E-08	1.080E-08	6.952E-09	5.079E-09	3.709E-09	2.851E-09	2.280E-09	1.876E-09	1.578E-09	1.351E-09	
WNW	5.138E-08	2.909E-08	1.983E-08	1.200E-08	8.147E-09	6.015E-09	4.699E-09	3.791E-09	3.131E-09	2.637E-09	2.259E-09	
NW	5.871E-08	3.241E-08	2.192E-08	1.309E-08	8.737E-09	6.384E-09	5.013E-09	4.046E-09	3.347E-09	2.829E-09	2.433E-09	
NNW	7.272E-08	4.187E-08	2.725E-08	1.566E-08	1.057E-08	7.793E-09	6.130E-09	4.997E-09	4.220E-09	3.599E-09	3.105E-09	
N	2.575E-08	1.652E-08	1.394E-08	1.173E-08	1.039E-08	8.793E-09	6.900E-09	5.595E-09	4.655E-09	3.957E-09	3.420E-09	
NNE	1.868E-08	3.806E-08	2.495E-08	1.449E-08	9.859E-09	7.313E-09	5.725E-09	4.652E-09	3.884E-09	3.310E-09	2.866E-09	
NE	1.118E-08	2.300E-08	1.505E-08	8.716E-09	5.920E-09	4.385E-09	3.478E-09	2.849E-09	2.396E-09	2.038E-09	1.761E-09	
ENE	1.111E-08	1.838E-08	1.222E-08	7.197E-09	4.933E-09	3.675E-09	3.052E-09	2.569E-09	2.139E-09	1.819E-09	1.572E-09	
E	6.872E-09	1.300E-08	8.702E-09	5.177E-09	3.573E-09	2.676E-09	2.110E-09	1.724E-09	1.513E-09	1.335E-09	1.157E-09	
ESE	1.301E-08	1.647E-08	1.103E-08	6.543E-09	4.501E-09	3.360E-09	2.642E-09	2.152E-09	1.800E-09	1.536E-09	1.332E-09	
SE	1.730E-08	1.045E-08	7.964E-09	5.710E-09	4.212E-09	3.359E-09	2.810E-09	2.424E-09	2.021E-09	1.720E-09	1.487E-09	
SSE	3.365E-08	4.105E-08	2.635E-08	1.487E-08	9.923E-09	7.251E-09	5.610E-09	4.514E-09	3.737E-09	3.162E-09	2.722E-09	

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	.5-1	1-2	2-3	3-4	SEGMENT BOUNDARIES IN MILES FROM THE SITE							
					4-5	5-10	10-20	20-30	30-40	40-50		
S	3.007E-08	5.162E-08	4.186E-08	3.311E-08	3.516E-08	2.216E-08	9.085E-09	4.652E-09	2.914E-09	2.049E-09		
SSW	1.854E-08	3.558E-08	3.486E-08	3.583E-08	3.028E-08	2.121E-08	9.437E-09	4.937E-09	3.083E-09	2.145E-09		
SW	3.257E-08	8.395E-08	5.725E-08	3.512E-08	2.478E-08	1.579E-08	6.825E-09	3.597E-09	2.304E-09	1.597E-09		
WSW	4.019E-08	1.031E-07	6.511E-08	3.827E-08	2.630E-08	1.569E-08	7.251E-09	3.626E-09	2.238E-09	1.554E-09		
W	1.503E-07	1.669E-07	8.802E-08	5.016E-08	3.318E-08	1.605E-08	6.974E-09	3.731E-09	2.289E-09	1.582E-09		
WNW	1.256E-07	2.484E-07	1.489E-07	9.078E-08	6.084E-08	2.993E-08	1.203E-08	6.057E-09	3.799E-09	2.643E-09		
NW	1.565E-07	3.348E-07	1.911E-07	1.076E-07	7.005E-08	3.359E-08	1.312E-08	6.463E-09	4.056E-09	2.836E-09		
NNW	5.439E-08	1.414E-07	1.501E-07	1.237E-07	8.596E-08	4.223E-08	1.597E-08	7.869E-09	5.024E-09	3.600E-09		
N	3.878E-08	5.860E-08	5.077E-08	3.793E-08	2.898E-08	1.743E-08	1.163E-08	8.461E-09	5.610E-09	3.965E-09		
NNE	1.959E-08	3.402E-08	2.915E-08	2.174E-08	1.810E-08	2.792E-08	1.475E-08	7.357E-09	4.666E-09	3.315E-09		
NE	1.191E-08	2.033E-08	1.725E-08	1.282E-08	1.074E-08	1.684E-08	8.880E-09	4.432E-09	2.856E-09	2.042E-09		
ENE	1.127E-08	2.103E-08	1.831E-08	1.361E-08	1.109E-08	1.403E-08	7.307E-09	3.761E-09	2.543E-09	1.822E-09		
E	8.555E-09	1.345E-08	1.116E-08	8.240E-09	6.773E-09	9.727E-09	5.248E-09	2.689E-09	1.754E-09	1.322E-09		
ESE	1.618E-08	2.828E-08	2.355E-08	1.707E-08	1.344E-08	1.328E-08	6.632E-09	3.377E-09	2.158E-09	1.539E-09		
SE	2.749E-08	4.711E-08	3.780E-08	2.679E-08	1.978E-08	1.087E-08	5.545E-09	3.367E-09	2.381E-09	1.723E-09		
SSE	4.643E-08	7.378E-08	5.908E-08	4.228E-08	3.372E-08	3.287E-08	1.522E-08	7.307E-09	4.532E-09	3.170E-09		

B320

ERP ELEVATED STACK RELEASES - JAN-DEC 2022
 8.000 DAY DECAY, DEPLETED
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	.250	.500	.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	7.068E-10	4.547E-09	2.581E-08	4.595E-08	5.620E-08	4.989E-08	4.154E-08	3.440E-08	2.877E-08	3.303E-08	3.634E-08
SSW	3.649E-10	2.857E-09	1.529E-08	2.877E-08	3.849E-08	3.611E-08	3.123E-08	3.540E-08	3.721E-08	3.268E-08	2.910E-08
SW	1.923E-12	1.484E-09	2.072E-08	5.697E-08	1.098E-07	7.665E-08	5.613E-08	4.301E-08	3.419E-08	2.799E-08	2.346E-08
WSW	7.305E-12	8.384E-10	2.391E-08	7.210E-08	1.388E-07	8.983E-08	6.327E-08	4.740E-08	3.714E-08	3.012E-08	2.508E-08
W	1.611E-09	3.853E-08	1.525E-07	2.018E-07	1.948E-07	1.226E-07	8.461E-08	6.235E-08	4.821E-08	3.864E-08	3.186E-08
WNW	2.281E-11	6.528E-09	9.365E-08	2.082E-07	3.255E-07	2.054E-07	1.422E-07	1.111E-07	9.002E-08	7.174E-08	5.881E-08
NW	6.684E-09	2.893E-08	1.059E-07	2.564E-07	4.584E-07	2.726E-07	1.820E-07	1.344E-07	1.043E-07	8.228E-08	6.688E-08
NNW	5.497E-10	6.568E-09	3.988E-08	8.896E-08	1.521E-07	1.572E-07	1.513E-07	1.399E-07	1.294E-07	1.022E-07	8.319E-08
N	3.421E-09	1.360E-08	3.659E-08	5.237E-08	6.154E-08	5.801E-08	5.100E-08	4.329E-08	3.703E-08	3.204E-08	2.804E-08
NNE	6.399E-10	4.127E-09	1.702E-08	2.915E-08	3.666E-08	3.376E-08	2.904E-08	2.473E-08	2.119E-08	1.836E-08	1.609E-08
NE	3.173E-11	2.395E-09	1.049E-08	1.763E-08	2.191E-08	2.004E-08	1.716E-08	1.458E-08	1.248E-08	1.082E-08	9.496E-09
ENE	2.840E-09	2.106E-09	9.356E-09	1.725E-08	2.276E-08	2.119E-08	1.825E-08	1.551E-08	1.325E-08	1.144E-08	9.997E-09
E	2.387E-11	2.149E-09	7.867E-09	1.216E-08	1.443E-08	1.302E-08	1.108E-08	9.382E-09	8.014E-09	6.932E-09	6.074E-09
ESE	2.235E-09	2.906E-09	1.379E-08	2.456E-08	3.068E-08	2.773E-08	2.342E-08	1.962E-08	1.656E-08	1.416E-08	1.226E-08
SE	2.120E-11	2.706E-09	2.377E-08	4.264E-08	5.131E-08	4.516E-08	3.748E-08	3.100E-08	2.592E-08	2.198E-08	1.891E-08
SSE	2.896E-09	9.598E-09	4.157E-08	6.819E-08	7.984E-08	7.028E-08	5.858E-08	4.871E-08	4.095E-08	3.491E-08	3.019E-08

SECTOR	ANNUAL AVERAGE CHI/Q (SEC/METER CUBED)										
	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.248E-08	2.250E-08	1.426E-08	7.734E-09	5.133E-09	3.697E-09	2.748E-09	2.134E-09	1.734E-09	1.445E-09	1.218E-09
SSW	2.718E-08	2.326E-08	1.481E-08	8.069E-09	5.524E-09	4.043E-09	3.050E-09	2.400E-09	1.949E-09	1.620E-09	1.371E-09
SW	2.169E-08	1.681E-08	1.076E-08	5.894E-09	3.944E-09	2.854E-09	2.223E-09	1.745E-09	1.413E-09	1.171E-09	9.891E-10
WSW	2.251E-08	1.547E-08	1.102E-08	6.677E-09	4.325E-09	3.083E-09	2.334E-09	1.840E-09	1.496E-09	1.245E-09	1.055E-09
W	2.685E-08	1.454E-08	1.029E-08	6.346E-09	4.424E-09	3.151E-09	2.371E-09	1.862E-09	1.509E-09	1.252E-09	1.058E-09
WNW	4.994E-08	2.760E-08	1.830E-08	1.045E-08	6.614E-09	4.635E-09	3.509E-09	2.769E-09	2.242E-09	1.855E-09	1.564E-09
NW	5.632E-08	3.029E-08	1.991E-08	1.126E-08	7.143E-09	5.008E-09	3.818E-09	3.008E-09	2.435E-09	2.018E-09	1.705E-09
NNW	7.102E-08	3.982E-08	2.513E-08	1.353E-08	8.465E-09	5.859E-09	4.376E-09	3.435E-09	2.824E-09	2.355E-09	1.990E-09
N	2.487E-08	1.585E-08	1.340E-08	1.139E-08	9.944E-09	8.092E-09	6.208E-09	4.935E-09	4.034E-09	3.375E-09	2.876E-09
NNE	1.808E-08	3.736E-08	2.377E-08	1.309E-08	8.461E-09	6.017E-09	4.545E-09	3.580E-09	2.907E-09	2.417E-09	2.046E-09
NE	1.081E-08	2.259E-08	1.435E-08	7.884E-09	5.081E-09	3.605E-09	2.769E-09	2.216E-09	1.828E-09	1.527E-09	1.299E-09
ENE	1.071E-08	1.799E-08	1.163E-08	6.454E-09	4.123E-09	2.898E-09	2.289E-09	1.859E-09	1.510E-09	1.255E-09	1.063E-09
E	6.635E-09	1.277E-08	8.308E-09	4.646E-09	2.979E-09	2.100E-09	1.572E-09	1.227E-09	1.034E-09	8.819E-10	7.445E-10
ESE	1.247E-08	1.601E-08	1.044E-08	5.859E-09	3.776E-09	2.670E-09	2.003E-09	1.566E-09	1.263E-09	1.042E-09	8.755E-10
SE	1.647E-08	9.805E-09	7.434E-09	5.345E-09	3.957E-09	3.179E-09	2.685E-09	2.334E-09	1.924E-09	1.623E-09	1.392E-09
SSE	3.227E-08	3.960E-08	2.466E-08	1.321E-08	8.404E-09	5.905E-09	4.419E-09	3.454E-09	2.786E-09	2.303E-09	1.940E-09

CHI/Q (SEC/METER CUBED) FOR EACH SEGMENT

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES FROM THE SITE									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	3.003E-08	5.111E-08	4.091E-08	3.200E-08	3.393E-08	2.106E-08	8.028E-09	3.701E-09	2.157E-09	1.447E-09
SSW	1.852E-08	3.527E-08	3.420E-08	3.497E-08	2.945E-08	2.037E-08	8.435E-09	4.041E-09	2.414E-09	1.625E-09
SW	3.256E-08	8.332E-08	5.635E-08	3.435E-08	2.415E-08	1.521E-08	6.109E-09	2.892E-09	1.755E-09	1.175E-09
WSW	4.020E-08	1.022E-07	6.400E-08	3.740E-08	2.562E-08	1.506E-08	6.596E-09	3.114E-09	1.850E-09	1.249E-09
W	1.491E-07	1.643E-07	8.584E-08	4.861E-08	3.201E-08	1.539E-08	6.368E-09	3.179E-09	1.873E-09	1.256E-09
WNW	1.252E-07	2.461E-07	1.466E-07	8.907E-08	5.936E-08	2.843E-08	1.049E-08	4.713E-09	2.780E-09	1.862E-09
NW	1.557E-07	3.309E-07	1.871E-07	1.045E-07	6.753E-08	3.146E-08	1.135E-08	5.101E-09	3.021E-09	2.025E-09
NNW	5.429E-08	1.403E-07	1.483E-07	1.220E-07	8.431E-08	4.022E-08	1.386E-08	5.961E-09	3.471E-09	2.359E-09
N	3.850E-08	5.793E-08	4.978E-08	3.692E-08	2.805E-08	1.676E-08	1.119E-08	7.832E-09	4.956E-09	3.385E-09
NNE	1.954E-08	3.370E-08	2.858E-08	2.112E-08	1.750E-08	2.704E-08	1.341E-08	6.080E-09	3.600E-09	2.425E-09
NE	1.186E-08	2.012E-08	1.689E-08	1.245E-08	1.038E-08	1.631E-08	8.075E-09	3.664E-09	2.226E-09	1.532E-09
ENE	1.125E-08	2.084E-08	1.794E-08	1.321E-08	1.069E-08	1.355E-08	6.568E-09	2.981E-09	1.849E-09	1.260E-09
E	8.505E-09	1.330E-08	1.092E-08	7.993E-09	6.536E-09	9.425E-09	4.719E-09	2.123E-09	1.252E-09	8.760E-10
ESE	1.616E-08	2.801E-08	2.305E-08	1.652E-08	1.290E-08	1.275E-08	5.950E-09	2.698E-09	1.575E-09	1.046E-09
SE	2.748E-08	4.665E-08	3.694E-08	2.587E-08	1.891E-08	1.023E-08	5.192E-09	3.189E-09	2.278E-09	1.627E-09
SSE	4.630E-08	7.301E-08	5.776E-08	4.087E-08	3.236E-08	3.133E-08	1.362E-08	5.977E-09	3.475E-09	2.312E-09

B321

ERP ELEVATED STACK RELEASES - JAN-DEC 2022
 CORRECTED USING STANDARD OPEN TERRAIN FACTORS

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) AT FIXED POINTS BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	DISTANCES IN MILES										
	.25	.50	.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50
S	4.680E-10	1.112E-09	2.027E-09	2.021E-09	1.241E-09	8.280E-10	5.834E-10	4.281E-10	3.240E-10	2.808E-10	2.428E-10
SSW	3.207E-10	5.673E-10	9.356E-10	9.067E-10	5.493E-10	3.649E-10	2.566E-10	1.881E-10	1.772E-10	1.341E-10	1.050E-10
SW	9.866E-11	2.527E-10	4.700E-10	4.712E-10	5.309E-10	2.939E-10	1.842E-10	1.260E-10	9.145E-11	6.934E-11	5.433E-11
WSW	1.016E-10	2.705E-10	5.079E-10	1.019E-09	6.189E-10	3.365E-10	2.081E-10	1.411E-10	1.019E-10	7.699E-11	6.023E-11
W	5.563E-10	2.607E-09	2.323E-09	1.594E-09	7.443E-10	4.021E-10	2.482E-10	1.683E-10	1.218E-10	9.246E-11	7.278E-11
WNW	1.265E-10	4.195E-10	2.380E-09	2.063E-09	1.275E-09	6.545E-10	3.953E-10	2.709E-10	2.147E-10	1.727E-10	1.474E-10
NW	2.033E-09	2.018E-09	2.256E-09	4.063E-09	2.607E-09	1.303E-09	7.745E-10	5.187E-10	3.802E-10	2.991E-10	2.491E-10
NNW	9.336E-10	1.191E-09	1.652E-09	1.508E-09	1.678E-09	9.141E-10	5.721E-10	4.904E-10	3.707E-10	3.023E-10	2.618E-10
N	2.519E-09	2.562E-09	2.938E-09	2.465E-09	1.383E-09	8.954E-10	6.221E-10	4.532E-10	3.419E-10	2.649E-10	2.098E-10
NNE	5.325E-10	8.202E-10	1.270E-09	1.206E-09	7.237E-10	4.793E-10	3.366E-10	2.465E-10	1.865E-10	1.446E-10	1.145E-10
NE	2.955E-10	4.162E-10	6.139E-10	5.735E-10	3.412E-10	2.254E-10	1.581E-10	1.157E-10	8.748E-11	6.785E-11	5.373E-11
ENE	1.688E-10	3.343E-10	5.757E-10	5.651E-10	3.445E-10	2.293E-10	1.614E-10	1.183E-10	8.955E-11	6.948E-11	5.503E-11
E	2.207E-10	3.067E-10	4.488E-10	4.181E-10	2.484E-10	1.640E-10	1.150E-10	8.416E-11	6.363E-11	4.935E-11	3.908E-11
ESE	3.373E-10	6.665E-10	1.147E-09	1.126E-09	6.861E-10	4.566E-10	3.214E-10	2.357E-10	1.784E-10	1.384E-10	1.096E-10
SE	3.356E-10	9.958E-10	1.916E-09	1.938E-09	1.198E-09	8.005E-10	5.646E-10	4.145E-10	3.138E-10	2.435E-10	1.928E-10
SSE	1.052E-09	1.902E-09	3.166E-09	3.076E-09	1.866E-09	1.240E-09	8.723E-10	6.395E-10	4.838E-10	3.754E-10	2.973E-10

DIRECTION FROM SITE	DISTANCES IN MILES										
	5.00	7.50	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
S	1.951E-10	1.298E-10	8.709E-11	4.956E-11	3.111E-11	2.341E-11	1.673E-11	1.253E-11	9.836E-12	7.839E-12	6.399E-12
SSW	8.543E-11	7.664E-11	5.515E-11	3.332E-11	1.948E-11	1.368E-11	9.805E-12	7.364E-12	5.805E-12	4.637E-12	3.785E-12
SW	4.488E-11	5.165E-11	3.872E-11	2.413E-11	1.548E-11	9.261E-12	6.646E-12	4.990E-12	3.880E-12	3.099E-12	2.530E-12
WSW	4.947E-11	4.836E-11	3.549E-11	2.133E-11	1.291E-11	8.657E-12	6.292E-12	4.725E-12	3.674E-12	2.935E-12	2.395E-12
W	5.898E-11	2.744E-11	3.903E-11	2.523E-11	1.489E-11	1.020E-11	7.306E-12	5.486E-12	4.265E-12	3.407E-12	2.781E-12
WNW	1.336E-10	9.038E-11	6.781E-11	4.230E-11	2.656E-11	1.691E-11	1.150E-11	8.638E-12	6.807E-12	5.438E-12	4.438E-12
NW	2.178E-10	1.366E-10	9.929E-11	6.015E-11	3.672E-11	2.458E-11	1.765E-11	1.326E-11	1.040E-11	8.307E-12	6.780E-12
NNW	2.376E-10	1.656E-10	1.258E-10	7.921E-11	5.091E-11	3.368E-11	2.213E-11	1.577E-11	1.225E-11	9.788E-12	7.991E-12
N	1.691E-10	8.028E-11	4.907E-11	2.596E-11	7.913E-11	4.599E-11	3.292E-11	2.472E-11	1.922E-11	1.536E-11	1.253E-11
NNE	9.228E-11	1.741E-10	1.082E-10	5.637E-11	3.443E-11	2.303E-11	1.644E-11	1.229E-11	9.523E-12	7.583E-12	6.174E-12
NE	4.329E-11	9.420E-11	5.887E-11	3.088E-11	1.890E-11	1.264E-11	9.070E-12	6.748E-12	5.247E-12	4.201E-12	3.429E-12
ENE	4.433E-11	6.435E-11	4.850E-11	3.035E-11	1.947E-11	1.288E-11	9.021E-12	5.883E-12	4.577E-12	3.660E-12	2.990E-12
E	3.149E-11	4.956E-11	3.778E-11	2.384E-11	1.533E-11	1.014E-11	7.096E-12	5.180E-12	3.933E-12	2.904E-12	2.365E-12
ESE	8.828E-11	8.530E-11	5.979E-11	3.535E-11	2.240E-11	1.488E-11	1.049E-11	7.736E-12	5.928E-12	4.682E-12	3.788E-12
SE	1.553E-10	7.356E-11	4.484E-11	2.357E-11	1.434E-11	9.833E-12	7.318E-12	1.286E-11	9.897E-12	7.853E-12	6.388E-12
SSE	2.395E-10	2.923E-10	1.798E-10	9.260E-11	5.637E-11	3.774E-11	2.698E-11	2.021E-11	1.568E-11	1.250E-11	1.019E-11

***** RELATIVE DEPOSITION PER UNIT AREA (M**-2) BY DOWNWIND SECTORS *****

DIRECTION FROM SITE	SEGMENT BOUNDARIES IN MILES									
	.5-1	1-2	2-3	3-4	4-5	5-10	10-20	20-30	30-40	40-50
S	1.821E-09	1.231E-09	5.865E-10	3.373E-10	2.364E-10	1.253E-10	4.970E-11	2.279E-11	1.271E-11	7.897E-12
SSW	8.409E-10	5.468E-10	2.581E-10	1.639E-10	1.064E-10	6.904E-11	3.202E-11	1.368E-11	7.468E-12	4.668E-12
SW	4.222E-10	4.123E-10	1.901E-10	9.289E-11	5.528E-11	4.440E-11	2.353E-11	9.874E-12	5.040E-12	3.120E-12
WSW	6.823E-10	5.824E-10	2.156E-10	1.036E-10	6.121E-11	4.288E-11	2.073E-11	8.845E-12	4.772E-12	2.954E-12
W	2.062E-09	7.810E-10	2.573E-10	1.239E-10	7.350E-11	3.960E-11	2.370E-11	1.029E-11	5.541E-12	3.430E-12
WNW	1.803E-09	1.174E-09	4.147E-10	2.148E-10	1.498E-10	8.996E-11	4.097E-11	1.732E-11	8.759E-12	5.473E-12
NW	3.006E-09	2.351E-09	8.130E-10	3.889E-10	2.523E-10	1.381E-10	5.844E-11	2.505E-11	1.343E-11	8.362E-12
NNW	1.486E-09	1.301E-09	6.306E-10	3.789E-10	2.648E-10	1.639E-10	7.699E-11	3.366E-11	1.625E-11	9.853E-12
N	2.644E-09	1.407E-09	6.274E-10	3.444E-10	2.110E-10	8.614E-11	5.473E-11	4.960E-11	2.497E-11	1.546E-11
NNE	1.142E-09	7.223E-10	3.386E-10	1.877E-10	1.152E-10	1.266E-10	5.814E-11	2.344E-11	1.242E-11	7.636E-12
NE	5.520E-10	3.413E-10	1.591E-10	8.807E-11	5.405E-11	6.719E-11	3.178E-11	1.288E-11	6.839E-12	4.225E-12
ENE	5.173E-10	3.423E-10	1.623E-10	9.013E-11	5.535E-11	5.286E-11	2.955E-11	1.309E-11	6.282E-12	3.684E-12
E	4.036E-10	2.486E-10	1.157E-10	6.405E-11	3.931E-11	4.031E-11	2.316E-11	1.031E-11	5.252E-12	3.009E-12
ESE	1.031E-09	6.817E-10	3.232E-10	1.795E-10	1.102E-10	7.462E-11	3.502E-11	1.513E-11	7.835E-12	4.720E-12
SE	1.721E-09	1.186E-09	5.675E-10	3.158E-10	1.940E-10	7.897E-11	2.419E-11	1.003E-11	1.015E-11	7.916E-12
SSE	2.845E-09	1.857E-09	8.772E-10	4.870E-10	2.990E-10	2.306E-10	9.588E-11	3.840E-11	2.042E-11	1.258E-11

B322

ERP ELEVATED STACK RELEASES - JAN-DEC 2022
CORRECTED USING STANDARD OPEN TERRAIN FACTORS

SPECIFIC POINTS OF INTEREST

RELEASE ID	TYPE OF LOCATION	DIRECTION FROM SITE (MI)	DIST.	X/Q (SEC/M3) NO DECAY UNDEPLETED	X/Q (SEC/M3) 2.26 DAY DECAY UNDEPLETED	X/Q (SEC/M3) 8.0 DAY DECAY DEPLETED	D/Q (PER SQ.METER)
A	Site Boundary	S	.80	3.1E-08	3.1E-08	3.1E-08	2.1E-09
A	Site Boundary	SSW	.82	2.0E-08	2.0E-08	2.0E-08	9.7E-10
A	Site Boundary	SW	.97	5.3E-08	5.3E-08	5.3E-08	4.8E-10
A	Site Boundary	WSW	.93	5.7E-08	5.7E-08	5.7E-08	8.2E-10
A	Site Boundary	W	.91	1.9E-07	1.9E-07	1.9E-07	1.7E-09
A	Site Boundary	WNW	.94	1.8E-07	1.8E-07	1.8E-07	2.3E-09
A	Site Boundary	NW	.81	1.4E-07	1.4E-07	1.4E-07	2.2E-09
A	Site Boundary	NNW	.69	2.7E-08	2.7E-08	2.7E-08	1.5E-09
A	Site Boundary	N	.67	2.8E-08	2.8E-08	2.8E-08	2.8E-09
A	Site Boundary	NNE	.60	7.5E-09	7.5E-09	7.5E-09	9.9E-10
A	Site Boundary	NE	.62	5.5E-09	5.5E-09	5.5E-09	5.1E-10
A	Site Boundary	ENE	.59	3.4E-09	3.4E-09	3.4E-09	4.1E-10
A	Site Boundary	E	.53	2.5E-09	2.5E-09	2.5E-09	3.2E-10
A	Site Boundary	ESE	.54	3.5E-09	3.5E-09	3.5E-09	7.3E-10
A	Site Boundary	SE	.65	1.3E-08	1.3E-08	1.3E-08	1.5E-09
A	Site Boundary	SSE	.81	5.0E-08	5.0E-08	5.0E-08	3.3E-09
A	Nearest Res	SW	1.30	9.6E-08	9.5E-08	9.5E-08	7.0E-10
A	Nearest Res	WSW	1.80	1.1E-07	1.1E-07	1.1E-07	4.2E-10
A	Nearest Res	WNW	2.40	1.6E-07	1.5E-07	1.5E-07	4.3E-10
A	Nearest Res	NW	.90	1.9E-07	1.9E-07	1.9E-07	4.2E-09
A	Nearest Res	NNW	1.90	1.6E-07	1.6E-07	1.6E-07	1.0E-09
A	Nearest Res	NE	1.60	2.2E-08	2.2E-08	2.2E-08	3.1E-10
A	Nearest Res	E	2.00	1.3E-08	1.3E-08	1.3E-08	1.6E-10
A	Nearest Cow	NNW	3.50	1.3E-07	1.3E-07	1.3E-07	3.7E-10
A	Nearest Garde	SW	2.20	6.9E-08	6.8E-08	6.7E-08	2.4E-10
A	Nearest Garde	WSW	1.80	1.1E-07	1.1E-07	1.1E-07	4.2E-10
A	Nearest Garde	WNW	2.60	1.4E-07	1.4E-07	1.3E-07	3.6E-10
A	Nearest Garde	NW	1.90	3.1E-07	3.0E-07	3.0E-07	1.5E-09
A	Nearest Garde	NNW	2.80	1.5E-07	1.5E-07	1.4E-07	5.5E-10
A	Nearest Garde	ENE	1.70	2.3E-08	2.3E-08	2.3E-08	2.9E-10
A	Nearest Garde	ESE	2.30	2.6E-08	2.6E-08	2.5E-08	3.7E-10
A	MAXIMUM CHI/Q	S	1.50	5.7E-08	5.7E-08	5.6E-08	1.2E-09
A	MAXIMUM CHI/Q	SSW	1.50	3.9E-08	3.9E-08	3.8E-08	5.5E-10
A	MAXIMUM CHI/Q	SW	1.50	1.1E-07	1.1E-07	1.1E-07	5.3E-10
A	MAXIMUM CHI/Q	WSW	1.50	1.4E-07	1.4E-07	1.4E-07	6.2E-10
A	MAXIMUM CHI/Q	W	1.00	2.0E-07	2.0E-07	2.0E-07	1.6E-09
A	MAXIMUM CHI/Q	WNW	1.50	3.3E-07	3.3E-07	3.3E-07	1.3E-09
A	MAXIMUM CHI/Q	NW	1.50	4.6E-07	4.6E-07	4.6E-07	2.6E-09
A	MAXIMUM CHI/Q	NNW	2.00	1.6E-07	1.6E-07	1.6E-07	9.1E-10
A	MAXIMUM CHI/Q	N	1.50	6.2E-08	6.2E-08	6.2E-08	1.4E-09
A	MAXIMUM CHI/Q	NNE	7.50	3.9E-08	3.8E-08	3.7E-08	1.7E-10
A	MAXIMUM CHI/Q	NE	7.50	2.3E-08	2.3E-08	2.3E-08	9.4E-11
A	MAXIMUM CHI/Q	ENE	1.50	2.3E-08	2.3E-08	2.3E-08	3.4E-10
A	MAXIMUM CHI/Q	E	1.50	1.5E-08	1.5E-08	1.4E-08	2.5E-10
A	MAXIMUM CHI/Q	ESE	1.50	3.1E-08	3.1E-08	3.1E-08	6.9E-10
A	MAXIMUM CHI/Q	SE	1.50	5.2E-08	5.2E-08	5.1E-08	1.2E-09
A	MAXIMUM CHI/Q	SSE	1.50	8.1E-08	8.1E-08	8.0E-08	1.9E-09

B323

ATMOSPHERIC DIFFUSION MODEL

Onsite meteorological data from January 1 through December 31, 2022 were used to determine long-term (routine) diffusion estimates for evaluating normal atmospheric releases from Cooper Nuclear Station. Atmospheric dispersion parameters (X/Q values) were determined for the site boundary distances from each release point, the standard population distances, and special locations for nearest residence, cow, and garden using the methodology presented in U.S. NRC Regulatory Guide 1.111 (Rev.1) and the computer code XOQDOQ (NUREG/CR2919). Two release modes were analyzed. Releases from the 99-meter free-standing stack were considered 100 percent elevated, while releases from the reactor building, turbine-generator building, radwaste building and augmented radwaste building vents were considered as a 100 percent ground level release (one combined source term was assumed to apply for these vents).

Winds were obtained from measurements at the 10-meter level (for ground-level releases) and the 100-meter level (for elevated releases), and the stability class was based on the vertical temperature gradient between 60 meters and 10 meters (for ground releases) and 100 meters and 10 meters (for elevated releases). In accordance with Regulatory Guide 1.111, calm periods were distributed directionally in proportion to the directional distribution within a stability class of the lowest wind speed group. For the calculations, calm periods were assigned a speed of one-half the threshold wind speed of the wind vane or anemometer, whichever is higher.

The Gaussian straight-line trajectory model, which assumes that the air flow transports and diffuses effluents along a straight line through the entire region of interest in the airflow direction at the release point, was modified to account for various modes of effluent releases. In the case of an elevated release, plume rise due to momentum effects was incorporated into the calculation. For ground-level releases, building wake effects were considered.

The mathematical equation used in the Gaussian straight-line trajectory model is:

$$(X/Q)_i = 2.032 \sum_{jk} \frac{f_{ijk}}{xU_{jk} \Sigma_{zk}} \exp \left[\frac{-1/2 h_e^2}{\sigma_{zk}^2} \right] \quad (\text{Eq. 1})$$

and

$$\Sigma_{zk} = \left(\sigma_{zk}^2 + 0.5 D_z^2 / \pi \right)^{1/2} \leq \sqrt{3} \sigma_{zk} \quad (\text{Eq. 2})$$

where

I	=	index identifying direction sector;
j	=	index identifying wind speed class;
k	=	index identifying atmospheric stability class;
$\frac{X}{Q}$	=	average effluent concentration normalized by source strength at the specific downwind distance;
f	=	joint frequency distribution of wind direction, wind speed class, and atmospheric stability class;
x	=	distance from the release point to a receptor;
u	=	wind speed;
Σ_z	=	vertical plume spread with volumetric building wake correction for a release within the building wake cavity;
σ_z	=	vertical plume spread without volumetric building wake correction;
D_z	=	maximum adjacent building height either upwind or downwind of the release point (44.5 meters for ground-level releases); and
h_e	=	effective plume height;

The term Σ_{zk} given in Equations 1 and 2 is used for ground-level release ($h = 0$) within the building wake cavity. For an elevated release, no volumetric building wake correction needs to be considered, i.e., $\Sigma_{zk} = \sigma_{zk}$. For all building wake determinations, the reactor building was considered to be the dominating structure in the modification of air flows within the building complex.

Since the model does not directly consider the effects of spatial and temporal variation in airflow due to terrain, appropriate adjustments were made to the calculated X/Q values, using the default values of Regulatory Guide 1.111, Rev. 0.

APPENDIX C

DOSE CALCULATIONS

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LIQUID EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0 to 50 - mile population resulting from the release of radioactive material in liquid effluents from Cooper Nuclear Station were calculated using the latest version of the LADTAP II computer program included as part of NRC Dose 2.3.20 (ORNL 2015). The LADTAP II program implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from three principal exposure pathways in the aquatic environment -- potable water, aquatic foods, and recreational water use. Doses to both the maximum individual and 0 to 50 mile population are calculated as a function of age group and pathway for significant body organs, and are presented in Tables 1 - 6.

Assumptions and data sources used for input to the LADTAP II code are described in a separate section of this appendix (see page C66).

No Liquid Releases in 2022

TABLE 1. Doses to Maximum Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 2022 Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>1st Quarter</u>								
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>2nd Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 1st & 2nd Quarters	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

Calculated doses are based on the following periods of exposures: Fishing: April - November; Drinking water and shoreline: January - December

TABLE 2. Doses to Maximum Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, July-December 2022, Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>3rd Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>4th Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 3rd & 4th Quarters	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

Calculated doses are based on the following periods of exposures: Fishing: April - November; Drinking water and shoreline: January - December

TABLE 3. Summary of Doses to Maximum Individual at the Site Boundary, Resulting from Exposure to Radioactivity Discharged in Liquid Effluents, January-December 2022, Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
2nd Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+001	0.00 E+00	0.00 E+00
3rd Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
4th Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 2022	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

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TABLE 4. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 2022, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>1st Quarter</u>								
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>2nd Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Swimming	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Boating	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 1st & 2nd Quarters	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

Calculated doses are based on the following periods of exposures: Fishing and Boating: April - November; Drinking water and shoreline: January - December; Swimming: June - September. Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 miles downstream.

TABLE 5. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, July-December 2022, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>3rd Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Swimming	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Boating	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>4th Quarter</u>								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Boating	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 3rd & 4th Quarters	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

Calculated doses are based on the following periods of exposures: Fishing and Boating: April - November; Drinking water and shoreline: January - December; Swimming: June - September. Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 miles downstream.

TABLE 6. Summary of Doses to Population Within a 50-Mile Radius, Resulting from Exposure to Radioactivity Discharged in Liquid Effluents, January-December 2022 Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
<u>1st Quarter</u>	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>2nd Quarter</u>	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>3rd Quarter</u>	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
<u>4th Quarter</u>	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 2022	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00

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GASEOUS EFFLUENT DOSE CALCULATIONS (EXCEPT CARBON-14)

Doses to the maximum individual and 0 to 50 mile population resulting from the release of radioactive material in gaseous effluents from the Cooper Nuclear Station were calculated using the latest version of the GASPAR computer code included as part of NRC Dose 2.3.20 (ORNL 2015). Four sites were selected for individual dose calculations: the site boundary, the nearest residence, the nearest garden and the nearest cow. GASPAR implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from four principal atmospheric exposure pathways: plume, ground, inhalation, and ingestion. Doses to the maximum individual and the population are calculated as a function of age group and pathway for significant body organs.

Tables 1 through 7 present maximum individual doses. Population doses are given in Tables 8 through 14.

Assumptions and data used for input to the GASPAR code are described in a separate section of this appendix (see page C66).

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 6.92E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 9.98E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.71E-03	6.71E-03	6.71E-03	6.71E-03	6.71E-03	6.71E-03	6.78E-03	1.36E-02
GROUND	1.53E-04	1.53E-04	1.53E-04	1.53E-04	1.53E-04	1.53E-04	1.53E-04	1.80E-04
VEGET								
ADULT	5.21E-06	2.59E-05	3.28E-05	4.88E-06	6.25E-06	1.15E-03	4.19E-10	0.00E+00
TEEN	7.92E-06	2.84E-05	5.41E-05	7.33E-06	9.36E-06	1.55E-03	7.85E-10	0.00E+00
CHILD	1.59E-05	1.95E-05	1.32E-04	1.20E-05	1.50E-05	2.96E-03	1.19E-09	0.00E+00
MEAT								
ADULT	6.74E-07	5.29E-06	3.59E-07	3.75E-07	1.62E-07	3.07E-05	3.42E-11	0.00E+00
TEEN	5.33E-07	2.85E-06	3.03E-07	2.95E-07	1.32E-07	2.22E-05	3.24E-11	0.00E+00
CHILD	8.25E-07	1.44E-06	5.70E-07	3.61E-07	1.68E-07	3.35E-05	3.81E-11	0.00E+00
COW MILK								
ADULT	1.73E-06	2.28E-06	3.36E-06	2.90E-06	4.86E-06	8.82E-04	2.90E-10	0.00E+00
TEEN	2.91E-06	2.90E-06	6.15E-06	5.15E-06	8.68E-06	1.40E-03	5.99E-10	0.00E+00
CHILD	5.50E-06	2.17E-06	1.50E-05	8.96E-06	1.44E-05	2.79E-03	9.20E-10	0.00E+00
INFANT	1.03E-05	2.07E-06	3.02E-05	2.19E-05	2.51E-05	6.77E-03	1.66E-09	0.00E+00
GOATMILK								
ADULT	1.97E-06	1.70E-06	5.31E-06	3.41E-06	5.84E-06	1.06E-03	8.69E-10	0.00E+00
TEEN	3.31E-06	2.31E-06	9.72E-06	6.06E-06	1.04E-05	1.68E-03	1.80E-09	0.00E+00
CHILD	6.25E-06	1.87E-06	2.39E-05	1.06E-05	1.73E-05	3.34E-03	2.76E-09	0.00E+00
INFANT	1.18E-05	1.86E-06	4.73E-05	2.59E-05	3.02E-05	8.13E-03	4.99E-09	0.00E+00
INHAL								
ADULT	3.02E-07	2.10E-06	5.86E-07	7.43E-07	1.25E-06	1.43E-04	1.35E-05	0.00E+00
TEEN	4.04E-07	8.09E-06	8.28E-07	1.02E-06	1.73E-06	1.86E-04	2.08E-05	0.00E+00
CHILD	4.67E-07	5.89E-05	1.13E-06	1.01E-06	1.63E-06	2.27E-04	1.75E-05	0.00E+00
INFANT	3.31E-07	5.13E-05	8.63E-07	9.37E-07	1.08E-06	2.09E-04	1.38E-05	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 6.00E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 8.65E-03 MILLRADS

PATHWAY	T. BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.88E-03	1.18E-02
GROUND	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.19E-04
VEGET								
ADULT	3.44E-06	1.71E-05	2.17E-05	3.22E-06	4.13E-06	7.63E-04	2.68E-10	0.00E+00
TEEN	5.24E-06	1.88E-05	3.58E-05	4.84E-06	6.19E-06	1.02E-03	5.02E-10	0.00E+00
CHILD	1.05E-05	1.29E-05	8.72E-05	7.95E-06	9.92E-06	1.96E-03	7.64E-10	0.00E+00
MEAT								
ADULT	4.46E-07	3.50E-06	2.38E-07	2.48E-07	1.07E-07	2.03E-05	2.19E-11	0.00E+00
TEEN	3.53E-07	1.89E-06	2.00E-07	1.95E-07	8.74E-08	1.47E-05	2.07E-11	0.00E+00
CHILD	5.46E-07	9.55E-07	3.77E-07	2.39E-07	1.11E-07	2.22E-05	2.44E-11	0.00E+00
COW MILK								
ADULT	1.15E-06	1.51E-06	2.22E-06	1.92E-06	3.22E-06	5.83E-04	1.85E-10	0.00E+00
TEEN	1.92E-06	1.92E-06	4.06E-06	3.40E-06	5.74E-06	9.25E-04	3.83E-10	0.00E+00
CHILD	3.63E-06	1.43E-06	9.94E-06	5.92E-06	9.55E-06	1.84E-03	5.89E-10	0.00E+00
INFANT	6.80E-06	1.37E-06	2.00E-05	1.45E-05	1.66E-05	4.48E-03	1.07E-09	0.00E+00
GOATMILK								
ADULT	1.30E-06	1.13E-06	3.51E-06	2.26E-06	3.86E-06	7.00E-04	5.56E-10	0.00E+00
TEEN	2.19E-06	1.53E-06	6.43E-06	4.01E-06	6.88E-06	1.11E-03	1.15E-09	0.00E+00
CHILD	4.13E-06	1.23E-06	1.58E-05	6.99E-06	1.15E-05	2.21E-03	1.77E-09	0.00E+00
INFANT	7.82E-06	1.23E-06	3.13E-05	1.71E-05	1.99E-05	5.37E-03	3.20E-09	0.00E+00
INHAL								
ADULT	2.60E-07	1.80E-06	5.04E-07	6.41E-07	1.08E-06	1.23E-04	1.16E-05	0.00E+00
TEEN	3.48E-07	6.94E-06	7.12E-07	8.83E-07	1.49E-06	1.60E-04	1.79E-05	0.00E+00
CHILD	4.02E-07	5.05E-05	9.73E-07	8.69E-07	1.40E-06	1.96E-04	1.50E-05	0.00E+00
INFANT	2.85E-07	4.40E-05	7.43E-07	8.08E-07	9.28E-07	1.80E-04	1.18E-05	0.00E+00

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TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 7.99E-04 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.15E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.71E-04	7.71E-04	7.71E-04	7.71E-04	7.71E-04	7.71E-04	7.79E-04	1.56E-03
GROUND	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	2.27E-05
VEGET								
ADULT	6.82E-07	3.30E-06	4.25E-06	6.53E-07	8.46E-07	1.56E-04	5.03E-10	0.00E+00
TEEN	1.03E-06	3.62E-06	7.01E-06	9.82E-07	1.27E-06	2.09E-04	9.42E-10	0.00E+00
CHILD	2.07E-06	2.49E-06	1.71E-05	1.61E-06	2.03E-06	4.01E-04	1.43E-09	0.00E+00
MEAT								
ADULT	8.63E-08	6.70E-07	4.73E-08	4.93E-08	2.25E-08	4.15E-06	4.11E-11	0.00E+00
TEEN	6.81E-08	3.61E-07	3.97E-08	3.87E-08	1.83E-08	3.00E-06	3.89E-11	0.00E+00
CHILD	1.05E-07	1.83E-07	7.49E-08	4.75E-08	2.32E-08	4.54E-06	4.57E-11	0.00E+00
COW MILK								
ADULT	2.36E-07	2.98E-07	4.49E-07	3.96E-07	6.60E-07	1.19E-04	3.48E-10	0.00E+00
TEEN	3.94E-07	3.80E-07	8.20E-07	7.03E-07	1.18E-06	1.89E-04	7.18E-10	0.00E+00
CHILD	7.43E-07	2.84E-07	2.00E-06	1.22E-06	1.96E-06	3.77E-04	1.10E-09	0.00E+00
INFANT	1.39E-06	2.81E-07	4.02E-06	2.98E-06	3.40E-06	9.15E-04	2.00E-09	0.00E+00
GOATMILK								
ADULT	2.71E-07	2.26E-07	7.06E-07	4.69E-07	7.91E-07	1.43E-04	1.04E-09	0.00E+00
TEEN	4.51E-07	3.06E-07	1.29E-06	8.33E-07	1.41E-06	2.27E-04	2.16E-09	0.00E+00
CHILD	8.46E-07	2.48E-07	3.17E-06	1.45E-06	2.35E-06	4.52E-04	3.31E-09	0.00E+00
INFANT	1.60E-06	2.48E-07	6.28E-06	3.54E-06	4.09E-06	1.10E-03	5.99E-09	0.00E+00
INHAL								
ADULT	3.36E-08	2.28E-07	6.49E-08	8.29E-08	1.40E-07	1.60E-05	1.45E-06	0.00E+00
TEEN	4.51E-08	8.74E-07	9.16E-08	1.14E-07	1.93E-07	2.07E-05	2.24E-06	0.00E+00
CHILD	5.21E-08	6.36E-06	1.25E-07	1.13E-07	1.81E-07	2.53E-05	1.88E-06	0.00E+00
INFANT	3.69E-08	5.54E-06	9.56E-08	1.05E-07	1.20E-07	2.33E-05	1.48E-06	0.00E+00

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TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 8.10E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.03E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.90E-05	6.90E-05	6.90E-05	6.90E-05	6.90E-05	6.90E-05	6.98E-05	1.43E-04
GROUND	1.47E-06	1.47E-06	1.47E-06	1.47E-06	1.47E-06	1.47E-06	1.47E-06	1.73E-06
VEGET								
ADULT	5.47E-08	2.54E-07	3.37E-07	5.40E-08	7.08E-08	1.31E-05	9.64E-11	0.00E+00
TEEN	8.26E-08	2.79E-07	5.56E-07	8.13E-08	1.06E-07	1.75E-05	1.81E-10	0.00E+00
CHILD	1.65E-07	1.92E-07	1.35E-06	1.34E-07	1.71E-07	3.36E-05	2.75E-10	0.00E+00
MEAT								
ADULT	6.71E-09	5.12E-08	3.83E-09	3.99E-09	1.95E-09	3.48E-07	7.87E-12	0.00E+00
TEEN	5.29E-09	2.76E-08	3.21E-09	3.14E-09	1.59E-09	2.52E-07	7.45E-12	0.00E+00
CHILD	8.15E-09	1.40E-08	6.04E-09	3.85E-09	2.01E-09	3.80E-07	8.75E-12	0.00E+00
COW MILK								
ADULT	1.99E-08	2.37E-08	3.69E-08	3.35E-08	5.51E-08	9.96E-06	6.66E-11	0.00E+00
TEEN	3.31E-08	3.02E-08	6.73E-08	5.94E-08	9.82E-08	1.58E-05	1.38E-10	0.00E+00
CHILD	6.20E-08	2.26E-08	1.64E-07	1.03E-07	1.63E-07	3.14E-05	2.12E-10	0.00E+00
INFANT	1.16E-07	2.34E-08	3.30E-07	2.50E-07	2.84E-07	7.63E-05	3.83E-10	0.00E+00
GOATMILK								
ADULT	2.33E-08	1.82E-08	5.78E-08	4.00E-08	6.60E-08	1.19E-05	2.00E-10	0.00E+00
TEEN	3.81E-08	2.46E-08	1.06E-07	7.10E-08	1.18E-07	1.89E-05	4.13E-10	0.00E+00
CHILD	7.07E-08	1.98E-08	2.59E-07	1.24E-07	1.96E-07	3.77E-05	6.35E-10	0.00E+00
INFANT	1.33E-07	2.00E-08	5.13E-07	3.00E-07	3.41E-07	9.16E-05	1.15E-09	0.00E+00
INHAL								
ADULT	5.02E-09	1.86E-08	9.25E-09	1.21E-08	1.99E-08	2.29E-06	1.46E-07	0.00E+00
TEEN	6.72E-09	4.58E-08	1.31E-08	1.66E-08	2.75E-08	2.96E-06	2.19E-07	0.00E+00
CHILD	7.74E-09	2.66E-07	1.78E-08	1.64E-08	2.58E-08	3.60E-06	1.81E-07	0.00E+00
INFANT	5.50E-09	2.30E-07	1.37E-08	1.52E-08	1.71E-08	3.31E-06	1.30E-07	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 1.81E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.67E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.79E-04	1.79E-04	1.79E-04	1.79E-04	1.79E-04	1.79E-04	1.81E-04	3.53E-04
GROUND	4.71E-06	4.71E-06	4.71E-06	4.71E-06	4.71E-06	4.71E-06	4.71E-06	5.54E-06
VEGET								
ADULT	1.68E-07	8.07E-07	1.04E-06	1.62E-07	2.10E-07	3.87E-05	1.59E-10	0.00E+00
TEEN	2.54E-07	8.85E-07	1.72E-06	2.43E-07	3.15E-07	5.19E-05	2.98E-10	0.00E+00
CHILD	5.09E-07	6.08E-07	4.20E-06	4.00E-07	5.04E-07	9.95E-05	4.54E-10	0.00E+00
MEAT								
ADULT	2.11E-08	1.63E-07	1.17E-08	1.22E-08	5.62E-09	1.03E-06	1.30E-11	0.00E+00
TEEN	1.67E-08	8.81E-08	9.80E-09	9.56E-09	4.58E-09	7.46E-07	1.23E-11	0.00E+00
CHILD	2.58E-08	4.46E-08	1.85E-08	1.17E-08	5.80E-09	1.13E-06	1.45E-11	0.00E+00
COW MILK								
ADULT	5.85E-08	7.31E-08	1.11E-07	9.84E-08	1.63E-07	2.95E-05	1.10E-10	0.00E+00
TEEN	9.78E-08	9.31E-08	2.02E-07	1.75E-07	2.91E-07	4.69E-05	2.27E-10	0.00E+00
CHILD	1.84E-07	6.96E-08	4.95E-07	3.03E-07	4.84E-07	9.33E-05	3.50E-10	0.00E+00
INFANT	3.44E-07	6.94E-08	9.93E-07	7.38E-07	8.42E-07	2.27E-04	6.33E-10	0.00E+00
GOATMILK								
ADULT	6.76E-08	5.54E-08	1.74E-07	1.17E-07	1.96E-07	3.55E-05	3.30E-10	0.00E+00
TEEN	1.12E-07	7.50E-08	3.19E-07	2.07E-07	3.49E-07	5.62E-05	6.82E-10	0.00E+00
CHILD	2.10E-07	6.06E-08	7.82E-07	3.61E-07	5.81E-07	1.12E-04	1.05E-09	0.00E+00
INFANT	3.95E-07	6.07E-08	1.55E-06	8.80E-07	1.01E-06	2.72E-04	1.90E-09	0.00E+00
INHAL								
ADULT	1.06E-08	5.28E-08	2.03E-08	2.59E-08	4.35E-08	5.01E-06	3.85E-07	0.00E+00
TEEN	1.42E-08	1.57E-07	2.86E-08	3.57E-08	6.02E-08	6.48E-06	5.85E-07	0.00E+00
CHILD	1.64E-08	1.01E-06	3.91E-08	3.52E-08	5.66E-08	7.91E-06	4.86E-07	0.00E+00
INFANT	1.16E-08	8.72E-07	2.99E-08	3.27E-08	3.74E-08	7.28E-06	3.59E-07	0.00E+00

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TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 8.16E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.21E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.15E-03	8.15E-03	8.15E-03	8.15E-03	8.15E-03	8.15E-03	8.24E-03	1.64E-02
GROUND	2.46E-04	2.46E-04	2.46E-04	2.46E-04	2.46E-04	2.46E-04	2.46E-04	2.89E-04
VEGET								
ADULT	9.56E-06	4.34E-05	5.96E-05	1.00E-05	1.08E-05	1.60E-03	1.87E-09	0.00E+00
TEEN	1.47E-05	4.76E-05	9.83E-05	1.51E-05	1.61E-05	2.15E-03	3.50E-09	0.00E+00
CHILD	2.97E-05	3.27E-05	2.39E-04	2.41E-05	2.54E-05	4.12E-03	5.32E-09	0.00E+00
MEAT								
ADULT	1.88E-06	9.62E-06	1.19E-06	2.36E-06	1.42E-06	4.26E-05	1.52E-10	0.00E+00
TEEN	1.49E-06	5.16E-06	9.23E-07	1.82E-06	1.06E-06	3.09E-05	1.44E-10	0.00E+00
CHILD	2.30E-06	2.60E-06	1.59E-06	2.13E-06	1.23E-06	4.66E-05	1.69E-10	0.00E+00
COW MILK								
ADULT	5.55E-06	7.79E-06	7.43E-06	1.09E-05	1.13E-05	1.22E-03	1.32E-09	0.00E+00
TEEN	9.48E-06	9.27E-06	1.29E-05	1.86E-05	1.93E-05	1.93E-03	2.73E-09	0.00E+00
CHILD	1.86E-05	6.30E-06	3.01E-05	2.97E-05	3.08E-05	3.85E-03	4.22E-09	0.00E+00
INFANT	2.84E-05	2.84E-05	5.58E-05	6.01E-05	4.91E-05	9.35E-03	7.63E-09	0.00E+00
GOATMILK								
ADULT	3.15E-06	3.07E-06	8.91E-06	5.54E-06	8.58E-06	1.46E-03	3.87E-09	0.00E+00
TEEN	5.30E-06	4.03E-06	1.62E-05	9.76E-06	1.52E-05	2.32E-03	8.00E-09	0.00E+00
CHILD	1.01E-05	3.14E-06	3.97E-05	1.67E-05	2.51E-05	4.62E-03	1.23E-08	0.00E+00
INFANT	1.83E-05	5.80E-06	7.76E-05	3.93E-05	4.32E-05	1.12E-02	2.23E-08	0.00E+00
INHAL								
ADULT	2.48E-07	1.66E-06	4.90E-07	5.83E-07	9.48E-07	1.09E-04	1.26E-05	0.00E+00
TEEN	3.32E-07	6.84E-06	6.91E-07	8.01E-07	1.31E-06	1.41E-04	1.95E-05	0.00E+00
CHILD	3.81E-07	5.42E-05	9.41E-07	7.83E-07	1.23E-06	1.71E-04	1.64E-05	0.00E+00
INFANT	2.62E-07	4.77E-05	7.05E-07	7.14E-07	8.07E-07	1.57E-04	1.29E-05	0.00E+00

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TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 9.64E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.43E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.63E-03	9.63E-03	9.63E-03	9.63E-03	9.63E-03	9.63E-03	9.73E-03	1.93E-02
GROUND	1.78E-04	1.78E-04	1.78E-04	1.78E-04	1.78E-04	1.78E-04	1.78E-04	2.09E-04
VEGET								
ADULT	6.90E-06	3.13E-05	4.30E-05	7.21E-06	7.78E-06	1.15E-03	6.54E-10	0.00E+00
TEEN	1.06E-05	3.44E-05	7.09E-05	1.09E-05	1.16E-05	1.55E-03	1.22E-09	0.00E+00
CHILD	2.14E-05	2.37E-05	1.72E-04	1.74E-05	1.83E-05	2.97E-03	1.86E-09	0.00E+00
MEAT								
ADULT	1.36E-06	6.95E-06	8.57E-07	1.71E-06	1.02E-06	3.07E-05	5.33E-11	0.00E+00
TEEN	1.08E-06	3.73E-06	6.65E-07	1.32E-06	7.65E-07	2.23E-05	5.05E-11	0.00E+00
CHILD	1.66E-06	1.88E-06	1.15E-06	1.54E-06	8.85E-07	3.36E-05	5.93E-11	0.00E+00
COW MILK								
ADULT	4.01E-06	5.63E-06	5.36E-06	7.85E-06	8.14E-06	8.79E-04	4.64E-10	0.00E+00
TEEN	6.84E-06	6.69E-06	9.34E-06	1.34E-05	1.39E-05	1.39E-03	9.54E-10	0.00E+00
CHILD	1.34E-05	4.55E-06	2.17E-05	2.14E-05	2.22E-05	2.77E-03	1.48E-09	0.00E+00
INFANT	2.05E-05	2.05E-05	4.02E-05	4.34E-05	3.54E-05	6.74E-03	2.67E-09	0.00E+00
GOATMILK								
ADULT	2.27E-06	2.21E-06	6.42E-06	3.98E-06	6.18E-06	1.06E-03	1.36E-09	0.00E+00
TEEN	3.81E-06	2.91E-06	1.17E-05	7.01E-06	1.10E-05	1.67E-03	2.80E-09	0.00E+00
CHILD	7.28E-06	2.26E-06	2.86E-05	1.20E-05	1.81E-05	3.33E-03	4.31E-09	0.00E+00
INFANT	1.32E-05	4.19E-06	5.59E-05	2.83E-05	3.11E-05	8.09E-03	7.79E-09	0.00E+00
INHAL								
ADULT	2.97E-07	2.01E-06	5.89E-07	6.98E-07	1.13E-06	1.31E-04	1.53E-05	0.00E+00
TEEN	3.97E-07	8.29E-06	8.30E-07	9.59E-07	1.57E-06	1.68E-04	2.36E-05	0.00E+00
CHILD	4.56E-07	6.57E-05	1.13E-06	9.37E-07	1.47E-06	2.05E-04	1.99E-05	0.00E+00
INFANT	3.14E-07	5.78E-05	8.46E-07	8.54E-07	9.65E-07	1.88E-04	1.56E-05	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 1.12E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.82E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.23E-03	2.30E-03
GROUND	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.96E-05	9.37E-05
VEGET								
ADULT	3.26E-06	1.41E-05	2.08E-05	3.47E-06	3.74E-06	5.55E-04	9.72E-09	0.00E+00
TEEN	4.96E-06	1.55E-05	3.39E-05	5.26E-06	5.59E-06	7.46E-04	1.82E-08	0.00E+00
CHILD	9.95E-06	1.07E-05	8.18E-05	8.40E-06	8.83E-06	1.43E-03	2.77E-08	0.00E+00
MEAT								
ADULT	6.26E-07	3.13E-06	4.15E-07	7.98E-07	4.82E-07	1.48E-05	7.92E-10	0.00E+00
TEEN	4.93E-07	1.68E-06	3.21E-07	6.16E-07	3.61E-07	1.07E-05	7.50E-10	0.00E+00
CHILD	7.59E-07	8.44E-07	5.50E-07	7.21E-07	4.18E-07	1.62E-05	8.81E-10	0.00E+00
COW MILK								
ADULT	1.93E-06	2.60E-06	2.59E-06	3.75E-06	3.87E-06	4.22E-04	6.89E-09	0.00E+00
TEEN	3.26E-06	3.10E-06	4.51E-06	6.43E-06	6.63E-06	6.69E-04	1.42E-08	0.00E+00
CHILD	6.33E-06	2.10E-06	1.05E-05	1.03E-05	1.06E-05	1.33E-03	2.20E-08	0.00E+00
INFANT	9.67E-06	9.57E-06	1.92E-05	2.08E-05	1.69E-05	3.23E-03	3.97E-08	0.00E+00
GOATMILK								
ADULT	1.20E-06	1.03E-06	3.20E-06	2.07E-06	3.01E-06	5.07E-04	2.01E-08	0.00E+00
TEEN	1.93E-06	1.36E-06	5.81E-06	3.65E-06	5.34E-06	8.03E-04	4.16E-08	0.00E+00
CHILD	3.55E-06	1.05E-06	1.41E-05	6.25E-06	8.82E-06	1.60E-03	6.40E-08	0.00E+00
INFANT	6.37E-06	1.95E-06	2.71E-05	1.45E-05	1.51E-05	3.88E-03	1.16E-07	0.00E+00
INHAL								
ADULT	7.20E-08	2.90E-07	1.38E-07	1.65E-07	2.57E-07	2.90E-05	2.71E-06	0.00E+00
TEEN	9.64E-08	6.91E-07	1.93E-07	2.26E-07	3.55E-07	3.74E-05	4.07E-06	0.00E+00
CHILD	1.11E-07	4.23E-06	2.63E-07	2.21E-07	3.33E-07	4.53E-05	3.36E-06	0.00E+00
INFANT	7.67E-08	3.70E-06	1.97E-07	2.01E-07	2.19E-07	4.16E-05	2.39E-06	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 1.16E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.84E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.23E-04	1.23E-04	1.23E-04	1.23E-04	1.23E-04	1.23E-04	1.25E-04	2.38E-04
GROUND	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	3.42E-06
VEGET								
ADULT	1.28E-07	5.20E-07	8.36E-07	1.40E-07	1.51E-07	2.24E-05	8.41E-10	0.00E+00
TEEN	1.92E-07	5.72E-07	1.35E-06	2.12E-07	2.25E-07	3.00E-05	1.57E-09	0.00E+00
CHILD	3.81E-07	3.94E-07	3.22E-06	3.40E-07	3.56E-07	5.75E-05	2.40E-09	0.00E+00
MEAT								
ADULT	2.36E-08	1.14E-07	1.67E-08	3.08E-08	1.88E-08	5.97E-07	6.86E-11	0.00E+00
TEEN	1.86E-08	6.14E-08	1.28E-08	2.38E-08	1.41E-08	4.32E-07	6.49E-11	0.00E+00
CHILD	2.85E-08	3.09E-08	2.20E-08	2.79E-08	1.63E-08	6.52E-07	7.62E-11	0.00E+00
COW MILK								
ADULT	7.71E-08	9.94E-08	1.05E-07	1.49E-07	1.54E-07	1.70E-05	5.96E-10	0.00E+00
TEEN	1.29E-07	1.18E-07	1.82E-07	2.56E-07	2.64E-07	2.69E-05	1.23E-09	0.00E+00
CHILD	2.48E-07	8.04E-08	4.21E-07	4.11E-07	4.21E-07	5.35E-05	1.90E-09	0.00E+00
INFANT	3.80E-07	3.67E-07	7.67E-07	8.35E-07	6.75E-07	1.30E-04	3.44E-09	0.00E+00
GOATMILK								
ADULT	5.32E-08	4.01E-08	1.34E-07	9.09E-08	1.23E-07	2.04E-05	1.74E-09	0.00E+00
TEEN	8.20E-08	5.27E-08	2.42E-07	1.60E-07	2.19E-07	3.23E-05	3.60E-09	0.00E+00
CHILD	1.45E-07	4.10E-08	5.84E-07	2.75E-07	3.62E-07	6.42E-05	5.54E-09	0.00E+00
INFANT	2.57E-07	7.55E-08	1.10E-06	6.30E-07	6.20E-07	1.56E-04	1.00E-08	0.00E+00
INHAL								
ADULT	9.29E-09	2.58E-08	1.52E-08	1.99E-08	2.59E-08	2.37E-06	1.80E-07	0.00E+00
TEEN	1.25E-08	6.17E-08	2.11E-08	2.73E-08	3.57E-08	3.05E-06	2.73E-07	0.00E+00
CHILD	1.48E-08	3.67E-07	2.84E-08	2.68E-08	3.35E-08	3.68E-06	2.26E-07	0.00E+00
INFANT	1.04E-08	3.26E-07	2.12E-08	2.46E-08	2.20E-08	3.38E-06	1.65E-07	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 3.01E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.78E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.22E-04	3.22E-04	3.22E-04	3.22E-04	3.22E-04	3.22E-04	3.25E-04	6.19E-04
GROUND	4.33E-06	4.33E-06	4.33E-06	4.33E-06	4.33E-06	4.33E-06	4.33E-06	5.10E-06
VEGET								
ADULT	1.79E-07	7.70E-07	1.14E-06	1.91E-07	2.06E-07	3.07E-05	5.98E-10	0.00E+00
TEEN	2.72E-07	8.46E-07	1.86E-06	2.89E-07	3.08E-07	4.12E-05	1.12E-09	0.00E+00
CHILD	5.45E-07	5.82E-07	4.49E-06	4.63E-07	4.87E-07	7.88E-05	1.70E-09	0.00E+00
MEAT								
ADULT	3.41E-08	1.70E-07	2.28E-08	4.36E-08	2.64E-08	8.17E-07	4.88E-11	0.00E+00
TEEN	2.69E-08	9.13E-08	1.76E-08	3.37E-08	1.98E-08	5.92E-07	4.61E-11	0.00E+00
CHILD	4.14E-08	4.59E-08	3.02E-08	3.94E-08	2.29E-08	8.93E-07	5.42E-11	0.00E+00
COW MILK								
ADULT	1.06E-07	1.43E-07	1.43E-07	2.06E-07	2.13E-07	2.33E-05	4.24E-10	0.00E+00
TEEN	1.79E-07	1.70E-07	2.48E-07	3.54E-07	3.65E-07	3.70E-05	8.73E-10	0.00E+00
CHILD	3.48E-07	1.15E-07	5.76E-07	5.66E-07	5.83E-07	7.35E-05	1.35E-09	0.00E+00
INFANT	5.31E-07	5.23E-07	1.06E-06	1.15E-06	9.32E-07	1.79E-04	2.44E-09	0.00E+00
GOATMILK								
ADULT	6.67E-08	5.69E-08	1.77E-07	1.15E-07	1.67E-07	2.80E-05	1.24E-09	0.00E+00
TEEN	1.07E-07	7.47E-08	3.21E-07	2.03E-07	2.96E-07	4.44E-05	2.56E-09	0.00E+00
CHILD	1.96E-07	5.82E-08	7.80E-07	3.48E-07	4.89E-07	8.83E-05	3.94E-09	0.00E+00
INFANT	3.52E-07	1.07E-07	1.50E-06	8.09E-07	8.39E-07	2.14E-04	7.12E-09	0.00E+00
INHAL								
ADULT	1.35E-08	6.53E-08	2.61E-08	3.14E-08	5.01E-08	5.72E-06	5.58E-07	0.00E+00
TEEN	1.81E-08	2.05E-07	3.67E-08	4.31E-08	6.92E-08	7.38E-06	8.48E-07	0.00E+00
CHILD	2.08E-08	1.46E-06	5.00E-08	4.21E-08	6.49E-08	8.95E-06	7.05E-07	0.00E+00
INFANT	1.43E-08	1.28E-06	3.75E-08	3.84E-08	4.26E-08	8.23E-06	5.23E-07	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 1.57E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 2.30E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.56E-02	3.12E-02
GROUND	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.94E-04	4.64E-04
VEGET								
ADULT	1.46E-05	6.85E-05	9.16E-05	1.47E-05	1.70E-05	2.78E-03	6.64E-09	0.00E+00
TEEN	2.23E-05	7.51E-05	1.51E-04	2.22E-05	2.54E-05	3.73E-03	1.24E-08	0.00E+00
CHILD	4.50E-05	5.16E-05	3.67E-04	3.58E-05	4.03E-05	7.14E-03	1.89E-08	0.00E+00
MEAT								
ADULT	2.47E-06	1.47E-05	1.50E-06	2.59E-06	1.49E-06	7.39E-05	5.41E-10	0.00E+00
TEEN	1.96E-06	7.88E-06	1.19E-06	2.00E-06	1.12E-06	5.35E-05	5.12E-10	0.00E+00
CHILD	3.02E-06	3.98E-06	2.10E-06	2.36E-06	1.32E-06	8.08E-05	6.02E-10	0.00E+00
COW MILK								
ADULT	7.07E-06	9.70E-06	1.06E-05	1.33E-05	1.59E-05	2.12E-03	4.68E-09	0.00E+00
TEEN	1.20E-05	1.17E-05	1.89E-05	2.30E-05	2.76E-05	3.36E-03	9.64E-09	0.00E+00
CHILD	2.33E-05	8.20E-06	4.47E-05	3.75E-05	4.46E-05	6.69E-03	1.49E-08	0.00E+00
INFANT	3.77E-05	2.84E-05	8.53E-05	8.01E-05	7.36E-05	1.63E-02	2.70E-08	0.00E+00
GOATMILK								
ADULT	5.18E-06	4.73E-06	1.42E-05	9.03E-06	1.45E-05	2.54E-03	1.38E-08	0.00E+00
TEEN	8.66E-06	6.30E-06	2.60E-05	1.60E-05	2.58E-05	4.03E-03	2.84E-08	0.00E+00
CHILD	1.64E-05	4.98E-06	6.35E-05	2.76E-05	4.28E-05	8.03E-03	4.37E-08	0.00E+00
INFANT	3.02E-05	7.42E-06	1.25E-04	6.59E-05	7.40E-05	1.95E-02	7.90E-08	0.00E+00
INHAL								
ADULT	5.58E-07	3.81E-06	1.10E-06	1.34E-06	2.22E-06	2.54E-04	2.68E-05	0.00E+00
TEEN	7.47E-07	1.52E-05	1.54E-06	1.85E-06	3.06E-06	3.29E-04	4.15E-05	0.00E+00
CHILD	8.61E-07	1.16E-04	2.11E-06	1.81E-06	2.88E-06	4.01E-04	3.49E-05	0.00E+00
INFANT	6.01E-07	1.02E-04	1.59E-06	1.67E-06	1.90E-06	3.69E-04	2.74E-05	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 1.57E-02 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.30E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.56E-02	3.11E-02
GROUND	2.74E-04	2.74E-04	2.74E-04	2.74E-04	2.74E-04	2.74E-04	2.74E-04	3.22E-04
VEGET								
ADULT	1.01E-05	4.75E-05	6.31E-05	1.01E-05	1.17E-05	1.91E-03	1.90E-09	0.00E+00
TEEN	1.54E-05	5.21E-05	1.04E-04	1.52E-05	1.74E-05	2.56E-03	3.56E-09	0.00E+00
CHILD	3.11E-05	3.58E-05	2.53E-04	2.46E-05	2.77E-05	4.90E-03	5.41E-09	0.00E+00
MEAT								
ADULT	1.71E-06	1.02E-05	1.03E-06	1.79E-06	1.02E-06	5.07E-05	1.55E-10	0.00E+00
TEEN	1.35E-06	5.47E-06	8.18E-07	1.38E-06	7.73E-07	3.67E-05	1.47E-10	0.00E+00
CHILD	2.09E-06	2.76E-06	1.45E-06	1.63E-06	9.05E-07	5.55E-05	1.72E-10	0.00E+00
COW MILK								
ADULT	4.86E-06	6.70E-06	7.31E-06	9.13E-06	1.09E-05	1.46E-03	1.34E-09	0.00E+00
TEEN	8.25E-06	8.11E-06	1.30E-05	1.58E-05	1.89E-05	2.31E-03	2.76E-09	0.00E+00
CHILD	1.60E-05	5.66E-06	3.07E-05	2.58E-05	3.07E-05	4.59E-03	4.27E-09	0.00E+00
INFANT	2.59E-05	1.96E-05	5.87E-05	5.50E-05	5.05E-05	1.12E-02	7.72E-09	0.00E+00
GOATMILK								
ADULT	3.53E-06	3.26E-06	9.76E-06	6.16E-06	9.95E-06	1.75E-03	3.94E-09	0.00E+00
TEEN	5.92E-06	4.34E-06	1.78E-05	1.09E-05	1.77E-05	2.77E-03	8.13E-09	0.00E+00
CHILD	1.12E-05	3.43E-06	4.36E-05	1.88E-05	2.93E-05	5.51E-03	1.25E-08	0.00E+00
INFANT	2.08E-05	5.11E-06	8.58E-05	4.50E-05	5.07E-05	1.34E-02	2.26E-08	0.00E+00
INHAL								
ADULT	5.57E-07	3.81E-06	1.09E-06	1.34E-06	2.21E-06	2.54E-04	2.68E-05	0.00E+00
TEEN	7.46E-07	1.52E-05	1.54E-06	1.84E-06	3.06E-06	3.29E-04	4.15E-05	0.00E+00
CHILD	8.59E-07	1.16E-04	2.10E-06	1.81E-06	2.87E-06	4.01E-04	3.49E-05	0.00E+00
INFANT	5.99E-07	1.02E-04	1.59E-06	1.66E-06	1.89E-06	3.68E-04	2.74E-05	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 3.00E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 4.39E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.95E-03	2.95E-03	2.95E-03	2.95E-03	2.95E-03	2.95E-03	2.98E-03	5.95E-03
GROUND	9.28E-05	9.28E-05	9.28E-05	9.28E-05	9.28E-05	9.28E-05	9.28E-05	1.09E-04
VEGET								
ADULT	3.58E-06	1.62E-05	2.26E-05	3.68E-06	4.27E-06	6.98E-04	7.32E-09	0.00E+00
TEEN	5.44E-06	1.78E-05	3.70E-05	5.55E-06	6.39E-06	9.37E-04	1.37E-08	0.00E+00
CHILD	1.09E-05	1.22E-05	8.97E-05	8.96E-06	1.02E-05	1.80E-03	2.09E-08	0.00E+00
MEAT								
ADULT	5.94E-07	3.46E-06	3.73E-07	6.32E-07	3.68E-07	1.86E-05	5.97E-10	0.00E+00
TEEN	4.68E-07	1.86E-06	2.95E-07	4.89E-07	2.78E-07	1.35E-05	5.65E-10	0.00E+00
CHILD	7.22E-07	9.38E-07	5.20E-07	5.77E-07	3.26E-07	2.03E-05	6.64E-10	0.00E+00
COW MILK								
ADULT	1.78E-06	2.35E-06	2.66E-06	3.33E-06	3.97E-06	5.33E-04	5.17E-09	0.00E+00
TEEN	2.99E-06	2.85E-06	4.71E-06	5.76E-06	6.90E-06	8.45E-04	1.06E-08	0.00E+00
CHILD	5.77E-06	2.00E-06	1.11E-05	9.41E-06	1.12E-05	1.68E-03	1.65E-08	0.00E+00
INFANT	9.35E-06	6.94E-06	2.12E-05	2.01E-05	1.84E-05	4.09E-03	2.98E-08	0.00E+00
GOATMILK								
ADULT	1.37E-06	1.16E-06	3.60E-06	2.37E-06	3.68E-06	6.39E-04	1.52E-08	0.00E+00
TEEN	2.23E-06	1.55E-06	6.55E-06	4.18E-06	6.53E-06	1.01E-03	3.14E-08	0.00E+00
CHILD	4.14E-06	1.23E-06	1.60E-05	7.22E-06	1.08E-05	2.02E-03	4.82E-08	0.00E+00
INFANT	7.60E-06	1.82E-06	3.11E-05	1.71E-05	1.87E-05	4.90E-03	8.72E-08	0.00E+00
INHAL								
ADULT	1.06E-07	6.84E-07	2.05E-07	2.54E-07	4.14E-07	4.69E-05	4.74E-06	0.00E+00
TEEN	1.42E-07	2.72E-06	2.88E-07	3.50E-07	5.72E-07	6.06E-05	7.33E-06	0.00E+00
CHILD	1.64E-07	2.07E-05	3.93E-07	3.43E-07	5.37E-07	7.39E-05	6.16E-06	0.00E+00
INFANT	1.15E-07	1.82E-05	2.97E-07	3.16E-07	3.54E-07	6.79E-05	4.85E-06	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 3.55E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.04E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.43E-04	6.91E-04
GROUND	4.23E-06	4.23E-06	4.23E-06	4.23E-06	4.23E-06	4.23E-06	4.23E-06	4.97E-06
VEGET								
ADULT	1.74E-07	7.45E-07	1.11E-06	1.84E-07	2.16E-07	3.52E-05	7.78E-10	0.00E+00
TEEN	2.62E-07	8.19E-07	1.80E-06	2.78E-07	3.23E-07	4.73E-05	1.46E-09	0.00E+00
CHILD	5.21E-07	5.64E-07	4.34E-06	4.51E-07	5.13E-07	9.06E-05	2.22E-09	0.00E+00
MEAT								
ADULT	2.79E-08	1.58E-07	1.85E-08	3.06E-08	1.81E-08	9.38E-07	6.34E-11	0.00E+00
TEEN	2.19E-08	8.48E-08	1.46E-08	2.37E-08	1.37E-08	6.79E-07	6.00E-11	0.00E+00
CHILD	3.37E-08	4.28E-08	2.57E-08	2.80E-08	1.61E-08	1.03E-06	7.05E-11	0.00E+00
COW MILK								
ADULT	8.93E-08	1.13E-07	1.33E-07	1.67E-07	1.99E-07	2.69E-05	5.49E-10	0.00E+00
TEEN	1.49E-07	1.37E-07	2.35E-07	2.89E-07	3.46E-07	4.26E-05	1.13E-09	0.00E+00
CHILD	2.86E-07	9.58E-08	5.56E-07	4.74E-07	5.61E-07	8.47E-05	1.75E-09	0.00E+00
INFANT	4.63E-07	3.36E-07	1.05E-06	1.02E-06	9.26E-07	2.06E-04	3.16E-09	0.00E+00
GOATMILK								
ADULT	7.34E-08	5.68E-08	1.83E-07	1.26E-07	1.87E-07	3.22E-05	1.61E-09	0.00E+00
TEEN	1.16E-07	7.57E-08	3.32E-07	2.23E-07	3.33E-07	5.11E-05	3.33E-09	0.00E+00
CHILD	2.11E-07	6.00E-08	8.07E-07	3.86E-07	5.52E-07	1.02E-04	5.12E-09	0.00E+00
INFANT	3.84E-07	8.89E-08	1.56E-06	9.06E-07	9.54E-07	2.47E-04	9.27E-09	0.00E+00
INHAL								
ADULT	1.43E-08	6.81E-08	2.48E-08	3.25E-08	4.77E-08	4.91E-06	4.22E-07	0.00E+00
TEEN	1.92E-08	2.67E-07	3.47E-08	4.48E-08	6.59E-08	6.34E-06	6.56E-07	0.00E+00
CHILD	2.25E-08	2.02E-06	4.70E-08	4.40E-08	6.19E-08	7.70E-06	5.53E-07	0.00E+00
INFANT	1.58E-08	1.77E-06	3.55E-08	4.06E-08	4.08E-08	7.08E-06	4.42E-07	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 6.98E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.02E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.87E-04	6.87E-04	6.87E-04	6.87E-04	6.87E-04	6.87E-04	6.94E-04	1.39E-03
GROUND	9.30E-06	9.30E-06	9.30E-06	9.30E-06	9.30E-06	9.30E-06	9.30E-06	1.09E-05
VEGET								
ADULT	3.61E-07	1.62E-06	2.27E-06	3.71E-07	4.31E-07	7.05E-05	8.01E-10	0.00E+00
TEEN	5.47E-07	1.78E-06	3.72E-06	5.60E-07	6.45E-07	9.46E-05	1.50E-09	0.00E+00
CHILD	1.10E-06	1.23E-06	9.02E-06	9.04E-07	1.02E-06	1.81E-04	2.28E-09	0.00E+00
MEAT								
ADULT	5.96E-08	3.46E-07	3.76E-08	6.36E-08	3.70E-08	1.88E-06	6.53E-11	0.00E+00
TEEN	4.70E-08	1.86E-07	2.97E-08	4.92E-08	2.80E-08	1.36E-06	6.18E-11	0.00E+00
CHILD	7.24E-08	9.39E-08	5.24E-08	5.81E-08	3.29E-08	2.05E-06	7.26E-11	0.00E+00
COW MILK								
ADULT	1.79E-07	2.37E-07	2.68E-07	3.36E-07	4.01E-07	5.38E-05	5.65E-10	0.00E+00
TEEN	3.02E-07	2.87E-07	4.75E-07	5.81E-07	6.96E-07	8.52E-05	1.16E-09	0.00E+00
CHILD	5.82E-07	2.01E-07	1.12E-06	9.50E-07	1.13E-06	1.70E-04	1.80E-09	0.00E+00
INFANT	9.43E-07	6.99E-07	2.14E-06	2.03E-06	1.86E-06	4.12E-04	3.25E-09	0.00E+00
GOATMILK								
ADULT	1.38E-07	1.17E-07	3.63E-07	2.40E-07	3.71E-07	6.45E-05	1.66E-09	0.00E+00
TEEN	2.26E-07	1.56E-07	6.61E-07	4.24E-07	6.60E-07	1.02E-04	3.43E-09	0.00E+00
CHILD	4.18E-07	1.23E-07	1.61E-06	7.32E-07	1.09E-06	2.04E-04	5.27E-09	0.00E+00
INFANT	7.67E-07	1.83E-07	3.14E-06	1.74E-06	1.89E-06	4.95E-04	9.54E-09	0.00E+00
INHAL								
ADULT	2.42E-08	1.54E-07	4.64E-08	5.79E-08	9.45E-08	1.07E-05	1.06E-06	0.00E+00
TEEN	3.24E-08	6.10E-07	6.54E-08	7.97E-08	1.31E-07	1.38E-05	1.64E-06	0.00E+00
CHILD	3.74E-08	4.64E-06	8.91E-08	7.82E-08	1.23E-07	1.69E-05	1.38E-06	0.00E+00
INFANT	2.62E-08	4.06E-06	6.75E-08	7.20E-08	8.08E-08	1.55E-05	1.09E-06	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 1.59E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 2.24E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.53E-02	3.12E-02
GROUND	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.35E-03
VEGET								
ADULT	2.38E-05	1.60E-04	4.15E-05	1.77E-05	1.05E-05	1.67E-03	4.81E-07	0.00E+00
TEEN	3.54E-05	1.71E-04	6.84E-05	2.72E-05	1.59E-05	2.25E-03	8.94E-07	0.00E+00
CHILD	6.84E-05	1.13E-04	1.66E-04	4.39E-05	2.55E-05	4.30E-03	1.35E-06	0.00E+00
MEAT								
ADULT	5.00E-06	4.02E-05	7.05E-07	2.70E-06	4.11E-07	4.46E-05	4.64E-08	0.00E+00
TEEN	3.89E-06	2.16E-05	5.85E-07	2.11E-06	3.29E-07	3.23E-05	4.33E-08	0.00E+00
CHILD	5.96E-06	1.09E-05	1.08E-06	2.55E-06	4.09E-07	4.88E-05	5.05E-08	0.00E+00
COW MILK								
ADULT	5.11E-06	1.08E-05	6.36E-06	7.38E-06	8.02E-06	1.27E-03	2.84E-07	0.00E+00
TEEN	7.43E-06	1.29E-05	1.15E-05	1.30E-05	1.42E-05	2.01E-03	5.86E-07	0.00E+00
CHILD	1.25E-05	8.88E-06	2.80E-05	2.23E-05	2.36E-05	4.00E-03	9.01E-07	0.00E+00
INFANT	2.13E-05	9.42E-06	5.29E-05	4.96E-05	4.05E-05	9.72E-03	1.64E-06	0.00E+00
GOATMILK								
ADULT	7.75E-06	3.27E-06	1.22E-05	1.23E-05	1.08E-05	1.52E-03	8.32E-07	0.00E+00
TEEN	9.43E-06	4.25E-06	2.22E-05	2.17E-05	1.92E-05	2.41E-03	1.72E-06	0.00E+00
CHILD	1.26E-05	3.25E-06	5.39E-05	3.78E-05	3.20E-05	4.80E-03	2.64E-06	0.00E+00
INFANT	2.05E-05	3.31E-06	9.81E-05	8.11E-05	5.47E-05	1.17E-02	4.78E-06	0.00E+00
INHAL								
ADULT	6.16E-07	4.55E-06	8.29E-07	1.18E-06	1.68E-06	2.02E-04	7.61E-05	0.00E+00
TEEN	7.97E-07	6.18E-06	1.17E-06	1.62E-06	2.32E-06	2.59E-04	1.12E-04	0.00E+00
CHILD	8.85E-07	2.12E-05	1.60E-06	1.57E-06	2.18E-06	3.13E-04	9.09E-05	0.00E+00
INFANT	5.77E-07	1.78E-05	1.20E-06	1.39E-06	1.44E-06	2.87E-04	5.92E-05	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 1.52E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 2.15E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.46E-02	3.00E-02
GROUND	7.34E-04	7.34E-04	7.34E-04	7.34E-04	7.34E-04	7.34E-04	7.34E-04	8.63E-04
VEGET								
ADULT	1.52E-05	1.02E-04	2.63E-05	1.14E-05	6.75E-06	1.07E-03	3.11E-07	0.00E+00
TEEN	2.26E-05	1.10E-04	4.34E-05	1.75E-05	1.02E-05	1.43E-03	5.78E-07	0.00E+00
CHILD	4.37E-05	7.24E-05	1.05E-04	2.83E-05	1.64E-05	2.75E-03	8.76E-07	0.00E+00
MEAT								
ADULT	3.21E-06	2.57E-05	4.67E-07	1.77E-06	2.89E-07	2.85E-05	3.30E-08	0.00E+00
TEEN	2.50E-06	1.38E-05	3.85E-07	1.38E-06	2.29E-07	2.06E-05	3.07E-08	0.00E+00
CHILD	3.83E-06	7.00E-06	7.10E-07	1.67E-06	2.83E-07	3.11E-05	3.56E-08	0.00E+00
COW MILK								
ADULT	3.32E-06	6.98E-06	4.09E-06	4.86E-06	5.22E-06	8.10E-04	1.81E-07	0.00E+00
TEEN	4.86E-06	8.38E-06	7.41E-06	8.55E-06	9.25E-06	1.28E-03	3.73E-07	0.00E+00
CHILD	8.23E-06	5.74E-06	1.79E-05	1.46E-05	1.53E-05	2.55E-03	5.73E-07	0.00E+00
INFANT	1.39E-05	6.59E-06	3.38E-05	3.23E-05	2.61E-05	6.20E-03	1.04E-06	0.00E+00
GOATMILK								
ADULT	4.94E-06	2.10E-06	7.74E-06	7.85E-06	6.90E-06	9.72E-04	5.29E-07	0.00E+00
TEEN	6.02E-06	2.72E-06	1.41E-05	1.39E-05	1.23E-05	1.54E-03	1.09E-06	0.00E+00
CHILD	8.05E-06	2.08E-06	3.43E-05	2.41E-05	2.04E-05	3.06E-03	1.68E-06	0.00E+00
INFANT	1.31E-05	2.18E-06	6.23E-05	5.17E-05	3.49E-05	7.44E-03	3.04E-06	0.00E+00
INHAL								
ADULT	6.08E-07	4.54E-06	8.16E-07	1.16E-06	1.64E-06	1.97E-04	7.61E-05	0.00E+00
TEEN	7.85E-07	6.17E-06	1.15E-06	1.59E-06	2.27E-06	2.54E-04	1.12E-04	0.00E+00
CHILD	8.73E-07	2.12E-05	1.57E-06	1.54E-06	2.13E-06	3.06E-04	9.09E-05	0.00E+00
INFANT	5.68E-07	1.78E-05	1.18E-06	1.36E-06	1.40E-06	2.81E-04	5.92E-05	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 5.19E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 7.59E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.10E-03	5.10E-03	5.10E-03	5.10E-03	5.10E-03	5.10E-03	5.15E-03	1.04E-02
GROUND	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.76E-04
VEGET								
ADULT	8.84E-06	5.90E-05	1.35E-05	7.39E-06	4.32E-06	6.02E-04	2.22E-07	0.00E+00
TEEN	1.32E-05	6.32E-05	2.21E-05	1.13E-05	6.52E-06	8.08E-04	4.08E-07	0.00E+00
CHILD	2.55E-05	4.18E-05	5.35E-05	1.81E-05	1.03E-05	1.55E-03	6.12E-07	0.00E+00
MEAT								
ADULT	2.00E-06	1.52E-05	4.28E-07	1.50E-06	4.29E-07	1.61E-05	5.18E-08	0.00E+00
TEEN	1.56E-06	8.18E-06	3.36E-07	1.17E-06	3.24E-07	1.16E-05	4.70E-08	0.00E+00
CHILD	2.40E-06	4.14E-06	5.85E-07	1.39E-06	3.80E-07	1.76E-05	5.36E-08	0.00E+00
COW MILK								
ADULT	2.53E-06	4.95E-06	2.67E-06	4.23E-06	3.94E-06	4.56E-04	9.89E-08	0.00E+00
TEEN	3.90E-06	5.87E-06	4.70E-06	7.30E-06	6.82E-06	7.23E-04	2.04E-07	0.00E+00
CHILD	7.01E-06	3.95E-06	1.10E-05	1.19E-05	1.10E-05	1.44E-03	3.13E-07	0.00E+00
INFANT	1.09E-05	9.42E-06	2.01E-05	2.46E-05	1.79E-05	3.49E-03	5.71E-07	0.00E+00
GOATMILK								
ADULT	2.74E-06	1.27E-06	4.09E-06	4.41E-06	3.94E-06	5.47E-04	2.77E-07	0.00E+00
TEEN	3.41E-06	1.62E-06	7.44E-06	7.79E-06	6.99E-06	8.67E-04	5.73E-07	0.00E+00
CHILD	4.71E-06	1.22E-06	1.80E-05	1.34E-05	1.16E-05	1.72E-03	8.80E-07	0.00E+00
INFANT	7.62E-06	1.87E-06	3.28E-05	2.88E-05	1.97E-05	4.19E-03	1.59E-06	0.00E+00
INHAL								
ADULT	1.32E-07	9.75E-07	1.72E-07	2.52E-07	3.42E-07	3.96E-05	1.53E-05	0.00E+00
TEEN	1.71E-07	1.32E-06	2.43E-07	3.45E-07	4.72E-07	5.08E-05	2.25E-05	0.00E+00
CHILD	1.92E-07	4.36E-06	3.30E-07	3.34E-07	4.43E-07	6.12E-05	1.83E-05	0.00E+00
INFANT	1.25E-07	3.68E-06	2.50E-07	2.95E-07	2.92E-07	5.62E-05	1.20E-05	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 6.86E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 9.99E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.71E-04	6.71E-04	6.71E-04	6.71E-04	6.71E-04	6.71E-04	6.78E-04	1.32E-03
GROUND	2.23E-05	2.23E-05	2.23E-05	2.23E-05	2.23E-05	2.23E-05	2.23E-05	2.62E-05
VEGET								
ADULT	4.96E-07	3.31E-06	7.18E-07	4.30E-07	2.50E-07	3.32E-05	1.33E-08	0.00E+00
TEEN	7.40E-07	3.54E-06	1.17E-06	6.60E-07	3.76E-07	4.46E-05	2.44E-08	0.00E+00
CHILD	1.44E-06	2.34E-06	2.84E-06	1.05E-06	5.94E-07	8.54E-05	3.65E-08	0.00E+00
MEAT								
ADULT	1.15E-07	8.58E-07	2.72E-08	9.41E-08	2.95E-08	8.87E-07	3.58E-09	0.00E+00
TEEN	9.01E-08	4.62E-07	2.12E-08	7.31E-08	2.22E-08	6.42E-07	3.24E-09	0.00E+00
CHILD	1.38E-07	2.34E-07	3.64E-08	8.71E-08	2.58E-08	9.69E-07	3.69E-09	0.00E+00
COW MILK								
ADULT	1.54E-07	2.96E-07	1.56E-07	2.66E-07	2.39E-07	2.51E-05	5.43E-09	0.00E+00
TEEN	2.41E-07	3.50E-07	2.71E-07	4.58E-07	4.11E-07	3.98E-05	1.12E-08	0.00E+00
CHILD	4.39E-07	2.34E-07	6.30E-07	7.41E-07	6.57E-07	7.90E-05	1.71E-08	0.00E+00
INFANT	6.67E-07	6.46E-07	1.13E-06	1.50E-06	1.05E-06	1.92E-04	3.14E-08	0.00E+00
GOATMILK								
ADULT	1.51E-07	7.18E-08	2.21E-07	2.44E-07	2.18E-07	3.01E-05	1.49E-08	0.00E+00
TEEN	1.89E-07	9.13E-08	4.01E-07	4.30E-07	3.87E-07	4.78E-05	3.09E-08	0.00E+00
CHILD	2.64E-07	6.80E-08	9.71E-07	7.41E-07	6.40E-07	9.48E-05	4.74E-08	0.00E+00
INFANT	4.26E-07	1.17E-07	1.76E-06	1.58E-06	1.09E-06	2.30E-04	8.59E-08	0.00E+00
INHAL								
ADULT	1.88E-08	1.65E-07	2.40E-08	3.61E-08	4.75E-08	5.70E-06	2.32E-06	0.00E+00
TEEN	2.44E-08	1.93E-07	3.36E-08	4.91E-08	6.55E-08	7.30E-06	3.40E-06	0.00E+00
CHILD	2.71E-08	3.78E-07	4.56E-08	4.70E-08	6.12E-08	8.74E-06	2.77E-06	0.00E+00
INFANT	1.73E-08	3.00E-07	3.42E-08	4.04E-08	4.00E-08	8.03E-06	1.81E-06	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 3.77E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.87E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.94E-04	3.98E-04	7.58E-04
GROUND	2.28E-05	2.28E-05	2.28E-05	2.28E-05	2.28E-05	2.28E-05	2.28E-05	2.68E-05
VEGET								
ADULT	4.78E-07	3.21E-06	8.01E-07	3.67E-07	2.14E-07	3.27E-05	1.03E-08	0.00E+00
TEEN	7.10E-07	3.44E-06	1.32E-06	5.63E-07	3.25E-07	4.40E-05	1.91E-08	0.00E+00
CHILD	1.37E-06	2.27E-06	3.20E-06	9.06E-07	5.19E-07	8.43E-05	2.89E-08	0.00E+00
MEAT								
ADULT	1.03E-07	8.12E-07	1.67E-08	6.19E-08	1.25E-08	8.75E-07	1.47E-09	0.00E+00
TEEN	8.00E-08	4.37E-07	1.36E-08	4.82E-08	9.68E-09	6.34E-07	1.35E-09	0.00E+00
CHILD	1.23E-07	2.21E-07	2.45E-08	5.81E-08	1.17E-08	9.57E-07	1.55E-09	0.00E+00
COW MILK								
ADULT	1.11E-07	2.30E-07	1.31E-07	1.69E-07	1.73E-07	2.48E-05	5.60E-09	0.00E+00
TEEN	1.65E-07	2.75E-07	2.36E-07	2.96E-07	3.04E-07	3.93E-05	1.16E-08	0.00E+00
CHILD	2.85E-07	1.87E-07	5.66E-07	4.99E-07	4.99E-07	7.79E-05	1.78E-08	0.00E+00
INFANT	4.68E-07	2.80E-07	1.06E-06	1.08E-06	8.40E-07	1.89E-04	3.23E-08	0.00E+00
GOATMILK								
ADULT	1.52E-07	6.54E-08	2.36E-07	2.42E-07	2.12E-07	2.97E-05	1.62E-08	0.00E+00
TEEN	1.86E-07	8.44E-08	4.30E-07	4.28E-07	3.77E-07	4.71E-05	3.35E-08	0.00E+00
CHILD	2.50E-07	6.40E-08	1.05E-06	7.43E-07	6.26E-07	9.35E-05	5.15E-08	0.00E+00
INFANT	4.05E-07	7.50E-08	1.90E-06	1.59E-06	1.07E-06	2.27E-04	9.33E-08	0.00E+00
INHAL								
ADULT	3.85E-08	2.74E-07	5.07E-08	7.17E-08	9.97E-08	1.23E-05	4.81E-06	0.00E+00
TEEN	4.97E-08	2.70E-07	7.15E-08	9.81E-08	1.38E-07	1.57E-05	7.05E-06	0.00E+00
CHILD	5.50E-08	2.25E-07	9.76E-08	9.50E-08	1.29E-07	1.89E-05	5.72E-06	0.00E+00
INFANT	3.57E-08	1.45E-07	7.34E-08	8.38E-08	8.53E-08	1.73E-05	3.69E-06	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 1.10E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.17E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.89E-04	1.75E-03
GROUND	6.96E-03	6.96E-03	6.96E-03	6.96E-03	6.96E-03	6.96E-03	6.96E-03	8.18E-03
VEGET								
ADULT	1.44E-04	1.00E-03	7.50E-04	1.02E-04	4.94E-05	6.22E-03	1.27E-06	0.00E+00
TEEN	2.21E-04	1.07E-03	1.06E-03	1.56E-04	7.42E-05	8.39E-03	2.28E-06	0.00E+00
CHILD	4.43E-04	7.07E-04	2.23E-03	2.42E-04	1.16E-04	1.61E-02	3.37E-06	0.00E+00
MEAT								
ADULT	3.39E-05	2.55E-04	1.28E-05	2.51E-05	7.60E-06	1.68E-04	4.79E-07	0.00E+00
TEEN	2.68E-05	1.37E-04	9.16E-06	1.94E-05	5.66E-06	1.22E-04	4.30E-07	0.00E+00
CHILD	4.15E-05	6.93E-05	1.48E-05	2.29E-05	6.52E-06	1.83E-04	4.87E-07	0.00E+00
COW MILK								
ADULT	3.32E-05	8.47E-05	5.58E-05	5.68E-05	5.04E-05	4.64E-03	2.30E-07	0.00E+00
TEEN	5.61E-05	9.93E-05	8.94E-05	9.68E-05	8.53E-05	7.35E-03	4.67E-07	0.00E+00
CHILD	1.10E-04	6.56E-05	1.93E-04	1.52E-04	1.34E-04	1.45E-02	7.10E-07	0.00E+00
INFANT	1.64E-04	1.84E-04	2.83E-04	2.99E-04	2.09E-04	3.53E-02	1.35E-06	0.00E+00
GOATMILK								
ADULT	1.66E-05	1.71E-05	8.51E-05	2.60E-05	3.37E-05	5.57E-03	4.54E-07	0.00E+00
TEEN	2.58E-05	2.13E-05	1.36E-04	4.56E-05	5.95E-05	8.81E-03	9.37E-07	0.00E+00
CHILD	4.65E-05	1.54E-05	2.98E-04	7.74E-05	9.80E-05	1.74E-02	1.44E-06	0.00E+00
INFANT	7.83E-05	2.95E-05	4.20E-04	1.75E-04	1.67E-04	4.23E-02	2.61E-06	0.00E+00
INHAL								
ADULT	2.77E-06	2.46E-05	8.59E-06	4.04E-06	3.50E-06	4.82E-04	4.78E-04	0.00E+00
TEEN	3.67E-06	2.39E-05	1.03E-05	5.45E-06	4.78E-06	5.97E-04	6.98E-04	0.00E+00
CHILD	4.15E-06	2.29E-05	1.24E-05	5.10E-06	4.44E-06	6.73E-04	5.66E-04	0.00E+00
INFANT	2.51E-06	1.66E-05	6.14E-06	4.15E-06	2.86E-06	6.15E-04	3.64E-04	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 4.22E-04 MILLRADS
 ANNUAL GAMMA AIR DOSE = 3.85E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.54E-04	2.54E-04	2.54E-04	2.54E-04	2.54E-04	2.54E-04	2.58E-04	5.61E-04
GROUND	4.36E-03	4.36E-03	4.36E-03	4.36E-03	4.36E-03	4.36E-03	4.36E-03	5.13E-03
VEGET								
ADULT	8.95E-05	6.26E-04	4.71E-04	6.24E-05	3.01E-05	3.95E-03	7.77E-07	0.00E+00
TEEN	1.37E-04	6.68E-04	6.55E-04	9.52E-05	4.54E-05	5.32E-03	1.39E-06	0.00E+00
CHILD	2.74E-04	4.40E-04	1.37E-03	1.48E-04	7.09E-05	1.02E-02	2.05E-06	0.00E+00
MEAT								
ADULT	2.09E-05	1.59E-04	7.83E-06	1.49E-05	4.24E-06	1.07E-04	2.98E-07	0.00E+00
TEEN	1.65E-05	8.56E-05	5.56E-06	1.16E-05	3.16E-06	7.72E-05	2.68E-07	0.00E+00
CHILD	2.56E-05	4.33E-05	8.90E-06	1.37E-05	3.64E-06	1.16E-04	3.03E-07	0.00E+00
COW MILK								
ADULT	1.94E-05	5.11E-05	3.40E-05	3.25E-05	2.97E-05	2.95E-03	1.23E-07	0.00E+00
TEEN	3.28E-05	5.99E-05	5.40E-05	5.54E-05	5.04E-05	4.66E-03	2.49E-07	0.00E+00
CHILD	6.41E-05	3.97E-05	1.16E-04	8.77E-05	7.97E-05	9.21E-03	3.78E-07	0.00E+00
INFANT	9.66E-05	1.04E-04	1.66E-04	1.74E-04	1.25E-04	2.24E-02	7.29E-07	0.00E+00
GOATMILK								
ADULT	9.92E-06	1.01E-05	5.30E-05	1.55E-05	2.09E-05	3.54E-03	2.19E-07	0.00E+00
TEEN	1.56E-05	1.26E-05	8.37E-05	2.72E-05	3.69E-05	5.59E-03	4.52E-07	0.00E+00
CHILD	2.83E-05	9.05E-06	1.81E-04	4.62E-05	6.09E-05	1.11E-02	6.94E-07	0.00E+00
INFANT	4.80E-05	1.67E-05	2.45E-04	1.05E-04	1.04E-04	2.69E-02	1.26E-06	0.00E+00
INHAL								
ADULT	2.06E-06	2.10E-05	7.17E-06	2.83E-06	2.60E-06	4.08E-04	4.12E-04	0.00E+00
TEEN	2.70E-06	1.94E-05	8.55E-06	3.80E-06	3.55E-06	5.05E-04	6.03E-04	0.00E+00
CHILD	3.00E-06	8.79E-06	1.02E-05	3.50E-06	3.29E-06	5.68E-04	4.89E-04	0.00E+00
INFANT	1.74E-06	4.01E-06	4.90E-06	2.73E-06	2.11E-06	5.19E-04	3.13E-04	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 6.35E-04 MILLRADS
 ANNUAL GAMMA AIR DOSE = 9.40E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.31E-04	6.31E-04	6.31E-04	6.31E-04	6.31E-04	6.31E-04	6.37E-04	1.25E-03
GROUND	2.75E-03	2.75E-03	2.75E-03	2.75E-03	2.75E-03	2.75E-03	2.75E-03	3.24E-03
VEGET								
ADULT	5.81E-05	4.02E-04	2.94E-04	4.23E-05	2.03E-05	2.26E-03	5.34E-07	0.00E+00
TEEN	8.93E-05	4.31E-04	4.29E-04	6.47E-05	3.04E-05	3.05E-03	9.61E-07	0.00E+00
CHILD	1.79E-04	2.85E-04	9.40E-04	1.00E-04	4.72E-05	5.84E-03	1.42E-06	0.00E+00
MEAT								
ADULT	1.39E-05	1.02E-04	5.35E-06	1.12E-05	3.89E-06	6.10E-05	1.90E-07	0.00E+00
TEEN	1.10E-05	5.47E-05	3.91E-06	8.68E-06	2.89E-06	4.42E-05	1.71E-07	0.00E+00
CHILD	1.70E-05	2.76E-05	6.41E-06	1.02E-05	3.31E-06	6.67E-05	1.94E-07	0.00E+00
COW MILK								
ADULT	1.54E-05	3.67E-05	2.36E-05	2.75E-05	2.27E-05	1.69E-03	1.27E-07	0.00E+00
TEEN	2.60E-05	4.30E-05	3.84E-05	4.67E-05	3.81E-05	2.67E-03	2.58E-07	0.00E+00
CHILD	5.10E-05	2.83E-05	8.42E-05	7.29E-05	5.94E-05	5.28E-03	3.94E-07	0.00E+00
INFANT	7.40E-05	9.19E-05	1.30E-04	1.39E-04	9.00E-05	1.28E-02	7.39E-07	0.00E+00
GOATMILK								
ADULT	7.23E-06	7.69E-06	3.40E-05	1.13E-05	1.31E-05	2.03E-03	2.92E-07	0.00E+00
TEEN	1.09E-05	9.60E-06	5.61E-05	1.99E-05	2.31E-05	3.20E-03	6.04E-07	0.00E+00
CHILD	1.92E-05	6.95E-06	1.26E-04	3.36E-05	3.80E-05	6.33E-03	9.28E-07	0.00E+00
INFANT	3.17E-05	1.46E-05	1.94E-04	7.36E-05	6.41E-05	1.54E-02	1.68E-06	0.00E+00
INHAL								
ADULT	2.37E-06	5.63E-06	3.03E-06	4.29E-06	2.66E-06	9.64E-05	9.93E-05	0.00E+00
TEEN	3.25E-06	7.65E-06	3.93E-06	5.92E-06	3.65E-06	1.19E-04	1.46E-04	0.00E+00
CHILD	4.02E-06	2.79E-05	5.05E-06	5.82E-06	3.42E-06	1.34E-04	1.18E-04	0.00E+00
INFANT	2.83E-06	2.71E-05	3.32E-06	5.36E-06	2.24E-06	1.23E-04	7.73E-05	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 2.83E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.44E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	3.01E-04	5.84E-04
GROUND	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.72E-04
VEGET								
ADULT	3.14E-06	2.16E-05	1.55E-05	2.35E-06	1.12E-06	1.12E-04	2.98E-08	0.00E+00
TEEN	4.84E-06	2.32E-05	2.34E-05	3.59E-06	1.67E-06	1.51E-04	5.39E-08	0.00E+00
CHILD	9.75E-06	1.54E-05	5.26E-05	5.56E-06	2.58E-06	2.89E-04	8.01E-08	0.00E+00
MEAT								
ADULT	7.63E-07	5.44E-06	2.98E-07	6.57E-07	2.47E-07	3.02E-06	1.02E-08	0.00E+00
TEEN	6.03E-07	2.93E-06	2.21E-07	5.08E-07	1.83E-07	2.18E-06	9.17E-09	0.00E+00
CHILD	9.33E-07	1.48E-06	3.67E-07	5.96E-07	2.09E-07	3.30E-06	1.04E-08	0.00E+00
COW MILK								
ADULT	9.25E-07	2.10E-06	1.32E-06	1.69E-06	1.34E-06	8.35E-05	8.35E-09	0.00E+00
TEEN	1.56E-06	2.46E-06	2.18E-06	2.87E-06	2.23E-06	1.32E-04	1.71E-08	0.00E+00
CHILD	3.06E-06	1.62E-06	4.84E-06	4.46E-06	3.45E-06	2.61E-04	2.61E-08	0.00E+00
INFANT	4.37E-06	5.76E-06	7.72E-06	8.37E-06	5.14E-06	6.34E-04	4.85E-08	0.00E+00
GOATMILK								
ADULT	4.16E-07	4.52E-07	1.83E-06	6.54E-07	6.94E-07	1.00E-04	2.07E-08	0.00E+00
TEEN	6.12E-07	5.65E-07	3.10E-06	1.14E-06	1.22E-06	1.58E-04	4.27E-08	0.00E+00
CHILD	1.06E-06	4.10E-07	7.13E-06	1.92E-06	1.99E-06	3.13E-04	6.56E-08	0.00E+00
INFANT	1.73E-06	9.07E-07	1.16E-05	4.14E-06	3.34E-06	7.61E-04	1.19E-07	0.00E+00
INHAL								
ADULT	1.08E-06	1.22E-06	9.99E-07	2.02E-06	1.18E-06	1.62E-05	1.83E-05	0.00E+00
TEEN	1.48E-06	2.40E-06	1.36E-06	2.80E-06	1.62E-06	2.01E-05	2.70E-05	0.00E+00
CHILD	1.86E-06	1.38E-05	1.81E-06	2.76E-06	1.52E-06	2.27E-05	2.20E-05	0.00E+00
INFANT	1.35E-06	1.38E-05	1.34E-06	2.59E-06	9.98E-07	2.08E-05	1.48E-05	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 7.81E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.10E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.38E-05	7.38E-05	7.38E-05	7.38E-05	7.38E-05	7.38E-05	7.46E-05	1.47E-04
GROUND	2.38E-04	2.38E-04	2.38E-04	2.38E-04	2.38E-04	2.38E-04	2.38E-04	2.80E-04
VEGET								
ADULT	5.00E-06	3.47E-05	2.55E-05	3.62E-06	1.73E-06	1.97E-04	4.56E-08	0.00E+00
TEEN	7.69E-06	3.72E-05	3.70E-05	5.52E-06	2.59E-06	2.65E-04	8.19E-08	0.00E+00
CHILD	1.54E-05	2.46E-05	8.03E-05	8.57E-06	4.02E-06	5.08E-04	1.21E-07	0.00E+00
MEAT								
ADULT	1.19E-06	8.79E-06	4.57E-07	9.46E-07	3.19E-07	5.30E-06	1.64E-08	0.00E+00
TEEN	9.44E-07	4.73E-06	3.33E-07	7.32E-07	2.37E-07	3.84E-06	1.48E-08	0.00E+00
CHILD	1.46E-06	2.39E-06	5.44E-07	8.62E-07	2.72E-07	5.80E-06	1.68E-08	0.00E+00
COW MILK								
ADULT	1.29E-06	3.12E-06	2.01E-06	2.28E-06	1.90E-06	1.47E-04	1.03E-08	0.00E+00
TEEN	2.17E-06	3.65E-06	3.26E-06	3.87E-06	3.19E-06	2.32E-04	2.09E-08	0.00E+00
CHILD	4.25E-06	2.40E-06	7.12E-06	6.05E-06	4.98E-06	4.59E-04	3.19E-08	0.00E+00
INFANT	6.21E-06	7.58E-06	1.08E-05	1.16E-05	7.58E-06	1.11E-03	6.00E-08	0.00E+00
GOATMILK								
ADULT	6.08E-07	6.46E-07	2.93E-06	9.52E-07	1.13E-06	1.76E-04	2.31E-08	0.00E+00
TEEN	9.22E-07	8.05E-07	4.81E-06	1.67E-06	1.98E-06	2.79E-04	4.77E-08	0.00E+00
CHILD	1.63E-06	5.82E-07	1.08E-05	2.82E-06	3.26E-06	5.50E-04	7.33E-08	0.00E+00
INFANT	2.70E-06	1.20E-06	1.62E-05	6.22E-06	5.51E-06	1.34E-03	1.33E-07	0.00E+00
INHAL								
ADULT	3.24E-07	1.19E-06	5.33E-07	5.63E-07	3.72E-07	2.21E-05	2.21E-05	0.00E+00
TEEN	4.41E-07	1.37E-06	6.73E-07	7.74E-07	5.10E-07	2.73E-05	3.24E-05	0.00E+00
CHILD	5.36E-07	3.32E-06	8.44E-07	7.54E-07	4.76E-07	3.07E-05	2.63E-05	0.00E+00
INFANT	3.69E-07	3.11E-06	5.07E-07	6.81E-07	3.11E-07	2.81E-05	1.70E-05	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 1.71E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 2.38E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.60E-02	1.60E-02	1.60E-02	1.60E-02	1.60E-02	1.60E-02	1.62E-02	3.32E-02
GROUND	8.23E-03	8.23E-03	8.23E-03	8.23E-03	8.23E-03	8.23E-03	8.23E-03	9.68E-03
VEGET								
ADULT	1.70E-04	1.18E-03	8.10E-04	1.21E-04	6.05E-05	8.09E-03	1.77E-06	0.00E+00
TEEN	2.60E-04	1.26E-03	1.14E-03	1.84E-04	9.11E-05	1.09E-02	3.20E-06	0.00E+00
CHILD	5.17E-04	8.31E-04	2.42E-03	2.88E-04	1.43E-04	2.09E-02	4.75E-06	0.00E+00
MEAT								
ADULT	3.93E-05	2.99E-04	1.37E-05	2.78E-05	7.81E-06	2.18E-04	5.44E-07	0.00E+00
TEEN	3.10E-05	1.61E-04	9.83E-06	2.15E-05	5.84E-06	1.58E-04	4.90E-07	0.00E+00
CHILD	4.80E-05	8.14E-05	1.59E-05	2.55E-05	6.76E-06	2.38E-04	5.56E-07	0.00E+00
COW MILK								
ADULT	3.79E-05	9.57E-05	6.27E-05	6.32E-05	5.82E-05	6.06E-03	4.93E-07	0.00E+00
TEEN	6.30E-05	1.13E-04	1.01E-04	1.08E-04	9.93E-05	9.59E-03	1.01E-06	0.00E+00
CHILD	1.21E-04	7.47E-05	2.21E-04	1.72E-04	1.58E-04	1.90E-02	1.54E-06	0.00E+00
INFANT	1.84E-04	1.89E-04	3.32E-04	3.45E-04	2.50E-04	4.61E-02	2.87E-06	0.00E+00
GOATMILK								
ADULT	2.42E-05	2.03E-05	9.88E-05	3.80E-05	4.51E-05	7.27E-03	1.21E-06	0.00E+00
TEEN	3.52E-05	2.54E-05	1.60E-04	6.68E-05	7.98E-05	1.15E-02	2.50E-06	0.00E+00
CHILD	5.95E-05	1.84E-05	3.52E-04	1.14E-04	1.32E-04	2.28E-02	3.85E-06	0.00E+00
INFANT	9.97E-05	3.21E-05	5.10E-04	2.55E-04	2.25E-04	5.53E-02	6.97E-06	0.00E+00
INHAL								
ADULT	3.36E-06	3.04E-05	9.70E-06	5.10E-06	5.18E-06	7.10E-04	5.78E-04	0.00E+00
TEEN	4.41E-06	3.11E-05	1.18E-05	6.90E-06	7.10E-06	8.88E-04	8.45E-04	0.00E+00
CHILD	4.95E-06	4.38E-05	1.44E-05	6.48E-06	6.62E-06	1.02E-03	6.86E-04	0.00E+00
INFANT	3.00E-06	3.37E-05	7.46E-06	5.33E-06	4.30E-06	9.36E-04	4.41E-04	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 1.48E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 2.05E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.38E-02	1.40E-02	2.87E-02
GROUND	5.21E-03	5.21E-03	5.21E-03	5.21E-03	5.21E-03	5.21E-03	5.21E-03	6.13E-03
VEGET								
ADULT	1.07E-04	7.46E-04	5.13E-04	7.58E-05	3.80E-05	5.16E-03	1.11E-06	0.00E+00
TEEN	1.64E-04	7.97E-04	7.21E-04	1.16E-04	5.73E-05	6.95E-03	2.00E-06	0.00E+00
CHILD	3.26E-04	5.24E-04	1.52E-03	1.81E-04	9.01E-05	1.33E-02	2.98E-06	0.00E+00
MEAT								
ADULT	2.47E-05	1.89E-04	8.56E-06	1.72E-05	4.72E-06	1.39E-04	3.40E-07	0.00E+00
TEEN	1.95E-05	1.02E-04	6.14E-06	1.34E-05	3.54E-06	1.01E-04	3.06E-07	0.00E+00
CHILD	3.02E-05	5.15E-05	9.94E-06	1.58E-05	4.10E-06	1.52E-04	3.47E-07	0.00E+00
COW MILK								
ADULT	2.35E-05	5.97E-05	3.93E-05	3.88E-05	3.61E-05	3.86E-03	3.07E-07	0.00E+00
TEEN	3.89E-05	7.03E-05	6.34E-05	6.64E-05	6.18E-05	6.12E-03	6.28E-07	0.00E+00
CHILD	7.49E-05	4.67E-05	1.38E-04	1.06E-04	9.83E-05	1.21E-02	9.59E-07	0.00E+00
INFANT	1.14E-04	1.15E-04	2.07E-04	2.13E-04	1.56E-04	2.94E-02	1.79E-06	0.00E+00
GOATMILK								
ADULT	1.52E-05	1.26E-05	6.24E-05	2.39E-05	2.86E-05	4.64E-03	7.51E-07	0.00E+00
TEEN	2.22E-05	1.58E-05	1.01E-04	4.20E-05	5.06E-05	7.34E-03	1.55E-06	0.00E+00
CHILD	3.75E-05	1.15E-05	2.21E-04	7.19E-05	8.36E-05	1.45E-02	2.38E-06	0.00E+00
INFANT	6.29E-05	1.96E-05	3.18E-04	1.61E-04	1.43E-04	3.53E-02	4.32E-06	0.00E+00
INHAL								
ADULT	2.76E-06	2.61E-05	8.27E-06	4.14E-06	4.34E-06	6.16E-04	4.98E-04	0.00E+00
TEEN	3.61E-06	2.66E-05	1.00E-05	5.58E-06	5.95E-06	7.71E-04	7.28E-04	0.00E+00
CHILD	4.02E-06	3.59E-05	1.22E-05	5.23E-06	5.54E-06	8.87E-04	5.91E-04	0.00E+00
INFANT	2.41E-06	2.71E-05	6.28E-06	4.25E-06	3.60E-06	8.13E-04	3.80E-04	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 5.64E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 8.23E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.54E-03	5.54E-03	5.54E-03	5.54E-03	5.54E-03	5.54E-03	5.59E-03	1.12E-02
GROUND	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.86E-03
VEGET								
ADULT	6.97E-05	4.80E-04	3.22E-04	5.18E-05	2.56E-05	2.95E-03	7.77E-07	0.00E+00
TEEN	1.07E-04	5.15E-04	4.74E-04	7.92E-05	3.85E-05	3.97E-03	1.41E-06	0.00E+00
CHILD	2.14E-04	3.41E-04	1.05E-03	1.23E-04	5.99E-05	7.61E-03	2.09E-06	0.00E+00
MEAT								
ADULT	1.66E-05	1.21E-04	6.06E-06	1.34E-05	4.59E-06	7.93E-05	2.48E-07	0.00E+00
TEEN	1.31E-05	6.54E-05	4.46E-06	1.03E-05	3.41E-06	5.75E-05	2.23E-07	0.00E+00
CHILD	2.02E-05	3.30E-05	7.36E-06	1.22E-05	3.92E-06	8.67E-05	2.54E-07	0.00E+00
COW MILK								
ADULT	1.89E-05	4.37E-05	2.75E-05	3.35E-05	2.80E-05	2.21E-03	2.33E-07	0.00E+00
TEEN	3.15E-05	5.12E-05	4.53E-05	5.71E-05	4.71E-05	3.49E-03	4.78E-07	0.00E+00
CHILD	6.12E-05	3.38E-05	1.00E-04	8.96E-05	7.38E-05	6.91E-03	7.31E-07	0.00E+00
INFANT	8.94E-05	1.08E-04	1.58E-04	1.72E-04	1.13E-04	1.68E-02	1.35E-06	0.00E+00
GOATMILK								
ADULT	1.04E-05	9.43E-06	3.98E-05	1.64E-05	1.77E-05	2.65E-03	5.91E-07	0.00E+00
TEEN	1.49E-05	1.18E-05	6.66E-05	2.87E-05	3.11E-05	4.19E-03	1.22E-06	0.00E+00
CHILD	2.49E-05	8.59E-06	1.52E-04	4.87E-05	5.12E-05	8.29E-03	1.87E-06	0.00E+00
INFANT	4.09E-05	1.74E-05	2.40E-04	1.06E-04	8.65E-05	2.01E-02	3.40E-06	0.00E+00
INHAL								
ADULT	3.06E-06	6.95E-06	3.63E-06	5.60E-06	3.60E-06	1.38E-04	1.18E-04	0.00E+00
TEEN	4.18E-06	1.01E-05	4.79E-06	7.73E-06	4.95E-06	1.73E-04	1.74E-04	0.00E+00
CHILD	5.17E-06	4.06E-05	6.21E-06	7.60E-06	4.63E-06	1.99E-04	1.41E-04	0.00E+00
INFANT	3.66E-06	3.91E-05	4.22E-06	7.01E-06	3.04E-06	1.82E-04	9.26E-05	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 1.64E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.52E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.71E-03	3.35E-03
GROUND	1.81E-04	1.81E-04	1.81E-04	1.81E-04	1.81E-04	1.81E-04	1.81E-04	2.13E-04
VEGET								
ADULT	3.89E-06	2.68E-05	1.77E-05	2.96E-06	1.45E-06	1.54E-04	4.49E-08	0.00E+00
TEEN	5.98E-06	2.87E-05	2.67E-05	4.53E-06	2.18E-06	2.08E-04	8.12E-08	0.00E+00
CHILD	1.20E-05	1.91E-05	6.01E-05	7.04E-06	3.37E-06	3.98E-04	1.21E-07	0.00E+00
MEAT								
ADULT	9.41E-07	6.76E-06	3.51E-07	8.01E-07	2.94E-07	4.15E-06	1.45E-08	0.00E+00
TEEN	7.42E-07	3.64E-06	2.61E-07	6.20E-07	2.18E-07	3.01E-06	1.31E-08	0.00E+00
CHILD	1.15E-06	1.84E-06	4.34E-07	7.29E-07	2.50E-07	4.54E-06	1.49E-08	0.00E+00
COW MILK								
ADULT	1.14E-06	2.56E-06	1.59E-06	2.08E-06	1.67E-06	1.15E-04	1.39E-08	0.00E+00
TEEN	1.91E-06	3.00E-06	2.63E-06	3.53E-06	2.80E-06	1.83E-04	2.85E-08	0.00E+00
CHILD	3.72E-06	1.98E-06	5.85E-06	5.51E-06	4.36E-06	3.61E-04	4.35E-08	0.00E+00
INFANT	5.36E-06	6.82E-06	9.41E-06	1.05E-05	6.57E-06	8.78E-04	8.05E-08	0.00E+00
GOATMILK								
ADULT	5.89E-07	5.56E-07	2.21E-06	9.34E-07	9.62E-07	1.38E-04	3.55E-08	0.00E+00
TEEN	8.40E-07	6.97E-07	3.75E-06	1.64E-06	1.69E-06	2.19E-04	7.34E-08	0.00E+00
CHILD	1.40E-06	5.07E-07	8.67E-06	2.77E-06	2.78E-06	4.33E-04	1.13E-07	0.00E+00
INFANT	2.28E-06	1.09E-06	1.42E-05	5.95E-06	4.67E-06	1.05E-03	2.04E-07	0.00E+00
INHAL								
ADULT	1.46E-06	1.56E-06	1.30E-06	2.76E-06	1.62E-06	2.25E-05	2.20E-05	0.00E+00
TEEN	2.02E-06	3.23E-06	1.78E-06	3.82E-06	2.24E-06	2.82E-05	3.26E-05	0.00E+00
CHILD	2.53E-06	1.91E-05	2.39E-06	3.78E-06	2.10E-06	3.24E-05	2.66E-05	0.00E+00
INFANT	1.83E-06	1.91E-05	1.80E-06	3.54E-06	1.38E-06	2.96E-05	1.80E-05	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 3.94E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.82E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.94E-04	7.66E-04
GROUND	2.24E-04	2.24E-04	2.24E-04	2.24E-04	2.24E-04	2.24E-04	2.24E-04	2.63E-04
VEGET								
ADULT	4.69E-06	3.25E-05	2.20E-05	3.41E-06	1.68E-06	2.06E-04	5.08E-08	0.00E+00
TEEN	7.18E-06	3.47E-05	3.18E-05	5.21E-06	2.53E-06	2.77E-04	9.18E-08	0.00E+00
CHILD	1.43E-05	2.29E-05	6.89E-05	8.13E-06	3.95E-06	5.31E-04	1.37E-07	0.00E+00
MEAT								
ADULT	1.10E-06	8.22E-06	3.95E-07	8.42E-07	2.68E-07	5.54E-06	1.59E-08	0.00E+00
TEEN	8.71E-07	4.42E-06	2.88E-07	6.52E-07	2.00E-07	4.01E-06	1.44E-08	0.00E+00
CHILD	1.35E-06	2.24E-06	4.71E-07	7.69E-07	2.30E-07	6.06E-06	1.63E-08	0.00E+00
COW MILK								
ADULT	1.17E-06	2.81E-06	1.79E-06	2.03E-06	1.75E-06	1.54E-04	1.48E-08	0.00E+00
TEEN	1.95E-06	3.30E-06	2.93E-06	3.45E-06	2.96E-06	2.44E-04	3.03E-08	0.00E+00
CHILD	3.77E-06	2.18E-06	6.44E-06	5.45E-06	4.66E-06	4.82E-04	4.64E-08	0.00E+00
INFANT	5.58E-06	6.36E-06	9.94E-06	1.06E-05	7.21E-06	1.17E-03	8.60E-08	0.00E+00
GOATMILK								
ADULT	6.78E-07	5.98E-07	2.69E-06	1.07E-06	1.19E-06	1.85E-04	3.70E-08	0.00E+00
TEEN	9.79E-07	7.48E-07	4.44E-06	1.87E-06	2.11E-06	2.92E-04	7.65E-08	0.00E+00
CHILD	1.64E-06	5.44E-07	9.97E-06	3.19E-06	3.47E-06	5.78E-04	1.18E-07	0.00E+00
INFANT	2.72E-06	1.04E-06	1.52E-05	7.02E-06	5.89E-06	1.40E-03	2.13E-07	0.00E+00
INHAL								
ADULT	3.34E-07	1.65E-06	6.24E-07	5.66E-07	4.32E-07	3.65E-05	3.09E-05	0.00E+00
TEEN	4.49E-07	1.74E-06	7.82E-07	7.75E-07	5.93E-07	4.56E-05	4.52E-05	0.00E+00
CHILD	5.35E-07	2.97E-06	9.76E-07	7.51E-07	5.54E-07	5.22E-05	3.66E-05	0.00E+00
INFANT	3.59E-07	2.64E-06	5.70E-07	6.66E-07	3.62E-07	4.78E-05	2.36E-05	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022

SPECIAL LOCATION NO. 1A Site Boundary
 AT .67 MILES N

ANNUAL BETA AIR DOSE = 3.65E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 5.25E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.53E-02	3.53E-02	3.53E-02	3.53E-02	3.53E-02	3.53E-02	3.57E-02	7.19E-02
GROUND	8.31E-03	8.31E-03	8.31E-03	8.31E-03	8.31E-03	8.31E-03	8.31E-03	9.78E-03
VEGET								
ADULT	1.79E-04	1.21E-03	8.73E-04	1.31E-04	7.61E-05	1.07E-02	1.70E-06	0.00E+00
TEEN	2.73E-04	1.29E-03	1.26E-03	2.00E-04	1.14E-04	1.44E-02	3.08E-06	0.00E+00
CHILD	5.44E-04	8.52E-04	2.71E-03	3.15E-04	1.80E-04	2.76E-02	4.57E-06	0.00E+00
MEAT								
ADULT	4.03E-05	3.03E-04	1.47E-05	2.95E-05	9.13E-06	2.87E-04	5.22E-07	0.00E+00
TEEN	3.18E-05	1.63E-04	1.07E-05	2.28E-05	6.84E-06	2.08E-04	4.71E-07	0.00E+00
CHILD	4.93E-05	8.24E-05	1.75E-05	2.70E-05	7.94E-06	3.14E-04	5.34E-07	0.00E+00
COW MILK								
ADULT	4.41E-05	1.02E-04	7.15E-05	7.51E-05	7.29E-05	8.05E-03	4.78E-07	0.00E+00
TEEN	7.35E-05	1.21E-04	1.17E-04	1.29E-04	1.25E-04	1.27E-02	9.79E-07	0.00E+00
CHILD	1.42E-04	8.06E-05	2.60E-04	2.06E-04	1.99E-04	2.53E-02	1.50E-06	0.00E+00
INFANT	2.17E-04	2.13E-04	4.10E-04	4.17E-04	3.18E-04	6.14E-02	2.78E-06	0.00E+00
GOATMILK								
ADULT	2.87E-05	2.45E-05	1.10E-04	4.60E-05	5.86E-05	9.66E-03	1.18E-06	0.00E+00
TEEN	4.30E-05	3.11E-05	1.81E-04	8.11E-05	1.04E-04	1.53E-02	2.43E-06	0.00E+00
CHILD	7.45E-05	2.30E-05	4.06E-04	1.39E-04	1.72E-04	3.03E-02	3.74E-06	0.00E+00
INFANT	1.28E-04	3.89E-05	6.23E-04	3.15E-04	2.94E-04	7.36E-02	6.77E-06	0.00E+00
INHAL								
ADULT	3.46E-06	2.90E-05	9.12E-06	5.99E-06	7.29E-06	9.21E-04	4.86E-04	0.00E+00
TEEN	4.56E-06	4.58E-05	1.14E-05	8.14E-06	1.00E-05	1.17E-03	7.14E-04	0.00E+00
CHILD	5.16E-06	1.99E-04	1.42E-05	7.77E-06	9.37E-06	1.38E-03	5.81E-04	0.00E+00
INFANT	3.25E-06	1.71E-04	8.13E-06	6.66E-06	6.13E-06	1.26E-03	3.81E-04	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 2A Site Boundary
 AT .60 MILES NNE

ANNUAL BETA AIR DOSE = 3.24E-02 MILLRADS
 ANNUAL GAMMA AIR DOSE = 4.67E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.14E-02	3.14E-02	3.14E-02	3.14E-02	3.14E-02	3.14E-02	3.17E-02	6.39E-02
GROUND	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	6.21E-03
VEGET								
ADULT	1.13E-04	7.64E-04	5.55E-04	8.29E-05	4.83E-05	6.89E-03	1.06E-06	0.00E+00
TEEN	1.73E-04	8.17E-04	7.96E-04	1.26E-04	7.27E-05	9.28E-03	1.92E-06	0.00E+00
CHILD	3.45E-04	5.40E-04	1.71E-03	1.99E-04	1.14E-04	1.78E-02	2.86E-06	0.00E+00
MEAT								
ADULT	2.55E-05	1.92E-04	9.24E-06	1.83E-05	5.54E-06	1.85E-04	3.25E-07	0.00E+00
TEEN	2.01E-05	1.03E-04	6.71E-06	1.42E-05	4.16E-06	1.34E-04	2.93E-07	0.00E+00
CHILD	3.11E-05	5.22E-05	1.10E-05	1.68E-05	4.83E-06	2.02E-04	3.32E-07	0.00E+00
COW MILK								
ADULT	2.74E-05	6.41E-05	4.51E-05	4.63E-05	4.57E-05	5.19E-03	2.94E-07	0.00E+00
TEEN	4.56E-05	7.56E-05	7.39E-05	7.95E-05	7.84E-05	8.22E-03	6.03E-07	0.00E+00
CHILD	8.80E-05	5.05E-05	1.64E-04	1.28E-04	1.25E-04	1.63E-02	9.22E-07	0.00E+00
INFANT	1.36E-04	1.30E-04	2.57E-04	2.60E-04	2.01E-04	3.96E-02	1.72E-06	0.00E+00
GOATMILK								
ADULT	1.82E-05	1.54E-05	6.98E-05	2.91E-05	3.75E-05	6.23E-03	7.22E-07	0.00E+00
TEEN	2.73E-05	1.95E-05	1.14E-04	5.13E-05	6.65E-05	9.86E-03	1.49E-06	0.00E+00
CHILD	4.73E-05	1.45E-05	2.56E-04	8.80E-05	1.10E-04	1.95E-02	2.29E-06	0.00E+00
INFANT	8.15E-05	2.40E-05	3.91E-04	2.00E-04	1.89E-04	4.75E-02	4.15E-06	0.00E+00
INHAL								
ADULT	3.04E-06	2.71E-05	8.38E-06	5.20E-06	6.50E-06	8.43E-04	4.56E-04	0.00E+00
TEEN	3.99E-06	4.27E-05	1.04E-05	7.06E-06	8.94E-06	1.07E-03	6.70E-04	0.00E+00
CHILD	4.48E-06	1.85E-04	1.30E-05	6.72E-06	8.36E-06	1.26E-03	5.45E-04	0.00E+00
INFANT	2.79E-06	1.58E-04	7.34E-06	5.71E-06	5.46E-06	1.16E-03	3.57E-04	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 3A Nearest Resident
 AT .90 MILES NW

ANNUAL BETA AIR DOSE = 8.36E-03 MILLRADS
 ANNUAL GAMMA AIR DOSE = 1.22E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.19E-03	8.19E-03	8.19E-03	8.19E-03	8.19E-03	8.19E-03	8.28E-03	1.66E-02
GROUND	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03	3.46E-03
VEGET								
ADULT	6.41E-05	4.32E-04	3.03E-04	4.87E-05	2.69E-05	3.35E-03	6.74E-07	0.00E+00
TEEN	9.81E-05	4.64E-04	4.50E-04	7.43E-05	4.03E-05	4.52E-03	1.22E-06	0.00E+00
CHILD	1.96E-04	3.07E-04	1.00E-03	1.16E-04	6.30E-05	8.65E-03	1.82E-06	0.00E+00
MEAT								
ADULT	1.49E-05	1.09E-04	5.61E-06	1.21E-05	4.28E-06	9.00E-05	2.12E-07	0.00E+00
TEEN	1.18E-05	5.85E-05	4.15E-06	9.36E-06	3.18E-06	6.52E-05	1.91E-07	0.00E+00
CHILD	1.82E-05	2.96E-05	6.87E-06	1.10E-05	3.67E-06	9.84E-05	2.17E-07	0.00E+00
COW MILK								
ADULT	1.81E-05	4.00E-05	2.66E-05	3.21E-05	2.84E-05	2.52E-03	2.05E-07	0.00E+00
TEEN	3.02E-05	4.70E-05	4.41E-05	5.48E-05	4.80E-05	3.99E-03	4.21E-07	0.00E+00
CHILD	5.84E-05	3.12E-05	9.83E-05	8.66E-05	7.56E-05	7.91E-03	6.43E-07	0.00E+00
INFANT	8.66E-05	9.85E-05	1.59E-04	1.69E-04	1.17E-04	1.92E-02	1.19E-06	0.00E+00
GOATMILK								
ADULT	1.04E-05	9.36E-06	3.84E-05	1.67E-05	1.94E-05	3.03E-03	5.21E-07	0.00E+00
TEEN	1.53E-05	1.18E-05	6.47E-05	2.94E-05	3.43E-05	4.79E-03	1.08E-06	0.00E+00
CHILD	2.61E-05	8.72E-06	1.48E-04	5.01E-05	5.66E-05	9.50E-03	1.65E-06	0.00E+00
INFANT	4.38E-05	1.68E-05	2.40E-04	1.11E-04	9.61E-05	2.31E-02	3.00E-06	0.00E+00
INHAL								
ADULT	2.34E-06	6.25E-06	2.97E-06	4.36E-06	3.17E-06	1.72E-04	9.78E-05	0.00E+00
TEEN	3.20E-06	1.13E-05	3.93E-06	6.01E-06	4.37E-06	2.18E-04	1.44E-04	0.00E+00
CHILD	3.93E-06	5.78E-05	5.11E-06	5.91E-06	4.09E-06	2.56E-04	1.17E-04	0.00E+00
INFANT	2.78E-06	5.31E-05	3.48E-06	5.44E-06	2.69E-06	2.35E-04	7.79E-05	0.00E+00

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TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 1.76E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.68E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.80E-03	1.82E-03	3.57E-03
GROUND	1.74E-04	1.74E-04	1.74E-04	1.74E-04	1.74E-04	1.74E-04	1.74E-04	2.05E-04
VEGET								
ADULT	3.83E-06	2.59E-05	1.78E-05	2.97E-06	1.59E-06	1.82E-04	4.27E-08	0.00E+00
TEEN	5.88E-06	2.78E-05	2.69E-05	4.53E-06	2.38E-06	2.45E-04	7.74E-08	0.00E+00
CHILD	1.18E-05	1.84E-05	6.08E-05	7.06E-06	3.70E-06	4.70E-04	1.15E-07	0.00E+00
MEAT								
ADULT	9.11E-07	6.50E-06	3.48E-07	7.80E-07	2.93E-07	4.89E-06	1.36E-08	0.00E+00
TEEN	7.18E-07	3.50E-06	2.60E-07	6.04E-07	2.18E-07	3.54E-06	1.23E-08	0.00E+00
CHILD	1.11E-06	1.77E-06	4.33E-07	7.10E-07	2.50E-07	5.35E-06	1.39E-08	0.00E+00
COW MILK								
ADULT	1.16E-06	2.51E-06	1.62E-06	2.11E-06	1.77E-06	1.37E-04	1.35E-08	0.00E+00
TEEN	1.94E-06	2.95E-06	2.71E-06	3.60E-06	2.98E-06	2.16E-04	2.77E-08	0.00E+00
CHILD	3.78E-06	1.95E-06	6.06E-06	5.64E-06	4.66E-06	4.29E-04	4.24E-08	0.00E+00
INFANT	5.50E-06	6.71E-06	9.90E-06	1.08E-05	7.12E-06	1.04E-03	7.84E-08	0.00E+00
GOATMILK								
ADULT	6.29E-07	5.80E-07	2.26E-06	1.01E-06	1.10E-06	1.64E-04	3.49E-08	0.00E+00
TEEN	9.09E-07	7.31E-07	3.86E-06	1.77E-06	1.94E-06	2.60E-04	7.20E-08	0.00E+00
CHILD	1.53E-06	5.37E-07	8.96E-06	3.00E-06	3.18E-06	5.14E-04	1.11E-07	0.00E+00
INFANT	2.54E-06	1.11E-06	1.49E-05	6.53E-06	5.38E-06	1.25E-03	2.00E-07	0.00E+00
INHAL								
ADULT	1.28E-06	1.34E-06	1.13E-06	2.43E-06	1.46E-06	2.47E-05	1.80E-05	0.00E+00
TEEN	1.77E-06	2.92E-06	1.57E-06	3.36E-06	2.02E-06	3.12E-05	2.68E-05	0.00E+00
CHILD	2.22E-06	1.78E-05	2.10E-06	3.33E-06	1.89E-06	3.65E-05	2.19E-05	0.00E+00
INFANT	1.61E-06	1.77E-05	1.59E-06	3.12E-06	1.24E-06	3.34E-05	1.49E-05	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 1.27E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.97E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.34E-03	2.58E-03
GROUND	2.40E-04	2.40E-04	2.40E-04	2.40E-04	2.40E-04	2.40E-04	2.40E-04	2.82E-04
VEGET								
ADULT	5.21E-06	3.51E-05	2.48E-05	3.93E-06	2.18E-06	2.79E-04	5.38E-08	0.00E+00
TEEN	7.97E-06	3.77E-05	3.66E-05	5.99E-06	3.27E-06	3.75E-04	9.73E-08	0.00E+00
CHILD	1.59E-05	2.49E-05	8.08E-05	9.37E-06	5.12E-06	7.19E-04	1.45E-07	0.00E+00
MEAT								
ADULT	1.21E-06	8.83E-06	4.50E-07	9.58E-07	3.31E-07	7.49E-06	1.68E-08	0.00E+00
TEEN	9.52E-07	4.75E-06	3.32E-07	7.42E-07	2.47E-07	5.42E-06	1.52E-08	0.00E+00
CHILD	1.47E-06	2.40E-06	5.49E-07	8.75E-07	2.85E-07	8.19E-06	1.72E-08	0.00E+00
COW MILK								
ADULT	1.43E-06	3.20E-06	2.14E-06	2.52E-06	2.26E-06	2.10E-04	1.61E-08	0.00E+00
TEEN	2.39E-06	3.76E-06	3.54E-06	4.31E-06	3.83E-06	3.32E-04	3.31E-08	0.00E+00
CHILD	4.62E-06	2.49E-06	7.89E-06	6.82E-06	6.06E-06	6.58E-04	5.05E-08	0.00E+00
INFANT	6.89E-06	7.65E-06	1.27E-05	1.34E-05	9.45E-06	1.60E-03	9.37E-08	0.00E+00
GOATMILK								
ADULT	8.44E-07	7.49E-07	3.13E-06	1.35E-06	1.60E-06	2.52E-04	4.08E-08	0.00E+00
TEEN	1.24E-06	9.47E-07	5.25E-06	2.37E-06	2.82E-06	3.98E-04	8.42E-08	0.00E+00
CHILD	2.12E-06	6.98E-07	1.20E-05	4.05E-06	4.65E-06	7.89E-04	1.29E-07	0.00E+00
INFANT	3.58E-06	1.32E-06	1.92E-05	9.00E-06	7.92E-06	1.92E-03	2.34E-07	0.00E+00
INHAL								
ADULT	3.63E-07	1.39E-06	5.81E-07	6.64E-07	5.57E-07	4.40E-05	2.36E-05	0.00E+00
TEEN	4.92E-07	1.93E-06	7.52E-07	9.12E-07	7.67E-07	5.57E-05	3.46E-05	0.00E+00
CHILD	5.93E-07	6.97E-06	9.62E-07	8.90E-07	7.18E-07	6.55E-05	2.81E-05	0.00E+00
INFANT	4.09E-07	6.27E-06	6.16E-07	8.07E-07	4.71E-07	6.01E-05	1.84E-05	0.00E+00

TABLE 8. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-MARCH 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 2.24E-04 : : 96.89% :	: 2.24E-04 : : 96.24% :	: 2.24E-04 : : 96.09% :	: 2.24E-04 : : 96.85% :	: 2.24E-04 : : 96.73% :	: 2.24E-04 : : 53.56% :	: 2.29E-04 : : 96.79% :	: 6.30E-04 : : 98.80% :
GROUND	: 6.50E-06 : : 2.81% :	: 6.50E-06 : : 2.79% :	: 6.50E-06 : : 2.79% :	: 6.50E-06 : : 2.81% :	: 6.50E-06 : : 2.81% :	: 6.50E-06 : : 1.55% :	: 6.50E-06 : : 2.75% :	: 7.65E-06 : : 1.20% :
INHAL	: 4.27E-08 : : .02% :	: 3.22E-07 : : .14% :	: 8.42E-08 : : .04% :	: 9.99E-08 : : .04% :	: 1.67E-07 : : .07% :	: 2.08E-05 : : 4.98% :	: 1.10E-06 : : .46% :	: 0.00E+00 : : .00% :
VEGET	: 2.58E-07 : : .11% :	: 1.28E-06 : : .55% :	: 1.72E-06 : : .74% :	: 1.16E-07 : : .05% :	: 2.05E-08 : : .01% :	: 1.96E-06 : : .47% :	: 1.23E-09 : : .00% :	: 0.00E+00 : : .00% :
COW MILK	: 3.30E-07 : : .14% :	: 2.58E-07 : : .11% :	: 7.69E-07 : : .33% :	: 5.41E-07 : : .23% :	: 8.62E-07 : : .37% :	: 1.62E-04 : : 38.64% :	: 1.60E-09 : : .00% :	: 0.00E+00 : : .00% :
MEAT	: 6.38E-08 : : .03% :	: 3.86E-07 : : .17% :	: 3.98E-08 : : .02% :	: 3.69E-08 : : .02% :	: 1.89E-08 : : .01% :	: 3.33E-06 : : .80% :	: 9.54E-11 : : .00% :	: 0.00E+00 : : .00% :
TOTAL	: 2.31E-04	: 2.33E-04	: 2.33E-04	: 2.31E-04	: 2.32E-04	: 4.18E-04	: 2.36E-04	: 6.37E-04

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TABLE 9. DOSES TO POPULATION WITHIN 50 MILES, APRIL-JUNE 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 2.77E-04	: 2.77E-04	: 2.77E-04	: 2.77E-04	: 2.77E-04	: 2.77E-04	: 2.82E-04	: 6.66E-04
	: 95.91%	: 95.28%	: 94.82%	: 95.66%	: 95.75%	: 55.46%	: 96.00%	: 98.24%
GROUND	: 1.01E-05	: 1.01E-05	: 1.01E-05	: 1.01E-05	: 1.01E-05	: 1.01E-05	: 1.01E-05	: 1.19E-05
	: 3.51%	: 3.49%	: 3.47%	: 3.50%	: 3.51%	: 2.03%	: 3.46%	: 1.76%
INHAL	: 5.31E-08	: 3.67E-07	: 1.12E-07	: 1.15E-07	: 1.82E-07	: 2.28E-05	: 1.58E-06	: 0.00E+00
	: .02%	: .13%	: .04%	: .04%	: .06%	: 4.57%	: .54%	: .00%
VEGET	: 4.91E-07	: 1.83E-06	: 3.33E-06	: 3.81E-07	: 1.69E-07	: 2.22E-06	: 5.66E-09	: 0.00E+00
	: .17%	: .63%	: 1.14%	: .13%	: .06%	: .44%	: .00%	: .00%
COW MILK	: 9.60E-07	: 7.72E-07	: 1.44E-06	: 1.73E-06	: 1.68E-06	: 1.83E-04	: 7.49E-09	: 0.00E+00
	: .33%	: .27%	: .49%	: .60%	: .58%	: 36.74%	: .00%	: .00%
MEAT	: 1.55E-07	: 6.02E-07	: 1.11E-07	: 1.90E-07	: 1.15E-07	: 3.77E-06	: 4.42E-10	: 0.00E+00
	: .05%	: .21%	: .04%	: .07%	: .04%	: .76%	: .00%	: .00%
TOTAL	: 2.89E-04	: 2.91E-04	: 2.92E-04	: 2.89E-04	: 2.89E-04	: 4.99E-04	: 2.93E-04	: 6.78E-04

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TABLE 10. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-JUNE 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.87E-04	4.87E-04	4.87E-04	4.87E-04	4.87E-04	4.87E-04	4.96E-04	1.28E-03
	96.27%	95.62%	95.28%	96.11%	96.11%	53.93%	96.28%	98.50%
GROUND	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.94E-05
	3.27%	3.24%	3.23%	3.26%	3.26%	1.83%	3.20%	1.50%
INHAL	9.54E-08	6.59E-07	1.94E-07	2.14E-07	3.47E-07	4.36E-05	2.66E-06	0.00E+00
	.02%	.13%	.04%	.04%	.07%	4.83%	.52%	.00%
VEGET	7.48E-07	3.11E-06	5.04E-06	4.96E-07	1.89E-07	4.17E-06	6.82E-09	0.00E+00
	.15%	.61%	.99%	.10%	.04%	.46%	.00%	.00%
COW MILK	1.29E-06	1.03E-06	2.21E-06	2.26E-06	2.54E-06	3.45E-04	8.96E-09	0.00E+00
	.25%	.20%	.43%	.45%	.50%	38.17%	.00%	.00%
MEAT	2.19E-07	9.88E-07	1.51E-07	2.27E-07	1.34E-07	7.09E-06	5.31E-10	0.00E+00
	.04%	.19%	.03%	.04%	.03%	.79%	.00%	.00%
TOTAL	5.06E-04	5.09E-04	5.11E-04	5.07E-04	5.07E-04	9.03E-04	5.16E-04	1.29E-03

TABLE 11. DOSES TO POPULATION WITHIN 50 MILES, JULY-SEPTEMBER 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 2.61E-03	: 2.61E-03	: 2.61E-03	: 2.61E-03	: 2.61E-03	: 2.61E-03	: 2.65E-03	: 6.02E-03
	: 95.99%	: 95.46%	: 96.00%	: 95.98%	: 96.05%	: 86.19%	: 95.58%	: 98.01%
GROUND	: 1.04E-04	: 1.04E-04	: 1.04E-04	: 1.04E-04	: 1.04E-04	: 1.04E-04	: 1.04E-04	: 1.22E-04
	: 3.81%	: 3.79%	: 3.82%	: 3.81%	: 3.82%	: 3.43%	: 3.74%	: 1.99%
INHAL	: 1.59E-07	: 1.15E-06	: 2.17E-07	: 2.91E-07	: 3.82E-07	: 4.94E-05	: 1.87E-05	: 0.00E+00
	: .01%	: .04%	: .01%	: .01%	: .01%	: 1.63%	: .67%	: .00%
VEGET	: 2.59E-06	: 1.26E-05	: 2.53E-06	: 1.82E-06	: 4.24E-07	: 3.26E-06	: 6.54E-08	: 0.00E+00
	: .09%	: .46%	: .09%	: .07%	: .02%	: .11%	: .00%	: .00%
COW MILK	: 1.74E-06	: 2.23E-06	: 2.06E-06	: 2.99E-06	: 2.51E-06	: 2.57E-04	: 7.05E-08	: 0.00E+00
	: .06%	: .08%	: .08%	: .11%	: .09%	: 8.46%	: .00%	: .00%
MEAT	: 7.43E-07	: 4.42E-06	: 1.83E-07	: 5.85E-07	: 1.84E-07	: 5.44E-06	: 2.35E-08	: 0.00E+00
	: .03%	: .16%	: .01%	: .02%	: .01%	: .18%	: .00%	: .00%
TOTAL	: 2.72E-03	: 2.74E-03	: 2.72E-03	: 2.72E-03	: 2.72E-03	: 3.03E-03	: 2.78E-03	: 6.15E-03

TABLE 12. DOSES TO POPULATION WITHIN 50 MILES, OCTOBER-DECEMBER 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 6.70E-04	: 6.70E-04	: 6.70E-04	: 6.70E-04	: 6.70E-04	: 6.70E-04	: 6.79E-04	: 1.48E-03
	: 44.43%	: 41.07%	: 42.28%	: 44.43%	: 44.99%	: 24.88%	: 42.55%	: 61.28%
GROUND	: 7.95E-04	: 7.95E-04	: 7.95E-04	: 7.95E-04	: 7.95E-04	: 7.95E-04	: 7.95E-04	: 9.36E-04
	: 52.74%	: 48.75%	: 50.19%	: 52.74%	: 53.40%	: 29.53%	: 49.82%	: 38.72%
INHAL	: 1.28E-06	: 1.06E-05	: 2.45E-06	: 2.03E-06	: 1.57E-06	: 1.23E-04	: 1.22E-04	: 0.00E+00
	: .08%	: .65%	: .15%	: .13%	: .11%	: 4.57%	: 7.61%	: .00%
VEGET	: 2.17E-05	: 1.03E-04	: 9.38E-05	: 1.32E-05	: 3.31E-06	: 1.36E-05	: 1.53E-07	: 0.00E+00
	: 1.44%	: 6.28%	: 5.92%	: .87%	: .22%	: .51%	: .01%	: .00%
COW MILK	: 1.38E-05	: 1.92E-05	: 2.08E-05	: 2.28E-05	: 1.73E-05	: 1.07E-03	: 1.27E-07	: 0.00E+00
	: .92%	: 1.18%	: 1.31%	: 1.51%	: 1.16%	: 39.68%	: .01%	: .00%
MEAT	: 5.90E-06	: 3.37E-05	: 2.29E-06	: 4.75E-06	: 1.75E-06	: 2.25E-05	: 7.68E-08	: 0.00E+00
	: .39%	: 2.06%	: .14%	: .31%	: .12%	: .84%	: .00%	: .00%
TOTAL	: 1.51E-03	: 1.63E-03	: 1.58E-03	: 1.51E-03	: 1.49E-03	: 2.69E-03	: 1.60E-03	: 2.42E-03

TABLE 13. DOSES TO POPULATION WITHIN 50 MILES, JULY-DECEMBER 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 3.10E-03	: 3.10E-03	: 3.10E-03	: 3.10E-03	: 3.10E-03	: 3.10E-03	: 3.14E-03	: 7.06E-03
	: 75.91%	: 73.40%	: 74.52%	: 75.90%	: 76.29%	: 55.51%	: 74.31%	: 86.51%
GROUND	: 9.35E-04	: 9.35E-04	: 9.35E-04	: 9.35E-04	: 9.35E-04	: 9.35E-04	: 9.35E-04	: 1.10E-03
	: 22.91%	: 22.15%	: 22.49%	: 22.91%	: 23.03%	: 16.75%	: 22.10%	: 13.49%
INHAL	: 1.59E-06	: 1.27E-05	: 2.91E-06	: 2.58E-06	: 2.12E-06	: 1.80E-04	: 1.51E-04	: 0.00E+00
	: .04%	: .30%	: .07%	: .06%	: .05%	: 3.22%	: 3.58%	: .00%
VEGET	: 2.43E-05	: 1.15E-04	: 9.64E-05	: 1.50E-05	: 3.74E-06	: 1.69E-05	: 2.19E-07	: 0.00E+00
	: .60%	: 2.73%	: 2.32%	: .37%	: .09%	: .30%	: .01%	: .00%
COW MILK	: 1.56E-05	: 2.14E-05	: 2.28E-05	: 2.58E-05	: 1.98E-05	: 1.32E-03	: 1.98E-07	: 0.00E+00
	: .38%	: .51%	: .55%	: .63%	: .49%	: 23.71%	: .00%	: .00%
MEAT	: 6.68E-06	: 3.83E-05	: 2.49E-06	: 5.37E-06	: 1.95E-06	: 2.81E-05	: 1.01E-07	: 0.00E+00
	: .16%	: .91%	: .06%	: .13%	: .05%	: .50%	: .00%	: .00%
TOTAL	: 4.08E-03	: 4.22E-03	: 4.16E-03	: 4.08E-03	: 4.06E-03	: 5.58E-03	: 4.23E-03	: 8.16E-03

TABLE 14. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-DECEMBER 2022

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	: 3.32E-03	: 3.32E-03	: 3.32E-03	: 3.32E-03	: 3.32E-03	: 3.32E-03	: 3.37E-03	: 7.76E-03
	: 76.89%	: 74.45%	: 75.47%	: 76.87%	: 77.25%	: 53.59%	: 75.78%	: 87.45%
GROUND	: 9.47E-04	: 9.47E-04	: 9.47E-04	: 9.47E-04	: 9.47E-04	: 9.47E-04	: 9.47E-04	: 1.11E-03
	: 21.94%	: 21.24%	: 21.53%	: 21.93%	: 22.04%	: 15.29%	: 21.29%	: 12.55%
INHAL	: 1.50E-06	: 1.17E-05	: 2.70E-06	: 2.52E-06	: 2.28E-06	: 2.06E-04	: 1.29E-04	: 0.00E+00
	: .03%	: .26%	: .06%	: .06%	: .05%	: 3.33%	: 2.91%	: .00%
VEGET	: 2.51E-05	: 1.18E-04	: 1.01E-04	: 1.55E-05	: 3.93E-06	: 2.10E-05	: 2.26E-07	: 0.00E+00
	: .58%	: 2.66%	: 2.31%	: .36%	: .09%	: .34%	: .01%	: .00%
COW MILK	: 1.68E-05	: 2.24E-05	: 2.50E-05	: 2.80E-05	: 2.23E-05	: 1.66E-03	: 2.06E-07	: 0.00E+00
	: .39%	: .50%	: .57%	: .65%	: .52%	: 26.88%	: .00%	: .00%
MEAT	: 6.88E-06	: 3.92E-05	: 2.63E-06	: 5.58E-06	: 2.07E-06	: 3.50E-05	: 1.01E-07	: 0.00E+00
	: .16%	: .88%	: .06%	: .13%	: .05%	: .57%	: .00%	: .00%
TOTAL	: 4.32E-03	: 4.46E-03	: 4.40E-03	: 4.32E-03	: 4.30E-03	: 6.19E-03	: 4.45E-03	: 8.87E-03

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CARBON-14 GASEOUS EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual resulting from the release of Carbon-14 in gaseous effluents from the Cooper Nuclear Station (CNS) were calculated using the latest version of the GASPAR computer code included as part of NRC Dose 2.3.20 (ORNL 2015). Four pathways were selected for individual dose calculations: the nearest site boundary for inhalation, nearest garden for vegetation ingestion, nearest animal for meat ingestion, and the nearest milk animal (cow). Based on the 2022 Land Use Census, there are no meat or milk animals identified within 5 miles of CNS. However, CNS maintains a virtual cow receptor at 3.5 miles north-northwest of the plant and conservatively includes this receptor in dose calculations.

Use of a normalized Carbon-14 source term and scaling factors based on the annual thermal gigawatts (GW_T) power generation were utilized to determine the quantity of Carbon-14 in the CNS gaseous effluent discharge for 2022. Specifically, the Boiling Water Reactor proxy production rate of 5.1 curies Carbon-14 per GW_T generation using the methodology described in EPRI, 2010 was the basis for the CNS total calculated emissions of 9.97 curies of Carbon-14 in 2022.

GASPAR implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from four principal atmospheric exposure pathways: plume, ground, inhalation, and ingestion. Doses to the maximum individual are calculated as a function of age group and pathway for significant body organs.

Tables 15 through 21 present maximum individual doses. Note that the inhalation pathway was calculated at the closest site boundary receptor and was negligible for Carbon-14 and is not included in the tables. In addition, the doses presented were conservatively calculated based on the annual site X/Qs. These X/Qs result in doses approximately 20% higher than those calculated with the X/Qs based on growing season meteorology.

Additional assumptions and data used for input to the GASPAR code are described in a separate section of this appendix (see page C66).

TABLE 15. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022

SPECIAL LOCATION NO. 4 A Nearest Cow
 AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
 ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	3.02E-03	3.02E-03	1.51E-02	3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03
TEEN	5.05E-03	5.05E-03	2.53E-02	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
CHILD	1.23E-02	1.23E-02	6.15E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02
MEAT								
ADULT	1.21E-03	1.21E-03	6.03E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03
TEEN	1.02E-03	1.02E-03	5.09E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03
CHILD	1.91E-03	1.91E-03	9.57E-03	1.91E-03	1.91E-03	1.91E-03	1.91E-03	1.91E-03
COW MILK								
ADULT	1.32E-03	1.32E-03	6.58E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03
TEEN	2.43E-03	2.43E-03	1.21E-02	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03
CHILD	5.96E-03	5.96E-03	2.98E-02	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.96E-03
INFANT	1.25E-02	1.25E-02	5.84E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02
GOATMILK								
ADULT	1.32E-03	1.32E-03	6.58E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03
TEEN	2.43E-03	2.43E-03	1.21E-02	2.43E-03	2.43E-03	2.43E-03	2.43E-03	2.43E-03
CHILD	5.96E-03	5.96E-03	2.98E-02	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.96E-03
INFANT	1.25E-02	1.25E-02	5.84E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02

CS2

TABLE 15. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
 AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
 ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	7.22E-03	7.22E-03	3.61E-02	7.22E-03	7.22E-03	7.22E-03	7.22E-03	7.22E-03
TEEN	1.21E-02	1.21E-02	6.04E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02
CHILD	2.94E-02	2.94E-02	1.47E-01	2.94E-02	2.94E-02	2.94E-02	2.94E-02	2.94E-02
MEAT								
ADULT	2.88E-03	2.88E-03	1.44E-02	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
TEEN	2.44E-03	2.44E-03	1.22E-02	2.44E-03	2.44E-03	2.44E-03	2.44E-03	2.44E-03
CHILD	4.58E-03	4.58E-03	2.29E-02	4.58E-03	4.58E-03	4.58E-03	4.58E-03	4.58E-03
COW MILK								
ADULT	3.14E-03	3.14E-03	1.57E-02	3.14E-03	3.14E-03	3.14E-03	3.14E-03	3.14E-03
TEEN	5.80E-03	5.80E-03	2.90E-02	5.80E-03	5.80E-03	5.80E-03	5.80E-03	5.80E-03
CHILD	1.43E-02	1.43E-02	7.13E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
INFANT	2.98E-02	2.98E-02	1.40E-01	2.98E-02	2.98E-02	2.98E-02	2.98E-02	2.98E-02
GOATMILK								
ADULT	3.14E-03	3.14E-03	1.57E-02	3.14E-03	3.14E-03	3.14E-03	3.14E-03	3.14E-03
TEEN	5.80E-03	5.80E-03	2.90E-02	5.80E-03	5.80E-03	5.80E-03	5.80E-03	5.80E-03
CHILD	1.43E-02	1.43E-02	7.13E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
INFANT	2.98E-02	2.98E-02	1.40E-01	2.98E-02	2.98E-02	2.98E-02	2.98E-02	2.98E-02

CS3

TABLE 16. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	2.66E-03	2.66E-03	1.33E-02	2.66E-03	2.66E-03	2.66E-03	2.66E-03	2.66E-03
TEEN	4.45E-03	4.45E-03	2.22E-02	4.45E-03	4.45E-03	4.45E-03	4.45E-03	4.45E-03
CHILD	1.08E-02	1.08E-02	5.41E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
MEAT								
ADULT	1.06E-03	1.06E-03	5.31E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03
TEEN	8.96E-04	8.96E-04	4.48E-03	8.96E-04	8.96E-04	8.96E-04	8.96E-04	8.96E-04
CHILD	1.68E-03	1.68E-03	8.42E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
COW MILK								
ADULT	1.16E-03	1.16E-03	5.79E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03
TEEN	2.14E-03	2.14E-03	1.07E-02	2.14E-03	2.14E-03	2.14E-03	2.14E-03	2.14E-03
CHILD	5.25E-03	5.25E-03	2.62E-02	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
INFANT	1.10E-02	1.10E-02	5.14E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02
GOATMILK								
ADULT	1.16E-03	1.16E-03	5.79E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03
TEEN	2.14E-03	2.14E-03	1.07E-02	2.14E-03	2.14E-03	2.14E-03	2.14E-03	2.14E-03
CHILD	5.25E-03	5.25E-03	2.62E-02	5.25E-03	5.25E-03	5.25E-03	5.25E-03	5.25E-03
INFANT	1.10E-02	1.10E-02	5.14E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02

CS4

TABLE 16. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	7.98E-03	7.98E-03	3.99E-02	7.98E-03	7.98E-03	7.98E-03	7.98E-03	7.98E-03
TEEN	1.33E-02	1.33E-02	6.67E-02	1.33E-02	1.33E-02	1.33E-02	1.33E-02	1.33E-02
CHILD	3.25E-02	3.25E-02	1.62E-01	3.25E-02	3.25E-02	3.25E-02	3.25E-02	3.25E-02
MEAT								
ADULT	3.18E-03	3.18E-03	1.59E-02	3.18E-03	3.18E-03	3.18E-03	3.18E-03	3.18E-03
TEEN	2.69E-03	2.69E-03	1.34E-02	2.69E-03	2.69E-03	2.69E-03	2.69E-03	2.69E-03
CHILD	5.05E-03	5.05E-03	2.53E-02	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
COW MILK								
ADULT	3.47E-03	3.47E-03	1.74E-02	3.47E-03	3.47E-03	3.47E-03	3.47E-03	3.47E-03
TEEN	6.41E-03	6.41E-03	3.20E-02	6.41E-03	6.41E-03	6.41E-03	6.41E-03	6.41E-03
CHILD	1.57E-02	1.57E-02	7.87E-02	1.57E-02	1.57E-02	1.57E-02	1.57E-02	1.57E-02
INFANT	3.29E-02	3.29E-02	1.54E-01	3.29E-02	3.29E-02	3.29E-02	3.29E-02	3.29E-02
GOATMILK								
ADULT	3.47E-03	3.47E-03	1.74E-02	3.47E-03	3.47E-03	3.47E-03	3.47E-03	3.47E-03
TEEN	6.41E-03	6.41E-03	3.20E-02	6.41E-03	6.41E-03	6.41E-03	6.41E-03	6.41E-03
CHILD	1.57E-02	1.57E-02	7.87E-02	1.57E-02	1.57E-02	1.57E-02	1.57E-02	1.57E-02
INFANT	3.29E-02	3.29E-02	1.54E-01	3.29E-02	3.29E-02	3.29E-02	3.29E-02	3.29E-02

TABLE 17. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	5.54E-03	5.54E-03	2.77E-02	5.54E-03	5.54E-03	5.54E-03	5.54E-03	5.54E-03
TEEN	9.26E-03	9.26E-03	4.63E-02	9.26E-03	9.26E-03	9.26E-03	9.26E-03	9.26E-03
CHILD	2.25E-02	2.25E-02	1.13E-01	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
MEAT								
ADULT	2.21E-03	2.21E-03	1.11E-02	2.21E-03	2.21E-03	2.21E-03	2.21E-03	2.21E-03
TEEN	1.87E-03	1.87E-03	9.34E-03	1.87E-03	1.87E-03	1.87E-03	1.87E-03	1.87E-03
CHILD	3.51E-03	3.51E-03	1.75E-02	3.51E-03	3.51E-03	3.51E-03	3.51E-03	3.51E-03
COW MILK								
ADULT	2.41E-03	2.41E-03	1.21E-02	2.41E-03	2.41E-03	2.41E-03	2.41E-03	2.41E-03
TEEN	4.45E-03	4.45E-03	2.22E-02	4.45E-03	4.45E-03	4.45E-03	4.45E-03	4.45E-03
CHILD	1.09E-02	1.09E-02	5.47E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
INFANT	2.29E-02	2.29E-02	1.07E-01	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02
GOATMILK								
ADULT	2.41E-03	2.41E-03	1.21E-02	2.41E-03	2.41E-03	2.41E-03	2.41E-03	2.41E-03
TEEN	4.45E-03	4.45E-03	2.22E-02	4.45E-03	4.45E-03	4.45E-03	4.45E-03	4.45E-03
CHILD	1.09E-02	1.09E-02	5.47E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
INFANT	2.29E-02	2.29E-02	1.07E-01	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

TABLE 17. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	1.48E-02	1.48E-02	7.38E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
TEEN	2.47E-02	2.47E-02	1.23E-01	2.47E-02	2.47E-02	2.47E-02	2.47E-02	2.47E-02
CHILD	6.01E-02	6.01E-02	3.01E-01	6.01E-02	6.01E-02	6.01E-02	6.01E-02	6.01E-02
MEAT								
ADULT	5.89E-03	5.89E-03	2.95E-02	5.89E-03	5.89E-03	5.89E-03	5.89E-03	5.89E-03
TEEN	4.98E-03	4.98E-03	2.49E-02	4.98E-03	4.98E-03	4.98E-03	4.98E-03	4.98E-03
CHILD	9.36E-03	9.36E-03	4.68E-02	9.36E-03	9.36E-03	9.36E-03	9.36E-03	9.36E-03
COW MILK								
ADULT	6.43E-03	6.43E-03	3.21E-02	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03
TEEN	1.19E-02	1.19E-02	5.93E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
CHILD	2.92E-02	2.92E-02	1.46E-01	2.92E-02	2.92E-02	2.92E-02	2.92E-02	2.92E-02
INFANT	6.10E-02	6.10E-02	2.86E-01	6.10E-02	6.10E-02	6.10E-02	6.10E-02	6.10E-02
GOATMILK								
ADULT	6.43E-03	6.43E-03	3.21E-02	6.43E-03	6.43E-03	6.43E-03	6.43E-03	6.43E-03
TEEN	1.19E-02	1.19E-02	5.93E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
CHILD	2.92E-02	2.92E-02	1.46E-01	2.92E-02	2.92E-02	2.92E-02	2.92E-02	2.92E-02
INFANT	6.10E-02	6.10E-02	2.86E-01	6.10E-02	6.10E-02	6.10E-02	6.10E-02	6.10E-02

CS7

TABLE 18. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	4.82E-03	4.82E-03	2.41E-02	4.82E-03	4.82E-03	4.82E-03	4.82E-03	4.82E-03
TEEN	8.07E-03	8.07E-03	4.03E-02	8.07E-03	8.07E-03	8.07E-03	8.07E-03	8.07E-03
CHILD	1.96E-02	1.96E-02	9.82E-02	1.96E-02	1.96E-02	1.96E-02	1.96E-02	1.96E-02
MEAT								
ADULT	1.93E-03	1.93E-03	9.63E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03
TEEN	1.63E-03	1.63E-03	8.13E-03	1.63E-03	1.63E-03	1.63E-03	1.63E-03	1.63E-03
CHILD	3.06E-03	3.06E-03	1.53E-02	3.06E-03	3.06E-03	3.06E-03	3.06E-03	3.06E-03
COW MILK								
ADULT	2.10E-03	2.10E-03	1.05E-02	2.10E-03	2.10E-03	2.10E-03	2.10E-03	2.10E-03
TEEN	3.87E-03	3.87E-03	1.94E-02	3.87E-03	3.87E-03	3.87E-03	3.87E-03	3.87E-03
CHILD	9.53E-03	9.53E-03	4.76E-02	9.53E-03	9.53E-03	9.53E-03	9.53E-03	9.53E-03
INFANT	1.99E-02	1.99E-02	9.33E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02
GOATMILK								
ADULT	2.10E-03	2.10E-03	1.05E-02	2.10E-03	2.10E-03	2.10E-03	2.10E-03	2.10E-03
TEEN	3.87E-03	3.87E-03	1.94E-02	3.87E-03	3.87E-03	3.87E-03	3.87E-03	3.87E-03
CHILD	9.53E-03	9.53E-03	4.76E-02	9.53E-03	9.53E-03	9.53E-03	9.53E-03	9.53E-03
INFANT	1.99E-02	1.99E-02	9.33E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02

TABLE 18. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	2.14E-02	2.14E-02	1.07E-01	2.14E-02	2.14E-02	2.14E-02	2.14E-02	2.14E-02
TEEN	3.59E-02	3.59E-02	1.79E-01	3.59E-02	3.59E-02	3.59E-02	3.59E-02	3.59E-02
CHILD	8.73E-02	8.73E-02	4.36E-01	8.73E-02	8.73E-02	8.73E-02	8.73E-02	8.73E-02
MEAT								
ADULT	8.56E-03	8.56E-03	4.28E-02	8.56E-03	8.56E-03	8.56E-03	8.56E-03	8.56E-03
TEEN	7.23E-03	7.23E-03	3.61E-02	7.23E-03	7.23E-03	7.23E-03	7.23E-03	7.23E-03
CHILD	1.36E-02	1.36E-02	6.79E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02
COW MILK								
ADULT	9.33E-03	9.33E-03	4.67E-02	9.33E-03	9.33E-03	9.33E-03	9.33E-03	9.33E-03
TEEN	1.72E-02	1.72E-02	8.61E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02
CHILD	4.23E-02	4.23E-02	2.12E-01	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
INFANT	8.85E-02	8.85E-02	4.15E-01	8.85E-02	8.85E-02	8.85E-02	8.85E-02	8.85E-02
GOATMILK								
ADULT	9.33E-03	9.33E-03	4.67E-02	9.33E-03	9.33E-03	9.33E-03	9.33E-03	9.33E-03
TEEN	1.72E-02	1.72E-02	8.61E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02	1.72E-02
CHILD	4.23E-02	4.23E-02	2.12E-01	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
INFANT	8.85E-02	8.85E-02	4.15E-01	8.85E-02	8.85E-02	8.85E-02	8.85E-02	8.85E-02

TABLE 19. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	7.77E-03	7.77E-03	3.89E-02	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.77E-03
TEEN	1.30E-02	1.30E-02	6.50E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
CHILD	3.16E-02	3.16E-02	1.58E-01	3.16E-02	3.16E-02	3.16E-02	3.16E-02	3.16E-02
MEAT								
ADULT	3.10E-03	3.10E-03	1.55E-02	3.10E-03	3.10E-03	3.10E-03	3.10E-03	3.10E-03
TEEN	2.62E-03	2.62E-03	1.31E-02	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03
CHILD	4.93E-03	4.93E-03	2.46E-02	4.93E-03	4.93E-03	4.93E-03	4.93E-03	4.93E-03
COW MILK								
ADULT	3.38E-03	3.38E-03	1.69E-02	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03
TEEN	6.24E-03	6.24E-03	3.12E-02	6.24E-03	6.24E-03	6.24E-03	6.24E-03	6.24E-03
CHILD	1.53E-02	1.53E-02	7.67E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02
INFANT	3.21E-02	3.21E-02	1.50E-01	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02
GOATMILK								
ADULT	3.38E-03	3.38E-03	1.69E-02	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03
TEEN	6.24E-03	6.24E-03	3.12E-02	6.24E-03	6.24E-03	6.24E-03	6.24E-03	6.24E-03
CHILD	1.53E-02	1.53E-02	7.67E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02
INFANT	3.21E-02	3.21E-02	1.50E-01	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02

TABLE 19. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	1.47E-02	1.47E-02	7.37E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
TEEN	2.47E-02	2.47E-02	1.23E-01	2.47E-02	2.47E-02	2.47E-02	2.47E-02	2.47E-02
CHILD	6.00E-02	6.00E-02	3.00E-01	6.00E-02	6.00E-02	6.00E-02	6.00E-02	6.00E-02
MEAT								
ADULT	5.88E-03	5.88E-03	2.94E-02	5.88E-03	5.88E-03	5.88E-03	5.88E-03	5.88E-03
TEEN	4.97E-03	4.97E-03	2.48E-02	4.97E-03	4.97E-03	4.97E-03	4.97E-03	4.97E-03
CHILD	9.34E-03	9.34E-03	4.67E-02	9.34E-03	9.34E-03	9.34E-03	9.34E-03	9.34E-03
COW MILK								
ADULT	6.42E-03	6.42E-03	3.21E-02	6.42E-03	6.42E-03	6.42E-03	6.42E-03	6.42E-03
TEEN	1.18E-02	1.18E-02	5.92E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02
CHILD	2.91E-02	2.91E-02	1.46E-01	2.91E-02	2.91E-02	2.91E-02	2.91E-02	2.91E-02
INFANT	6.09E-02	6.09E-02	2.85E-01	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02
GOATMILK								
ADULT	6.42E-03	6.42E-03	3.21E-02	6.42E-03	6.42E-03	6.42E-03	6.42E-03	6.42E-03
TEEN	1.18E-02	1.18E-02	5.92E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02
CHILD	2.91E-02	2.91E-02	1.46E-01	2.91E-02	2.91E-02	2.91E-02	2.91E-02	2.91E-02
INFANT	6.09E-02	6.09E-02	2.85E-01	6.09E-02	6.09E-02	6.09E-02	6.09E-02	6.09E-02

TABLE 20. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	1.34E-02	1.34E-02	6.71E-02	1.34E-02	1.34E-02	1.34E-02	1.34E-02	1.34E-02
TEEN	2.25E-02	2.25E-02	1.12E-01	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
CHILD	5.47E-02	5.47E-02	2.73E-01	5.47E-02	5.47E-02	5.47E-02	5.47E-02	5.47E-02
MEAT								
ADULT	5.36E-03	5.36E-03	2.68E-02	5.36E-03	5.36E-03	5.36E-03	5.36E-03	5.36E-03
TEEN	4.53E-03	4.53E-03	2.26E-02	4.53E-03	4.53E-03	4.53E-03	4.53E-03	4.53E-03
CHILD	8.51E-03	8.51E-03	4.25E-02	8.51E-03	8.51E-03	8.51E-03	8.51E-03	8.51E-03
COW MILK								
ADULT	5.85E-03	5.85E-03	2.92E-02	5.85E-03	5.85E-03	5.85E-03	5.85E-03	5.85E-03
TEEN	1.08E-02	1.08E-02	5.39E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
CHILD	2.65E-02	2.65E-02	1.33E-01	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
INFANT	5.54E-02	5.54E-02	2.60E-01	5.54E-02	5.54E-02	5.54E-02	5.54E-02	5.54E-02
GOATMILK								
ADULT	5.85E-03	5.85E-03	2.92E-02	5.85E-03	5.85E-03	5.85E-03	5.85E-03	5.85E-03
TEEN	1.08E-02	1.08E-02	5.39E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02
CHILD	2.65E-02	2.65E-02	1.33E-01	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
INFANT	5.54E-02	5.54E-02	2.60E-01	5.54E-02	5.54E-02	5.54E-02	5.54E-02	5.54E-02

TABLE 20. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
 AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
 ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	3.49E-02	3.49E-02	1.75E-01	3.49E-02	3.49E-02	3.49E-02	3.49E-02	3.49E-02
TEEN	5.84E-02	5.84E-02	2.92E-01	5.84E-02	5.84E-02	5.84E-02	5.84E-02	5.84E-02
CHILD	1.42E-01	1.42E-01	7.11E-01	1.42E-01	1.42E-01	1.42E-01	1.42E-01	1.42E-01
MEAT								
ADULT	1.39E-02	1.39E-02	6.97E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
TEEN	1.18E-02	1.18E-02	5.88E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02
CHILD	2.21E-02	2.21E-02	1.11E-01	2.21E-02	2.21E-02	2.21E-02	2.21E-02	2.21E-02
COW MILK								
ADULT	1.52E-02	1.52E-02	7.60E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02
TEEN	2.80E-02	2.80E-02	1.40E-01	2.80E-02	2.80E-02	2.80E-02	2.80E-02	2.80E-02
CHILD	6.89E-02	6.89E-02	3.45E-01	6.89E-02	6.89E-02	6.89E-02	6.89E-02	6.89E-02
INFANT	1.44E-01	1.44E-01	6.75E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01
GOATMILK								
ADULT	1.52E-02	1.52E-02	7.60E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02
TEEN	2.80E-02	2.80E-02	1.40E-01	2.80E-02	2.80E-02	2.80E-02	2.80E-02	2.80E-02
CHILD	6.89E-02	6.89E-02	3.45E-01	6.89E-02	6.89E-02	6.89E-02	6.89E-02	6.89E-02
INFANT	1.44E-01	1.44E-01	6.75E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01

TABLE 21. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022

SPECIAL LOCATION NO. 4A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	1.86E-02	1.86E-02	9.31E-02	1.86E-02	1.86E-02	1.86E-02	1.86E-02	1.86E-02
TEEN	3.12E-02	3.12E-02	1.56E-01	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.12E-02
CHILD	7.58E-02	7.58E-02	3.79E-01	7.58E-02	7.58E-02	7.58E-02	7.58E-02	7.58E-02
MEAT								
ADULT	7.43E-03	7.43E-03	3.72E-02	7.43E-03	7.43E-03	7.43E-03	7.43E-03	7.43E-03
TEEN	6.28E-03	6.28E-03	3.14E-02	6.28E-03	6.28E-03	6.28E-03	6.28E-03	6.28E-03
CHILD	1.18E-02	1.18E-02	5.90E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02	1.18E-02
COW MILK								
ADULT	8.11E-03	8.11E-03	4.06E-02	8.11E-03	8.11E-03	8.11E-03	8.11E-03	8.11E-03
TEEN	1.50E-02	1.50E-02	7.48E-02	1.50E-02	1.50E-02	1.50E-02	1.50E-02	1.50E-02
CHILD	3.68E-02	3.68E-02	1.84E-01	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02
INFANT	7.69E-02	7.69E-02	3.60E-01	7.69E-02	7.69E-02	7.69E-02	7.69E-02	7.69E-02
GOATMILK								
ADULT	8.11E-03	8.11E-03	4.06E-02	8.11E-03	8.11E-03	8.11E-03	8.11E-03	8.11E-03
TEEN	1.50E-02	1.50E-02	7.48E-02	1.50E-02	1.50E-02	1.50E-02	1.50E-02	1.50E-02
CHILD	3.68E-02	3.68E-02	1.84E-01	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02
INFANT	7.69E-02	7.69E-02	3.60E-01	7.69E-02	7.69E-02	7.69E-02	7.69E-02	7.69E-02

TABLE 21. CARBON-14 DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2022 (Continued)

SPECIAL LOCATION NO. 5A Nearest Garden
 AT 1.70 MILES ENE

ANNUAL BETA AIR DOSE = 0.00E+00 MILLRADS
 ANNUAL GAMMA AIR DOSE = 0.00E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GROUND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
VEGET								
ADULT	4.90E-02	4.90E-02	2.45E-01	4.90E-02	4.90E-02	4.90E-02	4.90E-02	4.90E-02
TEEN	8.19E-02	8.19E-02	4.09E-01	8.19E-02	8.19E-02	8.19E-02	8.19E-02	8.19E-02
CHILD	1.99E-01	1.99E-01	9.97E-01	1.99E-01	1.99E-01	1.99E-01	1.99E-01	1.99E-01
MEAT								
ADULT	1.95E-02	1.95E-02	9.77E-02	1.95E-02	1.95E-02	1.95E-02	1.95E-02	1.95E-02
TEEN	1.65E-02	1.65E-02	8.25E-02	1.65E-02	1.65E-02	1.65E-02	1.65E-02	1.65E-02
CHILD	3.10E-02	3.10E-02	1.55E-01	3.10E-02	3.10E-02	3.10E-02	3.10E-02	3.10E-02
COW MILK								
ADULT	2.13E-02	2.13E-02	1.07E-01	2.13E-02	2.13E-02	2.13E-02	2.13E-02	2.13E-02
TEEN	3.93E-02	3.93E-02	1.97E-01	3.93E-02	3.93E-02	3.93E-02	3.93E-02	3.93E-02
CHILD	9.67E-02	9.67E-02	4.83E-01	9.67E-02	9.67E-02	9.67E-02	9.67E-02	9.67E-02
INFANT	2.02E-01	2.02E-01	9.47E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01
GOATMILK								
ADULT	2.13E-02	2.13E-02	1.07E-01	2.13E-02	2.13E-02	2.13E-02	2.13E-02	2.13E-02
TEEN	3.93E-02	3.93E-02	1.97E-01	3.93E-02	3.93E-02	3.93E-02	3.93E-02	3.93E-02
CHILD	9.67E-02	9.67E-02	4.83E-01	9.67E-02	9.67E-02	9.67E-02	9.67E-02	9.67E-02
INFANT	2.02E-01	2.02E-01	9.47E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01	2.02E-01

DOSE CALCULATION MODELS

To evaluate the radiological consequences of the routine release of liquid and gaseous effluents from the Cooper Nuclear Station, the latest versions of two computer codes were used: LADTAP II for liquid doses and GASPAR for gaseous doses included as part of NRC Dose 2.3.20 (ORNL 2015). Both of these computer codes implement the dose calculational methodologies of U.S. NRC Regulatory Guide 1.109, Revision 1.

Source terms for each quarter are combined with station-specific demographic data and either hydrological dilution factors, for liquid dose calculations, or atmospheric diffusion estimates, for gaseous dose calculations.

For liquid dose calculations, the hydrological dilution factors used for input to LADTAP II, as well as other input parameters, are listed in Table 22. Other inputs not specifically listed in this table are taken from Regulatory Guide 1.109, Revision 1. Semiannual doses are obtained by summing the contributions from the appropriate quarters.

For gaseous dose calculations, atmospheric diffusion estimates are obtained from the reduction and processing of onsite meteorological data, as described in Appendix B. Source terms for the semiannual period are obtained by summing source terms for the appropriate quarters. Additional input to GASPAR includes the following station-supplied data:

- 0 to 50 mile population distribution
- 0 to 50 mile meat, milk, and vegetable distributions
- Absolute humidity at Cooper Nuclear Station (14.61 g/m^3)
- The fraction of the year that the vegetables are grown (0.5)
- The fraction of the daily feed intake derived from pasture for milk and meat animals (0.5)

Other values used for input to GASPAR are default values from Regulatory Guide 1.109, Rev. 1.

TABLE 22. Values of Parameters Used to Make Dose Estimates Resulting From Liquid Discharges at Cooper Nuclear Station January-December 2022

Parameter	Values Assigned	
	Individual	Population
Cooling flow rate (cfs) * (Average daily value)	Q1 NR	NR
	Q2 NR	NR
	Q3 NR	NR
	Q4 NR	NR
Dilution factor*	Q1 NR	NR
	Q2 NR	NR
	Q3 NR	NR
	Q4 NR	NR
Holding time:		
Fish	24 hr ***	168 hr ***
Drinking water	12 hr ***	22.4 hr **
Shoreline exposure	0 hr ***	22.4 hr **
Swimming	0 hr ***	22.4 hr **
Boating	0 hr ***	22.4 hr **

* Q1, Q2, Q3, and Q4 represent first, second, third and fourth quarter station data for 2022, respectively.

** Based on an average Missouri River water flow of 5.5 ft/sec, 84 miles down the river.

*** Values from Regulatory Guide 1.109, Revision 1.

NR- No release

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APPENDIX D
ANNUAL RADIOLOGICAL GROUNDWATER PROTECTION PROGRAM
(ARGPP) REPORT

***NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
Radiological Groundwater Protection Program
2022 Annual Report
January 1, 2022 to December 31, 2022***

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Attachments

Attachment 1: Location Designation of the Annual Radiological Groundwater Protection Program Report (ARGPPR)

Tables

Table A-1: Radiological Groundwater Protection Program - Sampling Locations, Nebraska Public Power District, Cooper Nuclear Station, 2022

Map

Map A-1: Routine Well Water Sample Locations for the Radiological Groundwater Protection Program, Nebraska Public Power District, Cooper Nuclear Station, 2022

Attachment 2: Data Tables of the Annual Radiological Groundwater Protection Program Report (ARGPPR)

Table B-1: Exposure Pathway – Water - Ground, 2022

SECTION I. SUMMARY

I. SUMMARY

In 2008, the Cooper Nuclear Station (CNS) of the Nebraska Public Power District (NPPD) instituted a comprehensive program to evaluate the impact of station operations on groundwater in the vicinity of CNS. This report covers groundwater samples, collected outside of the Licensee required Off-Site Dose Assessment Manual (ODAM) requirements, both on and off station property in 2022. During that time period, analyses were performed on 60 samples from 22 locations.

In assessing all the data gathered for this report, it was concluded that the operation of CNS had no adverse radiological impact on the environment, and there are no known active releases into the groundwater or surface water at Nebraska Public Power District.

Tritium was not detected in any of the groundwater samples at concentrations greater than the United States Environmental Protection Agency (USEPA) drinking water standard (and the Nuclear Regulatory Commission [NRC] reporting limit) of 20,000 pCi/L. The tritium concentrations ranged from 378 ± 208 pCi/L to $1,180 \pm 455$ pCi/L.

Gamma-emitting radionuclides associated with licensed plant operations were not detected at concentrations greater than their respective Lower Limits of Detection (LLDs) as specified in NUREG-1302 in any of the groundwater samples. In the case of tritium, CNS specified that the independent laboratory achieve a lower limit of detection 10 times lower than that required by the United States Environmental Protection Agency (USEPA) regulation.

SECTION II. CHARACTERISTICS OF TRITIUM (H-3)

II. CHARACTERISTICS OF TRITIUM (H-3)

Tritium (chemical symbol H-3) is a radioactive isotope of hydrogen. The most common form of tritium is tritium oxide, which is also called "tritiated water." The chemical properties of tritium are essentially those of ordinary hydrogen.

Tritiated water functions the same as ordinary water in both the environment and the body. Tritium can be taken into the body by drinking water, breathing air, eating food, or absorption through skin. Once tritium enters the body, it disperses quickly and is uniformly distributed throughout the body. Tritium is excreted primarily through urine with a clearance rate characterized by an effective biological half-life of about 14 days. Within one month or so after ingestion, essentially all tritium is cleared. Organically bound tritium (tritium that is incorporated in organic compounds) can remain in the body for a longer period.

Tritium is produced naturally in the upper atmosphere when cosmic rays strike air molecules. Tritium is also produced during nuclear weapons explosions, as a by-product in reactors producing electricity, and in special production reactors, where the isotopes lithium-6 and/or boron-10 are activated to produce tritium. Like normal water, tritiated water is colorless and odorless. Tritiated water behaves chemically and physically like non-tritiated water in the subsurface, and therefore tritiated water will travel at the same velocity as the average groundwater velocity.

Tritium has a half-life of approximately 12.3 years. It decays spontaneously to helium-3 (^3He). This radioactive decay releases a beta particle (low-energy electron). The radioactive decay of tritium is the source of the health risk from exposure to tritium. Tritium is one of the least dangerous radionuclides because it emits very weak beta radiation and leaves the body relatively quickly. Since tritium is almost always found as water, it goes directly into soft tissues and organs. The associated dose to these tissues is generally uniform and is dependent on the water content of the specific tissue.

SECTION III. INTRODUCTION

III. INTRODUCTION

Cooper Nuclear Station is located in Nemaha County in the southeast corner of Nebraska on the Missouri River. A portion of the site extends into Missouri. The reactor is an 830-megawatt (net electrical) boiling water reactor. Initial criticality was attained on February 21, 1974.

This report covers those analyses performed by Teledyne Brown Engineering (TBE) on samples collected in 2022.

III. INTRODUCTION (cont)

A. Objectives of the Radiological Groundwater Protection Program (RGPP)

The long-term objectives of the RGPP are as follows:

1. Identify suitable locations to monitor and evaluate potential impacts from station operations before significant radiological impact to the environment and potential drinking water sources.
2. Understand the local hydrogeologic regime in the vicinity of the station and maintain up-to-date knowledge of flow patterns on the surface and shallow subsurface.
3. Perform routine water sampling and radiological analysis of water from selected locations.
4. Report new leaks, spills, or other detections with potential radiological significance to stakeholders in a timely manner.
5. Regularly assess analytical results to identify adverse trends.
6. Take necessary corrective actions to protect groundwater resources.

B. Implementation of the Objectives

The objectives identified have been implemented at CNS as discussed below:

1. Cooper Nuclear Station will continue to perform routine sampling and radiological analysis of water from selected locations.
2. Cooper Nuclear Station has implemented procedures to identify and report new leaks, spills, or other detections with potential radiological significance in a timely manner.
3. Cooper Nuclear Station staff assesses analytical results on an ongoing basis to identify adverse trends.

III. INTRODUCTION (cont)

C. Program Description

1. Sample Collection

Sample locations can be found in Attachment 1, Table A-1 and Map A-1.

Groundwater

Samples of water are collected, managed, transported and analyzed in accordance with approved procedures following regulatory methods. Sample locations, sample collection frequencies and analytical frequencies are controlled in accordance with approved station procedures. Contractor and/or station personnel are trained in the collection, preservation management, and shipment of samples, as well as in documentation of sampling events. Analytical laboratories are subject to internal quality assurance programs, inter-laboratory cross-check programs, as well as nuclear industry audits. Station personnel review and evaluate all analytical data deliverables after initial review by the contractor.

Analytical data results are reviewed by station personnel for adverse trends or changes to hydrogeologic conditions.

SECTION IV. PROGRAM DESCRIPTION

III. Program Description

A. Sample Analysis

This section describes the general analytical methodologies used by TBE to analyze the environmental samples for radioactivity for the CNS RGPP in 2022.

In order to achieve the stated objectives, the current program analyzes each sample for tritium. If a sample indicates tritium above TBE's lower limit of detection (LLD), then the sample is analyzed for gamma emitters (Be-7, K-40, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Ru-103, Ru-106, I-131, Cs-134, Cs-137, Ba-140, La-140, Ce-141, Ce-144, Ra-226 and Th-228). If the sample indicates gamma emitters (other than those that are naturally occurring) above TBE's LLD, then the sample is analyzed for Hard to Detects (HTDs – Gross Alpha, Fe-55, Ni-63, Sr-89, Sr-90).

Note: Statistically positive results include their respective uncertainties. Results reported below TBE's LLD for a given radio nuclide are preceded with "<" (= "Less Than").

B. Data Interpretation

The radiological data collected prior to CNS becoming operational were used as a baseline with which these operational data were compared. For the purpose of this report, CNS was considered operational at initial criticality. Several factors were important in the interpretation of the data:

1. Lower Limit of Detection and Minimum Detectable Concentration

The lower limit of detection (LLD) is specified by federal regulation as a minimum sensitivity value that must be achieved routinely by the analytical parameter.

2. Laboratory Measurements Uncertainty

The estimated uncertainty in measurement of tritium in environmental samples is frequently on the order of 50% of the measurement value.

Statistically, the exact value of a measurement is expressed as a range with a stated level of confidence. Analytical uncertainties are reported at the 95% confidence level in this report for reporting consistency with the REMP. The uncertainty comes from calibration standards, sample volume or weight measurements, sampling uncertainty and other factors. CNS reports the uncertainty of a measurement created by statistical process (counting error). Each result has two values calculated. CNS reports the result with plus or minus (\pm) the estimated sample standard deviation.

SECTION V. RESULTS AND DISCUSSION

D. Results and Discussion

A. *Groundwater Results*

Tritium

Samples from 22 locations were analyzed for tritium activity (Table B-1, Attachment 2). Tritium was detected at five locations. Tritium values ranged from 378 to 1,180 pCi/L. All values were below the United States Environmental Protection Agency (USEPA) drinking water standard (and the Nuclear Regulatory Commission [NRC] reporting limit) of 20,000 pCi/liter.

Gamma Emitters

Naturally occurring Thorium-228 was detected in one of eight samples with a concentration of 3.24 pCi/L. No other gamma emitting nuclides were detected (Table B-1, Attachment 2).

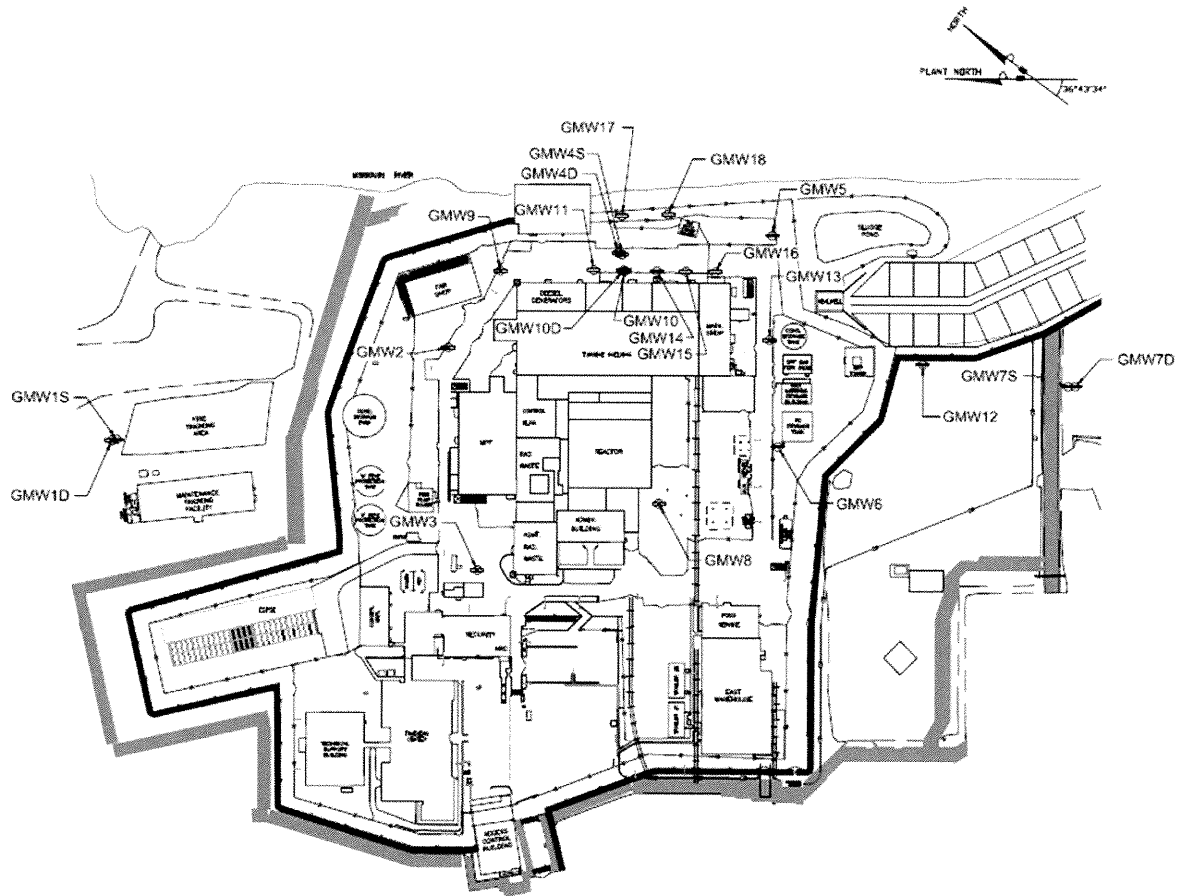
ATTACHMENT 1

**LOCATION DESIGNATION OF THE ANNUAL
RADIOLOGICAL GROUNDWATER PROTECTION
PROGRAM REPORT (ARGPPR)**

TABLE A-1: 2022- Radiological Groundwater Protection Program – Sampling Locations, Nebraska Public Power District, Cooper Nuclear Station

Site	Type
Ground Monitoring Well-1D	Ground Water
Ground Monitoring Well-1S	Ground Water
Ground Monitoring Well-2	Ground Water
Ground Monitoring Well-3	Ground Water
Ground Monitoring Well-4D	Ground Water
Ground Monitoring Well-4S	Ground Water
Ground Monitoring Well-5	Ground Water
Ground Monitoring Well-6	Ground Water
Ground Monitoring Well-7D	Ground Water
Ground Monitoring Well-7S	Ground Water
Ground Monitoring Well-8	Ground Water
Ground Monitoring Well-9	Ground Water
Ground Monitoring Well-10	Ground Water
Ground Monitoring Well-10D	Ground Water
Ground Monitoring Well-11	Ground Water
Ground Monitoring Well-12	Ground Water
Ground Monitoring Well-13	Ground Water
Ground Monitoring Well-14	Ground Water
Ground Monitoring Well-15	Ground Water
Ground Monitoring Well-16	Ground Water
Ground Monitoring Well-17	Ground Water
Ground Monitoring Well-18	Ground Water

MAP A-1



Routine Well Water Sample Locations for the Radiological Groundwater Protection Program, Nebraska Public Power District, Cooper Nuclear Station, 2022

ATTACHMENT 2

**DATA TABLES OF THE ANNUAL RADIOLOGICAL
GROUNDWATER PROTECTION PROGRAM REPORT
(ARGPPR)**

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 1D

DATE COLLECTED	3/16/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 1S

DATE COLLECTED	3/16/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 2

DATE COLLECTED	3/15/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 3

DATE COLLECTED	3/15/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 4D

DATE COLLECTED	3/15/2022	6/1/2022	8/25/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)	(a)
BE-7				
K-40				
MN-54				
CO-58				
FE-59				
CO-60				
ZN-65				
ZR-95				
RU-103				
RU-106				
I-131				
CS-134				
CS-137				
BA-140				
LA-140				
CE-141				
CE-144				
RA-226				
TH-228				
H-3	< 3.E+02	< 5.E+02	< 6.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 4S

DATE COLLECTED	3/15/2022	6/1/2022	8/25/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)		
BE-7			< 2.E+01	< 3.E+01
K-40			< 2.E+01	< 2.E+01
MN-54			< 2.E+00	< 2.E+00
CO-58			< 2.E+00	< 3.E+00
FE-59			< 5.E+00	< 8.E+00
CO-60			< 2.E+00	< 2.E+00
ZN-65			< 3.E+00	< 4.E+00
ZR-95			< 3.E+00	< 5.E+00
RU-103			< 3.E+00	< 5.E+00
RU-106			< 1.E+01	< 2.E+01
I-131			< 5.E+01	< 4.E+02
CS-134			< 1.E+00	< 2.E+00
CS-137			< 1.E+00	< 2.E+00
BA-140			< 4.E+01	< 2.E+02
LA-140			< 1.E+01	< 7.E+01
CE-141			< 5.E+00	< 9.E+00
CE-144			< 1.E+01	< 1.E+01
RA-226			< 4.E+01	< 3.E+01
TH-228			< 3.E+00	< 3.E+00
H-3	< 6.E+02	< 5.E+02	9.64E+02 ± 4.56E+02	9.26E+02 ± 3.80E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 5

DATE COLLECTED	1/19/2022	3/28/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)
BE-7			
K-40			
MN-54			
CO-58			
FE-59			
CO-60			
ZN-65			
ZR-95			
RU-103			
RU-106			
I-131			
CS-134			
CS-137			
BA-140			
LA-140			
CE-141			
CE-144			
RA-226			
TH-228			
H-3	< 3.E+02	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 6

DATE COLLECTED	3/15/2022	6/1/2022	9/5/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)	(a)
BE-7				
K-40				
MN-54				
CO-58				
FE-59				
CO-60				
ZN-65				
ZR-95				
RU-103				
RU-106				
I-131				
CS-134				
CS-137				
BA-140				
LA-140				
CE-141				
CE-144				
RA-226				
TH-228				
H-3	< 3.E+02	< 5.E+02	< 6.E+02	< 4.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 7D

DATE COLLECTED	3/16/2022	9/12/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 7S

DATE COLLECTED	3/16/2022	9/12/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 8

DATE COLLECTED	3/15/2022	6/1/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)
BE-7			
K-40			
MN-54			
CO-58			
FE-59			
CO-60			
ZN-65			
ZR-95			
RU-103			
RU-106			
I-131			
CS-134			
CS-137			
BA-140			
LA-140			
CE-141			
CE-144			
RA-226			
TH-228			
H-3	< 5.E+02	< 5.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 9

DATE COLLECTED	3/15/2022	6/1/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)
BE-7			
K-40			
MN-54			
CO-58			
FE-59			
CO-60			
ZN-65			
ZR-95			
RU-103			
RU-106			
I-131			
CS-134			
CS-137			
BA-140			
LA-140			
CE-141			
CE-144			
RA-226			
TH-228			
H-3	< 5.E+02	< 5.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 10

DATE COLLECTED	3/15/2022	6/1/2022	8/25/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	N/A ^b		N/A ^b	N/A ^b
BE-7		< 3.E+01		
K-40		< 1.E+01		
MN-54		< 2.E+00		
CO-58		< 3.E+00		
FE-59		< 8.E+00		
CO-60		< 2.E+00		
ZN-65		< 3.E+00		
ZR-95		< 6.E+00		
RU-103		< 5.E+00		
RU-106		< 2.E+01		
I-131		< 5.E+02		
CS-134		< 2.E+00		
CS-137		< 2.E+00		
BA-140		< 2.E+02		
LA-140		< 7.E+01		
CE-141		< 1.E+01		
CE-144		< 1.E+01		
RA-226		< 3.E+01		
TH-228		< 3.E+00		
H-3	N/A ^b	1.18E+03 ± 4.55E+02	N/A ^b	N/A ^b

b: Attempt to obtain samples on these dates. Sample was not obtainable because there was no water in GMW-10 (a 25' deep well). This is a result of low river level and low water table. Because sample could not be obtained from GMW-10, a sample was obtained from GMW-10D which is just next to GMW-10 but is 10' deeper. Results for GMW-10D are on page 2-15.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 10D

DATE COLLECTED	3/15/2022	8/25/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)		
BE-7		< 2.E+01	< 3.E+01
K-40		< 2.E+01	< 2.E+01
MN-54		< 1.E+00	< 2.E+00
CO-58		< 2.E+00	< 3.E+00
FE-59		< 4.E+00	< 8.E+00
CO-60		< 2.E+00	< 2.E+00
ZN-65		< 3.E+00	< 4.E+00
ZR-95		< 3.E+00	< 5.E+00
RU-103		< 3.E+00	< 5.E+00
RU-106		< 1.E+01	< 2.E+01
I-131		< 5.E+01	< 5.E+02
CS-134		< 1.E+00	< 2.E+00
CS-137		< 1.E+00	< 2.E+00
BA-140		< 4.E+01	< 2.E+02
LA-140		< 1.E+01	< 6.E+01
CE-141		< 5.E+00	< 1.E+01
CE-144		< 1.E+01	< 1.E+01
RA-226		< 4.E+01	< 4.E+01
TH-228		< 2.E+00	< 3.E+00
H-3	< 5.E+02	9.30E+02 ± 4.52E+02	1.18E+03 ± 4.53E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 11

DATE COLLECTED	3/15/2022	6/1/2022	8/25/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)	(a)
BE-7				
K-40				
MN-54				
CO-58				
FE-59				
CO-60				
ZN-65				
ZR-95				
RU-103				
RU-106				
I-131				
CS-134				
CS-137				
BA-140				
LA-140				
CE-141				
CE-144				
RA-226				
TH-228				
H-3	< 3.E+02	< 6.E+02	< 6.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 12

DATE COLLECTED	3/28/2022	9/12/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 3.E+02	< 6.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
**COOPER NUCLEAR STATION
 WATER - GROUND (PCI/LITER)**

STATION NUMBER 13

DATE COLLECTED	1/19/2022	3/28/2022	6/1/2022	9/5/2022
GAMMA SPECTRUM ANALYSIS:			(a)	(a)
BE-7	< 7.E+01	< 2.E+01		
K-40	< 1.E+02	< 1.E+01		
MN-54	< 7.E+00	< 1.E+00		
CO-58	< 7.E+00	< 2.E+00		
FE-59	< 2.E+01	< 5.E+00		
CO-60	< 6.E+00	< 1.E+00		
ZN-65	< 1.E+01	< 2.E+00		
ZR-95	< 1.E+01	< 3.E+00		
RU-103	< 7.E+00	< 3.E+00		
RU-106	< 6.E+01	< 1.E+01		
I-131	< 7.E+00	< 1.E+02		
CS-134	< 7.E+00	< 1.E+00		
CS-137	< 9.E+00	< 1.E+00		
BA-140	< 3.E+01	< 8.E+01		
LA-140	< 8.E+00	< 2.E+01		
CE-141	< 1.E+01	< 6.E+00		
CE-144	< 6.E+01	< 9.E+00		
RA-226	< 2.E+02	< 2.E+01		
TH-228	< 2.E+01	3.24E+00 ± 2.12E+00		
H-3	5.01E+02 ± 2.37E+02	3.78E+02 ± 2.08E+02	< 5.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 13

DATE COLLECTED 10/23/2022

GAMMA SPECTRUM ANALYSIS: (a)

BE-7
K-40
MN-54
CO-58
FE-59
CO-60
ZN-65
ZR-95
RU-103
RU-106
I-131
CS-134
CS-137
BA-140
LA-140
CE-141
CE-144
RA-226
TH-228

H-3 < 4.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 14

DATE COLLECTED	1/19/2022	6/1/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)		(a)
BE-7		< 3.E+01	
K-40		< 2.E+01	
MN-54		< 2.E+00	
CO-58		< 3.E+00	
FE-59		< 9.E+00	
CO-60		< 2.E+00	
ZN-65		< 4.E+00	
ZR-95		< 6.E+00	
RU-103		< 5.E+00	
RU-106		< 2.E+01	
I-131		< 5.E+02	
CS-134		< 2.E+00	
CS-137		< 2.E+00	
BA-140		< 2.E+02	
LA-140		< 8.E+01	
CE-141		< 1.E+01	
CE-144		< 1.E+01	
RA-226		< 3.E+01	
TH-228		< 3.E+00	
H-3	< 3.E+02	6.69E+02 ± 4.09E+02	< 4.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 15

DATE COLLECTED	6/1/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 5.E+02	< 4.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 16

DATE COLLECTED	1/19/2022	6/29/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)	(a)
BE-7			
K-40			
MN-54			
CO-58			
FE-59			
CO-60			
ZN-65			
ZR-95			
RU-103			
RU-106			
I-131			
CS-134			
CS-137			
BA-140			
LA-140			
CE-141			
CE-144			
RA-226			
TH-228			
H-3	< 3.E+02	< 5.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 17

DATE COLLECTED	6/1/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 5.E+02	< 4.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.

B-1
COOPER NUCLEAR STATION
WATER - GROUND (PCI/LITER)

STATION NUMBER 18

DATE COLLECTED	6/1/2022	10/23/2022
GAMMA SPECTRUM ANALYSIS:	(a)	(a)
BE-7		
K-40		
MN-54		
CO-58		
FE-59		
CO-60		
ZN-65		
ZR-95		
RU-103		
RU-106		
I-131		
CS-134		
CS-137		
BA-140		
LA-140		
CE-141		
CE-144		
RA-226		
TH-228		
H-3	< 5.E+02	< 5.E+02

(a) Gamma analysis not performed. Refer to section IV.A for additional information.