INL/RPT-23-74742
Revision 0

Idaho National Laboratory Site Environmental Surveillance Program Report: First Quarter 2023

March 2024

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EXECUTIVE SUMMARY

Some human-made radionuclides were detected in samples collected during the first quarter of 2023. None of the radionuclides detected in samples collected during the first quarter of 2023 could be directly linked with INL Site activities. All detected radionuclide concentrations were well below standards set by the U.S. Department of Energy (DOE) and regulatory standards established by the U.S. Environmental Protection Agency (EPA) for protection of the public.

This report for the first quarter of 2023 contains results from the INL Site environmental surveillance program's monitoring of the U.S. Department of Energy's Idaho National Laboratory (INL) Site's onsite, boundary and offsite location environment, January 1 through March 31, 2023. All sample types (media) and the sampling schedule followed during 2023 are listed in Appendix A. This report contains results for the following sample types:

- Air, including particulate air filters, charcoal cartridges, and atmospheric moisture
- Quarterly composites
- Precipitation
- Milk
- Large game animal sampling.

Table ES-1. Summary of results for the first quarter of 2023.

Media	Sample Type	Analysis	Results
Air	Particulate Filters	Gross alpha, gross beta	There were no statistically significant differences for the quarter and the months of January, February, and March for gross alpha concentrations. Statistically significant differences were observed for gross beta concentrations for the quarter, January, February, and March. Statistical differences were observed for gross beta concentrations between Craters of the Moon and nine sampling locations. No result exceeded the Derived Concentration Standard (DCS) for gross alpha or gross beta activity in air. Results were consistent with historical data as represented by the upper tolerance limit (UTL).
	Quarterly Composite	Gamma-emitting radionuclides, strontium-90, actinides (americium, plutonium, and uranium)	Cesium-137 was detected in quarterly composited samples from five locations. No other human-made gamma emitting radionuclides were found in quarterly composite samples. Strontium-90 was detected in quarterly composite samples from Specific Manufacturing Capability (SMC) and Blue Dome. A composite sample collected at Jackson, WY, had a detection of ^{238}U. None of the results exceeded their corresponding DCS values.
	Charcoal Cartridge	Iodine-131	Iodine-131 was not detected in any of the batches of charcoal cartridges counted during the quarter.
Atmospheric Moisture	Liquid	Tritium	None of the 8 results showed tritium concentrations greater than the 3s uncertainty.
Precipitation	Liquid	Tritium	A total of 27 samples were collected during the first quarter. Eleven results contained tritium greater than the 3s uncertainty. The values are within historical range and below the DCS for tritium in water.
Milk	Liquid	Iodine-131, other gamma-emitting radionuclides	Forty-four milk samples were collected at seven locations (including the offsite control sample from Colorado and three duplicates). No human-made gamma-emitting radionuclides were detected.
Large game animals	Tissue	Gamma-emitting radionuclides	No human-made gamma-emitting radionuclides were found in any of the tissue samples collected in first quarter.

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ACRONYMS

ATR	Advanced Test Reactor
CFA	Central Facilities Area
DCS	Derived Concentration Standard
DOE	U.S. Department of Energy
EBR I	Experimental Breeder Reactor I
EFS	Experimental Field Station
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
HWY	Highway
ICP	Idaho Cleanup Project
ICPP	Idaho Chemical Processing Plant
INEEL	Idaho National Engineering and Environmental Laboratory
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center (formerly ICPP)
ISU-EAL	Idaho State University-Environmental Assessment Laboratory
MAPEP	Mixed Analyte Performance Evaluation Program
MDC	minimum detectable concentration
MFC	Materials and Fuels Complex
NRF	Naval Reactors Facility
NRTS	National Reactor Testing Station
OSLD	optically stimulated luminescent dosimeter
PE	performance evaluation
RHLLW	Remote-handled Low-Level Waste
RWMC	Radioactive Waste Management Complex
SMC	Specific Manufacturing Capability
UTL	upper tolerance limit

UNITS

Bq	becquerel
Ci	curie
g	gram
L	liter
µCi	microcurie
ml	milliliter
mrem	millirem
mR	milliroentgen
pCi	picocurie

1. INL Contractor Program Description

Operations at the Idaho National Laboratory (INL) Site are conducted under requirements imposed by the U.S. Department of Energy (DOE) under authority of the Atomic Energy Act and the U.S. Environmental Protection Agency (EPA) under several acts (e.g., the Clean Air Act and Safe Drinking Water Act). The requirements imposed by DOE are specified in DOE Orders. These requirements include those to monitor the effects of DOE activities both inside and outside the boundaries of DOE facilities (DOE 2011, DOE 2015).

During calendar year 2023, environmental surveillance within the INL Site boundaries was primarily the responsibility of the INL and Idaho Cleanup Project (ICP) contractors. The INL contractor also provides surveillance off the INL Site.

This report contains integrated surveillance monitoring results from the INL contractor for samples collected during the first quarter of 2023 (January 1 – March 31, 2023).

The INL environmental surveillance program is designed to satisfy the following objectives:

- verify compliance with applicable environmental laws, regulations, and DOE Orders
- characterize and define trends in the physical, chemical, and biological condition of environmental media on and around the INL Site
- assess the potential radiation dose to members of the public from INL Site effluents
- present laboratory data which has been reviewed using an EPA quality assurance process.

The goal of the surveillance program is to monitor different media at a number of potential exposure points within the various exposure pathways, including air, water, agricultural products, wildlife, and soil that could possibly contribute to the radiation dose received by the public.

Environmental samples collected include:

- air at 37 low-volume air samplers (four of which are used as replicate samplers) at 33 locations on and around the INL Site
- atmospheric moisture at two INL Site locations and at four locations off the INL Site
- precipitation collected at one INL Site location and three locations off the INL Site
- drinking water collected from eight locations off the INL Site
- surface water collected from three springs located downgradient of the INL Site and from five locations along the Big Lost River, when it is flowing, on the INL Site
- agricultural products, including milk at six dairies around the INL Site, potatoes from at least eight regional producers, alfalfa from three locations off the INL Site, grain (wheat and barley) from approximately nine regional producers, and lettuce from approximately seven home-owned and portable gardens on and around the INL Site
- soil from 30 locations on and around the INL Site every five years
- environmental dosimeters from 196 locations semi-annually
- various numbers of wildlife including bats, big game (pronghorn, mule deer, and elk) and waterfowl sampled from the INL Site.

Table A-1 in Appendix A lists samples, sampling locations, and collection frequency for the INL contractor.

Three laboratories were used to perform analyses on routine environmental samples collected during the quarter identified in this report. The INL Environmental Services In Situ Gamma Laboratory was used to scan charcoal cartridges for gamma-emitting radionuclides. The Idaho State University Environmental Assessment Laboratory performed routine gross alpha, gross beta, tritium, and gamma spectrometry analyses. GEL Laboratories performed routine gross alpha, gross beta, and gamma spectrometry analyses. Analyses requiring radiochemistry including strontium-90 (^{90}Sr), plutonium-238 (^{238}Pu), plutonium-239/240 ($^{239/240}$Pu), uranium-233/234 ($^{233/234}$U), uranium-235 (^{235}U), uranium-238 (^{238}U) and ^{241}Am were also performed by GEL Laboratories.

In the event of non-routine occurrences, such as suspected releases of radioactive material, the INL contractor may increase the frequency of sampling and/or the number of sampling locations based on the nature of the release and wind distribution patterns. Any data found to be outside historical norms is thoroughly investigated to determine if an INL Site origin is likely. Investigation may include re-sampling and/or re-analysis of prior samples.

In the event of any suspected worldwide nuclear incidents, like the 1986 Chernobyl accident or the 2011 Fukushima accident, the EPA may request additional sampling be performed through RadNet. RadNet is a nationwide environmental radiation monitoring system that monitors the nation's air, precipitation, and drinking water for radiation. The INL contractor currently operates a high-volume air sampler and collects precipitation and drinking water in Idaho Falls for this national program and routinely sends samples to EPA's Eastern Environmental Radiation Facility for analyses. The RadNet data collected at Idaho Falls are not reported by the INL contractor but are available through the EPA RadNet website (https://www.epa.gov/radnet).

Once samples have been collected and analyzed, the INL contractor has the responsibility for quality control of the data, entry into databases, and reporting in quarterly reports. The quarterly reports are then consolidated into the INL Site Environmental Report for each calendar year. The annual report also includes data collected by other INL Site contractors.

The results reported in the quarterly and annual reports are assessed in terms of data quality and statistical significance with respect to laboratory analytical uncertainties, sample locations, reported INL Site releases, meteorological data, and worldwide events that might conceivably affect the INL Site environment. First, field collection and laboratory information are reviewed to determine identifiable errors that would invalidate or limit use of the data. Examples of such limitations include insufficient sample volume, torn filters, evidence of laboratory cross-contamination or quality control issues. Data that pass initial screening are further evaluated using statistical methods. Statistical tools are necessary for data evaluation particularly since environmental measurements typically involve the determination of minute concentrations, which are difficult to detect and even more difficult to distinguish from other measurements.

Results are presented in this report with an analytical uncertainty term, s, where 's' is the estimated sample standard deviation (σ), assuming a Gaussian or normal distribution. All results are reported in this document, even those that do not necessarily represent detections. The term 'detected,' as used for the discussion of results in this report, does not imply any degree of risk to the public or environment, but rather indicates that the radionuclide was measured at a concentration sufficient for the analytical instrument to record a value that is statistically different from background. Laboratory measurements involve the analysis of a target sample and the analysis of a prepared laboratory blank (i.e., a sample which is identical to the sample collected in the environment, except that the radionuclide of interest is absent). In order to conclude that a radionuclide has been detected, it is essential to consider two fundamental aspects of the problem of detection: (1) the instrument signal for the sample must be greater than that observed for the blank before the decision can be made that the radionuclide has been detected; and (2) an estimate must be made of the minimum radionuclide concentration that will yield a sufficiently large observed signal before the correct decision can be made for detection or non-detection. Each

laboratory currently defines a detection of radioactivity in an individual sample if the result exceeds a detection level calculated by the laboratory after the analysis of a background sample, based on calculations derived by Currie (1984). The minimum detectable concentration (MDC) is defined as the concentration at which there is a 95% confidence that an analyte signal will be distinguishable from an analyte-free sample.

In addition, the INL contractor uses the three standard deviation criterion to minimize the chance that a potentially false positive result is included in the data set. Statistically, the probability that a result can exceed the absolute value of its total uncertainty at three standard deviations by chance alone is less than 1%. A result that is greater than three times the total uncertainty of the measurement represents a statistically positive detection with over 99% confidence (DOE 2022a). The INL contractor reports measured radionuclide concentrations greater than or equal to their respective 3s uncertainties as being detected with confidence.

Concentrations between 2s and 3s are reported as questionably detected. That is, the radionuclide may be present in the sample; however, the probability that a result can exceed the absolute value of its total uncertainty at two standard deviations by chance alone may be as high as 5%. Measurements made between 2s and 3s are examined further to determine if they are a part of a pattern (temporal or spatial) that might warrant further investigation or recounting. For example, if a radionuclide is routinely detected at > 3s at a specific location, a sample result between 2s and 3s might be considered detected.

If a result is less than or equal to 2s there is even less statistical confidence that the radionuclide is present in the sample. Analytical results in this report are presented as the result value ± one standard deviation (1s) for reporting consistency with the annual report. To obtain the 2s or 3s values simply multiply the uncertainty term by 2 or 3.

Data are also compared to historical measurements using the upper tolerance limit (UTL). The UTL is a value such that 99% of the population (all valid measurements made between 2011-2020) is less than the UTL with 95% confidence (EPA 2015). With a 99%/95% UTL it is expected that approximately 1% of the measurements will exceed the UTL if the concentration of a radionuclide is within the normal range. This means that if a concentration exceeds the UTL it does not necessarily indicate that the sampling location is outside of the normal range. Rather, it indicates that the measurement should be closely examined to determine if it is unusually high.

For more information concerning the INL environmental surveillance program, please email George.KrauszerII@inl.gov, or visit https://inl.gov/environmental-monitoring/.

2. INL Site

The INL Site is a nuclear energy and homeland security research and environmental management facility. It is owned and administered by the DOE, Idaho Operations Office and occupies about 890 mi^2 (2,300 km^2) of the upper Snake River Plain in Southeastern Idaho (Figure 1). The history of the INL Site began during World War II when the U.S. Naval Ordnance Station was located in Pocatello, Idaho. This station, one of two such installations in the U.S., retooled large guns from U.S. Navy warships. The retooled guns were tested on the nearby, uninhabited plain, known as the Naval Proving Ground. In the years following the war, as the nation worked to develop nuclear power, the Atomic Energy Commission, predecessor to the DOE, became interested in the Naval Proving Ground and made plans for a facility to build, test, and perfect nuclear power reactors.

The Naval Proving Ground became the National Reactor Testing Station (NRTS) in 1949, under the Atomic Energy Commission. By the end of 1951, a reactor at the NRTS became the first to produce useful amounts of electricity. Over time the site has operated 52 various types of reactors, associated research centers, and waste handling areas. The NRTS was renamed the Idaho National Engineering Laboratory in 1974, and the Idaho National Engineering and Environmental Laboratory (INEEL) in January 1997. With renewed interest in nuclear power the DOE announced in 2003 that Argonne National Laboratory and the INEEL would be the lead laboratories for development of the next generation of power reactors. On February 1, 2005, the INEEL and Argonne National Laboratory-West became the INL. The INL is committed to providing international nuclear leadership for the 21st Century, developing and demonstrating compelling national security technologies, and delivering excellence in science and technology as one of the DOE's multi-program national laboratories. Battelle Energy Alliance, LLC, is responsible for the management and operations of the INL.

The ICP is a separately managed effort. The ICP is charged with safely and cost-effectively completing the majority of cleanup work from past laboratory missions in an ongoing process. The Idaho Environmental Coalition, LLC, is responsible for the ICP.

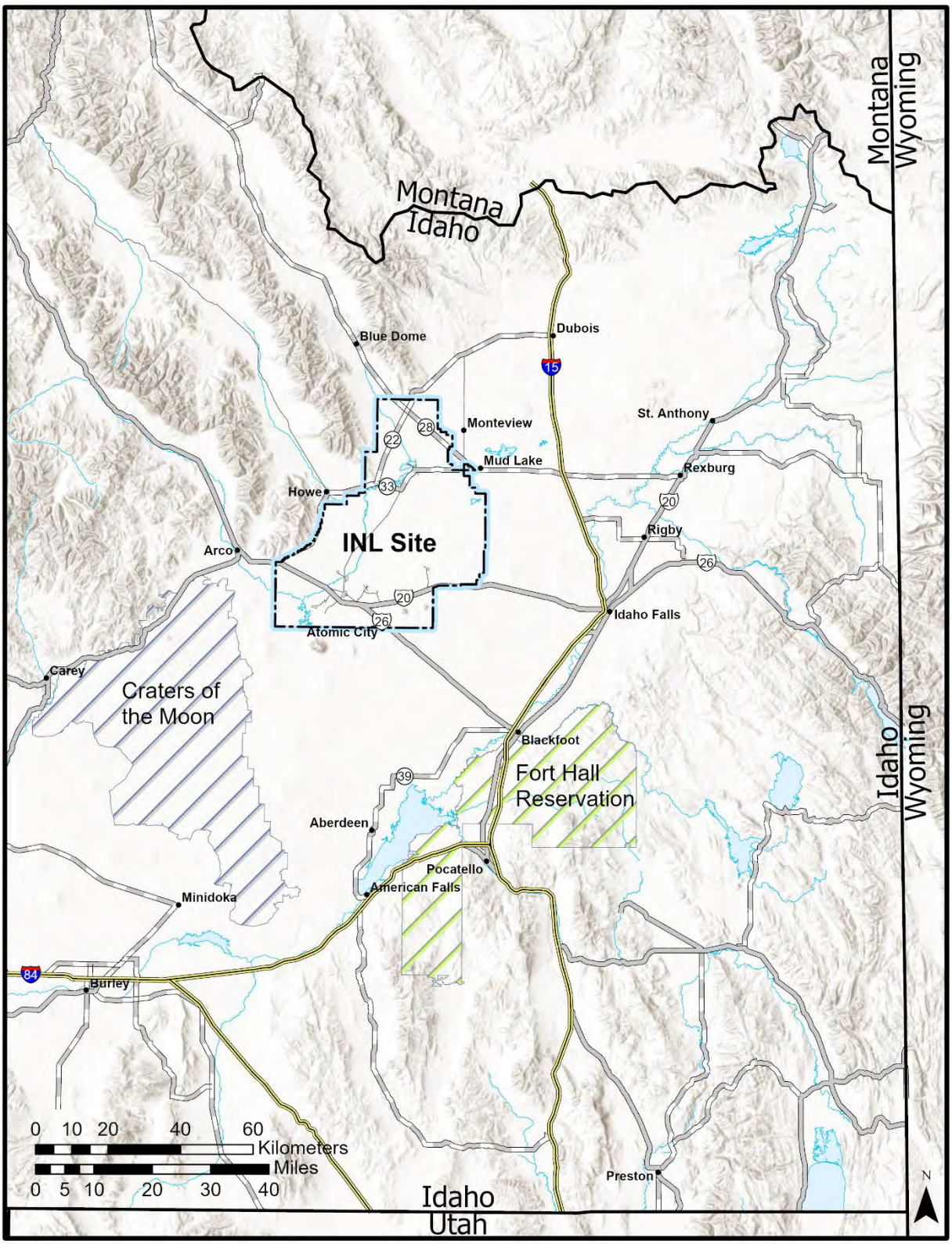

Figure 1. Location of the INL Site.

3. Air Sampling

The primary pathway by which radionuclides can move off the INL Site is through the air and for this reason the air pathway is the primary focus of monitoring on and around the INL Site. Samples for particulates and iodine-131 (^{131}I) gas in air were collected weekly for the duration of the quarter at 33 locations using low-volume air samplers. Moisture in the atmosphere was sampled at six locations around the INL Site and analyzed for tritium. Air sampling activities and results for the first quarter of 2023 are discussed below. A summary of approximate MDCs for radiological analyses and DOE Derived Concentration Standard (DCS) (DOE 2022b) values is provided in Appendix B.

3.1 Low-volume Air Sampling

Radioactivity associated with airborne particulates was monitored continuously by 37 low-volume air samplers (four of which are used as replicate samplers) at 33 locations during the first quarter of 2023 (Figure 2). Twenty-one of these samplers are located onsite, seven are situated off the INL Site near the boundary, and nine have been placed at locations off the INL Site. Samplers are divided into onsite, boundary, and offsite groups to determine if there is a gradient of radionuclide concentrations, increasing towards the INL Site. Each replicate sampler is relocated every other year to a new location. During the first quarter 2023, replicate samplers were located at Dubois (offsite location), Idaho Nuclear Technology and Engineering Center (INTEC) – westside (onsite location), Radioactive Waste Management Complex (RWMC) (onsite location), and Van Buren (onsite location). Particulates in air were collected on membrane particulate filters (1.2 µm pore size), whereas gases passing through the filter were collected with an activated charcoal cartridge.

Filters and charcoal cartridges were changed weekly at each station during the quarter. Each particulate filter was analyzed for gross alpha and gross beta radioactivity using thin-window gas flow proportional counting systems after waiting about four days for shorter-lived naturally-occurring daughter products of radon and thorium to decay.

The weekly particulate filters collected during the quarter for each location were composited and analyzed for gamma-emitting radionuclides. Composites were also analyzed for ^{90}Sr, ^{238}Pu, $^{239/240}$Pu, $^{233/234}$U, ^{235}U, ^{238}U, and ^{241}Am.

Charcoal cartridges were analyzed for gamma-emitting radionuclides, specifically for ^{131}I, using two methods. Cartridges analyzed by Idaho State University Environmental Assessment Laboratory are done in batches of ten as an initial scan. If the scan results in ^{131}I activity above 3-sigma, the cartridges are split into smaller batches and analyzed to identify the cartridge which contains the radioanalyte above 3-sigma. Cartridges which are analyzed by the INL Environmental Services In Situ Gamma Laboratory are scanned individually. If the scan of an individual cartridge results in a positive detection, the cartridge is shipped to GEL Laboratories for analysis. Iodine-131 is of particular interest because it is produced in relatively large quantities by nuclear fission, is readily accumulated in human and animal thyroids, and has a half-life of eight days. This means that any elevated level of ^{131}I in the environment could be from a recent release of fission products.

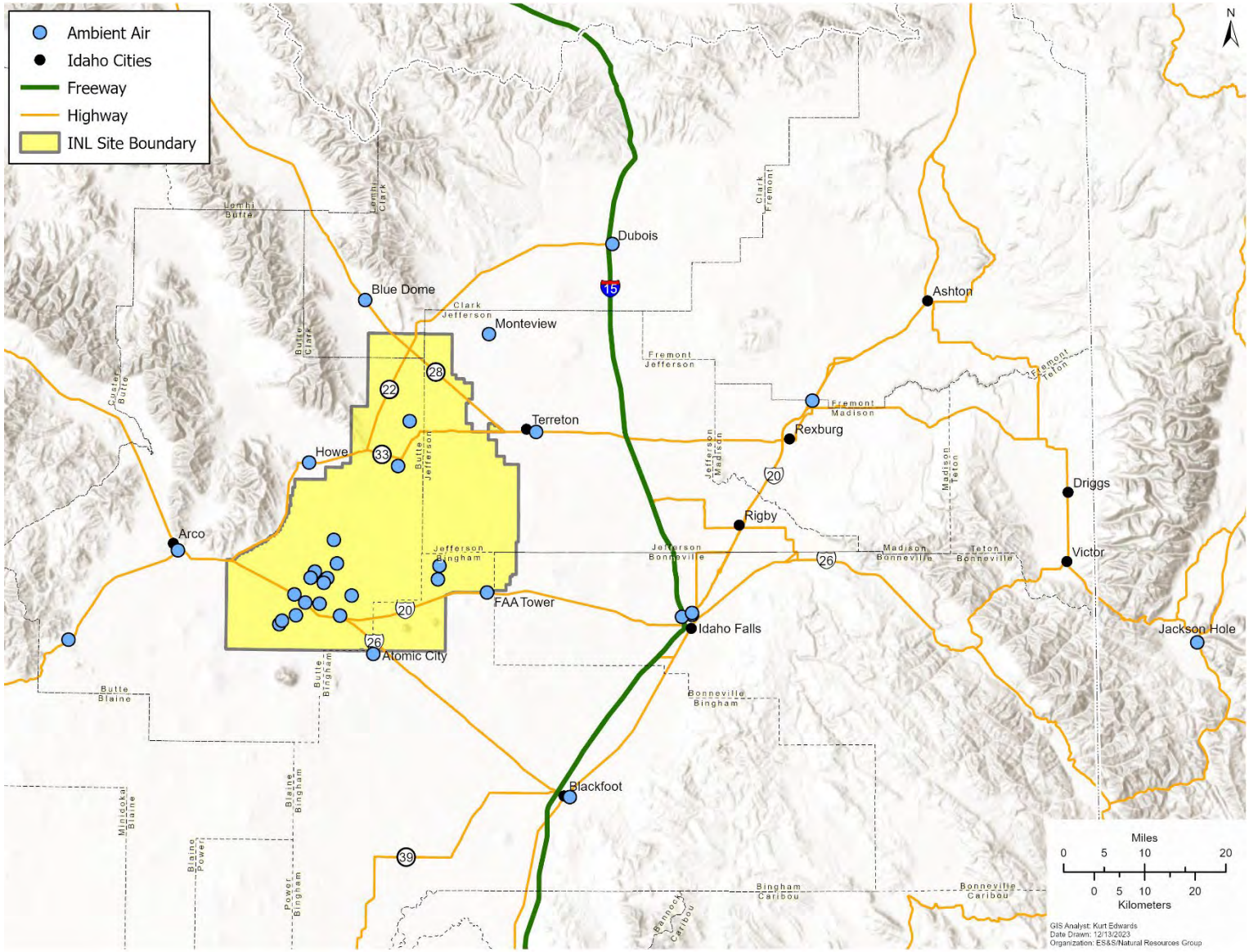

Figure 2. INL contractor air monitoring locations.

Gross alpha results are reported in Table C-1 and shown in Figures 3 through 6. Gross alpha concentrations measured in individual samples ranged from a low of $(-0.6 \pm 0.9) \times 10^{-16}$ µCi/ml collected at RWMC-South on January 10, 2023, to a high of $(22.1 \pm 0.5) \times 10^{-15}$ µCi/ml collected at Dubois (QA) on January 3, 2023. All results were less than the DCS of 1.1×10^{-13} µCi/ml for $^{239/240}$Pu (see Table B-1 of Appendix B). In addition, the results were consistent with historical data, as represented by the 99%/95% UTL for gross alpha activity (4.8×10^{-15} µCi/ml). The UTL was determined using ten years of historical data (measured from 2011 through 2020) and the ProUCL statistical software (https://www.epa.gov/land-research/proucl-software). The 99%/95% UTL is a value such that 99% of the population (all possible air measurements) is less than the UTL with 95% confidence. With a 99%/95% UTL it is expected that approximately 1% of the measurements will exceed the UTL if the concentration of gross alpha is within the normal range. This means that if a concentration exceeds the UTL it does not necessarily indicate that the result is outside of the normal range. Rather, it indicates that the measurement should be closely examined to determine if it is unusually high.

Gross alpha data have been tested for distribution (normally or lognormally distributed) and generally show no consistent discernible distribution. Because there is no discernible distribution of the data, a parametric test of significance cannot be used. The nonparametric Kruskal-Wallis analysis of variance by ranks test of multiple independent groups was used to determine statistical differences between onsite, boundary, and offsite locations. The test assesses the hypothesis that the different samples in the comparison were drawn from the same distribution or from distributions with the same median. In the computation of the Kruskal-Wallis test, each of the N observations is replaced by a rank. That is, all the results from all the locations are combined and ranked in a single series with the smallest result replaced by rank 1 and the largest result replaced by rank N (i.e., the total number of results). The sum of the ranks in each location group (i.e., onsite, boundary, and offsite) is found and then averaged for each group. If the samples are from the same populations, the average ranks should be about the same, whereas if the samples are from populations with different medians, the average ranks should differ. Statistically significant difference exists between data groups if the p-value (or probability value) is less than 0.05. Values greater than 0.05 translate into a 95% confidence that the medians are statistically the same. The p-value for each comparison is shown in Table D-1. There was no statistically significant difference among groups for the quarter and the months of January, February, and March (Table D-1). To determine if there were any differences between stations and where the differences occur, the Kruskal-Wallis analysis of variance by ranks test was used again. A statistical difference was determined between Craters of the Moon and Idaho Falls (Table D-2).

Gross beta results are presented in Table C-1 and displayed in Figures 7 through 10. Gross beta concentrations measured in individual samples ranged from a low of $(0.8 \pm 1.7) \times 10^{-16}$ µCi/ml collected at RWMC-South on January 10, 2023, to a high of $(62.9 \pm 1.9) \times 10^{-15}$ µCi/ml collected at Specific Manufacturing Capability (SMC) on February 7, 2023. The typical temporal fluctuations in gross beta concentrations in air were observed during the quarter. All results were less than the DCS of 9.6×10^{-12} µCi/ml for ^{90}Sr (see Table B-1 of Appendix B). In addition, the results were consistent with historical data, as represented by the 99%/95% UTL for gross beta activity (6.1×10^{-14} µCi/ml). The data were tested quarterly and generally are found to be neither normally nor log-normally distributed. Box and whiskers plots were used to present the non-parametric data. Outliers and extreme values were retained in subsequent statistical analyses because they are within the range of measurements made in the past ten years, and because these values could not be attributed to mistakes in collection, analysis, or reporting procedures.

There were statistically significant differences in the gross beta data between groups for the quarter, January, February, and March (Table D-1). To determine if there were any differences between stations and where the differences occur, multiple comparisons were also made using the Kruskal-Wallis analysis of variance by ranks test between gross beta concentrations measured at all locations. Statistical differences were determined for Craters of the Moon when compared to Advanced Test Reactor (ATR)

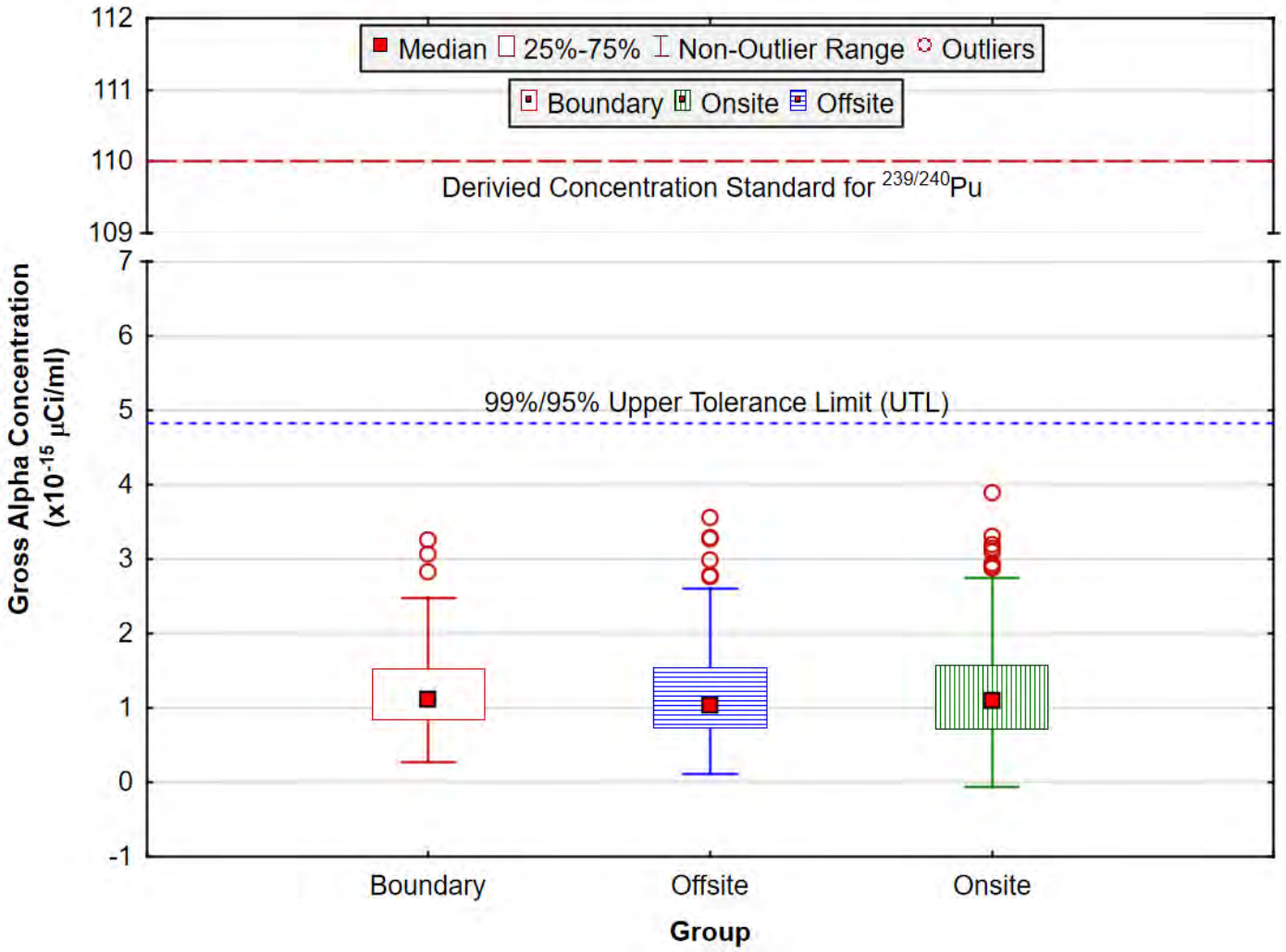

Figure 3. Gross alpha concentrations in air at onsite, boundary, and offsite locations for the first quarter of 2023. The DCS is the concentration of $^{239/240}Pu$ in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{234}U, ^{232}Th, ^{226}Ra, and ^{210}Po) in uncertain proportions, a meaningful DCS cannot be constructed for gross alpha concentrations. The DCS for $^{239/240}Pu$ is shown because it is the most restrictive human-made alpha emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

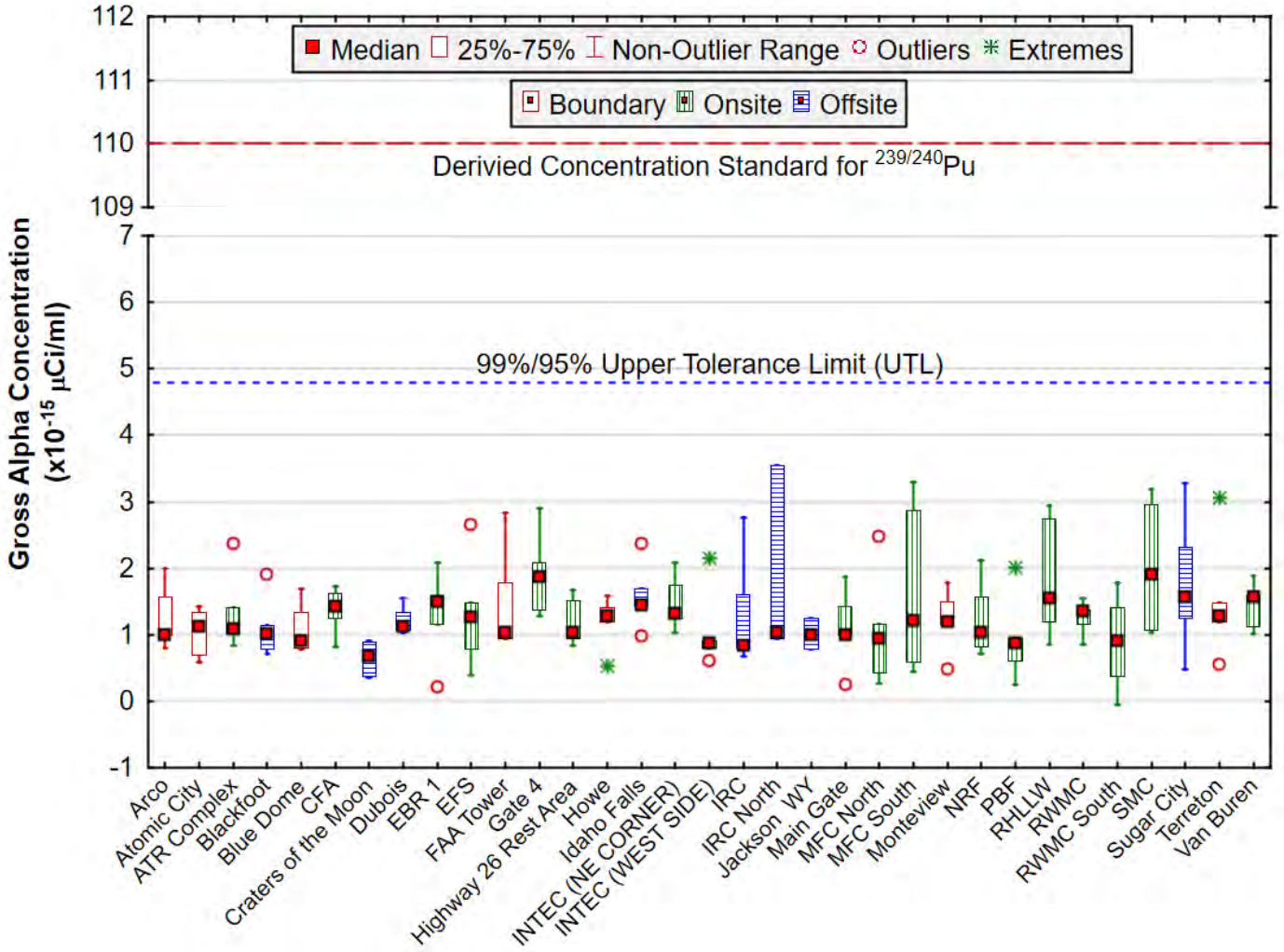

Figure 4. January 2023 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}Pu$ in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{234}U, ^{232}Th, ^{226}Ra, and ^{210}Po) in uncertain proportions, a meaningful DCS cannot be constructed for gross alpha concentrations. The DCS for $^{239/240}Pu$ is shown because it is the most restrictive human-made alpha emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

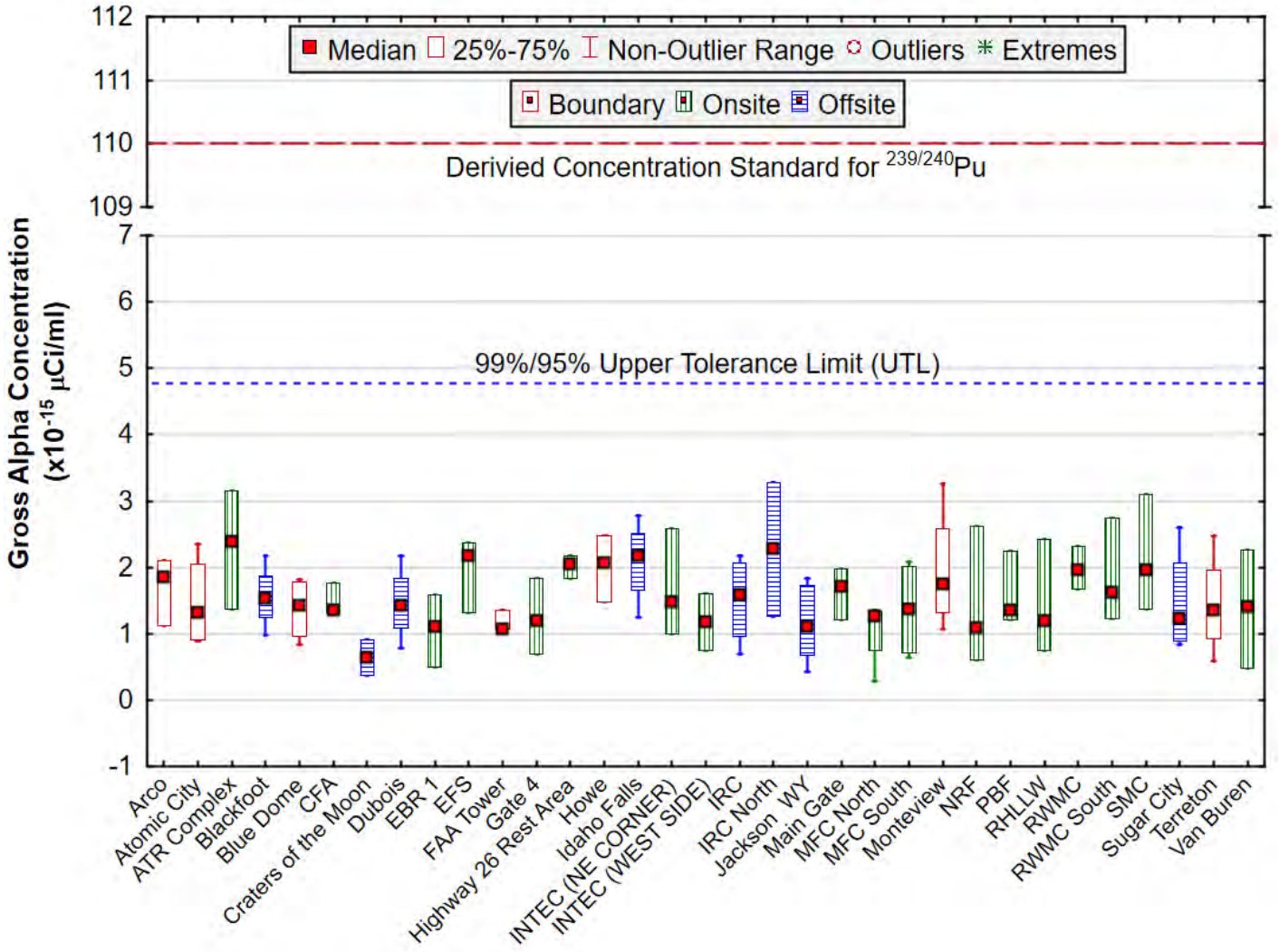

Figure 5. February 2023 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}Pu$ in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{234}U, ^{232}Th, ^{226}Ra, and ^{210}Po) in uncertain proportions, a meaningful DCS cannot be constructed for gross alpha concentrations. The DCS for $^{239/240}Pu$ is shown because it is the most restrictive human-made alpha emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

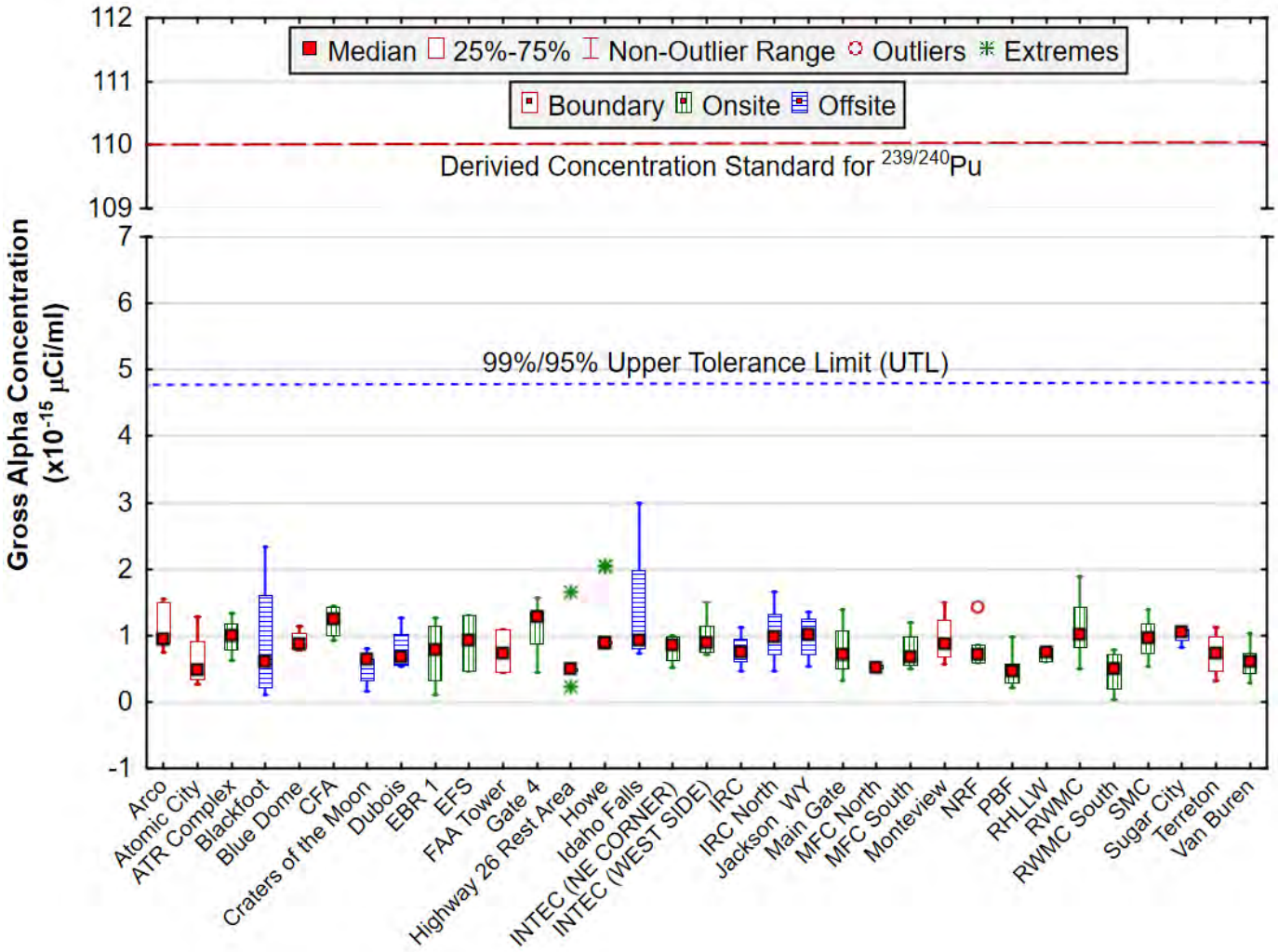

Figure 6. March 2023 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}Pu$ in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{234}U, ^{232}Th, ^{226}Ra, and ^{210}Po) in uncertain proportions, a meaningful DCS cannot be constructed for gross alpha concentrations. The DCS for $^{239/240}Pu$ is shown because it is the most restrictive human-made alpha emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

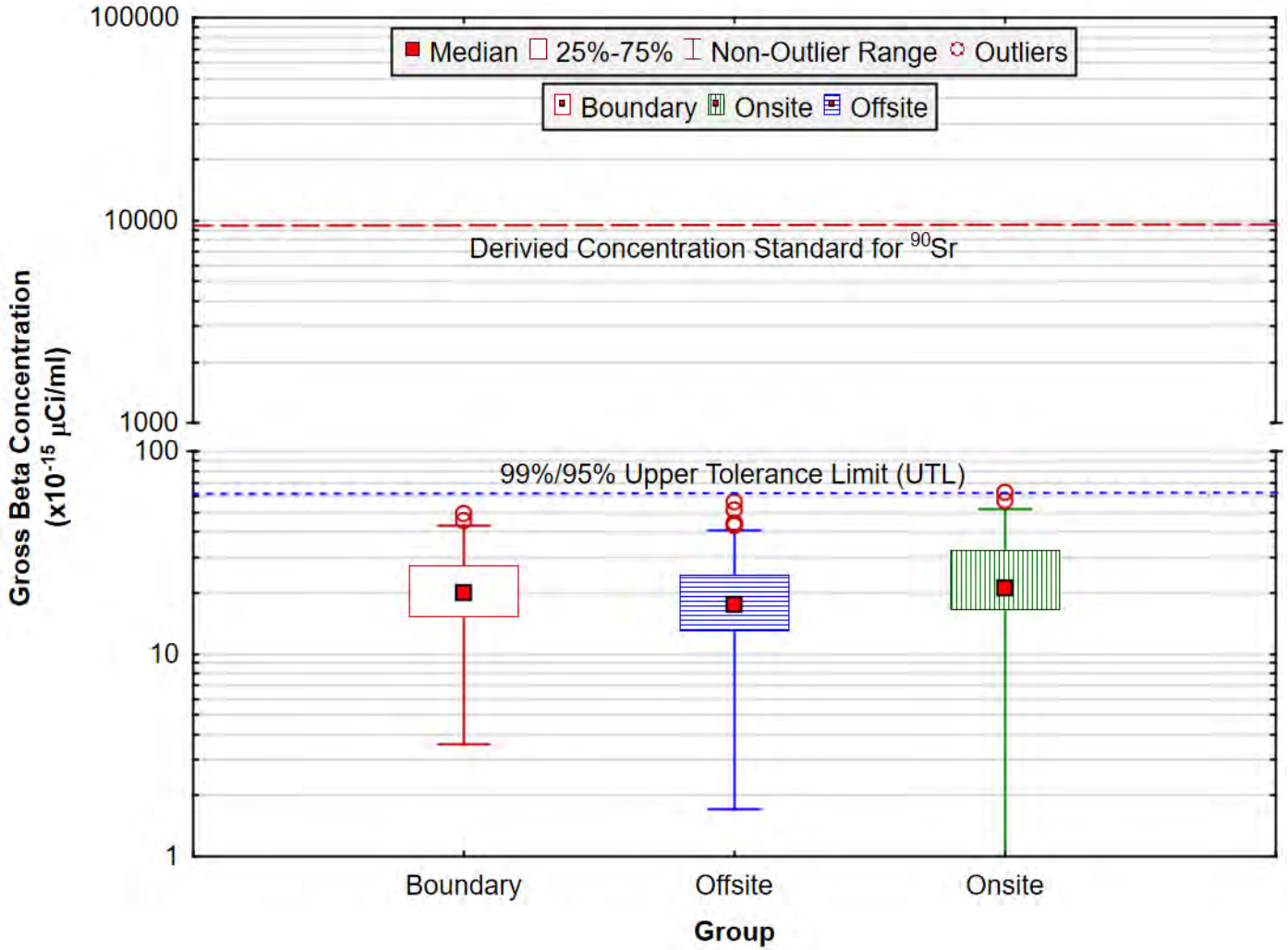

Figure 7. Gross beta concentrations in air at onsite, boundary, and offsite locations for the first quarter of 2023. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, and ^{210}Pb) in uncertain proportions, a meaningful DCS cannot be constructed for gross beta concentration. The DCS for ^{90}Sr is shown because it is the most restrictive human-made beta emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

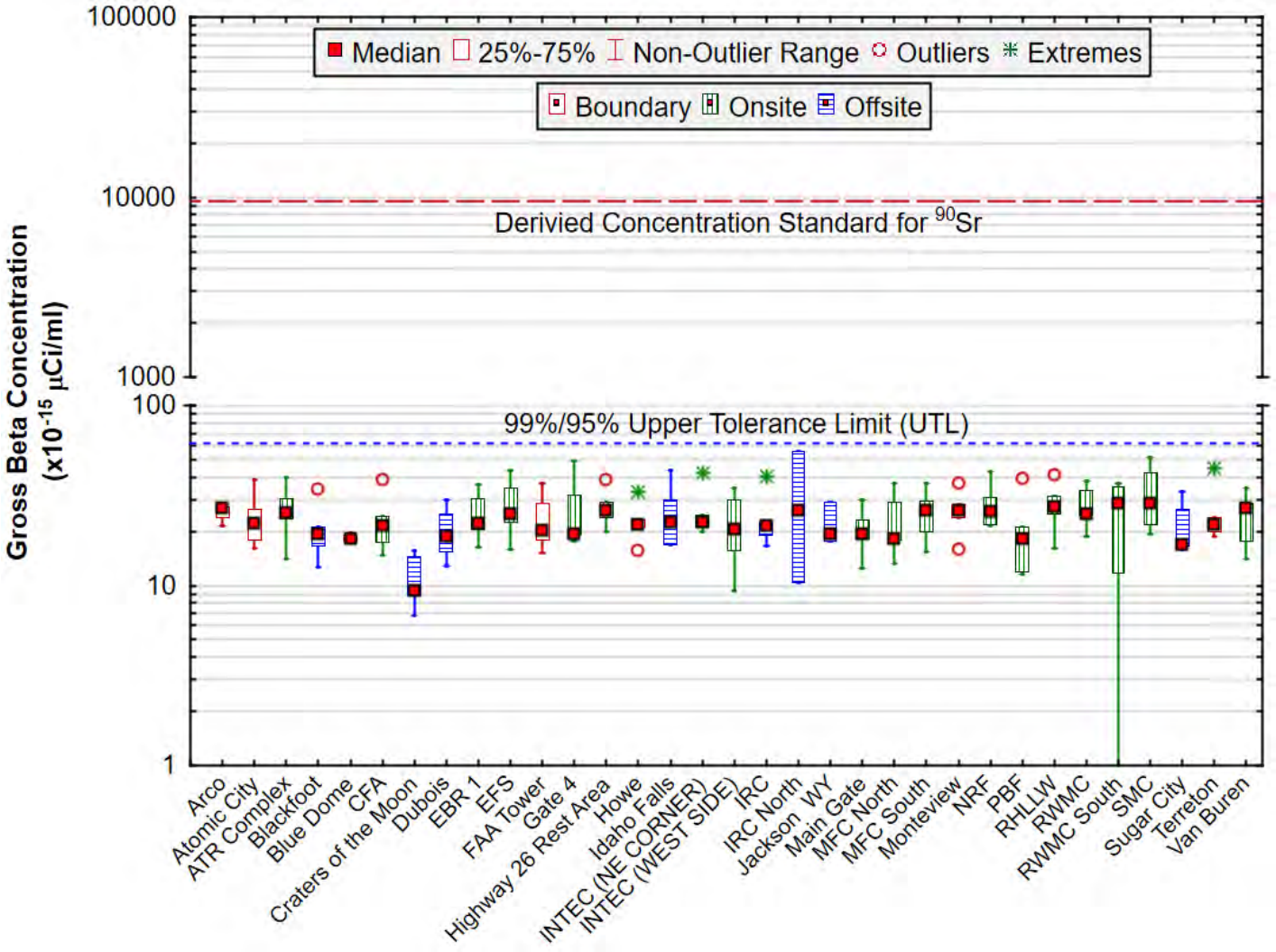

Figure 8. January 2023 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, and ^{210}Pb) in uncertain proportions, a meaningful DCS cannot be constructed for gross beta concentrations. The DCS for ^{90}Sr is shown because it is the most restrictive human-made beta emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

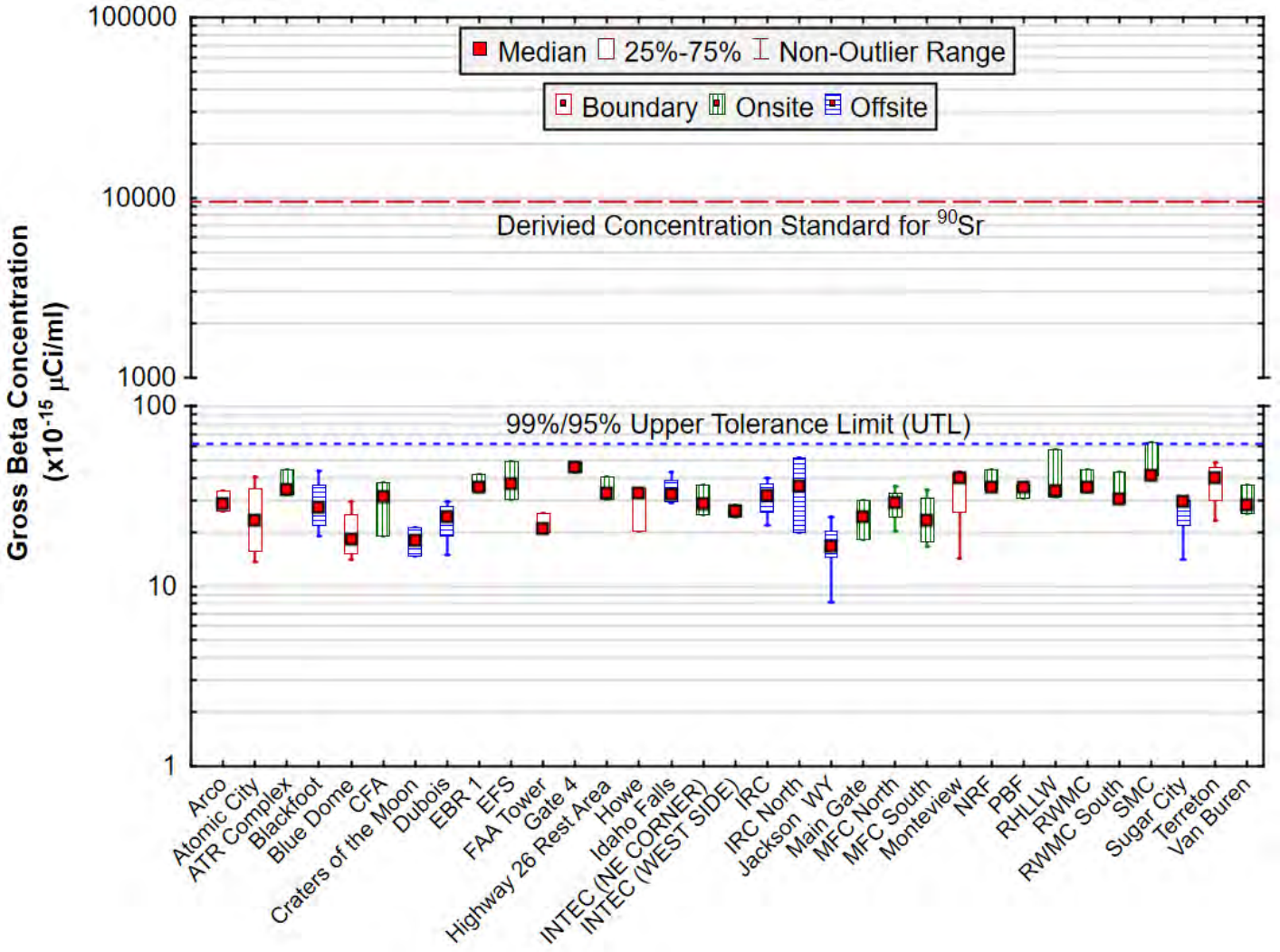

Figure 9. February 2023 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, and ^{210}Pb) in uncertain proportions, a meaningful DCS cannot be constructed for gross beta concentrations. The DCS for ^{90}Sr is shown because it is the most restrictive human-made beta emitter. The UTL represents the value below which 99% of the population values are expected to fall with 95% confidence.

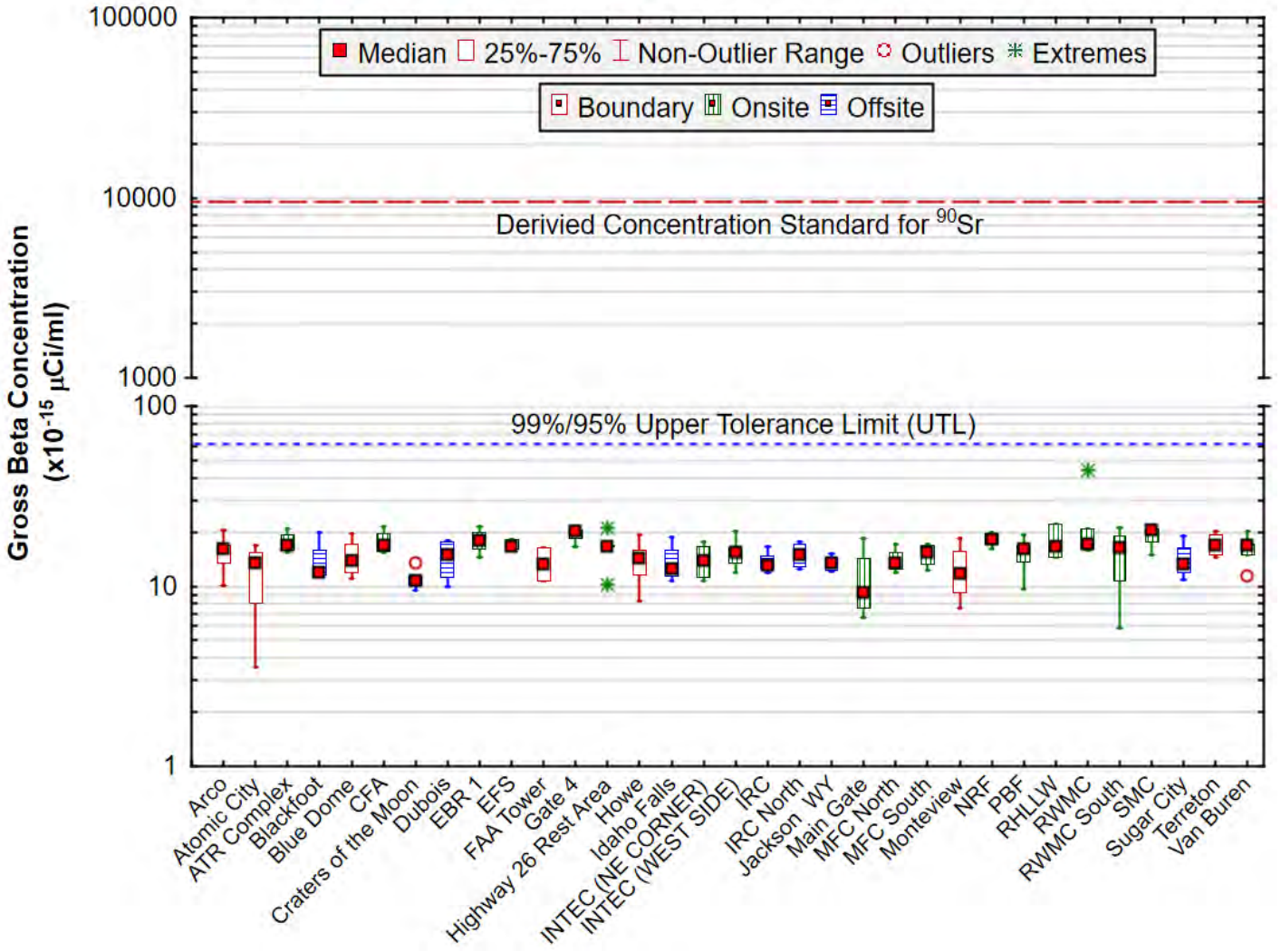

Figure 10. March 2023 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, and ^{210}Pb) in uncertain proportions, a meaningful DCS cannot be constructed for gross beta concentrations. The DCS for ^{90}Sr is shown because it is the most restrictive human-made beta emitter. The UTL represents the value below which 99% of the population are expected to fall with 95% confidence.

Complex, Experimental Breeder Reactor I (EBR 1), Experimental Field Station (EFS), Gate 4, Naval Reactors Facility (NRF), Remote-handled Low-Level Waste (RHLLW), RWMC, SMC, and Terreton (Table D-3).

Iodine-131 was not detected in any of the charcoal cartridges measured during the first quarter. Weekly ^{131}I results for each location are listed in Table C-2.

Cesium-137 was detected in samples collected at EFS, RWMC-South, SMC, Highway 26 Rest Area, and Van Buren. The duplicate sample collected at Van Buren did not detect ^{137}Cs. The results for these locations were below the DCS for ^{137}Cs in air (3.8×10^{-11} µCi/mL). No other human-made gamma-emitting radionuclides were found in quarterly air composites. Strontium-90, a beta-emitting radionuclide associated with historic nuclear weapons testing fallout, was detected in composite samples at SMC and Blue Dome (Table C-3). The results for both locations were below the DCS for ^{90}Sr in air (9.6×10^{-11} µCi/mL).

No ^{241}Am, ^{238}Pu, $^{239/240}Pu$, $^{233/234}U$ and ^{235}U were detected in composite samples collected in the first quarter of 2023. A composite sample collected at Jackson, WY, had a detection of ^{238}U. Insufficient data is available to calculate a UTL requiring more data to be collected. Uranium occurs naturally in various rocks and soil, can be suspended in the air and captured on an air filter. The United Nations Scientific committee on the Effects of Atomic Radiation lists ^{238}U air concentrations in the United State to be between 2.43×10^{-17} µCi/mL to 1.35×10^{-16} µCi/mL (UNSCEAR 2000). The result was below the DOE DCS value for ^{238}U in air (1.8×10^{-13} µCi/mL).

3.2 Atmospheric Moisture Sampling

Atmospheric moisture is collected by pulling air through a column of absorbent material (molecular sieve material) to absorb water vapor. The water is then extracted from the absorbent material by heat distillation. The resulting water samples are then analyzed for tritium using liquid scintillation.

Results were available for 8 atmospheric moisture samples collected at the onsite and offsite locations during the first quarter of 2023 (Figure 11). None of the results exceeded the 3s uncertainty level for tritium. The 99%/95% UTL for atmospheric moisture is 1.6×10^{-12} µCi/mL$_{air}$. Results are similar between the sampling locations. The DOE DCS for tritium in air (as water vapor) if 1.3×10^{-7} µCi/mL$_{air}$ (see Table B-1 of Appendix B). Results are shown in Table C-4, Appendix C.

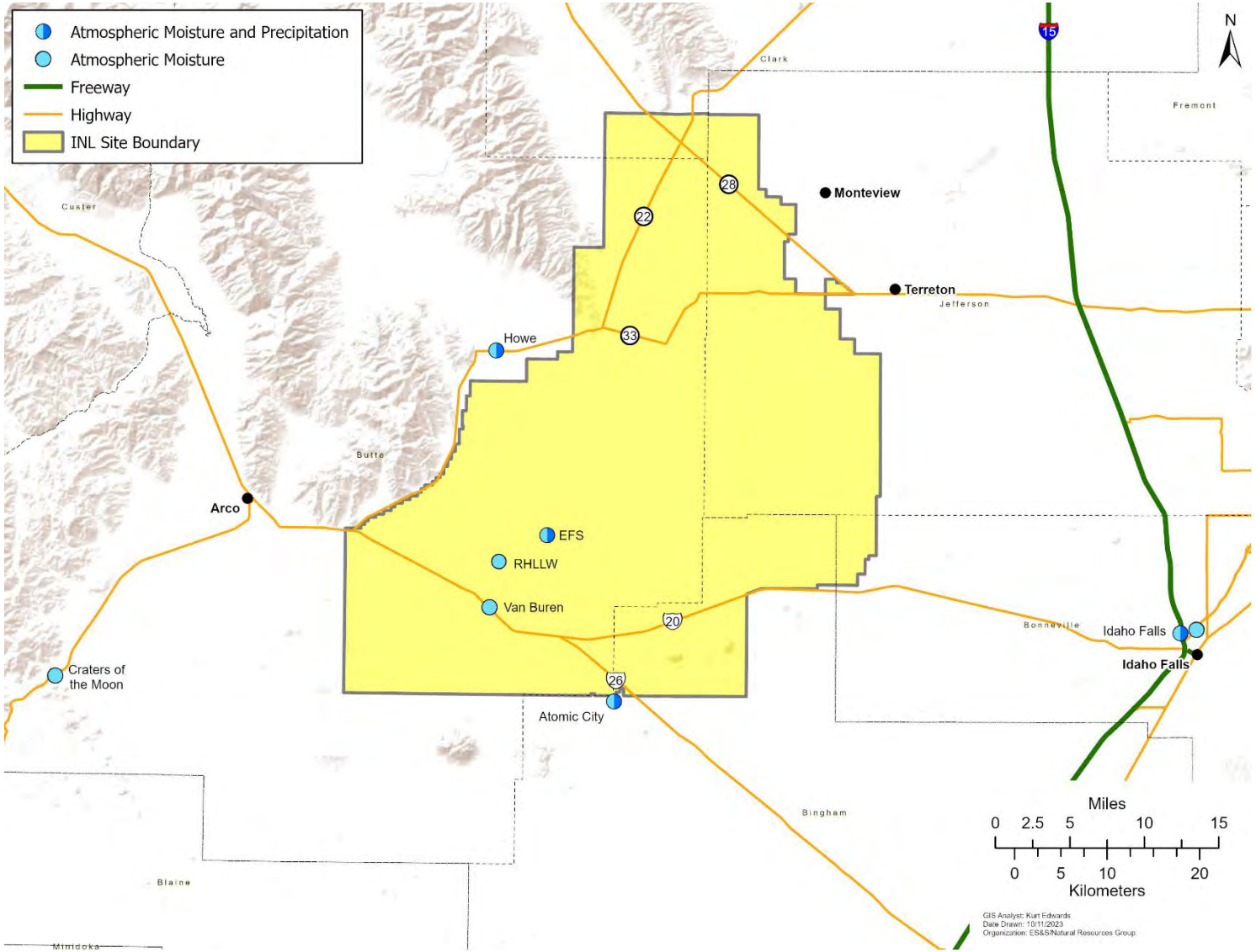

Figure 11. Atmospheric moisture and precipitation monitoring locations.

4. Precipitation, Surface and Water Sampling

4.1 Precipitation Sampling

Precipitation samples are gathered when enough precipitation occurs to allow for the collection of the minimum sample volume of approximately 50 mL. Samples are taken of monthly composites from Idaho Falls, and weekly (when available) from EFS and RHLLW (onsite) and Atomic City and Howe (boundary) (Figure 11). These are the same locations where atmospheric moisture samples are collected. Precipitation samples are analyzed for tritium. Storm events in the first quarter of 2023 produced sufficient amounts of precipitation to yield 27 samples.

Eleven samples measured tritium above the 3s values. These results are listed in Table C-5 (Appendix C). Low levels of tritium exist in the environment at all times as a result of cosmic ray reactions with water molecules in the upper atmosphere. Long-term data collected around the globe since 1961 by the International Atomic Energy Agency suggest that tritium levels have steadily decreased since the Nuclear Test Ban Treaty in 1963 and are close to their pre-nuclear test values (Cauquoin et al. 2015) and that there are no longer remnants of fallout from weapons testing. The maximum value in the first quarter was (168.00 ± 32.40) pCi/L in a Howe sample collected on February 14, 2023. The result does not exceed the 99%/95% UTL of 300 pCi/L. The result is well below the DCS for tritium in water (2.6×10^6 pCi/L) and within the range of historical values (-173 to 413 pCi/L) measured from 2012-2022.

4.2 Surface and Water Sampling

Surface water is collected in the second and fourth quarters. Big Lost River samples are collected when available.

Drinking water is collected in the second and fourth quarters.

5. Agricultural Product and Wildlife

Another potential pathway for contaminants to reach humans is through the food chain. The INL contractor samples multiple agricultural products and game animals from around the INL Site and southeast Idaho. Specifically, milk, alfalfa, grain, potatoes, lettuce, large game animals, and waterfowl are sampled. Milk is sampled throughout the year. Large game animals are sampled whenever they are killed onsite from vehicle collisions. Alfalfa is collected during the second quarter, lettuce and grain are sampled during the fourth quarter, while potatoes are collected during the third or fourth quarter. Waterfowl are collected in either the third or fourth quarter. See Table A-1, Appendix A for a sampling schedule. This section discusses results from milk, and large game animal samples available during the first quarter of 2023.

5.1 Milk Sampling

Milk samples were collected weekly at Rigby and Terreton. Monthly samples were collected at six locations around the INL Site (Figure 12) during the first quarter of 2023. In addition to the regional locations, commercially-available organic milk (from Colorado) was purchased as a control sample each month. All samples were analyzed for gamma emitting radionuclides, with particular emphasis on ^{131}I.

Cesium-137 and iodine-131 were not detected in any weekly or monthly samples during the first quarter. Data for ^{131}I and ^{137}Cs in milk samples are listed in Appendix C, Table C-6.

5.2 Large Game Animal Sampling

Four elk were available for sampling during the first quarter of 2023. Muscle, liver, and thyroid samples were taken from all four animals. No human-made gamma-emitting radionuclides were detected in any of the tissues. Results for the tissue samples are listed in Appendix C, Table C-7.

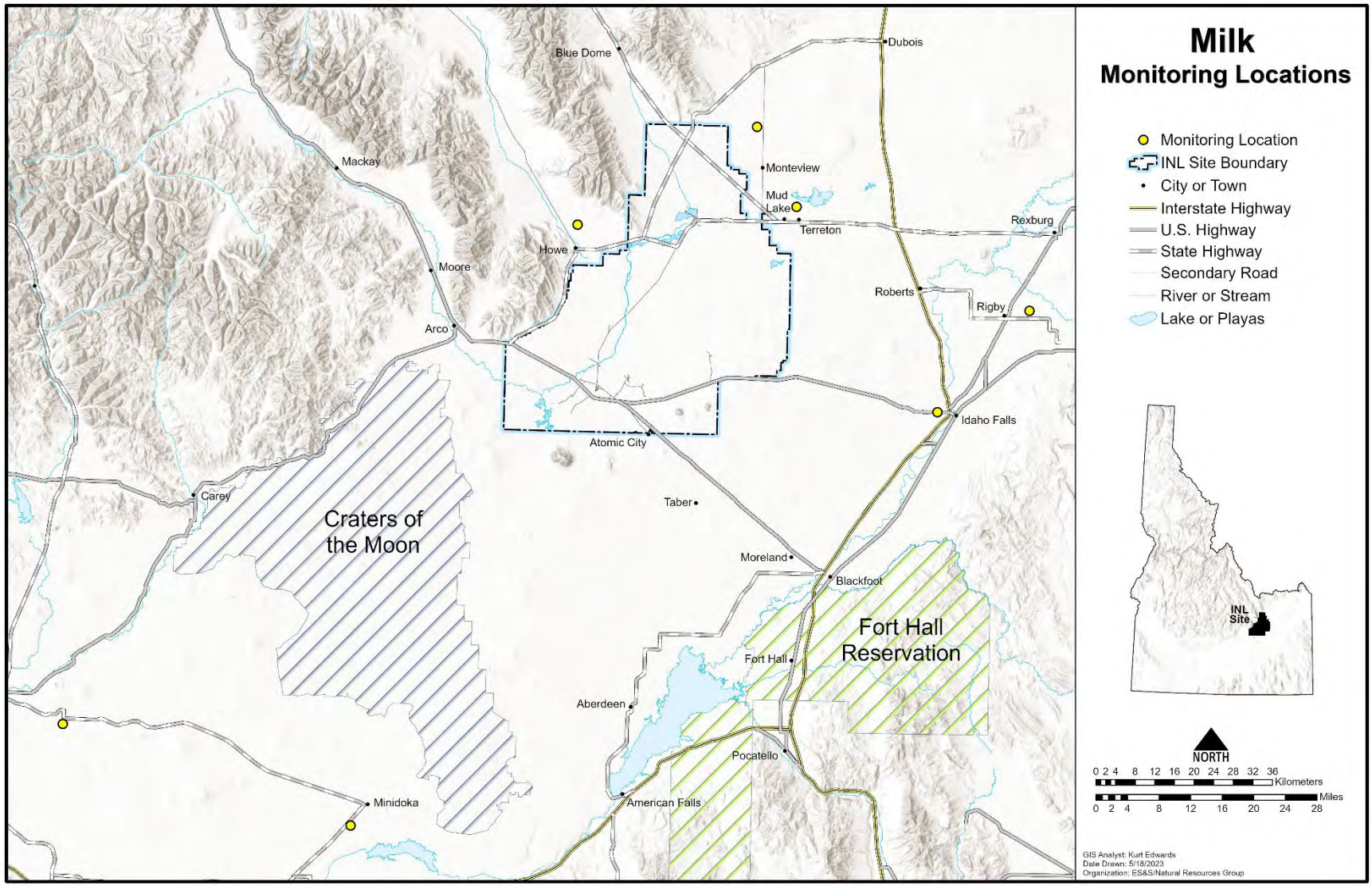

Figure 12. INL contractor milk monitoring locations.

6. Quality Assurance

Quality assurance consists of planned and systematic activities that give confidence in environmental surveillance program results (NCRP 2012). Environmental surveillance programs should provide data of known quality for the assessments and decisions being made. Quality assurance and quality control programs were maintained by the INL contractor and laboratories performing environmental analyses.

In addition to the quality assurance processes implemented by the INL contractor, the laboratories also utilize trained personnel, procedures, and quality assurance processes to ensure quality data. Data quality reviews were performed by the laboratory and any unusual conditions were addressed and identified in the case narrative prior to reporting to INL.

Field sampling elements, laboratory measurements, and quality control samples were reviewed and evaluated by the INL contractor laboratories. Results are summarized in Section 6.2. Together this information was used to assess the quality of data provided to INL contractor, and to follow-up and/or conduct a corrective action to improve processes when necessary. This multi-faceted approach to quality assurance and quality control added value to the INL contractor's monitoring program by providing confidence that all laboratory data reported in this report are reliable and of acceptable quality.

The INL contractor Quality Assurance Program consists of five ongoing tasks which measure: (1) method uncertainty; (2) data completeness; (3) data accuracy, using spike, performance evaluation and laboratory control samples; (4) data precision, using split samples, duplicate samples and recounts; and (5) presence of contamination in samples, using blanks.

Sample results are compared to criteria described in the *Environmental Monitoring Services Quality Assurance Project Plan* (INL 2022).

Assessments of the INL contractor data quality are achieved through analysis of spike, performance evaluation, and duplicate samples; through sample recounts; through analysis of blank samples; and through comparison of sample results to established method quality objectives.

Required Criteria of a Quality Program

- Quality assurance program
- Personnel training and qualification
- Quality improvement process
- Documents and records
- Established work processes
- Established standards for design and verification
- Established procurement requirements
- Inspection and acceptance testing
- Management assessment
- Independent assessment

6.1 Inter-laboratory Program PT Evaluations

Laboratories used for routine analyses of radionuclides in environmental media were selected by the INL contractor based on a laboratory's capabilities to meet program objectives, such as the ability to meet required detection levels, and past results in performance testing (PT) programs. The DOE Consolidated Audit Program – Accreditation Program (DOECAP-AP) (comprised of third-party accreditation bodies) issues an annual accreditation certificate to laboratories seeking and maintaining accreditation. The rigorous accreditation process reviews each method, media, and analyte analyzed at the laboratory. An annual audit is performed to evaluate a laboratory's technical capability and competence, along with their proficiency in complying with DOE quality assurance requirements as outlined in the Quality Systems Manual (QSM 2021).

INL contracts with analytical laboratories who participate in PT programs accredited to ISO 17043 as outlined in the Quality Systems Manual (QSM 2021). The analytical laboratory is responsible for reviewing their PT results and correcting potential quality concerns identified by the PT provider. Analytical results from these PT providers are then compared to performance evaluations (PE) results

relative for each media and analyte tested. DOECAP Accreditation is obtained by achieving a history of two successful studies (acceptable scores) out of the most recent three attempts. First quarter 2023 PT participation and results are listed below.

GEL Laboratories, LLC

GEL is accredited through DOECAP-AP and participated in PT study through Environmental Resource Associates during the first quarter. GEL had acceptable results for analytes, methods, and media of interest to the INL contractor.

6.2 Quality Control Sample Program

The INL contractor sends quality control samples to laboratories along with routine environmental samples to be analyzed in tandem. The samples are prepared in a way that the quality control samples are analogous to the field samples. The laboratory is not aware of which samples are blanks, duplicates or PE samples. Blanks, duplicate/replicate samples and PE samples for first quarter are discussed below.

6.2.1 Blanks

The INL contractor submits field blanks along with the regular samples to test for the introduction of contamination during the process of field collection, laboratory preparation, and laboratory analysis. In the event a data quality or trending issue is identified, the concern will be documented in the Issues Management System to track resolutions and/or corrective actions.

No concerns were identified in blanks that would indicate data quality or trending issues with sampling, handling, shipment, or analysis by the laboratory contributed to the actual sample results. First quarter 2023 blanks are discussed below.

GEL Laboratories, LLC

A total of 44 analytes were analyzed by GEL in various media. The media analyzed included: air filters, quarterly air filter composites, and atmospheric moisture.

Idaho State University-Environmental Assessment Laboratory

A total of 36 analytes were analyzed by Idaho State University-Environmental Assessment Laboratory (ISU-EAL) in various media. The media analyzed included: air filters, quarterly air filter composites, milks, and precipitation.

6.2.2 Duplicate/Replicate Samples

The INL contractor submits field duplicate/replicate samples with the regular samples to assess field collection, homogeneity, reproducibility, laboratory preparation, laboratory analysis, and precision. In the event a data quality or trending issue is identified, the concern will be documented in the Issues Management System to track resolutions and/or corrective actions.

No concerns were identified in duplicate/replicates that would indicate data quality or trending issues with sampling, handling, shipment, homogeneity, reproducibility, or preparation and analysis by the laboratory contributed to the actual sample results. First quarter 2023 duplicate/replicate samples are discussed below.

GEL Laboratories, LLC

A total of 222 analytes were analyzed by GEL Laboratories in various media. The media analyzed included: air filters, and quarterly air filters and composites.

Idaho State University-Environmental Assessment Laboratory

A total of 62 analytes were analyzed by ISU-EAL in various media. The media included: air filters and milk.

6.2.3 Performance Evaluation (PE) Samples

PE samples are prepared samples that contain known values of analyte(s) of interest to the specific project, INL Site contractor program, or laboratory. PE samples are used to assist in improving accuracy of laboratory data by evaluating the analytical method (e.g., new media, new analyte, or adverse trends in PT or PE samples). The samples are matched as closely as possible to the specific media, analytes of interest, and expected concentration or activity levels appropriate for the specific project, program, or use in decision-making. In some cases, the PE sample matrix may differ from the field samples (i.e., using deionized water with a known amount of analyte to simulate an atmospheric moisture sample). The PE samples are generally submitted with batches of field samples, so they are processed simultaneously in the laboratory. In the event a data quality or trending issue is identified, the concern will be documented in INL's Issues Management System for tracking responses from the laboratory on the resolutions and/or corrective actions. These concerns provide for an opportunity for the INL contractor to work with the laboratory to fine tune methods, processes, and procedures that will lead to improved accuracy of the data.

In addition to the INL contractor PE program, GEL and ISU-EAL laboratories participate in Mixed Analyte Performance Evaluation Program (MAPEP). MAPEP provides quality assurance oversight for environmental analytical services by performing semiannual performance evaluations of commercial laboratories. These results are then compared with the INL contractors' internal PE results. Neither laboratory participated in MAPEP during the first quarter 2023.

Idaho State University-Environmental Assessment Laboratory

A total of seven PE analytes were analyzed by the ISU-EAL for precipitation and milk. All analytes received an agreement evaluation.

GEL Laboratories, LLC

A total of 14 PE analytes for two air filter composites were analyzed by GEL for alpha, beta, and gamma emitters. All the beta and gamma PE analytes received an agreement evaluation.

A nonagreement evaluation was identified for alpha PE analytes: ^{241}Am, ^{238}Pu, $^{239/240}$Pu, and ^{235}U. Results for the analytes exhibited about the same amount of bias when compared to the known values. Even though this was a first occurrence for alpha analytes analyzed by GEL, the laboratory was informed of the nonagreements prompting GEL to perform an internal investigation. GEL identified an analyst error that occurred in preparation of the aliquot used for analysis that resulted in low recoveries. The analyst left GEL prior to the internal investigation and audit. The audit reviewed multiple individuals aliquoting filter samples, and all procedures were performed properly. The INL contractor will continue to monitor future PE results.

6.3 Invalid Samples

Eight samples were deemed invalid due to air volume less than 5,760 ft^3 at Blue Dome, FAA Tower, Dubois, and Main Gate (Table C-1 and C-2).

Several samplers ran for two weeks at the end of February due to the sampling location not being accessible as a result of snow (Table C-1 and C-2).

Four samples were deemed invalid because of mechanical issues experienced at EFS and INTEC West Side (Table C-1 and C-2).

Twelve samples had power outages at IRC North, RWMC South, and SMC (Table C-1 and C-2).

7. References

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Appendix A
Summary of Sampling Schedule

Table A-1. Summary of the INL contractor's sampling schedule.

Sample Type Analysis	Collection Frequency	Locations		
		Offsite	**Boundary**	**Onsite**
Air Sampling				
Low-Volume Air				
Gross Alpha, Gross Beta, ^{131}I	weekly	Blackfoot; Craters of the Moon; Dubois; Idaho Falls; IRC, IRC – North; Jackson, WY; Sugar City	Arco, Atomic City, Blue Dome, FAA Tower, Howe, Monteview, Terreton	ATR Complex, CFA, EBR-I, EFS, Gate 4, Hwy 26 Rest Area, INTEC (NE corner), INTEC (westside), Main Gate, MFC – North, MFC – South, NRF, PBF, RHLLW, RWMC, RWMC – South, SMC, Van Buren
Gamma Spec	quarterly	Blackfoot; Craters of the Moon; Dubois; Idaho Falls; IRC; IRC – North, Jackson, WY; Sugar City	Arco, Atomic City, Blue Dome, FAA Tower, Howe, Monteview, Terreton	ATR Complex, CFA, EBR-I, EFS, Gate 4, Hwy 26 Rest Area, INTEC (NE corner), INTEC (westside), Main Gate, MFC – North, MFC – South, NRF, PBF, RHLLW, RWMC, RWMC – South, SMC, Van Buren
^{90}Sr, Transuranics	quarterly	Blackfoot; Craters of the Moon; Dubois; Idaho Falls; IRC; IRC – North, Jackson, WY; Sugar City	Arco, Atomic City, Blue Dome, FAA Tower, Howe, Monteview, Terreton	ATR Complex, CFA, EBR-I, EFS, Gate 4, Hwy 26 Rest Area, INTEC (NE corner), INTEC (westside), Main Gate, MFC – North, MFC – South, NRF, PBF, RHLLW, RWMC, RWMC – South, SMC, Van Buren
Atmospheric Moisture				
Tritium	2 to 13 weeks	Idaho Falls, Craters of the Moon	Atomic City, Howe	EFS, RHLLW, Van Buren
Precipitation				
Tritium	monthly	Idaho Falls	None	None
Tritium	weekly	None	Atomic City, Howe	EFS

Table A-1. continued.

Sample Type Analysis	Collection Frequency	Locations		
		Offsite	**Boundary**	**Onsite**
Water Sampling				
Drinking Water				
Gross Alpha, Gross Beta, Tritium	semi-annually	Craters of the Moon, Idaho Falls, Minidoka, Shoshone	Atomic City, Howe, Mud Lake, Rest Area	None
Surface Water				
Gross Alpha, Gross Beta, Tritium	semi-annually	Buhl, Hagerman, Twin Falls	None	Big Lost River (when flowing)
Environmental Radiation Sampling				
TLDs/OSLDs				
Gamma Radiation	semiannual	Aberdeen; Blackfoot; Craters of the Moon; Dubois; Idaho Falls; Jackson, WY; Minidoka; Roberts; Sugar City	Arco, Atomic City, Birch Creek, Blue Dome, Howe, Monteview, Mud Lake Resident Receptor Locations	ATR Complex; ARA; CFA; EBR-I; EFS; Gate 4; Haul E; Haul W; Hwy 20; Hwy 22; Hwy 28; Hwy 33; INTEC; Lincoln Boulevard; MFC; NRF; PBF Special Power Excursion Reactor; RWMC; RHLLW; Resident Receptor Locations; Rest Area; TAN, Loss-of-Fluid Test; Transient Reactor Test; Van Buren
Soil Sampling				
Soil				
Gamma Spec, ^{90}Sr, Transuranics	biennially	Blackfoot, Carey, St. Anthony	Atomic City, Birch Creek, Butte City, FAA Tower, Frenchman's Cabin, Howe, Monteview, Mud Lake (2)	EFS, Hwy 26 Rest Area, RWMC

Table A-1. continued.

Sample Type Analysis	Collection Frequency	Locations		
		Offsite	**Boundary**	**Onsite**
Agricultural Product Sampling				
Milk				
Gamma Spec (^{131}I)	weekly	Rigby	Terreton	None
Gamma Spec (^{131}I)	monthly	Dietrich, Minidoka, Monteview, Rigby	Howe, Terreton	None
Tritium, ^{90}Sr	Semi-annually	Dietrich, Minidoka, Monteview, Rigby	Howe, Terreton	None
Potatoes				
Gamma Spec, ^{90}Sr	annually	Varies among Blackfoot, Driggs, Hamer, Idaho Falls, Rupert, Shelley, occasional samples across the U.S.	Varies among Arco, Monteview, Mud Lake, Terreton	None
Alfalfa				
Gamma Spec, ^{90}Sr	annually	Idaho Falls	Howe, Mud Lake	None
Grain				
Gamma Spec, ^{90}Sr	annually	Varies among American Falls, Blackfoot, Carey, Idaho Falls, Roberts, Rupert/Minidoka	Varies among Arco, Monteview, Mud Lake, Taber, Terreton	None
Lettuce				
Gamma Spec, ^{90}Sr	annually	Varies among Blackfoot, Carey, Idaho Falls, Rigby, Sugar City	Varies among Arco, Atomic City, FAA Tower, Howe, Monteview	EFS

Table A-1. continued.

Sample Type Analysis	Collection Frequency	Locations		
		Offsite	**Boundary**	**Onsite**
Wildlife Sampling				
Big Game				
Gamma Spec	varies	Occasional samples across the U.S.	Public Highways	INL Site roads
Waterfowl				
Gamma Spec, ^{90}Sr, Transuranics	annually	Varies among: American Falls, Firth, Fort Hall, Heise, Market Lake, Mud Lake	None	INL Site wastewater disposal ponds

Appendix B
Summary of MDCs and DCSs

Table B-1. Summary of approximate MDC for radiological analyses performed during first quarter 2023.

Sample Type	Analysis	Average MDC[a]	DCS[b]
Air (particulate filter)[e]	Gross alpha	7.1×10^{-16} µCi/mL	1.1×10^{-13} µCi/ml[c]
	Gross beta	1.2×10^{-15} µCi/mL	9.6×10^{-12} µCi/ml[d]
	^{137}Cs	8.5×10^{-17} µCi/mL	3.8×10^{-11} µCi/ml
	^{90}Sr	9.6×10^{-17} µCi/mL	9.6×10^{-12} µCi/ml
	^{241}Am	8.2×10^{-18} µCi/mL	1.3×10^{-13} µCi/ml
	^{238}Pu	8.5×10^{-18} µCi/mL	1.2×10^{-13} µCi/ml
	$^{239/240}$Pu	8.4×10^{-18} µCi/mL	1.1×10^{-13} µCi/ml
	$^{233/234}$U	2.0×10^{-17} µCi/mL	1.6×10^{-13} µCi/ml
	^{235}U	1.4×10^{-17} µCi/mL	1.8×10^{-13} µCi/ml
	^{238}U	1.4×10^{-17} µCi/mL	1.8×10^{-13} µCi/ml
Air (charcoal cartridge)[e]	^{131}I	3.0×10^{-13} µCi/mL	4.5×10^{-10} µCi/ml
Air (atmospheric moisture)	^{3}H	5.8×10^{-13} µCi/mL$_{air}$	1.3×10^{-7} µCi/ml$_{air}$
Air (precipitation)	^{3}H	96 pCi/L	2.6×10^{6} pCi/L
Milk	^{131}I	0.28 pCi/L	1.0×10^{4} pCi/L
	^{137}Cs	0.81 pCi/L	2.7×10^{4} pCi/L

a. The MDC is an estimate of the concentration of radioactivity in a given sample type that can be identified with a 95% level of confidence. MDCs are calculated and reported by the laboratories based on actual INL contractor sample results following analysis.
b. DCSs, set by the DOE, represent reference values for radiation exposure. They are based on a radiation dose of 100 mrem/yr for exposure through a particular exposure mode such as direct exposure, inhalation, or ingestion of water.
c. Based on the most restrictive human-made alpha emitter (^{239}Pu).
d. Based on the most restrictive human-made beta emitter (^{90}Sr).
e. The approximate MDC for air is based on an average filtered air volume (pressure corrected) of 445 m^3/week.

Appendix C
Sample Analysis Results

Table C-1. Weekly gross alpha and gross beta concentrations in air.

Sampling Group and Location		Sampling Date	GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS ALPHA Result > 3s	GROSS BETA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS BETA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS BETA Result > 3s
BOUNDARY																
ARCO		01/03/23	1.57	±	0.18	5.81	±	0.66	Yes	27.50	±	0.58	101.75	±	2.14	Yes
		01/10/23	2.00	±	0.34	7.40	±	1.26	Yes	28.30	±	0.82	104.71	±	3.03	Yes
		01/17/23	0.99	±	0.23	3.67	±	0.86	Yes	21.50	±	0.77	79.55	±	2.86	Yes
		01/24/23	0.80	±	0.25	2.95	±	0.91	Yes	23.70	±	0.72	87.69	±	2.65	Yes
		01/31/23	1.00	±	0.25	3.68	±	0.93	Yes	27.00	±	0.74	99.90	±	2.75	Yes
		02/07/23	2.10	±	0.34	7.77	±	1.27	Yes	33.70	±	0.88	124.69	±	3.25	Yes
		02/14/23	1.85	±	0.31	6.85	±	1.16	Yes	28.80	±	0.81	106.56	±	2.98	Yes
		02/21/23	1.13	±	0.26	4.18	±	0.95	Yes	26.30	±	0.74	97.31	±	2.73	Yes
		03/02/23	1.54	±	0.27	5.70	±	1.01	Yes	16.10	±	0.59	59.57	±	2.16	Yes
		03/07/23	0.90	±	0.29	3.32	±	1.06	Yes	13.40	±	0.72	49.58	±	2.65	Yes
		03/14/23	0.95	±	0.27	3.52	±	0.98	Yes	16.90	±	0.68	62.53	±	2.51	Yes
		03/21/23	1.50	±	0.29	5.55	±	1.07	Yes	20.60	±	0.70	76.22	±	2.57	Yes
		03/28/23	0.74	±	0.22	2.75	±	0.82	Yes	10.10	±	0.54	37.37	±	2.00	Yes
ATOMIC CITY		01/03/23	1.34	±	0.16	4.96	±	0.58	Yes	17.80	±	0.45	65.86	±	1.67	Yes
		01/10/23	0.69	±	0.24	2.55	±	0.89	No	22.20	±	0.70	82.14	±	2.59	Yes
		01/17/23	0.60	±	0.20	2.20	±	0.74	No	16.10	±	0.69	59.57	±	2.53	Yes
		01/24/23	1.12	±	0.27	4.14	±	0.99	Yes	26.70	±	0.75	98.79	±	2.78	Yes
		01/31/23	1.43	±	0.46	5.29	±	1.69	Yes	38.60	±	1.30	142.82	±	4.81	Yes
		02/07/23	2.35	±	0.38	8.70	±	1.40	Yes	40.60	±	1.00	150.22	±	3.70	Yes
		02/14/23	1.73	±	0.30	6.40	±	1.11	Yes	28.70	±	0.79	106.19	±	2.90	Yes
		02/21/23	0.92	±	0.24	3.39	±	0.88	Yes	13.70	±	0.57	50.69	±	2.12	Yes
		02/28/23	0.89	±	0.30	3.29	±	1.09	Yes	17.40	±	0.73	64.38	±	2.71	Yes
		03/07/23	0.27	±	0.19	0.99	±	0.70	No	12.60	±	0.60	46.62	±	2.23	Yes
		03/14/23	0.53	±	0.24	1.97	±	0.87	No	3.59	±	0.45	13.28	±	1.67	Yes
		03/21/23	1.29	±	0.37	4.77	±	1.38	Yes	16.80	±	0.87	62.16	±	3.21	Yes
		03/28/23	0.42	±	0.21	1.54	±	0.77	No	14.10	±	0.63	52.17	±	2.31	Yes
BLUE DOME		01/03/23	1.00	±	0.14	3.70	±	0.53	Yes	18.50	±	0.46	68.45	±	1.71	Yes
		01/10/23	1.69	±	0.30	6.25	±	1.11	Yes	17.40	±	0.65	64.38	±	2.41	Yes
		01/17/23	0.81	±	0.21	3.01	±	0.78	Yes	17.60	±	0.69	65.12	±	2.56	Yes
		01/24/23	0.78	±	0.24	2.90	±	0.89	Yes	19.50	±	0.66	72.15	±	2.44	Yes
	a	01/31/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		02/07/23	1.76	±	0.32	6.51	±	1.18	Yes	20.10	±	0.71	74.37	±	2.63	Yes
		02/16/23	0.84	±	0.19	3.12	±	0.70	Yes	14.00	±	0.49	51.80	±	1.83	Yes
		02/21/23	1.81	±	0.39	6.70	±	1.44	Yes	29.70	±	0.98	109.89	±	3.64	Yes
		02/28/23	1.07	±	0.30	3.96	±	1.11	Yes	16.50	±	0.71	61.05	±	2.62	Yes
		03/07/23	0.83	±	0.24	3.05	±	0.87	Yes	12.90	±	0.60	47.73	±	2.20	Yes
		03/14/23	0.92	±	0.28	3.39	±	1.02	Yes	11.10	±	0.62	41.07	±	2.29	Yes
		03/21/23	1.14	±	0.28	4.22	±	1.04	Yes	19.70	±	0.72	72.89	±	2.67	Yes
		03/28/23	0.79	±	0.24	2.90	±	0.88	Yes	14.70	±	0.63	54.39	±	2.34	Yes
FAA TOWER		01/03/23	2.83	±	0.49	10.47	±	1.79	Yes	36.70	±	1.35	135.79	±	5.00	Yes
		01/10/23	1.79	±	0.32	6.62	±	1.18	Yes	18.00	±	0.67	66.60	±	2.48	Yes
		01/17/23	1.04	±	0.23	3.85	±	0.84	Yes	15.10	±	0.66	55.87	±	2.46	Yes
		01/24/23	0.94	±	0.25	3.47	±	0.92	Yes	20.20	±	0.67	74.74	±	2.46	Yes
		01/31/23	0.95	±	0.25	3.52	±	0.91	Yes	28.80	±	0.75	106.56	±	2.78	Yes
		02/07/23	1.06	±	0.27	3.92	±	0.98	Yes	20.90	±	0.70	77.33	±	2.59	Yes
		02/16/23	1.35	±	0.24	5.00	±	0.87	Yes	20.00	±	0.59	74.00	±	2.19	Yes
		02/21/23	1.06	±	0.32	3.92	±	1.17	Yes	25.20	±	0.88	93.24	±	3.25	Yes
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/07/23	0.72	±	0.14	2.68	±	0.51	Yes	13.30	±	0.38	49.21	±	1.39	Yes
	a	03/14/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/21/23	1.09	±	0.34	4.03	±	1.25	Yes	16.30	±	0.82	60.31	±	3.03	Yes
		03/28/23	0.44	±	0.19	1.63	±	0.68	No	10.70	±	0.52	39.59	±	1.92	Yes
HOWE		01/03/23	1.20	±	0.16	4.44	±	0.57	Yes	21.80	±	0.50	80.66	±	1.86	Yes
		01/10/23	1.40	±	0.30	5.18	±	1.11	Yes	23.10	±	0.74	85.47	±	2.74	Yes
		01/17/23	1.29	±	0.24	4.77	±	0.90	Yes	21.00	±	0.75	77.70	±	2.78	Yes
		01/24/23	0.54	±	0.22	1.99	±	0.81	No	15.60	±	0.61	57.72	±	2.25	Yes
		01/31/23	1.59	±	0.29	5.88	±	1.08	Yes	33.30	±	0.81	123.21	±	3.00	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

Sampling Group and Location	Sampling Date	GROSS ALPHA Result ± 1s Uncertainty (x 10^{-15} µCi/mL)	GROSS ALPHA Result ± 1s Uncertainty (x 10^{-11} Bq/mL)	GROSS ALPHA Result > 3s	GROSS BETA Result ± 1s Uncertainty (x 10^{-15} µCi/mL)	GROSS BETA Result ± 1s Uncertainty (x 10^{-11} Bq/mL)	GROSS BETA Result > 3s
	02/07/23	2.47 ± 0.36	9.14 ± 1.33	Yes	35.00 ± 0.89	129.50 ± 3.29	Yes
	02/14/23	2.06 ± 0.33	7.62 ± 1.23	Yes	32.80 ± 0.86	121.36 ± 3.19	Yes
	02/21/23	1.48 ± 0.28	5.48 ± 1.02	Yes	20.20 ± 0.66	74.74 ± 2.44	Yes
	03/02/23	0.87 ± 0.22	3.20 ± 0.83	Yes	8.31 ± 0.45	30.75 ± 1.68	Yes
	03/07/23	0.89 ± 0.28	3.27 ± 1.04	Yes	11.60 ± 0.67	42.92 ± 2.49	Yes
	03/14/23	0.91 ± 0.27	3.36 ± 0.98	Yes	14.30 ± 0.65	52.91 ± 2.39	Yes
	03/21/23	2.05 ± 0.35	7.59 ± 1.30	Yes	19.20 ± 0.74	71.04 ± 2.74	Yes
	03/28/23	0.87 ± 0.24	3.20 ± 0.87	Yes	15.90 ± 0.63	58.83 ± 2.32	Yes
MONTEVIEW	01/03/23	1.19 ± 0.15	4.40 ± 0.57	Yes	26.30 ± 0.54	97.31 ± 2.00	Yes
	01/10/23	1.15 ± 0.28	4.26 ± 1.04	Yes	23.70 ± 0.75	87.69 ± 2.78	Yes
	01/17/23	0.48 ± 0.19	1.79 ± 0.71	No	15.90 ± 0.68	58.83 ± 2.52	Yes
	01/24/23	1.49 ± 0.29	5.51 ± 1.08	Yes	28.10 ± 0.77	103.97 ± 2.84	Yes
	01/31/23	1.79 ± 0.30	6.62 ± 1.12	Yes	37.10 ± 0.85	137.27 ± 3.13	Yes
	02/07/23	3.25 ± 0.43	12.03 ± 1.59	Yes	42.50 ± 1.03	157.25 ± 3.81	Yes
	02/14/23	1.93 ± 0.34	7.14 ± 1.25	Yes	37.00 ± 0.94	136.90 ± 3.47	Yes
	02/21/23	1.57 ± 0.30	5.81 ± 1.11	Yes	42.90 ± 0.93	158.73 ± 3.43	Yes
	02/28/23	1.06 ± 0.27	3.92 ± 1.01	Yes	14.20 ± 0.62	52.54 ± 2.29	Yes
	03/07/23	0.57 ± 0.20	2.09 ± 0.74	No	7.62 ± 0.49	28.19 ± 1.80	Yes
	03/14/23	0.96 ± 0.27	3.55 ± 0.99	Yes	12.70 ± 0.62	46.99 ± 2.30	Yes
	03/21/23	1.49 ± 0.29	5.51 ± 1.07	Yes	18.40 ± 0.67	68.08 ± 2.47	Yes
	03/28/23	0.77 ± 0.22	2.86 ± 0.81	Yes	10.90 ± 0.54	40.33 ± 1.99	Yes
TERRETON	01/03/23	1.48 ± 0.20	5.48 ± 0.73	Yes	18.60 ± 0.51	68.82 ± 1.87	Yes
	01/10/23	1.20 ± 0.31	4.44 ± 1.14	Yes	21.90 ± 0.82	81.03 ± 3.05	Yes
	01/17/23	1.29 ± 0.39	4.77 ± 1.46	Yes	19.90 ± 1.07	73.63 ± 3.96	Yes
	01/24/23	0.56 ± 0.27	2.07 ± 1.00	No	23.90 ± 1.13	88.43 ± 4.18	Yes
	01/31/23	3.06 ± 0.53	11.32 ± 1.95	Yes	45.20 ± 1.55	167.24 ± 5.74	Yes
	02/07/23	0.59 ± 0.28	2.17 ± 1.05	No	48.90 ± 1.73	180.93 ± 6.40	Yes
	02/14/23	1.46 ± 0.44	5.40 ± 1.64	Yes	43.00 ± 1.61	159.10 ± 5.96	Yes
	02/21/23	2.47 ± 0.54	9.14 ± 2.00	Yes	36.50 ± 1.44	135.05 ± 5.33	Yes
	02/28/23	1.25 ± 0.37	4.63 ± 1.38	Yes	23.20 ± 1.14	85.84 ± 4.22	Yes
	03/07/23	0.61 ± 0.28	2.25 ± 1.02	No	14.60 ± 0.91	54.02 ± 3.36	Yes
	03/14/23	0.33 ± 0.24	1.21 ± 0.89	No	15.10 ± 0.99	55.87 ± 3.65	Yes
	03/21/23	1.12 ± 0.38	4.14 ± 1.42	No	20.10 ± 1.11	74.37 ± 4.11	Yes
	03/28/23	0.84 ± 0.32	3.11 ± 1.18	No	18.80 ± 1.03	69.56 ± 3.81	Yes
OFFSITE							
BLACKFOOT	01/03/23	0.79 ± 0.16	2.92 ± 0.58	Yes	12.70 ± 0.44	46.99 ± 1.61	Yes
	01/10/23	0.71 ± 0.22	2.63 ± 0.83	Yes	21.10 ± 0.87	78.07 ± 3.22	Yes
	01/17/23	1.01 ± 0.38	3.74 ± 1.40	No	16.60 ± 1.12	61.42 ± 4.14	Yes
	01/24/23	1.14 ± 0.35	4.22 ± 1.29	Yes	19.20 ± 0.99	71.04 ± 3.66	Yes
	01/31/23	1.90 ± 0.50	7.03 ± 1.84	Yes	34.50 ± 1.50	127.65 ± 5.55	Yes
	02/07/23	2.17 ± 0.58	8.03 ± 2.14	Yes	43.50 ± 1.77	160.95 ± 6.55	Yes
	02/14/23	0.99 ± 0.33	3.65 ± 1.22	No	29.50 ± 1.33	109.15 ± 4.92	Yes
	02/21/23	1.57 ± 0.45	5.81 ± 1.66	Yes	24.80 ± 1.23	91.76 ± 4.55	Yes
	02/28/23	1.49 ± 0.41	5.51 ± 1.52	Yes	18.90 ± 1.02	69.93 ± 3.77	Yes
	03/07/23	0.33 ± 0.22	1.21 ± 0.80	No	11.30 ± 0.81	41.81 ± 3.01	Yes
	03/14/23	0.87 ± 0.33	3.21 ± 1.21	No	11.70 ± 0.82	43.29 ± 3.04	Yes
	03/21/23	2.33 ± 0.52	8.62 ± 1.94	Yes	19.80 ± 1.07	73.26 ± 3.96	Yes
	03/28/23	0.11 ± 0.16	0.40 ± 0.58	No	12.00 ± 0.86	44.40 ± 3.18	Yes
CRATERS OF THE MOON	01/03/23	0.38 ± 0.12	1.39 ± 0.46	Yes	6.83 ± 0.33	25.27 ± 1.23	Yes
	01/10/23	0.90 ± 0.24	3.32 ± 0.89	Yes	8.79 ± 0.49	32.52 ± 1.82	Yes
	01/17/23	0.35 ± 0.22	1.29 ± 0.81	No	9.36 ± 0.76	34.63 ± 2.82	Yes
	01/24/23	0.91 ± 0.33	3.37 ± 1.21	No	14.60 ± 0.91	54.02 ± 3.35	Yes
	01/31/23	0.68 ± 0.29	2.50 ± 1.07	No	15.60 ± 0.92	57.72 ± 3.41	Yes
	02/07/23	0.90 ± 0.33	3.33 ± 1.23	No	21.00 ± 1.07	77.70 ± 3.96	Yes
	02/14/23	0.37 ± 0.22	1.36 ± 0.80	No	14.70 ± 0.91	54.39 ± 3.37	Yes
b	02/21/23	±	0.00 ± 0.00	No	8.40 ± 0.75	31.08 ± 2.79	Yes
	03/02/23	0.80 ± 0.20	2.94 ± 0.75	Yes	10.70 ± 0.51	39.59 ± 1.89	Yes
	03/07/23	0.33 ± 0.25	1.21 ± 0.91	No	10.10 ± 0.96	37.37 ± 3.55	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

		GROSS ALPHA							GROSS BETA						
Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
	03/14/23	0.64	±	0.27	2.35	±	0.99	No	9.56	±	0.77	35.37	±	2.85	Yes
	03/21/23	0.63	±	0.27	2.35	±	0.99	No	13.50	±	0.89	49.95	±	3.31	Yes
	03/28/23	0.15	±	0.16	0.56	±	0.57	No	11.40	±	0.83	42.18	±	3.08	Yes
DUBOIS	01/03/23	1.13	±	0.16	4.18	±	0.57	Yes	19.80	±	0.49	73.26	±	1.83	Yes
	01/10/23	1.03	±	0.27	3.81	±	1.00	Yes	17.90	±	0.67	66.23	±	2.48	Yes
	01/17/23	1.10	±	0.24	4.07	±	0.88	Yes	12.90	±	0.65	47.73	±	2.41	Yes
a	01/24/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
	01/31/23	1.54	±	0.29	5.70	±	1.07	Yes	29.80	±	0.78	110.26	±	2.88	Yes
	02/07/23	2.18	±	0.37	8.07	±	1.35	Yes	29.60	±	0.88	109.52	±	3.24	Yes
	02/14/23	1.38	±	0.28	5.11	±	1.03	Yes	22.80	±	0.73	84.36	±	2.68	Yes
	02/21/23	1.48	±	0.28	5.48	±	1.02	Yes	25.80	±	0.72	95.46	±	2.68	Yes
	02/28/23	0.78	±	0.27	2.89	±	0.99	No	15.00	±	0.66	55.50	±	2.43	Yes
	03/07/23	0.59	±	0.21	2.19	±	0.76	No	12.50	±	0.56	46.25	±	2.09	Yes
	03/14/23	0.53	±	0.24	1.95	±	0.88	No	10.00	±	0.59	37.00	±	2.16	Yes
	03/21/23	1.27	±	0.28	4.70	±	1.02	Yes	17.40	±	0.66	64.38	±	2.45	Yes
	03/28/23	0.75	±	0.23	2.77	±	0.85	Yes	17.80	±	0.66	65.86	±	2.43	Yes
DUBOIS (QA)	01/03/23	1.72	±	0.18	6.36	±	0.66	Yes	22.10	±	0.51	81.77	±	1.89	Yes
	01/10/23	1.64	±	0.31	6.07	±	1.14	Yes	19.00	±	0.69	70.30	±	2.53	Yes
	01/17/23	0.51	±	0.20	1.88	±	0.72	No	13.20	±	0.65	48.84	±	2.40	Yes
	01/24/23	0.66	±	0.24	2.42	±	0.87	No	24.40	±	0.73	90.28	±	2.69	Yes
	01/31/23	1.36	±	0.31	5.03	±	1.13	Yes	29.80	±	0.84	110.26	±	3.12	Yes
	02/07/23	2.20	±	0.38	8.14	±	1.40	Yes	24.00	±	0.83	88.80	±	3.08	Yes
	02/14/23	1.33	±	0.28	4.92	±	1.04	Yes	23.00	±	0.74	85.10	±	2.75	Yes
	02/21/23	1.45	±	0.28	5.37	±	1.05	Yes	23.70	±	0.72	87.69	±	2.67	Yes
	02/28/23	0.88	±	0.27	3.26	±	1.01	Yes	16.70	±	0.68	61.79	±	2.52	Yes
	03/07/23	0.68	±	0.22	2.51	±	0.80	Yes	13.00	±	0.58	48.10	±	2.15	Yes
	03/14/23	0.54	±	0.23	1.99	±	0.85	No	9.83	±	0.56	36.37	±	2.08	Yes
	03/21/23	1.07	±	0.26	3.96	±	0.95	Yes	17.70	±	0.65	65.49	±	2.41	Yes
	03/28/23	0.64	±	0.21	2.35	±	0.79	No	12.70	±	0.57	46.99	±	2.12	Yes
IDAHO FALLS	01/03/23	1.42	±	0.20	5.25	±	0.74	Yes	17.00	±	0.49	62.90	±	1.82	Yes
	01/10/23	1.45	±	0.30	5.37	±	1.12	Yes	22.40	±	0.80	82.88	±	2.97	Yes
	01/17/23	0.99	±	0.32	3.65	±	1.19	Yes	16.90	±	0.97	62.53	±	3.60	Yes
	01/24/23	1.69	±	0.44	6.25	±	1.61	Yes	29.80	±	1.25	110.26	±	4.63	Yes
	01/31/23	2.36	±	0.47	8.73	±	1.72	Yes	44.00	±	1.52	162.80	±	5.62	Yes
	02/07/23	2.77	±	0.56	10.25	±	2.07	Yes	43.20	±	1.54	159.84	±	5.70	Yes
	02/14/23	1.24	±	0.37	4.59	±	1.35	Yes	34.20	±	1.36	126.54	±	5.03	Yes
	02/21/23	2.25	±	0.49	8.33	±	1.83	Yes	29.10	±	1.23	107.67	±	4.55	Yes
	02/28/23	2.08	±	0.71	7.70	±	2.64	No	30.20	±	1.96	111.74	±	7.25	Yes
	03/07/23	0.74	±	0.27	2.72	±	1.00	No	13.10	±	0.87	48.47	±	3.20	Yes
	03/14/23	2.99	±	0.88	11.06	±	3.25	Yes	10.70	±	1.28	39.59	±	4.74	Yes
	03/21/23	0.88	±	0.32	3.26	±	1.19	No	18.80	±	1.00	69.56	±	3.70	Yes
	03/28/23	0.95	±	0.34	3.53	±	1.25	No	11.90	±	0.84	44.03	±	3.10	Yes
IRC	01/03/23	1.61	±	0.22	5.96	±	0.81	Yes	16.50	±	0.51	61.05	±	1.89	Yes
	01/10/23	0.84	±	0.26	3.10	±	0.97	Yes	22.40	±	0.88	82.88	±	3.25	Yes
	01/17/23	0.81	±	0.30	2.99	±	1.12	No	18.90	±	1.05	69.93	±	3.89	Yes
	01/24/23	0.68	±	0.28	2.50	±	1.05	No	21.50	±	1.06	79.55	±	3.92	Yes
	01/31/23	2.76	±	0.52	10.21	±	1.92	Yes	40.60	±	1.43	150.22	±	5.29	Yes
	02/07/23	2.18	±	0.53	8.07	±	1.95	Yes	39.60	±	1.54	146.52	±	5.70	Yes
	02/14/23	1.21	±	0.37	4.48	±	1.35	Yes	33.90	±	1.45	125.43	±	5.37	Yes
	02/21/23	1.96	±	0.43	7.25	±	1.58	Yes	29.60	±	1.25	109.52	±	4.63	Yes
	02/28/23	0.70	±	0.29	2.59	±	1.08	No	21.80	±	1.17	80.66	±	4.33	Yes
	03/07/23	0.74	±	0.30	2.73	±	1.11	No	11.90	±	0.85	44.03	±	3.14	Yes
	03/14/23	0.47	±	0.26	1.72	±	0.96	No	13.10	±	0.87	48.47	±	3.22	Yes
	03/21/23	1.12	±	0.38	4.14	±	1.39	No	16.50	±	0.98	61.05	±	3.63	Yes
	03/28/23	0.75	±	0.30	2.77	±	1.12	No	12.90	±	0.87	47.73	±	3.23	Yes
IRC NORTH	01/03/23	1.03	±	0.18	3.81	±	0.65	Yes	10.40	±	0.41	38.48	±	1.53	Yes
	01/10/23	0.941	±	0.28	3.48	±	1.03	Yes	26.20	±	0.96	96.94	±	3.55	Yes
a	01/17/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No

Table C-1. Weekly gross alpha and gross beta concentrations in air.

Sampling Group and Location		Sampling Date	GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS ALPHA Result > 3s	GROSS BETA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS BETA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS BETA Result > 3s
	a	01/24/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		01/31/23	3.55	±	0.93	13.14	±	3.43	Yes	56.00	±	2.63	207.20	±	9.73	Yes
		02/07/23	3.28	±	0.72	12.14	±	2.65	Yes	51.30	±	1.96	189.81	±	7.25	Yes
	a	02/14/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
	a	02/21/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		02/28/23	1.27	±	0.68	4.70	±	2.52	No	19.90	±	1.80	73.63	±	6.66	Yes
		03/07/23	0.98	±	0.36	3.63	±	1.34	No	12.50	±	0.89	46.25	±	3.30	Yes
		03/14/23	0.47	±	0.26	1.74	±	0.98	No	16.60	±	0.98	61.42	±	3.61	Yes
		03/21/23	1.65	±	0.41	6.11	±	1.51	Yes	17.50	±	1.02	64.75	±	3.77	Yes
		03/28/23	0.96	±	0.34	3.56	±	1.26	No	13.10	±	0.88	48.47	±	3.25	Yes
JACKSON, WY		01/03/23	1.25	±	0.19	4.63	±	0.70	Yes	17.70	±	0.55	65.49	±	2.04	Yes
		01/10/23	0.37	±	0.08	1.36	±	0.31	Yes	4.92	±	0.19	18.20	±	0.71	Yes
		01/17/23	0.78	±	0.22	2.88	±	0.83	Yes	19.30	±	0.76	71.41	±	2.83	Yes
		01/24/23	1.00	±	0.30	3.70	±	1.11	Yes	29.20	±	0.87	108.04	±	3.23	Yes
		02/02/23	1.11	±	0.24	4.11	±	0.88	Yes	20.30	±	0.62	75.11	±	2.30	Yes
		02/07/23	0.42	±	0.22	1.57	±	0.82	No	8.21	±	0.52	30.38	±	1.91	Yes
		02/14/23	1.83	±	0.33	6.77	±	1.23	Yes	24.40	±	0.81	90.28	±	2.98	Yes
		02/21/23	0.68	±	0.23	2.50	±	0.85	No	14.50	±	0.61	53.65	±	2.26	Yes
		02/28/23	1.73	±	0.33	6.40	±	1.24	Yes	16.60	±	0.69	61.42	±	2.57	Yes
		03/07/23	0.91	±	0.24	3.36	±	0.90	Yes	12.60	±	0.59	46.62	±	2.19	Yes
		03/14/23	1.13	±	0.30	4.18	±	1.12	Yes	12.10	±	0.66	44.77	±	2.43	Yes
		03/21/23	1.36	±	0.29	5.03	±	1.06	Yes	15.10	±	0.64	55.87	±	2.36	Yes
		03/28/23	0.53	±	0.22	1.95	±	0.80	No	14.10	±	0.62	52.17	±	2.31	Yes
SUGAR CITY		01/03/23	1.25	±	0.20	4.63	±	0.72	Yes	16.90	±	0.68	62.53	±	2.50	Yes
		01/10/23	0.49	±	0.17	1.80	±	0.63	No	16.00	±	0.70	59.20	±	2.60	Yes
		01/17/23	1.56	±	0.43	5.77	±	1.59	Yes	16.60	±	0.98	61.42	±	3.63	Yes
		01/24/23	2.31	±	0.47	8.55	±	1.75	Yes	26.50	±	1.22	98.05	±	4.51	Yes
		01/31/23	3.27	±	0.59	12.10	±	2.19	Yes	33.20	±	1.33	122.84	±	4.92	Yes
		02/07/23	2.60	±	0.54	9.62	±	1.98	Yes	30.00	±	1.32	111.00	±	4.88	Yes
		02/14/23	0.84	±	0.34	3.10	±	1.26	No	29.70	±	1.32	109.89	±	4.88	Yes
		02/21/23	1.54	±	0.42	5.70	±	1.56	Yes	29.40	±	1.28	108.78	±	4.74	Yes
		02/28/23	0.93	±	0.32	3.44	±	1.17	No	14.10	±	0.93	52.17	±	3.44	Yes
		03/07/23	1.04	±	0.35	3.85	±	1.31	No	13.40	±	0.89	49.58	±	3.27	Yes
		03/14/23	0.81	±	0.31	3.01	±	1.14	No	10.80	±	0.80	39.96	±	2.97	Yes
		03/21/23	1.07	±	0.34	3.96	±	1.27	Yes	19.10	±	1.02	70.67	±	3.77	Yes
		03/28/23	1.10	±	0.35	4.07	±	1.30	Yes	13.20	±	0.89	48.84	±	3.30	Yes
ONSITE																
ATR COMPLEX		01/03/23	1.41	±	0.19	5.22	±	0.70	Yes	14.00	±	0.43	51.80	±	1.60	Yes
		01/10/23	1.08	±	0.26	4.00	±	0.98	Yes	25.40	±	1.00	93.98	±	3.70	Yes
		01/17/23	0.83	±	0.31	3.09	±	1.14	No	23.50	±	1.17	86.95	±	4.33	Yes
		01/24/23	1.02	±	0.36	3.77	±	1.32	No	30.60	±	1.30	113.22	±	4.81	Yes
		01/31/23	2.36	±	0.47	8.73	±	1.75	Yes	39.70	±	1.47	146.89	±	5.44	Yes
		02/07/23	3.15	±	0.61	11.66	±	2.26	Yes	44.30	±	1.60	163.91	±	5.92	Yes
		02/14/23	1.37	±	0.39	5.07	±	1.43	Yes	34.50	±	1.38	127.65	±	5.11	Yes
		02/21/23	2.39	±	0.52	8.84	±	1.94	Yes	32.40	±	1.34	119.88	±	4.96	Yes
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/07/23	1.04	±	0.22	3.85	±	0.82	Yes	17.50	±	0.70	64.75	±	2.58	Yes
		03/14/23	0.62	±	0.29	2.28	±	1.06	No	16.50	±	0.97	61.05	±	3.60	Yes
		03/21/23	1.33	±	0.39	4.92	±	1.45	Yes	20.90	±	1.07	77.33	±	3.96	Yes
		03/28/23	0.94	±	0.33	3.47	±	1.23	No	15.30	±	0.93	56.61	±	3.44	Yes
CFA		01/03/23	1.63	±	0.20	6.03	±	0.75	Yes	17.30	±	0.51	64.01	±	1.88	Yes
		01/10/23	1.25	±	0.28	4.63	±	1.02	Yes	21.40	±	0.88	79.18	±	3.27	Yes
		01/17/23	0.81	±	0.31	3.01	±	1.13	No	24.10	±	1.18	89.17	±	4.37	Yes
		01/24/23	1.43	±	0.40	5.29	±	1.49	Yes	14.70	±	0.91	54.39	±	3.37	Yes
		01/31/23	1.72	±	0.42	6.36	±	1.57	Yes	38.70	±	1.42	143.19	±	5.25	Yes
		02/07/23	1.35	±	0.39	5.00	±	1.43	Yes	19.00	±	1.00	70.30	±	3.69	Yes
		02/14/23	1.32	±	0.37	4.88	±	1.36	Yes	31.10	±	1.34	115.07	±	4.96	Yes
		02/21/23	1.76	±	0.46	6.51	±	1.68	Yes	37.80	±	1.44	139.86	±	5.33	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

Sampling Group and Location		Sampling Date	GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS ALPHA Result > 3s	GROSS BETA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			GROSS BETA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			GROSS BETA Result > 3s
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/07/23	0.93	±	0.22	3.43	±	0.82	**Yes**	15.30	±	0.64	56.61	±	2.37	**Yes**
		03/14/23	1.07	±	0.36	3.96	±	1.33	No	16.00	±	0.94	59.20	±	3.49	**Yes**
		03/21/23	1.41	±	0.41	5.22	±	1.52	**Yes**	21.50	±	1.09	79.55	±	4.03	**Yes**
		03/28/23	1.44	±	0.40	5.33	±	1.48	**Yes**	17.50	±	0.98	64.75	±	3.63	**Yes**
EBR-I		01/03/23	1.59	±	0.31	5.88	±	1.15	**Yes**	16.30	±	0.71	60.31	±	2.61	**Yes**
		01/10/23	1.15	±	0.27	4.26	±	0.99	**Yes**	22.00	±	0.90	81.40	±	3.34	**Yes**
		01/17/23	0.22	±	0.21	0.82	±	0.77	No	20.60	±	1.14	76.22	±	4.22	**Yes**
		01/24/23	1.50	±	0.42	5.55	±	1.55	**Yes**	30.60	±	1.31	113.22	±	4.85	**Yes**
		01/31/23	2.08	±	0.50	7.70	±	1.86	**Yes**	36.20	±	1.44	133.94	±	5.33	**Yes**
		02/07/23	1.58	±	0.41	5.85	±	1.51	**Yes**	41.90	±	1.56	155.03	±	5.77	**Yes**
		02/14/23	0.50	±	0.28	1.84	±	1.05	No	34.00	±	1.41	125.80	±	5.22	**Yes**
		02/21/23	1.10	±	0.36	4.07	±	1.34	**Yes**	35.30	±	1.46	130.61	±	5.40	**Yes**
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/07/23	1.27	±	0.28	4.70	±	1.03	**Yes**	14.50	±	0.65	53.65	±	2.42	**Yes**
		03/14/23	0.11	±	0.17	0.41	±	0.63	No	18.10	±	1.06	66.97	±	3.92	**Yes**
		03/21/23	1.02	±	0.37	3.77	±	1.37	No	21.60	±	1.25	79.92	±	4.63	**Yes**
		03/28/23	0.53	±	0.25	1.97	±	0.92	No	17.70	±	1.04	65.49	±	3.85	**Yes**
EFS		01/03/23	1.27	±	0.18	4.70	±	0.68	**Yes**	15.90	±	0.55	58.83	±	2.02	**Yes**
		01/10/23	0.78	±	0.26	2.87	±	0.97	No	25.00	±	1.01	92.50	±	3.74	**Yes**
		01/17/23	0.40	±	0.22	1.48	±	0.80	No	22.60	±	1.11	83.62	±	4.11	**Yes**
		01/24/23	1.47	±	0.41	5.44	±	1.51	**Yes**	34.60	±	1.34	128.02	±	4.96	**Yes**
		01/31/23	2.65	±	0.49	9.81	±	1.80	**Yes**	43.40	±	1.50	160.58	±	5.55	**Yes**
		02/07/23	2.37	±	0.54	8.77	±	1.98	**Yes**	49.10	±	1.69	181.67	±	6.25	**Yes**
		02/14/23	2.17	±	0.49	8.03	±	1.82	**Yes**	36.80	±	1.47	136.16	±	5.44	**Yes**
		02/21/23	1.32	±	0.41	4.88	±	1.50	**Yes**	30.20	±	1.33	111.74	±	4.92	**Yes**
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/08/23	0.92	±	0.21	3.42	±	0.78	**Yes**	16.70	±	0.69	61.79	±	2.54	**Yes**
		03/14/23	0.47	±	0.28	1.74	±	1.05	No	18.10	±	1.11	66.97	±	4.11	**Yes**
	a	03/21/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/28/23	1.30	±	0.39	4.81	±	1.46	**Yes**	16.10	±	0.97	59.57	±	3.60	**Yes**
GATE4		01/03/23	1.87	±	0.23	6.92	±	0.85	**Yes**	19.40	±	0.56	71.78	±	2.06	**Yes**
		01/10/23	1.37	±	0.29	5.07	±	1.06	**Yes**	17.70	±	0.72	65.49	±	2.68	**Yes**
		01/17/23	1.28	±	0.39	4.74	±	1.44	**Yes**	19.30	±	1.05	71.41	±	3.89	**Yes**
		01/24/23	2.09	±	0.47	7.73	±	1.74	**Yes**	31.70	±	1.30	117.29	±	4.81	**Yes**
		01/31/23	2.90	±	0.51	10.73	±	1.90	**Yes**	49.00	±	1.61	181.30	±	5.96	**Yes**
		02/07/23	1.84	±	1.39	6.81	±	5.14	No	48.30	±	4.69	178.71	±	17.35	**Yes**
		02/14/23	0.70	±	0.31	2.58	±	1.16	No	45.70	±	1.60	169.09	±	5.92	**Yes**
		02/21/23	1.19	±	0.36	4.40	±	1.31	**Yes**	42.90	±	1.53	158.73	±	5.66	**Yes**
		03/02/23	1.29	±	0.33	4.77	±	1.22	**Yes**	20.50	±	0.95	75.85	±	3.51	**Yes**
		03/07/23	0.87	±	0.40	3.22	±	1.47	No	21.50	±	1.32	79.55	±	4.88	**Yes**
		03/14/23	1.36	±	0.42	5.03	±	1.55	**Yes**	16.50	±	1.01	61.05	±	3.74	**Yes**
		03/21/23	1.57	±	0.44	5.81	±	1.64	**Yes**	20.10	±	1.10	74.37	±	4.07	**Yes**
		03/28/23	0.45	±	0.26	1.66	±	0.95	No	18.50	±	1.06	68.45	±	3.92	**Yes**
HIGHWAY 26 REST AREA		01/03/23	1.51	±	0.21	5.59	±	0.76	**Yes**	19.90	±	0.59	73.63	±	2.17	**Yes**
		01/10/23	1.04	±	0.28	3.85	±	1.04	**Yes**	26.10	±	0.86	96.57	±	3.19	**Yes**
		01/17/23	0.95	±	0.34	3.52	±	1.27	No	23.80	±	1.16	88.06	±	4.29	**Yes**
		01/24/23	0.84	±	0.32	3.12	±	1.17	No	29.10	±	1.24	107.67	±	4.59	**Yes**
		01/31/23	1.68	±	0.43	6.22	±	1.61	**Yes**	38.50	±	1.41	142.45	±	5.22	**Yes**
		02/07/23	1.83	±	0.42	6.77	±	1.56	**Yes**	40.50	±	1.49	149.85	±	5.51	**Yes**
		02/14/23	2.18	±	0.51	8.07	±	1.87	**Yes**	33.00	±	1.35	122.10	±	5.00	**Yes**
		02/21/23	2.05	±	0.49	7.59	±	1.79	**Yes**	30.20	±	1.29	111.74	±	4.77	**Yes**
		03/02/23	0.51	±	0.21	1.87	±	0.79	No	10.20	±	0.68	37.74	±	2.51	**Yes**
		03/07/23	0.23	±	0.26	0.86	±	0.96	No	16.50	±	1.16	61.05	±	4.29	**Yes**
		03/14/23	0.46	±	0.24	1.70	±	0.88	No	17.00	±	1.00	62.90	±	3.68	**Yes**
		03/21/23	1.65	±	0.41	6.11	±	1.51	**Yes**	21.10	±	1.11	78.07	±	4.11	**Yes**
		03/28/23	0.50	±	0.23	1.86	±	0.87	No	16.60	±	0.98	61.42	±	3.63	**Yes**
INTEC (NE CORNER)		01/03/23	1.75	±	0.24	6.48	±	0.88	**Yes**	19.90	±	0.66	73.63	±	2.44	**Yes**

Table C-1. Weekly gross alpha and gross beta concentrations in air.

		GROSS ALPHA							GROSS BETA						
Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		01/10/23	1.04	±	0.30	3.85	±	1.11	Yes	24.70	±	0.93	91.39	±	3.43	Yes
		01/17/23	1.25	±	0.42	4.63	±	1.56	No	22.50	±	1.23	83.25	±	4.55	Yes
		01/24/23	1.32	±	0.42	4.88	±	1.54	Yes	21.00	±	1.16	77.70	±	4.29	Yes
		01/31/23	2.09	±	0.51	7.73	±	1.88	Yes	42.10	±	1.56	155.77	±	5.77	Yes
		02/07/23	1.47	±	0.41	5.44	±	1.50	Yes	25.00	±	1.26	92.50	±	4.66	Yes
		02/14/23	1.00	±	0.38	3.70	±	1.41	No	28.60	±	1.34	105.82	±	4.96	Yes
		02/21/23	2.59	±	0.54	9.58	±	2.00	Yes	36.60	±	1.53	135.42	±	5.66	Yes
	b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/07/23	0.97	±	0.26	3.59	±	0.95	Yes	11.80	±	0.62	43.66	±	2.31	Yes
		03/14/23	0.75	±	0.32	2.77	±	1.17	No	17.70	±	1.11	65.49	±	4.11	Yes
		03/21/23	0.51	±	0.27	1.90	±	0.98	No	15.70	±	1.02	58.09	±	3.77	Yes
		03/28/23	0.99	±	0.34	3.67	±	1.25	No	10.70	±	0.88	39.59	±	3.25	Yes
INTEC (QA)		01/03/23	1.00	±	0.17	3.68	±	0.63	Yes	16.10	±	0.52	59.57	±	1.93	Yes
		01/10/23	0.70	±	0.22	2.59	±	0.80	Yes	12.80	±	0.60	47.36	±	2.21	Yes
		01/17/23	0.89	±	0.33	3.29	±	1.22	No	20.10	±	1.05	74.37	±	3.89	Yes
		01/24/23	0.95	±	0.31	3.50	±	1.16	Yes	22.30	±	1.11	82.51	±	4.11	Yes
		01/31/23	2.14	±	0.47	7.92	±	1.75	Yes	40.20	±	1.46	148.74	±	5.40	Yes
		02/07/23	1.46	±	0.39	5.40	±	1.46	Yes	25.30	±	1.17	93.61	±	4.33	Yes
		02/14/23	1.60	±	0.45	5.92	±	1.66	Yes	32.30	±	1.36	119.51	±	5.03	Yes
		02/21/23	2.21	±	0.51	8.18	±	1.88	Yes	32.20	±	1.34	119.14	±	4.96	Yes
		03/02/23	1.16	±	0.30	4.29	±	1.12	Yes	10.90	±	0.73	40.33	±	2.69	Yes
		03/07/23	1.00	±	0.43	3.69	±	1.59	No	16.20	±	1.17	59.94	±	4.33	Yes
		03/14/23	0.58	±	0.29	2.15	±	1.07	No	17.20	±	1.00	63.64	±	3.70	Yes
		03/21/23	1.22	±	0.39	4.51	±	1.44	Yes	21.70	±	1.11	80.29	±	4.11	Yes
		03/28/23	0.75	±	0.31	2.79	±	1.13	No	15.70	±	0.96	58.09	±	3.54	Yes
INTEC (WESTSIDE)		01/03/23	0.88	±	0.21	3.24	±	0.78	Yes	9.33	±	0.45	34.52	±	1.67	Yes
		01/10/23	0.61	±	0.18	2.26	±	0.67	Yes	15.70	±	0.65	58.09	±	2.42	Yes
		01/17/23	0.91	±	0.33	3.38	±	1.21	No	20.50	±	1.05	75.85	±	3.89	Yes
		01/24/23	0.79	±	0.30	2.94	±	1.11	No	29.80	±	1.22	110.26	±	4.51	Yes
		01/31/23	2.15	±	0.47	7.96	±	1.74	Yes	35.00	±	1.31	129.50	±	4.85	Yes
		02/07/23	1.61	±	0.38	5.96	±	1.41	Yes	24.40	±	1.12	90.28	±	4.14	Yes
		02/14/23	0.75	±	0.31	2.78	±	1.14	No	28.20	±	1.22	104.34	±	4.51	Yes
	a	02/21/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		03/02/23	0.89	±	0.33	3.30	±	1.22	No	12.00	±	0.81	44.40	±	2.98	Yes
		03/07/23	1.50	±	0.52	5.55	±	1.92	No	15.40	±	1.17	56.98	±	4.33	Yes
		03/14/23	1.14	±	0.35	4.22	±	1.30	Yes	20.20	±	1.11	74.74	±	4.11	Yes
		03/21/23	0.71	±	0.28	2.64	±	1.03	No	16.40	±	0.97	60.68	±	3.59	Yes
		03/28/23	0.74	±	0.29	2.74	±	1.07	No	13.50	±	0.94	49.95	±	3.47	Yes
MAIN GATE		01/03/23	0.99	±	0.14	3.67	±	0.52	Yes	19.20	±	0.47	71.04	±	1.72	Yes
		01/10/23	1.87	±	0.32	6.92	±	1.19	Yes	23.10	±	0.74	85.47	±	2.72	Yes
		01/17/23	0.99	±	0.23	3.66	±	0.84	Yes	18.10	±	0.72	66.97	±	2.66	Yes
		01/24/23	0.25	±	0.19	0.92	±	0.71	No	12.50	±	0.56	46.25	±	2.08	Yes
		01/31/23	1.42	±	0.27	5.25	±	1.01	Yes	30.00	±	0.76	111.00	±	2.81	Yes
		02/07/23	1.21	±	0.27	4.48	±	1.01	Yes	24.40	±	0.73	90.28	±	2.71	Yes
	a	02/14/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
		02/21/23	1.97	±	0.37	7.29	±	1.38	Yes	30.00	±	0.92	111.00	±	3.42	Yes
		02/28/23	1.70	±	0.32	6.29	±	1.18	Yes	18.10	±	0.69	66.97	±	2.56	Yes
		03/07/23	0.32	±	0.18	1.17	±	0.65	No	6.75	±	0.47	24.98	±	1.72	Yes
		03/14/23	0.76	±	0.24	2.82	±	0.89	Yes	10.00	±	0.55	37.00	±	2.02	Yes
		03/21/23	1.39	±	0.28	5.14	±	1.03	Yes	18.40	±	0.66	68.08	±	2.44	Yes
		03/28/23	0.67	±	0.21	2.48	±	0.78	Yes	8.51	±	0.50	31.49	±	1.86	Yes
MFC NORTH		01/03/23	1.16	±	0.17	4.29	±	0.62	Yes	13.30	±	0.52	49.21	±	1.92	Yes
		01/10/23	0.95	±	0.25	3.52	±	0.94	Yes	18.10	±	0.73	66.97	±	2.69	Yes
		01/17/23	0.27	±	0.21	0.98	±	0.77	No	18.00	±	1.00	66.60	±	3.70	Yes
		01/24/23	0.44	±	0.24	1.61	±	0.87	No	29.00	±	1.27	107.30	±	4.70	Yes
		01/31/23	2.47	±	0.52	9.14	±	1.92	Yes	36.70	±	1.40	135.79	±	5.18	Yes
		02/07/23	1.21	±	0.37	4.48	±	1.37	Yes	35.90	±	1.40	132.83	±	5.18	Yes
		02/14/23	1.35	±	0.41	5.00	±	1.50	Yes	28.40	±	1.26	105.08	±	4.66	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

		GROSS ALPHA							GROSS BETA						
Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
	02/21/23	1.33	±	0.40	4.92	±	1.47	Yes	29.40	±	1.27	108.78	±	4.70	Yes
	02/28/23	0.29	±	0.20	1.06	±	0.74	No	20.10	±	1.08	74.37	±	4.00	Yes
	03/07/23	0.49	±	0.25	1.83	±	0.93	No	13.10	±	0.86	48.47	±	3.16	Yes
	03/14/23	0.51	±	0.25	1.89	±	0.94	No	11.90	±	0.83	44.03	±	3.06	Yes
	03/21/23	0.53	±	0.26	1.96	±	0.98	No	17.10	±	0.99	63.27	±	3.67	Yes
	03/28/23	0.58	±	0.26	2.13	±	0.96	No	13.60	±	0.89	50.32	±	3.29	Yes
MFC SOUTH	01/03/23	1.21	±	0.19	4.48	±	0.71	Yes	15.40	±	0.47	56.98	±	1.74	Yes
	01/10/23	2.87	±	0.42	10.62	±	1.56	Yes	26.00	±	0.88	96.20	±	3.26	Yes
	01/17/23	0.59	±	0.29	2.20	±	1.05	No	19.80	±	1.06	73.26	±	3.92	Yes
	01/24/23	0.45	±	0.24	1.65	±	0.89	No	29.50	±	1.29	109.15	±	4.77	Yes
	01/31/23	3.30	±	0.61	12.21	±	2.24	Yes	36.90	±	1.43	136.53	±	5.29	Yes
	02/07/23	1.95	±	0.46	7.22	±	1.72	Yes	34.50	±	1.39	127.65	±	5.14	Yes
	02/14/23	2.08	±	0.50	7.70	±	1.86	Yes	27.10	±	1.26	100.27	±	4.66	Yes
	02/21/23	0.65	±	0.29	2.40	±	1.09	No	19.00	±	1.03	70.30	±	3.81	Yes
	02/28/23	0.79	±	0.31	2.91	±	1.16	No	16.50	±	0.96	61.05	±	3.55	Yes
	03/07/23	1.19	±	0.36	4.40	±	1.34	Yes	12.20	±	0.82	45.14	±	3.05	Yes
	03/14/23	0.78	±	0.30	2.87	±	1.09	No	14.30	±	0.88	52.91	±	3.27	Yes
	03/21/23	0.50	±	0.28	1.84	±	1.04	No	17.20	±	1.08	63.64	±	4.00	Yes
	03/28/23	0.59	±	0.27	2.18	±	0.98	No	16.70	±	0.99	61.79	±	3.66	Yes
NRF	01/03/23	1.56	±	0.21	5.77	±	0.77	Yes	21.40	±	0.66	79.18	±	2.44	Yes
	01/10/23	1.03	±	0.29	3.81	±	1.08	Yes	25.90	±	0.88	95.83	±	3.25	Yes
	01/17/23	0.83	±	0.31	3.05	±	1.14	No	21.80	±	1.14	80.66	±	4.22	Yes
	01/24/23	0.72	±	0.30	2.66	±	1.12	No	31.00	±	1.30	114.70	±	4.81	Yes
	01/31/23	2.12	±	0.47	7.84	±	1.73	Yes	43.20	±	1.51	159.84	±	5.59	Yes
	02/07/23	2.61	±	0.56	9.66	±	2.06	Yes	44.50	±	1.59	164.65	±	5.88	Yes
	02/14/23	0.61	±	0.27	2.27	±	1.01	No	34.40	±	1.44	127.28	±	5.33	Yes
	02/21/23	1.09	±	0.34	4.03	±	1.26	Yes	35.10	±	1.39	129.87	±	5.14	Yes
	03/02/23	0.59	±	0.26	2.20	±	0.94	No	18.20	±	0.90	67.34	±	3.32	Yes
	03/07/23	0.59	±	0.33	2.16	±	1.22	No	19.70	±	1.25	72.89	±	4.63	Yes
	03/14/23	0.71	±	0.32	2.63	±	1.17	No	16.20	±	0.99	59.94	±	3.65	Yes
	03/21/23	1.42	±	0.41	5.25	±	1.53	Yes	19.90	±	1.06	73.63	±	3.92	Yes
	03/28/23	0.86	±	0.32	3.17	±	1.20	No	17.20	±	1.00	63.64	±	3.68	Yes
PBF	01/03/23	0.94	±	0.17	3.47	±	0.63	Yes	12.00	±	0.42	44.40	±	1.57	Yes
	01/10/23	0.87	±	0.27	3.23	±	0.98	Yes	21.20	±	0.78	78.44	±	2.88	Yes
	01/17/23	0.61	±	0.29	2.25	±	1.08	No	18.30	±	1.04	67.71	±	3.85	Yes
	01/24/23	0.24	±	0.18	0.90	±	0.68	No	11.60	±	0.80	42.92	±	2.95	Yes
	01/31/23	2.01	±	0.45	7.44	±	1.65	Yes	39.20	±	1.40	145.04	±	5.18	Yes
	02/07/23	2.25	±	0.47	8.33	±	1.75	Yes	30.90	±	1.26	114.33	±	4.66	Yes
	02/14/23	1.35	±	0.41	5.00	±	1.52	Yes	36.50	±	1.43	135.05	±	5.29	Yes
	02/21/23	1.21	±	0.38	4.48	±	1.41	Yes	35.40	±	1.38	130.98	±	5.11	Yes
	03/02/23	0.29	±	0.17	1.06	±	0.62	No	13.60	±	0.78	50.32	±	2.87	Yes
	03/07/23	0.97	±	0.42	3.59	±	1.54	No	9.70	±	0.93	35.89	±	3.43	Yes
	03/14/23	0.57	±	0.28	2.09	±	1.03	No	16.90	±	0.98	62.53	±	3.61	Yes
	03/21/23	0.46	±	0.26	1.70	±	0.96	No	19.20	±	1.03	71.04	±	3.81	Yes
	03/28/23	0.21	±	0.18	0.76	±	0.68	No	16.20	±	0.95	59.94	±	3.53	Yes
RHLLW	01/03/23	2.93	±	0.28	10.84	±	1.02	Yes	16.20	±	0.48	59.94	±	1.77	Yes
	01/10/23	1.54	±	0.32	5.70	±	1.19	Yes	27.30	±	1.01	101.01	±	3.74	Yes
	01/17/23	0.86	±	0.33	3.17	±	1.22	No	24.90	±	1.19	92.13	±	4.40	Yes
	01/24/23	1.19	±	0.36	4.40	±	1.33	Yes	31.40	±	1.27	116.18	±	4.70	Yes
	01/31/23	2.74	±	0.54	10.14	±	1.99	Yes	41.40	±	1.45	153.18	±	5.37	Yes
	02/07/23	2.42	±	0.56	8.95	±	2.06	Yes	57.20	±	2.03	211.64	±	7.51	Yes
	02/14/23	0.74	±	0.33	2.75	±	1.24	No	33.80	±	1.43	125.06	±	5.29	Yes
	02/22/23	1.20	±	0.36	4.44	±	1.34	Yes	31.20	±	1.25	115.44	±	4.63	Yes
b	02/28/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
b	03/07/23		±		0.00	±	0.00	No		±		0.00	±	0.00	No
	03/14/23	0.81	±	0.17	2.99	±	0.62	Yes	16.60	±	0.58	61.42	±	2.13	Yes
	03/21/23	0.75	±	0.32	2.76	±	1.17	No	22.30	±	1.14	82.51	±	4.22	Yes
	03/28/23	0.60	±	0.25	2.22	±	0.94	No	14.60	±	0.93	54.02	±	3.45	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

Sampling Group and Location		Sampling Date	GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)	GROSS ALPHA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)	GROSS ALPHA Result > 3s	GROSS BETA Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)	GROSS BETA Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)	GROSS BETA Result > 3s
RWMC		01/03/23	1.55 ± 0.21	5.74 ± 0.79	Yes	18.60 ± 0.56	68.82 ± 2.07	Yes
		01/10/23	0.85 ± 0.28	3.13 ± 1.02	Yes	24.50 ± 0.86	90.65 ± 3.20	Yes
		01/17/23	1.36 ± 0.37	5.03 ± 1.38	Yes	24.80 ± 1.16	91.76 ± 4.29	Yes
		01/24/23	1.37 ± 0.39	5.07 ± 1.45	Yes	33.60 ± 1.32	124.32 ± 4.88	Yes
		01/31/23	1.16 ± 0.34	4.29 ± 1.24	Yes	37.90 ± 1.40	140.23 ± 5.18	Yes
		02/07/23	2.32 ± 0.50	8.58 ± 1.85	Yes	44.10 ± 1.51	163.17 ± 5.59	Yes
		02/14/23	1.68 ± 0.41	6.22 ± 1.53	Yes	33.20 ± 1.32	122.84 ± 4.88	Yes
		02/21/23	1.96 ± 0.46	7.25 ± 1.70	Yes	35.40 ± 1.37	130.98 ± 5.07	Yes
		03/02/23	1.02 ± 0.31	3.77 ± 1.13	Yes	17.20 ± 0.86	63.64 ± 3.17	Yes
		03/07/23	1.88 ± 0.50	6.96 ± 1.85	Yes	44.60 ± 1.84	165.02 ± 6.81	Yes
		03/14/23	0.49 ± 0.26	1.82 ± 0.94	No	15.90 ± 0.94	58.83 ± 3.47	Yes
		03/21/23	1.43 ± 0.41	5.29 ± 1.50	Yes	20.90 ± 1.07	77.33 ± 3.96	Yes
		03/28/23	0.82 ± 0.31	3.02 ± 1.14	No	16.20 ± 0.94	59.94 ± 3.49	Yes
RWMC (QA)		01/03/23	1.13 ± 0.17	4.18 ± 0.64	Yes	20.80 ± 0.55	76.96 ± 2.05	Yes
		01/10/23	0.93 ± 0.28	3.43 ± 1.04	Yes	19.10 ± 0.75	70.67 ± 2.78	Yes
		01/17/23	0.26 ± 0.20	0.96 ± 0.75	No	22.90 ± 1.14	84.73 ± 4.22	Yes
		01/24/23	1.64 ± 0.43	6.07 ± 1.59	Yes	33.60 ± 1.34	124.32 ± 4.96	Yes
		01/31/23	2.69 ± 0.54	9.95 ± 1.99	Yes	35.90 ± 1.36	132.83 ± 5.03	Yes
		02/07/23	2.04 ± 0.48	7.55 ± 1.78	Yes	42.40 ± 1.50	156.88 ± 5.55	Yes
		02/14/23	1.14 ± 0.35	4.22 ± 1.29	Yes	32.30 ± 1.32	119.51 ± 4.88	Yes
		02/21/23	1.09 ± 0.34	4.03 ± 1.27	Yes	36.10 ± 1.41	133.57 ± 5.22	Yes
		03/02/23	0.26 ± 0.19	0.95 ± 0.71	No	10.10 ± 0.68	37.37 ± 2.53	Yes
		03/07/23	1.32 ± 0.43	4.88 ± 1.59	Yes	18.30 ± 1.24	67.71 ± 4.59	Yes
		03/14/23	0.55 ± 0.25	2.04 ± 0.94	No	15.50 ± 0.96	57.35 ± 3.53	Yes
		03/21/23	0.64 ± 0.27	2.38 ± 1.00	No	19.90 ± 1.07	73.63 ± 3.96	Yes
		03/28/23	0.15 ± 0.16	0.56 ± 0.57	No	16.00 ± 0.97	59.20 ± 3.57	Yes
RWMC SOUTH	a	01/03/23	±	0.00 ± 0.00	No	±	0.00 ± 0.00	No
		01/10/23	-0.06 ± 0.09	-0.21 ± 0.33	No	0.08 ± 0.17	0.31 ± 0.64	No
		01/17/23	0.80 ± 0.32	2.96 ± 1.18	No	23.50 ± 1.14	86.95 ± 4.22	Yes
		01/24/23	1.02 ± 0.32	3.77 ± 1.18	Yes	33.70 ± 1.34	124.69 ± 4.96	Yes
		01/31/23	1.78 ± 0.44	6.59 ± 1.62	Yes	37.10 ± 1.38	137.27 ± 5.11	Yes
		02/07/23	2.74 ± 0.52	10.14 ± 1.94	Yes	43.00 ± 1.49	159.10 ± 5.51	Yes
		02/14/23	1.62 ± 0.43	5.99 ± 1.61	Yes	30.40 ± 1.28	112.48 ± 4.74	Yes
		02/21/23	1.22 ± 0.38	4.51 ± 1.42	Yes	29.10 ± 1.26	107.67 ± 4.66	Yes
	b	02/28/23	±	0.00 ± 0.00	No	±	0.00 ± 0.00	No
		03/07/23	0.37 ± 0.15	1.35 ± 0.56	No	5.86 ± 0.42	21.68 ± 1.55	Yes
		03/14/23	0.03 ± 0.14	0.12 ± 0.51	No	16.90 ± 0.96	62.53 ± 3.56	Yes
		03/21/23	0.78 ± 0.30	2.89 ± 1.10	No	21.00 ± 1.06	77.70 ± 3.92	Yes
		03/28/23	0.64 ± 0.26	2.36 ± 0.98	No	15.70 ± 0.92	58.09 ± 3.42	Yes
SMC	a	01/03/23	±	0.00 ± 0.00	No	±	0.00 ± 0.00	No
		01/10/23	1.10 ± 0.24	4.07 ± 0.89	Yes	19.20 ± 0.78	71.04 ± 2.89	Yes
		01/17/23	1.04 ± 0.34	3.85 ± 1.26	Yes	24.10 ± 1.18	89.17 ± 4.37	Yes
		01/24/23	3.19 ± 0.60	11.80 ± 2.23	Yes	32.90 ± 1.35	121.73 ± 5.00	Yes
		01/31/23	2.71 ± 0.51	10.03 ± 1.87	Yes	51.90 ± 1.68	192.03 ± 6.22	Yes
		02/07/23	3.09 ± 0.60	11.43 ± 2.22	Yes	62.90 ± 1.89	232.73 ± 6.99	Yes
		02/14/23	1.37 ± 0.39	5.07 ± 1.44	Yes	41.10 ± 1.51	152.07 ± 5.59	Yes
		02/21/23	1.96 ± 0.48	7.25 ± 1.78	Yes	40.80 ± 1.49	150.96 ± 5.51	Yes
	b	02/28/23	±	0.00 ± 0.00	No	±	0.00 ± 0.00	No
		03/07/23	1.38 ± 0.26	5.11 ± 0.94	Yes	20.20 ± 0.76	74.74 ± 2.79	Yes
		03/14/23	0.98 ± 0.35	3.61 ± 1.31	No	14.90 ± 0.95	55.13 ± 3.52	Yes
		03/21/23	0.94 ± 0.34	3.49 ± 1.27	No	20.60 ± 1.08	76.22 ± 4.00	Yes
		03/28/23	0.53 ± 0.27	1.96 ± 0.98	No	21.00 ± 1.09	77.70 ± 4.03	Yes
VAN BUREN		01/03/23	1.13 ± 0.19	4.18 ± 0.70	Yes	14.00 ± 0.49	51.80 ± 1.81	Yes
		01/10/23	1.02 ± 0.24	3.77 ± 0.88	Yes	17.70 ± 0.84	65.49 ± 3.09	Yes
		01/17/23	1.57 ± 0.40	5.81 ± 1.48	Yes	28.60 ± 1.25	105.82 ± 4.63	Yes
		01/24/23	1.59 ± 0.42	5.88 ± 1.57	Yes	27.10 ± 1.20	100.27 ± 4.44	Yes
		01/31/23	1.88 ± 0.45	6.96 ± 1.66	Yes	35.00 ± 1.34	129.50 ± 4.96	Yes
		02/07/23	2.27 ± 0.50	8.40 ± 1.85	Yes	25.20 ± 1.17	93.24 ± 4.33	Yes

Table C-1. Weekly gross alpha and gross beta concentrations in air.

		GROSS ALPHA							GROSS BETA						
Sampling Group and Location	**Sampling Date**	**Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)**			**Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)**			**Result > 3s**	**Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)**			**Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)**			**Result > 3s**
	02/14/23	0.48	±	0.24	1.78	±	0.87	No	28.10	±	1.26	103.97	±	4.66	**Yes**
	02/21/23	1.40	±	0.40	5.18	±	1.47	**Yes**	36.40	±	1.39	134.68	±	5.14	**Yes**
	03/02/23	1.03	±	0.31	3.81	±	1.14	**Yes**	11.40	±	0.71	42.18	±	2.63	**Yes**
	03/07/23	0.72	±	0.36	2.67	±	1.32	No	16.80	±	1.17	62.16	±	4.33	**Yes**
	03/14/23	0.42	±	0.24	1.56	±	0.88	No	17.20	±	0.98	63.64	±	3.64	**Yes**
	03/21/23	0.61	±	0.28	2.26	±	1.02	No	20.10	±	1.05	74.37	±	3.89	**Yes**
	03/28/23	0.28	±	0.19	1.03	±	0.72	No	15.00	±	0.92	55.50	±	3.42	**Yes**
VAN BUREN (QA)	01/03/23	0.87	±	0.16	3.23	±	0.60	**Yes**	14.10	±	0.56	52.17	±	2.08	**Yes**
	01/10/23	0.94	±	0.24	3.49	±	0.90	**Yes**	17.90	±	0.78	66.23	±	2.87	**Yes**
	01/17/23	0.84	±	0.31	3.09	±	1.14	No	21.10	±	1.11	78.07	±	4.11	**Yes**
	01/24/23	0.60	±	0.28	2.22	±	1.05	No	14.80	±	0.93	54.76	±	3.42	**Yes**
	01/31/23	3.89	±	1.18	14.39	±	4.37	**Yes**	38.50	±	2.65	142.45	±	9.81	**Yes**
	02/07/23	1.61	±	0.44	5.96	±	1.62	**Yes**	32.90	±	1.36	121.73	±	5.03	**Yes**
	02/14/23	0.70	±	0.29	2.60	±	1.06	No	28.40	±	1.31	105.08	±	4.85	**Yes**
	02/21/23	1.14	±	0.37	4.22	±	1.36	**Yes**	32.70	±	1.34	120.99	±	4.96	**Yes**
	03/02/23	0.39	±	0.21	1.44	±	0.78	No	10.10	±	0.69	37.37	±	2.55	**Yes**
	03/07/23	0.62	±	0.35	2.29	±	1.28	No	16.30	±	1.18	60.31	±	4.37	**Yes**
	03/14/23	0.23	±	0.20	0.85	±	0.73	No	16.70	±	0.97	61.79	±	3.60	**Yes**
	03/21/23	1.09	±	0.35	4.03	±	1.29	**Yes**	19.10	±	1.03	70.67	±	3.81	**Yes**
	03/28/23	0.57	±	0.26	2.10	±	0.95	No	14.30	±	0.90	52.91	±	3.34	**Yes**

a. Invalid samples
b. Sampler ran for two weeks due to weather

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
BOUNDARY									
ARCO		01/03/23	0.38	±	0.55	1.42	±	2.03	No
		01/10/23	-0.03	±	1.17	-0.12	±	4.33	No
		01/17/23	0.03	±	1.14	0.12	±	4.22	No
		01/24/23	-0.13	±	0.52	-0.48	±	1.94	No
		01/31/23	0.41	±	0.61	1.50	±	2.24	No
		02/07/23	-1.48	±	0.93	-5.48	±	3.45	No
		02/14/23	0.44	±	1.53	1.61	±	5.66	No
		02/21/23	-0.11	±	1.11	-0.41	±	4.11	No
		03/02/23	-1.01	±	1.34	-3.74	±	4.96	No
		03/07/23	1.25	±	1.61	4.63	±	5.96	No
		03/14/23	0.35	±	0.84	1.29	±	3.10	No
		03/21/23	0.34	±	0.83	1.27	±	3.06	No
		03/28/23	-0.89	±	0.86	-3.28	±	3.19	No
ATOMIC CITY		01/03/23	0.35	±	0.50	1.28	±	1.83	No
		01/10/23	-0.03	±	1.06	-0.10	±	3.92	No
		01/17/23	0.03	±	1.11	0.12	±	4.11	No
		01/24/23	-0.13	±	0.52	-0.48	±	1.93	No
		01/31/23	0.82	±	1.22	3.02	±	4.51	No
		02/07/23	-1.40	±	0.88	-5.18	±	3.26	No
		02/14/23	0.42	±	1.47	1.54	±	5.44	No
		02/21/23	-0.11	±	1.12	-0.39	±	4.14	No
		02/28/23	-1.39	±	1.86	-5.14	±	6.88	No
		03/07/23	1.00	±	1.29	3.70	±	4.77	No
		03/14/23	0.37	±	0.88	1.36	±	3.27	No
		03/21/23	0.54	±	1.30	2.00	±	4.81	No
		03/28/23	-0.95	±	0.92	-3.50	±	3.41	No
BLUE DOME		01/03/23	0.35	±	0.50	1.30	±	1.86	No
		01/10/23	-0.03	±	1.09	-0.11	±	4.03	No
		01/17/23	0.03	±	1.07	0.12	±	3.96	No
		01/24/23	-0.13	±	0.52	-0.48	±	1.92	No
	a	01/31/23		±			±		No
		02/07/23	-1.47	±	0.93	-5.44	±	3.43	No
		02/16/23	0.31	±	1.10	1.15	±	4.07	No
		02/21/23	-0.16	±	1.65	-0.59	±	6.11	No
		02/28/23	-1.35	±	1.81	-5.00	±	6.70	No
		03/07/23	0.97	±	0.87	3.57	±	3.22	No
		03/14/23	0.38	±	0.91	1.40	±	3.37	No
		03/21/23	0.37	±	0.90	1.38	±	3.34	No
		03/28/23	-0.94	±	0.91	-3.47	±	3.37	No
FAA TOWER		01/03/23	1.35	±	1.93	5.00	±	7.14	No
		01/10/23	-0.03	±	1.11	-0.11	±	4.11	No
		01/17/23	0.03	±	1.09	0.12	±	4.03	No
		01/24/23	-0.13	±	0.51	-0.47	±	1.90	No
		01/31/23	0.39	±	0.59	1.46	±	2.18	No
		02/07/23	-1.36	±	0.86	-5.03	±	3.17	No
		02/16/23	0.33	±	1.17	1.23	±	4.33	No
		02/21/23	-0.15	±	1.54	-0.56	±	5.70	No
	b	02/28/23		±			±		No
		03/07/23	0.14	±	0.41	0.53	±	1.51	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
[a]	03/14/23		±			±		No
	03/21/23	0.50	±	1.21	1.86	±	4.48	No
	03/28/23	-0.82	±	0.80	-3.03	±	2.95	No
HOWE	01/03/23	0.36	±	0.51	1.32	±	1.90	No
	01/10/23	-0.03	±	1.12	-0.11	±	4.14	No
	01/17/23	0.03	±	1.10	0.12	±	4.07	No
	01/24/23	-0.13	±	0.52	-0.48	±	1.92	No
	01/31/23	0.40	±	0.60	1.48	±	2.22	No
	02/07/23	-1.45	±	0.91	-5.37	±	3.36	No
	02/14/23	0.45	±	1.57	1.65	±	5.81	No
	02/21/23	-0.10	±	1.10	-0.37	±	4.07	No
	03/02/23	-0.98	±	1.31	-3.63	±	4.85	No
	03/07/23	1.22	±	1.10	4.51	±	4.07	No
	03/14/23	0.35	±	0.85	1.31	±	3.16	No
	03/21/23	0.39	±	0.95	1.46	±	3.52	No
	03/28/23	-0.89	±	0.86	-3.27	±	3.19	No
MONTEVIEW	01/03/23	0.35	±	0.51	1.30	±	1.87	No
	01/10/23	-0.03	±	1.13	-0.11	±	4.18	No
	01/17/23	0.03	±	1.11	0.12	±	4.11	No
	01/24/23	-0.13	±	0.52	-0.48	±	1.93	No
	01/31/23	0.40	±	0.60	1.48	±	2.21	No
	02/07/23	-1.63	±	1.02	-6.03	±	3.77	No
	02/14/23	0.47	±	1.67	1.75	±	6.18	No
	02/21/23	-0.11	±	1.13	-0.41	±	4.18	No
	02/28/23	-1.19	±	1.59	-4.40	±	5.88	No
	03/07/23	0.92	±	0.83	3.39	±	3.06	No
	03/14/23	0.35	±	0.85	1.31	±	3.16	No
	03/21/23	0.34	±	0.83	1.27	±	3.07	No
	03/28/23	-0.85	±	0.83	-3.16	±	3.07	No
TERRETON	01/03/23	16.58	±	71.48	61.34	±	264.46	No
	01/10/23	-2.60	±	123.35	-9.61	±	456.40	No
	01/17/23	203.38	±	118.44	752.51	±	438.23	No
	01/24/23	-65.49	±	106.58	-242.32	±	394.35	No
	01/31/23	-100.88	±	128.54	-373.26	±	475.60	No
	02/07/23	-119.75	±	159.26	-443.08	±	589.26	No
	02/14/23	-17.98	±	157.17	-66.54	±	581.53	No
	02/21/23	-79.08	±	119.57	-292.61	±	442.41	No
	02/28/23	12.09	±	112.27	44.72	±	415.40	No
	03/07/23	-23.03	±	113.69	-85.21	±	420.65	No
	03/14/23	-20.46	±	134.53	-75.69	±	497.76	No
	03/21/23	-8.64	±	136.40	-31.98	±	504.68	No
	03/28/23	-11.81	±	132.67	-43.70	±	490.88	No
OFFSITE								
BLACKFOOT	01/03/23	-1.71	±	68.34	-6.33	±	252.84	No
	01/10/23	-17.71	±	122.32	-65.54	±	452.58	No
	01/17/23	-13.58	±	170.91	-50.26	±	632.37	No
	01/24/23	116.64	±	94.07	431.57	±	348.04	No
	01/31/23	36.54	±	157.59	135.19	±	583.08	No
	02/07/23	104.49	±	149.22	386.61	±	552.11	No
	02/14/23	-93.08	±	143.04	-344.39	±	529.25	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		02/21/23	-54.11	±	149.86	-200.19	±	554.48	No
		02/28/23	-24.98	±	122.11	-92.41	±	451.81	No
		03/07/23	22.94	±	123.49	84.88	±	456.91	No
		03/14/23	-77.44	±	105.23	-286.51	±	389.35	No
		03/21/23	1.73	±	115.22	6.41	±	426.31	No
		03/28/23	100.59	±	139.62	372.18	±	516.59	No
CRATERS OF THE MOON		01/03/23	49.07	±	61.97	181.56	±	229.30	No
		01/10/23	-61.66	±	131.86	-228.14	±	487.88	No
		01/17/23	-15.21	±	139.06	-56.26	±	514.52	No
		01/24/23	-93.42	±	137.57	-345.65	±	509.01	No
		01/31/23	-118.09	±	124.07	-436.93	±	459.06	No
		02/07/23	79.87	±	125.60	295.52	±	464.72	No
		02/14/23	-84.40	±	118.85	-312.29	±	439.75	No
	b	02/21/23		±			±		No
		03/02/23	-4.90	±	46.78	-18.14	±	173.07	No
		03/07/23	-77.73	±	167.71	-287.61	±	620.53	No
		03/14/23	59.35	±	123.67	219.60	±	457.58	No
		03/21/23	-28.16	±	127.71	-104.17	±	472.53	No
		03/28/23	-5.37	±	118.97	-19.87	±	440.19	No
DUBOIS		01/03/23	0.37	±	0.54	1.38	±	1.98	No
		01/10/23	-0.03	±	1.12	-0.11	±	4.14	No
		01/17/23	0.03	±	1.14	0.12	±	4.22	No
	a	01/24/23		±			±		No
		01/31/23	0.41	±	0.61	1.51	±	2.25	No
		02/07/23	-1.60	±	1.01	-5.92	±	3.74	No
		02/14/23	0.43	±	1.50	1.58	±	5.55	No
		02/21/23	-0.10	±	1.08	-0.38	±	4.00	No
		02/28/23	-1.27	±	1.70	-4.70	±	6.29	No
		03/07/23	0.91	±	0.82	3.35	±	3.02	No
		03/14/23	0.37	±	0.88	1.35	±	3.26	No
		03/21/23	0.35	±	0.85	1.30	±	3.14	No
		03/28/23	-0.89	±	0.87	-3.30	±	3.22	No
DUBOIS (QA)		01/03/23	0.37	±	0.52	1.35	±	1.93	No
		01/10/23	-0.03	±	1.12	-0.11	±	4.14	No
		01/17/23	0.03	±	1.13	0.12	±	4.18	No
		01/24/23	-0.13	±	0.53	-0.49	±	1.95	No
		01/31/23	0.47	±	0.70	1.73	±	2.59	No
		02/07/23	-1.70	±	1.07	-6.29	±	3.96	No
		02/14/23	0.44	±	1.56	1.64	±	5.77	No
		02/21/23	-0.11	±	1.14	-0.40	±	4.22	No
		02/28/23	-1.27	±	1.69	-4.70	±	6.25	No
		03/07/23	0.93	±	0.84	3.43	±	3.10	No
		03/14/23	0.35	±	0.84	1.30	±	3.12	No
		03/21/23	0.34	±	0.82	1.25	±	3.03	No
		03/28/23	-0.87	±	0.85	-3.23	±	3.15	No
IDAHO FALLS		01/03/23	19.69	±	62.01	72.85	±	229.42	No
		01/10/23	-87.57	±	132.78	-324.02	±	491.29	No
		01/17/23	15.37	±	125.14	56.85	±	463.02	No
		01/24/23	-4.24	±	110.98	-15.68	±	410.63	No
		01/31/23	29.85	±	128.08	110.43	±	473.90	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		02/07/23	-135.86	±	132.55	-502.68	±	490.44	No
		02/14/23	-142.44	±	135.18	-527.03	±	500.17	No
		02/21/23	163.17	±	113.15	603.73	±	418.66	No
		02/28/23	-232.43	±	252.23	-859.99	±	933.25	No
		03/07/23	-52.94	±	108.16	-195.88	±	400.19	No
		03/14/23	6.90	±	259.86	25.54	±	961.48	No
		03/21/23	-2.32	±	113.84	-8.58	±	421.21	No
		03/28/23	-68.10	±	113.05	-251.98	±	418.29	No
IRC		01/03/23	20.62	±	64.07	76.28	±	237.07	No
		01/10/23	-23.42	±	124.84	-86.66	±	461.91	No
		01/17/23	35.78	±	121.29	132.38	±	448.77	No
		01/24/23	12.16	±	134.03	45.00	±	495.91	No
		01/31/23	-8.41	±	118.22	-31.13	±	437.41	No
		02/07/23	-127.02	±	145.74	-469.97	±	539.24	No
		02/14/23	-70.06	±	126.39	-259.23	±	467.64	No
		02/21/23	1.01	±	128.44	3.74	±	475.23	No
		02/28/23	-50.54	±	119.35	-186.99	±	441.60	No
		03/07/23	19.85	±	136.78	73.44	±	506.09	No
		03/14/23	-115.12	±	124.57	-425.94	±	460.91	No
		03/21/23	2.36	±	124.79	8.71	±	461.72	No
		03/28/23	-220.91	±	136.43	-817.37	±	504.79	No
IRC NORTH		01/03/23	-10.40	±	72.19	-38.48	±	267.09	No
		01/10/23	25.30	±	160.00	93.60	±	592.00	No
	a	01/17/23		±			±		No
	a	01/24/23		±			±		No
		01/31/23	295.45	±	284.66	1093.17	±	1053.24	No
		02/07/23	10.25	±	162.95	37.92	±	602.92	No
	a	02/14/23		±			±		No
	a	02/21/23		±			±		No
		02/28/23	-35.38	±	275.27	-130.91	±	1018.50	No
		03/07/23	-87.05	±	132.72	-322.10	±	491.06	No
		03/14/23	-5.97	±	128.30	-22.09	±	474.71	No
		03/21/23	-148.20	±	131.12	-548.34	±	485.14	No
		03/28/23	-31.11	±	117.11	-115.09	±	433.31	No
JACKSON, WY		01/03/23	0.91	±	0.70	3.36	±	2.60	No
		01/10/23	-0.62	±	1.17	-2.28	±	4.33	No
		01/17/23	0.03	±	1.19	0.13	±	4.40	No
		01/24/23	-0.16	±	0.63	-0.59	±	2.35	No
		02/02/23	0.36	±	0.54	1.34	±	2.00	No
		02/07/23	-1.60	±	1.01	-5.92	±	3.74	No
		02/14/23	0.48	±	1.71	1.79	±	6.33	No
		02/21/23	-0.12	±	1.20	-0.43	±	4.44	No
		02/28/23	-1.30	±	1.73	-4.81	±	6.40	No
		03/07/23	0.97	±	1.25	3.59	±	4.63	No
		03/14/23	0.39	±	0.95	1.46	±	3.52	No
		03/21/23	0.36	±	0.87	1.33	±	3.21	No
		03/28/23	-0.94	±	0.91	-3.47	±	3.38	No
SUGAR CITY		01/03/23	0.00	±	65.14	0.00	±	241.03	No
		01/10/23	-49.56	±	118.23	-183.36	±	437.45	No
		01/17/23	78.58	±	113.80	290.75	±	421.06	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		01/24/23	-61.31	±	130.06	-226.84	±	481.22	No
		01/31/23	-75.05	±	129.09	-277.68	±	477.63	No
		02/07/23	2.19	±	118.86	8.12	±	439.78	No
		02/14/23	28.85	±	147.45	106.73	±	545.57	No
		02/21/23	-82.40	±	130.13	-304.88	±	481.48	No
		02/28/23	-100.79	±	133.36	-372.92	±	493.43	No
		03/07/23	-152.20	±	123.91	-563.14	±	458.47	No
		03/14/23	-128.14	±	113.59	-474.12	±	420.28	No
		03/21/23	23.83	±	108.85	88.19	±	402.75	No
		03/28/23	-92.16	±	136.96	-340.98	±	506.75	No
ONSITE									
ATR COMPLEX		01/03/23	55.09	±	60.32	203.83	±	223.17	No
		01/10/23	-138.80	±	140.79	-513.56	±	520.92	No
		01/17/23	-201.16	±	123.20	-744.29	±	455.84	No
		01/24/23	1.18	±	133.33	4.37	±	493.32	No
		01/31/23	160.80	±	118.95	594.96	±	440.12	No
		02/07/23	-38.13	±	138.36	-141.10	±	511.93	No
		02/14/23	-3.35	±	123.05	-12.39	±	455.29	No
		02/21/23	-13.92	±	108.02	-51.52	±	399.67	No
	b	02/28/23		±			±		No
		03/07/23	-24.03	±	58.74	-88.91	±	217.35	No
		03/14/23	148.57	±	123.19	549.71	±	455.80	No
		03/21/23	24.24	±	113.13	89.68	±	418.58	No
		03/28/23	79.32	±	104.60	293.50	±	387.02	No
CFA		01/03/23	-125.70	±	70.08	-465.09	±	259.29	No
		01/10/23	-8.60	±	130.13	-31.83	±	481.48	No
		01/17/23	-66.49	±	124.42	-245.99	±	460.35	No
		01/24/23	-4.81	±	115.56	-17.80	±	427.57	No
		01/31/23	-155.24	±	137.55	-574.39	±	508.94	No
		02/07/23	92.60	±	112.00	342.63	±	414.40	No
		02/14/23	-131.05	±	145.41	-484.89	±	538.02	No
		02/21/23	124.82	±	96.29	461.83	±	356.26	No
	b	02/28/23		±			±		No
		03/07/23	-14.83	±	65.70	-54.87	±	243.08	No
		03/14/23	-21.68	±	106.01	-80.20	±	392.24	No
		03/21/23	-22.33	±	129.86	-82.62	±	480.48	No
		03/28/23	-63.13	±	114.66	-233.57	±	424.24	No
EBR-I		01/03/23	-111.46	±	154.26	-412.40	±	570.76	No
		01/10/23	-27.37	±	146.15	-101.28	±	540.76	No
		01/17/23	-26.34	±	149.06	-97.47	±	551.52	No
		01/24/23	-52.40	±	120.88	-193.88	±	447.26	No
		01/31/23	209.63	±	120.00	775.63	±	444.00	No
		02/07/23	-152.47	±	124.67	-564.14	±	461.28	No
		02/14/23	57.62	±	98.76	213.19	±	365.40	No
		02/21/23	-53.50	±	132.79	-197.94	±	491.32	No
	b	02/28/23		±			±		No
		03/07/23	-37.36	±	64.05	-138.25	±	236.97	No
		03/14/23	2.54	±	132.06	9.39	±	488.62	No
		03/21/23	-140.35	±	134.63	-519.30	±	498.13	No
		03/28/23	-78.30	±	139.92	-289.71	±	517.70	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
EFS		01/03/23	-30.74	±	58.30	-113.72	±	215.71	No
		01/10/23	-17.11	±	130.38	-63.30	±	482.41	No
		01/17/23	13.73	±	129.09	50.79	±	477.63	No
		01/24/23	-70.32	±	123.12	-260.17	±	455.54	No
		01/31/23	-37.75	±	127.18	-139.69	±	470.57	No
		02/07/23	-73.36	±	125.13	-271.42	±	462.98	No
		02/14/23	-125.14	±	149.65	-463.02	±	553.71	No
		02/21/23	57.18	±	135.15	211.56	±	500.06	No
	b	02/28/23		±			±		No
		03/08/23	-81.11	±	64.38	-300.12	±	238.20	No
		03/14/23	-46.46	±	129.52	-171.91	±	479.22	No
	a	03/21/23		±			±		No
		03/28/23	-19.57	±	142.67	-72.39	±	527.88	No
GATE 4		01/03/23	-29.89	±	65.71	-110.60	±	243.14	No
		01/10/23	7.86	±	132.94	29.08	±	491.88	No
		01/17/23	-4.67	±	112.66	-17.29	±	416.84	No
		01/24/23	-4.95	±	132.85	-18.30	±	491.55	No
		01/31/23	63.06	±	107.49	233.31	±	397.71	No
		02/07/23	-474.78	±	738.40	-1756.69	±	2732.08	No
		02/14/23	-7.84	±	129.38	-28.99	±	478.71	No
		02/21/23	-21.18	±	116.60	-78.37	±	431.42	No
		03/02/23	-67.60	±	98.23	-250.11	±	363.44	No
		03/07/23	85.23	±	149.50	315.34	±	553.15	No
		03/14/23	-93.04	±	141.35	-344.25	±	523.00	No
		03/21/23	-95.11	±	145.41	-351.90	±	538.02	No
		03/28/23	58.20	±	151.26	215.35	±	559.66	No
HIGHWAY 26 REST AREA		01/03/23	1.27	±	68.60	4.71	±	253.82	No
		01/10/23	-30.72	±	105.79	-113.67	±	391.42	No
		01/17/23	-1.94	±	126.63	-7.18	±	468.53	No
		01/24/23	-10.16	±	113.50	-37.58	±	419.95	No
		01/31/23	104.33	±	117.30	386.02	±	434.01	No
		02/07/23	-57.56	±	124.30	-212.98	±	459.91	No
		02/14/23	-48.29	±	112.82	-178.67	±	417.43	No
		02/21/23	-6.04	±	116.35	-22.34	±	430.50	No
		03/02/23	-15.62	±	102.16	-57.78	±	377.99	No
		03/07/23	133.98	±	156.15	495.73	±	577.76	No
		03/14/23	108.40	±	101.55	401.08	±	375.74	No
		03/21/23	-38.37	±	119.22	-141.97	±	441.11	No
		03/28/23	-0.61	±	118.20	-2.25	±	437.34	No
INTEC (NE CORNER)		01/03/23	-51.20	±	75.10	-189.43	±	277.87	No
		01/10/23	-152.71	±	142.09	-565.03	±	525.73	No
		01/17/23	-95.04	±	155.85	-351.64	±	576.65	No
		01/24/23	-78.03	±	135.68	-288.72	±	502.02	No
		01/31/23	-175.23	±	137.11	-648.35	±	507.31	No
		02/07/23	-10.64	±	146.29	-39.38	±	541.27	No
		02/14/23	94.69	±	131.65	350.36	±	487.11	No
		02/21/23	108.62	±	109.15	401.89	±	403.86	No
	b	02/28/23		±			±		No
		03/07/23	-18.99	±	72.72	-70.27	±	269.06	No
		03/14/23	-95.35	±	137.68	-352.80	±	509.42	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		03/21/23	89.85	±	135.71	332.44	±	502.13	No
		03/28/23	-82.52	±	160.62	-305.32	±	594.29	No
INTEC (QA)		01/03/23	61.37	±	61.64	227.08	±	228.08	No
		01/10/23	-102.83	±	116.35	-380.47	±	430.50	No
		01/17/23	-157.89	±	141.32	-584.19	±	522.88	No
		01/24/23	-59.18	±	124.65	-218.96	±	461.21	No
		01/31/23	9.92	±	118.75	36.70	±	439.38	No
		02/07/23	-66.82	±	131.60	-247.24	±	486.92	No
		02/14/23	96.81	±	143.25	358.19	±	530.03	No
		02/21/23	116.39	±	116.40	430.64	±	430.68	No
		03/02/23	96.87	±	101.30	358.42	±	374.81	No
		03/07/23	-94.39	±	160.24	-349.24	±	592.89	No
		03/14/23	-39.83	±	126.42	-147.36	±	467.75	No
		03/21/23	-122.25	±	113.52	-452.33	±	420.02	No
		03/28/23	-79.72	±	134.61	-294.96	±	498.06	No
INTEC (WEST SIDE)		01/03/23	-114.15	±	101.32	-422.36	±	374.88	No
		01/10/23	29.39	±	131.09	108.75	±	485.03	No
		01/17/23	-62.30	±	135.17	-230.51	±	500.13	No
		01/24/23	-22.79	±	124.56	-84.32	±	460.87	No
		01/31/23	-101.64	±	110.46	-376.07	±	408.70	No
		02/07/23	-6.93	±	120.70	-25.64	±	446.59	No
		02/14/23	97.76	±	128.33	361.72	±	474.82	No
	a	02/21/23		±			±		No
		03/02/23	12.47	±	101.85	46.15	±	376.85	No
		03/07/23	-34.00	±	179.74	-125.80	±	665.04	No
		03/14/23	-36.71	±	147.70	-135.83	±	546.49	No
		03/21/23	-41.97	±	117.63	-155.30	±	435.23	No
		03/28/23	-7.80	±	124.95	-28.87	±	462.32	No
MAIN GATE		01/03/23	0.35	±	0.49	1.28	±	1.83	No
		01/10/23	-0.03	±	1.11	-0.11	±	4.11	No
		01/17/23	0.03	±	1.12	0.12	±	4.14	No
		01/24/23	-0.13	±	0.52	-0.48	±	1.92	No
		01/31/23	0.39	±	0.58	1.44	±	2.15	No
		02/07/23	-1.46	±	0.92	-5.40	±	3.40	No
	a	02/14/23		±			±		No
		02/21/23	-0.14	±	1.47	-0.52	±	5.44	No
		02/28/23	-1.23	±	1.64	-4.55	±	6.07	No
		03/07/23	0.91	±	1.17	3.37	±	4.33	No
		03/14/23	0.33	±	0.80	1.22	±	2.95	No
		03/21/23	0.34	±	0.82	1.25	±	3.02	No
		03/28/23	-0.87	±	0.84	-3.21	±	3.12	No
MFC NORTH		01/03/23	-35.08	±	64.44	-129.80	±	238.43	No
		01/10/23	-39.15	±	127.56	-144.86	±	471.97	No
		01/17/23	-16.50	±	112.46	-61.06	±	416.10	No
		01/24/23	-132.26	±	137.09	-489.36	±	507.23	No
		01/31/23	26.42	±	114.27	97.75	±	422.80	No
		02/07/23	-10.31	±	134.82	-38.13	±	498.83	No
		02/14/23	-70.76	±	113.75	-261.80	±	420.88	No
		02/21/23	82.92	±	117.22	306.82	±	433.71	No
		02/28/23	70.81	±	105.56	262.01	±	390.57	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
	03/07/23	-104.37	±	126.72	-386.17	±	468.86	No
	03/14/23	-138.60	±	118.63	-512.82	±	438.93	No
	03/21/23	97.44	±	110.27	360.52	±	408.00	No
	03/28/23	16.67	±	108.35	61.69	±	400.90	No
MFC SOUTH	01/03/23	-18.01	±	71.66	-66.64	±	265.12	No
	01/10/23	-1.28	±	128.41	-4.75	±	475.12	No
	01/17/23	-14.68	±	118.21	-54.30	±	437.38	No
	01/24/23	-76.83	±	130.19	-284.27	±	481.70	No
	01/31/23	-9.93	±	97.62	-36.72	±	361.18	No
	02/07/23	20.74	±	134.31	76.73	±	496.95	No
	02/14/23	-68.84	±	144.84	-254.70	±	535.91	No
	02/21/23	9.21	±	108.01	34.07	±	399.64	No
	02/28/23	-24.64	±	120.98	-91.15	±	447.63	No
	03/07/23	9.61	±	103.44	35.57	±	382.73	No
	03/14/23	10.77	±	101.91	39.84	±	377.07	No
	03/21/23	-3.58	±	132.56	-13.24	±	490.47	No
	03/28/23	127.95	±	135.91	473.42	±	502.87	No
NRF	01/03/23	-24.91	±	67.82	-92.17	±	250.94	No
	01/10/23	5.94	±	120.45	21.97	±	445.67	No
	01/17/23	1.11	±	115.23	4.09	±	426.35	No
	01/24/23	12.46	±	117.03	46.12	±	433.01	No
	01/31/23	212.60	±	122.33	786.62	±	452.62	No
	02/07/23	-70.54	±	136.78	-260.98	±	506.09	No
	02/14/23	0.00	±	237.96	0.00	±	880.45	No
	02/21/23	-124.84	±	112.56	-461.91	±	416.47	No
	03/02/23	-49.44	±	94.22	-182.91	±	348.61	No
	03/07/23	13.90	±	141.63	51.43	±	524.03	No
	03/14/23	-42.59	±	121.83	-157.59	±	450.77	No
	03/21/23	-6.81	±	132.66	-25.18	±	490.84	No
	03/28/23	54.06	±	119.27	200.04	±	441.30	No
PBF	01/03/23	4.99	±	65.04	18.47	±	240.63	No
	01/10/23	-105.66	±	117.86	-390.94	±	436.08	No
	01/17/23	-98.27	±	141.68	-363.59	±	524.22	No
	01/24/23	-3.78	±	123.13	-13.97	±	455.58	No
	01/31/23	151.47	±	125.89	560.44	±	465.79	No
	02/07/23	-8.69	±	109.07	-32.14	±	403.56	No
	02/14/23	177.61	±	235.51	657.16	±	871.39	No
	02/21/23	-5.53	±	130.21	-20.48	±	481.78	No
	03/02/23	-23.96	±	84.55	-88.67	±	312.84	No
	03/07/23	29.20	±	145.07	108.05	±	536.76	No
	03/14/23	12.99	±	132.00	48.05	±	488.40	No
	03/21/23	-69.17	±	130.60	-255.91	±	483.22	No
	03/28/23	-148.78	±	129.58	-550.49	±	479.45	No
RHLLW	01/03/23	1.65	±	57.81	6.11	±	213.90	No
	01/10/23	50.92	±	130.53	188.42	±	482.96	No
	01/17/23	-118.00	±	119.56	-436.60	±	442.37	No
	01/24/23	-60.10	±	129.74	-222.37	±	480.04	No
	01/31/23	80.01	±	118.51	296.04	±	438.49	No
	02/07/23	49.03	±	165.03	181.40	±	610.61	No
	02/14/23	-24.22	±	141.30	-89.63	±	522.81	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		02/22/23	-70.12	±	113.73	-259.45	±	420.80	No
	b	02/28/23		±			±		No
	b	03/07/23		±			±		No
		03/14/23	6.48	±	41.24	23.97	±	152.58	No
		03/21/23	-65.88	±	123.84	-243.77	±	458.21	No
		03/28/23	0.01	±	117.88	0.04	±	436.16	No
RWMC		01/03/23	-21.82	±	69.62	-80.73	±	257.59	No
		01/10/23	-55.27	±	125.34	-204.50	±	463.76	No
		01/17/23	147.15	±	139.11	544.46	±	514.71	No
		01/24/23	-56.67	±	130.16	-209.69	±	481.59	No
		01/31/23	-117.35	±	119.15	-434.20	±	440.86	No
		02/07/23	63.07	±	106.68	233.35	±	394.72	No
		02/14/23	-2.09	±	117.20	-7.72	±	433.64	No
		02/21/23	101.11	±	96.12	374.11	±	355.63	No
		03/02/23	-22.94	±	81.19	-84.89	±	300.40	No
		03/07/23	-192.84	±	173.63	-713.51	±	642.43	No
		03/14/23	79.56	±	125.64	294.39	±	464.87	No
		03/21/23	42.03	±	108.55	155.49	±	401.64	No
		03/28/23	27.63	±	129.33	102.22	±	478.52	No
RWMC (QA)		01/03/23	53.46	±	71.97	197.79	±	266.30	No
		01/10/23	83.68	±	134.12	309.63	±	496.24	No
		01/17/23	-3.70	±	119.47	-13.70	±	442.04	No
		01/24/23	1.30	±	104.58	4.80	±	386.95	No
		01/31/23	-6.71	±	121.41	-24.82	±	449.22	No
		02/07/23	-197.41	±	133.80	-730.42	±	495.06	No
		02/14/23	-118.14	±	138.39	-437.12	±	512.04	No
		02/21/23	-9.09	±	119.39	-33.62	±	441.74	No
		03/02/23	-0.67	±	92.15	-2.47	±	340.97	No
		03/07/23	8.93	±	197.00	33.05	±	728.90	No
		03/14/23	-28.63	±	131.62	-105.92	±	486.99	No
		03/21/23	-22.62	±	133.28	-83.68	±	493.14	No
		03/28/23	26.53	±	127.31	98.16	±	471.05	No
RWMC SOUTH	a	01/03/23		±			±		No
		01/10/23	77.56	±	107.54	286.96	±	397.90	No
		01/17/23	106.56	±	132.74	394.27	±	491.14	No
		01/24/23	38.24	±	115.99	141.48	±	429.16	No
		01/31/23	-140.21	±	103.31	-518.78	±	382.25	No
		02/07/23	-30.85	±	135.45	-114.16	±	501.17	No
		02/14/23	65.53	±	112.36	242.44	±	415.73	No
		02/21/23	-19.50	±	114.59	-72.16	±	423.98	No
	b	02/28/23		±			±		No
		03/07/23	-10.20	±	64.69	-37.75	±	239.35	No
		03/14/23	-42.46	±	130.40	-157.11	±	482.48	No
		03/21/23	-9.12	±	132.29	-33.73	±	489.47	No
		03/28/23	108.19	±	114.73	400.30	±	424.50	No
SMC	a	01/03/23		±			±		No
		01/10/23	-72.50	±	123.81	-268.26	±	458.10	No
		01/17/23	24.32	±	137.02	90.00	±	506.97	No
		01/24/23	44.61	±	131.24	165.05	±	485.59	No
		01/31/23	4.85	±	112.98	17.94	±	418.03	No

Table C-2. Weekly iodine-131 activity in air.

Sampling Group and Location		Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
		02/07/23	34.93	±	119.88	129.23	±	443.56	No
		02/14/23	-5.29	±	132.38	-19.58	±	489.81	No
		02/21/23	-90.28	±	136.80	-334.02	±	506.16	No
	b	02/28/23		±			±		No
		03/07/23	85.28	±	58.69	315.53	±	217.15	No
		03/14/23	70.05	±	123.40	259.19	±	456.58	No
		03/21/23	-47.70	±	121.32	-176.48	±	448.88	No
		03/28/23	65.19	±	99.16	241.18	±	366.89	No
VAN BUREN		01/03/23	-15.68	±	67.62	-58.03	±	250.19	No
		01/10/23	57.53	±	119.92	212.88	±	443.70	No
		01/17/23	-72.14	±	120.93	-266.90	±	447.44	No
		01/24/23	-5.39	±	96.54	-19.95	±	357.21	No
		01/31/23	-0.10	±	105.90	-0.37	±	391.83	No
		02/07/23	-102.77	±	117.34	-380.25	±	434.16	No
		02/14/23	10.16	±	132.58	37.58	±	490.55	No
		02/21/23	-90.81	±	136.63	-336.00	±	505.53	No
		03/02/23	-2.98	±	92.39	-11.04	±	341.84	No
		03/07/23	-67.40	±	133.60	-249.38	±	494.32	No
		03/14/23	136.70	±	128.91	505.79	±	476.97	No
		03/21/23	4.92	±	104.65	18.20	±	387.21	No
		03/28/23	-61.83	±	129.94	-228.76	±	480.78	No
VAN BUREN (QA)		01/03/23	-1.57	±	59.94	-5.81	±	221.79	No
		01/10/23	-151.25	±	138.43	-559.63	±	512.19	No
		01/17/23	11.15	±	138.23	41.25	±	511.45	No
		01/24/23	126.03	±	122.24	466.31	±	452.29	No
		01/31/23	-83.46	±	378.15	-308.80	±	1399.16	No
		02/07/23	160.73	±	99.76	594.70	±	369.09	No
		02/14/23	1.98	±	138.36	7.31	±	511.93	No
		02/21/23	-30.07	±	118.92	-111.26	±	440.00	No
		03/02/23	60.01	±	99.49	222.04	±	368.12	No
		03/07/23	44.85	±	146.95	165.93	±	543.72	No
		03/14/23	-36.91	±	133.62	-136.57	±	494.39	No
		03/21/23	-108.14	±	133.13	-400.12	±	492.58	No
		03/28/23	-1.19	±	129.64	-4.40	±	479.67	No

a. Invalid sample
b. sampler ran for two weeks due to weather

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
BOUNDARY									
ARCO	03/29/23	Americium-241	1.53	±	3.07	5.66	±	11.36	No
	03/29/23	Cesium-137	23.00	±	62.70	85.10	±	231.99	No
	03/29/23	Plutonium-238	2.09	±	1.84	7.73	±	6.81	No
	03/29/23	Plutonium-239/240	0.69	±	2.30	2.56	±	8.51	No
	03/29/23	Strontium-90	-6.67	±	30.00	-24.68	±	111.00	No
	03/29/23	Uranium-233/234	-5.59	±	4.55	-20.68	±	16.84	No
	03/29/23	Uranium-235/236	2.34	±	2.87	8.66	±	10.62	No
	03/29/23	Uranium-238	3.79	±	3.55	14.02	±	13.14	No
ATOMIC CITY	03/29/23	Americium-241	0.85	±	3.69	3.14	±	13.65	No
	03/29/23	Cesium-137	-65.10	±	57.70	-240.87	±	213.49	No
	03/29/23	Plutonium-238	0.00	±	2.95	0.00	±	10.92	No
	03/29/23	Plutonium-239/240	-0.93	±	1.61	-3.44	±	5.96	No
	03/29/23	Strontium-90	22.40	±	14.40	82.88	±	53.28	No
	03/29/23	Uranium-233/234	5.59	±	4.32	20.68	±	15.98	No
	03/29/23	Uranium-235/236	5.83	±	3.87	21.57	±	14.32	No
	03/29/23	Uranium-238	1.89	±	3.27	6.99	±	12.10	No
BLUE DOME	03/29/23	Americium-241	0.75	±	2.89	2.76	±	10.69	No
	03/29/23	Cesium-137	-15.80	±	55.00	-58.46	±	203.50	No
	03/29/23	Plutonium-238	-1.24	±	1.95	-4.59	±	7.22	No
	03/29/23	Plutonium-239/240	3.69	±	1.94	13.65	±	7.18	No
	03/29/23	Strontium-90	96.50	±	30.50	357.05	±	112.85	**Yes**
	03/29/23	Uranium-233/234	2.69	±	4.59	9.95	±	16.98	No
	03/29/23	Uranium-235/236	3.48	±	3.06	12.88	±	11.32	No
	03/29/23	Uranium-238	5.62	±	3.25	20.79	±	12.03	No
FAA TOWER	03/29/23	Americium-241	5.04	±	3.36	18.65	±	12.43	No
	03/29/23	Cesium-137	24.40	±	55.30	90.28	±	204.61	No
	03/29/23	Plutonium-238	2.93	±	4.48	10.84	±	16.58	No
	03/29/23	Plutonium-239/240	3.89	±	2.75	14.39	±	10.18	No
	03/29/23	Strontium-90	60.30	±	20.10	223.11	±	74.37	No
	03/29/23	Uranium-233/234	-3.21	±	3.46	-11.88	±	12.80	No
	03/29/23	Uranium-235/236	0.00	±	2.62	0.00	±	9.69	No
	03/29/23	Uranium-238	3.46	±	2.74	12.80	±	10.14	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
HOWE	03/29/23	Americium-241	5.03	±	2.65	18.61	±	9.81	No
	03/29/23	Cesium-137	105.00	±	55.60	388.50	±	205.72	No
	03/29/23	Plutonium-238	-7.89	±	2.87	-29.19	±	10.62	No
	03/29/23	Plutonium-239/240	-1.68	±	2.17	-6.22	±	8.03	No
	03/29/23	Strontium-90	32.70	±	17.00	120.99	±	62.90	No
	03/29/23	Uranium-233/234	5.19	±	3.87	19.20	±	14.32	No
	03/29/23	Uranium-235/236	4.89	±	3.24	18.09	±	11.99	No
	03/29/23	Uranium-238	5.53	±	2.62	20.46	±	9.69	No
MONTEVIEW	03/29/23	Americium-241	2.37	±	2.85	8.77	±	10.55	No
	03/29/23	Cesium-137	28.00	±	75.80	103.60	±	280.46	No
	03/29/23	Plutonium-238	-1.29	±	3.42	-4.77	±	12.65	No
	03/29/23	Plutonium-239/240	0.64	±	2.95	2.38	±	10.92	No
	03/29/23	Strontium-90	26.50	±	13.50	98.05	±	49.95	No
	03/29/23	Uranium-233/234	-1.54	±	4.55	-5.70	±	16.84	No
	03/29/23	Uranium-235/236	0.00	±	2.05	0.00	±	7.59	No
	03/29/23	Uranium-238	2.35	±	3.32	8.70	±	12.28	No
TERRETON	03/31/23	Americium-241	0.51	±	2.10	1.89	±	7.77	No
	03/31/23	Cesium-137	-95.00	±	72.00	-351.50	±	266.40	No
	03/31/23	Plutonium-238	0.00	±	2.94	0.00	±	10.88	No
	03/31/23	Plutonium-239/240	-6.59	±	3.19	-24.38	±	11.80	No
	03/31/23	Strontium-90	26.70	±	35.20	98.79	±	130.24	No
	03/31/23	Uranium-233/234	-0.04	±	6.26	-0.13	±	23.16	No
	03/31/23	Uranium-235	-1.01	±	4.47	-3.74	±	16.54	No
	03/31/23	Uranium-238	-1.64	±	3.71	-6.07	±	13.73	No
OFFSITE									
BLACKFOOT	03/31/23	Americium-241	1.25	±	1.77	4.63	±	6.55	No
	03/31/23	Cesium-137	23.50	±	25.60	86.95	±	94.72	No
	03/31/23	Plutonium-238	4.01	±	2.41	14.84	±	8.92	No
	03/31/23	Plutonium-239/240	4.00	±	2.66	14.80	±	9.84	No
	03/31/23	Strontium-90	-20.10	±	25.30	-74.37	±	93.61	No
	03/31/23	Uranium-233/234	11.90	±	8.18	44.03	±	30.27	No
	03/31/23	Uranium-235	-0.97	±	4.27	-3.59	±	15.80	No
	03/31/23	Uranium-238	1.70	±	4.82	6.29	±	17.83	No
CRATERS OF THE MOON	03/31/23	Americium-241	2.31	±	1.83	8.55	±	6.77	No
	03/31/23	Cesium-137	-34.50	±	49.60	-127.65	±	183.52	No
	03/31/23	Plutonium-238	0.62	±	1.86	2.30	±	6.88	No
	03/31/23	Plutonium-239/240	-0.62	±	2.05	-2.29	±	7.59	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Strontium-90	-19.80	±	23.90	-73.26	±	88.43	No
	03/31/23	Uranium-233/234	-1.68	±	2.76	-6.22	±	10.21	No
	03/31/23	Uranium-235	-1.67	±	2.57	-6.18	±	9.51	No
	03/31/23	Uranium-238	-0.90	±	2.03	-3.33	±	7.51	No
DUBOIS	03/29/23	Americium-241	2.44	±	1.72	9.03	±	6.36	No
	03/29/23	Cesium-137	16.60	±	124.00	61.42	±	458.80	No
	03/29/23	Plutonium-238	3.59	±	1.99	13.28	±	7.36	No
	03/29/23	Plutonium-239/240	0.00	±	1.44	0.00	±	5.33	No
	03/29/23	Strontium-90	41.90	±	16.60	155.03	±	61.42	No
	03/29/23	Uranium-233/234	3.70	±	3.58	13.69	±	13.25	No
	03/29/23	Uranium-235/236	2.66	±	2.66	9.84	±	9.84	No
	03/29/23	Uranium-238	0.72	±	2.95	2.65	±	10.92	No
DUBOIS (QA)	03/29/23	Americium-241	2.49	±	2.16	9.21	±	7.99	No
	03/29/23	Cesium-137	-6.52	±	68.30	-24.12	±	252.71	No
	03/29/23	Plutonium-238	-1.65	±	3.26	-6.11	±	12.06	No
	03/29/23	Plutonium-239/240	3.29	±	1.74	12.17	±	6.44	No
	03/29/23	Strontium-90	-6.66	±	19.00	-24.64	±	70.30	No
	03/29/23	Uranium-233/234	11.80	±	3.98	43.66	±	14.73	No
	03/29/23	Uranium-235/236	8.09	±	3.24	29.93	±	11.99	No
	03/29/23	Uranium-238	9.45	±	3.17	34.97	±	11.73	No
IDAHO FALLS	03/31/23	Americium-241	0.81	±	2.44	3.00	±	9.03	No
	03/31/23	Cesium-137	16.90	±	52.70	62.53	±	194.99	No
	03/31/23	Plutonium-238	2.56	±	1.81	9.47	±	6.70	No
	03/31/23	Plutonium-239/240	-0.64	±	1.92	-2.36	±	7.10	No
	03/31/23	Strontium-90	-10.00	±	38.30	-37.00	±	141.71	No
	03/31/23	Uranium-233/234	-8.34	±	5.30	-30.86	±	19.61	No
	03/31/23	Uranium-235	4.17	±	5.86	15.43	±	21.68	No
	03/31/23	Uranium-238	0.11	±	3.99	0.39	±	14.76	No
IRC	03/31/23	Americium-241	5.17	±	4.50	19.13	±	16.65	No
	03/31/23	Cesium-137	0.00	±	67.20	0.00	±	248.64	No
	03/31/23	Plutonium-238	1.96	±	1.96	7.25	±	7.25	No
	03/31/23	Plutonium-239/240	3.92	±	2.92	14.50	±	10.80	No
	03/31/23	Strontium-90	-95.80	±	33.10	-354.46	±	122.47	No
	03/31/23	Uranium-233/234	-4.19	±	5.06	-15.50	±	18.72	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Uranium-235	2.10	±	5.95	7.77	±	22.02	No
	03/31/23	Uranium-238	4.18	±	5.87	15.47	±	21.72	No
IRC NORTH	03/31/23	Americium-241	-0.04	±	3.46	-0.16	±	12.80	No
	03/31/23	Cesium-137	52.50	±	44.50	194.25	±	164.65	No
	03/31/23	Plutonium-238	0.00	±	1.59	0.00	±	5.88	No
	03/31/23	Plutonium-239/240	3.36	±	3.36	12.43	±	12.43	No
	03/31/23	Strontium-90	49.80	±	38.00	184.26	±	140.60	No
	03/31/23	Uranium-233/234	1.99	±	6.70	7.36	±	24.79	No
	03/31/23	Uranium-235	0.00	±	4.11	0.00	±	15.21	No
	03/31/23	Uranium-238	4.91	±	5.76	18.17	±	21.31	No
JACKSON, WY	03/29/23	Americium-241	7.95	±	3.98	29.42	±	14.73	No
	03/29/23	Cesium-137	15.70	±	64.30	58.09	±	237.91	No
	03/29/23	Plutonium-238	-0.57	±	1.90	-2.12	±	7.03	No
	03/29/23	Plutonium-239/240	1.14	±	1.61	4.22	±	5.96	No
	03/29/23	Strontium-90	36.30	±	15.60	134.31	±	57.72	No
	03/29/23	Uranium-233/234	6.16	±	4.20	22.79	±	15.54	No
	03/29/23	Uranium-235/236	10.40	±	3.67	38.48	±	13.58	No
	03/29/23	Uranium-238	13.10	±	3.84	48.47	±	14.21	**Yes**
SUGAR CITY	03/31/23	Americium-241	1.82	±	2.01	6.73	±	7.44	No
	03/31/23	Cesium-137	-23.80	±	36.60	-88.06	±	135.42	No
	03/31/23	Plutonium-238	-0.58	±	1.54	-2.16	±	5.70	No
	03/31/23	Plutonium-239/240	1.16	±	1.42	4.29	±	5.25	No
	03/31/23	Strontium-90	58.70	±	32.70	217.19	±	120.99	No
	03/31/23	Uranium-233/234	6.66	±	6.11	24.64	±	22.61	No
	03/31/23	Uranium-235	-0.79	±	3.49	-2.93	±	12.91	No
	03/31/23	Uranium-238	4.06	±	4.76	15.02	±	17.61	No
ONSITE									
ATR COMPLEX	03/31/23	Americium-241	2.15	±	2.11	7.96	±	7.81	No
	03/31/23	Cesium-137	-10.80	±	41.40	-39.96	±	153.18	No
	03/31/23	Plutonium-238	1.69	±	1.49	6.25	±	5.51	No
	03/31/23	Plutonium-239/240	1.12	±	1.59	4.14	±	5.88	No
	03/31/23	Strontium-90	80.40	±	40.00	297.48	±	148.00	No
	03/31/23	Uranium-233/234	0.58	±	4.73	2.16	±	17.50	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Uranium-235	-1.95	±	4.42	-7.22	±	16.35	No
	03/31/23	Uranium-238	4.21	±	5.92	15.58	±	21.90	No
CFA	03/31/23	Americium-241	1.14	±	1.40	4.22	±	5.18	No
	03/31/23	Cesium-137	190.00	±	63.80	703.00	±	236.06	No
	03/31/23	Plutonium-238	1.60	±	1.77	5.92	±	6.55	No
	03/31/23	Plutonium-239/240	2.13	±	1.69	7.88	±	6.25	No
	03/31/23	Strontium-90	-29.20	±	17.90	-108.04	±	66.23	No
	03/31/23	Uranium-233/234	1.03	±	4.97	3.81	±	18.39	No
	03/31/23	Uranium-235	3.04	±	5.31	11.25	±	19.65	No
	03/31/23	Uranium-238	-1.70	±	2.63	-6.29	±	9.73	No
EBR-I	03/31/23	Americium-241	0.00	±	2.28	0.00	±	8.44	No
	03/31/23	Cesium-137	-35.20	±	41.20	-130.24	±	152.44	No
	03/31/23	Plutonium-238	0.00	±	1.60	0.00	±	5.92	No
	03/31/23	Plutonium-239/240	3.91	±	2.77	14.47	±	10.25	No
	03/31/23	Strontium-90	92.80	±	40.90	343.36	±	151.33	No
	03/31/23	Uranium-233/234	2.49	±	5.64	9.21	±	20.87	No
	03/31/23	Uranium-235	0.00	±	4.06	0.00	±	15.02	No
	03/31/23	Uranium-238	3.31	±	5.78	12.25	±	21.39	No
EFS	03/31/23	Americium-241	3.21	±	2.00	11.88	±	7.40	No
	03/31/23	Cesium-137	294.00	±	71.70	1087.80	±	265.29	**Yes**
	03/31/23	Plutonium-238	3.28	±	2.18	12.14	±	8.07	No
	03/31/23	Plutonium-239/240	-1.96	±	2.36	-7.25	±	8.73	No
	03/31/23	Strontium-90	39.80	±	26.70	147.26	±	98.79	No
	03/31/23	Uranium-233/234	4.05	±	5.69	14.99	±	21.05	No
	03/31/23	Uranium-235	0.00	±	3.54	0.00	±	13.10	No
	03/31/23	Uranium-238	2.78	±	3.99	10.29	±	14.76	No
GATE 4	03/31/23	Americium-241	3.06	±	2.17	11.32	±	8.03	No
	03/31/23	Cesium-137	-27.30	±	25.20	-101.01	±	93.24	No
	03/31/23	Plutonium-238	-4.46	±	3.66	-16.50	±	13.54	No
	03/31/23	Plutonium-239/240	6.99	±	3.31	25.86	±	12.25	No
	03/31/23	Strontium-90	107.00	±	38.30	395.90	±	141.71	No
	03/31/23	Uranium-233/234	19.10	±	9.69	70.67	±	35.85	No
	03/31/23	Uranium-235	-2.79	±	4.31	-10.32	±	15.95	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Uranium-238	11.00	±	7.18	40.70	±	26.57	No
HWY 26 REST AREA	03/31/23	Americium-241	1.10	±	1.34	4.07	±	4.96	No
	03/31/23	Cesium-137	243.00	±	54.40	899.10	±	201.28	**Yes**
	03/31/23	Plutonium-238	0.00	±	1.46	0.00	±	5.40	No
	03/31/23	Plutonium-239/240	1.19	±	2.52	4.40	±	9.32	No
	03/31/23	Strontium-90	29.30	±	23.50	108.41	±	86.95	No
	03/31/23	Uranium-233/234	-2.44	±	5.43	-9.03	±	20.09	No
	03/31/23	Uranium-235	-1.72	±	3.88	-6.36	±	14.36	No
	03/31/23	Uranium-238	3.71	±	5.21	13.73	±	19.28	No
INTEC (NE CORNER)	03/31/23	Americium-241	13.00	±	5.90	48.10	±	21.83	No
	03/31/23	Cesium-137	-16.00	±	27.60	-59.20	±	102.12	No
	03/31/23	Plutonium-238	-0.70	±	1.56	-2.57	±	5.77	No
	03/31/23	Plutonium-239/240	2.77	±	2.60	10.25	±	9.62	No
	03/31/23	Strontium-90	10.90	±	25.40	40.33	±	93.98	No
	03/31/23	Uranium-233/234	1.59	±	5.47	5.88	±	20.24	No
	03/31/23	Uranium-235	1.97	±	5.60	7.29	±	20.72	No
	03/31/23	Uranium-238	2.33	±	4.47	8.62	±	16.54	No
INTEC (WEST SIDE)	03/31/23	Americium-241	1.26	±	1.79	4.66	±	6.62	No
	03/31/23	Cesium-137	3.32	±	22.90	12.28	±	84.73	No
	03/31/23	Plutonium-238	1.30	±	1.60	4.81	±	5.92	No
	03/31/23	Plutonium-239/240	0.65	±	1.72	2.40	±	6.36	No
	03/31/23	Strontium-90	19.30	±	26.50	71.41	±	98.05	No
	03/31/23	Uranium-233/234	-1.43	±	5.15	-5.29	±	19.06	No
	03/31/23	Uranium-235	0.00	±	3.56	0.00	±	13.17	No
	03/31/23	Uranium-238	-2.01	±	3.10	-7.44	±	11.47	No
INTEC (QA)	03/31/23	Americium-241	-0.33	±	1.40	-1.21	±	5.18	No
	03/31/23	Cesium-137	3.53	±	43.20	13.06	±	159.84	No
	03/31/23	Plutonium-238	0.67	±	1.77	2.47	±	6.55	No
	03/31/23	Plutonium-239/240	5.33	±	3.13	19.72	±	11.58	No
	03/31/23	Strontium-90	95.40	±	38.90	352.98	±	143.93	No
	03/31/23	Uranium-233/234	-2.57	±	4.52	-9.51	±	16.72	No
	03/31/23	Uranium-235	-0.89	±	3.91	-3.28	±	14.47	No
	03/31/23	Uranium-238	2.27	±	4.35	8.40	±	16.10	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
MAIN GATE	03/29/23	Americium-241	0.00	±	2.41	0.00	±	8.92	No
	03/29/23	Cesium-137	29.80	±	71.50	110.26	±	264.55	No
	03/29/23	Plutonium-238	7.59	±	3.43	28.08	±	12.69	No
	03/29/23	Plutonium-239/240	-5.40	±	2.96	-19.98	±	10.95	No
	03/29/23	Strontium-90	28.20	±	15.90	104.34	±	58.83	No
	03/29/23	Uranium-233/234	-1.17	±	3.36	-4.33	±	12.43	No
	03/29/23	Uranium-235/236	2.08	±	2.94	7.70	±	10.88	No
	03/29/23	Uranium-238	10.90	±	3.85	40.33	±	14.25	No
MFC NORTH	03/31/23	Americium-241	1.84	±	2.04	6.81	±	7.55	No
	03/31/23	Cesium-137	-44.00	±	50.50	-162.80	±	186.85	No
	03/31/23	Plutonium-238	0.60	±	1.34	2.21	±	4.96	No
	03/31/23	Plutonium-239/240	2.98	±	1.98	11.03	±	7.33	No
	03/31/23	Strontium-90	-18.00	±	26.20	-66.60	±	96.94	No
	03/31/23	Uranium-233/234	11.50	±	8.35	42.55	±	30.90	No
	03/31/23	Uranium-235	0.00	±	4.23	0.00	±	15.65	No
	03/31/23	Uranium-238	6.64	±	5.82	24.57	±	21.53	No
MFC SOUTH	03/31/23	Americium-241	-3.49	±	2.50	-12.91	±	9.25	No
	03/31/23	Cesium-137	-8.11	±	28.60	-30.01	±	105.82	No
	03/31/23	Plutonium-238	2.31	±	1.83	8.55	±	6.77	No
	03/31/23	Plutonium-239/240	2.30	±	2.16	8.51	±	7.99	No
	03/31/23	Strontium-90	-1.81	±	36.50	-6.70	±	135.05	No
	03/31/23	Uranium-233/234	5.25	±	5.60	19.43	±	20.72	No
	03/31/23	Uranium-235	0.00	±	3.10	0.00	±	11.47	No
	03/31/23	Uranium-238	1.27	±	3.59	4.70	±	13.28	No
NRF	03/31/23	Americium-241	-0.35	±	2.55	-1.30	±	9.44	No
	03/31/23	Cesium-137	19.90	±	23.70	73.63	±	87.69	No
	03/31/23	Plutonium-238	0.76	±	2.74	2.81	±	10.14	No
	03/31/23	Plutonium-239/240	-0.76	±	2.73	-2.80	±	10.10	No
	03/31/23	Strontium-90	50.80	±	28.30	187.96	±	104.71	No
	03/31/23	Uranium-233/234	-2.74	±	3.75	-10.14	±	13.88	No
	03/31/23	Uranium-235	0.00	±	4.63	0.00	±	17.13	No
	03/31/23	Uranium-238	2.76	±	5.29	10.21	±	19.57	No
PBF	03/31/23	Americium-241	2.32	±	1.91	8.58	±	7.07	No

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Cesium-137	3.72	±	41.80	13.76	±	154.66	No
	03/31/23	Plutonium-238	-4.52	±	3.37	-16.72	±	12.47	No
	03/31/23	Plutonium-239/240	-8.26	±	2.71	-30.56	±	10.03	No
	03/31/23	Strontium-90	16.50	±	32.40	61.05	±	119.88	No
	03/31/23	Uranium-233/234	0.35	±	3.51	1.30	±	12.99	No
	03/31/23	Uranium-235	-1.75	±	2.70	-6.48	±	9.99	No
	03/31/23	Uranium-238	-1.42	±	2.18	-5.25	±	8.07	No
RHLLW	03/31/23	Americium-241	1.88	±	1.66	6.96	±	6.14	No
	03/31/23	Cesium-137	-20.80	±	52.00	-76.96	±	192.40	No
	03/31/23	Plutonium-238	-0.78	±	2.80	-2.87	±	10.36	No
	03/31/23	Plutonium-239/240	5.43	±	2.80	20.09	±	10.36	No
	03/31/23	Strontium-90	-45.00	±	35.80	-166.50	±	132.46	No
	03/31/23	Uranium-233/234	0.34	±	3.64	1.25	±	13.47	No
	03/31/23	Uranium-235	0.71	±	3.77	2.62	±	13.95	No
	03/31/23	Uranium-238	0.57	±	3.05	2.12	±	11.29	No
RWMC	03/31/23	Americium-241	1.57	±	2.59	5.81	±	9.58	No
	03/31/23	Cesium-137	48.10	±	25.30	177.97	±	93.61	No
	03/31/23	Plutonium-238	-0.52	±	1.16	-1.92	±	4.29	No
	03/31/23	Plutonium-239/240	2.59	±	1.72	9.58	±	6.36	No
	03/31/23	Strontium-90	107.00	±	40.90	395.90	±	151.33	No
	03/31/23	Uranium-233/234	-1.19	±	4.12	-4.40	±	15.24	No
	03/31/23	Uranium-235	0.00	±	3.55	0.00	±	13.14	No
	03/31/23	Uranium-238	-0.67	±	2.95	-2.48	±	10.92	No
RWMC (QA)	03/31/23	Americium-241	-0.49	±	2.00	-1.79	±	7.40	No
	03/31/23	Cesium-137	31.40	±	81.00	116.18	±	299.70	No
	03/31/23	Plutonium-238	0.00	±	1.53	0.00	±	5.66	No
	03/31/23	Plutonium-239/240	3.73	±	1.97	13.80	±	7.29	No
	03/31/23	Strontium-90	22.10	±	28.40	81.77	±	105.08	No
	03/31/23	Uranium-233/234	5.45	±	6.63	20.17	±	24.53	No
	03/31/23	Uranium-235	-0.96	±	4.23	-3.54	±	15.65	No
	03/31/23	Uranium-238	1.68	±	4.77	6.22	±	17.65	No
RWMC SOUTH	03/31/23	Americium-241	-4.80	±	1.99	-17.76	±	7.36	No
	03/31/23	Cesium-137	210.00	±	52.70	777.00	±	194.99	**Yes**

Table C-3. Quarterly cesium-137, strontium-90, and actinide concentrations in composite air filters.

Sampling Group and Location	Sampling Date	Analyte	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/23	Plutonium-238	0.93	±	2.78	3.43	±	10.29	No
	03/31/23	Plutonium-239/240	-0.93	±	3.07	-3.42	±	11.36	No
	03/31/23	Strontium-90	45.10	±	26.60	166.87	±	98.42	No
	03/31/23	Uranium-233/234	0.69	±	4.39	2.53	±	16.24	No
	03/31/23	Uranium-235	-0.73	±	3.22	-2.70	±	11.91	No
	03/31/23	Uranium-238	-1.77	±	2.74	-6.55	±	10.14	No
SMC	03/31/23	Americium-241	0.00	±	0.99	0.00	±	3.66	No
	03/31/23	Cesium-137	167.00	±	49.70	617.90	±	183.89	**Yes**
	03/31/23	Plutonium-238	-0.78	±	2.34	-2.89	±	8.66	No
	03/31/23	Plutonium-239/240	3.12	±	2.92	11.54	±	10.80	No
	03/31/23	Strontium-90	247.00	±	47.70	913.90	±	176.49	**Yes**
	03/31/23	Uranium-233/234	8.57	±	7.65	31.71	±	28.31	No
	03/31/23	Uranium-235	-0.99	±	4.38	-3.67	±	16.21	No
	03/31/23	Uranium-238	-0.80	±	3.54	-2.97	±	13.10	No
VAN BUREN	03/31/23	Americium-241	1.66	±	2.14	6.14	±	7.92	No
	03/31/23	Cesium-137	134.00	±	43.80	495.80	±	162.06	**Yes**
	03/31/23	Plutonium-238	0.00	±	1.70	0.00	±	6.29	No
	03/31/23	Plutonium-239/240	-2.40	±	1.90	-8.88	±	7.03	No
	03/31/23	Strontium-90	11.70	±	20.10	43.29	±	74.37	No
	03/31/23	Uranium-233/234	2.38	±	4.10	8.81	±	15.17	No
	03/31/23	Uranium-235	0.00	±	2.55	0.00	±	9.44	No
	03/31/23	Uranium-238	0.56	±	2.99	2.07	±	11.06	No
VAN BUREN (QA)	03/31/23	Americium-241	3.98	±	2.44	14.73	±	9.03	No
	03/31/23	Cesium-137	-140.00	±	63.80	-518.00	±	236.06	No
	03/31/23	Plutonium-238	-13.00	±	4.61	-48.10	±	17.06	No
	03/31/23	Plutonium-239/240	0.81	±	4.37	3.00	±	16.17	No
	03/31/23	Strontium-90	47.50	±	27.20	175.75	±	100.64	No
	03/31/23	Uranium-233/234	4.41	±	7.45	16.32	±	27.57	No
	03/31/23	Uranium-235	4.43	±	6.37	16.39	±	23.57	No
	03/31/23	Uranium-238	1.86	±	5.29	6.88	±	19.57	No

Table C-4. Tritium concentrations in atmospheric moisture.

Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-13}$ µCi/mL$_{air}$)	Result ± 1s Uncertainty ($\times 10^{-9}$ Bq/mL$_{air}$)	Result > 3s
OFFSITE				
ATOMIC CITY	02/01/23	-1.17 ± 0.98	-4.33 ± 3.63	No
HOWE	03/29/23	0.23 ± 0.69	0.83 ± 2.56	No
IDAHO FALLS	01/11/23	1.66 ± 2.69	6.14 ± 9.95	No
	02/07/23	-1.62 ± 1.05	-5.99 ± 3.89	No
	03/28/23	3.21 ± 2.09	11.88 ± 7.73	No
ONSITE				
EFS	03/21/23	0.82 ± 1.90	3.02 ± 7.03	No
RHLLW	03/28/23	2.43 ± 1.98	8.99 ± 7.33	No
VAN BUREN	02/21/23	1.17 ± 2.09	4.33 ± 7.73	No

Table C-5. Monthly and weekly tritium concentrations in precipitation.

Location	Start Date	End Date	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
BOUNDARY									
ATOMIC CITY	12/20/22	01/04/23	61.80	±	24.20	2.29	±	0.90	No
	01/04/23	01/10/23	28.70	±	24.30	1.06	±	0.90	No
	01/10/23	01/17/23	25.00	±	24.20	0.93	±	0.90	No
	01/17/23	01/24/23	49.00	±	24.70	1.81	±	0.91	No
	01/24/23	02/01/23	95.30	±	30.50	3.53	±	1.13	**Yes**
	02/07/23	02/14/23	115.00	±	30.00	4.26	±	1.11	**Yes**
	02/28/23	03/07/23	78.70	±	29.70	2.91	±	1.10	No
	03/07/23	03/14/23	89.90	±	29.80	3.33	±	1.10	**Yes**
HOWE	12/20/23	01/03/23	98.00	±	31.90	3.63	±	1.18	**Yes**
	01/03/23	01/10/23	87.30	±	33.40	3.23	±	1.24	No
	01/10/23	01/17/23	59.70	±	33.20	2.21	±	1.23	No
	01/24/23	01/31/23	98.40	±	33.50	3.64	±	1.24	No
	02/07/23	02/14/23	168.00	±	32.40	6.22	±	1.20	**Yes**
	02/21/23	03/07/23	79.70	±	24.50	2.95	±	0.91	**Yes**
	03/07/23	03/14/23	69.10	±	24.30	2.56	±	0.90	No
	03/14/23	03/21/23	65.70	±	24.20	2.43	±	0.90	No
OFFSITE									
IDAHO FALLS	01/01/23	01/31/23	126.00	±	30.70	4.66	±	1.14	**Yes**
	02/01/23	02/28/23	114.00	±	30.70	4.22	±	1.14	**Yes**
	03/01/23	03/30/23	123.00	±	30.70	4.55	±	1.14	**Yes**
ONSITE									
EFS	12/20/22	01/03/23	48.00	±	25.10	1.78	±	0.93	No
	01/03/23	01/10/23	38.80	±	24.90	1.44	±	0.92	No
	01/10/23	01/17/23	16.70	±	24.50	0.62	±	0.91	No
	01/24/23	01/31/23	47.00	±	25.40	1.74	±	0.94	No
	02/07/23	02/14/23	116.00	±	25.80	4.29	±	0.95	**Yes**
	02/14/23	02/21/23	74.20	±	25.00	2.75	±	0.93	No
	03/07/23	03/14/23	32.00	±	25.10	1.18	±	0.93	No
	03/14/23	03/21/23	145.00	±	35.20	5.37	±	1.30	**Yes**

Table C-6. Weekly and monthly iodine-131 and cesium-137 concentrations in milk.

		Iodine-131							Cesium-137						
	Sampling	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)				Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			
Location	Date							Result > 3s							Result > 3s
CONTROL	01/04/23	-0.72	±	0.74	-0.03	±	0.03	No	-0.34	±	0.72	-0.01	±	0.03	No
	02/01/23	-0.44	±	1.11	-0.02	±	0.04	No	0.50	±	1.99	0.02	±	0.07	No
	03/09/23	-1.37	±	0.98	-0.05	±	0.04	No	0.00	±	2.16	0.00	±	0.08	No
DIETRICH	01/03/23	1.52	±	1.01	0.06	±	0.04	No	-0.14	±	0.48	-0.01	±	0.02	No
	02/01/23	1.11	±	0.78	0.04	±	0.03	No	0.26	±	0.53	0.01	±	0.02	No
	03/08/23	-0.03	±	0.68	0.00	±	0.03	No	0.91	±	0.59	0.03	±	0.02	No
HOWE	01/03/23	0.12	±	1.23	0.00	±	0.05	No	0.54	±	1.36	0.02	±	0.05	No
	02/01/23	0.16	±	0.69	0.01	±	0.03	No	0.26	±	0.58	0.01	±	0.02	No
	03/08/23	0.09	±	1.22	0.00	±	0.05	No	0.15	±	1.23	0.01	±	0.05	No
MINIDOKA	01/03/23	0.53	±	1.10	0.02	±	0.04	No	1.75	±	2.16	0.06	±	0.08	No
duplicate	01/03/23	0.42	±	0.55	0.02	±	0.02	No	0.66	±	0.57	0.02	±	0.02	No
	02/01/23	-0.99	±	1.35	-0.04	±	0.05	No	-0.03	±	2.00	0.00	±	0.07	No
	03/08/23	-0.21	±	0.79	-0.01	±	0.03	No	-1.19	±	1.85	-0.04	±	0.07	No
MONTEVIEW	01/04/23	0.46	±	0.75	0.02	±	0.03	No	0.67	±	2.04	0.02	±	0.08	No
	02/01/23	0.08	±	1.98	0.00	±	0.07	No	-0.43	±	1.47	-0.02	±	0.05	No
duplicate	02/01/23	-0.45	±	0.68	-0.02	±	0.03	No	0.26	±	0.71	0.01	±	0.03	No
	03/09/23	-0.03	±	0.98	0.00	±	0.04	No	1.40	±	0.97	0.05	±	0.04	No
RIGBY	01/04/23	-0.70	±	1.43	-0.03	±	0.05	No	0.32	±	1.38	0.01	±	0.05	No
	01/12/23	0.17	±	0.85	0.01	±	0.03	No	1.14	±	2.06	0.04	±	0.08	No
	01/16/23	0.46	±	1.34	0.02	±	0.05	No	-0.41	±	1.95	-0.02	±	0.07	No
	01/26/23	-0.75	±	0.87	-0.03	±	0.03	No	0.33	±	0.48	0.01	±	0.02	No
	02/01/23	1.33	±	1.48	0.05	±	0.05	No	-0.58	±	1.21	-0.02	±	0.04	No
	02/09/23	1.19	±	0.91	0.04	±	0.03	No	-1.73	±	1.64	-0.06	±	0.06	No
	02/15/23	-0.44	±	0.79	-0.02	±	0.03	No	0.07	±	1.99	0.00	±	0.07	No
	02/23/23	0.93	±	1.07	0.03	±	0.04	No	0.08	±	1.16	0.00	±	0.04	No
	03/01/23	0.33	±	0.33	0.01	±	0.01	No	-1.37	±	2.14	-0.05	±	0.08	No
	03/09/23	-0.01	±	0.73	0.00	±	0.03	No	0.84	±	2.16	0.03	±	0.08	No
	03/13/23	0.17	±	0.81	0.01	±	0.03	No	0.62	±	0.58	0.02	±	0.02	No
	03/21/23	-0.41	±	0.48	-0.02	±	0.02	No	0.82	±	0.74	0.03	±	0.03	No
	03/27/23	-0.43	±	0.71	-0.02	±	0.03	No	0.81	±	0.68	0.03	±	0.03	No
TERRETON	01/04/23	-0.06	±	0.69	0.00	±	0.03	No	0.09	±	0.19	0.00	±	0.01	No
	01/12/23	-0.70	±	0.61	-0.08	±	0.04	No	0.34	±	0.52	-0.06	±	0.04	No
	01/16/23	-0.84	±	0.70	-0.03	±	0.03	No	0.28	±	0.51	0.01	±	0.02	No
	01/26/23	-0.61	±	0.98	-0.02	±	0.04	No	1.81	±	2.19	0.07	±	0.08	No
	02/01/23	-0.25	±	0.54	-0.01	±	0.02	No	1.43	±	0.89	0.05	±	0.03	No
	02/09/23	-1.02	±	0.69	-0.04	±	0.03	No	0.56	±	0.58	0.02	±	0.02	No
	02/15/23	-0.07	±	0.88	0.00	±	0.03	No	-2.13	±	2.13	-0.08	±	0.08	No
	02/23/23	0.23	±	0.63	0.01	±	0.02	No	-0.21	±	0.55	-0.01	±	0.02	No
	03/01/23	-1.08	±	0.67	-0.04	±	0.02	No	0.19	±	0.49	0.01	±	0.02	No
	03/09/23	0.49	±	0.60	0.02	±	0.02	No	0.10	±	0.71	0.00	±	0.03	No
duplicate	03/09/23	-0.18	±	0.61	-0.01	±	0.02	No	0.01	±	0.79	0.00	±	0.03	No
	03/13/23	0.32	±	0.93	0.01	±	0.03	No	0.49	±	0.88	0.02	±	0.03	No
	03/21/23	0.27	±	0.70	0.01	±	0.03	No	-1.09	±	0.99	-0.04	±	0.04	No
	03/27/23	-0.15	±	0.92	-0.01	±	0.03	No	-1.84	±	2.13	-0.07	±	0.08	No

Table C-7. Gamma-emitting radionuclides in large game animals.

Species	Collection Date	Tissue	Analyte	Result ± 1s Uncertainty (pCi/kg wet weight)			Result ± 1s Uncertainty (x 10^{-2} Bq/kg wet weight			Result > 3s
Elk	01/05/23	Liver	Cesium-137	0.65	±	1.43	2.41	±	5.29	No
			Iodine-131	-2.26	±	6.30	-8.36	±	23.31	No
Elk	01/05/23	Liver	Cesium-137	1.85	±	1.03	4.11	±	3.53	No
			Iodine-131	-1.02	±	3.71	69.19	±	59.94	No
Elk	01/19/23	Liver	Cesium-137	1.59	±	1.87	4.11	±	3.53	No
			Iodine-131	-0.34	±	2.29	69.19	±	59.94	No
Elk	01/19/23	Liver	Cesium-137	0.51	±	1.72	4.11	±	3.53	No
			Iodine-131	1.18	±	2.19	69.19	±	59.94	No
Elk	01/05/23	Muscle	Cesium-137	0.89	±	1.33	3.28	±	4.92	No
			Iodine-131	2.03	±	5.68	7.51	±	21.02	No
Elk	01/05/23	Muscle	Cesium-137	1.43	±	1.44	2.87	±	5.11	No
			Iodine-131	-4.04	±	8.42	115.44	±	108.78	No
Elk	01/19/23	Muscle	Cesium-137	0.17	±	0.79	2.87	±	5.11	No
			Iodine-131	-2.59	±	1.59	115.44	±	108.78	No
Elk	01/19/23	Muscle	Cesium-137	0.80	±	1.00	2.87	±	5.11	No
			Iodine-131	-0.78	±	2.32	115.44	±	108.78	No
Elk	01/05/23	Thyroid	Cesium-137	-24.50	±	46.60	-90.65	±	172.42	No
			Iodine-131	8.48	±	44.90	31.38	±	166.13	No
Elk	01/05/23	Thyroid	Cesium-137	18.40	±	17.80	-6.59	±	24.27	No
			Iodine-131	21.20	±	22.10	19.50	±	39.96	No
Elk	01/19/23	Thyroid	Cesium-137	16.30	±	42.00	-6.59	±	24.27	No
			Iodine-131	28.10	±	60.90	19.50	±	39.96	No
Elk	01/19/23	Thyroid	Cesium-137	179.00	±	105.00	-6.59	±	24.27	No
			Iodine-131	-180.00	±	90.60	19.50	±	39.96	No

Appendix D
Statistical Analysis Results

Table D-1. Results of the Kruskal-Wallace one-way analysis of variance by ranks between onsite, boundary, and offsite sample groups by quarter and by month.

GROSS ALPHA					
Quarter	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	88	21021.50	238.8807		
Onsite	259	58758.00	226.8649	0.6124756	0.7362
Offsite	110	24873.50	226.1227		
January	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	34	3002.500	88.30882		
Onsite	103	9349.000	90.76699	0.3679119	0.8320
Offsite	40	3401.500	85.03750		
February	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	25	1546.000	61.84000		
Onsite	64	4022.500	62.85156	0.3145521	0.8545
Offsite	33	1934.500	58.62121		
March	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	29	2563.500	88.39655		
Onsite	92	6978.500	75.85326	1.758409	0.4151
Offsite	37	3019.000	81.59459		
GROSS BETA					
Quarter	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	88	19444.00	220.9545		
Onsite	259	64791.00	250.1583	18.84366	0.0001
Offsite	110	20418.00	185.6182		
January	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	34	3090.500	90.89706		
Onsite	103	9875.000	95.87379	7.582931	0.0226
Offsite	40	2787.500	69.68750		
February	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	25	1347.500	53.90000		
Onsite	64	4726.500	73.85156	17.70248	0.0001
Offsite	33	1429.000	43.30303		

Table D-1. continued.

March	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	29	1946.500	67.12069		
Onsite	92	8557.000	93.01087	20.23765	0.0000
Offsite	37	2057.500	55.60811		

a. Kruskal Wallis test statistic calculated using mean ranks. This test assumes H is approximately distributed as χ^2.
b. A p-value (probability value) greater than 0.05 signifies no statistical difference between data groups. Any values below 0.05 are indicated in red.

Table D-2. Results of multiple comparisons of gross alpha results between locations during the first quarter. A 'p' value greater than 0.05 signifies no statistical difference between data groups. Any values below 0.05 are indicated in red. 'R' represents the average rank for each location.

Multiple Comparisons z' values; Coded result (x10-15) (ESER_BEA_Air_query_09-18-2023 in 1st-Qtr-2023-LVf-Rev2)
Independent (grouping) variable: GeographicName
Kruskal-Wallis test: H (32, N= 405) =47.28393 p =.0400
Include condition: v8='gross alpha'

Depend.: Coded result ($x10^{-15}$)	Arco R:232.50	Atomic City R:171.12	ATR Complex R:240.00	Blackfoot R:199.69	Blue Dome R:192.79	CFA R:252.96	Craters of the Moon R:71.750	Dubois R:199.17	EBR 1 R:186.08	EFS R:225.18	FAA Tower R:200.73	Gate 4 R:249.04	Highway 26 Rest Area R:200.12	Howe R:234.15	Idaho Falls R:274.62	INTEC (NE Corner) R:225.29	INTEC (West side) R:172.71	IRC R:191.15	IRC North R:231.61	Jackson WY R:181.04	Main Gate R:195.33	MFC North R:135.69	MFC South R:187.81	Monteview R:228.54	NRF R:179.58	PBF R:142.77	RHLLW R:219.86	RWMC R:245.38	RWMC South R:161.18	SMC R:258.73	Sugar City R:233.35	Terreton R:200.62	Van Buren R:186.38
Arco		1.000000	1.000000	1.000000	1.000000	1.000000	0.318234	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Atomic City	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
ATR Complex	1.000000	1.000000		1.000000	1.000000	1.000000	0.227244	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Blackfoot	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Blue Dome	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
CFA	1.000000	1.000000	1.000000	1.000000	1.000000		0.078944	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Craters of the Moon	0.318234	1.000000	0.227244	1.000000	1.000000	0.078944		1.000000	1.000000	0.891848	1.000000	0.081709	1.000000	0.279253	0.007904	0.693718	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.433122	1.000000	1.000000	1.000000	0.111462	1.000000	0.068603	0.297698	1.000000	1.000000
Dubois	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
EBR 1	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
EFS	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.891848	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
FAA Tower	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Gate 4	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.081709	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Highway 26 Rest Area	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Howe	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.279253	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Idaho Falls	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.007904	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
INTEC (NE Corner)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.693718	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
INTEC (West side)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
IRC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
IRC North	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Jackson WY	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Main Gate	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
MFC North	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
MFC South	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Monteview	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.433122	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
NRF	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
PBF	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RHLLW	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RWMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.111462	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RWMC South	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
SMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.068603	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Sugar City	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.297698	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Terreton	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Van Buren	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	

Table D-3. Results of multiple comparisons of gross beta results between locations during the first quarter. A 'p' value greater than 0.05 signifies no statistical difference between data groups. Any values below 0.05 are indicated in red. 'R' represents the average rank for each location.

Multiple Comparisons p values (2-tailed); Coded result (x10-15) (ESER_BEA_Air_query_09-18-2023 in 1st-Qtr-2023-LVf-Rev2)
Independent (grouping) variable: GeographicName
Kruskal-Wallis test: H (32, N= 405) =59.53865 p =.0022
Include condition: v8='gross beta'

Depend.: Coded result (x10-15)	Arco R:213.35	Atomic City R:175.31	ATR Complex R:242.88	Blackfoot R:180.85	Blue Dome R:142.21	CFA R:210.08	Craters of the Moon R:54.125	Dubois R:165.25	EBR 1 R:244.38	EFS R:256.14	FAA Tower R:180.91	Gate 4 R:259.04	Highway 26 Rest Area R:233.19	Howe R:185.54	Idaho Falls R:218.38	INTEC (NE Corner) R:210.63	INTEC (West side) R:169.83	IRC R:204.00	IRC North R:185.44	Jackson WY R:130.42	Main Gate R:157.04	MFC North R:190.46	MFC South R:194.65	Monteview R:209.77	NRF R:256.35	PBF R:182.12	RHLLW R:260.64	RWMC R:264.04	RWMC South R:218.55	SMC R:278.00	Sugar City R:175.69	Terreton R:245.62	Van Buren R:203.00
Arco		1.000000	1.000000	1.000000	1.000000	1.000000	0.358718	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Atomic City	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
ATR Complex	1.000000	1.000000		1.000000	1.000000	1.000000	0.041318	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Blackfoot	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Blue Dome	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
CFA	1.000000	1.000000	1.000000	1.000000	1.000000		0.581028	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Craters of the Moon	0.358718	1.000000	0.041318	1.000000	1.000000	0.581028		1.000000	0.036223	0.018801	1.000000	0.006476	0.070098	1.000000	0.240832	0.558212	1.000000	0.729865	1.000000	1.000000	1.000000	1.000000	1.000000	0.472859	0.008413	1.000000	0.012540	0.003950	0.404220	0.002435	1.000000	0.023134	0.785762
Dubois	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
EBR 1	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.036223	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
EFS	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.018801	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
FAA Tower	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Gate 4	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.006476	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Highway 26 Rest Area	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.070098	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Howe	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Idaho Falls	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.240832	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
INTEC (NE Corner)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.558212	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
INTEC (West side)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
IRC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.729865	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
IRC North	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Jackson WY	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Main Gate	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
MFC North	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
MFC South	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
Monteview	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.472859	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
NRF	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.008413	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
PBF	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RHLLW	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.012540	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RWMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.003950	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
RWMC South	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.404220	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000
SMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.002435	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000
Sugar City	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000
Terreton	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.023134	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000
Van Buren	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	0.785762	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	