INL/RPT-24-80092
Revision 0

Idaho National Laboratory Site Environmental Surveillance Program Report: First Quarter 2024

January 2025

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INL is a U.S. Department of Energy National Laboratory operated by Battelle Energy Alliance, LLC

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EXECUTIVE SUMMARY

Some human-made radionuclides were detected in samples collected during the first quarter of 2024. None of the radionuclides detected in samples collected during the first quarter of 2024 could be directly linked with Idaho National Laboratory (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 2024 contains results from Battelle Energy Alliance (hereafter called the INL contractor) environmental surveillance program's monitoring of the U.S. Department of Energy's INL Site's onsite, boundary and offsite location environment, January 1 through March 31, 2024. All sample types (media) and the sampling schedule followed during 2024 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
- Water (effluent)
- Milk
- Large game animal sampling.

Table ES-1. Summary of results for the first quarter of 2024.

MEDIA	SAMPLE TYPE	ANALYSIS	RESULTS
Air	Particulate Filters	Gross alpha, gross beta	There were no statistically significant differences for the quarter or any month during the quarter for gross alpha concentrations. Statistically significant differences were observed for gross beta concentrations for the quarter, January, and February but not for March. No statistical differences were observed for gross alpha or gross beta concentrations between 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.
	Quarterly Composite	Gamma-emitting radionuclides, strontium-90, actinides (americium, plutonium, and uranium)	No cesium-137, plutonium-238, plutonium-239/240 was detected in quarterly composited samples collected during the first quarter of 2024. Strontium-90 was detected in six quarterly composite samples. The composite sample collected at Van Buren had a detection of americium-241. Uranium-233/234 was detected in a composite sample collected at Specific Manufacturing Capability (SMC), whereas uranium-238 was detected in the composite sample collected at Sugar City. None of the results exceeded the 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 16 results showed tritium concentrations greater than the 3s uncertainty.
Precipitation	Liquid	Tritium	None of the 21 results showed tritium concentrations greater than the 3s uncertainty.
Effluent	Liquid	Gross alpha, gross beta, tritium, gamma-emitting radionuclides	No human-made gamma-emitting radionuclides were detected in effluent samples collected during the quarter. Gross alpha and gross beta were detected in the Cold Waste Pond (CWP) effluent samples and were below allowable discharge limits.
Milk	Liquid	Iodine-131, other gamma-emitting radionuclides	Forty-three milk samples were collected at seven locations (including the offsite control sample from Broomfield, 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 the first quarter.

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ACRONYMS

ATR	Advanced Test Reactor
CFA	Central Facilities Area
CITRC	Critical Infrastructure Test Range Complex
CTF	Contained Test Facility
CWP	Cold Waste Pond
DCS	Derived Concentration Standard
DEQ	Idaho Department of Environmental Quality
DOE	U.S. Department of Energy
DOECAP-AP	DOE Consolidated Audit Program – Accreditation Program
EBR-I	Experimental Breeder Reactor I
EFS	Experimental Field Station
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
GEL	GEL Laboratories, LLC
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)
IRC	INL Research Center
IWP	Industrial Waste Pond
MAPEP	Mixed Analyte Performance Evaluation Program
MDC	minimum detectable concentration
MFC	Materials and Fuels Complex
NRF	Naval Reactors Facility
NRTS	National Reactor Testing Station
PBF	Power Burst Facility
PE	performance evaluation
PT	performance testing
RHLLW	Remote-Handled Low-Level Waste
RWMC	Radioactive Waste Management Complex
SMC	Specific Manufacturing Capability
TAN	Test Area North
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).

The INL Site contractors (INL and the Idaho Cleanup Project [ICP] contractors) perform environmental surveillance monitoring within the INL Site boundaries. The INL contractor also provides environmental surveillance monitoring off the INL Site.

This report contains the INL contractor's environmental surveillance monitoring results for samples collected during the first quarter of 2024 (January 1 – March 31, 2024). Compliance monitoring results from the INL Site contractors and U.S. Geological Survey are reported in the Annual Site Environmental Report (https://inl.gov/aser/).

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 several 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.

The INL contractor's environmental surveillance program collects the following environmental samples:

- air at 18 INL Site locations and at 14 locations off the INL Site
- atmospheric moisture at three INL Site locations and at five locations off the INL Site
- precipitation collected at one INL Site location and three locations off the INL Site
- liquid effluent collected at two INL Site locations
- groundwater collected at 13 INL Site locations
- drinking water collected at eight INL Site locations and at 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 185 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.

Two 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. GEL Laboratories (GEL) performed routine gross alpha, gross beta, tritium, and gamma spectrometry analyses. Analyses requiring radiochemistry including strontium-90 (^{90}Sr), chlorine-36 (^{36}Cl), 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 americium-241 (^{241}Am) were also performed by GEL.

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 (3s) 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 3s 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 two standard deviations (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 2s 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 monitoring 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 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 most of the cleanup work from past laboratory missions in an ongoing process. The Idaho Environmental Coalition, LLC, is responsible for the ICP.

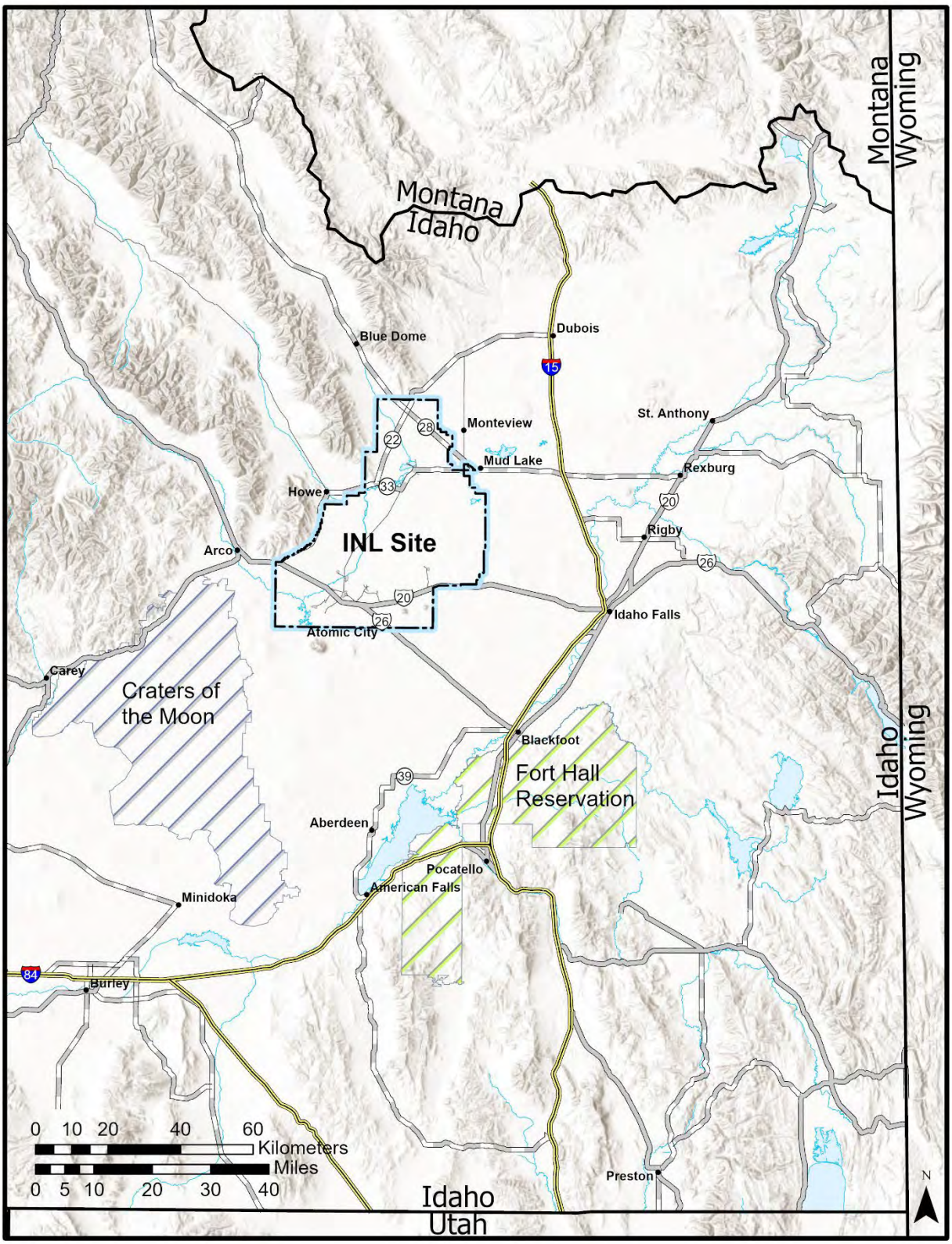

Figure 1. Location of the INL Site.

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 32 locations using low-volume air samplers (four of which have replicate samplers). Moisture in the atmosphere was sampled at eight locations around the INL Site and analyzed for tritium. Air sampling activities and results for the first quarter of 2024 are discussed below.

3.1 Low-volume Air Sampling

Radioactivity associated with airborne particulates was monitored continuously at 32 locations during the first quarter of 2024 (Figure 2). Twenty 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 2024, replicate samplers were located at Howe (boundary location), Sugar City (offsite location), Highway 26 Rest Area (onsite location), and Remote-Handled Low-Level Waste facility (RHLLW) (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, ^{36}Cl, ^{238}Pu, $^{239/240}Pu$, $^{233/234}U$, ^{235}U, ^{238}U, and ^{241}Am.

Charcoal cartridges are analyzed for gamma-emitting radionuclides, specifically for ^{131}I. The INL Environmental Services In Situ Gamma Laboratory individually scans the cartridges. If the scan of an individual cartridge results in a positive detection, the cartridge is shipped to GEL 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.

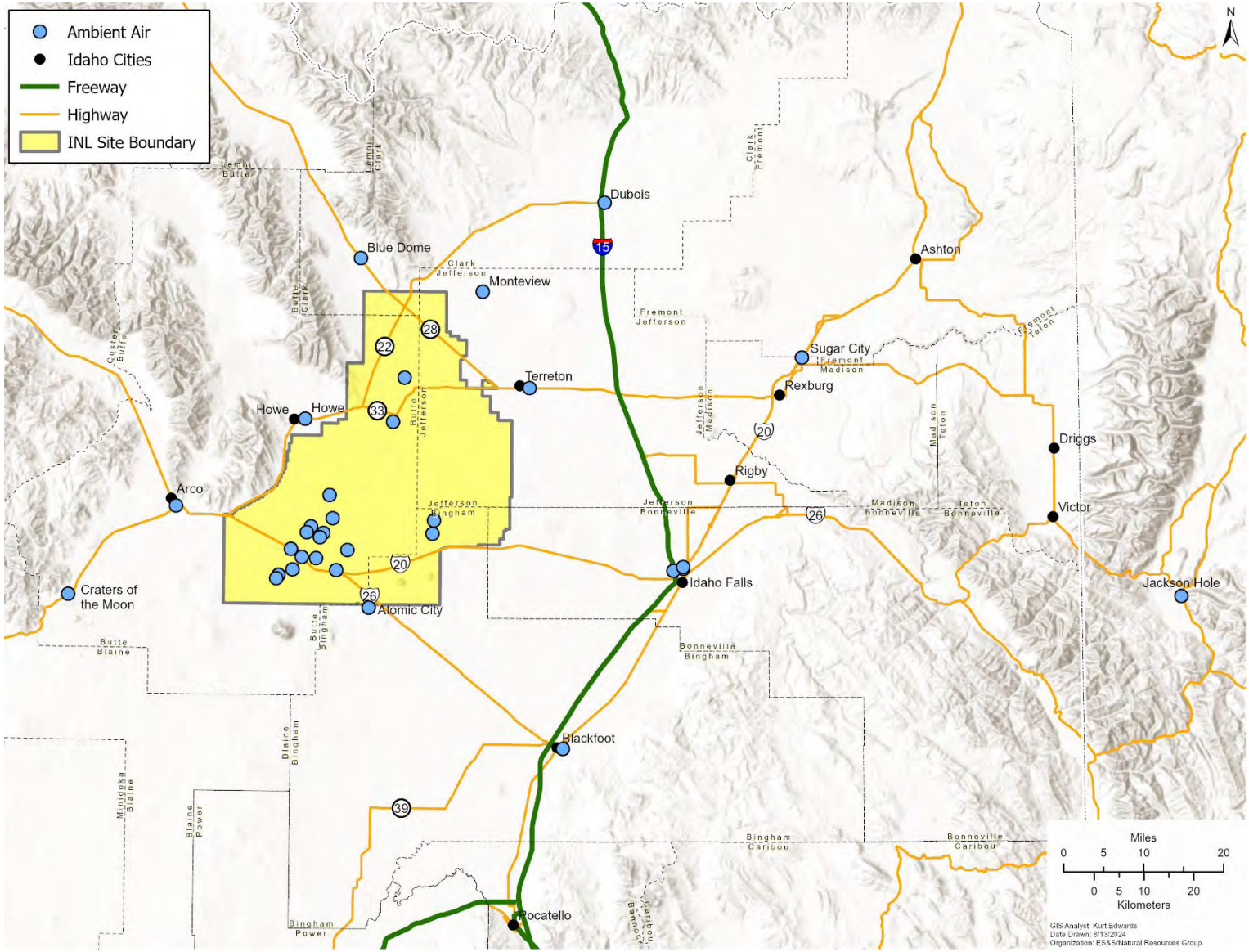

Figure 2. INL contractor low-volume air monitoring locations.

Gross alpha results are reported in Appendix B, Table B-1 and shown in Figures 3 through 6. Gross alpha concentrations measured in individual samples ranged from a low of (-0.5 ± 1.8) x 10^{-16} µCi/ml collected at Dubois on February 28, 2024, to a high of (4.2 ± 0.6) x 10^{-15} µCi/ml collected at Highway 26 Rest Area (duplicate) on January 3, 2024. All results were less than the DCS of 1.1 x 10^{-13} µCi/ml for $^{239/240}$Pu. In addition, the results were consistent with historical data, as represented by the 99%/95% UTL for gross alpha activity (4.8 x 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 log-normally 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 non-parametric 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 Appendix C, Table C-1. There was no statistically significant difference among groups for the quarter, or any month during the quarter (Appendix C, Table C-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. No statistical differences were determined between stations (Appendix C, Table C-2).

Gross beta results are presented in Appendix B, Table B-1 and displayed in Figures 7 through 10. Gross beta concentrations measured in individual samples ranged from a low of (2.0 ± 2.7) x 10^{-16} µCi/ml collected at Materials and Fuels Complex (MFC) South on March 13, 2024, to a high of (27.6 ± 0.4) × 10^{-14} µCi/ml collected at Arco on March 27, 2024. All results were less than the DCS of 9.6 × 10^{-12} µCi/ml for ^{90}Sr. 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.

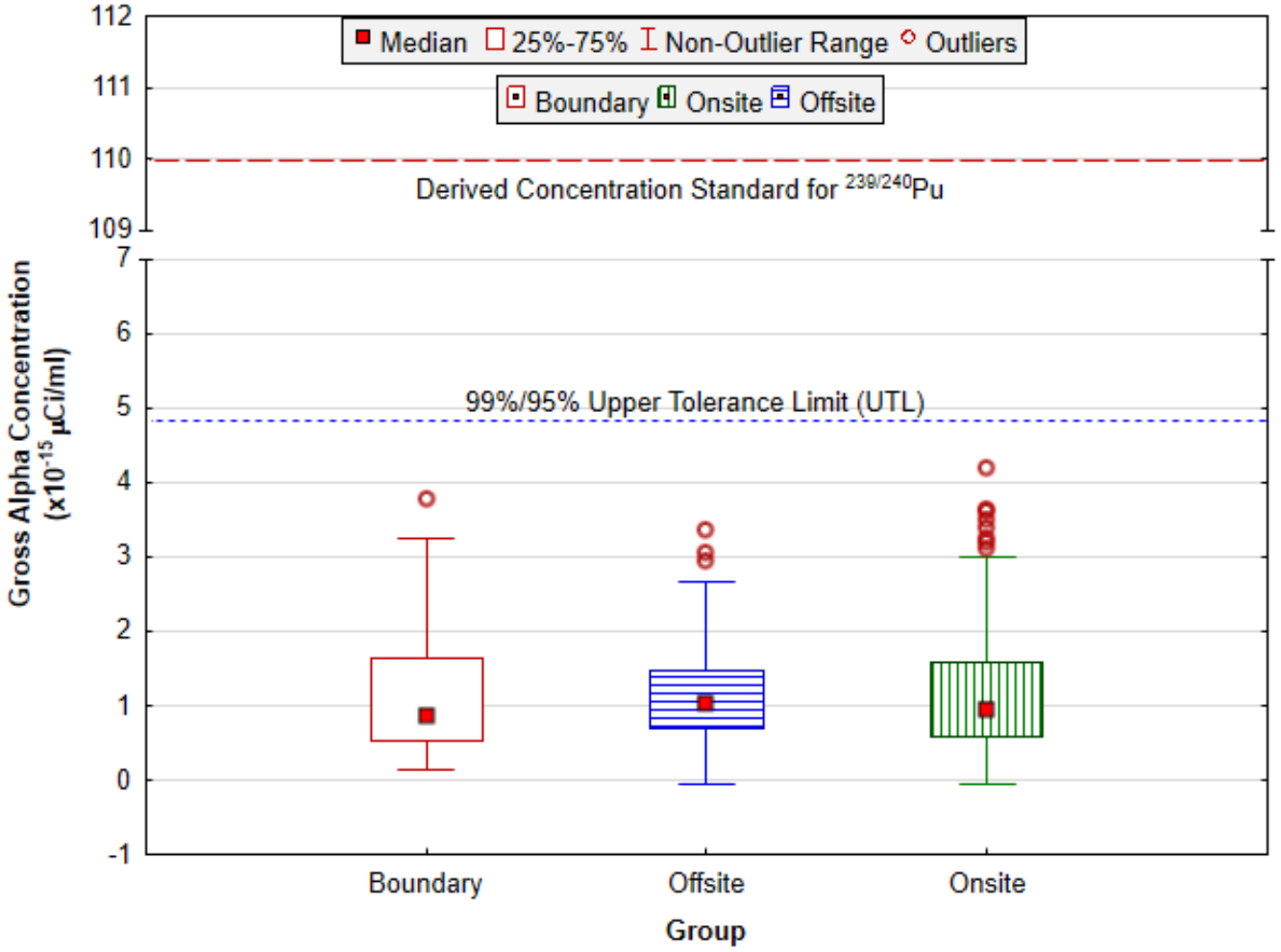

Figure 3. Gross alpha concentrations in air at onsite, boundary, and offsite locations for the first quarter of 2024. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (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.*

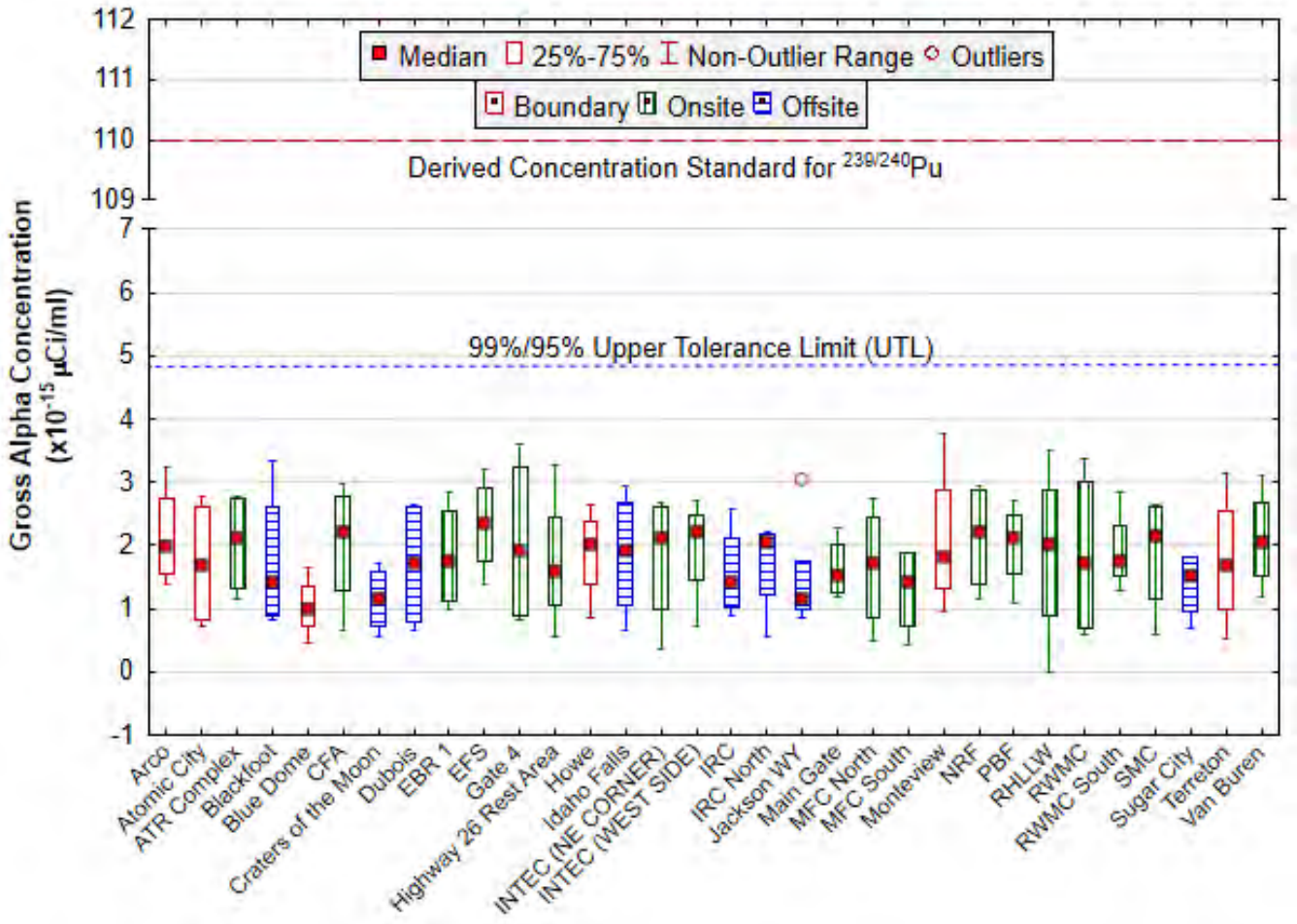

Figure 4. January 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{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.*

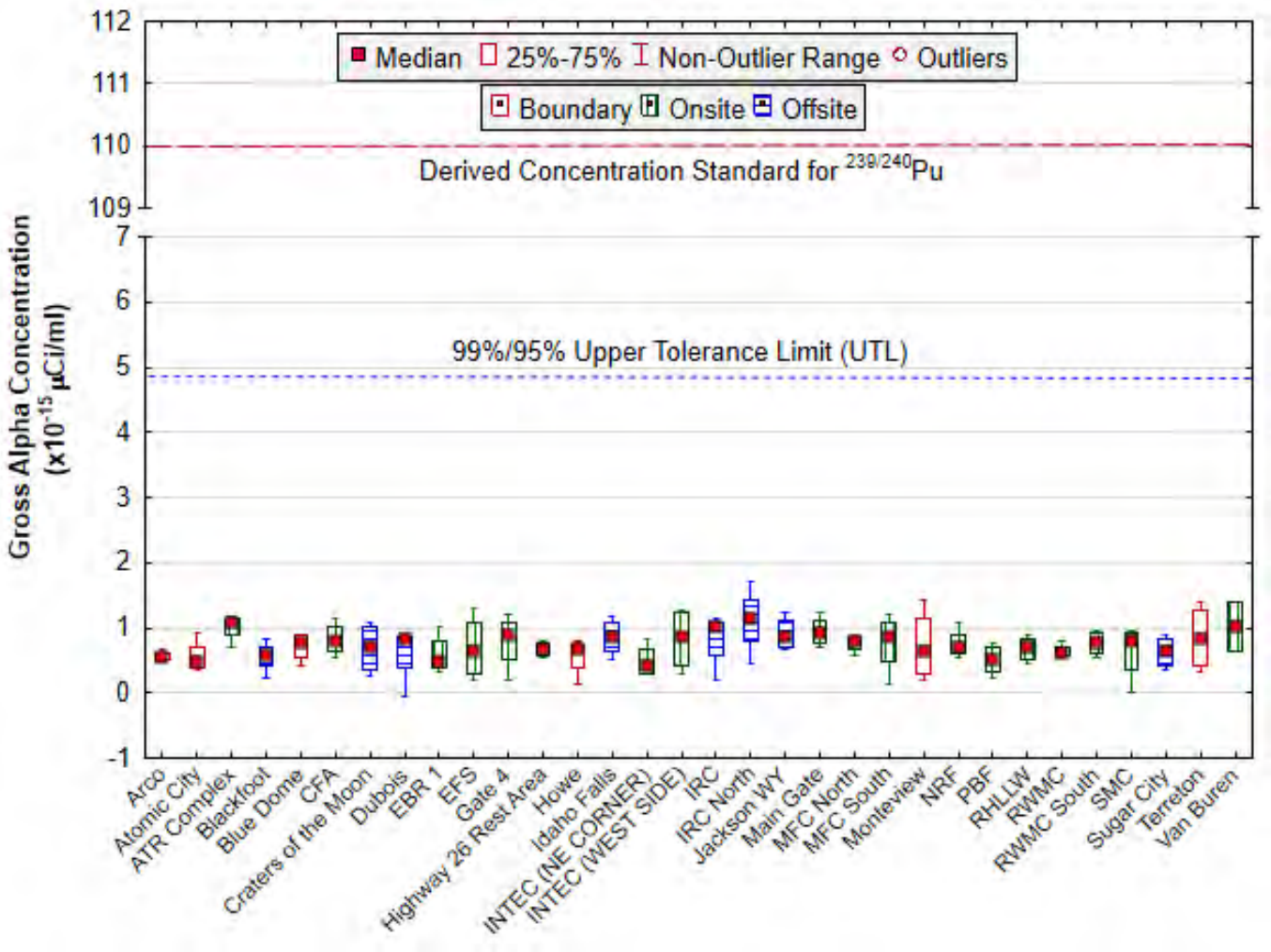

Figure 5. February 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{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.*

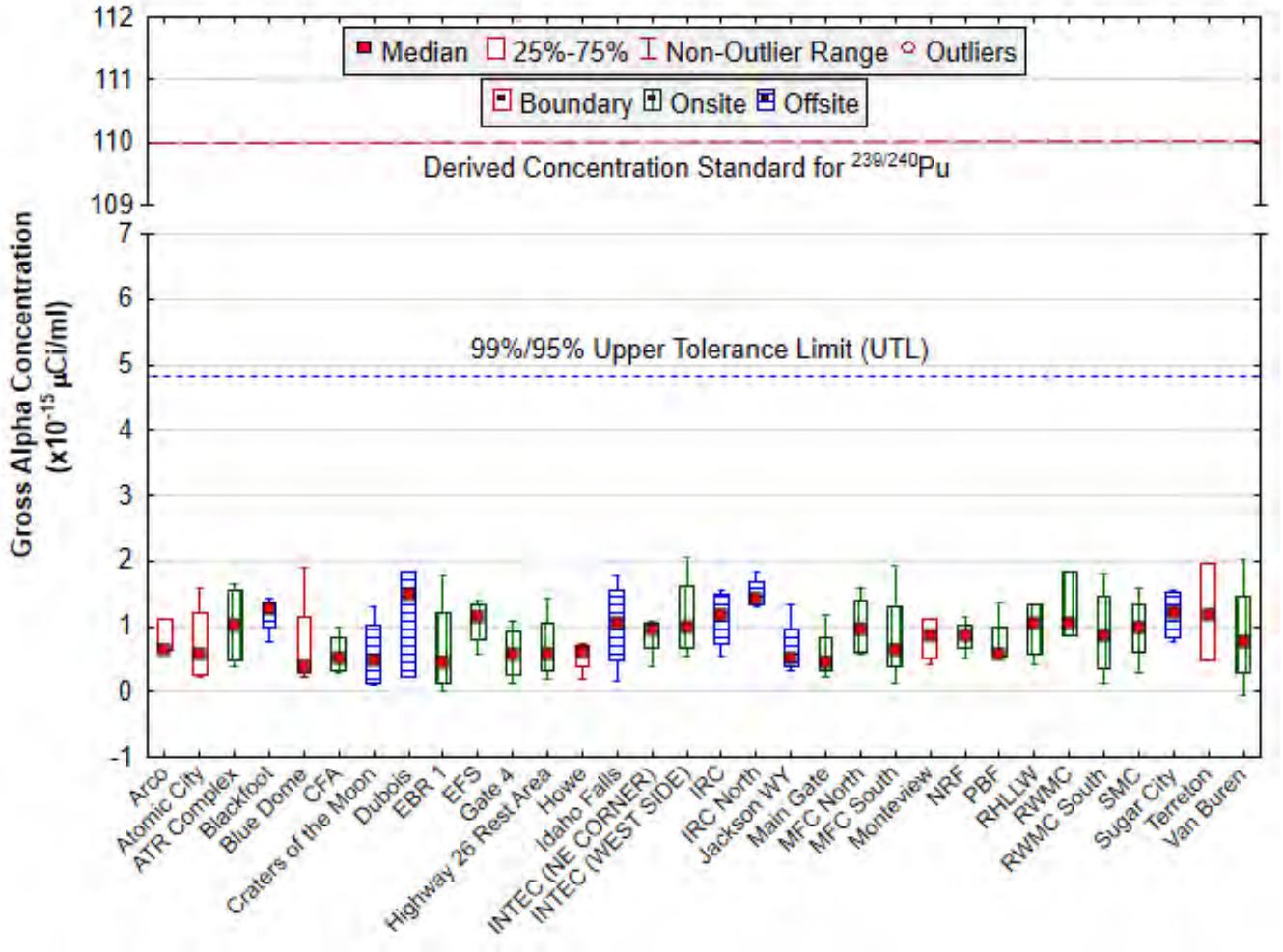

Figure 6. March 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{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.*

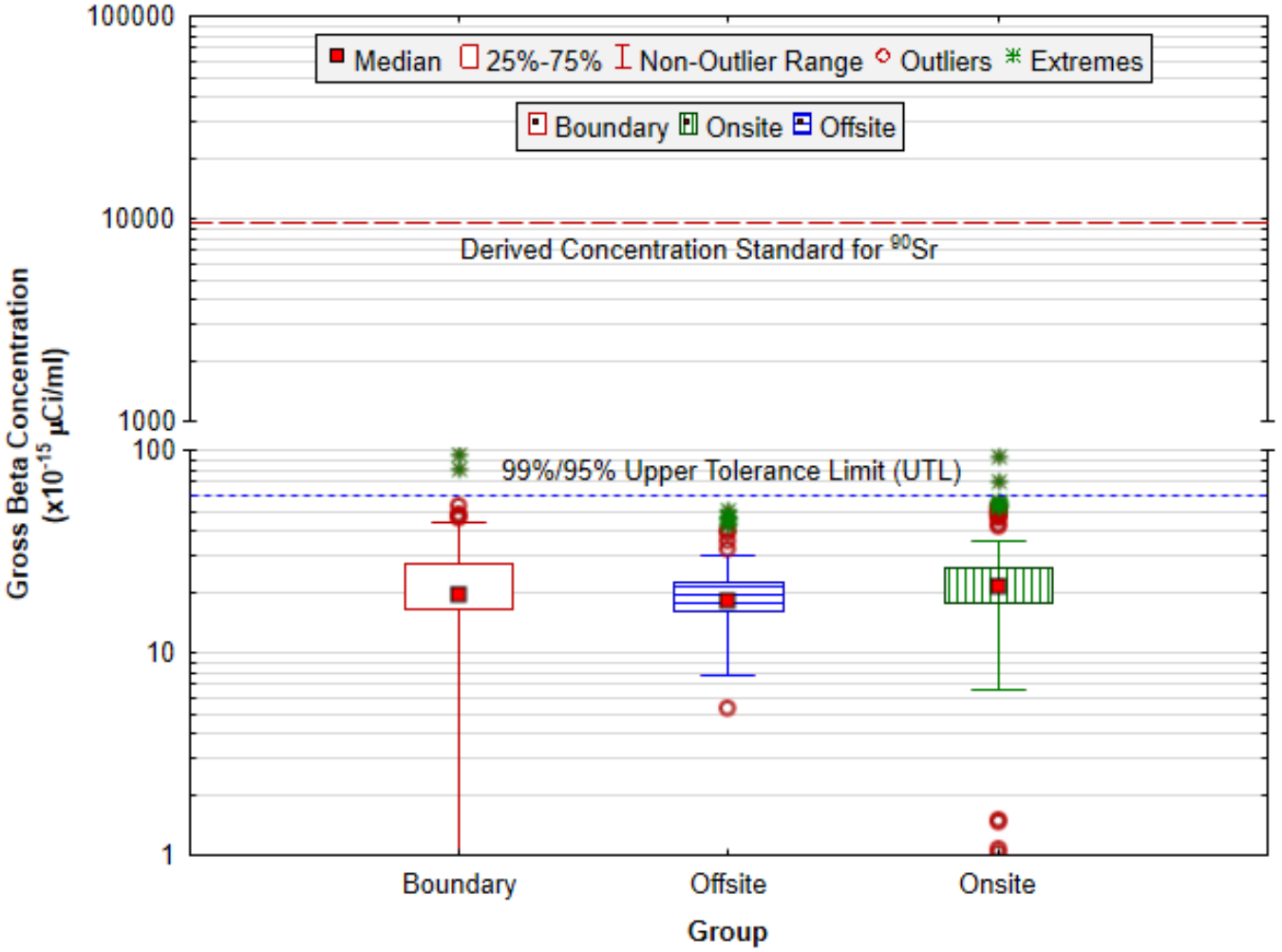

Figure 7. Gross beta concentrations in air at onsite, boundary, and offsite locations for the first quarter of 2024. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (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.*

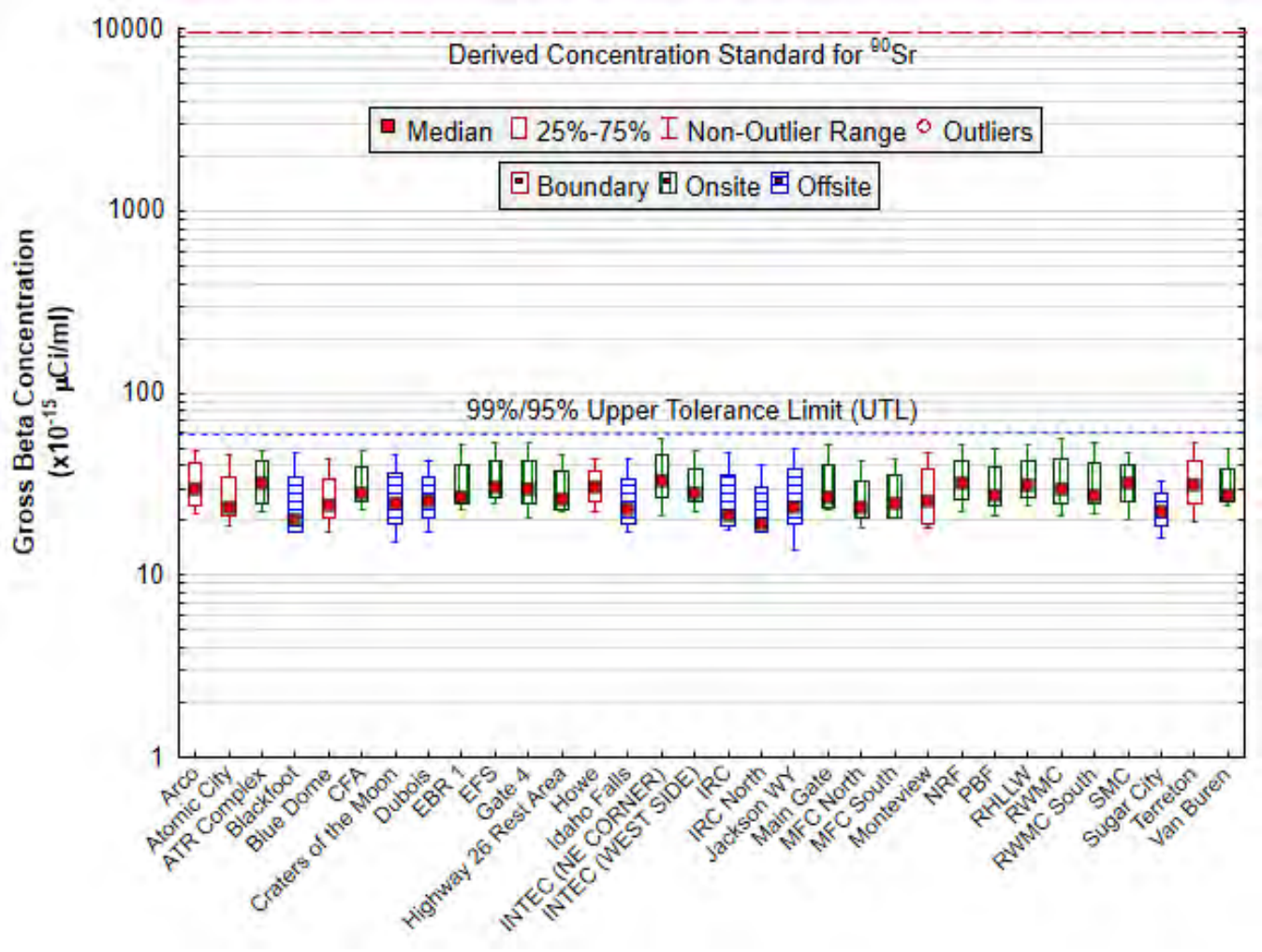

Figure 8. January 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{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.*

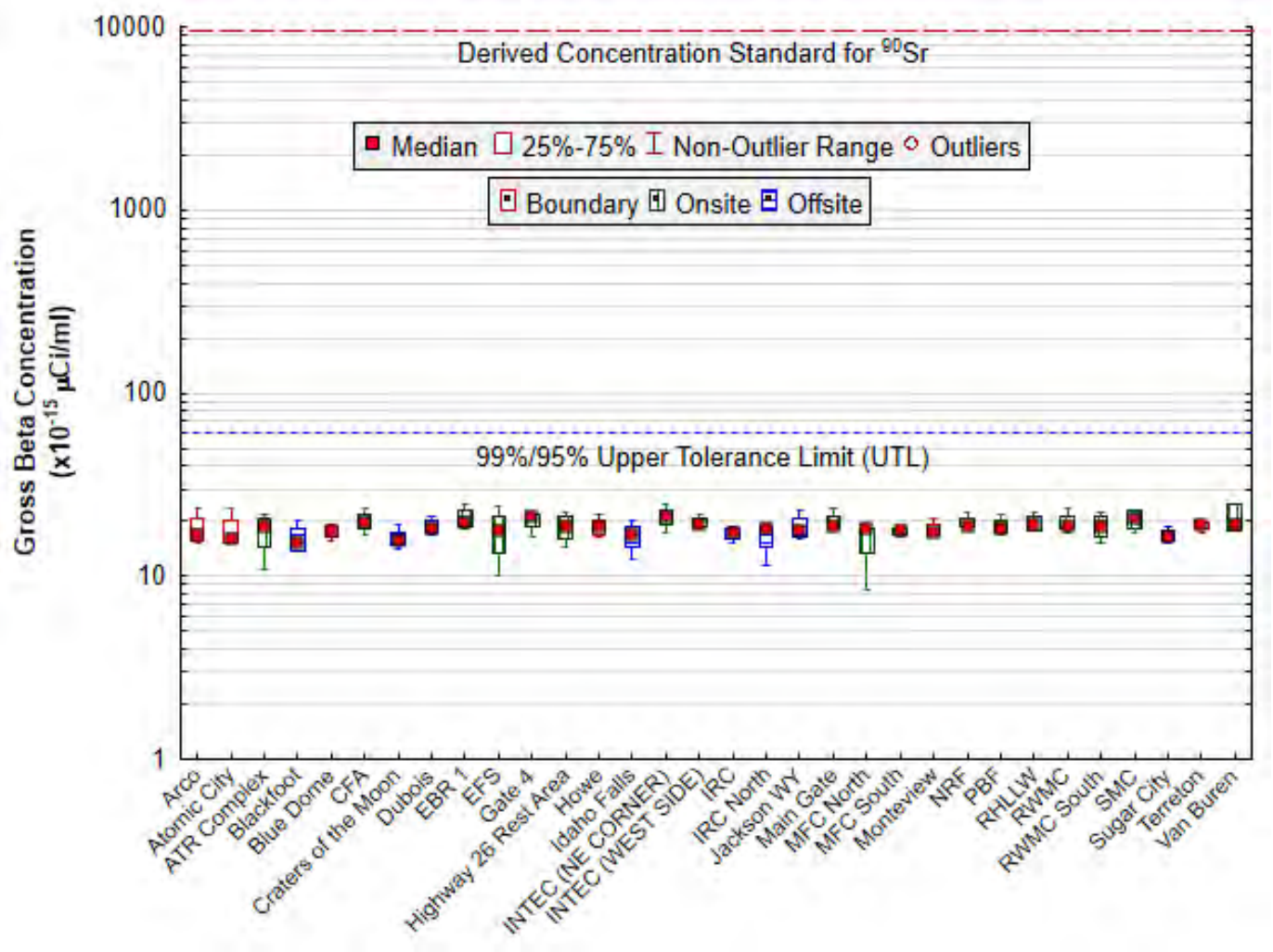

Figure 9. February 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{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.*

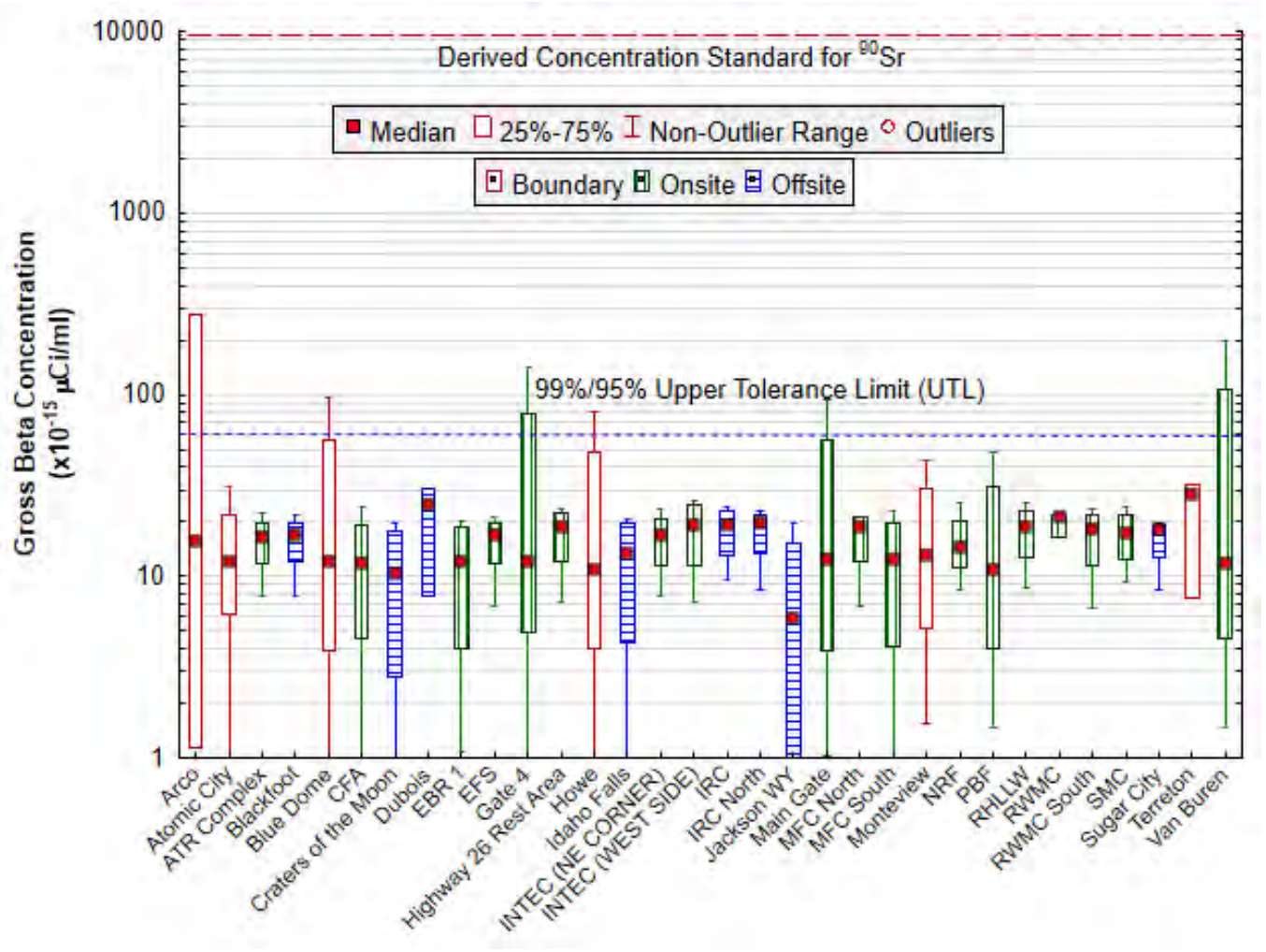

Figure 10. March 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. *Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, 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.*

There were no statistically significant differences in the gross beta data between groups for the month of March, however, there were statistically significant differences in the gross beta data between groups for the quarter, January, and February (Appendix C, Table C-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. No statistical differences were determined between stations (Appendix C, Table C-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 Appendix B, Table B-2.

No cesium-137 (^{137}Cs), ^{238}Pu, or $^{239/240}Pu$ were detected in composite samples collected in the first quarter of 2024. Quarterly ^{137}Cs, ^{238}Pu, and $^{239/240}Pu$ results for each location are listed in Appendix B, Table B-3.

Strontium-90, a beta-emitting radionuclide associated with historic nuclear weapons testing fallout, was detected in composite samples collected from Arco, Blue Dome, Gate 4, RHLLW, Sugar City, and Van Buren (Appendix B, Table B-3). The results are well below the DCS for ^{90}Sr in air (9.6×10^{-12} µCi/ml and within historical measurements.

A composite sample collected at Van Buren had a detection of ^{241}Am. A composite sample collected at Sugar City had a detection of ^{238}U and a sample collected at Specific Manufacturing Capability (SMC) had a detection of $^{233/234}U$. Monitoring of $^{233/234}U$ and ^{238}U was initiated in the third quarter of 2023. resulting in a limited data set. Once enough data has been collected, a UTL will be determined. 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). All detected results were below the DOE DCS values for these radionuclides in air (i.e., 1.3×10^{-13} µCi/mL for ^{241}Am, 1.8×10^{-13} µCi/mL for ^{238}U, and 1.6×10^{-13} µCi/mL for $^{233/234}U$).

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 16 atmospheric moisture samples collected at the onsite and offsite locations during the first quarter of 2024 (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) is 1.3×10^{-7} µCi/mL$_{air}$. Results are shown in Table B-4, Appendix B.

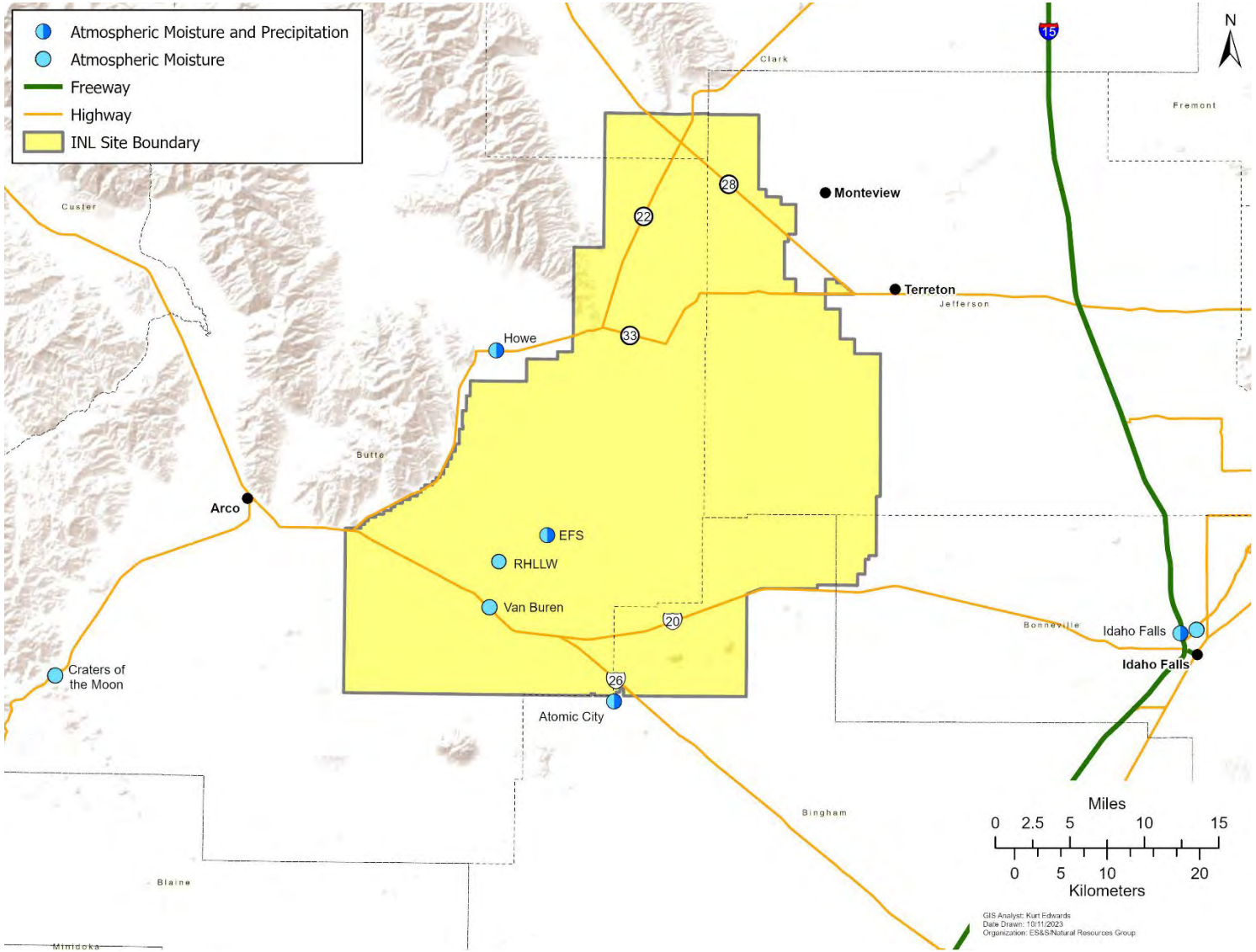

Figure 11. Atmospheric moisture and precipitation monitoring locations.

3.3 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 (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 2024 produced enough precipitation to yield 21 samples.

None of the results exceeded the 3s uncertainty level for tritium. These results are listed in Appendix B, Table B-5. Low levels of tritium always exist in the environment 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 99%/95% UTL for tritium in precipitation is 300 pCi/L. The DOE DCS for tritium in water is 2.6×10^6 pCi/L.

4. Liquid Effluent

Some INL Site operations retain wastewater in lined, total containment evaporative ponds constructed to eliminate liquid effluent discharge to the environment. Other INL Site operations, including the ATR Complex and MFC, discharge liquid effluents to unlined infiltration basins or ponds that may potentially contain nonhazardous levels of radioactive, or nonradioactive, contamination. Effluent discharges to the environment are subject to specified discharge limits, permit limits, or maximum contamination levels. The INL contractor conducts liquid effluent monitoring on the systems that discharge to the environment to ensure compliance with permit requirements and DOE Order 458.1. These programs sample groundwater related to liquid effluent. This section discusses results from environmental surveillance monitoring effluent samples available during the first quarter of 2024. Environmental surveillance groundwater sampling results associated with the effluent discharges are discussed in Section 5. Permit required compliance sampling is reported in the Annual Site Environmental Report (https://inl.gov/aser/). See Appendix A, Table A-1 for a sampling schedule. Liquid effluent sample locations are shown in Figure 12. First quarter 2024 results for effluent are listed in Appendix B, Table B-6.

4.1 ATR Complex Cold Waste Pond

The ATR Complex Cold Waste Pond (CWP) was excavated in 1982 and consists of two unlined cells with a design capacity of 38.69 ML (10.22 MG) and a depth of 3 m (10 ft). The CWP function as percolation basins for the infiltration of nonhazardous industrial liquid effluent consisting primarily of noncontact cooling tower blowdown, once-through cooling water for air conditioning units, coolant water from air compressors, and wastewater from secondary system drains and other nonradioactive drains throughout the ATR Complex. As noted in Appendix A, Table A-1, environmental surveillance samples of the effluent are collected monthly for gross alpha, gross beta, gamma spectrometry, and tritium. Gross alpha and gross beta were the only radiological constituents detected in the CWP effluent during the first quarter 2024. The results were below allowable discharge limits. For perspective, the results were also below the federal drinking water limits, 40 CFR 141, and the Idaho groundwater primary constituent standards, IDAPA 58.01.11.

4.2 MFC Industrial Waste Pond

The MFC Industrial Waste Pond (IWP) is an unlined basin that was first excavated in 1959 and has a design capacity of 1,078.84 ML (285 MG) at a maximum water depth of 3.96 m (13 ft). The effluent discharged to the MFC IWP consists primarily of nonhazardous noncontact cooling water, cooling tower drains, and air wash flows. Small volumes of power plant cooling water system blowdown, intermittent reverse osmosis blowdown, and floor drain and laboratory sink discharges are also sent to the IWP. Environmental surveillance samples are collected from the IWP three times per year in the second, third, and fourth quarter for gross alpha, gross beta, gamma spectrometry, and tritium. Select isotopes of americium, strontium, plutonium, and uranium are collected annually in the third quarter. The second quarter samples are collected after the ice-covered pond melts, typically in April or May. Third quarter samples are collected typically in July or August. Fourth quarter samples are collected before pond freezes over for winter, typically in October. The IWP was not sampled during the first quarter 2024.

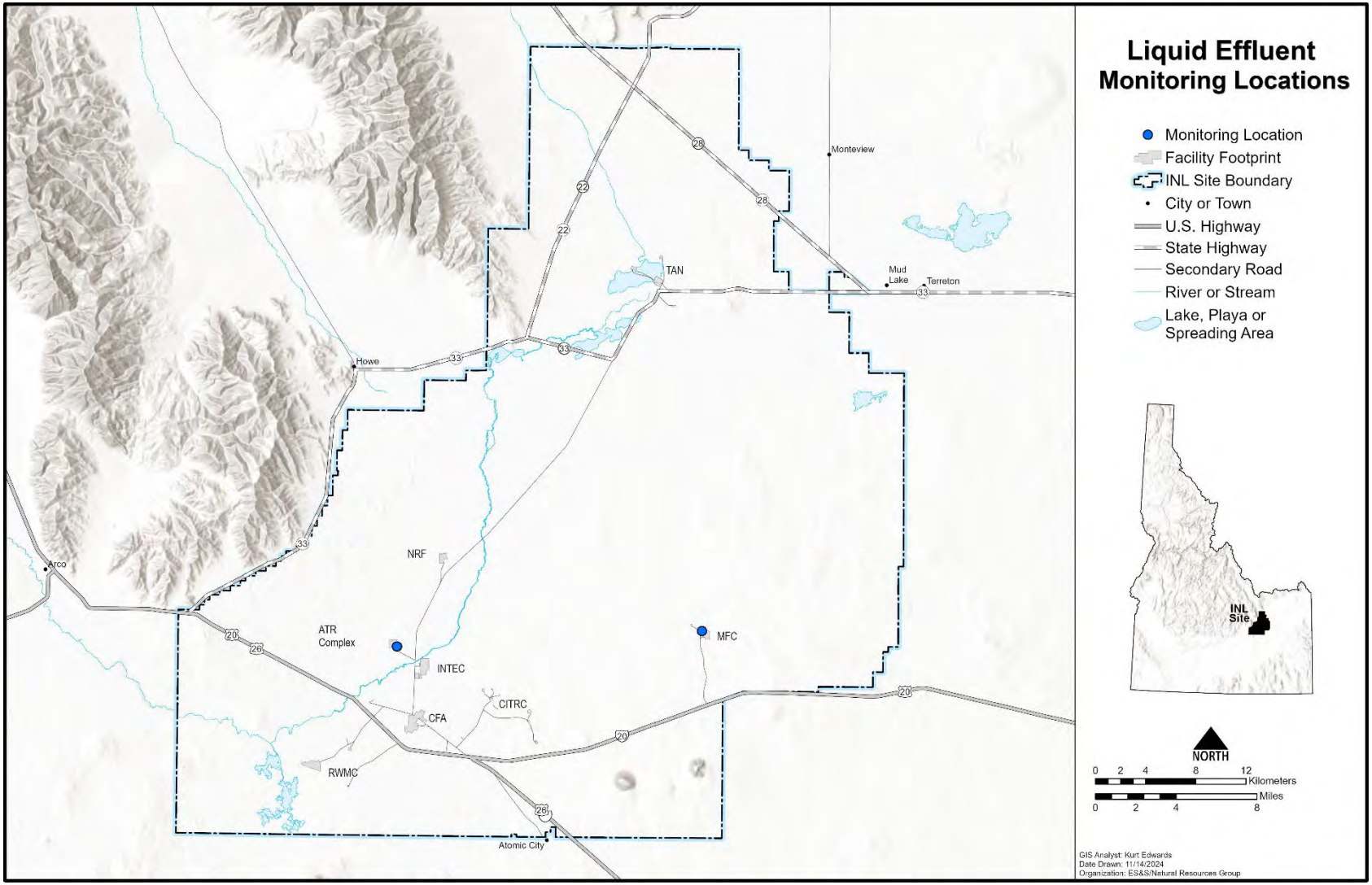

Figure 12. INL contractor liquid effluent monitoring locations.

5. Groundwater, Surface Water, and Drinking Water,

The eastern Snake River Plain Aquifer serves as the primary source for drinking water and crop irrigation in the upper Snake River Basin. The INL contractor conducts surveillance monitoring on and off the INL Site within the eastern Snake River Plain Aquifer hydrogeologic system to comply with DOE Order 458.1. Additional sampling is performed by the INL contractor to demonstrate compliance with federal and state regulations and reuse permit requirements. Results for compliance monitoring are reported in the Annual Site Environmental Report. Monitoring results are evaluated against public drinking water system Maximum Contaminant Limits and state groundwater standards to ensure the requirements of DOE Order 458.1 are met. Monitoring includes the collection of water from the aquifer (including dedicated monitoring wells and drinking water wells), downgradient springs along the Snake River where the aquifer discharges water and an ephemeral stream (the Big Lost River), which flows through the INL Site and helps to recharge the aquifer. This section discusses environmental surveillance monitoring results from onsite groundwater, onsite and offsite drinking water, and offsite surface water samples available during the first quarter of 2024. See Table A-1, Appendix A for a sampling schedule.

5.1 Groundwater Sampling

The INL contractor conducts semi-annual groundwater monitoring in the second quarter (April/May) and third/fourth quarter (September/October) at the ATR Complex and MFC to ensure compliance with reuse permit requirements and DOE Order 458.1. Groundwater is sampled at upgradient and downgradient locations to measure potential impacts from the associated liquid effluent discharges at both facilities. Permit required compliance sampling is reported in the Annual Site Environmental Report (https://inl.gov/aser/). Groundwater samples were not collected during the first quarter at the ATR Complex or MFC.

The INL contractor also conducts annual groundwater monitoring in the second quarter (April/May) at the RHLLW Disposal Facility. The RHLLW facility does not generate or discharge liquid effluent. Groundwater monitoring is performed to ensure compliance with DOE Order 435.1 and DOE Order 458.1. Groundwater samples were not collected during the first quarter at RHLLW.

5.2 Surface Water Sampling

Surface water is collected in the second and fourth quarters. Big Lost River samples are collected when available. No surface water was collected during the first quarter.

5.3 Drinking Water Sampling

The INL Site has 11 drinking water systems that are monitored by the INL Site contractors to demonstrate that they are safe for consumption. The INL contractor monitors eight of these drinking water systems, while the ICP contractor monitors three. Drinking water parameters are regulated by the state of Idaho under authority of the Safe Drinking Water Act (42 U.S.C. 300f et seq), “National Primary Drinking Water Regulations” (40 CFR 141-142), and “Idaho Rules for Public Drinking Water Systems” (IDAPA 58.01.08). INL Site drinking water systems are classified as either non-transient or transient, non-community water systems. The four INL contractor transient, non-community water systems are located at Critical Infrastructure Test Range Complex (CITRC), EBR-I, Gun Range, and Main Gate. The four remaining INL contractor water systems are classified as non-transient, non-community water systems, and are located at ATR Complex, Central Facilities Area (CFA), MFC, and TAN/CTF. Compliance monitoring schedules for each water system are set by the Department of Environmental Quality (DEQ).

Compliance results are not reported in these quarterly reports since these results can be found on the Idaho DEQ's public water system switchboard (www.deq.idaho.gov).

In addition to compliance sampling, INL performs surveillance drinking water sampling in accordance with DOE Order 458.1. The INL contractor collects surveillance samples semi-annually from all eight drinking water systems that are analyzed for gross alpha, gross beta, and tritium. Additional samples are collected from CFA and analyzed for iodine-129 and ^{90}Sr. Radiological sampling was not conducted in the first quarter of 2024; therefore, radiological results will be reported in future quarterly reports.

The INL contractor also collects samples from municipal water sources that have been through a water treatment facility or a well-used for drinking water. Drinking water samples are collected offsite to adhere to DOE Order 458.1 but are not utilized for compliance with drinking water regulations. The results of the offsite samples are compared with historic data to identify trends or detect anomalies. Water samples are collected from eight locations off the INL Site. Two downgradient locations of the INL Site, Shoshone and Minidoka, and one upgradient location, Mud Lake, are co-sampled with the state of Idaho DEQ-INL Oversight Program. Samples are also collected at Atomic City, Craters of the Moon, Howe, Idaho Falls, and the public Rest Area at Highway 20/26.

No onsite or offsite drinking water surveillance samples were collected during first quarter 2024.

6. 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 2024.

6.1 Milk Sampling

Milk samples were collected weekly at dairies located in Rigby and Terreton. Monthly samples were collected at six locations around the INL Site (Figure 13) during the first quarter of 2024. In addition to the regional locations, commercially-available organic milk (from Broomfield, Colorado) was purchased as a control sample each month. All samples were analyzed for gamma-emitting radionuclides.

Cesium-137 and ^{131}I 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 B, Table B-7.

6.2 Large Game Animal Sampling

One elk was available for sampling during the first quarter of 2024. Muscle, liver, and thyroid samples were taken from the animal. No human-made gamma-emitting radionuclides were detected in the tissue. Results for the tissue samples are listed in Appendix B, Table B-8.

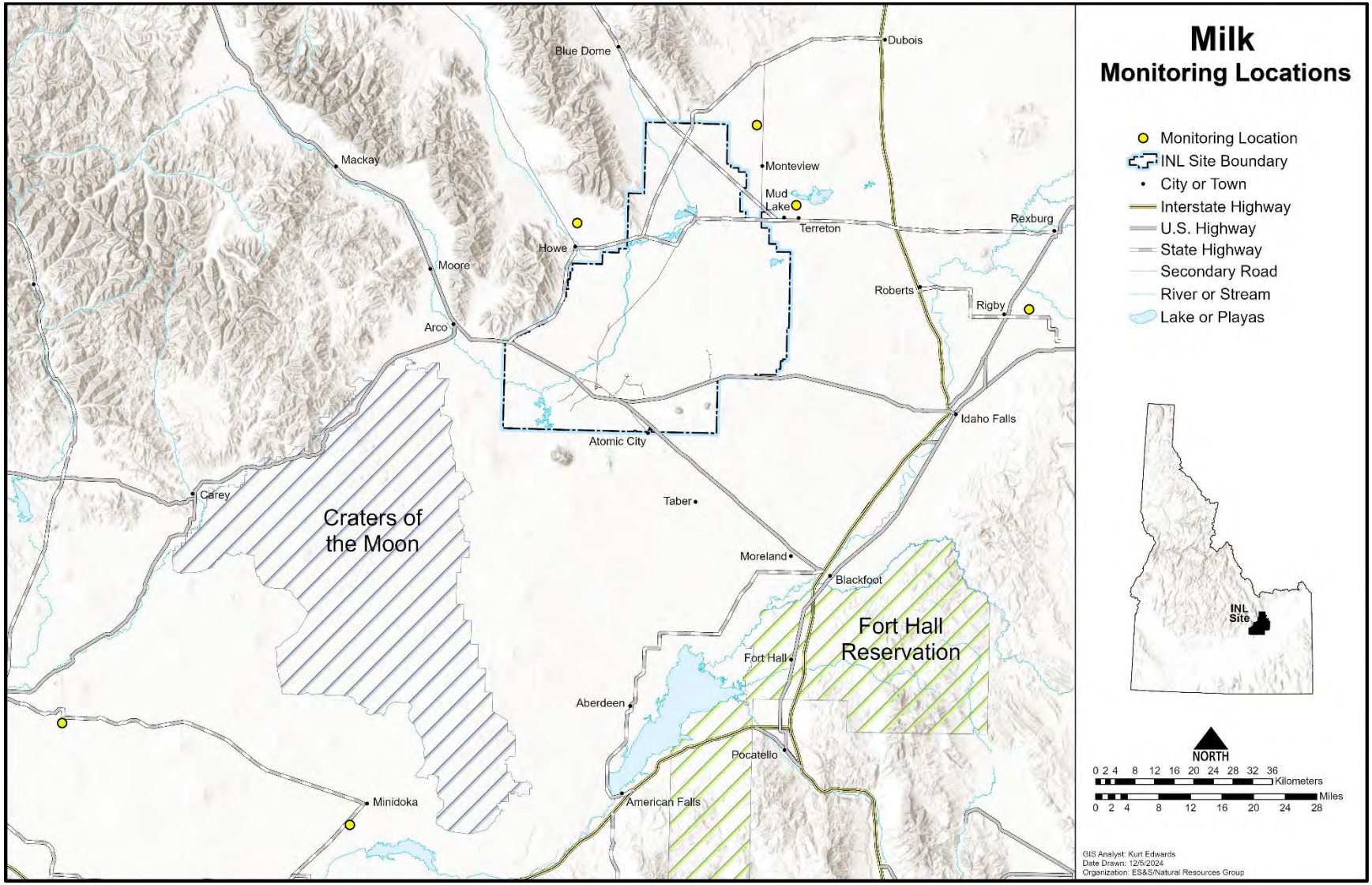

Figure 13. INL contractor milk monitoring locations.

7. Environmental Direct Radiation

Environmental direct radiation measures exposure to the public and non-involved workers within INL Site boundaries and surrounding areas.

An array of optically stimulated luminescent dosimeters are distributed throughout the Eastern Snake River Plain and on the INL Site to measure environmental radiation. In addition, neutron dose surveillance monitoring is conducted around INL facilities and buildings where neutron radiation may be present.

Dosimeters on the INL Site are placed at facility perimeters, concentrated in areas likely to detect the highest gamma radiation readings. Other dosimeters on the INL Site are located near radioactive materials storage areas and along roads.

Dosimeters are collected in the second and fourth quarters.

8. Quality Assurance

Quality assurance consists of planned and systematic activities that give confidence in environmental surveillance program results (NCRP 2012). Environmental surveillance monitoring 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 GEL performing environmental analyses.

In addition to the quality assurance processes implemented by the INL contractor, GEL utilizes trained personnel, procedures, and quality assurance processes to ensure quality data. Data quality reviews were performed by GEL 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 GEL. Results are summarized in Section 8.2. 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 environmental surveillance 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 performance evaluation (PE), and duplicate samples; through sample recounts; through analysis of blank samples; and through comparison of sample results to established method quality objectives.

8.1 Inter-laboratory Program Performance Testing 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 PE results relative for each media and analyte tested. DOECAP accreditation is obtained and/or maintained by achieving a history of two successful studies (acceptable scores) out of the most recent three attempts. First quarter 2024 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.

8.2 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. Blanks, duplicate/replicate samples and PE samples for first quarter are discussed below.

8.2.1 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 2024 blanks are discussed below.

GEL Laboratories, LLC

A total of 46 analytes were analyzed by GEL in various media. The media analyzed included: air filters, quarterly air filter composites, atmospheric moisture, precipitation, and milk.

8.2.2 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 2024 duplicate/replicate samples are discussed below.

GEL Laboratories, LLC

A total of 142 analytes were analyzed by GEL Laboratories in various media. The media analyzed included: air filters, quarterly air filter composites, and milk samples.

8.2.3 Performance Evaluation 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 participates in the Mixed Analyte Performance Evaluation Program (MAPEP) conducted by the DOE Radiological and Environmental Sciences Laboratory. MAPEP provides quality assurance oversight for environmental analytical services through a performance-based PE program that tests the ability of the laboratories to correctly analyze for radiological, stable organic and inorganic constituents representative of those at DOE sites. These results are then compared with the INL contractor's internal PE results.

GEL Laboratories, LLC

A total of 12 PE analytes for an air filter composite were analyzed by GEL for alpha, beta, and gamma emitters. All the alpha PE analytes received an agreement evaluation.

A nonagreement evaluation was identified for beta and gamma PE analytes, specifically ^{90}Sr and ^{137}Cs, marking the first occurrence for both. The INL contractor contacted the laboratory and requested a review of the nonagreements. The laboratory found no anomalies or sources of bias for the ^{90}Sr nonagreement, therefore no changes to the process were implemented. Following a review of a nonagreement for ^{65}Zn in a fourth quarter 2023 PE composite sample, the analytical laboratory recommended digesting composite samples before counting. The INL contractor worked with the laboratory and the first quarter 2024 composite samples were analyzed using a direct counting method and a digested sample method. The results from the direct counting method were submitted for PE evaluation, however, the laboratory review noted that the ^{137}Cs result for the digested sample would have met the agreement criteria. As a result, future composite samples will be analyzed using the digested sample method for gamma spectroscopy analysis.

8.3 Invalid Samples

Eight samples were deemed invalid due to not meeting the minimum air volume requirement of 5,760 ft^3 at Arco, Terreton, Radioactive Waste Management Complex (RWMC), and Van Buren (Appendix B, Tables B-1 and B-2).

All air samplers ran for two weeks mid-January due to the sampling location not being accessible because of snow (Appendix B, Tables B-1 and B-2).

Two air samples were deemed invalid because of mechanical issues experienced at the Rest Area (Appendix B, Tables B-1 and B-2).

Two air samples were deemed invalid due to a power outage at Dubois (Appendix B, Tables B-1 and B-2).

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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; 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; 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; 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 (NOAA); Idaho Falls (IRC); 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	ATR; CFA; CITRC; EBR-I; Gun Range; Main Gate; MFC; TAN CTF
^{129}I, ^{90}Sr	semi-annually	None	None	CFA
Effluent				
Gross Alpha, Gross Beta, Tritium, Gamma Spec	monthly	None	None	ATR
Gross Alpha, Gross Beta, Tritium, Gamma Spec	tri-annually	None	None	MFC
^{90}Sr, Transuranics	annually	None	None	MFC
Groundwater				
Gross Alpha, Gross Beta, Tritium, Gamma Spec, ^{90}Sr	semi-annually	None	None	ATR
Gross Alpha, Gross Beta, Tritium, Gamma Spec, Transuranics	semi-annually	None	None	MFC
Gross Alpha, Gross Beta, Tritium, ^{14}C, ^{129}I, ^{99}Tc	annually	None	None	RHLLW

Table A-1. continued.

SAMPLE TYPE ANALYSIS	COLLECTION FREQUENCY	LOCATIONS		
		OFFSITE	BOUNDARY	ONSITE
		Surface Water		
Gross Alpha, Gross Beta, Tritium	semi-annually	Buhl; Hagerman; Twin Falls	None	Big Lost River (when flowing)
		External Radiation Sampling		
		OSLDs		
Gamma Radiation	semi-annual	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 Location	ATR Complex; Auxiliary Reactor Area; 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 Facility; Van Buren
		Neutron		
Neutron Radiation	semi-annual	Idaho Falls	None	MFC; RHLLW
		Soil Sampling		
Gamma Spec, ^{90}Sr, Transuranics	every five years	Blackfoot; Carey; St. Anthony	Atomic City; Birch Creek; Butte City; FAA Tower; Frenchmans Cabin; Howe; Monteview; Mud Lake (2)	EFS; Hwy 26 Rest Area; RWMC
		Agricultural Product Sampling		
		Milk		
Gamma Spec (^{131}I)	weekly	Rigby	Terreton	None

Table A-1. continued.

SAMPLE TYPE ANALYSIS	COLLECTION FREQUENCY	LOCATIONS		
		OFFSITE	BOUNDARY	ONSITE
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
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; Swan Valley	None	INL Site wastewater disposal ponds

Appendix B
Sample Analysis Results

Table B-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		01/03/24	3.25 ± 0.42	12.03 ± 1.55	Yes	48.50 ± 1.13	179.45 ± 4.18	Yes
	a	01/10/24						
		01/16/24	2.25 ± 0.35	8.33 ± 1.29	Yes	26.40 ± 0.83	97.68 ± 3.09	Yes
		01/24/24	1.69 ± 0.37	6.25 ± 1.35	Yes	33.50 ± 1.23	123.95 ± 4.55	Yes
		01/31/24	1.38 ± 0.38	5.11 ± 1.39	Yes	22.00 ± 1.04	81.40 ± 3.85	Yes
		02/07/24	0.69 ± 0.26	2.54 ± 0.94	No	16.00 ± 0.92	59.20 ± 3.39	Yes
		02/14/24	0.54 ± 0.22	2.00 ± 0.81	No	23.30 ± 1.07	86.21 ± 3.96	Yes
		02/21/24	0.56 ± 0.27	2.07 ± 0.99	No	17.80 ± 0.95	65.86 ± 3.50	Yes
		02/28/24	0.48 ± 0.28	1.78 ± 1.04	No	15.00 ± 0.89	55.50 ± 3.30	Yes
	b	03/06/24						
		03/13/24	0.63 ± 0.26	2.35 ± 0.97	No	1.13 ± 0.38	4.18 ± 1.40	No
		03/20/24	0.63 ± 0.27	2.32 ± 1.00	No	15.70 ± 0.93	58.09 ± 3.44	Yes
		03/27/24	1.10 0.35	4.07 ± 1.28	Yes	276.00 ± 3.78	1021.20 ± 13.99	Yes
ATOMIC CITY		01/03/24	2.79 ± 0.38	10.32 ± 1.42	Yes	45.80 ± 1.09	169.46 ± 4.03	Yes
	a	01/10/24						
		01/16/24	2.44 ± 0.37	9.03 ± 1.36	Yes	23.50 ± 0.80	86.95 ± 2.96	Yes
		01/24/24	0.91 ± 0.30	3.37 ± 1.10	Yes	24.00 ± 1.06	88.80 ± 3.92	Yes
		01/31/24	0.74 ± 0.31	2.72 ± 1.15	No	18.80 ± 0.99	69.56 ± 3.67	Yes
		02/07/24	0.43 ± 0.23	1.59 ± 0.85	No	15.10 ± 0.87	55.87 ± 3.23	Yes
		02/14/24	0.52 ± 0.25	1.93 ± 0.91	No	23.50 ± 1.07	86.95 ± 3.96	Yes
		02/21/24	0.36 ± 0.22	1.34 ± 0.82	No	15.20 ± 0.86	56.24 ± 3.18	Yes
		02/28/24	0.92 ± 0.35	3.39 ± 1.30	No	17.20 ± 0.95	63.64 ± 3.50	Yes
		03/06/24	0.29 ± 0.28	1.08 ± 1.03	No	12.10 ± 1.35	44.77 ± 5.00	Yes
		03/13/24	0.22 ± 0.14	0.81 ± 0.52	No	0.23 ± 0.29	0.87 ± 1.05	No
		03/20/24	0.84 ± 0.45	3.11 ± 1.68	No	12.10 ± 1.24	44.77 ± 4.59	Yes
		03/27/24	1.60 ± 0.38	5.92 ± 1.41	Yes	31.00 ± 1.30	114.70 ± 4.81	Yes
BLUE DOME		01/03/24	1.65 ± 0.27	6.11 ± 0.99	Yes	43.70 ± 1.05	161.69 ± 3.89	Yes
	a	01/10/24						
		01/16/24	0.97 ± 0.21	3.57 ± 0.79	Yes	23.70 ± 0.81	87.69 ± 3.00	Yes
		01/24/24	1.04 ± 0.32	3.85 ± 1.19	Yes	24.00 ± 1.05	88.80 ± 3.89	Yes
		01/31/24	0.47 ± 0.24	1.73 ± 0.90	No	17.40 ± 0.96	64.38 ± 3.56	Yes
		02/07/24	0.65 ± 0.28	2.42 ± 1.03	No	15.40 ± 0.91	56.98 ± 3.36	Yes
		02/14/24	0.87 ± 0.31	3.21 ± 1.16	No	17.20 ± 0.93	63.64 ± 3.44	Yes
		02/21/24	0.42 ± 0.21	1.54 ± 0.78	No	19.10 ± 0.98	70.67 ± 3.63	Yes
		02/28/24	0.89 ± 0.31	3.30 ± 1.16	No	18.20 ± 0.99	67.34 ± 3.66	Yes
		03/06/24	0.38 ± 0.23	1.41 ± 0.84	No	6.85 ± 0.65	25.35 ± 2.39	Yes
		03/13/24	0.22 ± 0.16	0.82 ± 0.58	No	0.93 ± 0.34	3.43 ± 1.25	No
		03/20/24	0.38 ± 0.18	1.41 ± 0.68	No	17.10 ± 0.95	63.27 ± 3.51	Yes
		03/27/24	1.91 ± 0.45	7.07 ± 1.66	Yes	95.70 ± 2.20	354.09 ± 8.14	Yes
HOWE		01/03/24	2.14 ± 0.33	7.92 ± 1.21	Yes	43.00 ± 1.02	159.10 ± 3.77	Yes
	a	01/10/24						
		01/16/24	2.64 ± 0.37	9.77 ± 1.38	Yes	28.00 ± 0.85	103.60 ± 3.16	Yes
		01/24/24	1.91 ± 0.42	7.07 ± 1.54	Yes	32.20 ± 1.22	119.14 ± 4.51	Yes
		01/31/24	0.86 ± 0.34	3.19 ± 1.25	No	22.40 ± 1.10	82.88 ± 4.07	Yes
		02/07/24	0.80 ± 0.30	2.94 ± 1.09	No	16.40 ± 0.92	60.68 ± 3.40	Yes
		02/14/24	0.69 ± 0.27	2.53 ± 1.00	No	19.20 ± 0.96	71.04 ± 3.56	Yes
		02/21/24	0.65 ± 0.28	2.42 ± 1.04	No	21.60 ± 1.03	79.92 ± 3.81	Yes
		02/28/24	0.15 ± 0.23	0.54 ± 0.85	No	17.70 ± 0.98	65.49 ± 3.61	Yes
		03/06/24	0.55 ± 0.23	2.02 ± 0.84	No	7.01 ± 0.61	25.94 ± 2.27	Yes
		03/13/24	0.21 ± 0.14	0.79 ± 0.51	No	0.98 ± 0.34	3.61 ± 1.24	No
		03/20/24	0.65 ± 0.26	2.39 ± 0.95	No	14.70 ± 0.85	54.39 ± 3.14	Yes
		03/27/24	0.74 ± 0.26	2.73 ± 0.94	No	80.80 ± 2.00	298.96 ± 7.40	Yes
HOWE (duplicate)		01/03/24	2.62 ± 0.33	9.69 ± 1.22	Yes	41.80 ± 1.02	154.66 ± 3.77	Yes
	a	01/10/24						
		01/16/24	2.57 ± 0.38	9.51 ± 1.40	Yes	27.50 ± 0.87	101.75 ± 3.21	Yes
		01/24/24	1.99 ± 0.42	7.36 ± 1.57	Yes	34.70 ± 1.26	128.39 ± 4.66	Yes
		01/31/24	0.76 ± 0.32	2.80 ± 1.19	No	20.00 ± 1.04	74.00 ± 3.85	Yes
		02/07/24	0.92 ± 0.32	3.40 ± 1.18	No	17.20 ± 0.94	63.64 ± 3.48	Yes
		02/14/24	0.57 ± 0.26	2.11 ± 0.97	No	21.00 ± 1.01	77.70 ± 3.74	Yes
		02/21/24	0.64 ± 0.27	2.35 ± 1.01	No	20.10 ± 0.98	74.37 ± 3.63	Yes
		02/28/24	0.89 ± 0.37	3.28 ± 1.35	No	16.50 ± 0.97	61.05 ± 3.59	Yes
		03/06/24	0.48 ± 0.25	1.77 ± 0.91	No	9.30 ± 0.73	34.41 ± 2.71	Yes
		03/13/24	2.00 ± 0.46	7.40 ± 1.69	Yes	26.70 ± 1.18	98.79 ± 4.37	Yes
		03/20/24	1.27 ± 0.36	4.70 ± 1.34	Yes	15.50 ± 0.90	57.35 ± 3.33	Yes
		03/27/24	2.80 ± 0.49	10.36 ± 1.81	Yes	22.90 ± 1.11	84.73 ± 4.11	Yes
MONTEVIEW		01/03/24	3.77 ± 0.44	13.95 ± 1.64	Yes	47.60 ± 1.10	176.12 ± 4.07	Yes
	a	01/10/24						
		01/16/24	1.66 ± 0.29	6.14 ± 1.09	Yes	20.70 ± 0.72	76.59 ± 2.67	Yes
		01/24/24	1.97 ± 0.39	7.29 ± 1.45	Yes	29.70 ± 1.16	109.89 ± 4.29	Yes
		01/31/24	0.97 ± 0.33	3.58 ± 1.22	No	18.00 ± 0.98	66.60 ± 3.63	Yes
		02/07/24	0.88 ± 0.29	3.24 ± 1.07	Yes	17.70 ± 0.98	65.49 ± 3.61	Yes
		02/14/24	0.21 ± 0.14	0.77 ± 0.52	No	17.00 ± 0.87	62.90 ± 3.22	Yes
		02/21/24	1.42 ± 0.38	5.25 ± 1.41	Yes	20.60 ± 0.99	76.22 ± 3.64	Yes
		02/28/24	0.39 ± 0.27	1.43 ± 0.99	No	16.80 ± 0.95	62.16 ± 3.50	Yes
		03/06/24	0.62 ± 0.23	2.29 ± 0.87	No	8.78 ± 0.71	32.49 ± 2.64	Yes
		03/13/24	0.41 ± 0.22	1.52 ± 0.81	No	1.56 ± 0.40	5.77 ± 1.47	Yes
		03/20/24	1.11 ± 0.34	4.11 ± 1.27	Yes	17.10 ± 0.95	63.27 ± 3.52	Yes
		03/27/24	1.10 ± 0.33	4.07 ± 1.21	Yes	43.50 ± 1.47	160.95 ± 5.44	Yes
TERRETON		01/03/24	3.14 ± 0.38	11.62 ± 1.42	Yes	53.20 ± 1.15	196.84 ± 4.26	Yes
	a	01/10/24						
		01/16/24	1.43 ± 0.28	5.29 ± 1.02	Yes	30.30 ± 0.91	112.11 ± 3.35	Yes
		01/24/24	1.96 ± 0.44	7.25 ± 1.62	Yes	32.30 ± 1.21	119.51 ± 4.48	Yes

Table B-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
		01/31/24	0.53 ± 0.24	1.97 ± 0.90	No	19.80 ± 1.05	73.26 ± 3.89	Yes
		02/07/24	1.16 ± 0.37	4.29 ± 1.35	Yes	17.40 ± 0.95	64.38 ± 3.52	Yes
		02/14/24	0.50 ± 0.25	1.84 ± 0.93	No	19.10 ± 0.98	70.67 ± 3.62	Yes
		02/21/24	1.41 ± 0.36	5.22 ± 1.34	Yes	20.40 ± 1.00	75.48 ± 3.68	Yes
		02/28/24	0.32 ± 0.25	1.20 ± 0.91	No	19.10 ± 1.00	70.67 ± 3.70	Yes
		03/06/24	0.49 ± 0.25	1.82 ± 0.92	No	7.66 ± 0.68	28.34 ± 2.50	Yes
	b	03/13/24						
		03/20/24	1.19 ± 0.67	4.40 ± 2.46	No	32.40 ± 2.56	119.88 ± 9.47	Yes
		03/27/24	1.96 ± 0.47	7.25 ± 1.73	Yes	27.80 ± 1.23	102.86 ± 4.55	Yes
OFFSITE								
BLACKFOOT		01/03/24	3.35 ± 0.43	12.40 ± 1.60	Yes	46.50 ± 1.13	172.05 ± 4.18	Yes
	a	01/10/24						
		01/16/24	1.87 ± 0.32	6.92 ± 1.18	Yes	17.40 ± 0.69	64.38 ± 2.53	Yes
		01/24/24	0.98 ± 0.31	3.63 ± 1.13	Yes	23.30 ± 1.03	86.21 ± 3.81	Yes
		01/31/24	0.82 ± 0.32	3.03 ± 1.19	No	17.20 ± 0.94	63.64 ± 3.49	Yes
		02/07/24	0.57 ± 0.27	2.11 ± 1.00	No	16.20 ± 0.94	59.94 ± 3.49	Yes
		02/14/24	0.83 ± 0.30	3.06 ± 1.12	No	20.20 ± 1.02	74.74 ± 3.77	Yes
		02/21/24	0.59 ± 0.28	2.18 ± 1.02	No	13.90 ± 0.86	51.43 ± 3.18	Yes
		02/28/24	0.24 ± 0.24	0.89 ± 0.89	No	13.80 ± 0.86	51.06 ± 3.17	Yes
		03/06/24	0.77 ± 0.28	2.85 ± 1.02	No	7.79 ± 0.67	28.82 ± 2.47	Yes
		03/13/24	1.28 ± 0.35	4.74 ± 1.30	Yes	22.00 ± 1.02	81.40 ± 3.77	Yes
		03/20/24	1.43 ± 0.39	5.29 ± 1.45	Yes	16.20 ± 0.94	59.94 ± 3.48	Yes
		03/27/24	1.23 ± 0.33	4.55 ± 1.22	Yes	17.50 ± 0.98	64.75 ± 3.64	Yes
CRATERS OF THE MOON		01/03/24	1.72 ± 0.27	6.36 ± 0.99	Yes	45.80 ± 1.06	169.46 ± 3.92	Yes
	a	01/10/24						
		01/16/24	1.46 ± 0.25	5.40 ± 0.93	Yes	26.30 ± 0.83	97.31 ± 3.06	Yes
		01/24/24	0.57 ± 0.24	2.11 ± 0.89	No	15.20 ± 0.83	56.24 ± 3.07	Yes
		01/31/24	0.86 ± 0.30	3.20 ± 1.11	No	23.00 ± 1.06	85.10 ± 3.92	Yes
		02/07/24	1.07 ± 0.31	3.96 ± 1.13	Yes	15.60 ± 0.90	57.72 ± 3.32	Yes
		02/14/24	0.95 ± 0.32	3.50 ± 1.19	No	19.10 ± 0.97	70.67 ± 3.58	Yes
		02/21/24	0.25 ± 0.17	0.92 ± 0.64	No	15.80 ± 0.88	58.46 ± 3.26	Yes
		02/28/24	0.46 ± 0.24	1.69 ± 0.90	No	14.20 ± 0.86	52.54 ± 3.19	Yes
		03/06/24	0.18 ± 0.18	0.67 ± 0.65	No	5.30 ± 0.58	19.61 ± 2.16	Yes
		03/13/24	0.12 ± 0.14	0.43 ± 0.51	No	0.24 ± 0.31	0.89 ± 1.13	No
		03/20/24	0.77 ± 0.25	2.86 ± 0.94	Yes	15.20 ± 0.89	56.24 ± 3.28	Yes
		03/27/24	1.29 ± 0.36	4.77 ± 1.34	Yes	19.90 ± 1.00	73.63 ± 3.70	Yes
DUBOIS		01/03/24	2.66 ± 0.38	9.84 ± 1.39	Yes	42.60 ± 1.06	157.62 ± 3.92	Yes
	a	01/10/24						
		01/16/24	2.55 ± 0.38	9.44 ± 1.42	Yes	26.50 ± 0.87	98.05 ± 3.21	Yes
		01/24/24	0.91 ± 0.30	3.35 ± 1.10	Yes	24.40 ± 1.06	90.28 ± 3.92	Yes
		01/31/24	0.65 ± 0.30	2.42 ± 1.12	No	17.20 ± 0.97	63.64 ± 3.57	Yes
		02/07/24	0.82 ± 0.31	3.04 ± 1.13	No	17.90 ± 0.97	66.23 ± 3.60	Yes
		02/14/24	0.87 ± 0.30	3.22 ± 1.11	No	21.10 ± 1.01	78.07 ± 3.74	Yes
		02/21/24	0.85 ± 0.31	3.13 ± 1.16	No	18.80 ± 0.97	69.56 ± 3.59	Yes
		02/28/24	-0.05 ± 0.18	-0.20 ± 0.67	No	16.80 ± 0.96	62.16 ± 3.54	Yes
		03/06/24	0.22 ± 0.16	0.82 ± 0.59	No	7.87 ± 0.67	29.12 ± 2.48	Yes
	c	03/13/24						
		03/20/24	1.84 ± 0.88	6.81 ± 3.24	No	24.50 ± 2.31	90.65 ± 8.55	Yes
		03/27/24	1.50 ± 0.37	5.55 ± 1.36	Yes	30.10 ± 1.28	111.37 ± 4.74	Yes
IDAHO FALLS		01/03/24	2.93 ± 0.40	10.84 ± 1.47	Yes	43.70 ± 1.07	161.69 ± 3.96	Yes
	a	01/10/24						
		01/16/24	2.41 ± 0.37	8.92 ± 1.37	Yes	21.30 ± 0.77	78.81 ± 2.85	Yes
		01/24/24	1.43 ± 0.33	5.29 ± 1.23	Yes	24.10 ± 1.04	89.17 ± 3.85	Yes
		01/31/24	0.65 ± 0.27	2.41 ± 1.01	No	17.20 ± 0.94	63.64 ± 3.49	Yes
		02/07/24	0.51 ± 0.27	1.88 ± 1.01	No	17.40 ± 0.97	64.38 ± 3.60	Yes
		02/14/24	1.00 ± 0.29	3.70 ± 1.07	Yes	20.10 ± 1.00	74.37 ± 3.69	Yes
		02/21/24	1.17 ± 0.35	4.33 ± 1.30	Yes	16.20 ± 0.89	59.94 ± 3.28	Yes
		02/28/24	0.75 ± 0.32	2.78 ± 1.18	No	12.50 ± 0.81	46.25 ± 2.98	Yes
		03/06/24	0.79 ± 0.26	2.91 ± 0.97	No	8.20 ± 0.69	30.34 ± 2.56	Yes
		03/13/24	0.15 ± 0.13	0.57 ± 0.47	No	0.48 ± 0.33	1.78 ± 1.24	No
		03/20/24	1.30 ± 0.37	4.81 ± 1.37	Yes	18.40 ± 0.98	68.08 ± 3.64	Yes
		03/27/24	1.78 ± 0.41	6.59 ± 1.53	Yes	20.70 ± 1.05	76.59 ± 3.89	Yes
IRC		01/03/24	2.56 ± 0.35	9.47 ± 1.28	Yes	47.60 ± 1.16	176.12 ± 4.29	Yes
	a	01/10/24						
		01/16/24	1.68 ± 0.30	6.22 ± 1.12	Yes	19.20 ± 0.72	71.04 ± 2.67	Yes
		01/24/24	1.19 ± 0.34	4.40 ± 1.25	Yes	23.50 ± 1.06	86.95 ± 3.92	Yes
		01/31/24	0.89 ± 0.35	3.27 ± 1.28	No	17.70 ± 1.00	65.49 ± 3.69	Yes
		02/07/24	1.05 ± 0.34	3.89 ± 1.27	Yes	17.90 ± 0.98	66.23 ± 3.61	Yes
		02/14/24	0.96 ± 0.33	3.55 ± 1.22	No	18.50 ± 1.01	68.45 ± 3.74	Yes
		02/21/24	0.20 ± 0.20	0.73 ± 0.73	No	16.60 ± 0.93	61.42 ± 3.45	Yes
		02/28/24	1.13 ± 0.38	4.18 ± 1.42	No	15.30 ± 0.91	56.61 ± 3.36	Yes
		03/06/24	0.54 ± 0.25	2.00 ± 0.91	No	9.55 ± 0.77	35.34 ± 2.83	Yes
		03/13/24	1.56 ± 0.39	5.77 ± 1.44	Yes	24.10 ± 1.07	89.17 ± 3.96	Yes
		03/20/24	0.92 ± 0.32	3.41 ± 1.18	No	16.60 ± 0.95	61.42 ± 3.51	Yes
		03/27/24	1.45 ± 0.37	5.37 ± 1.35	Yes	22.10 ± 1.12	81.77 ± 4.14	Yes
IRC NORTH		01/03/24	2.19 ± 0.36	8.10 ± 1.32	Yes	39.90 ± 1.17	147.63 ± 4.33	Yes
	a	01/10/24						
		01/16/24	2.20 ± 0.38	8.14 ± 1.39	Yes	17.50 ± 0.75	64.75 ± 2.77	Yes
		01/24/24	1.91 ± 0.47	7.07 ± 1.75	Yes	17.50 ± 1.05	64.75 ± 3.89	Yes
		01/31/24	0.56 ± 0.33	2.06 ± 1.21	No	20.90 ± 1.18	77.33 ± 4.37	Yes
		02/07/24	1.17 ± 0.38	4.33 ± 1.41	Yes	19.40 ± 1.07	71.78 ± 3.96	Yes
		02/14/24	1.71 ± 0.45	6.33 ± 1.67	Yes	18.40 ± 1.06	68.08 ± 3.92	Yes
		02/21/24	0.44 ± 0.27	1.62 ± 1.00	No	17.60 ± 1.02	65.12 ± 3.77	Yes

Table B-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
	02/28/24	1.14 ± 0.41	4.22 ± 1.51	No	11.50 ± 0.84	42.55 ± 3.12	**Yes**
	03/06/24	1.34 ± 0.43	4.96 ± 1.59	**Yes**	8.33 ± 0.80	30.82 ± 2.94	**Yes**
	03/13/24	1.31 ± 0.38	4.85 ± 1.39	**Yes**	22.80 ± 1.10	84.36 ± 4.07	**Yes**
	03/20/24	1.84 ± 0.44	6.81 ± 1.63	**Yes**	18.40 ± 1.00	68.08 ± 3.69	**Yes**
	03/27/24	1.52 ± 0.37	5.62 ± 1.38	**Yes**	20.90 ± 1.08	77.33 ± 4.00	**Yes**
JACKSON, WY	01/02/24	3.05 ± 0.41	11.29 ± 1.51	**Yes**	50.10 ± 1.27	185.37 ± 4.70	**Yes**
	01/09/24	1.75 ± 0.45	6.48 ± 1.68	**Yes**	38.70 ± 1.53	143.19 ± 5.66	**Yes**
	01/16/24	1.17 ± 0.33	4.33 ± 1.22	**Yes**	13.70 ± 0.88	50.69 ± 3.27	**Yes**
	01/23/24	0.99 ± 0.36	3.65 ± 1.32	No	19.00 ± 1.08	70.30 ± 4.00	**Yes**
	01/30/24	0.85 ± 0.31	3.15 ± 1.15	No	23.70 ± 1.12	87.69 ± 4.14	**Yes**
	02/06/24	0.68 ± 0.29	2.53 ± 1.09	No	23.10 ± 1.12	85.47 ± 4.14	**Yes**
	02/13/24	1.24 ± 0.38	4.59 ± 1.41	**Yes**	16.00 ± 0.94	59.20 ± 3.48	**Yes**
	02/20/24	0.70 ± 0.27	2.59 ± 1.00	No	18.50 ± 1.00	68.45 ± 3.70	**Yes**
	02/27/24	1.01 ± 0.34	3.74 ± 1.25	No	16.80 ± 0.97	62.16 ± 3.60	**Yes**
	03/05/24	0.32 ± 0.18	1.17 ± 0.68	No	0.74 ± 0.33	2.75 ± 1.22	No
	03/12/24	0.59 ± 0.26	2.16 ± 0.96	No	0.92 ± 0.37	3.39 ± 1.35	No
	03/19/24	0.46 ± 0.22	1.71 ± 0.82	No	10.90 ± 0.86	40.33 ± 3.19	**Yes**
	03/26/24	1.34 ± 0.39	4.96 ± 1.46	**Yes**	19.60 ± 1.06	72.52 ± 3.92	**Yes**
SUGAR CITY	01/03/24	1.82 ± 0.31	6.73 ± 1.15	**Yes**	32.70 ± 0.95	120.99 ± 3.52	**Yes**
a	01/10/24						
	01/16/24	1.82 ± 0.31	6.73 ± 1.15	**Yes**	23.90 ± 0.82	88.43 ± 3.02	**Yes**
	01/24/24	1.22 ± 0.38	4.51 ± 1.40	**Yes**	15.90 ± 0.92	58.83 ± 3.40	**Yes**
	01/31/24	0.69 ± 0.27	2.53 ± 0.98	No	21.30 ± 1.07	78.81 ± 3.96	**Yes**
	02/07/24	0.36 ± 0.22	1.33 ± 0.82	No	15.30 ± 0.90	56.61 ± 3.32	**Yes**
	02/14/24	0.79 ± 0.30	2.92 ± 1.12	No	17.30 ± 0.94	64.01 ± 3.49	**Yes**
	02/21/24	0.47 ± 0.23	1.74 ± 0.83	No	18.60 ± 0.95	68.82 ± 3.52	**Yes**
	02/28/24	0.88 ± 0.33	3.24 ± 1.24	No	15.80 ± 0.92	58.46 ± 3.39	**Yes**
	03/06/24	0.86 ± 0.33	3.19 ± 1.22	No	8.39 ± 0.74	31.04 ± 2.72	**Yes**
	03/13/24	1.54 ± 0.49	5.70 ± 1.82	**Yes**	19.50 ± 1.31	72.15 ± 4.85	**Yes**
	03/20/24	0.77 ± 0.31	2.83 ± 1.13	No	17.30 ± 1.15	64.01 ± 4.26	**Yes**
	03/27/24	1.53 ± 0.49	5.66 ± 1.80	**Yes**	19.20 ± 1.21	71.04 ± 4.48	**Yes**
SUGAR CITY (duplicate)	01/03/24	1.88 ± 0.33	6.96 ± 1.24	**Yes**	35.80 ± 1.01	132.46 ± 3.74	**Yes**
a	01/10/24						
	01/16/24	1.08 ± 0.24	4.00 ± 0.88	**Yes**	22.20 ± 0.83	82.14 ± 3.06	**Yes**
	01/24/24	1.33 ± 0.38	4.92 ± 1.39	**Yes**	21.00 ± 1.04	77.70 ± 3.85	**Yes**
	01/31/24	0.74 ± 0.29	2.75 ± 1.08	No	17.10 ± 0.96	63.27 ± 3.54	**Yes**
	02/07/24	1.07 ± 0.31	3.96 ± 1.14	**Yes**	15.20 ± 0.89	56.24 ± 3.29	**Yes**
	02/14/24	1.02 ± 0.30	3.77 ± 1.09	**Yes**	19.40 ± 0.99	71.78 ± 3.66	**Yes**
	02/21/24	0.88 ± 0.28	3.26 ± 1.05	**Yes**	17.70 ± 0.94	65.49 ± 3.49	**Yes**
	02/28/24	0.24 ± 0.22	0.87 ± 0.80	No	16.50 ± 0.96	61.05 ± 3.57	**Yes**
	03/06/24	0.28 ± 0.16	1.02 ± 0.59	No	8.13 ± 0.67	30.08 ± 2.49	**Yes**
	03/13/24	1.17 ± 0.32	4.33 ± 1.18	**Yes**	23.70 ± 1.13	87.69 ± 4.18	**Yes**
	03/20/24	1.16 ± 0.34	4.29 ± 1.24	**Yes**	16.40 ± 0.94	60.68 ± 3.46	**Yes**
	03/27/24	1.59 ± 0.42	5.88 ± 1.54	**Yes**	22.00 ± 1.09	81.40 ± 4.03	**Yes**
ONSITE							
ATR COMPLEX	01/03/24	2.79 ± 0.37	10.32 ± 1.37	**Yes**	48.50 ± 1.12	179.45 ± 4.14	**Yes**
a	01/10/24						
	01/16/24	2.72 ± 0.40	10.06 ± 1.49	**Yes**	27.50 ± 0.90	101.75 ± 3.31	**Yes**
	01/24/24	1.50 ± 0.36	5.55 ± 1.33	**Yes**	35.70 ± 1.32	132.09 ± 4.88	**Yes**
	01/31/24	1.15 ± 0.37	4.26 ± 1.38	**Yes**	22.10 ± 1.12	81.77 ± 4.14	**Yes**
	02/07/24	1.18 ± 0.39	4.37 ± 1.44	**Yes**	11.00 ± 0.82	40.70 ± 3.03	**Yes**
	02/14/24	1.12 ± 0.32	4.14 ± 1.20	**Yes**	21.90 ± 1.10	81.03 ± 4.07	**Yes**
	02/21/24	0.72 ± 0.31	2.65 ± 1.15	No	17.70 ± 0.99	65.49 ± 3.67	**Yes**
	02/28/24	1.05 ± 0.39	3.89 ± 1.43	No	19.20 ± 1.04	71.04 ± 3.85	**Yes**
	03/06/24	0.39 ± 0.20	1.46 ± 0.73	No	7.83 ± 0.70	28.97 ± 2.59	**Yes**
	03/13/24	1.65 ± 0.41	6.11 ± 1.53	**Yes**	22.40 ± 1.08	82.88 ± 4.00	**Yes**
	03/20/24	0.57 ± 0.25	2.11 ± 0.92	No	15.60 ± 0.88	57.72 ± 3.27	**Yes**
	03/27/24	1.45 ± 0.38	5.37 ± 1.41	**Yes**	16.90 ± 0.97	62.53 ± 3.57	**Yes**
CFA	01/03/24	2.99 ± 0.39	11.06 ± 1.43	**Yes**	48.80 ± 1.10	180.56 ± 4.07	**Yes**
a	01/10/24						
	01/16/24	2.53 ± 0.37	9.36 ± 1.38	**Yes**	27.50 ± 0.86	101.75 ± 3.19	**Yes**
	01/24/24	1.91 ± 0.41	7.07 ± 1.50	**Yes**	28.80 ± 1.13	106.56 ± 4.18	**Yes**
	01/31/24	0.67 ± 0.31	2.46 ± 1.14	No	22.70 ± 1.11	83.99 ± 4.11	**Yes**
	02/07/24	0.89 ± 0.33	3.27 ± 1.21	No	20.20 ± 1.05	74.74 ± 3.89	**Yes**
	02/14/24	0.71 ± 0.28	2.64 ± 1.04	No	23.50 ± 1.08	86.95 ± 4.00	**Yes**
	02/21/24	1.15 ± 0.36	4.26 ± 1.34	**Yes**	19.10 ± 0.99	70.67 ± 3.65	**Yes**
	02/28/24	0.56 ± 0.31	2.07 ± 1.15	No	16.90 ± 0.97	62.53 ± 3.59	**Yes**
	03/06/24	0.36 ± 0.21	1.34 ± 0.78	No	8.37 ± 0.75	30.97 ± 2.76	**Yes**
	03/13/24	0.30 ± 0.21	1.11 ± 0.79	No	0.81 ± 0.43	2.98 ± 1.57	No
	03/20/24	0.66 ± 0.32	2.45 ± 1.18	No	14.90 ± 1.04	55.13 ± 3.85	**Yes**
	03/27/24	0.99 ± 0.33	3.65 ± 1.24	No	23.90 ± 1.27	88.43 ± 4.70	**Yes**
EBR-I	01/03/24	2.85 ± 0.34	10.55 ± 1.26	**Yes**	52.60 ± 1.13	194.62 ± 4.18	**Yes**
a	01/10/24						
	01/16/24	2.22 ± 0.31	8.21 ± 1.15	**Yes**	27.40 ± 0.85	101.38 ± 3.13	**Yes**
	01/24/24	1.25 ± 0.34	4.63 ± 1.26	**Yes**	26.70 ± 1.08	98.79 ± 4.00	**Yes**
	01/31/24	0.98 ± 0.32	3.64 ± 1.19	**Yes**	23.00 ± 1.08	85.10 ± 4.00	**Yes**
	02/07/24	0.44 ± 0.21	1.61 ± 0.77	No	18.40 ± 0.97	68.08 ± 3.57	**Yes**
	02/14/24	1.03 ± 0.33	3.81 ± 1.24	**Yes**	24.80 ± 1.09	91.76 ± 4.03	**Yes**
	02/21/24	0.32 ± 0.18	1.17 ± 0.68	No	20.70 ± 0.99	76.59 ± 3.64	**Yes**
	02/28/24	0.54 ± 0.26	1.98 ± 0.94	No	18.70 ± 0.98	69.19 ± 3.62	**Yes**
	03/06/24	0.27 ± 0.19	0.99 ± 0.71	No	6.98 ± 0.63	25.83 ± 2.34	**Yes**
	03/13/24	0.02 ± 0.09	0.07 ± 0.35	No	1.08 ± 0.35	4.00 ± 1.29	**Yes**
	03/20/24	0.66 ± 0.24	2.43 ± 0.90	No	17.40 ± 0.98	64.38 ± 3.63	**Yes**

Table B-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
		03/27/24	1.78 ± 0.44	6.59 ± 1.61	Yes	20.10 ± 1.04	74.37 ± 3.85	Yes
EFS		01/03/24	3.20 ± 0.38	11.84 ± 1.39	Yes	53.60 ± 1.13	198.32 ± 4.18	Yes
	a	01/10/24						
		01/16/24	2.64 ± 0.38	9.77 ± 1.42	Yes	28.80 ± 0.88	106.56 ± 3.27	Yes
		01/24/24	1.39 ± 0.33	5.14 ± 1.23	Yes	32.10 ± 1.20	118.77 ± 4.44	Yes
		01/31/24	2.08 ± 0.47	7.70 ± 1.75	Yes	24.60 ± 1.14	91.02 ± 4.22	Yes
		02/07/24	0.40 ± 0.25	1.49 ± 0.93	No	10.00 ± 0.76	37.00 ± 2.81	Yes
		02/14/24	0.88 ± 0.28	3.25 ± 1.03	Yes	23.90 ± 1.10	88.43 ± 4.07	Yes
		02/21/24	0.19 ± 0.20	0.71 ± 0.74	No	16.80 ± 0.94	62.16 ± 3.48	Yes
		02/28/24	1.29 ± 0.40	4.77 ± 1.49	Yes	18.40 ± 0.99	68.08 ± 3.66	Yes
		03/06/24	0.58 ± 0.26	2.13 ± 0.96	No	6.94 ± 0.64	25.68 ± 2.36	Yes
		03/13/24	1.27 ± 0.35	4.70 ± 1.31	Yes	21.40 ± 1.03	79.18 ± 3.81	Yes
		03/20/24	1.00 ± 0.31	3.68 ± 1.15	Yes	16.40 ± 0.89	60.68 ± 3.28	Yes
		03/27/24	1.39 ± 0.37	5.14 ± 1.35	Yes	17.60 ± 0.96	65.12 ± 3.56	Yes
GATE 4		01/03/24	3.60 ± 0.44	13.32 ± 1.61	Yes	53.60 ± 1.18	198.32 ± 4.37	Yes
	a	01/10/24						
		01/16/24	2.88 ± 0.40	10.66 ± 1.48	Yes	30.60 ± 0.91	113.22 ± 3.38	Yes
		01/24/24	0.93 ± 0.29	3.44 ± 1.06	Yes	28.90 ± 1.18	106.93 ± 4.37	Yes
		01/31/24	0.83 ± 0.32	3.07 ± 1.20	No	20.50 ± 1.08	75.85 ± 4.00	Yes
		02/07/24	1.22 ± 0.38	4.51 ± 1.42	Yes	16.60 ± 0.95	61.42 ± 3.53	Yes
		02/14/24	0.83 ± 0.28	3.08 ± 1.02	Yes	21.20 ± 1.06	78.44 ± 3.92	Yes
		02/21/24	0.20 ± 0.21	0.72 ± 0.76	No	22.00 ± 1.08	81.40 ± 4.00	Yes
		02/28/24	0.93 ± 0.37	3.43 ± 1.35	No	21.20 ± 1.08	78.44 ± 4.00	Yes
		03/06/24	0.37 ± 0.18	1.35 ± 0.67	No	9.09 ± 0.72	33.63 ± 2.65	Yes
		03/13/24	0.14 ± 0.12	0.51 ± 0.43	No	0.78 ± 0.33	2.87 ± 1.22	No
		03/20/24	1.07 ± 0.33	3.96 ± 1.23	Yes	14.90 ± 0.88	55.13 ± 3.25	Yes
		03/27/24	0.78 ± 0.29	2.88 ± 1.06	No	142.00 ± 2.65	525.40 ± 9.81	Yes
HIGHWAY 26 REST AREA		01/03/24	3.26 ± 0.49	12.06 ± 1.82	Yes	46.00 ± 1.29	170.20 ± 4.77	Yes
	a	01/10/24						
		01/16/24	1.64 ± 0.29	6.07 ± 1.05	Yes	23.40 ± 0.83	86.58 ± 3.07	Yes
		01/24/24	1.53 ± 0.38	5.66 ± 1.40	Yes	28.40 ± 1.13	105.08 ± 4.18	Yes
		01/31/24	0.55 ± 0.26	2.04 ± 0.96	No	22.20 ± 1.07	82.14 ± 3.96	Yes
		02/07/24	0.53 ± 0.23	1.98 ± 0.85	No	14.30 ± 0.88	52.91 ± 3.25	Yes
		02/14/24	0.71 ± 0.30	2.61 ± 1.09	No	22.60 ± 1.08	83.62 ± 4.00	Yes
		02/21/24	0.81 ± 0.28	3.00 ± 1.02	No	19.50 ± 0.99	72.15 ± 3.66	Yes
		02/28/24	0.64 ± 0.28	2.38 ± 1.03	No	17.90 ± 0.98	66.23 ± 3.63	Yes
		03/06/24	0.20 ± 0.14	0.75 ± 0.53	No	7.28 ± 0.65	26.94 ± 2.42	Yes
		03/13/24	0.47 ± 0.20	1.74 ± 0.75	No	23.30 ± 1.11	86.21 ± 4.11	Yes
		03/20/24	0.69 ± 0.26	2.53 ± 0.95	No	16.70 ± 0.93	61.79 ± 3.44	Yes
		03/27/24	1.44 ± 0.39	5.33 ± 1.44	Yes	21.00 ± 1.05	77.70 ± 3.89	Yes
HIGHWAY 26 REST AREA (duplicate)		01/03/24	4.20 ± 0.55	15.54 ± 2.04	Yes	70.60 ± 1.59	261.22 ± 5.88	Yes
		01/10/24						
		01/16/24	2.68 ± 0.38	9.92 ± 1.41	Yes	31.40 ± 0.94	116.18 ± 3.49	Yes
		01/24/24	0.48 ± 0.25	1.76 ± 0.92	No	27.40 ± 1.11	101.38 ± 4.11	Yes
		01/31/24	0.71 ± 0.28	2.63 ± 1.02	No	24.30 ± 1.16	89.91 ± 4.29	Yes
		02/07/24	1.02 ± 0.34	3.77 ± 1.24	Yes	18.10 ± 0.99	66.97 ± 3.66	Yes
	d	02/14/24						
		02/21/24	0.14 ± 0.16	0.53 ± 0.60	No	20.20 ± 1.03	74.74 ± 3.81	Yes
		02/28/24	0.33 ± 0.25	1.22 ± 0.93	No	18.30 ± 0.99	67.71 ± 3.66	Yes
		03/06/24	0.13 ± 0.13	0.49 ± 0.50	No	7.69 ± 0.67	28.45 ± 2.48	Yes
		03/13/24	1.65 ± 0.39	6.11 ± 1.45	Yes	23.00 ± 1.08	85.10 ± 4.00	Yes
		03/20/24	0.88 ± 0.28	3.27 ± 1.02	Yes	17.00 ± 0.95	62.90 ± 3.53	Yes
		03/27/24	1.09 ± 0.35	4.03 ± 1.28	Yes	21.70 ± 1.07	80.29 ± 3.96	Yes
INTEC (NE CORNER)		01/03/24	2.67 ± 0.33	9.88 ± 1.21	Yes	56.10 ± 1.17	207.57 ± 4.33	Yes
	a	01/10/24						
		01/16/24	2.58 ± 0.34	9.55 ± 1.27	Yes	31.70 ± 0.93	117.29 ± 3.44	Yes
		01/24/24	1.65 ± 0.40	6.11 ± 1.47	Yes	34.70 ± 1.26	128.39 ± 4.66	Yes
		01/31/24	0.36 ± 0.22	1.32 ± 0.80	No	21.20 ± 1.03	78.44 ± 3.81	Yes
		02/07/24	0.30 ± 0.19	1.11 ± 0.70	No	21.20 ± 1.07	78.44 ± 3.96	Yes
		02/14/24	0.51 ± 0.26	1.87 ± 0.96	No	24.60 ± 1.12	91.02 ± 4.14	Yes
		02/21/24	0.84 ± 0.28	3.10 ± 1.05	No	20.90 ± 1.04	77.33 ± 3.85	Yes
		02/28/24	0.32 ± 0.23	1.17 ± 0.85	No	17.40 ± 0.98	64.38 ± 3.63	Yes
		03/06/24	0.40 ± 0.23	1.46 ± 0.87	No	7.71 ± 0.69	28.53 ± 2.56	Yes
		03/13/24	1.00 ± 0.30	3.70 ± 1.10	Yes	23.60 ± 1.13	87.32 ± 4.18	Yes
		03/20/24	0.93 ± 0.29	3.45 ± 1.08	Yes	15.40 ± 0.88	56.98 ± 3.27	Yes
		03/27/24	1.09 ± 0.37	4.03 ± 1.37	No	18.30 ± 1.07	67.71 ± 3.96	Yes
INTEC (WEST SIDE)		01/03/24	2.27 ± 0.34	8.40 ± 1.25	Yes	47.70 ± 1.07	176.49 ± 3.96	Yes
	a	01/10/24						
		01/16/24	2.18 ± 0.31	8.07 ± 1.16	Yes	29.20 ± 0.89	108.04 ± 3.29	Yes
		01/24/24	2.71 ± 0.49	10.03 ± 1.82	Yes	27.80 ± 1.11	102.86 ± 4.11	Yes
		01/31/24	0.73 ± 0.29	2.71 ± 1.07	No	22.60 ± 1.08	83.62 ± 4.00	Yes
		02/07/24	1.22 ± 0.34	4.51 ± 1.24	Yes	18.20 ± 1.00	67.34 ± 3.69	Yes
		02/14/24	1.26 ± 0.37	4.66 ± 1.38	Yes	22.00 ± 1.05	81.40 ± 3.89	Yes
		02/21/24	0.51 ± 0.23	1.89 ± 0.85	No	18.80 ± 0.99	69.56 ± 3.66	Yes
		02/28/24	0.31 ± 0.22	1.14 ± 0.83	No	19.50 ± 1.02	72.15 ± 3.77	Yes
		03/06/24	0.54 ± 0.28	2.00 ± 1.02	No	7.23 ± 0.71	26.75 ± 2.62	Yes
		03/13/24	1.17 ± 0.36	4.33 ± 1.35	Yes	26.20 ± 1.35	96.94 ± 5.00	Yes
		03/20/24	0.81 ± 0.30	2.99 ± 1.12	No	15.70 ± 0.99	58.09 ± 3.66	Yes
		03/27/24	2.06 ± 0.51	7.62 ± 1.87	Yes	23.10 ± 1.20	85.47 ± 4.44	Yes
MAIN GATE		01/03/24	2.28 ± 0.33	8.44 ± 1.22	Yes	51.70 ± 1.14	191.29 ± 4.22	Yes
	a	01/10/24						
		01/16/24	1.75 ± 0.30	6.48 ± 1.10	Yes	24.50 ± 0.80	90.65 ± 2.96	Yes
		01/24/24	1.29 ± 0.37	4.77 ± 1.36	Yes	28.60 ± 1.15	105.82 ± 4.26	Yes

Table B-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
		01/31/24	1.19 ± 0.34	4.40 ± 1.24	Yes	22.70 ± 1.10	83.99 ± 4.07	Yes
		02/07/24	0.71 ± 0.31	2.63 ± 1.14	No	19.10 ± 1.02	70.67 ± 3.77	Yes
		02/14/24	0.98 ± 0.33	3.62 ± 1.22	No	23.80 ± 1.09	88.06 ± 4.03	Yes
		02/21/24	0.84 ± 0.29	3.10 ± 1.08	No	18.10 ± 0.96	66.97 ± 3.53	Yes
		02/28/24	1.23 ± 0.38	4.55 ± 1.40	Yes	18.70 ± 0.99	69.19 ± 3.66	Yes
		03/06/24	0.40 ± 0.24	1.49 ± 0.88	No	6.80 ± 0.67	25.16 ± 2.46	Yes
		03/13/24	0.22 ± 0.18	0.83 ± 0.65	No	1.03 ± 0.38	3.81 ± 1.39	No
		03/20/24	0.49 ± 0.22	1.81 ± 0.80	No	18.00 ± 0.95	66.60 ± 3.52	Yes
		03/27/24	1.18 ± 0.37	4.37 ± 1.38	Yes	93.30 ± 2.21	345.21 ± 8.18	Yes
MFC NORTH		01/03/24	2.73 ± 0.37	10.10 ± 1.35	Yes	42.30 ± 1.01	156.51 ± 3.74	Yes
	a	01/10/24						
		01/16/24	2.19 ± 0.33	8.10 ± 1.22	Yes	22.80 ± 0.77	84.36 ± 2.86	Yes
		01/24/24	1.23 ± 0.35	4.55 ± 1.30	Yes	23.90 ± 1.03	88.43 ± 3.81	Yes
		01/31/24	0.50 ± 0.23	1.85 ± 0.85	No	18.30 ± 0.98	67.71 ± 3.61	Yes
		02/07/24	0.74 ± 0.30	2.75 ± 1.09	No	18.50 ± 1.00	68.45 ± 3.69	Yes
		02/14/24	0.87 ± 0.31	3.23 ± 1.15	No	18.20 ± 0.96	67.34 ± 3.54	Yes
		02/21/24	0.83 ± 0.29	3.08 ± 1.07	No	8.35 ± 0.67	30.90 ± 2.49	Yes
		02/28/24	0.58 ± 0.28	2.14 ± 1.05	No	18.10 ± 0.96	66.97 ± 3.54	Yes
		03/06/24	0.58 ± 0.24	2.15 ± 0.89	No	6.92 ± 0.63	25.60 ± 2.34	Yes
		03/13/24	1.24 ± 0.34	4.59 ± 1.24	Yes	20.60 ± 1.00	76.22 ± 3.70	Yes
		03/20/24	0.66 ± 0.23	2.43 ± 0.84	No	16.90 ± 0.91	62.53 ± 3.36	Yes
		03/27/24	1.57 ± 0.41	5.81 ± 1.51	Yes	21.40 ± 1.05	79.18 ± 3.89	Yes
MFC SOUTH		01/03/24	1.89 ± 0.30	6.99 ± 1.12	Yes	43.40 ± 1.05	160.58 ± 3.89	Yes
	a	01/10/24						
		01/16/24	1.85 ± 0.31	6.85 ± 1.14	Yes	20.70 ± 0.75	76.59 ± 2.77	Yes
		01/24/24	1.02 ± 0.33	3.77 ± 1.24	Yes	28.40 ± 1.15	105.08 ± 4.26	Yes
		01/31/24	0.43 ± 0.22	1.61 ± 0.82	No	20.70 ± 1.05	76.59 ± 3.89	Yes
		02/07/24	1.21 ± 0.36	4.48 ± 1.34	Yes	18.50 ± 1.00	68.45 ± 3.69	Yes
		02/14/24	0.81 ± 0.31	2.99 ± 1.14	No	17.70 ± 0.96	65.49 ± 3.56	Yes
		02/21/24	0.94 ± 0.31	3.47 ± 1.14	Yes	16.40 ± 0.92	60.68 ± 3.40	Yes
		02/28/24	0.14 ± 0.21	0.53 ± 0.78	No	17.80 ± 0.97	65.86 ± 3.60	Yes
		03/06/24	0.64 ± 0.29	2.37 ± 1.07	No	7.94 ± 0.72	29.38 ± 2.65	Yes
		03/13/24	0.14 ± 0.13	0.52 ± 0.49	No	0.20 ± 0.27	0.72 ± 1.01	No
		03/20/24	0.67 ± 0.24	2.48 ± 0.87	No	16.70 ± 0.86	61.79 ± 3.19	Yes
		03/27/24	1.94 ± 0.45	3.89 ± 1.27	Yes	23.10 ± 1.09	85.47 ± 4.03	Yes
NRF		01/03/24	2.93 ± 0.35	10.84 ± 1.28	Yes	51.70 ± 1.13	191.29 ± 4.18	Yes
	a	01/10/24						
		01/16/24	2.84 ± 0.39	10.51 ± 1.45	Yes	29.50 ± 0.89	109.15 ± 3.29	Yes
		01/24/24	1.58 ± 0.37	5.85 ± 1.37	Yes	34.10 ± 1.22	126.17 ± 4.51	Yes
		01/31/24	1.16 ± 0.38	4.29 ± 1.41	Yes	22.10 ± 1.09	81.77 ± 4.03	Yes
		02/07/24	1.07 ± 0.35	3.96 ± 1.30	Yes	18.70 ± 1.01	69.19 ± 3.74	Yes
		02/14/24	0.72 ± 0.28	2.65 ± 1.04	No	22.10 ± 1.05	81.77 ± 3.89	Yes
		02/21/24	0.69 ± 0.30	2.55 ± 1.10	No	18.80 ± 0.99	69.56 ± 3.67	Yes
		02/28/24	0.55 ± 0.31	2.04 ± 1.14	No	18.30 ± 1.00	67.71 ± 3.69	Yes
		03/06/24	0.50 ± 0.26	1.86 ± 0.95	No	8.51 ± 0.72	31.49 ± 2.68	Yes
		03/13/24	0.85 ± 0.32	3.15 ± 1.18	No	25.30 ± 1.18	93.61 ± 4.37	Yes
		03/20/24	1.14 ± 0.35	4.22 ± 1.31	Yes	14.90 ± 0.91	55.13 ± 3.36	Yes
		03/27/24	0.88 ± 0.28	3.24 ± 1.04	Yes	13.90 ± 0.88	51.43 ± 3.26	Yes
PBF		01/03/24	2.72 ± 0.34	10.06 ± 1.26	Yes	50.00 ± 1.13	185.00 ± 4.18	Yes
	a	01/10/24						
		01/16/24	2.23 ± 0.32	8.25 ± 1.19	Yes	28.00 ± 0.88	103.60 ± 3.27	Yes
		01/24/24	1.99 ± 0.43	7.36 ± 1.59	Yes	27.20 ± 1.11	100.64 ± 4.11	Yes
		01/31/24	1.10 ± 0.34	4.07 ± 1.27	Yes	21.20 ± 1.05	78.44 ± 3.89	Yes
		02/07/24	0.77 ± 0.30	2.85 ± 1.12	No	17.00 ± 0.96	62.90 ± 3.56	Yes
		02/14/24	0.40 ± 0.24	1.49 ± 0.87	No	21.90 ± 1.05	81.03 ± 3.89	Yes
		02/21/24	0.65 ± 0.25	2.42 ± 0.93	No	18.20 ± 0.96	67.34 ± 3.56	Yes
		02/28/24	0.23 ± 0.21	0.85 ± 0.78	No	17.90 ± 0.99	66.23 ± 3.65	Yes
		03/06/24	0.51 ± 0.26	1.88 ± 0.95	No	6.64 ± 0.65	24.57 ± 2.40	Yes
		03/13/24	0.58 ± 0.26	2.14 ± 0.95	No	1.47 ± 0.40	5.44 ± 1.48	Yes
		03/20/24	0.60 ± 0.22	2.23 ± 0.83	No	14.90 ± 0.87	55.13 ± 3.23	Yes
		03/27/24	1.37 ± 0.39	5.07 ± 1.44	Yes	48.10 ± 1.59	177.97 ± 5.88	Yes
RHLLW		01/03/24	3.50 ± 0.42	12.95 ± 1.55	Yes	51.90 ± 1.14	192.03 ± 4.22	Yes
	a	01/10/24						
		01/16/24	2.27 ± 0.32	8.40 ± 1.18	Yes	29.90 ± 0.90	110.63 ± 3.33	Yes
		01/24/24	1.75 ± 0.40	6.48 ± 1.47	Yes	32.70 ± 1.19	120.99 ± 4.40	Yes
		01/31/24	0.01 ± 0.13	0.02 ± 0.48	No	24.00 ± 1.10	88.80 ± 4.07	Yes
		02/07/24	0.46 ± 0.22	1.71 ± 0.82	No	17.60 ± 0.98	65.12 ± 3.61	Yes
		02/14/24	0.88 ± 0.32	3.25 ± 1.18	No	22.60 ± 1.07	83.62 ± 3.96	Yes
		02/21/24	0.58 ± 0.24	2.14 ± 0.89	No	20.30 ± 1.02	75.11 ± 3.77	Yes
		02/28/24	0.81 ± 0.30	2.99 ± 1.12	No	18.20 ± 0.99	67.34 ± 3.66	Yes
		03/06/24	0.41 ± 0.24	1.51 ± 0.87	No	8.60 ± 0.87	31.82 ± 3.20	Yes
		03/13/24	1.33 ± 0.34	4.92 ± 1.26	Yes	25.40 ± 1.17	93.98 ± 4.33	Yes
		03/20/24	0.75 ± 0.26	2.76 ± 0.97	No	17.10 ± 0.92	63.27 ± 3.42	Yes
		03/27/24	1.34 ± 0.38	4.96 ± 1.39	Yes	20.20 ± 1.03	74.74 ± 3.81	Yes
RHLLW (duplicate)		01/03/24	3.63 ± 0.41	13.43 ± 1.50	Yes	51.80 ± 1.12	191.66 ± 4.14	Yes
	a	01/10/24						
		01/16/24	2.41 ± 0.37	8.92 ± 1.35	Yes	28.60 ± 0.88	105.82 ± 3.24	Yes
		01/24/24	1.30 ± 0.32	4.81 ± 1.19	Yes	32.50 ± 1.20	120.25 ± 4.44	Yes
		01/31/24	0.94 ± 0.32	3.49 ± 1.20	No	23.80 ± 1.10	88.06 ± 4.07	Yes
		02/07/24	1.18 ± 0.37	4.37 ± 1.37	Yes	17.70 ± 0.97	65.49 ± 3.58	Yes
		02/14/24	0.69 ± 0.29	2.55 ± 1.06	No	24.30 ± 1.10	89.91 ± 4.07	Yes
		02/21/24	0.56 ± 0.27	2.07 ± 0.99	No	17.80 ± 0.95	65.86 ± 3.50	Yes
		02/28/24	0.68 ± 0.32	2.52 ± 1.17	No	18.60 ± 0.99	68.82 ± 3.66	Yes

Table B-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
		03/06/24	0.59 ± 0.27	2.18 ± 0.98	No	6.52 ± 0.63	24.12 ± 2.33	**Yes**
		03/13/24	0.45 ± 0.23	1.65 ± 0.83	No	23.40 ± 1.11	86.58 ± 4.11	**Yes**
		03/20/24	2.00 ± 0.45	7.40 ± 1.65	**Yes**	17.90 ± 0.95	66.23 ± 3.53	**Yes**
		03/27/24	1.69 ± 0.40	6.25 ± 1.49	**Yes**	20.00 ± 1.03	74.00 ± 3.81	**Yes**
RWMC		01/03/24	3.38 ± 0.40	12.51 ± 1.49	**Yes**	55.80 ± 1.19	206.46 ± 4.40	**Yes**
	a	01/10/24						
		01/16/24	2.64 ± 0.38	9.77 ± 1.40	**Yes**	27.40 ± 0.85	101.38 ± 3.16	**Yes**
		01/24/24	0.60 ± 0.23	2.22 ± 0.87	No	32.00 ± 1.21	118.40 ± 4.48	**Yes**
		01/31/24	0.79 ± 0.31	2.93 ± 1.14	No	21.50 ± 1.08	79.55 ± 4.00	**Yes**
		02/07/24	0.79 ± 0.31	2.90 ± 1.16	No	18.60 ± 0.99	68.82 ± 3.65	**Yes**
		02/14/24	0.64 ± 0.24	2.35 ± 0.89	No	23.30 ± 1.09	86.21 ± 4.03	**Yes**
		02/21/24	0.56 ± 0.27	2.07 ± 0.99	No	17.50 ± 0.94	64.75 ± 3.47	**Yes**
		02/28/24	0.58 ± 0.30	2.14 ± 1.11	No	19.20 ± 1.00	71.04 ± 3.70	**Yes**
	b	03/06/24						
		03/13/24	0.85 ± 0.30	3.14 ± 1.12	No	21.70 ± 1.07	80.29 ± 3.96	**Yes**
		03/20/24	1.04 ± 0.34	3.85 ± 1.27	**Yes**	16.30 ± 0.95	60.31 ± 3.53	**Yes**
		03/27/24	1.83 ± 0.42	6.77 ± 1.57	**Yes**	21.10 ± 1.07	78.07 ± 3.96	**Yes**
RWMC SOUTH		01/03/24	2.83 ± 0.37	10.47 ± 1.37	**Yes**	54.10 ± 1.14	200.17 ± 4.22	**Yes**
	a	01/10/24						
		01/16/24	1.80 ± 0.30	6.66 ± 1.10	**Yes**	27.80 ± 0.84	102.86 ± 3.11	**Yes**
		01/24/24	1.73 ± 0.41	6.40 ± 1.50	**Yes**	27.50 ± 1.10	101.75 ± 4.07	**Yes**
		01/31/24	1.28 ± 0.35	4.74 ± 1.29	**Yes**	21.80 ± 1.09	80.66 ± 4.03	**Yes**
		02/07/24	0.95 ± 0.31	3.53 ± 1.16	**Yes**	15.30 ± 0.88	56.61 ± 3.26	**Yes**
		02/14/24	0.88 ± 0.32	3.27 ± 1.17	No	22.60 ± 1.07	83.62 ± 3.96	**Yes**
		02/21/24	0.55 ± 0.24	2.02 ± 0.88	No	19.70 ± 0.97	72.89 ± 3.58	**Yes**
		02/28/24	0.66 ± 0.30	2.46 ± 1.09	No	17.20 ± 0.93	63.64 ± 3.45	**Yes**
		03/06/24	0.14 ± 0.22	0.52 ± 0.83	No	6.68 ± 0.84	24.72 ± 3.09	**Yes**
		03/13/24	1.10 ± 0.40	4.07 ± 1.46	No	20.00 ± 1.24	74.00 ± 4.59	**Yes**
		03/20/24	0.60 ± 0.29	2.20 ± 1.06	No	16.50 ± 1.19	61.05 ± 4.40	**Yes**
		03/27/24	1.81 ± 0.55	6.70 ± 2.03	**Yes**	23.60 ± 1.39	87.32 ± 5.14	**Yes**
SMC		01/03/24	2.56 ± 0.36	9.47 ± 1.34	**Yes**	47.50 ± 1.09	175.75 ± 4.03	**Yes**
	a	01/10/24						
		01/16/24	2.63 ± 0.38	9.73 ± 1.41	**Yes**	30.50 ± 0.91	112.85 ± 3.36	**Yes**
		01/24/24	1.73 ± 0.37	6.40 ± 1.38	**Yes**	33.80 ± 1.25	125.06 ± 4.63	**Yes**
		01/31/24	0.59 ± 0.27	2.18 ± 1.01	No	20.20 ± 1.05	74.74 ± 3.89	**Yes**
		02/07/24	0.72 ± 0.31	2.68 ± 1.16	No	17.30 ± 0.98	64.01 ± 3.63	**Yes**
		02/14/24	0.00 ± 0.08	-0.01 ± 0.31	No	22.80 ± 1.08	84.36 ± 4.00	**Yes**
		02/21/24	0.97 ± 0.34	3.59 ± 1.26	No	22.80 ± 1.08	84.36 ± 4.00	**Yes**
		02/28/24	0.89 ± 0.35	3.29 ± 1.30	No	19.10 ± 1.01	70.67 ± 3.74	**Yes**
		03/06/24	0.28 ± 0.16	1.04 ± 0.60	No	9.45 ± 0.72	34.97 ± 2.67	**Yes**
		03/13/24	1.06 ± 0.34	3.92 ± 1.25	**Yes**	24.30 ± 1.14	89.91 ± 4.22	**Yes**
		03/20/24	0.92 ± 0.32	3.39 ± 1.18	No	15.30 ± 0.91	56.61 ± 3.38	**Yes**
		03/27/24	1.58 ± 0.39	5.85 ± 1.43	**Yes**	19.40 ± 1.01	71.78 ± 3.74	**Yes**
VAN BUREN		01/03/24	3.10 ± 0.38	11.47 ± 1.41	**Yes**	49.60 ± 1.11	183.52 ± 4.11	**Yes**
	a	01/10/24						
		01/16/24	2.25 ± 0.34	8.33 ± 1.24	**Yes**	26.70 ± 0.84	98.79 ± 3.10	**Yes**
		01/24/24	1.20 ± 0.36	4.44 ± 1.32	**Yes**	27.90 ± 1.14	103.23 ± 4.22	**Yes**
		01/31/24	1.82 ± 0.41	6.73 ± 1.53	**Yes**	24.10 ± 1.15	89.17 ± 4.26	**Yes**
	b	02/07/24						
		02/14/24	1.39 ± 0.42	5.14 ± 1.57	**Yes**	24.70 ± 1.22	91.39 ± 4.51	**Yes**
		02/21/24	0.65 ± 0.26	2.41 ± 0.96	No	17.70 ± 0.94	65.49 ± 3.46	**Yes**
		02/28/24	1.03 ± 0.35	3.81 ± 1.30	No	19.10 ± 0.99	70.67 ± 3.66	**Yes**
		03/06/24	0.66 ± 0.30	2.43 ± 1.10	No	7.66 ± 0.72	28.34 ± 2.65	**Yes**
		03/13/24	-0.05 ± 0.02	-0.19 ± 0.07	No	1.49 ± 0.40	5.51 ± 1.46	**Yes**
		03/20/24	0.90 ± 0.30	3.33 ± 1.10	**Yes**	15.90 ± 0.93	58.83 ± 3.44	**Yes**
		03/27/24	2.01 ± 0.48	7.44 ± 1.76	**Yes**	196.00 ± 3.19	725.20 ± 11.80	**Yes**

a. Unable to sample due to snow.

b. Sample was deemed invalid due to air volume not meeting the minimum requirement of 5,760 ft^3 caused by a power outage.

c. Sample was deemed invalid due to a power outage.

d. Invalid sample due to mechanical issues.

Table B-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		01/03/24	-25.94	±	56.58	-95.97	±	209.33	No
	a	01/10/24							
		01/16/24	39.39	±	92.42	145.75	±	341.96	No
		01/24/24	-106.28	±	101.99	-393.24	±	377.36	No
		01/31/24	81.67	±	130.73	302.18	±	483.70	No
		02/07/24	26.00	±	110.86	96.20	±	410.18	No
		02/14/24	82.18	±	100.38	304.08	±	371.41	No
		02/21/24	-114.15	±	99.91	-422.36	±	369.66	No
		02/28/24	-128.57	±	118.62	-475.71	±	438.89	No
	b	03/06/24							
		03/13/24	-125.63	±	129.60	-464.83	±	479.52	No
		03/20/24	-23.78	±	106.45	-87.99	±	393.87	No
		03/27/24	-123.61	±	73.35	-457.36	±	271.40	No
ATOMIC CITY		01/03/24	-32.34	±	60.32	-119.67	±	223.17	No
	a	01/10/24							
		01/16/24	27.81	±	61.50	102.90	±	227.53	No
		01/24/24	88.30	±	100.06	326.72	±	370.22	No
		01/31/24	37.85	±	115.92	140.03	±	428.90	No
		02/07/24	-97.44	±	132.24	-360.54	±	489.29	No
		02/14/24	139.15	±	106.44	514.86	±	393.83	No
		02/21/24	-3.17	±	101.29	-11.71	±	374.77	No
		02/28/24	-135.77	±	121.60	-502.35	±	449.92	No
		03/06/24	-28.44	±	267.87	-105.24	±	991.12	No
		03/13/24	-130.58	±	117.16	-483.15	±	433.49	No
		03/20/24	72.54	±	205.57	268.41	±	760.61	No
		03/27/24	-132.86	±	191.59	-491.58	±	708.88	No
BLUE DOME		01/03/24	63.81	±	57.75	236.11	±	213.67	No
	a	01/10/24							
		01/16/24	-44.00	±	61.09	-162.81	±	226.05	No
		01/24/24	168.38	±	91.09	623.01	±	337.04	No
		01/31/24	64.52	±	112.50	238.71	±	416.25	No
		02/07/24	-117.93	±	112.99	-436.34	±	418.06	No
		02/14/24	-125.63	±	108.13	-464.83	±	400.08	No
		02/21/24	78.57	±	134.14	290.71	±	496.32	No
		02/28/24	69.54	±	119.54	257.31	±	442.30	No
		03/06/24	-236.44	±	184.76	-874.83	±	683.61	No
		03/13/24	-84.80	±	179.02	-313.75	±	662.37	No
		03/20/24	-71.75	±	111.35	-265.48	±	412.00	No
		03/27/24	37.86	±	110.55	140.09	±	409.04	No
HOWE		01/03/24	-40.70	±	57.29	-150.60	±	211.98	No
	a	01/10/24							
		01/16/24	16.36	±	58.79	60.55	±	217.53	No
		01/24/24	198.95	±	165.49	736.12	±	612.31	No
		01/31/24	-86.17	±	111.62	-318.82	±	412.99	No
		02/07/24	1.15	±	108.34	4.27	±	400.86	No
		02/14/24	-119.28	±	110.79	-441.34	±	409.92	No
		02/21/24	-131.44	±	114.92	-486.33	±	425.20	No
		02/28/24	-32.38	±	110.45	-119.79	±	408.67	No
		03/06/24	-123.12	±	107.43	-455.54	±	397.49	No

Table B-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
		03/13/24	-126.41	±	114.02	-467.72	±	421.87	No
		03/20/24	51.64	±	100.94	191.08	±	373.48	No
		03/27/24	-30.65	±	111.92	-113.39	±	414.10	No
HOWE (duplicate)		01/03/24	-62.79	±	56.39	-232.34	±	208.65	No
	a	01/10/24							
		01/16/24	51.03	±	60.97	188.83	±	225.58	No
		01/24/24	12.37	±	99.97	45.76	±	369.87	No
		01/31/24	-19.78	±	111.65	-73.17	±	413.11	No
		02/07/24	61.90	±	114.50	229.03	±	423.65	No
		02/14/24	-88.92	±	102.59	-329.02	±	379.58	No
		02/21/24	-122.22	±	110.24	-452.21	±	407.89	No
		02/28/24	172.73	±	114.42	639.10	±	423.35	No
		03/06/24	18.86	±	118.75	69.80	±	439.38	No
		03/13/24	-78.43	±	117.23	-290.19	±	433.75	No
		03/20/24	-43.50	±	110.78	-160.93	±	409.89	No
		03/27/24	-127.61	±	114.01	-472.16	±	421.84	No
MONTEVIEW		01/03/24	-22.81	±	16.17	-84.41	±	59.83	No
	a	01/10/24							
		01/16/24	-76.52	±	72.68	-283.12	±	268.93	No
		01/24/24	-23.61	±	99.70	-87.36	±	368.90	No
		01/31/24	-101.35	±	110.89	-375.00	±	410.29	No
		02/07/24	105.60	±	115.53	390.72	±	427.46	No
		02/14/24	-99.23	±	116.34	-367.15	±	430.46	No
		02/21/24	-88.39	±	106.43	-327.05	±	393.79	No
		02/28/24	-109.70	±	107.34	-405.89	±	397.16	No
		03/06/24	39.00	±	143.08	144.31	±	529.40	No
		03/13/24	50.06	±	115.40	185.21	±	426.98	No
		03/20/24	178.59	±	112.58	660.78	±	416.55	No
		03/27/24	-2.40	±	118.65	-8.88	±	439.01	No
TERRETON		01/03/24	-36.06	±	59.27	-133.43	±	219.28	No
	a	01/10/24							
		01/16/24	-118.57	±	95.14	-438.71	±	352.02	No
		01/24/24	-67.10	±	95.27	-248.26	±	352.51	No
		01/31/24	-109.47	±	121.19	-405.04	±	448.40	No
		02/07/24	-31.07	±	107.95	-114.94	±	399.42	No
		02/14/24	-121.15	±	108.32	-448.26	±	400.78	No
		02/21/24	-120.63	±	106.84	-446.33	±	395.31	No
		02/28/24	8.10	±	106.90	29.97	±	395.53	No
		03/06/24	-140.85	±	155.38	-521.15	±	574.91	No
	b	03/13/24							
		03/20/24	-22.56	±	428.96	-83.48	±	1587.15	No
		03/27/24	35.36	±	117.21	130.84	±	433.68	No
OFFSITE									
BLACKFOOT		01/03/24	13.15	±	64.61	48.66	±	239.07	No
	a	01/10/24							
		01/16/24	96.10	±	62.09	355.56	±	229.71	No
		01/24/24	-35.09	±	101.76	-129.84	±	376.51	No
		01/31/24	-128.04	±	111.48	-473.75	±	412.48	No
		02/07/24	-44.00	±	117.85	-162.80	±	436.05	No
		02/14/24	23.89	±	142.89	88.39	±	528.69	No

Table B-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
		02/21/24	-128.91	±	111.81	-476.97	±	413.70	No
		02/28/24	127.42	±	113.95	471.45	±	421.62	No
		03/06/24	-145.75	±	136.00	-539.28	±	503.20	No
		03/13/24	-7.66	±	108.96	-28.34	±	403.15	No
		03/20/24	-11.46	±	112.47	-42.39	±	416.14	No
		03/27/24	-60.25	±	116.60	-222.92	±	431.42	No
CRATERS OF THE MOON		01/03/24	-231.18	±	185.46	-855.37	±	686.20	No
	a	01/10/24							
		01/16/24	4.68	±	59.33	17.30	±	219.54	No
		01/24/24	14.61	±	92.83	54.07	±	343.48	No
		01/31/24	35.49	±	104.54	131.30	±	386.80	No
		02/07/24	-97.73	±	135.60	-361.60	±	501.72	No
		02/14/24	83.46	±	152.10	308.78	±	562.77	No
		02/21/24	65.12	±	98.54	240.95	±	364.60	No
		02/28/24	-73.66	±	137.63	-272.54	±	509.23	No
		03/06/24	-93.09	±	177.74	-344.43	±	657.64	No
		03/13/24	25.18	±	113.82	93.17	±	421.13	No
		03/20/24	-47.56	±	105.66	-175.96	±	390.94	No
		03/27/24	-129.61	±	112.85	-479.56	±	417.55	No
DUBOIS		01/03/24	-112.02	±	89.24	-414.47	±	330.19	No
	a	01/10/24							
		01/16/24	41.47	±	65.93	153.43	±	243.93	No
		01/24/24	26.06	±	95.54	96.41	±	353.50	No
		01/31/24	113.36	±	108.39	419.43	±	401.04	No
		02/07/24	-115.77	±	119.23	-428.35	±	441.15	No
		02/14/24	-124.10	±	108.19	-459.17	±	400.30	No
		02/21/24	-123.71	±	109.72	-457.73	±	405.96	No
		02/28/24	56.45	±	169.76	208.85	±	628.11	No
		03/06/24	-130.42	±	119.65	-482.55	±	442.71	No
	c	03/13/24							
		03/20/24	340.07	±	422.01	1258.26	±	1561.44	No
		03/27/24	135.21	±	119.97	500.28	±	443.89	No
IDAHO FALLS		01/03/24	-67.94	±	60.45	-251.39	±	223.65	No
	a	01/10/24							
		01/16/24	73.92	±	59.88	273.52	±	221.54	No
		01/24/24	-113.60	±	99.80	-420.32	±	369.27	No
		01/31/24	-20.76	±	106.23	-76.82	±	393.05	No
		02/07/24	-5.25	±	110.02	-19.44	±	407.07	No
		02/14/24	-8.46	±	109.85	-31.31	±	406.45	No
		02/21/24	-39.32	±	163.72	-145.47	±	605.76	No
		02/28/24	-124.95	±	108.96	-462.32	±	403.15	No
		03/06/24	-139.26	±	151.98	-515.26	±	562.33	No
		03/13/24	-170.22	±	159.54	-629.81	±	590.30	No
		03/20/24	-123.68	±	114.39	-457.62	±	423.24	No
		03/27/24	90.43	±	112.74	334.59	±	417.14	No
IRC		01/03/24	29.03	±	58.75	107.39	±	217.37	No
	a	01/10/24							
		01/16/24	49.64	±	62.40	183.67	±	230.89	No
		01/24/24	35.32	±	109.15	130.68	±	403.86	No
		01/31/24	-71.64	±	133.60	-265.06	±	494.32	No

Table B-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
	02/07/24	-80.08	±	111.40	-296.30	±	412.18	No
	02/14/24	6.18	±	109.67	22.86	±	405.78	No
	02/21/24	122.38	±	105.74	452.81	±	391.24	No
	02/28/24	-227.59	±	177.96	-842.08	±	658.45	No
	03/06/24	97.71	±	115.89	361.53	±	428.79	No
	03/13/24	-76.98	±	165.49	-284.81	±	612.31	No
	03/20/24	-25.49	±	108.71	-94.31	±	402.23	No
	03/27/24	134.05	±	124.21	495.99	±	459.58	No
IRC NORTH	01/03/24	-82.26	±	83.81	-304.36	±	310.09	No
a	01/10/24							
	01/16/24	-100.29	±	92.87	-371.07	±	343.60	No
	01/24/24	-146.83	±	131.09	-543.27	±	485.03	No
	01/31/24	-50.77	±	139.93	-187.83	±	517.74	No
	02/07/24	-59.77	±	121.71	-221.15	±	450.33	No
	02/14/24	-17.96	±	131.98	-66.46	±	488.33	No
	02/21/24	-138.60	±	122.09	-512.82	±	451.73	No
	02/28/24	118.43	±	124.13	438.19	±	459.28	No
	03/06/24	-145.82	±	133.12	-539.53	±	492.54	No
	03/13/24	-133.57	±	120.98	-494.21	±	447.63	No
	03/20/24	-58.03	±	112.68	-214.71	±	416.92	No
	03/27/24	-112.23	±	194.63	-415.25	±	720.13	No
JACKSON, WY	01/02/24	31.53	±	83.62	116.66	±	309.38	No
	01/09/24	95.61	±	127.90	353.77	±	473.23	No
	01/16/24	-143.19	±	128.25	-529.80	±	474.53	No
	01/23/24	56.00	±	130.57	207.21	±	483.11	No
	01/30/24	-13.64	±	121.41	-50.45	±	449.22	No
	02/06/24	-180.43	±	169.01	-667.59	±	625.34	No
	02/13/24	-139.54	±	124.68	-516.30	±	461.32	No
	02/20/24	-19.83	±	183.36	-73.37	±	678.43	No
	02/27/24	-151.24	±	129.78	-559.59	±	480.19	No
	03/05/24	-258.03	±	233.45	-954.71	±	863.77	No
	03/12/24	50.26	±	131.82	185.95	±	487.73	No
	03/19/24	-172.01	±	151.70	-636.44	±	561.29	No
	03/26/24	-76.09	±	123.22	-281.52	±	455.91	No
SUGAR CITY	01/03/24	75.90	±	83.02	280.83	±	307.17	No
a	01/10/24							
	01/16/24	-47.04	±	63.02	-174.06	±	233.18	No
	01/24/24	-29.38	±	129.84	-108.71	±	480.41	No
	01/31/24	-147.68	±	138.52	-546.42	±	512.52	No
	02/07/24	2.27	±	169.46	8.38	±	627.00	No
	02/14/24	47.13	±	103.56	174.36	±	383.17	No
	02/21/24	34.86	±	109.23	128.97	±	404.15	No
	02/28/24	-69.92	±	135.47	-258.71	±	501.24	No
	03/06/24	-67.25	±	157.65	-248.83	±	583.31	No
	03/13/24	-220.86	±	199.21	-817.18	±	737.08	No
	03/20/24	-89.03	±	252.61	-329.40	±	934.66	No
	03/27/24	-153.13	±	148.75	-566.58	±	550.38	No
SUGAR CITY (duplicate)	01/03/24	-75.72	±	64.21	-280.16	±	237.59	No
a	01/10/24							
	01/16/24	-78.61	±	68.83	-290.85	±	254.65	No

Table B-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
		01/24/24	-129.14	±	165.26	-477.82	±	611.46	No
		01/31/24	-129.14	±	115.38	-477.82	±	426.91	No
		02/07/24	-75.51	±	100.89	-279.40	±	373.29	No
		02/14/24	108.03	±	126.77	399.71	±	469.05	No
		02/21/24	2.46	±	112.46	9.10	±	416.10	No
		02/28/24	89.18	±	112.31	329.97	±	415.55	No
		03/06/24	-69.12	±	115.47	-255.74	±	427.24	No
		03/13/24	-27.87	±	117.99	-103.12	±	436.56	No
		03/20/24	-139.95	±	122.69	-517.82	±	453.95	No
		03/27/24	10.92	±	124.71	40.39	±	461.43	No
ONSITE									
ATR COMPLEX		01/03/24	-71.27	±	63.28	-263.71	±	234.14	No
	a	01/10/24							
		01/16/24	6.03	±	61.14	22.32	±	226.23	No
		01/24/24	-27.65	±	103.98	-102.31	±	384.73	No
		01/31/24	10.85	±	113.53	40.15	±	420.06	No
		02/07/24	75.04	±	110.94	277.66	±	410.48	No
		02/14/24	125.65	±	113.10	464.91	±	418.47	No
		02/21/24	-136.73	±	122.80	-505.90	±	454.36	No
		02/28/24	-76.11	±	126.89	-281.62	±	469.49	No
		03/06/24	-1.49	±	174.69	-5.52	±	646.35	No
		03/13/24	-34.59	±	108.82	-127.97	±	402.63	No
		03/20/24	-89.99	±	127.86	-332.97	±	473.08	No
		03/27/24	-231.33	±	179.32	-855.92	±	663.48	No
CFA		01/03/24	-106.32	±	83.24	-393.38	±	307.99	No
	a	01/10/24							
		01/16/24	-67.56	±	59.49	-249.98	±	220.10	No
		01/24/24	-37.89	±	102.89	-140.21	±	380.69	No
		01/31/24	-111.19	±	111.80	-411.40	±	413.66	No
		02/07/24	-127.77	±	114.16	-472.75	±	422.39	No
		02/14/24	61.76	±	164.03	228.49	±	606.91	No
		02/21/24	-125.67	±	109.83	-464.98	±	406.37	No
		02/28/24	-134.48	±	122.60	-497.58	±	453.62	No
		03/06/24	-149.62	±	133.04	-553.59	±	492.25	No
		03/13/24	-141.82	±	181.54	-524.73	±	671.70	No
		03/20/24	-43.65	±	150.45	-161.49	±	556.67	No
		03/27/24	-153.55	±	134.63	-568.14	±	498.13	No
EBR-I		01/03/24	50.13	±	72.39	185.48	±	267.86	No
	a	01/10/24							
		01/16/24	-66.33	±	58.64	-245.42	±	216.96	No
		01/24/24	9.74	±	88.50	36.04	±	327.46	No
		01/31/24	88.13	±	110.55	326.07	±	409.04	No
		02/07/24	176.66	±	108.60	653.64	±	401.82	No
		02/14/24	-38.62	±	100.52	-142.90	±	371.92	No
		02/21/24	-65.76	±	94.67	-243.32	±	350.27	No
		02/28/24	-6.03	±	114.47	-22.32	±	423.54	No
		03/06/24	67.44	±	121.36	249.54	±	449.03	No
		03/13/24	-78.75	±	108.81	-291.38	±	402.60	No
		03/20/24	-126.66	±	110.24	-468.64	±	407.89	No
		03/27/24	-59.31	±	121.85	-219.45	±	450.85	No

Table B-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		01/03/24	30.94	±	52.46	114.46	±	194.12	No
	a	01/10/24							
		01/16/24	-55.26	±	40.32	-204.48	±	149.20	No
		01/24/24	-34.32	±	104.91	-126.99	±	388.17	No
		01/31/24	56.90	±	119.06	210.53	±	440.52	No
		02/07/24	59.52	±	119.39	220.21	±	441.74	No
		02/14/24	-123.93	±	108.81	-458.54	±	402.60	No
		02/21/24	-126.62	±	110.99	-468.49	±	410.66	No
		02/28/24	119.43	±	109.87	441.89	±	406.52	No
		03/06/24	-13.21	±	116.32	-48.87	±	430.38	No
		03/13/24	40.97	±	104.91	151.59	±	388.17	No
		03/20/24	81.09	±	97.54	300.05	±	360.91	No
		03/27/24	-39.76	±	109.96	-147.10	±	406.85	No
GATE 4		01/03/24	90.12	±	56.98	333.44	±	210.83	No
	a	01/10/24							
		01/16/24	18.65	±	64.22	68.99	±	237.63	No
		01/24/24	87.07	±	98.15	322.14	±	363.16	No
		01/31/24	-71.18	±	130.65	-263.35	±	483.41	No
		02/07/24	-127.58	±	115.70	-472.05	±	428.09	No
		02/14/24	-129.20	±	114.92	-478.04	±	425.20	No
		02/21/24	-128.88	±	114.83	-476.86	±	424.87	No
		02/28/24	-255.07	±	201.10	-943.76	±	744.07	No
		03/06/24	22.33	±	113.27	82.62	±	419.10	No
		03/13/24	153.69	±	116.02	568.65	±	429.27	No
		03/20/24	-123.40	±	108.42	-456.58	±	401.15	No
		03/27/24	14.36	±	115.85	53.13	±	428.65	No
HIGHWAY 26 REST		01/03/24	-30.01	±	30.87	-111.03	±	114.21	No
AREA	a	01/10/24							
		01/16/24	28.18	±	66.93	104.28	±	247.64	No
		01/24/24	-194.74	±	151.76	-720.54	±	561.51	No
		01/31/24	69.83	±	116.19	258.38	±	429.90	No
		02/07/24	24.33	±	175.35	90.01	±	648.80	No
		02/14/24	-122.24	±	109.22	-452.29	±	404.11	No
		02/21/24	-23.14	±	127.42	-85.60	±	471.45	No
		02/28/24	23.53	±	105.15	87.06	±	389.06	No
		03/06/24	-101.95	±	108.49	-377.22	±	401.41	No
		03/13/24	-29.27	±	140.94	-108.31	±	521.48	No
		03/20/24	9.34	±	111.90	34.55	±	414.03	No
		03/27/24	-128.99	±	113.42	-477.26	±	419.65	No
HIGHWAY 26 REST		01/03/24	-37.86	±	32.93	-140.09	±	121.83	No
AREA (duplicate)		01/10/24							
		01/16/24	-62.20	±	67.46	-230.13	±	249.60	No
		01/24/24	14.04	±	99.98	51.95	±	369.94	No
		01/31/24	-63.49	±	124.71	-234.91	±	461.43	No
		02/07/24	-134.34	±	119.14	-497.06	±	440.82	No
	d	02/14/24							
		02/21/24	148.03	±	102.39	547.71	±	378.84	No
		02/28/24	-144.37	±	157.56	-534.17	±	582.97	No
		03/06/24	87.52	±	112.91	323.83	±	417.77	No
		03/13/24	-133.39	±	113.12	-493.54	±	418.54	No

Table B-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
		03/20/24	0.20	±	167.06	0.74	±	618.12	No
		03/27/24	115.45	±	118.24	427.17	±	437.49	No
INTEC (NE CORNER)		01/03/24	24.79	±	52.39	91.70	±	193.83	No
	a	01/10/24							
		01/16/24	-28.89	±	58.03	-106.89	±	214.69	No
		01/24/24	62.46	±	108.27	231.08	±	400.60	No
		01/31/24	219.95	±	170.93	813.82	±	632.44	No
		02/07/24	-138.14	±	122.42	-511.12	±	452.95	No
		02/14/24	-119.33	±	104.03	-441.52	±	384.91	No
		02/21/24	3.06	±	103.04	11.33	±	381.25	No
		02/28/24	-14.79	±	119.32	-54.70	±	441.48	No
		03/06/24	-22.47	±	117.88	-83.13	±	436.16	No
		03/13/24	-19.08	±	109.00	-70.60	±	403.30	No
		03/20/24	101.83	±	137.84	376.77	±	510.01	No
		03/27/24	74.96	±	120.24	277.33	±	444.89	No
INTEC (WEST SIDE)		01/03/24	-73.65	±	68.20	-272.52	±	252.34	No
	a	01/10/24							
		01/16/24	60.62	±	54.36	224.31	±	201.14	No
		01/24/24	-19.69	±	103.07	-72.83	±	381.36	No
		01/31/24	-31.76	±	169.23	-117.50	±	626.15	No
		02/07/24	-37.57	±	170.07	-139.01	±	629.26	No
		02/14/24	-19.57	±	102.59	-72.40	±	379.58	No
		02/21/24	-13.88	±	109.61	-51.36	±	405.56	No
		02/28/24	63.77	±	115.68	235.95	±	428.02	No
		03/06/24	-14.08	±	203.60	-52.11	±	753.32	No
		03/13/24	-123.56	±	223.28	-457.17	±	826.14	No
		03/20/24	-147.56	±	168.33	-545.97	±	622.82	No
		03/27/24	-145.28	±	128.78	-537.54	±	476.49	No
MAIN GATE		01/03/24	-74.15	±	69.23	-274.34	±	256.15	No
	a	01/10/24							
		01/16/24	-76.98	±	72.96	-284.82	±	269.95	No
		01/24/24	69.31	±	100.38	256.46	±	371.41	No
		01/31/24	-51.31	±	117.58	-189.83	±	435.05	No
		02/07/24	106.25	±	113.37	393.13	±	419.47	No
		02/14/24	74.26	±	101.92	274.76	±	377.10	No
		02/21/24	-136.69	±	150.97	-505.75	±	558.59	No
		02/28/24	42.14	±	121.97	155.93	±	451.29	No
		03/06/24	-140.35	±	122.17	-519.30	±	452.03	No
		03/13/24	-47.20	±	120.64	-174.64	±	446.37	No
		03/20/24	-148.23	±	137.25	-548.45	±	507.83	No
		03/27/24	94.90	±	171.28	351.12	±	633.74	No
MFC NORTH		01/03/24	-8.48	±	55.50	-31.39	±	205.35	No
	a	01/10/24							
		01/16/24	-66.23	±	59.65	-245.05	±	220.70	No
		01/24/24	-114.16	±	98.54	-422.39	±	364.59	No
		01/31/24	40.97	±	129.41	151.60	±	478.82	No
		02/07/24	130.24	±	107.47	481.89	±	397.64	No
		02/14/24	3.47	±	111.25	12.83	±	411.63	No
		02/21/24	78.24	±	161.02	289.50	±	595.77	No
		02/28/24	-84.85	±	176.36	-313.96	±	652.53	No

Table B-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
		03/06/24	-157.60	±	147.35	-583.12	±	545.20	No
		03/13/24	-128.24	±	109.59	-474.49	±	405.48	No
		03/20/24	-1.02	±	120.83	-3.79	±	447.07	No
		03/27/24	9.17	±	102.84	33.93	±	380.51	No
MFC SOUTH		01/03/24	-110.49	±	86.76	-408.81	±	321.02	No
	a	01/10/24							
		01/16/24	-27.16	±	57.24	-100.51	±	211.78	No
		01/24/24	-39.62	±	158.97	-146.60	±	588.19	No
		01/31/24	-53.03	±	112.71	-196.22	±	417.03	No
		02/07/24	-159.23	±	148.65	-589.15	±	550.01	No
		02/14/24	-26.64	±	174.60	-98.58	±	646.02	No
		02/21/24	-98.62	±	135.06	-364.91	±	499.72	No
		02/28/24	-137.23	±	123.78	-507.75	±	457.99	No
		03/06/24	-165.03	±	156.08	-610.61	±	577.50	No
		03/13/24	-95.51	±	104.93	-353.38	±	388.24	No
		03/20/24	-124.78	±	116.80	-461.69	±	432.16	No
		03/27/24	-122.77	±	111.36	-454.25	±	412.03	No
NRF		01/03/24	15.21	±	54.19	56.26	±	200.51	No
	a	01/10/24							
		01/16/24	26.99	±	58.59	99.87	±	216.79	No
		01/24/24	-115.00	±	105.62	-425.50	±	390.79	No
		01/31/24	-160.39	±	152.08	-593.44	±	562.70	No
		02/07/24	-35.32	±	183.58	-130.69	±	679.25	No
		02/14/24	-11.88	±	115.86	-43.96	±	428.68	No
		02/21/24	-51.71	±	113.36	-191.34	±	419.43	No
		02/28/24	95.97	±	141.22	355.08	±	522.51	No
		03/06/24	-60.06	±	130.54	-222.21	±	483.00	No
		03/13/24	-127.15	±	144.59	-470.46	±	534.98	No
		03/20/24	-131.26	±	117.64	-485.66	±	435.27	No
		03/27/24	-4.81	±	114.83	-17.79	±	424.87	No
PBF		01/03/24	73.46	±	53.99	271.78	±	199.77	No
	a	01/10/24							
		01/16/24	-44.41	±	57.51	-164.32	±	212.79	No
		01/24/24	210.58	±	157.76	779.15	±	583.71	No
		01/31/24	-95.17	±	112.55	-352.14	±	416.44	No
		02/07/24	-145.31	±	137.91	-537.65	±	510.27	No
		02/14/24	27.59	±	108.81	102.06	±	402.60	No
		02/21/24	14.88	±	110.35	55.05	±	408.30	No
		02/28/24	-57.91	±	129.65	-214.26	±	479.71	No
		03/06/24	75.49	±	116.84	279.31	±	432.31	No
		03/13/24	-136.65	±	122.87	-505.61	±	454.62	No
		03/20/24	-121.14	±	106.31	-448.22	±	393.35	No
		03/27/24	-102.68	±	116.47	-379.92	±	430.94	No
RHLLW		01/03/24	97.38	±	55.66	360.31	±	205.93	No
	a	01/10/24							
		01/16/24	14.82	±	60.60	54.82	±	224.21	No
		01/24/24	-60.89	±	95.05	-225.28	±	351.67	No
		01/31/24	37.47	±	103.14	138.64	±	381.62	No
		02/07/24	15.41	±	111.50	57.01	±	412.55	No
		02/14/24	-20.56	±	107.15	-76.08	±	396.46	No

Table B-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
		02/21/24	-31.60	±	107.32	-116.93	±	397.08	No
		02/28/24	-92.01	±	116.56	-340.43	±	431.27	No
		03/06/24	-85.77	±	154.26	-317.34	±	570.76	No
		03/13/24	-128.02	±	114.23	-473.67	±	422.65	No
		03/20/24	26.24	±	111.92	97.08	±	414.10	No
		03/27/24	-25.95	±	113.76	-96.00	±	420.91	No
RHLLW (duplicate)		01/03/24	19.78	±	57.56	73.17	±	212.98	No
	a	01/10/24							
		01/16/24	-55.16	±	90.03	-204.11	±	333.10	No
		01/24/24	-20.53	±	104.18	-75.98	±	385.47	No
		01/31/24	129.56	±	109.23	479.37	±	404.15	No
		02/07/24	129.69	±	107.00	479.85	±	395.90	No
		02/14/24	-45.66	±	126.02	-168.92	±	466.27	No
		02/21/24	-72.29	±	109.08	-267.47	±	403.60	No
		02/28/24	-29.07	±	112.90	-107.54	±	417.73	No
		03/06/24	-33.90	±	114.52	-125.43	±	423.72	No
		03/13/24	69.53	±	109.56	257.26	±	405.37	No
		03/20/24	102.38	±	110.22	378.81	±	407.81	No
		03/27/24	-130.53	±	115.05	-482.96	±	425.69	No
RWMC		01/03/24	-72.73	±	64.58	-269.09	±	238.93	No
	a	01/10/24							
		01/16/24	-69.13	±	64.77	-255.78	±	239.63	No
		01/24/24	-115.06	±	102.81	-425.72	±	380.40	No
		01/31/24	46.47	±	146.46	171.93	±	541.90	No
		02/07/24	-124.14	±	117.57	-459.32	±	435.01	No
		02/14/24	-30.86	±	101.09	-114.19	±	374.03	No
		02/21/24	68.61	±	166.41	253.86	±	615.72	No
		02/28/24	142.08	±	139.76	525.70	±	517.11	No
	b	03/06/24							
		03/13/24	-137.24	±	151.40	-507.79	±	560.18	No
		03/20/24	-32.99	±	119.66	-122.07	±	442.74	No
		03/27/24	-68.44	±	127.11	-253.22	±	470.31	No
RWMC SOUTH		01/03/24	-52.81	±	71.25	-195.38	±	263.61	No
	a	01/10/24							
		01/16/24	37.12	±	58.01	137.35	±	214.65	No
		01/24/24	-3.32	±	100.11	-12.30	±	370.41	No
		01/31/24	26.36	±	117.81	97.54	±	435.90	No
		02/07/24	-47.88	±	113.30	-177.17	±	419.21	No
		02/14/24	56.31	±	105.44	208.35	±	390.13	No
		02/21/24	-75.08	±	157.04	-277.79	±	581.05	No
		02/28/24	53.54	±	109.09	198.11	±	403.63	No
		03/06/24	84.80	±	171.56	313.77	±	634.77	No
		03/13/24	308.44	±	265.81	1141.23	±	983.50	No
		03/20/24	-20.07	±	256.02	-74.26	±	947.27	No
		03/27/24	1.87	±	256.48	6.93	±	948.98	No
SMC		01/03/24	-77.26	±	72.18	-285.85	±	267.08	No
	a	01/10/24							
		01/16/24	-68.27	±	62.20	-252.60	±	230.13	No
		01/24/24	87.63	±	125.44	324.24	±	464.13	No
		01/31/24	65.18	±	173.36	241.18	±	641.43	No

Table B-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
		02/07/24	-93.16	±	118.06	-344.68	±	436.82	No
		02/14/24	-118.70	±	136.63	-439.19	±	505.53	No
		02/21/24	-111.58	±	115.61	-412.85	±	427.76	No
		02/28/24	-1.52	±	96.65	-5.62	±	357.61	No
		03/06/24	75.73	±	111.58	280.19	±	412.85	No
		03/13/24	3.22	±	111.66	11.93	±	413.14	No
		03/20/24	-231.70	±	182.87	-857.29	±	676.62	No
		03/27/24	31.04	±	110.33	114.86	±	408.22	No
VAN BUREN		01/03/24	7.25	±	61.30	26.81	±	226.81	No
	a	01/10/24							
		01/16/24	-74.47	±	81.63	-275.55	±	302.01	No
		01/24/24	-94.62	±	97.54	-350.09	±	360.90	No
		01/31/24	54.20	±	120.37	200.53	±	445.37	No
	b	02/07/24							
		02/14/24	-166.76	±	154.41	-617.01	±	571.32	No
		02/21/24	-130.04	±	116.18	-481.15	±	429.87	No
		02/28/24	-156.56	±	146.52	-579.27	±	542.12	No
		03/06/24	1.94	±	121.24	7.19	±	448.59	No
		03/13/24	53.44	±	186.53	197.74	±	690.16	No
		03/20/24	-42.67	±	116.31	-157.87	±	430.35	No
		03/27/24	-133.76	±	116.84	-494.91	±	432.31	No

a. Unable to sample due to snow.

b. Sample was deemed invalid due to air volume not meeting the minimum requirement of 5,760 ft^3 caused by a power outage.

c. Sample was deemed invalid due to a power outage.

d. Invalid sample due to mechanical issues.

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
BOUNDARY									
ARCO	03/31/24	Americium-241	5.82	±	4.07	21.53	±	15.06	No
	03/31/24	Cesium-137	132.00	±	95.70	488.40	±	354.09	No
	03/31/24	Plutonium-238	-3.11	±	2.56	-11.51	±	9.47	No
	03/31/24	Plutonium-239/240	-6.21	±	2.85	-22.98	±	10.55	No
	03/31/24	Strontium-90	420.00	±	36.60	1554.00	±	135.42	**Yes**
	03/31/24	Uranium-233/234	1.97	±	4.01	7.29	±	14.84	No
	03/31/24	Uranium-238	1.67	±	3.29	6.18	±	12.17	No
	03/31/24	Zinc-65	298.00	±	161.00	1102.60	±	595.70	No
ATOMIC CITY	03/31/24	Americium-241	0.08	±	2.93	0.29	±	10.84	No
	03/31/24	Cesium-137	56.00	±	56.90	207.20	±	210.53	No
	03/31/24	Plutonium-238	-7.63	±	2.80	-28.23	±	10.36	No
	03/31/24	Plutonium-239/240	2.70	±	4.74	9.99	±	17.54	No
	03/31/24	Strontium-90	36.50	±	31.40	135.05	±	116.18	No
	03/31/24	Uranium-233/234	-0.65	±	2.00	-2.41	±	7.40	No
	03/31/24	Uranium-238	-0.66	±	1.49	-2.45	±	5.51	No
	03/31/24	Zinc-65	10.40	±	121.00	38.48	±	447.70	No
BLUE DOME	03/31/24	Americium-241	-5.05	±	3.32	-18.69	±	12.28	No
	03/31/24	Cesium-137	24.60	±	43.70	91.02	±	161.69	No
	03/31/24	Plutonium-238	-1.62	±	1.92	-5.99	±	7.10	No
	03/31/24	Plutonium-239/240	2.57	±	3.01	9.51	±	11.14	No
	03/31/24	Strontium-90	88.70	±	23.60	328.19	±	87.32	**Yes**
	03/31/24	Uranium-233/234	5.36	±	4.06	19.83	±	15.02	No
	03/31/24	Uranium-238	-1.49	±	2.57	-5.51	±	9.51	No
	03/31/24	Zinc-65	169.00	±	96.10	625.30	±	355.57	No
HOWE	03/31/24	Americium-241	2.53	±	2.54	9.36	±	9.40	No
	03/31/24	Cesium-137	0.00	±	56.10	0.00	±	207.57	No
	03/31/24	Plutonium-238	1.22	±	1.75	4.51	±	6.48	No
	03/31/24	Plutonium-239/240	1.03	±	2.61	3.81	±	9.66	No
	03/31/24	Strontium-90	76.50	±	27.60	283.05	±	102.12	No
	03/31/24	Uranium-233/234	0.25	±	3.48	0.93	±	12.88	No
	03/31/24	Uranium-238	4.52	±	3.34	16.72	±	12.36	No
	03/31/24	Zinc-65	27.20	±	89.40	100.64	±	330.78	No
HOWE (QA 1)	03/31/24	Americium-241	-0.32	±	2.43	-1.17	±	8.99	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Cesium-137	-70.40	±	50.50	-260.48	±	186.85	No
	03/31/24	Plutonium-238	0.05	±	1.81	0.18	±	6.70	No
	03/31/24	Plutonium-239/240	5.12	±	3.00	18.94	±	11.10	No
	03/31/24	Strontium-90	57.50	±	30.20	212.75	±	111.74	No
	03/31/24	Uranium-233/234	3.76	±	4.09	13.91	±	15.13	No
	03/31/24	Uranium-238	2.60	±	2.61	9.62	±	9.66	No
	03/31/24	Zinc-65	-60.00	±	99.00	-222.00	±	366.30	No
MONTEVIEW	03/31/24	Americium-241	1.37	±	1.97	5.07	±	7.29	No
	03/31/24	Cesium-137	109.00	±	101.00	403.30	±	373.70	No
	03/31/24	Plutonium-238	0.42	±	2.23	1.54	±	8.25	No
	03/31/24	Plutonium-239/240	-0.36	±	1.57	-1.32	±	5.81	No
	03/31/24	Strontium-90	41.00	±	25.60	151.70	±	94.72	No
	03/31/24	Uranium-233/234	11.00	±	3.91	40.70	±	14.47	No
	03/31/24	Uranium-238	3.58	±	2.32	13.25	±	8.58	No
	03/31/24	Zinc-65	120.00	±	112.00	444.00	±	414.40	No
TERRETON	03/31/24	Americium-241	1.54	±	2.21	5.70	±	8.18	No
	03/31/24	Cesium-137	30.20	±	39.50	111.74	±	146.15	No
	03/31/24	Plutonium-238	-1.29	±	2.00	-4.77	±	7.40	No
	03/31/24	Plutonium-239/240	-0.43	±	1.90	-1.59	±	7.03	No
	03/31/24	Strontium-90	71.30	±	30.80	263.81	±	113.96	No
	03/31/24	Uranium-233/234	3.53	±	3.79	13.06	±	14.02	No
	03/31/24	Uranium-238	1.55	±	2.71	5.74	±	10.03	No
	03/31/24	Zinc-65	-11.30	±	99.60	-41.81	±	368.52	No
OFFSITE									
BLACKFOOT	03/31/24	Americium-241	-1.38	±	3.05	-5.11	±	11.29	No
	03/31/24	Cesium-137	-1.97	±	39.30	-7.29	±	145.41	No
	03/31/24	Plutonium-238	-5.07	±	3.33	-18.76	±	12.32	No
	03/31/24	Plutonium-239/240	0.23	±	4.24	0.87	±	15.69	No
	03/31/24	Strontium-90	59.80	±	26.00	221.26	±	96.20	No
	03/31/24	Uranium-233/234	0.35	±	2.26	1.31	±	8.36	No
	03/31/24	Uranium-238	4.16	±	2.91	15.39	±	10.77	No
	03/31/24	Zinc-65	-161.00	±	111.00	-595.70	±	410.70	No
CRATERS OF THE	03/31/24	Americium-241	0.42	±	2.41	1.54	±	8.92	No
MOON	03/31/24	Cesium-137	53.00	±	41.40	196.10	±	153.18	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Plutonium-238	0.35	±	2.06	1.31	±	7.62	No
	03/31/24	Plutonium-239/240	3.62	±	2.53	13.39	±	9.36	No
	03/31/24	Strontium-90	-16.20	±	30.90	-59.94	±	114.33	No
	03/31/24	Uranium-233/234	3.92	±	3.29	14.50	±	12.17	No
	03/31/24	Uranium-238	1.85	±	2.60	6.85	±	9.62	No
	03/31/24	Zinc-65	7.11	±	101.00	26.31	±	373.70	No
DUBOIS	03/31/24	Americium-241	1.43	±	3.28	5.29	±	12.14	No
	03/31/24	Cesium-137	29.40	±	56.30	108.78	±	208.31	No
	03/31/24	Plutonium-238	-0.94	±	1.46	-3.49	±	5.40	No
	03/31/24	Plutonium-239/240	2.62	±	2.30	9.69	±	8.51	No
	03/31/24	Strontium-90	75.00	±	25.10	277.50	±	92.87	No
	03/31/24	Uranium-233/234	2.51	±	3.94	9.29	±	14.58	No
	03/31/24	Uranium-238	3.92	±	3.96	14.50	±	14.65	No
	03/31/24	Zinc-65	69.20	±	115.00	256.04	±	425.50	No
IDAHO FALLS	03/31/24	Americium-241	-2.63	±	1.69	-9.73	±	6.25	No
	03/31/24	Cesium-137	26.50	±	124.00	98.05	±	458.80	No
	03/31/24	Plutonium-238	1.58	±	2.22	5.85	±	8.21	No
	03/31/24	Plutonium-239/240	-2.90	±	2.08	-10.73	±	7.70	No
	03/31/24	Strontium-90	31.20	±	26.00	115.44	±	96.20	No
	03/31/24	Uranium-233/234	0.14	±	2.95	0.52	±	10.92	No
	03/31/24	Uranium-238	-1.95	±	1.89	-7.22	±	6.99	No
	03/31/24	Zinc-65	0.00	±	236.00	0.00	±	873.20	No
IRC	03/31/24	Americium-241	0.06	±	2.27	0.22	±	8.40	No
	03/31/24	Cesium-137	67.00	±	54.80	247.90	±	202.76	No
	03/31/24	Plutonium-238	2.13	±	2.14	7.88	±	7.92	No
	03/31/24	Plutonium-239/240	-2.03	±	1.46	-7.51	±	5.40	No
	03/31/24	Strontium-90	87.20	±	29.80	322.64	±	110.26	No
	03/31/24	Uranium-233/234	7.95	±	4.92	29.42	±	18.20	No
	03/31/24	Uranium-238	4.13	±	3.74	15.28	±	13.84	No
	03/31/24	Zinc-65	-15.60	±	125.00	-57.72	±	462.50	No
IRC NORTH	03/31/24	Americium-241	0.80	±	2.26	2.95	±	8.36	No
	03/31/24	Cesium-137	92.90	±	63.40	343.73	±	234.58	No
	03/31/24	Plutonium-238	1.05	±	2.00	3.89	±	7.40	No
	03/31/24	Plutonium-239/240	2.09	±	2.45	7.73	±	9.07	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Strontium-90	28.50	±	23.50	105.45	±	86.95	No
	03/31/24	Uranium-233/234	5.80	±	6.91	21.46	±	25.57	No
	03/31/24	Uranium-238	-1.82	±	4.22	-6.73	±	15.61	No
	03/31/24	Zinc-65	-20.00	±	159.00	-74.00	±	588.30	No
JACKSON, WY	03/31/24	Americium-241	2.34	±	2.74	8.66	±	10.14	No
	03/31/24	Cesium-137	56.00	±	48.30	207.20	±	178.71	No
	03/31/24	Plutonium-238	0.10	±	2.31	0.36	±	8.55	No
	03/31/24	Plutonium-239/240	0.10	±	2.30	0.36	±	8.51	No
	03/31/24	Strontium-90	-6.51	±	21.40	-24.09	±	79.18	No
	03/31/24	Uranium-233/234	-0.87	±	2.38	-3.21	±	8.81	No
	03/31/24	Uranium-238	1.23	±	2.35	4.55	±	8.70	No
	03/31/24	Zinc-65	-43.10	±	107.00	-159.47	±	395.90	No
SUGAR CITY	03/31/24	Americium-241	-1.13	±	1.75	-4.18	±	6.48	No
	03/31/24	Cesium-137	-68.20	±	57.00	-252.34	±	210.90	No
	03/31/24	Plutonium-238	1.08	±	2.06	4.00	±	7.62	No
	03/31/24	Plutonium-239/240	-1.36	±	1.61	-5.03	±	5.96	No
	03/31/24	Strontium-90	80.50	±	23.00	297.85	±	85.10	**Yes**
	03/31/24	Uranium-233/234	2.29	±	3.32	8.47	±	12.28	No
	03/31/24	Uranium-238	16.80	±	5.30	62.16	±	19.61	**Yes**
	03/31/24	Zinc-65	192.00	±	107.00	710.40	±	395.90	No
SUGAR CITY (QA 2)	03/31/24	Americium-241	0.06	±	2.11	0.21	±	7.81	No
	03/31/24	Cesium-137	-61.40	±	49.90	-227.18	±	184.63	No
	03/31/24	Plutonium-238	3.73	±	2.75	13.80	±	10.18	No
	03/31/24	Plutonium-239/240	3.72	±	2.74	13.76	±	10.14	No
	03/31/24	Strontium-90	34.10	±	19.20	126.17	±	71.04	No
	03/31/24	Uranium-233/234	12.70	±	6.22	46.99	±	23.01	No
	03/31/24	Uranium-238	8.59	±	4.76	31.78	±	17.61	No
	03/31/24	Zinc-65	-188.00	±	139.00	-695.60	±	514.30	No
ONSITE									
ATR COMPLEX	03/31/24	Americium-241	-0.97	±	1.50	-3.59	±	5.55	No
	03/31/24	Cesium-137	-12.90	±	36.80	-47.73	±	136.16	No
	03/31/24	Plutonium-238	-1.03	±	1.58	-3.81	±	5.85	No
	03/31/24	Plutonium-239/240	-2.05	±	1.69	-7.59	±	6.25	No
	03/31/24	Strontium-90	27.90	±	14.30	103.23	±	52.91	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Uranium-233/234	7.68	±	3.55	28.42	±	13.14	No
	03/31/24	Uranium-238	4.10	±	2.66	15.17	±	9.84	No
	03/31/24	Zinc-65	0.00	±	35.90	0.00	±	132.83	No
CFA	03/31/24	Americium-241	3.48	±	3.50	12.88	±	12.95	No
	03/31/24	Cesium-137	60.50	±	46.60	223.85	±	172.42	No
	03/31/24	Plutonium-238	0.05	±	1.80	0.18	±	6.66	No
	03/31/24	Plutonium-239/240	-1.71	±	1.41	-6.33	±	5.22	No
	03/31/24	Strontium-90	16.70	±	26.50	61.79	±	98.05	No
	03/31/24	Uranium-233/234	5.19	±	4.03	19.20	±	14.91	No
	03/31/24	Uranium-238	0.45	±	2.40	1.66	±	8.88	No
	03/31/24	Zinc-65	95.40	±	101.00	352.98	±	373.70	No
EBR-I	03/31/24	Americium-241	0.70	±	1.98	2.58	±	7.33	No
	03/31/24	Cesium-137	5.02	±	44.50	18.57	±	164.65	No
	03/31/24	Plutonium-238	-0.55	±	1.23	-2.02	±	4.55	No
	03/31/24	Plutonium-239/240	0.00	±	1.17	0.00	±	4.33	No
	03/31/24	Strontium-90	-51.20	±	25.40	-189.44	±	93.98	No
	03/31/24	Uranium-233/234	3.54	±	3.15	13.10	±	11.66	No
	03/31/24	Uranium-238	1.65	±	2.64	6.11	±	9.77	No
	03/31/24	Zinc-65	-207.00	±	125.00	-765.90	±	462.50	No
EFS	03/31/24	Americium-241	1.01	±	2.31	3.74	±	8.55	No
	03/31/24	Cesium-137	28.00	±	59.70	103.60	±	220.89	No
	03/31/24	Plutonium-238	-1.30	±	1.53	-4.81	±	5.66	No
	03/31/24	Plutonium-239/240	-0.27	±	2.07	-1.00	±	7.66	No
	03/31/24	Strontium-90	17.90	±	25.60	66.23	±	94.72	No
	03/31/24	Uranium-233/234	5.36	±	3.23	19.83	±	11.95	No
	03/31/24	Uranium-238	3.02	±	2.46	11.17	±	9.10	No
	03/31/24	Zinc-65	-10.30	±	116.00	-38.11	±	429.20	No
GATE 4	03/31/24	Americium-241	3.93	±	2.98	14.54	±	11.03	No
	03/31/24	Cesium-137	59.60	±	43.90	220.52	±	162.43	No
	03/31/24	Plutonium-238	0.05	±	1.80	0.18	±	6.66	No
	03/31/24	Plutonium-239/240	3.43	±	3.33	12.69	±	12.32	No
	03/31/24	Strontium-90	159.00	±	25.80	588.30	±	95.46	**Yes**
	03/31/24	Uranium-233/234	2.78	±	3.23	10.29	±	11.95	No
	03/31/24	Uranium-238	0.00	±	1.64	0.00	±	6.07	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Zinc-65	90.50	±	122.00	334.85	±	451.40	No
HIGHWAY 26 REST	03/31/24	Americium-241	1.83	±	2.15	6.77	±	7.96	No
AREA	03/31/24	Cesium-137	-17.40	±	63.70	-64.38	±	235.69	No
	03/31/24	Plutonium-238	2.76	±	2.78	10.21	±	10.29	No
	03/31/24	Plutonium-239/240	-2.26	±	1.86	-8.36	±	6.88	No
	03/31/24	Strontium-90	9.16	±	21.70	33.89	±	80.29	No
	03/31/24	Uranium-233/234	4.57	±	3.42	16.91	±	12.65	No
	03/31/24	Uranium-238	3.27	±	2.71	12.10	±	10.03	No
	03/31/24	Zinc-65	-30.60	±	142.00	-113.22	±	525.40	No
HIGHWAY 26 REST	03/31/24	Americium-241	0.76	±	2.16	2.82	±	7.99	No
AREA (QA 3)	03/31/24	Cesium-137	165.00	±	73.70	610.50	±	272.69	No
	03/31/24	Plutonium-238	0.78	±	2.22	2.90	±	8.21	No
	03/31/24	Plutonium-239/240	0.12	±	2.83	0.44	±	10.47	No
	03/31/24	Strontium-90	45.80	±	25.70	169.46	±	95.09	No
	03/31/24	Uranium-233/234	5.40	±	3.22	19.98	±	11.91	No
	03/31/24	Uranium-238	2.40	±	2.11	8.88	±	7.81	No
	03/31/24	Zinc-65	108.00	±	140.00	399.60	±	518.00	No
INTEC (NE CORNER)	03/31/24	Americium-241	-1.72	±	1.66	-6.36	±	6.14	No
	03/31/24	Cesium-137	41.00	±	47.50	151.70	±	175.75	No
	03/31/24	Plutonium-238	0.66	±	2.18	2.45	±	8.07	No
	03/31/24	Plutonium-239/240	-0.52	±	1.83	-1.92	±	6.77	No
	03/31/24	Strontium-90	34.00	±	27.30	125.80	±	101.01	No
	03/31/24	Uranium-233/234	7.65	±	4.85	28.31	±	17.95	No
	03/31/24	Uranium-238	-1.19	±	1.84	-4.40	±	6.81	No
	03/31/24	Zinc-65	-14.90	±	124.00	-55.13	±	458.80	No
INTEC (WEST SIDE)	03/31/24	Americium-241	-1.50	±	3.46	-5.55	±	12.80	No
	03/31/24	Cesium-137	15.70	±	41.70	58.09	±	154.29	No
	03/31/24	Plutonium-238	-2.03	±	1.46	-7.51	±	5.40	No
	03/31/24	Plutonium-239/240	2.18	±	2.52	8.07	±	9.32	No
	03/31/24	Strontium-90	84.00	±	28.80	310.80	±	106.56	No
	03/31/24	Uranium-233/234	-1.51	±	2.49	-5.59	±	9.21	No
	03/31/24	Uranium-238	2.39	±	2.77	8.84	±	10.25	No
	03/31/24	Zinc-65	196.00	±	113.00	725.20	±	418.10	No
MAIN GATE	03/31/24	Americium-241	-0.78	±	1.75	-2.87	±	6.48	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Cesium-137	67.90	±	52.00	251.23	±	192.40	No
	03/31/24	Plutonium-238	-1.38	±	1.64	-5.11	±	6.07	No
	03/31/24	Plutonium-239/240	2.19	±	2.57	8.10	±	9.51	No
	03/31/24	Strontium-90	39.60	±	22.50	146.52	±	83.25	No
	03/31/24	Uranium-233/234	-1.51	±	2.54	-5.59	±	9.40	No
	03/31/24	Uranium-238	0.07	±	2.54	0.25	±	9.40	No
	03/31/24	Zinc-65	81.20	±	106.00	300.44	±	392.20	No
MFC NORTH	03/31/24	Americium-241	0.05	±	1.97	0.19	±	7.29	No
	03/31/24	Cesium-137	-53.50	±	48.40	-197.95	±	179.08	No
	03/31/24	Plutonium-238	4.10	±	3.70	15.17	±	13.69	No
	03/31/24	Plutonium-239/240	-0.86	±	1.95	-3.19	±	7.22	No
	03/31/24	Strontium-90	23.90	±	26.30	88.43	±	97.31	No
	03/31/24	Uranium-233/234	3.00	±	2.65	11.10	±	9.81	No
	03/31/24	Uranium-238	2.15	±	2.19	7.96	±	8.10	No
	03/31/24	Zinc-65	11.60	±	95.30	42.92	±	352.61	No
MFC SOUTH	03/31/24	Americium-241	1.03	±	1.97	3.81	±	7.29	No
	03/31/24	Cesium-137	14.20	±	43.20	52.54	±	159.84	No
	03/31/24	Plutonium-238	-0.33	±	1.45	-1.21	±	5.37	No
	03/31/24	Plutonium-239/240	-0.98	±	1.52	-3.63	±	5.62	No
	03/31/24	Strontium-90	46.40	±	24.70	171.68	±	91.39	No
	03/31/24	Uranium-233/234	1.16	±	2.99	4.29	±	11.06	No
	03/31/24	Uranium-238	-1.85	±	2.29	-6.85	±	8.47	No
	03/31/24	Zinc-65	-53.80	±	115.00	-199.06	±	425.50	No
NRF	03/31/24	Americium-241	0.77	±	2.20	2.86	±	8.14	No
	03/31/24	Cesium-137	118.00	±	80.60	436.60	±	298.22	No
	03/31/24	Plutonium-238	0.78	±	2.21	2.89	±	8.18	No
	03/31/24	Plutonium-239/240	1.56	±	2.72	5.77	±	10.06	No
	03/31/24	Strontium-90	14.40	±	21.50	53.28	±	79.55	No
	03/31/24	Uranium-233/234	0.44	±	2.34	1.64	±	8.66	No
	03/31/24	Uranium-238	1.71	±	2.00	6.33	±	7.40	No
	03/31/24	Zinc-65	198.00	±	112.00	732.60	±	414.40	No
PBF	03/31/24	Americium-241	-0.95	±	1.47	-3.52	±	5.44	No
	03/31/24	Cesium-137	-25.10	±	43.30	-92.87	±	160.21	No
	03/31/24	Plutonium-238	1.12	±	2.56	4.14	±	9.47	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Plutonium-239/240	1.84	±	2.95	6.81	±	10.92	No
	03/31/24	Strontium-90	31.00	±	27.50	114.70	±	101.75	No
	03/31/24	Uranium-233/234	2.15	±	2.87	7.96	±	10.62	No
	03/31/24	Uranium-238	2.86	±	2.11	10.58	±	7.81	No
	03/31/24	Zinc-65	105.00	±	106.00	388.50	±	392.20	No
RHLLW	03/31/24	Americium-241	3.90	±	2.88	14.43	±	10.66	No
	03/31/24	Cesium-137	-20.10	±	50.10	-74.37	±	185.37	No
	03/31/24	Plutonium-238	2.85	±	2.87	10.55	±	10.62	No
	03/31/24	Plutonium-239/240	-1.16	±	1.80	-4.29	±	6.66	No
	03/31/24	Strontium-90	54.60	±	18.00	202.02	±	66.60	**Yes**
	03/31/24	Uranium-233/234	4.23	±	3.30	15.65	±	12.21	No
	03/31/24	Uranium-238	2.13	±	2.14	7.88	±	7.92	No
	03/31/24	Zinc-65	-89.90	±	92.80	-332.63	±	343.36	No
RHLLW (QA 4)	03/31/24	Americium-241	1.52	±	2.13	5.62	±	7.88	No
	03/31/24	Cesium-137	-5.24	±	42.30	-19.39	±	156.51	No
	03/31/24	Plutonium-238	0.36	±	1.90	1.31	±	7.03	No
	03/31/24	Plutonium-239/240	2.23	±	2.24	8.25	±	8.29	No
	03/31/24	Strontium-90	30.90	±	23.90	114.33	±	88.43	No
	03/31/24	Uranium-233/234	2.67	±	2.62	9.88	±	9.69	No
	03/31/24	Uranium-238	1.58	±	1.85	5.85	±	6.85	No
	03/31/24	Zinc-65	17.50	±	112.00	64.75	±	414.40	No
RWMC	03/31/24	Americium-241	-0.37	±	1.62	-1.37	±	5.99	No
	03/31/24	Cesium-137	-24.40	±	43.00	-90.28	±	159.10	No
	03/31/24	Plutonium-238	4.27	±	3.15	15.80	±	11.66	No
	03/31/24	Plutonium-239/240	1.24	±	2.83	4.59	±	10.47	No
	03/31/24	Strontium-90	79.00	±	28.80	292.30	±	106.56	No
	03/31/24	Uranium-233/234	4.41	±	3.02	16.32	±	11.17	No
	03/31/24	Uranium-238	8.23	±	3.51	30.45	±	12.99	No
	03/31/24	Zinc-65	-40.90	±	134.00	-151.33	±	495.80	No
RWMC SOUTH	03/31/24	Americium-241	2.52	±	2.53	9.32	±	9.36	No
	03/31/24	Cesium-137	16.70	±	57.70	61.79	±	213.49	No
	03/31/24	Plutonium-238	0.77	±	2.18	2.85	±	8.07	No
	03/31/24	Plutonium-239/240	-2.84	±	1.82	-10.51	±	6.73	No
	03/31/24	Strontium-90	61.20	±	26.60	226.44	±	98.42	No

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

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty ($\times 10^{-18}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-14}$ Bq/mL)			Result > 3s
	03/31/24	Uranium-233/234	3.39	±	2.86	12.54	±	10.58	No
	03/31/24	Uranium-238	1.92	±	2.26	7.10	±	8.36	No
	03/31/24	Zinc-65	66.60	±	98.90	246.42	±	365.93	No
SMC	03/31/24	Americium-241	0.77	±	2.18	2.85	±	8.07	No
	03/31/24	Cesium-137	88.60	±	50.20	327.82	±	185.74	No
	03/31/24	Plutonium-238	1.83	±	2.57	6.77	±	9.51	No
	03/31/24	Plutonium-239/240	-0.63	±	2.22	-2.33	±	8.21	No
	03/31/24	Strontium-90	26.00	±	17.20	96.20	±	63.64	No
	03/31/24	Uranium-233/234	16.50	±	5.25	61.05	±	19.43	**Yes**
	03/31/24	Uranium-238	6.95	±	3.57	25.72	±	13.21	No
	03/31/24	Zinc-65	-47.30	±	112.00	-175.01	±	414.40	No
VAN BUREN	03/31/24	Americium-241	18.60	±	5.27	68.82	±	19.50	**Yes**
	03/31/24	Cesium-137	0.00	±	150.00	0.00	±	555.00	No
	03/31/24	Plutonium-238	0.40	±	2.14	1.48	±	7.92	No
	03/31/24	Plutonium-239/240	3.32	±	3.35	12.28	±	12.40	No
	03/31/24	Strontium-90	614.00	±	47.40	2271.80	±	175.38	**Yes**
	03/31/24	Uranium-233/234	-2.02	±	2.26	-7.47	±	8.36	No
	03/31/24	Uranium-238	9.62	±	4.27	35.59	±	15.80	No
	03/31/24	Zinc-65	-58.40	±	111.00	-216.08	±	410.70	No

Table B-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
BOUNDARY				
ATOMIC CITY	01/24/24	2.07 ± 1.84	7.66 ± 6.81	No
	03/27/24	1.05 ± 2.90	3.89 ± 10.73	No
HOWE	01/24/24	1.02 ± 1.33	3.77 ± 4.92	No
	03/06/24	-2.29 ± 2.27	-8.47 ± 8.40	No
OFFSITE				
CRATERS OF THE MOON	01/03/24	-1.24 ± 1.53	-4.59 ± 5.66	No
	02/14/24	3.10 ± 2.24	11.47 ± 8.29	No
IDAHO FALLS	01/16/24	1.75 ± 1.89	6.48 ± 6.99	No
	01/24/24	2.81 ± 2.17	10.40 ± 8.03	No
	02/28/24	-0.15 ± 2.81	-0.55 ± 10.40	No
	03/13/24	1.23 ± 2.57	4.55 ± 9.51	No
ONSITE				
EFS	01/31/24	3.86 ± 2.28	14.28 ± 8.44	No
	03/27/24	2.76 ± 1.85	10.21 ± 6.85	No
RHLLW	01/16/24	4.82 ± 2.08	17.83 ± 7.70	No
	02/28/24	-4.08 ± 2.59	-15.10 ± 9.58	No
VAN BUREN	01/24/24	1.61 ± 1.83	5.96 ± 6.77	No
	03/13/24	2.73 ± 2.39	10.10 ± 8.84	No

Table B-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	01/16/24	01/24/24	5.37	±	37.80	0.20	±	1.40	No
	01/24/24	01/31/24	-1.36	±	25.80	-0.05	±	0.95	No
	01/31/24	02/07/24	8.72	±	26.40	0.32	±	0.98	No
	02/14/24	02/21/24	26.90	±	28.00	1.00	±	1.04	No
	02/28/24	03/06/24	57.40	±	28.30	2.12	±	1.05	No
HOWE	01/17/24	01/24/24	36.90	±	28.70	1.37	±	1.06	No
	01/31/24	02/07/24	-11.40	±	24.90	-0.42	±	0.92	No
	02/07/24	02/14/24	3.11	±	25.80	0.12	±	0.95	No
	02/14/24	02/21/24	38.80	±	29.50	1.44	±	1.09	No
	02/28/24	03/06/24	53.40	±	29.10	1.98	±	1.08	No
	03/20/24	03/27/24	5.18	±	24.80	0.19	±	0.92	No
OFFSITE									
IDAHO FALLS	01/01/24	01/31/24	28.80	±	27.80	1.07	±	1.03	No
	02/01/24	02/29/24	12.10	±	26.90	0.45	±	1.00	No
	03/01/24	03/31/24	32.00	±	25.90	1.18	±	0.96	No
ONSITE									
EFS	01/10/24	01/16/24	10.20	±	27.00	0.38	±	1.00	No
	01/16/24	01/24/24	28.40	±	27.70	1.05	±	1.02	No
	01/24/24	02/07/24	-19.10	±	24.90	-0.71	±	0.92	No
	02/14/24	02/21/24	-6.68	±	25.60	-0.25	±	0.95	No
	02/28/24	03/06/24	42.20	±	27.70	1.56	±	1.02	No
	03/13/24	03/20/24	-12.90	±	23.90	-0.48	±	0.88	No
	03/20/24	03/27/24	35.50	±	27.10	1.31	±	1.00	No

Table B-6. Gamma emitters, tritum, alpha, and beta concentrations in effluent water.

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
ATR COMPLEX COLD WASTE	01/18/24	Americium-241	4.80	±	4.44	0.18	±	0.16	No
PONDS	01/18/24	Antimony-125	0.89	±	1.19	0.03	±	0.04	No
	01/18/24	Cerium-144	1.18	±	3.03	0.04	±	0.11	No
	01/18/24	Cesium-134	1.29	±	0.70	0.05	±	0.03	No
	01/18/24	Cesium-137	0.58	±	0.47	0.02	±	0.02	No
	01/18/24	Cobalt-58	-0.38	±	0.44	-0.01	±	0.02	No
	01/18/24	Cobalt-60	0.47	±	0.45	0.02	±	0.02	No
	01/18/24	Europium-152	0.86	±	1.26	0.03	±	0.05	No
	01/18/24	Europium-154	-0.19	±	1.59	-0.01	±	0.06	No
	01/18/24	Europium-155	1.92	±	1.69	0.07	±	0.06	No
	01/18/24	Gross alpha	1.04	±	0.84	0.04	±	0.03	No
	01/18/24	Gross beta	5.74	±	1.07	0.21	±	0.04	**Yes**
	01/18/24	Manganese-54	0.00	±	0.46	0.00	±	0.02	No
	01/18/24	Niobium-95	-0.25	±	0.46	-0.01	±	0.02	No
	01/18/24	Potassium-40	4.31	±	13.90	0.16	±	0.51	No
	01/18/24	Radium-226	2.37	±	23.20	0.09	±	0.86	No
	01/18/24	Ruthenium-103	0.32	±	0.47	0.01	±	0.02	No
	01/18/24	Ruthenium-106	-0.72	±	3.79	-0.03	±	0.14	No
	01/18/24	Silver-108 meta-stable	0.73	±	0.42	0.03	±	0.02	No
	01/18/24	Silver-110 meta-stable	-0.53	±	0.60	-0.02	±	0.02	No
	01/18/24	Uranium-235	4.22	±	6.69	0.16	±	0.25	No
	01/18/24	Zinc-65	-2.28	±	1.32	-0.08	±	0.05	No
	01/18/24	Zirconium-95	1.17	±	0.85	0.04	±	0.03	No
	01/18/24	Tritium	102.00	±	87.50	3.78	±	3.24	No
ATR COMPLEX COLD WASTE	02/13/24	Americium-241	-0.56	±	3.93	-0.02	±	0.15	No
PONDS	02/13/24	Antimony-125	-2.18	±	1.35	-0.08	±	0.05	No
	02/13/24	Cerium-144	4.63	±	3.42	0.17	±	0.13	No
	02/13/24	Cesium-134	0.81	±	0.57	0.03	±	0.02	No
	02/13/24	Cesium-137	0.00	±	1.29	0.00	±	0.05	No
	02/13/24	Cobalt-58	0.14	±	0.48	0.01	±	0.02	No
	02/13/24	Cobalt-60	0.00	±	0.44	0.00	±	0.02	No
	02/13/24	Europium-152	-0.60	±	1.34	-0.02	±	0.05	No
	02/13/24	Europium-154	0.46	±	1.32	0.02	±	0.05	No
	02/13/24	Europium-155	-1.36	±	1.85	-0.05	±	0.07	No
	02/13/24	Gross alpha	2.70	±	0.92	0.10	±	0.03	No
	02/13/24	Gross beta	3.01	±	0.74	0.11	±	0.03	**Yes**
	02/13/24	Manganese-54	0.32	±	0.49	0.01	±	0.02	No
	02/13/24	Niobium-95	-0.51	±	0.99	-0.02	±	0.04	No

Table B-6. Gamma emitters, tritium, alpha, and beta concentrations in effluent water.

Sampling Group and Location	Sampling Date	Constituent	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
	02/13/24	Potassium-40	-11.40	±	13.30	-0.42	±	0.49	No
	02/13/24	Radium-226	25.70	±	27.50	0.95	±	1.02	No
	02/13/24	Ruthenium-103	0.00	±	0.66	0.00	±	0.02	No
	02/13/24	Ruthenium-106	-9.05	±	4.68	-0.34	±	0.17	No
	02/13/24	Silver-108 meta-stable	0.17	±	0.41	0.01	±	0.02	No
	02/13/24	Silver-110 meta-stable	-0.47	±	0.58	-0.02	±	0.02	No
	02/13/24	Uranium-235	1.13	±	6.04	0.04	±	0.22	No
	02/13/24	Zinc-65	-2.01	±	1.53	-0.07	±	0.06	No
	02/13/24	Zirconium-95	1.06	±	0.84	0.04	±	0.03	No
	02/13/24	Tritium	-88.70	±	90.20	-3.29	±	3.34	No
ATR COMPLEX COLD WASTE PONDS	03/12/24	Americium-241	4.92	±	3.69	0.18	±	0.14	No
	03/12/24	Antimony-125	1.04	±	1.25	0.04	±	0.05	No
	03/12/24	Cerium-144	-0.81	±	3.06	-0.03	±	0.11	No
	03/12/24	Cesium-134	-0.58	±	0.48	-0.02	±	0.02	No
	03/12/24	Cesium-137	-0.57	±	0.68	-0.02	±	0.03	No
	03/12/24	Cobalt-58	-0.80	±	0.49	-0.03	±	0.02	No
	03/12/24	Cobalt-60	-0.30	±	0.48	-0.01	±	0.02	No
	03/12/24	Europium-152	1.23	±	1.26	0.05	±	0.05	No
	03/12/24	Europium-154	0.40	±	1.31	0.01	±	0.05	No
	03/12/24	Europium-155	1.48	±	1.77	0.05	±	0.07	No
	03/12/24	Gross alpha	3.22	±	1.03	0.12	±	0.04	**Yes**
	03/12/24	Gross beta	4.89	±	0.59	0.18	±	0.02	**Yes**
	03/12/24	Manganese-54	-0.60	±	0.46	-0.02	±	0.02	No
	03/12/24	Niobium-95	1.00	±	0.53	0.04	±	0.02	No
	03/12/24	Potassium-40	0.00	±	13.70	0.00	±	0.51	No
	03/12/24	Radium-226	-25.50	±	23.30	-0.94	±	0.86	No
	03/12/24	Ruthenium-103	-1.01	±	0.60	-0.04	±	0.02	No
	03/12/24	Ruthenium-106	-3.29	±	3.95	-0.12	±	0.15	No
	03/12/24	Silver-108 meta-stable	-0.04	±	0.39	0.00	±	0.01	No
	03/12/24	Silver-110 meta-stable	-0.44	±	0.58	-0.02	±	0.02	No
	03/12/24	Uranium-235	-2.60	±	5.92	-0.10	±	0.22	No
	03/12/24	Zinc-65	0.49	±	0.95	0.02	±	0.04	No
	03/12/24	Zirconium-95	0.14	±	0.80	0.01	±	0.03	No
	03/12/24	Tritium	-72.80	±	88.10	-2.70	±	3.26	No

Table B-7. Weekly and monthly iodine-131 concentrations in milk.

		Iodine-131						Cesium-137					
Location	Sampling Date	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)		Result > 3s	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)		Result > 3s
CONTROL	01/09/24	0.11	±	0.22	0.00	± 0.01	No	1.75	±	2.38	0.06	± 0.09	No
	02/19/24	-0.22	±	0.19	-0.01	± 0.01	No	1.62	±	1.80	0.06	± 0.07	No
	03/19/24	-0.16	±	0.21	-0.01	± 0.01	No	0.00	±	5.54	0.00	± 0.21	No
DIETRICH	01/08/24	0.05	±	0.19	0.00	± 0.01	No	-3.74	±	2.91	-0.14	± 0.11	No
	02/19/24	0.09	±	0.21	0.00	± 0.01	No	1.93	±	1.12	0.07	± 0.04	No
	03/18/24	-0.10	±	0.22	0.00	± 0.01	No	3.06	±	2.49	0.11	± 0.09	No
HOWE	01/15/24	0.51	±	0.24	0.02	± 0.01	No	2.17	±	2.06	0.08	± 0.08	No
	02/19/24	0.31	±	0.24	0.01	± 0.01	No	-1.64	±	1.41	-0.06	± 0.05	No
	03/18/24	0.30	±	0.23	0.01	± 0.01	No	-0.77	±	1.96	-0.03	± 0.07	No
MINIDOKA	01/08/24	0.22	±	0.22	0.01	± 0.01	No	1.31	±	1.94	0.05	± 0.07	No
duplicate	01/08/24	0.03	±	0.23	0.00	± 0.01	No	0.17	±	2.07	0.01	± 0.08	No
	02/19/24	0.28	±	0.28	0.01	± 0.01	No	1.16	±	1.74	0.04	± 0.06	No
	03/18/24	-0.14	±	0.20	-0.01	± 0.01	No	-0.95	±	2.15	-0.04	± 0.08	No
MONTEVIEW	01/09/24	0.00	±	0.35	0.00	± 0.01	No	0.21	±	2.60	0.01	± 0.10	No
	02/19/24	-0.19	±	0.24	-0.01	± 0.01	No	0.88	±	2.42	0.03	± 0.09	No
	03/19/24	-0.44	±	0.21	-0.02	± 0.01	No	-1.63	±	2.26	-0.06	± 0.08	No
RIGBY	01/03/24	-0.01	±	0.20	0.00	± 0.01	No	1.93	±	2.10	0.07	± 0.08	No
	01/11/24	-0.29	±	0.20	-0.01	± 0.01	No	0.00	±	2.39	0.00	± 0.09	No
	01/16/24	-0.14	±	0.24	-0.01	± 0.01	No	1.80	±	2.19	0.07	± 0.08	No
	01/23/24	0.11	±	0.21	0.00	± 0.01	No	-0.40	±	1.77	-0.01	± 0.07	No
	01/29/24	-0.37	±	0.24	-0.01	± 0.01	No	0.11	±	2.84	0.00	± 0.11	No
	02/07/24	0.14	±	0.27	0.01	± 0.01	No	2.48	±	1.84	0.09	± 0.07	No
	02/12/24	0.16	±	0.18	0.01	± 0.01	No	0.49	±	2.11	0.02	± 0.08	No
	02/19/24	-0.40	±	0.31	-0.01	± 0.01	No	0.14	±	1.22	0.01	± 0.05	No
duplicate	02/19/24	0.45	±	0.54	0.02	± 0.02	No	3.60	±	1.69	0.13	± 0.06	No
	02/26/24	-0.06	±	0.21	0.00	± 0.01	No	4.02	±	2.22	0.15	± 0.08	No
	03/05/24	0.01	±	0.22	0.00	± 0.01	No	0.88	±	2.12	0.03	± 0.08	No
	03/11/24	-0.16	±	0.13	-0.01	± 0.00	No	2.64	±	4.46	0.10	± 0.17	No
	03/19/24	0.24	±	0.21	0.01	± 0.01	No	1.59	±	1.71	0.06	± 0.06	No
	03/25/24	0.14	±	0.20	0.01	± 0.01	No	5.12	±	2.30	0.19	± 0.09	No
TERRETON	01/03/24	0.03	±	0.18	0.00	± 0.01	No	0.74	±	2.22	0.03	± 0.08	No
	01/15/24	-0.24	±	0.21	-0.01	± 0.01	No	-1.19	±	3.39	-0.04	± 0.13	No
	01/23/24	-0.35	±	0.16	-0.01	± 0.01	No	-5.88	±	3.22	-0.22	± 0.12	No
	01/29/24	-0.35	±	0.22	-0.01	± 0.01	No	1.58	±	3.47	0.06	± 0.13	No
	02/08/24	0.13	±	0.20	0.00	± 0.01	No	-4.17	±	3.08	-0.15	± 0.11	No
	02/12/24	0.18	±	0.17	0.01	± 0.01	No	-2.18	±	2.44	-0.08	± 0.09	No
	02/20/24	0.01	±	0.20	0.00	± 0.01	No	0.35	±	1.53	0.01	± 0.06	No
	02/26/24	-0.05	±	0.20	0.00	± 0.01	No	1.73	±	1.53	0.06	± 0.06	No
	03/05/24	0.29	±	0.21	0.01	± 0.01	No	3.21	±	3.97	0.12	± 0.15	No

Table B-7. Weekly and monthly iodine-131 concentrations in milk.

		Iodine-131							Cesium-137						
Location	Sampling Date	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
	03/11/24	-0.43	±	0.23	-0.02	±	0.01	No	-1.48	±	2.04	-0.05	±	0.08	No
	03/19/24	-0.08	±	0.17	0.00	±	0.01	No	0.24	±	1.77	0.01	±	0.07	No
duplicate	03/19/24	0.00	±	0.14	0.00	±	0.01	No	2.01	±	2.36	0.07	±	0.09	No
	03/25/24	0.21	±	0.21	0.01	±	0.01	No	-2.54	±	1.89	-0.09	±	0.07	No

Table B-8. Gamma-emitting radionuclides in large game animals.

Species	Collection Date	Tissue	Constituent	Result ± 1s (pCi/kg wet weight)			Result ± 1s Uncertainty (x 10^{-2} Bq/kg wet weight)			Result > 3s
ELK	02/28/24	Muscle	Cesium-137	-0.54	±	1.31	-1.98	±	4.85	No
		Liver	Cesium-137	-0.99	±	1.51	-3.66	±	5.59	No
		Thyroid	Iodine-131	150.00	±	229.00	555.00	±	847.30	No

Appendix C
Statistical Analysis Results

Table C-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	82	16666.00	203.2439		
Onsite	237	50823.50	214.4451	0.9925989	0.6088
Offsite	108	23888.50	221.1898		
January	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	28	2041.500	72.91071		
Onsite	80	6274.500	78.43125	4.197118	0.1226
Offsite	37	2269.000	61.32432		
February	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	28	1734.000	61.92857		
Onsite	78	5611.500	71.94231	2.420083	0.2982
Offsite	36	2807.500	77.98611		
March	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	26	1712.000	65.84615		
Onsite	79	5332.500	67.50000	3.000679	0.2231
Offsite	35	2825.500	80.72857		
GROSS BETA					
Quarter	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	82	17617.00	214.8415		
Onsite	237	54250.00	228.9030	11.34442	0.0034
Offsite	108	19511.00	180.6574		
January	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	28	2045.000	73.03571		
Onsite	80	6636.500	82.95625	14.24022	0.0008
Offsite	37	1903.500	51.44595		
February	**Valid N**	**Sum of Ranks**	**Mean Ranks**	**H[a]**	**P[b]**
Boundary	28	1807.500	64.55357		
Onsite	78	6550.500	83.98077	17.95024	0.0001
Offsite	36	1795.000	49.86111		

Table C-1. continued.

March	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	26	1829.000	70.34615		
Onsite	79	5588.500	70.74051	0.0070603	0.9965
Offsite	35	2452.500	70.07143		

a. Kruskal-Wallis test statistic calculated using mean ranks. This test assumes H is approximately distributed as μ^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 C-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 p values (2-tailed); Coded result (x10-15) (1st Qtr 2024 Air Query in 1st-Qtr-24-LVf)
Independent (grouping) variable: Location Name
Kruskal-Wallis test: H (31, N= 380) =18.31009 p =.9655
Include condition: v9='gross alpha'

Depend.: Coded result (x10-15)	Arco R:187.95	Atomic City R:157.50	ATR Complex R:229.79	Blackfoot R:195.71	Blue Dome R:142.96	CFA R:181.79	Craters of the Moon R:147.00	Dubois R:192.50	EBR 1 R:166.00	EFS R:221.08	Gate 4 R:176.88	Highway 26 Rest Area R:165.46	Howe R:160.13	Idaho Falls R:206.92	INTEC (NE Corner) R:166.75	INTEC (Westside) R:214.29	IRC R:213.58	IRC North R:252.21	Jackson WY R:188.65	Main Gate R:189.00	MFC North R:194.33	MFC South R:171.96	Monteview R:193.13	NRF R:205.00	PBF R:176.13	RHLLW R:186.00	RWMC R:191.55	RWMC South R:204.17	SMC R:195.46	Sugar City R:192.17	Terreton R:208.05	Van Buren R:226.59
Arco		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
ATR Complex	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
CFA	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
EFS	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
Idaho Falls	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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 (Westside)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
SMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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 C-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) (1st Qtr 2024 Air Query in 1st-Qtr-24-LVf)
Independent (grouping) variable: Location Name
Kruskal-Wallis test: H (31, N= 380) =20.46725 p =.9252
Include condition: v9='gross beta'

Depend.: Coded result (x10-15)	Arco R:204.36	Atomic City R:167.63	ATR Complex R:191.75	Blackfoot R:143.88	Blue Dome R:171.00	CFA R:197.21	Craters of the Moon R:136.96	Dubois R:210.45	EBR 1 R:200.96	EFS R:196.42	Gate 4 R:206.96	Highway 26 Rest Area R:201.21	Howe R:195.04	Idaho Falls R:152.96	INTEC (NE Corner) R:219.92	INTEC (Westside) R:219.83	IRC R:172.79	IRC North R:166.50	Jackson WY R:158.62	Main Gate R:211.42	MFC North R:173.58	MFC South R:166.46	Monteview R:174.33	NRF R:204.00	PBF R:189.96	RHLLW R:223.29	RWMC R:228.23	RWMC South R:201.67	SMC R:217.33	Sugar City R:156.88	Terreton R:233.91	Van Buren R:214.77
Arco		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
ATR Complex	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
CFA	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
EFS	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
Idaho Falls	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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 (Westside)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
SMC	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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