INL/RPT-25-83989
Revision 0

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

APRIL 2025

Kevin Claver
Jason Dayley
Rajkumar Devasirvatham
Brande Hendricks
Tom Rackow
Blane Teckmeyer

Idaho National Laboratory

Idaho National Laboratory

Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy

INL/RPT-25-83989
Revision 0

Idaho National Laboratory Site Environmental Surveillance Program Report Fourth Quarter 2024

Kevin Claver
Jason Dayley
Raj Devasirvatham
Brande Hendricks
Tom Rackow
Blane Teckmeyer

April 2025

Idaho National Laboratory
Idaho Falls, Idaho 83415

http://www.inl.gov

Prepared for the
U.S. Department of Energy
Under DOE Idaho Operations Office
Contract DE-AC07-05ID14517

SUMMARY

Some human-made radionuclides were detected in samples collected during the quarter. None of the radionuclides detected in samples collected during the quarter 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 provides the results from the INL Site environmental surveillance monitoring program for the U.S. Department of Energy's INL Site's onsite, boundary and offsite locations from October 1 through December 31, 2024. Table ES-1 summaries the results for the quarter.

Table ES-1. Summary of environmental monitoring surveillance results for fourth quarter 2024.

SAMPLE TYPE	POSITIVE DETECTIONS	RESULTS	COMPARISON VALUE
AIR			
Particulate Filters *(Section 3.1)*	834	Thirty-two locations (duplicates at four locations) were sampled. – No statistically significant differences were observed for the quarter, any month during the quarter, or between sampling locations for gross alpha or gross beta concentrations. Results were consistent with historical data. Results above the upper tolerance limit (UTL) are likely due to seasonal fluctuations.	No result exceeded the Derived Concentration Standard (DCS) values.
Quarterly Composite *(Section 3.1)*	15	Thirty-two locations (duplicates at four locations) were sampled. – Strontium-90 results exceeded the 3s uncertainty for samples at the Main Gate and Materials and Fuels Complex (MFC) South. However, the results were not greater than the minimum detectable concentration. – Uranium-233/244 and uranium-238 were detected in composite samples from several locations. – No human-made gamma emitting radionuclides, americium-241, chlorine-36, plutonium-238, or plutonium-239/240 were detected in quarterly composited samples.	None of the results exceeded the corresponding DCS values.
Charcoal Cartridge *(Section 3.1)*	None	Thirty-six locations (including four duplicates) were sampled. – Iodine-131 was not detected in any of the charcoal cartridges.	All results were below the DCS value.
Atmospheric Moisture *(Section 3.2)*	1	Thirteen atmospheric moisture samples were collected. – One of the 13 results showed tritium concentrations greater than the 3s uncertainty.	Detected result was below the DCS value.
Precipitation *(Section 3.3)*	None	Eighteen precipitation samples were collected. – None of the 18 results showed tritium concentrations greater than the 3s uncertainty.	All results were below the DCS value.

Table ES-1. Continued.

SAMPLE TYPE	POSITIVE DETECTIONS	RESULTS	COMPARISON VALUE
LIQUID EFFLUENT			
Effluent *(Section 4)*	4	Four effluent sampling events were collected. – Gross alpha was detected in the Cold Waste Pond (CWP). – Gross beta was detected in the CWP and the Industrial Waste Pond. – No human-made gamma-emitting radionuclides were detected in effluent samples.	Detected results were below screening levels.
WATER			
Surface water *(Section 5.2)*	5	Four surface water locations (including a duplicate) were sampled. – Tritium was not detected in any surface water samples. – Gross alpha was detected in one sample and gross beta was detected in all four samples. All concentrations were similar to previous results.	No DCS value is available for gross alpha or gross beta. All tritium results were below the DCS value.
Drinking water *(Section 5.3.2)*	15	Nine offsite drinking water locations were sampled (including a duplicate and a control). – Gross alpha activity was detected in all offsite samples collected, except Atomic City (duplicate), Idaho Falls, Mud Lake, and the Rest Area. – Gross beta activity was detected in all offsite drinking water samples, except Idaho Falls. – Tritium was not detected in any of the samples collected. Concentrations were similar to previous results.	No DCS value is available for gross alpha or gross beta. All tritium results were below the DCS value.
AGRICULTURAL PRODUCTS			
Milk *(Section 6.1)*	None	Forty-four milk samples were collected at seven locations (including three duplicates and a control). – No human-made gamma-emitting radionuclides, strontium-90, or tritium were detected.	Below the DCS value.
Potato *(Section 6.2)*	None	Eleven potato samples were collected (including a duplicate and a control). – No human-made gamma-emitting radionuclides nor ^{90}Sr were found.	An applicable DCS value is not available.
Lettuce *(Section 6.3)*	None	Twelve lettuce samples (including a duplicate and a control) were collected. – No human-made gamma-emitting radionuclides or ^{90}Sr were found.	An applicable DCS value is not available.
Alfalfa *(Section 6.4)*	None	Four alfalfa samples were collected. – No human-made gamma-emitting radionuclides or ^{90}Sr were found.	An applicable DCS value is not available.
Grain *(Section 6.5)*	None	Twelve grain samples (including a duplicate and a control) were collected. – No human-made gamma-emitting radionuclides or ^{90}Sr were found.	An applicable DCS value is not available.

Table ES-1. Continued.

SAMPLE TYPE	POSITIVE DETECTIONS	RESULTS	COMPARISON VALUE
WILDLIFE			
Large Game Animals *(Section 6.6)*	None	Two elk were available for sampling. – No human-made gamma-emitting radionuclides were found in any of the tissue samples.	An applicable DCS value is not available.
Waterfowl *(Section 6.7)*	2	Seven waterfowl were available for sampling (including two controls). – Cobalt-60 was detected in the exterior sub-samples of a goose collected from Central Facilities Area and a duck from the Advanced Test Reactor (ATR) Complex Sewage Lagoons. – Strontium-90 was detected in the exterior sub-sample of a control duck collected from the South Fork of the Snake River.	An applicable DCS value is not available.
ENVIRONMETAL DIRECT RADIATION			
OSLD Dosimeters *(Section 7)*	3	Measurements of environmental radiation made using optically stimulated luminescent dosimeters (OSLDs) were primarily below the background level UTL except for locations in Idaho Falls (IF-665), Roberts (RobNOAA), EBR-I, INTEC and the Naval Reactor Facility. Measurements that exceeded the UTL were within historical values.	An applicable DCS value is not available.
Neutron Dosimeters *(Section 7)*	None	Neutron dose monitoring performed at INL buildings and facilities were reported to be below the minimum measurable quantity of 10 mrem.	An applicable DCS value is not available.

CONTENTS

FIGURES

TABLES

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	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
MFC	Materials and Fuels Complex
NRF	Naval Reactors Facility
NRTS	National Reactor Testing Station
OSLD	optically stimulated luminescent dosimeters
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 radiological 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 quarter (April 1 – June 30, 2024). Compliance monitoring results from the INL Site contractors and U.S. Geological Survey are reported in the Annual Site Environmental Report.

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

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

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

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

- air (particulate air filters, charcoal cartridges, and atmospheric moisture)
- water (precipitation, effluent, groundwater, surface water, drinking water)
- agricultural products (milk, potatoes, lettuce, alfalfa, and grain [wheat and barley])
- large game animal sampling (pronghorn, mule deer, and elk), and waterfowl
- soil
- environmental direct radiation (optically stimulated luminescent dosimeters [OSLDs] and neutron dosimeters).

The laboratories used by the INL contractor to perform analyses on routine environmental samples are identified in Table 1.

Table 1. INL contractor analytical laboratories used to analyze surveillance media.

ANALYTICAL LABORATORY	MEDIA					
	AIR	WATER	AGRICULTURAL PRODUCTS	BIOTA	SOIL	ENVIRONMENTAL DIRECT RADIATION
GEL Laboratories, LLC	X[a]	X[b]	X	X	X	—[c]
INL Environmental Services In Situ Gamma Laboratory	X[d]	—	—	—	—	—
Landauer	—	—	—	—	—	X

a. Includes atmospheric moisture.
b. Includes precipitation.
c. — = Not contracted with laboratory.
d. Charcoal cartridges only.

Appendix A, Table A-1, details the samples media, analysis type, locations, and collection frequency for the INL contractor.

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.

After collecting and analyzing samples, the INL contractor is responsible for data quality control, database entry, and quarterly report preparation. These quarterly reports are consolidated into the INL Site Environmental Report for each calendar year, which 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 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 2022). 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 located in Pocatello, Idaho. This station, one of two such installations in the U.S., retooled large guns from U.S. Navy warships. The retooled guns were tested on the nearby, uninhabited plain, known as the Naval Proving Ground. In the years following the war, as the nation worked to develop nuclear power, the Atomic Energy Commission, predecessor to the DOE, became interested in the Naval Proving Ground and made plans for a facility to build, test, and perfect nuclear power reactors.

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

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

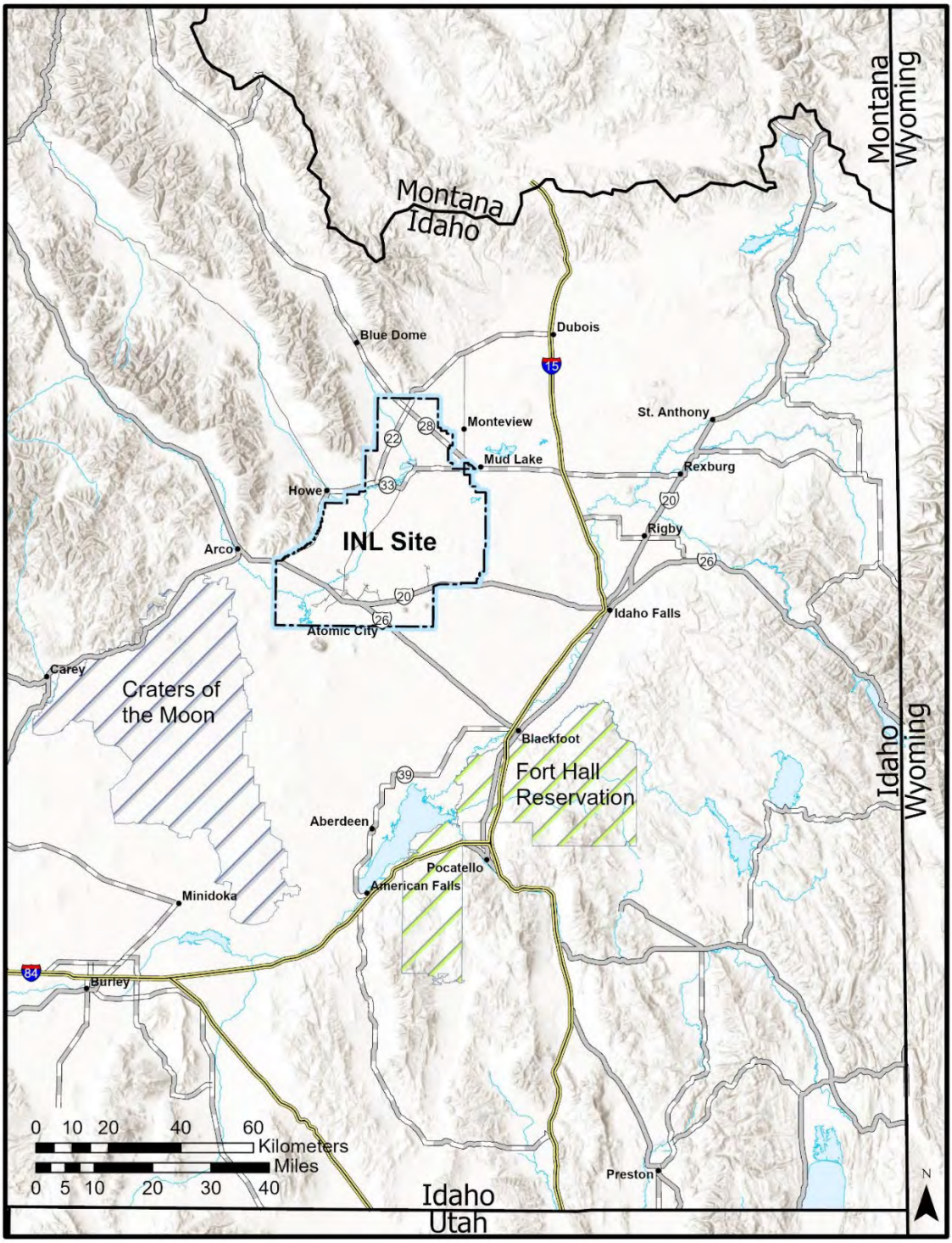

Figure 1. Location of the INL Site.

3. AIR SAMPLING

The primary pathway by which radionuclides can move off the INL Site is through the air and for this reason the air pathway is the primary focus of monitoring on and around the INL Site. Samples for particulates and iodine-131 (^{131}I) gas in air were collected weekly for the duration of the quarter at 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. See Appendix A Table A-1 for a sampling schedule. Air sampling activities and results for the quarter are discussed below.

3.1. Low-volume Air Sampling

Radioactivity associated with airborne particulates was monitored continuously during the quarter (Figure 2). Eighteen of these samplers are located onsite, six are situated off the INL Site near the boundary, and eight 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. Replicate samplers for this quarter 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). Each replicate sampler is relocated every other year to a new 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. Each particulate filter was analyzed for gross alpha and gross beta radioactivity using thin-window gas flow proportional counting systems after waiting about four days for shorter-lived naturally occurring daughter products of radon and thorium to decay.

The weekly particulate filters collected during the quarter for each location were composited and analyzed for gamma-emitting radionuclides. Composites were also analyzed for ^{90}Sr, ^{238}Pu, $^{239/240}$Pu, $^{233/234}$U, ^{235}U, ^{238}U, and ^{241}Am. Additional samples were collected at Materials and Fuels Complex (MFC) and analyzed for ^{36}Cl.

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.

3.1.1. Gross Alpha Results

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 $(-1.4 \pm 0.2) \times 10^{-16}$ µCi/ml collected in Jackson, Wyoming, on December 23, 2024, to a high of $(7.1 \pm 0.8) \times 10^{-15}$ µCi/ml collected at MFC South on December 11, 2024. All results were less than the DOE Derived Concentration Standard (DCS) of 1.1×10^{-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 (4.8×10^{-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.

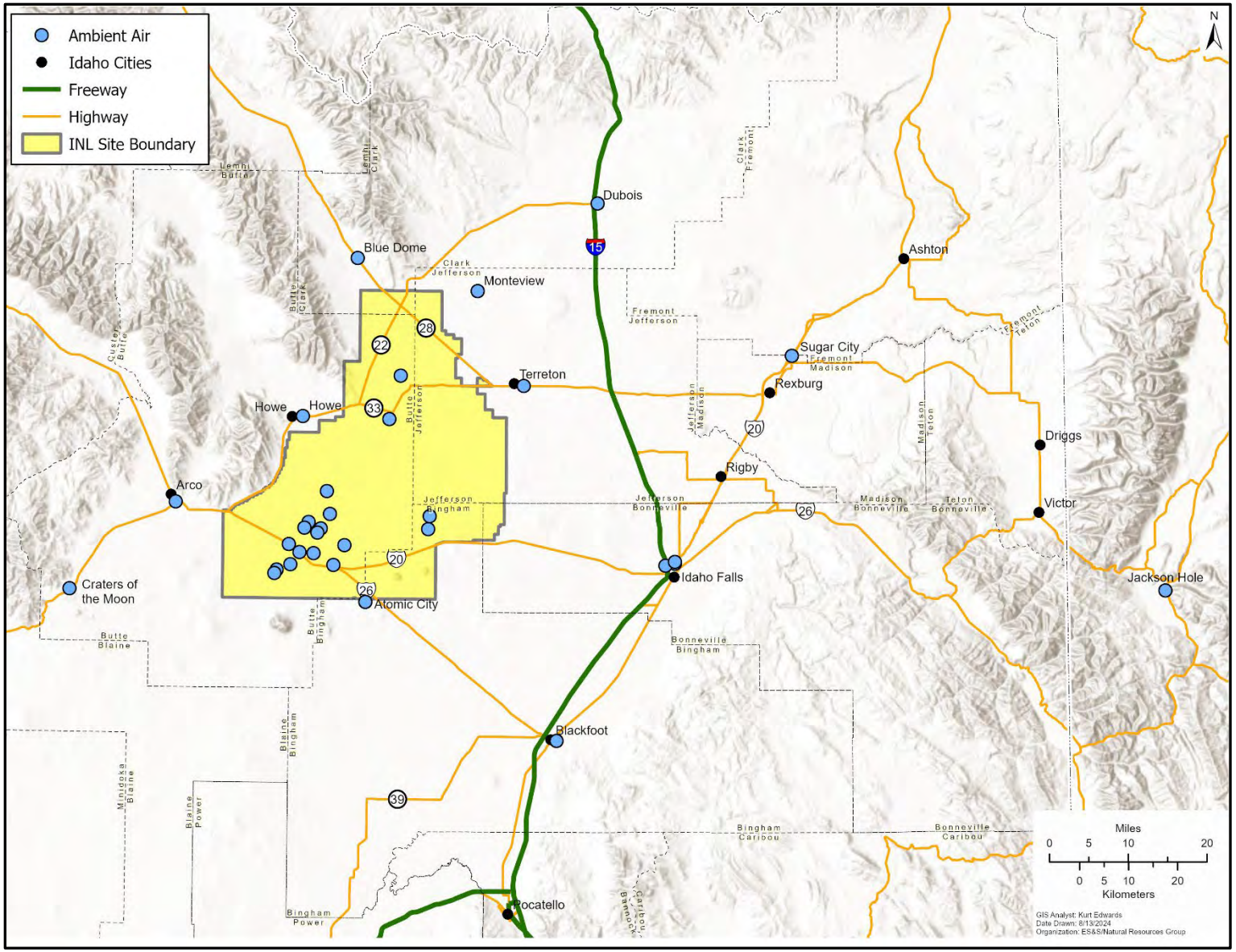

Figure 2. INL contractor low-volume air monitoring locations.

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 alpha results for each location are listed in Appendix B, Table B-1.

3.1.2. Gross Beta Results

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 $(3.3 \pm 3.0) \times 10^{-16}$ μCi/ml collected at CFA on December 18, 2024, to a high of $(9.7 \pm 0.2) \times 10^{-14}$ μCi/ml collected in Terreton on December 11, 2024. The typical temporal fluctuations in gross beta concentrations in air were observed during the quarter likely due to temperature inversions. 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.

There were no statistically significant differences in the gross beta data between groups for the quarter or any month of the quarter (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).

Gross beta results for each location are listed in Appendix B, Table B-1.

3.1.3. Charcoal Cartridge Results

Iodine-131 was not detected in any of the charcoal cartridges measured during the quarter. The DCS value for ^{131}I is 4.5×10^{-10} μCi/ml.

Charcoal cartridge ^{131}I results for each location are listed in Appendix B, Table B-2.

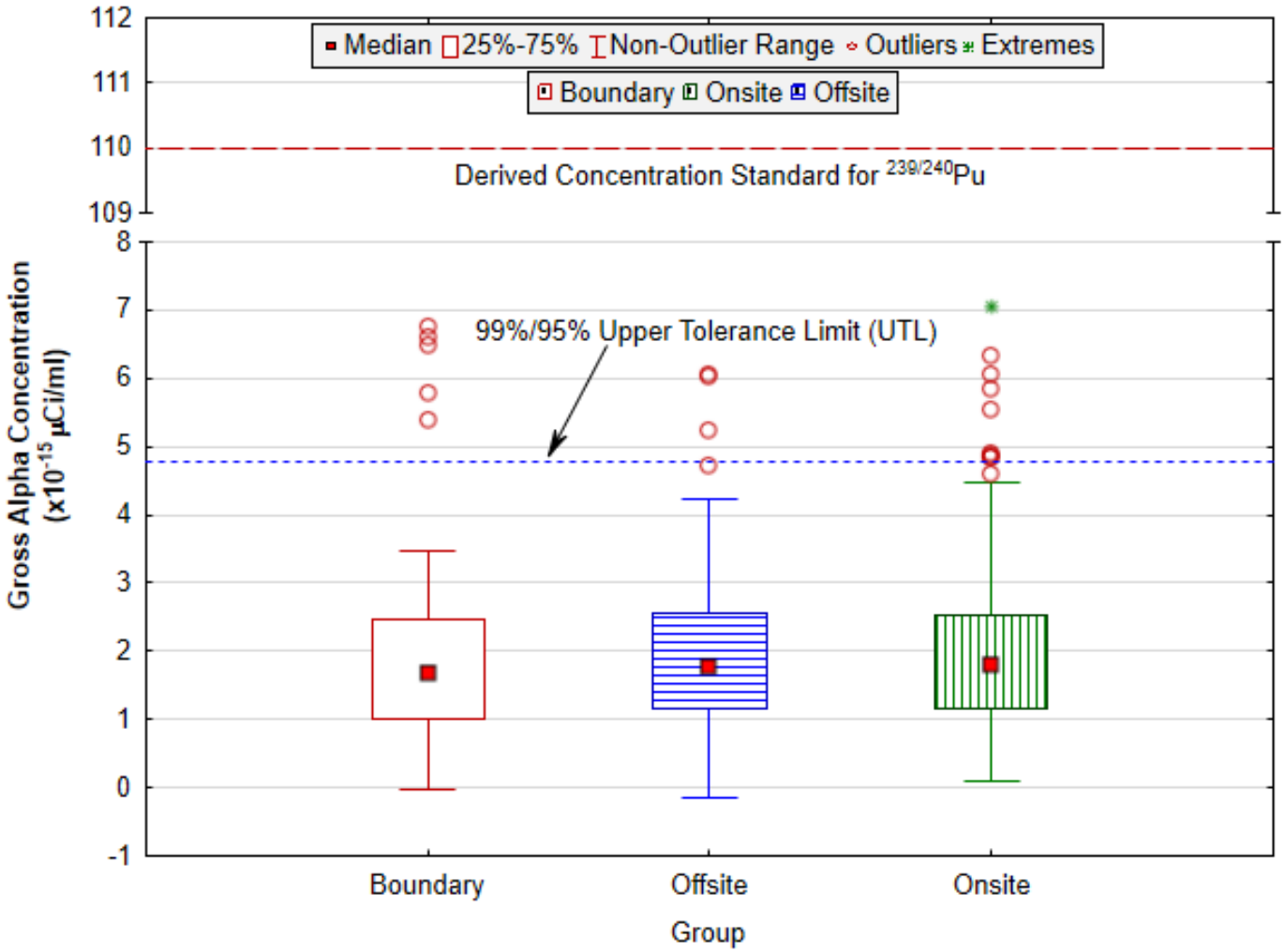

Figure 3. Gross alpha concentrations in air at onsite, boundary, and offsite locations for the fourth quarter of 2024. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides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

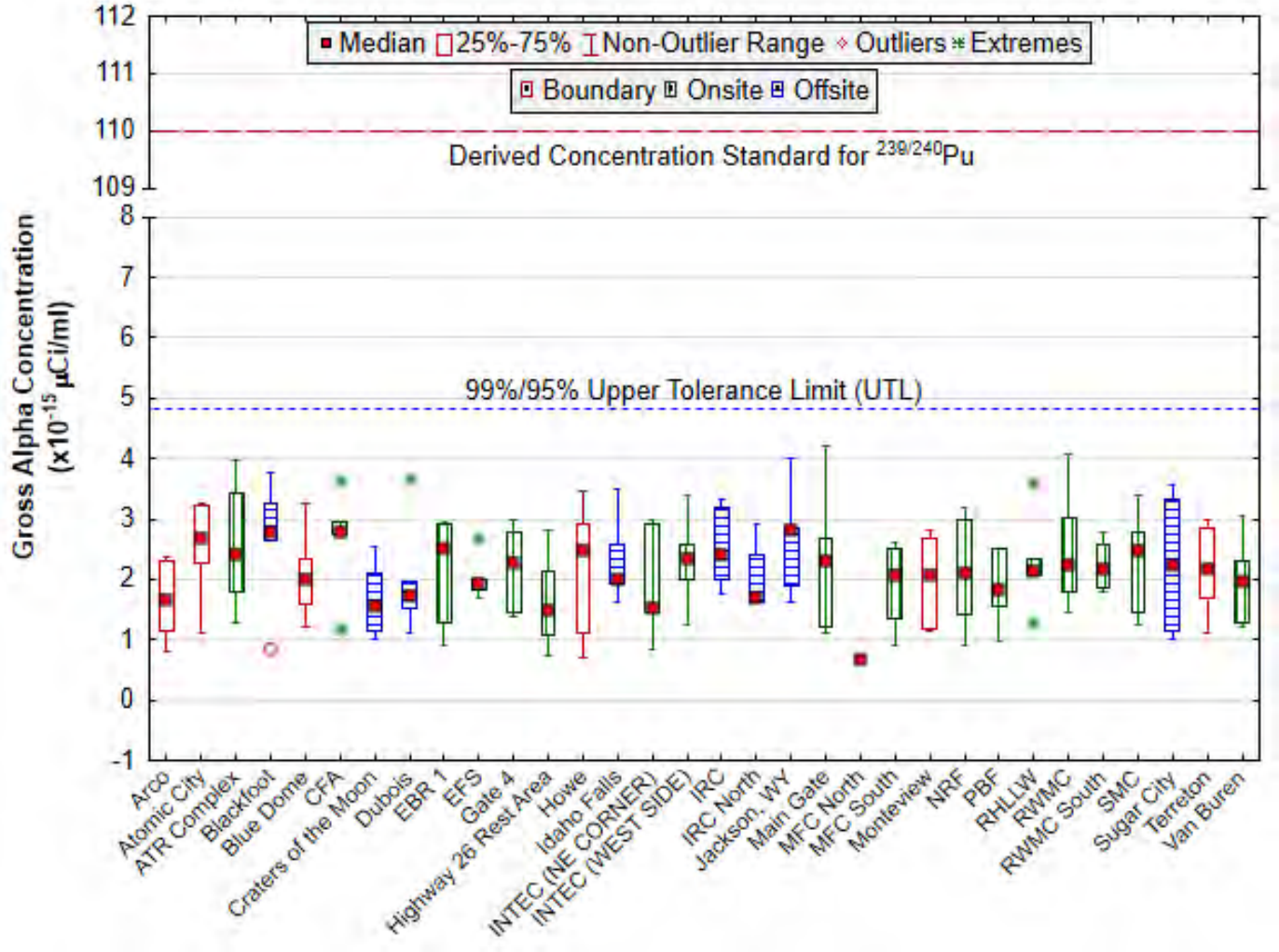

Figure 4. October 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{238}U, ^{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.

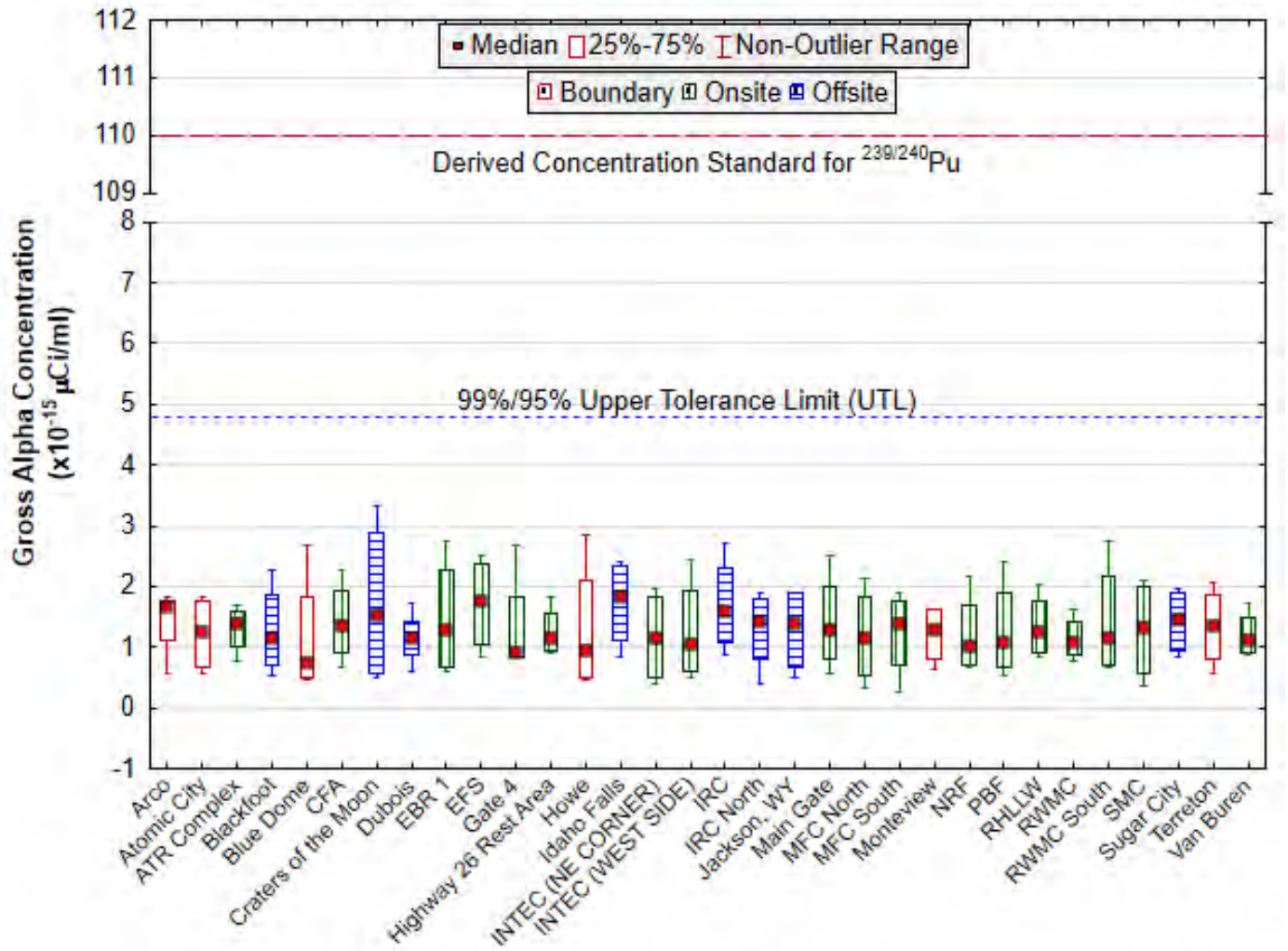

Figure 5. November 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}Pu$ in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as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

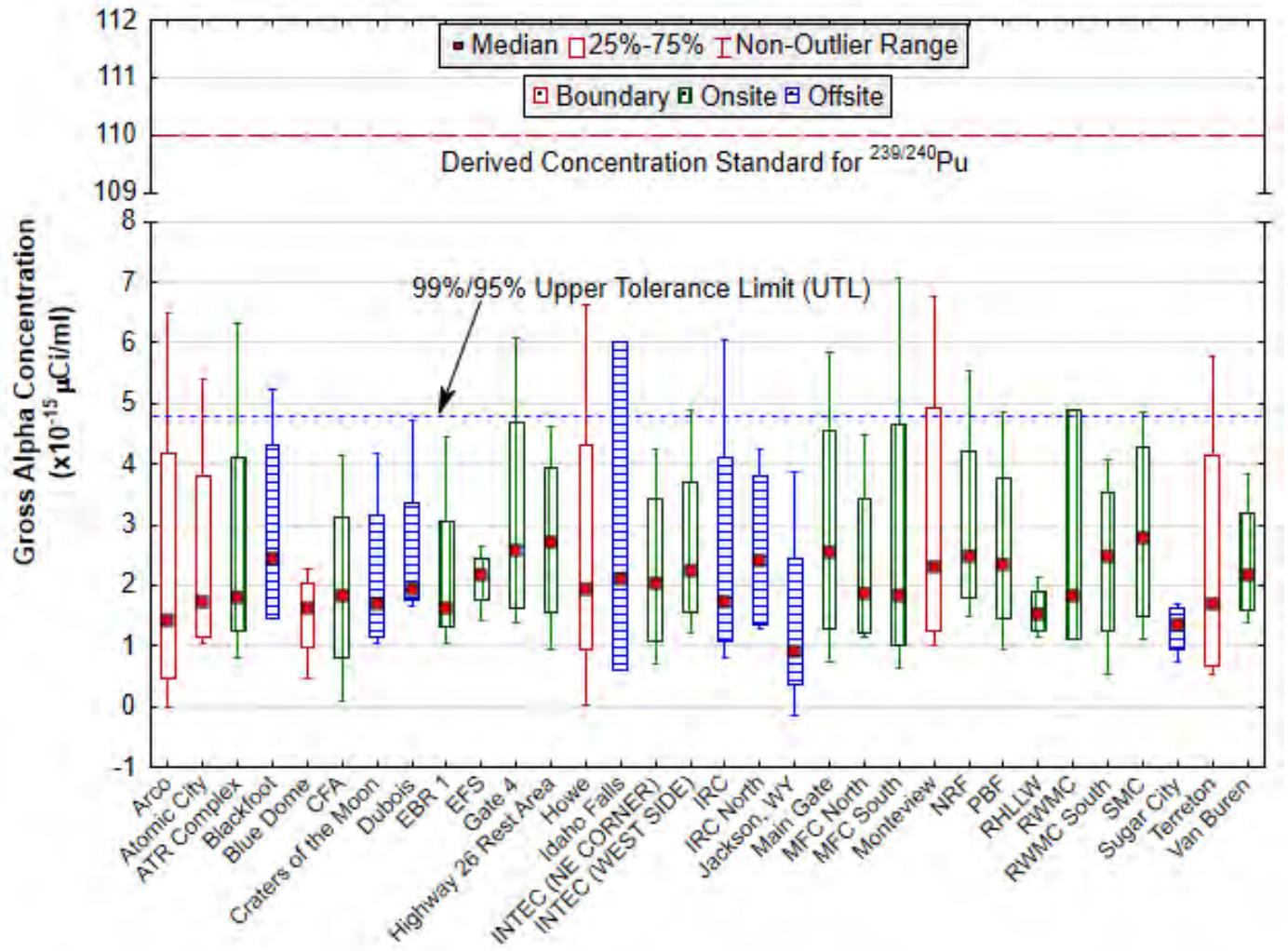

Figure 6. December 2024 gross alpha concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of $^{239/240}$Pu in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as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

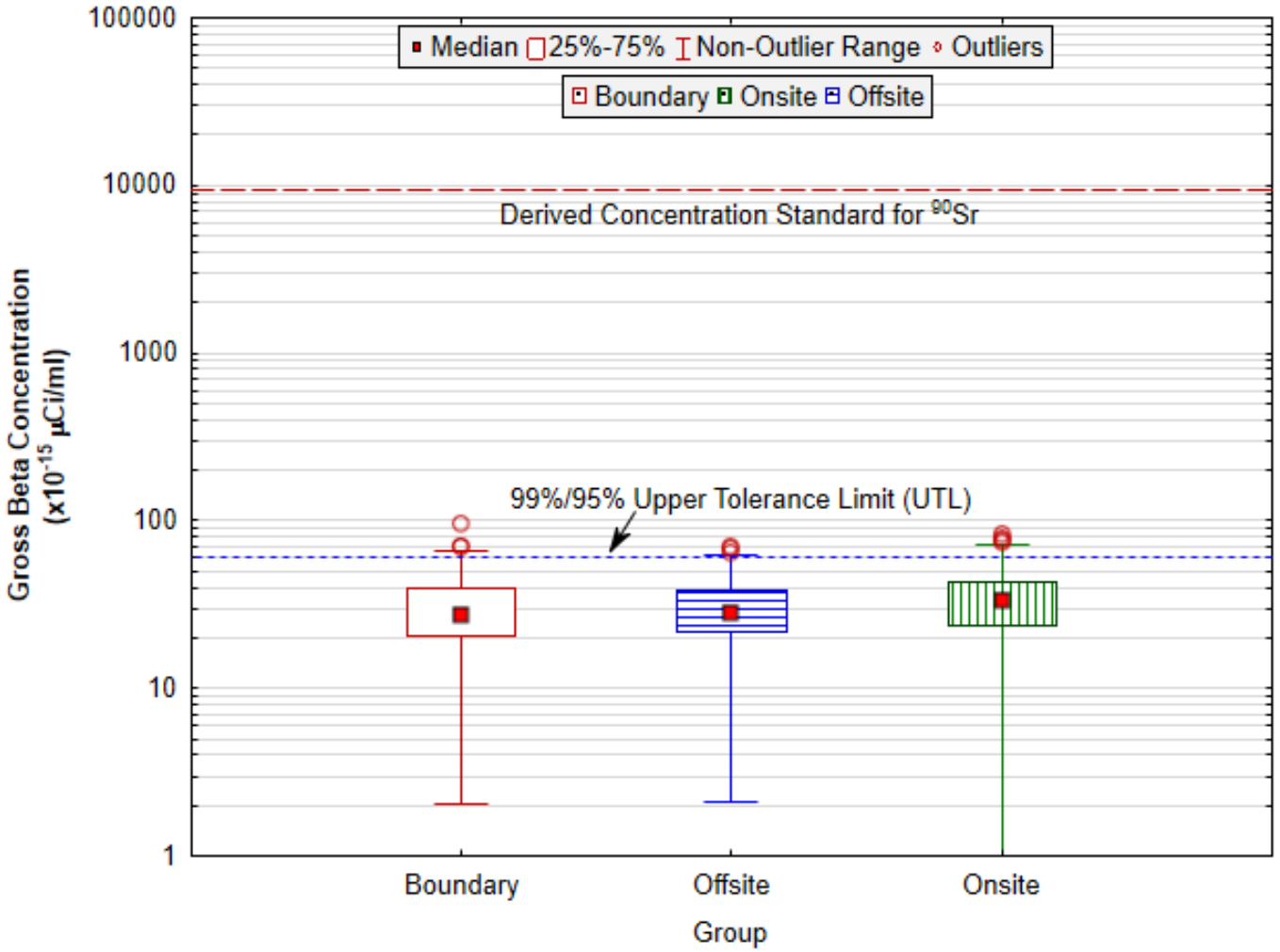

Figure 7. Gross beta concentrations in air at onsite, boundary, and offsite locations for the fourth quarter of 2024. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides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

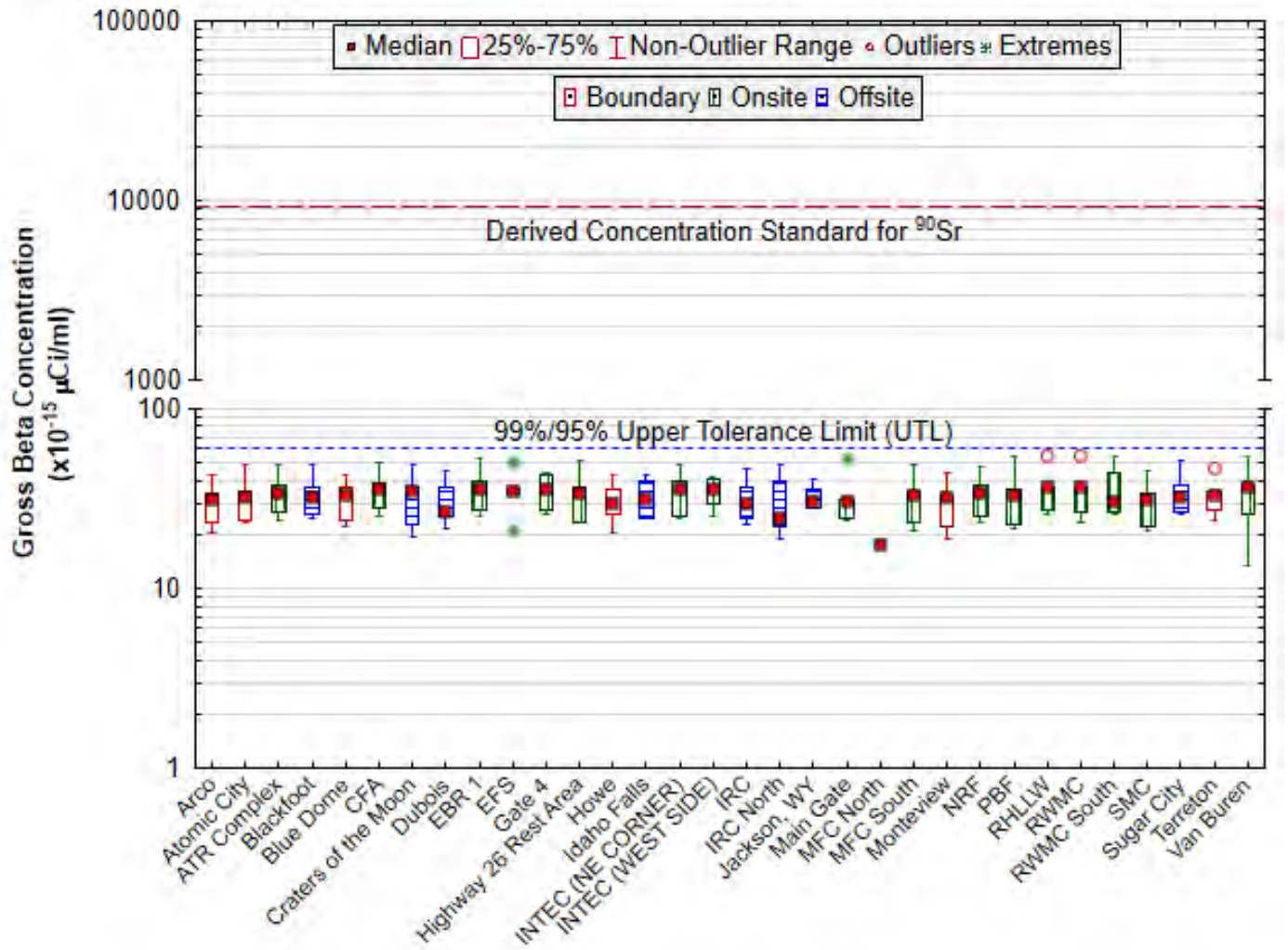

Figure 8. October 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K, ^{228}Ra, 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.

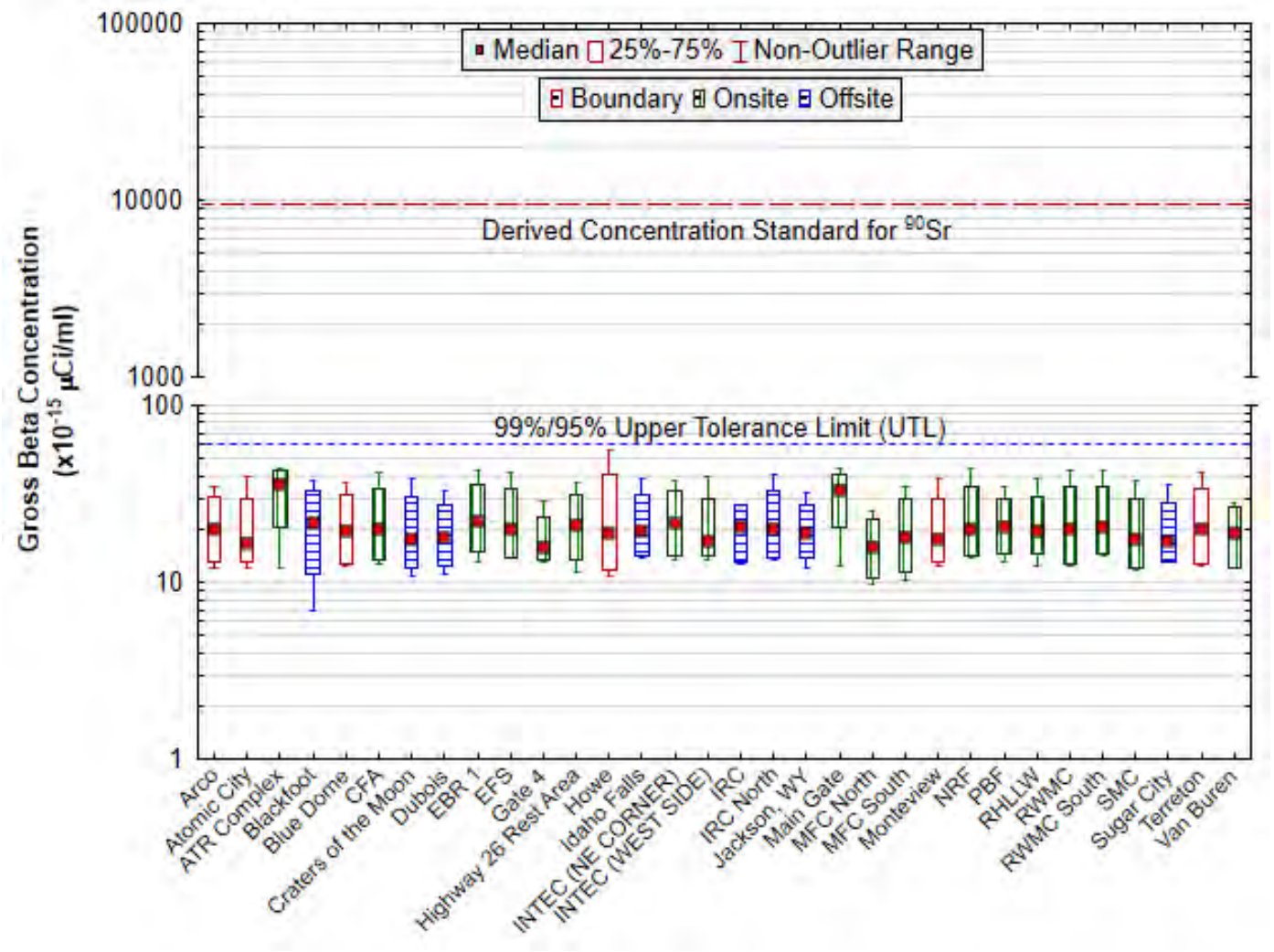

Figure 9. November 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K,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

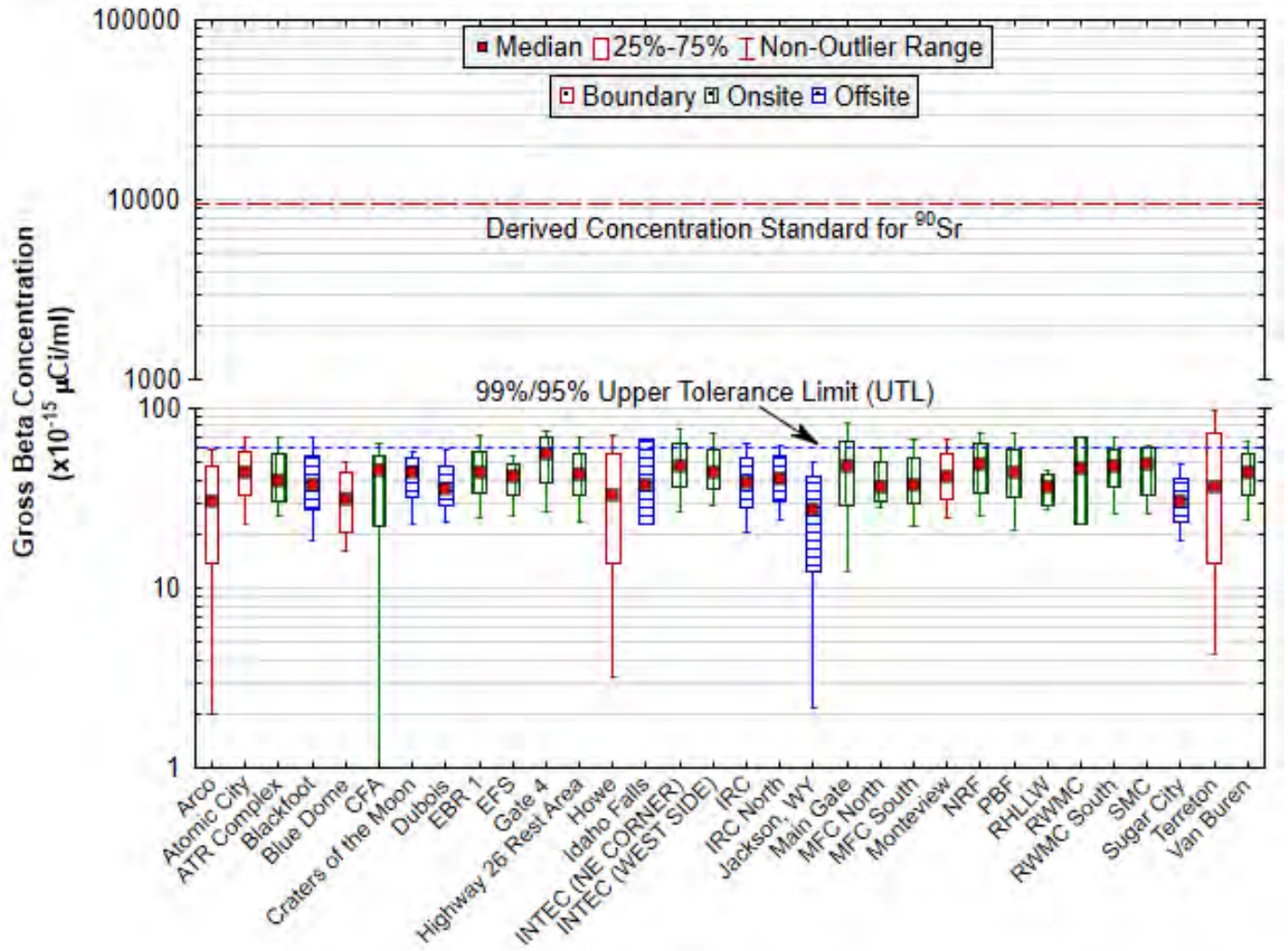

Figure 10. December 2024 gross beta concentrations in air at onsite, boundary, and offsite locations. The DCS is the concentration of ^{90}Sr in air which, if inhaled for a year, would result in a dose of 100 mrem/yr. Because the measurements include naturally occurring radionuclides (such as ^{40}K,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

3.1.4. Composite Results

Gamma Spec Results

No cesium-137 (^{137}Cs), zinc-65 or other human-made gamma-emitting radionuclides were detected in quarterly air filter composite samples collected in the quarter.

Alpha Spec Results

Americium-241 (^{241}Am), ^{238}Pu, and $^{239/240}$Pu were not detected in any composite samples. Composite samples from several locations resulted in detections of $^{233/234}$U and ^{238}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 and can be suspended in the air and captured on a filter. All detected results were below the DOE DCS values for these radionuclides in air (i.e., 1.6×10^{-13} µCi/mL for $^{233/234}$U, and 1.8×10^{-13} µCi/mL for ^{238}U).

Beta Results

Chlorine-36 was not detected in the composite samples collected at MFC (North and South). The results for composite samples collected at Main Gate and MFC South exceeded the 3s uncertainty for ^{90}Sr, however, the results were not above the minimum detectable concentration. The minimum detectable concentration indicates the ability of an instrument to detect an analyte. A result that is below the minimum detectable concentration may be reported as a nondetect.

Composite results for the quarter are listed in Appendix B, Table B-3.

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.

3.2.1. Atmospheric Moisture Results

Results were available for 13 atmospheric moisture samples collected at the onsite and offsite locations during the quarter (Figure 11). One result exceeded the 3s uncertainty level for tritium, with a reported value of $(4.6 \pm 1.5) \times 10^{-13}$ µCi/mL$_{air}$ at the Remote-Handled Low-Level Waste (RHLLW) facility on October 9, 2024. Even though the result exceeded the 3s uncertainty value, the result did not exceed the minimum detectable concentration. The result was below the 99%/95% UTL for atmospheric moisture (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$_{air}$.

Atmospheric moisture results for the quarter are listed in Appendix B, Table B-4.

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 (when available) of monthly composites from Idaho Falls, and weekly (offsite) from Experimental Field Station (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 quarter produced sufficient amounts of precipitation to yield 18 samples.

3.3.1. Precipitation Results

None of the results exceeded the 3s uncertainty level for tritium. 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.

Precipitation results for the quarter are listed in Appendix B, Table B-5.

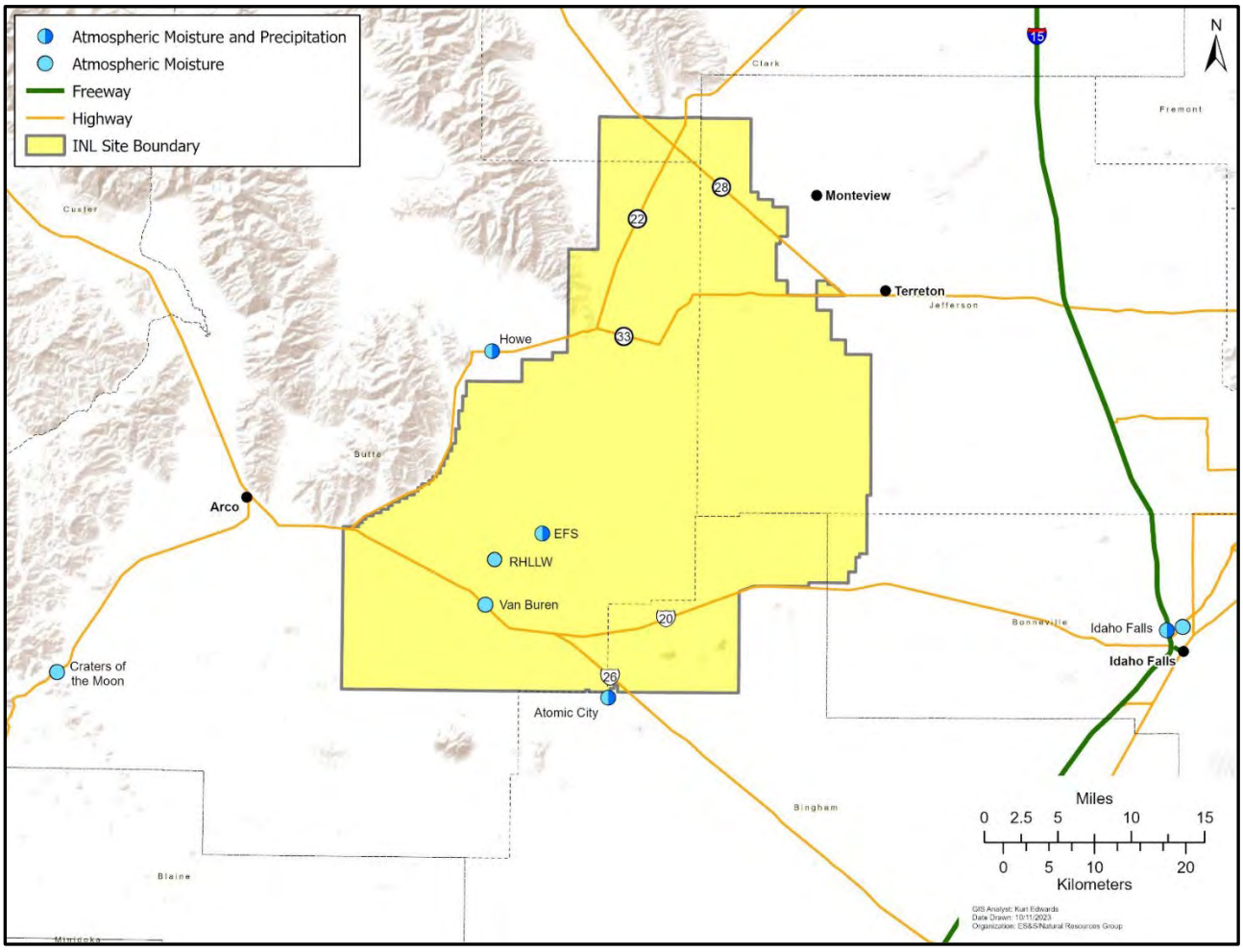

Figure 11. Atmospheric moisture and precipitation monitoring locations.

4. LIQUID EFFLUENT SAMPLING

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 Advanced Test Reactor (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 also sample groundwater related to liquid effluent. This section discusses results from environmental surveillance monitoring effluent samples available during the quarter. 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. See Appendix A, Table A-1 for a sampling schedule. Liquid effluent sample locations are shown in Figure 12.

4.1. ATR Complex Cold Waste Pond Results

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 quarter. The detected results did not exceed the respective screening levels (gross alpha: 5 pCi/L, gross beta: 15 pCi/L). The detected results were within historical ranges.

ATR Complex CWP effluent results for the quarter are listed in Appendix B, Table B-6.

4.2. MFC Industrial Waste Pond Results

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 the pond freezes over for winter, typically in October. Gross beta was the only radiological constituent detected in in the IWP effluent during the quarter. The detected result did not exceed the respective screening level. The result was within historical range.

MFC IWP effluent results for the quarter are listed in Appendix B, Table B-6.

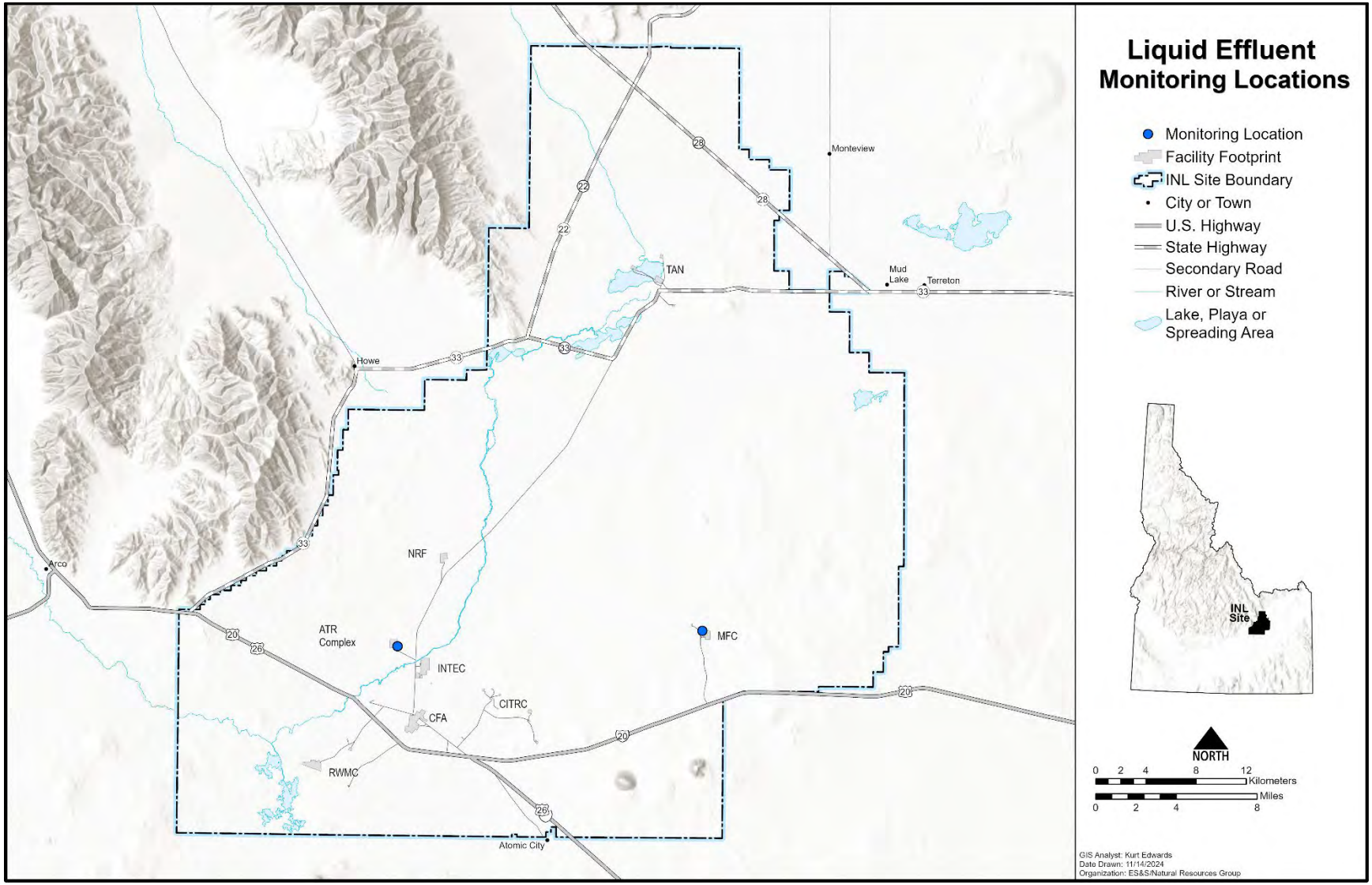

Figure 12. INL contractor liquid effluent monitoring locations.

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 also 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 quarter. 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. No groundwater samples were collected during the quarter. Ground water monitoring locations are shown in Figure 13.

5.2. Surface Water Sampling

Surface water samples, including a duplicate, were collected at three Thousand Springs locations (see Figure 14). All samples were analyzed for gross alpha, gross beta, and tritium.

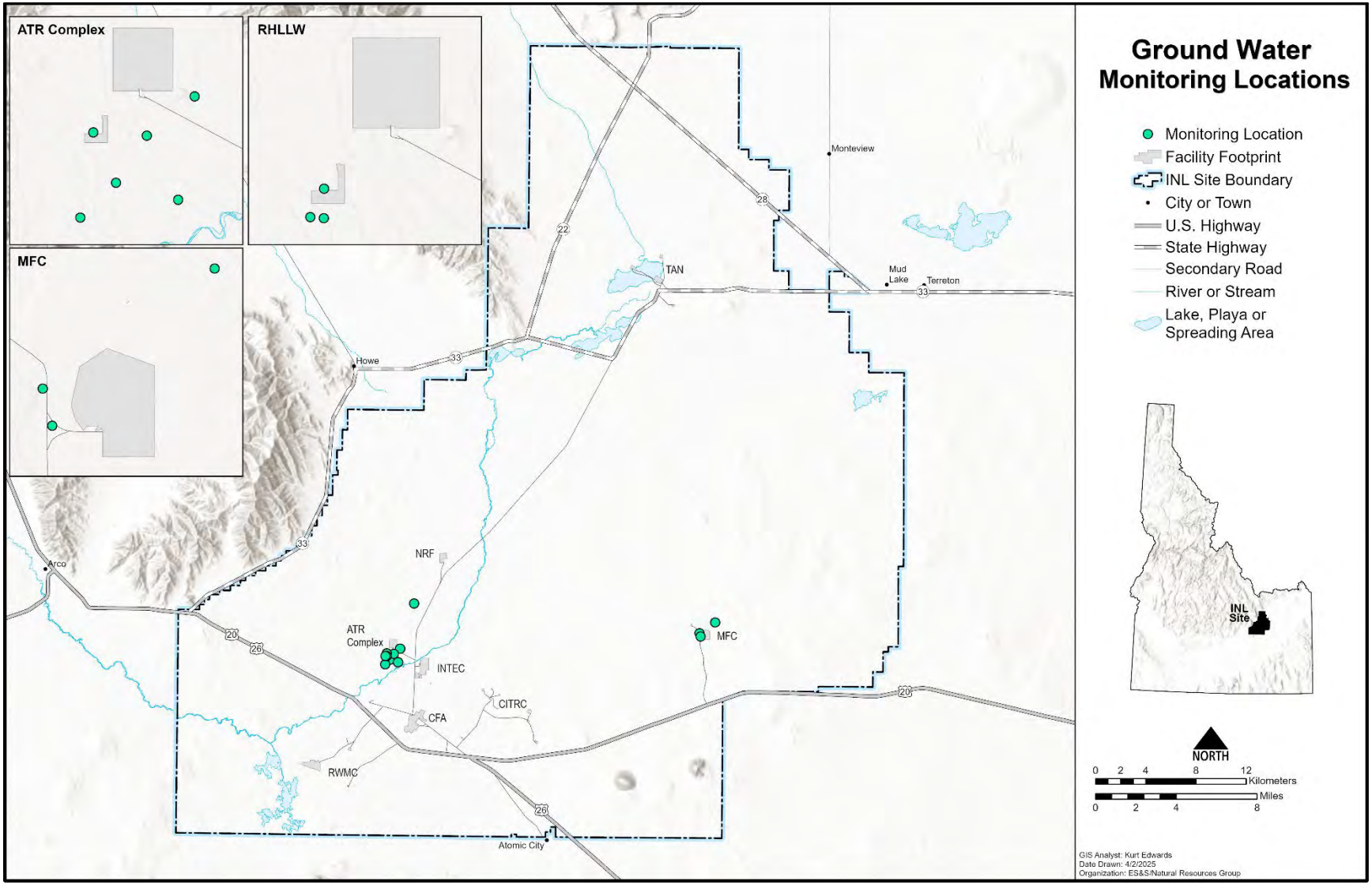

Figure 13. INL contractor ground water monitoring locations.

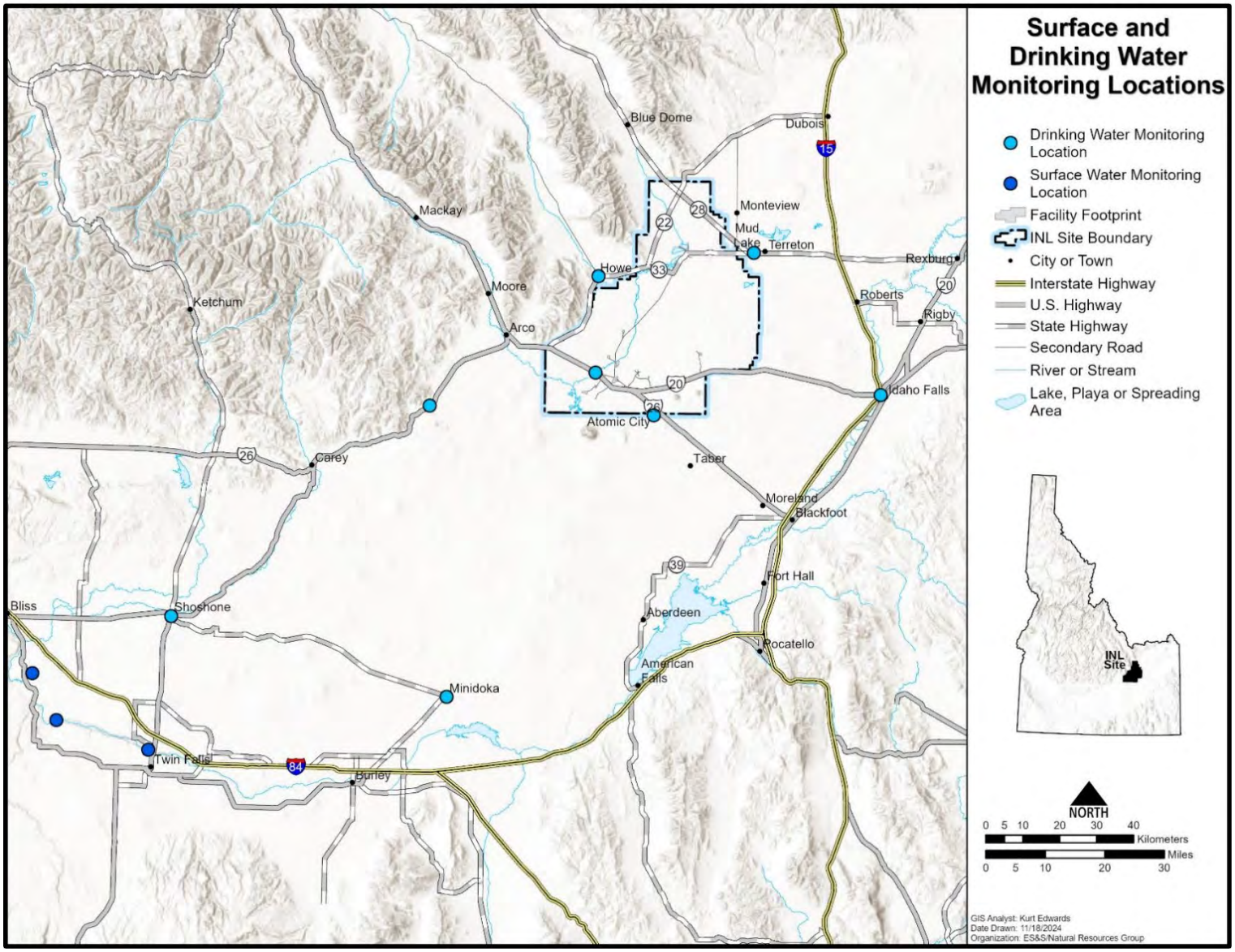

Figure 14. INL contractor surface and drinking water monitoring locations.

5.2.1. Surface Water Results

Gross alpha activity was detected in one of the four surface water samples. The gross alpha results ranged from a low of (1.27 ± 0.68) pCi/L collected from Bill Jones, Jr. Trout Farm (duplicate) to a high of (2.38 ± 0.60) pCi/L collected from Alpheus Springs.

Gross beta activity was detected in all four water samples. All concentrations were similar to previous results from surface water sampling. Natural levels of radioactive decay products of thorium and uranium exist in the Snake River Plain Aquifer and are the likely source of measured concentrations. The gross beta results ranged from a low of (3.89 ± 0.35) pCi/L collected at Bill Jones, Jr. Trout Farm (duplicate) to a high of (7.46 ± 0.38) pCi/L collected from Alpheus Springs.

Tritium was not detected in any surface water sample. The DCS for tritium in water is 2.6×10^6 pCi/L.

Surface water results are listed in Appendix B, Table B-7.

5.3. Drinking Water Sampling

The public/drinking water source, in southeastern Idaho, is primarily derived from groundwater. Surveillance monitoring of offsite drinking water systems, due to the potential for contaminant migration beyond the INL Site boundary, are conducted by the INL contractor (Figure 14). 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 (Figure 15), 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), Experimental Breeder Reactor I (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 Test Area North (TAN)/Contained Test Facility (CTF). Compliance monitoring schedules for each water system are set by the Idaho 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.

5.3.1. Drinking Water Results (Onsite)

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. No onsite drinking water sampling for radiological analytes occurred during the quarter.

5.3.2. Drinking Water Results (Offsite)

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 nine locations (including a control) 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. All samples were analyzed for gross alpha, gross beta, and tritium.

Gross alpha activity ranged from a low of (-0.33 ± 0.39) pCi/L collected from Mud Lake to a high of (6.30 ± 0.67) pCi/L collected from Shoshone.

Gross beta activity was detected in all offsite drinking water samples, except Idaho Falls. Concentrations were similar to previous results from offsite drinking water sampling. Natural levels of radioactive decay products of thorium and uranium exist in the Snake River Plain Aquifer and are the likely source of measured concentrations. Gross beta activity ranged a low of (0.87 ± 0.23) pCi/L collected from the control to a high of (8.51 ± 0.40) pCi/L collected from Howe.

Tritium was not detected in any surface water samples. The DCS for tritium in water is 2.6×10^6 pCi/L.

Offsite drinking water results are listed in Appendix B, Table B-7.

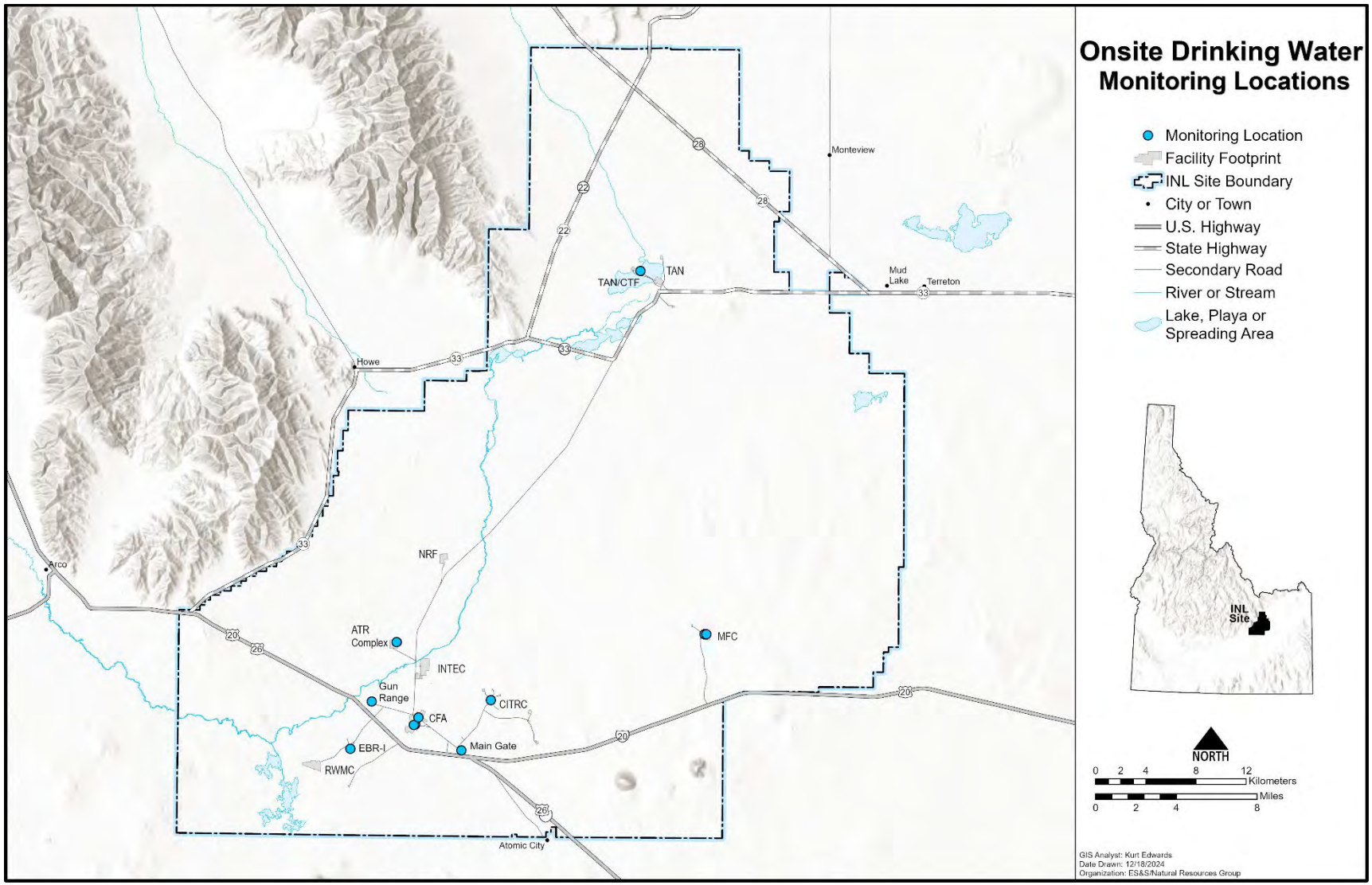

Figure 15. INL contractor onsite drinking water monitoring locations.

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 results from milk, large game animal samples, agricultural samples, and waterfowl.

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 16). 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.

6.1.1. Milk Results

Cesium-137 and ^{131}I were not detected in any weekly or monthly samples during the quarter. Data for ^{131}I and ^{137}Cs in milk samples are listed in Appendix B, Table B-8.

Neither strontium-90 nor tritium was detected in any of the milk samples collected during the quarter

Milk tritium and ^{90}Sr results are listed in Appendix B, Table B-9.

6.2. Potato Sampling

Regionally-grown potatoes from nine southeast Idaho locations (Figure 17) and one duplicate from Raft River was analyzed for gamma-emitting radionuclides like ^{137}Cs and for ^{90}Sr. A control sample purchased from a local grocery store was also analyzed.

6.2.1. Potato Results

No human-made gamma-emitters were found in any sample. Strontium-90 was not reported in any sample.

Potato sample results are listed in Appendix B, Table B-10.

6.3. Lettuce Sampling

Regionally-grown lettuce from ten southeast Idaho locations (Figure 17) and one duplicate from Pocatello was analyzed for gamma-emitting radionuclides like ^{137}Cs and for ^{90}Sr. A control sample purchased from a local grocery store was also analyzed.

Four lettuce samples were collected from portable planters at Atomic City, EFS, Howe, and Monteview. Soil from the vicinity of the sampling locations was used in the planters. This soil was amended with potting soil as a gardener in the region would typically do when they grow their lettuce.

6.3.1. Lettuce Results

No human-made gamma-emitting radionuclides or ^{90}Sr were found in any of the samples.

Lettuce sample results for ^{137}Cs and ^{90}Sr are listed in Appendix B, Table B-11.

6.4. Alfalfa Sampling

Regionally-grown alfalfa from four southeast Idaho locations (Figure 17) was analyzed for gamma-emitting radionuclides like ^{137}Cs and for ^{90}Sr.

6.4.1. Alfalfa Results

No human-made gamma-emitting radionuclides or ^{90}Sr were detected in any of the alfalfa samples.

Alfalfa sampling results for ^{137}Cs and ^{90}Sr are listed in Appendix B, Table B-12.

6.5. Grain Sampling

Regionally-grown grain (wheat and barley) was collected from 11 southeast Idaho locations (Figure 17). In addition, a commercially-available sample was obtained from outside the regional area. All samples were analyzed for gamma-emitting radionuclides and ^{90}Sr.

6.5.1. Grain Results

No human-made gamma-emitting radionuclides or ^{90}Sr were detected in any grain sample.

Grain sample results for ^{137}Cs and ^{90}Sr are listed in Appendix B, Table B-13.

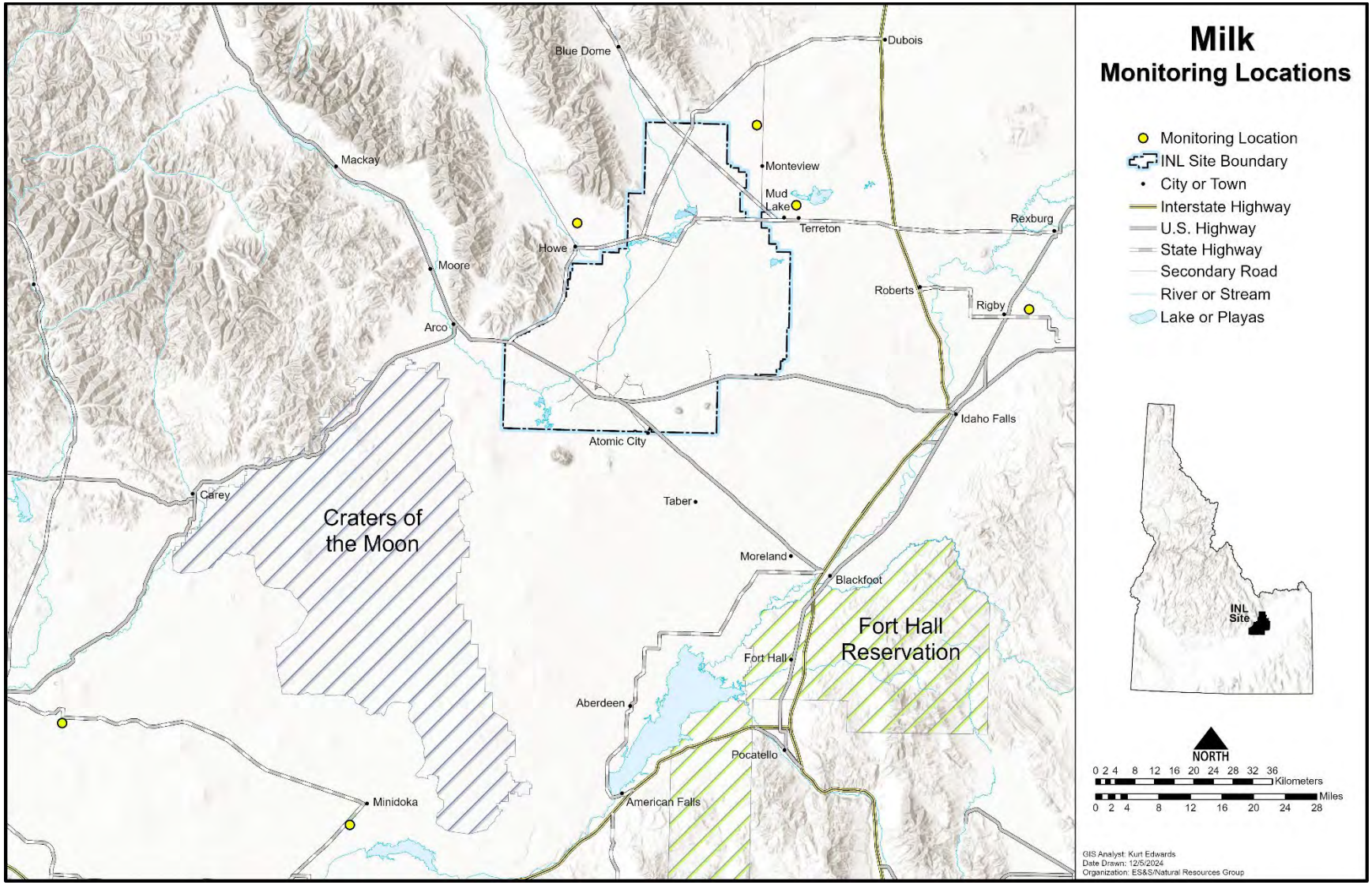

Figure 16. INL contractor milk monitoring locations.

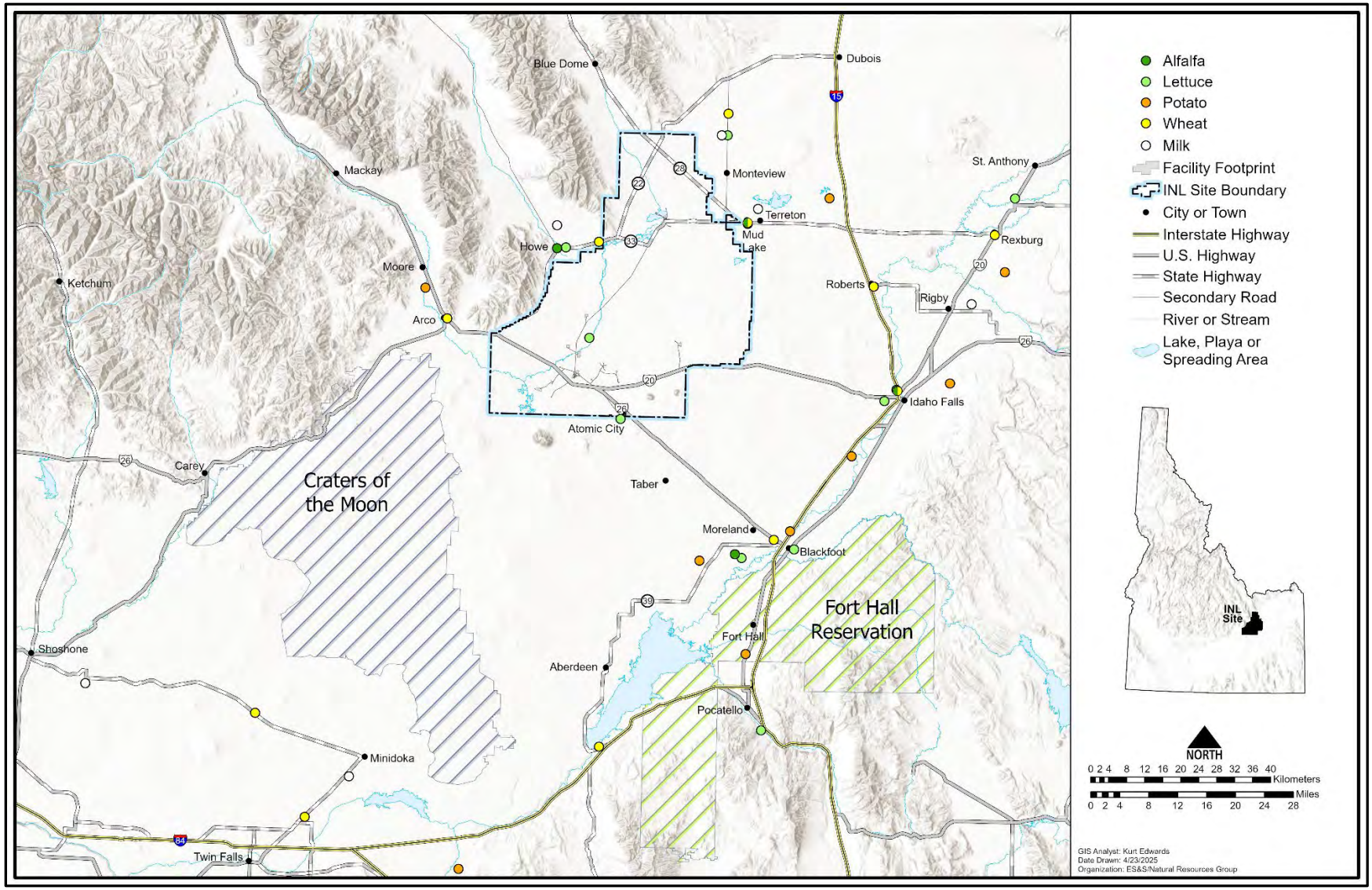

Figure 17. Locations of INL contractor agricultural products samples collected in 2024.

6.6. LARGE GAME ANIMAL SAMPLING

Two elk were available for sampling during the quarter. Muscle and thyroid samples were taken from both animals and only one liver was obtained. A liver sample from one of the animals could not be obtained because it was damaged when the animal was struck by a vehicle.

6.6.1. Large Game Animal Results

No human-made gamma-emitting radionuclides were detected in the samples.

Large game animal sample results are listed in Appendix B, Table B-14.

6.7. Waterfowl

Waterfowl are collected each year by the INL contractor at wastewater ponds on the INL Site and at a location off the INL Site. A total of five waterfowl were collected under an Idaho Department of Fish and Game and an U.S. Fish and Wildlife scientific collection permits. Three waterfowl were collected from wastewater ponds located at the ATR Complex Sewage Lagoons, two control waterfowl collected from South Fork of the Snake River. Two additional waterfowl were collected from CFA due to unforeseen natural causes that allowed for sample collection.

Each sample was divided into the following three sub-samples: (1) edible tissue (muscle, gizzard, heart, and liver); (2) external portion (feathers, feet, and head); and (3) all remaining tissue. All samples were analyzed for gamma-emitting radionuclides, ^{90}Sr, and actinides (^{241}Am, ^{238}Pu, and $^{239/240}$Pu). These radionuclides were selected because they have historically been measured in liquid effluents from some INL Site facilities.

6.7.1. Waterfowl Results

A total of two human-made radionuclides were detected in sub-samples from waterfowl collected at CFA, the Sewage Lagoons, and the South Fork of the Snake River. These nuclides were cobalt-60 and ^{90}Sr (Appendix B, Table B-15). Cobalt-60 levels exceeded the 3s uncertainty in the exterior sub-samples of a goose from CFA and a duck from the Sewage Lagoons. Although the cobalt-60 concentration in the sub-sample from the Sewage Lagoons was above the 3s uncertainty, it did not exceed the minimum detectable concentration. Strontium-90 was detected in the exterior sub-sample of a control duck collected from the South Fork of the Snake River. All results were within historical measurements observed during the past ten years (2014-2023).

Waterfowl sample results are listed in Appendix B, Table B-15.

7. ENVIRONMENTAL DIRECT RADIATION

An array of OSLDs are distributed throughout the Eastern Snake River Plain and on the INL Site (Figure 18) to monitor for environmental radiation. In addition, neutron dose monitoring is conducted around INL facilities and buildings where neutron radiation may be present.

Results are presented in dose units of millirem (mrem). Similar to the low-volume air results the environmental dosimeter locations are also divided into onsite, boundary and offsite groupings.

Onsite OSLD values ranged from 55.9 mrem at Radioactive Waste Management Complex (RWMC) (RWMC O-5A) to 305.1 mrem at Idaho Nuclear Technology and Engineering Center (INTEC) (ICPP O-20), with an overall average of 83.16 mrem, which also equates to 0.44 mrem per day.

Boundary OSLD values ranged from 52.1 mrem at Blue Dome (Blue Dome E-1) to 72.2 mrem at Mud Lake (Mud Lake O-5), with an overall average of 60.78 mrem, which also equates to 0.32 mrem per day.

Offsite OSLD values ranged from 50.2 mrem at Idaho Falls (IF-638E O-2) to 80.9 mrem at Roberts (RobNOAA). The offsite average was 61.34 mrem, which also equates to 0.33 mrem per day.

The reported results for dosimeters collected were primarily below the background UTL values.

The dosimeters that exceeded the background UTL for the November 2024 collection period were located in Idaho Falls (IF-665 O-5), Roberts (RobNOAA) EBR-I (EBR-I O-2), INTEC (ICPP O-15, ICPP O-27, ICPP O-28) and NRF (NRF O-16 and NRF O-19) (Table 2).

Table 2. Dosimetry location above background level UTL.

AREA	LOCATION	AMBIENT DOSE (MREM)	BACKGROUND UTL (MREM)
Idaho Falls	IF-665 O-5	67.7	66.2
Roberts	RobNOAA	80.9	79.2
EBR-I	EBR-I O-2	93.0	91.0
INTEC	ICPP O-15	169.7	146.9
INTEC	ICPP O-27	269.6	230.2
INTEC	ICPP O-28	248.8	230.2
NRF	NRF O-16	84.6	79.2
NRF	NRF O-19	80.8	79.2

OSLD results from dosimeters collected during the quarter are listed in Appendix B, Table B-16.

All neutron dosimeters collected were reported as ‘M’ which denotes the dose equivalents are below the minimum measurable quantity of 10 mrem. The background level for neutron dose is zero and the current dosimeters have a detection limit of 10 mrem. Any neutron dose measured is considered present due to sources inside the building.

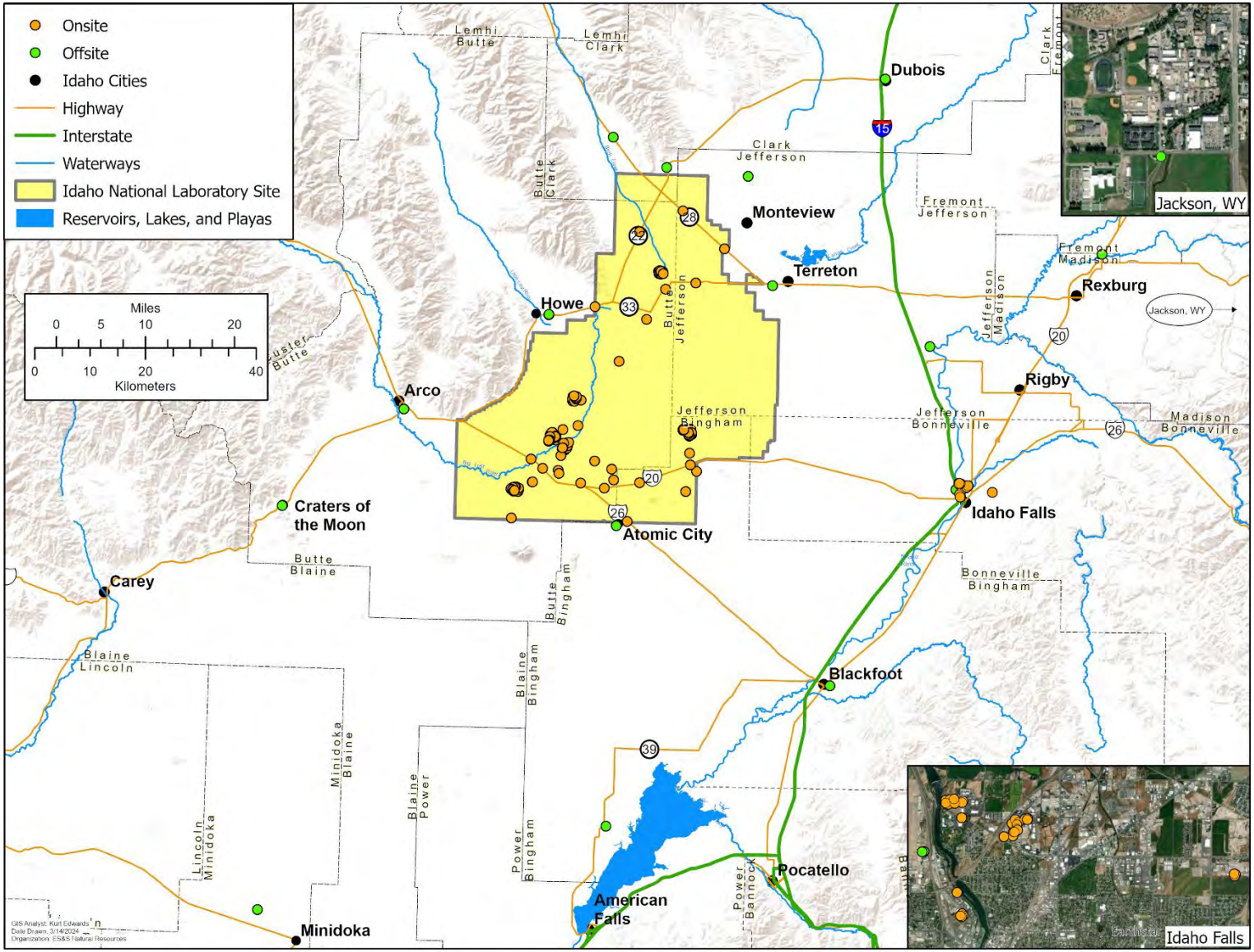

Figure 18. INL contractor OSLD locations.

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 ISO 17043 accredited PT programs 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. DOE Consolidated Audit Program accreditation is obtained and/or maintained by achieving a history of two successful studies (acceptable scores) out of the most recent three attempts. Inter-laboratory PT participation and results are listed below.

GEL Laboratories, LLC

GEL is accredited through DOECAP-AP and participated in PT study through Eckert & Ziegler Analytics, Inc., Mixed Analyte Performance Evaluation Program (MAPEP), Environmental Resource Associates during the quarter. GEL had acceptable results for analytes, methods, and media of interest to the INL contractor with two exceptions. GEL received nonagreement evaluations for ^{239}Pu and ^{226}Ra in water. GEL participated in another PT study for ^{239}Pu in water and received an agreement evaluation. For ^{226}Ra, GEL performed a review and implemented corrective actions that resulted in successfully completing a PT study for the analysis of ^{226}Ra in liquid.

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 the 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. The laboratory is not aware of which samples are blanks. 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. Blanks for the quarter are discussed below.

GEL Laboratories, LLC

A total of 49 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. Duplicate/replicate samples for the quarter are discussed below.

GEL Laboratories, LLC

A total of 162 analytes were analyzed by GEL 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 MAPEP. 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

GEL provided analytical results for air, (e.g., air filters, quarterly air filter composites) atmospheric moisture, precipitation, liquid effluent, groundwater, surface water, drinking water, agricultural products, and large game animals for the quarter. A total of 42 PE analytes were evaluated with 35 receiving an agreement evaluation. Nonagreement evaluations were received for beta and gamma PE analytes, specifically ^{90}Sr (alfalfa, potato, and lettuce); cobalt-57 (^{57}Co) and cobalt-60 in alfalfa; and cesium-134 and manganese-54 in milk. Nonagreements for ^{90}Sr and cobalt-57 were second time occurrences. The nonagreements for the other three gamma analytes were first time occurrences. The INL contractor contacted GEL and requested a review of the nonagreements.

GEL's review did not identify any issues associated with the nonagreements. The INL contractor reviewed additional PT results and found agreement evaluations for the analytes and media previously mentioned. The INL contractor will work with the analytical laboratory to assist in investigating the nonagreements. The INL contractor will continue to monitor future PE results.

Landauer

Landauer provided results for environmental direct radiation. One PE analyte was analyzed during the quarter which received an agreement evaluation.

8.3. Invalid Samples

Fourteen air samples (7 air filters and 7 charcoal cartridges) were deemed invalid due to a mechanical issue and power outages at Idaho Falls, MFC North, RWMC, and RWMC South (Appendix B, Tables B-1 and B-2). For a sample to be considered valid, a minimum air volume of 5,760 ft³ must be obtained.

Fourteen OSLDs were lost at East Butte, ATR Complex, MFC, NRF, and RWMC.

One OSLD was found on the ground at Frenchmans Cabin. Analysis of the dosimeter was not possible due to damage received while in the field.

9. REFERENCES

40 CFR 141, 2024, "National Primary Drinking Water Regulations," Code of Federal Regulations, Office of the Federal Register, National Archives and Records Administration, Washington, D.C.

40 CFR 142, 2024, "National Primary Drinking Water Regulations Implementation," Code of Federal Regulations, Office of the Federal Register, National Archives and Records Administration, Washington, D.C.

Clean Air Act (CAA) of 1970 (42 USC § 7401), Washington, D.C.

Currie, L. A., 1984, "Lower Limit of Detection: Definition and Elaboration of a Proposed Position for Radiological Effluent and Environmental Measurements," NUREG/CR-4007, U.S. Nuclear Regulatory Commission, Washington, D.C., September 1984.

DOE, 2011, "Radiation Protection of the Public and the Environment," U.S. Department of Energy O 458.1, Administrative Change 3, February 11, 2011.

DOE, 2015, "Environmental Radiological Effluent Monitoring and Environmental Surveillance," DOE-HDBK-1216-2015, March 2015.

DOE, 2022, "Handbook for the Department of Energy's Mixed Analyte Performance Evaluation Program (MAPEP)," July 2022.

DOE O 458.1, 2013, "Radiation Protection of the Public and the Environment," Administrative Change 4, U.S. Department of Energy, Washington, D.C.

EPA, 2015, "ProUCL Version 5.1 Technical Guide," EPA/600/R-07/041 October 2015.EPA, 2018, RadNet—Tracking Environmental Radiation Nationwide

IDAPA 58.01.08, 2023, "Idaho Rules for Public Drinking Water Systems," Idaho Administrative Code, Idaho Department of Environmental Quality, Boise, ID.

INL, 2022, "Environmental Monitoring Services Quality Assurance Project Plan," PLN-6690, Idaho National Laboratory.

ISO 17043, 2023, "Conformity assessment — General requirements for the competence of proficiency testing providers," ISO/IEC 17043:2003, International Standard.

NCRP, 2012, "Design of Effective Radiological Effluent Monitoring and Environmental Surveillance Program," NCRP Report No. 169, National Council on Radiation Protection and Measurements.

QSM, 2021, "Department of Defense (DoD) Department of Energy (DOE) Consolidated Quality Systems Manual (QSM) for Environmental Laboratories," based on ISO/IEC 17025:2017(E) and The NELAC Institute (TNI) Standards, Volume 1, (September 2009), DoD Quality Systems Manual Version 5.4 (2021).

Safe Drinking Water Act (SDWA) of 1974 (42 USC § 300f), Washington, D.C.

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 Complex; CFA; CITRC; EBR-I; Gun Range; Main Gate; MFC; TAN CTF
^{129}I, ^{90}Sr	semi-annually	None	None	CFA
Liquid Effluent				
Gross Alpha, Gross Beta, Tritium, Gamma Spec	monthly	None	None	ATR Complex
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 Complex
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
Surface Water				
Gross Alpha, Gross Beta, Tritium	semi-annually	Buhl; Hagerman; Twin Falls	None	Big Lost River (when flowing)

Table A-1. continued.

SAMPLE TYPE ANALYSIS	COLLECTION FREQUENCY	LOCATIONS		
		OFFSITE	BOUNDARY	ONSITE
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
Gamma Spec (131I)	monthly	Dietrich; Minidoka; Monteview; Rigby	Howe; Terreton	None

Table A-1. continued.

SAMPLE TYPE ANALYSIS	COLLECTION FREQUENCY	LOCATIONS		
		OFFSITE	BOUNDARY	ONSITE
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	10/02/24	1.66 ± 0.39	6.14 ± 1.44	**Yes**	33.50 ± 1.35	123.95 ± 5.00	**Yes**
	10/09/24	2.36 ± 0.51	8.73 ± 1.89	**Yes**	31.50 ± 1.30	116.55 ± 4.81	**Yes**
	10/16/24	2.30 ± 0.50	8.51 ± 1.84	**Yes**	43.20 ± 1.49	159.84 ± 5.51	**Yes**
	10/23/24	0.81 ± 0.29	3.01 ± 1.07	No	23.20 ± 1.10	85.84 ± 4.07	**Yes**
	10/30/24	1.14 ± 0.34	4.22 ± 1.27	**Yes**	20.70 ± 1.02	76.59 ± 3.77	**Yes**
	11/06/24	0.57 ± 0.24	2.11 ± 0.88	No	11.90 ± 0.80	44.03 ± 2.96	**Yes**
	11/13/24	1.65 ± 0.38	6.11 ± 1.41	**Yes**	35.10 ± 1.34	129.87 ± 4.96	**Yes**
	11/20/24	1.83 ± 0.59	6.77 ± 2.17	**Yes**	14.10 ± 1.19	52.17 ± 4.40	**Yes**
	11/26/24	1.66 ± 0.49	6.14 ± 1.80	**Yes**	25.40 ± 1.33	93.98 ± 4.92	**Yes**
	12/04/24	1.88 ± 0.41	6.96 ± 1.51	**Yes**	35.80 ± 1.23	132.46 ± 4.55	**Yes**
	12/11/24	6.49 ± 0.82	24.01 ± 3.02	**Yes**	59.10 ± 1.75	218.67 ± 6.48	**Yes**
	12/18/24	0.96 ± 0.33	3.57 ± 1.22	No	25.40 ± 1.18	93.98 ± 4.37	**Yes**
	12/23/24	-0.01 ± 0.14	-0.05 ± 0.52	No	2.02 ± 0.59	7.47 ± 2.18	**Yes**
ATOMIC CITY	10/02/24	3.21 ± 0.61	11.88 ± 2.25	**Yes**	34.60 ± 1.47	128.02 ± 5.44	**Yes**
	10/09/24	2.67 ± 0.57	9.88 ± 2.11	**Yes**	32.30 ± 1.38	119.51 ± 5.11	**Yes**
	10/16/24	3.25 ± 0.63	12.03 ± 2.33	**Yes**	48.90 ± 1.68	180.93 ± 6.22	**Yes**
	10/23/24	1.12 ± 0.32	4.14 ± 1.17	**Yes**	23.60 ± 1.12	87.32 ± 4.14	**Yes**
	10/30/24	2.26 ± 0.49	8.36 ± 1.81	**Yes**	23.80 ± 1.13	88.06 ± 4.18	**Yes**
	11/06/24	0.77 ± 0.27	2.85 ± 0.98	No	12.10 ± 0.82	44.77 ± 3.04	**Yes**
	11/13/24	1.81 ± 0.42	6.70 ± 1.56	**Yes**	40.00 ± 1.42	148.00 ± 5.25	**Yes**
	11/20/24	0.58 ± 0.26	2.16 ± 0.98	No	13.70 ± 0.87	50.69 ± 3.20	**Yes**
	11/26/24	1.73 ± 0.47	6.40 ± 1.74	**Yes**	19.80 ± 1.11	73.26 ± 4.11	**Yes**
	12/04/24	1.23 ± 0.35	4.55 ± 1.29	**Yes**	44.90 ± 1.43	166.13 ± 5.29	**Yes**
	12/11/24	5.39 ± 0.75	19.94 ± 2.76	**Yes**	69.90 ± 1.89	258.63 ± 6.99	**Yes**
	12/18/24	1.04 ± 0.35	3.85 ± 1.28	No	22.60 ± 1.11	83.62 ± 4.11	**Yes**
	12/23/24	2.22 ± 0.53	8.21 ± 1.98	**Yes**	43.90 ± 1.84	162.43 ± 6.81	**Yes**
BLUE DOME	10/02/24	2.34 ± 0.50	8.66 ± 1.86	**Yes**	36.90 ± 1.40	136.53 ± 5.18	**Yes**
	10/09/24	3.24 ± 0.56	11.99 ± 2.07	**Yes**	32.70 ± 1.39	120.99 ± 5.14	**Yes**
	10/16/24	2.00 ± 0.46	7.40 ± 1.68	**Yes**	43.40 ± 1.52	160.58 ± 5.62	**Yes**
	10/23/24	1.60 ± 0.42	5.92 ± 1.54	**Yes**	24.00 ± 1.11	88.80 ± 4.11	**Yes**
	10/30/24	1.23 ± 0.33	4.55 ± 1.23	**Yes**	22.30 ± 1.04	82.51 ± 3.85	**Yes**
	11/06/24	0.48 ± 0.23	1.77 ± 0.87	No	12.30 ± 0.81	45.51 ± 2.98	**Yes**
	11/13/24	2.69 ± 0.53	9.95 ± 1.96	**Yes**	36.50 ± 1.37	135.05 ± 5.07	**Yes**
	11/20/24	0.51 ± 0.22	1.89 ± 0.80	No	13.40 ± 0.84	49.58 ± 3.12	**Yes**
	11/26/24	0.99 ± 0.32	3.68 ± 1.19	**Yes**	25.80 ± 1.26	95.46 ± 4.66	**Yes**
	12/04/24	1.46 ± 0.34	5.40 ± 1.27	**Yes**	25.10 ± 1.02	92.87 ± 3.77	**Yes**
	12/11/24	2.28 ± 0.44	8.44 ± 1.64	**Yes**	51.00 ± 1.62	188.70 ± 5.99	**Yes**
	12/18/24	0.47 ± 0.21	1.72 ± 0.79	No	16.00 ± 0.95	59.20 ± 3.52	**Yes**
	12/23/24	1.80 ± 0.53	6.66 ± 1.96	**Yes**	37.20 ± 1.65	137.64 ± 6.11	**Yes**
HOWE	10/02/24	2.48 ± 0.50	9.18 ± 1.84	**Yes**	35.40 ± 1.37	130.98 ± 5.07	**Yes**
	10/09/24	2.90 ± 0.58	10.73 ± 2.15	**Yes**	29.30 ± 1.29	108.41 ± 4.77	**Yes**
	10/16/24	3.47 ± 0.62	12.84 ± 2.28	**Yes**	43.30 ± 1.51	160.21 ± 5.59	**Yes**
	10/23/24	0.69 ± 0.25	2.56 ± 0.92	No	26.20 ± 1.17	96.94 ± 4.33	**Yes**
	10/30/24	1.10 ± 0.34	4.07 ± 1.27	**Yes**	20.60 ± 1.03	76.22 ± 3.81	**Yes**
	11/06/24	0.50 ± 0.21	1.83 ± 0.78	No	12.50 ± 0.81	46.25 ± 3.00	**Yes**
	11/13/24	2.86 ± 0.52	10.58 ± 1.93	**Yes**	56.10 ± 1.67	207.57 ± 6.18	**Yes**
	11/20/24	0.48 ± 0.24	1.77 ± 0.89	No	10.80 ± 0.77	39.96 ± 2.85	**Yes**
	11/26/24	1.37 ± 0.42	5.07 ± 1.56	**Yes**	25.00 ± 1.24	92.50 ± 4.59	**Yes**
	12/04/24	2.00 ± 0.42	7.40 ± 1.56	**Yes**	41.30 ± 1.33	152.81 ± 4.92	**Yes**
	12/11/24	6.61 ± 0.81	24.46 ± 2.99	**Yes**	70.40 ± 1.86	260.48 ± 6.88	**Yes**
	12/18/24	1.84 ± 0.44	6.81 ± 1.61	**Yes**	24.30 ± 1.11	89.91 ± 4.11	**Yes**
	12/23/24	0.03 ± 0.12	2.73 ± 0.94	No	3.22 ± 0.62	11.91 ± 2.29	**Yes**
HOWE (duplicate)	10/02/24	1.62 ± 0.38	5.99 ± 1.41	**Yes**	34.80 ± 1.36	128.76 ± 5.03	**Yes**
	10/09/24	2.94 ± 0.52	10.88 ± 1.94	**Yes**	33.70 ± 1.39	124.69 ± 5.14	**Yes**
	10/16/24	2.29 ± 0.47	8.47 ± 1.72	**Yes**	39.20 ± 1.39	145.04 ± 5.14	**Yes**
	10/23/24	1.70 ± 0.43	6.29 ± 1.59	**Yes**	24.20 ± 1.12	89.54 ± 4.14	**Yes**
	10/30/24	1.37 ± 0.37	5.07 ± 1.38	**Yes**	19.70 ± 1.00	72.89 ± 3.70	**Yes**
	11/06/24	0.41 ± 0.20	1.52 ± 0.72	No	10.60 ± 0.75	39.22 ± 2.78	**Yes**
	11/13/24	2.00 ± 0.42	7.40 ± 1.55	**Yes**	42.00 ± 1.47	155.40 ± 5.44	**Yes**
	11/20/24	0.75 ± 0.29	2.79 ± 1.07	No	13.00 ± 0.83	48.10 ± 3.06	**Yes**
	11/26/24	1.46 ± 0.43	5.40 ± 1.59	**Yes**	26.10 ± 1.25	96.57 ± 4.63	**Yes**
	12/04/24	0.99 ± 0.31	3.68 ± 1.14	**Yes**	43.00 ± 1.37	159.10 ± 5.07	**Yes**
	12/11/24	3.52 ± 0.59	13.02 ± 2.19	**Yes**	46.40 ± 1.50	171.68 ± 5.55	**Yes**
	12/18/24	1.17 ± 0.36	4.33 ± 1.31	**Yes**	23.10 ± 1.09	85.47 ± 4.03	**Yes**
	12/23/24	3.82 ± 0.74	14.13 ± 2.74	**Yes**	42.40 ± 1.73	156.88 ± 6.40	**Yes**
MONTEVIEW	10/02/24	2.06 ± 0.43	7.62 ± 1.59	**Yes**	33.40 ± 1.34	123.58 ± 4.96	**Yes**
	10/09/24	2.83 ± 0.56	10.47 ± 2.08	**Yes**	31.70 ± 1.32	117.29 ± 4.88	**Yes**
	10/16/24	2.66 ± 0.54	9.84 ± 1.99	**Yes**	44.20 ± 1.53	163.54 ± 5.66	**Yes**
	10/23/24	1.18 ± 0.33	4.37 ± 1.22	**Yes**	18.80 ± 0.96	69.56 ± 3.53	**Yes**
	10/30/24	1.16 ± 0.35	4.29 ± 1.30	**Yes**	21.90 ± 1.05	81.03 ± 3.89	**Yes**
	11/06/24	0.64 ± 0.24	2.35 ± 0.90	No	13.90 ± 0.84	51.43 ± 3.10	**Yes**
	11/13/24	1.60 ± 0.38	5.92 ± 1.39	**Yes**	38.80 ± 1.43	143.56 ± 5.29	**Yes**
	11/20/24	0.98 ± 0.33	3.61 ± 1.23	No	12.50 ± 0.83	46.25 ± 3.08	**Yes**
	11/26/24	1.63 ± 0.46	6.03 ± 1.70	**Yes**	21.20 ± 1.16	78.44 ± 4.29	**Yes**
	12/04/24	1.47 ± 0.37	5.44 ± 1.35	**Yes**	38.10 ± 1.27	140.97 ± 4.70	**Yes**
	12/11/24	6.76 ± 0.82	25.01 ± 3.03	**Yes**	66.70 ± 1.82	246.79 ± 6.73	**Yes**
	12/18/24	1.01 ± 0.33	3.74 ± 1.22	**Yes**	24.60 ± 1.13	91.02 ± 4.18	**Yes**
	12/23/24	3.12 ± 0.64	11.54 ± 2.38	**Yes**	46.40 ± 1.81	171.68 ± 6.70	**Yes**
TERRETON	10/02/24	1.68 ± 0.42	6.22 ± 1.57	**Yes**	35.00 ± 1.36	129.50 ± 5.03	**Yes**
	10/09/24	2.98 ± 0.54	11.03 ± 2.01	**Yes**	33.40 ± 1.34	123.58 ± 4.96	**Yes**
	10/16/24	2.84 ± 0.50	10.51 ± 1.85	**Yes**	47.10 ± 1.58	174.27 ± 5.85	**Yes**
	10/23/24	2.18 ± 0.48	8.07 ± 1.78	**Yes**	24.20 ± 1.11	89.54 ± 4.11	**Yes**
	10/30/24	1.12 ± 0.31	4.14 ± 1.13	**Yes**	27.20 ± 1.16	100.64 ± 4.29	**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
	11/06/24	1.01 ± 0.33	3.74 ± 1.20	Yes	12.50 ± 0.80	46.25 ± 2.96	Yes
	11/13/24	2.05 ± 0.47	7.59 ± 1.75	Yes	41.30 ± 1.48	152.81 ± 5.48	Yes
	11/20/24	0.58 ± 0.23	2.14 ± 0.86	No	12.70 ± 0.81	46.99 ± 3.01	Yes
	11/26/24	1.68 ± 0.45	6.22 ± 1.65	Yes	27.00 ± 1.28	99.90 ± 4.74	Yes
	12/04/24	2.50 ± 0.43	9.25 ± 1.60	Yes	50.60 ± 1.51	187.22 ± 5.59	Yes
	12/11/24	5.79 ± 0.74	21.42 ± 2.72	Yes	96.80 ± 2.20	358.16 ± 8.14	Yes
	12/18/24	0.52 ± 0.23	1.94 ± 0.86	No	23.00 ± 1.07	85.10 ± 3.96	Yes
	12/23/24	0.85 ± 0.37	3.14 ± 1.38	No	4.29 ± 0.67	15.87 ± 2.49	Yes
OFFSITE							
BLACKFOOT	10/02/24	2.78 ± 0.53	10.29 ± 1.95	Yes	36.30 ± 1.39	134.31 ± 5.14	Yes
	10/09/24	3.27 ± 0.62	12.10 ± 2.29	Yes	32.10 ± 1.36	118.77 ± 5.03	Yes
	10/16/24	3.76 ± 0.66	13.91 ± 2.44	Yes	49.00 ± 1.65	181.30 ± 6.11	Yes
	10/23/24	2.64 ± 0.49	9.77 ± 1.80	Yes	25.90 ± 1.20	95.83 ± 4.44	Yes
	10/30/24	0.86 ± 0.32	3.17 ± 1.17	No	24.60 ± 1.16	91.02 ± 4.29	Yes
	11/06/24	0.84 ± 0.27	3.10 ± 1.01	Yes	15.50 ± 0.91	57.35 ± 3.37	Yes
	11/13/24	1.44 ± 0.36	5.33 ± 1.33	Yes	37.90 ± 1.41	140.23 ± 5.22	Yes
	11/20/24	0.55 ± 0.25	2.03 ± 0.91	No	6.96 ± 0.62	25.75 ± 2.31	Yes
	11/26/24	2.28 ± 0.55	8.44 ± 2.02	Yes	27.30 ± 1.32	101.01 ± 4.88	Yes
	12/04/24	1.47 ± 0.37	5.44 ± 1.38	Yes	36.10 ± 1.27	133.57 ± 4.70	Yes
	12/11/24	5.22 ± 0.74	19.31 ± 2.73	Yes	69.00 ± 1.88	255.30 ± 6.96	Yes
	12/18/24	1.44 ± 0.40	5.33 ± 1.48	Yes	18.30 ± 1.00	67.71 ± 3.70	Yes
	12/23/24	3.42 ± 0.74	12.65 ± 2.73	Yes	39.00 ± 1.75	144.30 ± 6.48	Yes
CRATERS OF THE MOON	10/02/24	1.56 ± 0.42	5.77 ± 1.56	Yes	36.60 ± 1.41	135.42 ± 5.22	Yes
	10/09/24	2.09 ± 0.44	7.73 ± 1.62	Yes	35.20 ± 1.40	130.24 ± 5.18	Yes
	10/16/24	2.53 ± 0.50	9.36 ± 1.86	Yes	48.70 ± 1.60	180.19 ± 5.92	Yes
	10/23/24	1.13 ± 0.36	4.18 ± 1.34	Yes	23.00 ± 1.10	85.10 ± 4.07	Yes
	10/30/24	1.00 ± 0.31	3.69 ± 1.13	Yes	19.20 ± 0.98	71.04 ± 3.62	Yes
	11/06/24	0.60 ± 0.26	2.21 ± 0.97	No	10.90 ± 0.78	40.33 ± 2.89	Yes
	11/13/24	3.32 ± 0.59	12.28 ± 2.18	Yes	39.10 ± 1.42	144.67 ± 5.25	Yes
	11/20/24	0.52 ± 0.22	1.91 ± 0.80	No	13.40 ± 0.85	49.58 ± 3.14	Yes
	11/26/24	2.47 ± 0.50	9.14 ± 1.85	Yes	21.20 ± 1.16	78.44 ± 4.29	Yes
	12/04/24	1.05 ± 0.30	3.89 ± 1.12	Yes	41.10 ± 1.33	152.07 ± 4.92	Yes
	12/11/24	4.18 ± 0.60	15.47 ± 2.20	Yes	58.10 ± 1.73	214.97 ± 6.40	Yes
	12/18/24	1.21 ± 0.34	4.48 ± 1.25	Yes	23.00 ± 1.15	85.10 ± 4.26	Yes
	12/23/24	2.16 ± 0.59	7.99 ± 2.18	Yes	46.70 ± 1.88	172.79 ± 6.96	Yes
DUBOIS	10/02/24	1.96 ± 0.44	7.25 ± 1.64	Yes	36.40 ± 1.38	134.68 ± 5.11	Yes
	10/09/24	1.71 ± 0.44	6.33 ± 1.64	Yes	25.30 ± 1.17	93.61 ± 4.33	Yes
	10/16/24	3.68 ± 0.66	13.62 ± 2.42	Yes	45.30 ± 1.59	167.61 ± 5.88	Yes
	10/23/24	1.12 ± 0.32	4.14 ± 1.17	Yes	26.50 ± 1.19	98.05 ± 4.40	Yes
	10/30/24	1.53 ± 0.40	5.66 ± 1.49	Yes	21.50 ± 1.07	79.55 ± 3.96	Yes
	11/06/24	0.60 ± 0.24	2.21 ± 0.87	No	13.70 ± 0.86	50.69 ± 3.20	Yes
	11/13/24	1.71 ± 0.41	6.33 ± 1.51	Yes	33.10 ± 1.29	122.47 ± 4.77	Yes
	11/20/24	1.13 ± 0.34	4.18 ± 1.27	Yes	11.00 ± 0.77	40.70 ± 2.83	Yes
	11/26/24	1.15 ± 0.39	4.26 ± 1.45	No	21.80 ± 1.17	80.66 ± 4.33	Yes
	12/04/24	1.64 ± 0.39	6.07 ± 1.45	Yes	34.30 ± 1.24	126.91 ± 4.59	Yes
	12/11/24	4.71 ± 0.69	17.43 ± 2.56	Yes	58.30 ± 1.71	215.71 ± 6.33	Yes
	12/18/24	1.89 ± 0.45	6.99 ± 1.65	Yes	23.20 ± 1.10	85.84 ± 4.07	Yes
	12/23/24	1.98 ± 0.49	7.33 ± 1.81	Yes	36.60 ± 1.63	135.42 ± 6.03	Yes
IDAHO FALLS	10/02/24	1.92 ± 0.41	7.10 ± 1.52	Yes	40.20 ± 1.44	148.74 ± 5.33	Yes
	10/09/24	3.49 ± 0.61	12.91 ± 2.27	Yes	31.00 ± 1.29	114.70 ± 4.77	Yes
	10/16/24	2.57 ± 0.53	9.51 ± 1.97	Yes	43.50 ± 1.52	160.95 ± 5.62	Yes
	10/23/24	1.61 ± 0.41	5.96 ± 1.50	Yes	24.60 ± 1.15	91.02 ± 4.26	Yes
	10/30/24	1.98 ± 0.46	7.33 ± 1.68	Yes	24.90 ± 1.13	92.13 ± 4.18	Yes
	11/06/24	1.40 ± 0.35	5.18 ± 1.31	Yes	13.90 ± 0.84	51.43 ± 3.10	Yes
	11/13/24	2.23 ± 0.45	8.25 ± 1.65	Yes	38.40 ± 1.43	142.08 ± 5.29	Yes
	11/20/24	0.85 ± 0.31	3.15 ± 1.14	No	14.40 ± 0.87	53.28 ± 3.23	Yes
	11/26/24	2.42 ± 0.55	8.95 ± 2.02	Yes	24.00 ± 1.22	88.80 ± 4.51	Yes
	12/04/24	2.09 ± 0.44	7.73 ± 1.64	Yes	37.50 ± 1.30	138.75 ± 4.81	Yes
	12/11/24	6.02 ± 0.78	22.27 ± 2.90	Yes	67.50 ± 1.86	249.75 ± 6.88	Yes
	12/18/24	0.61 ± 0.26	2.24 ± 0.95	No	22.50 ± 1.07	83.25 ± 3.96	Yes
a	12/23/24						
IRC	10/02/24	2.42 ± 0.52	8.95 ± 1.92	Yes	36.60 ± 1.47	135.42 ± 5.44	Yes
	10/09/24	3.20 ± 0.60	11.84 ± 2.20	Yes	29.60 ± 1.27	109.52 ± 4.70	Yes
	10/16/24	3.31 ± 0.62	12.25 ± 2.29	Yes	46.60 ± 1.60	172.42 ± 5.92	Yes
	10/23/24	1.77 ± 0.38	6.55 ± 1.41	Yes	24.90 ± 1.12	92.13 ± 4.14	Yes
	10/30/24	1.99 ± 0.45	7.36 ± 1.67	Yes	23.00 ± 1.09	85.10 ± 4.03	Yes
	11/06/24	1.31 ± 0.33	4.85 ± 1.24	Yes	12.60 ± 0.82	46.62 ± 3.04	Yes
	11/13/24	1.88 ± 0.41	6.96 ± 1.51	Yes	27.70 ± 1.22	102.49 ± 4.51	Yes
	11/20/24	0.88 ± 0.31	3.25 ± 1.16	No	13.50 ± 0.86	49.95 ± 3.17	Yes
	11/26/24	2.70 ± 0.58	9.99 ± 2.16	Yes	27.00 ± 1.29	99.90 ± 4.77	Yes
	12/04/24	2.12 ± 0.44	7.84 ± 1.62	Yes	35.40 ± 1.25	130.98 ± 4.63	Yes
	12/11/24	6.06 ± 0.81	22.42 ± 3.01	Yes	64.20 ± 1.87	237.54 ± 6.92	Yes
	12/18/24	0.82 ± 0.31	3.03 ± 1.14	No	20.50 ± 1.06	75.85 ± 3.92	Yes
	12/23/24	1.32 ± 0.45	4.88 ± 1.66	No	41.20 ± 1.77	152.44 ± 6.55	Yes
IRC NORTH	10/02/24	2.41 ± 0.48	8.92 ± 1.79	No	40.00 ± 1.52	148.00 ± 5.62	Yes
	10/09/24	1.63 ± 0.36	6.03 ± 1.33	No	18.70 ± 0.96	69.19 ± 3.54	Yes
	10/16/24	2.90 ± 0.57	10.73 ± 2.09	No	48.50 ± 1.68	179.45 ± 6.22	Yes
	10/23/24	1.62 ± 0.42	5.99 ± 1.57	No	24.40 ± 1.13	90.28 ± 4.18	Yes
	10/30/24	1.70 ± 0.43	6.29 ± 1.60	No	22.00 ± 1.10	81.40 ± 4.07	Yes
	11/06/24	0.42 ± 0.20	1.54 ± 0.73	No	13.40 ± 0.84	49.58 ± 3.11	Yes
	11/13/24	1.91 ± 0.43	7.07 ± 1.58	No	40.70 ± 1.52	150.59 ± 5.62	Yes
	11/20/24	1.19 ± 0.36	4.40 ± 1.34	No	14.00 ± 0.88	51.80 ± 3.25	Yes
	11/26/24	1.66 ± 0.47	6.14 ± 1.73	No	25.70 ± 1.28	95.09 ± 4.74	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
	12/04/24	1.44 ± 0.37	5.33 ± 1.35	No	36.80 ± 1.27	136.16 ± 4.70	**Yes**
	12/11/24	4.24 ± 0.68	15.69 ± 2.53	No	62.90 ± 1.85	232.73 ± 6.85	**Yes**
	12/18/24	1.27 ± 0.40	4.70 ± 1.49	No	23.80 ± 1.21	88.06 ± 4.48	**Yes**
	12/23/24	3.35 ± 0.75	12.40 ± 2.79	No	45.00 ± 1.93	166.50 ± 7.14	**Yes**
JACKSON, WY	10/01/24	1.61 ± 0.44	5.96 ± 1.61	**Yes**	35.80 ± 1.41	132.46 ± 5.22	**Yes**
	10/08/24	2.85 ± 0.53	10.55 ± 1.97	**Yes**	30.50 ± 1.37	112.85 ± 5.07	**Yes**
	10/15/24	3.99 ± 0.69	14.76 ± 2.55	**Yes**	40.60 ± 1.61	150.22 ± 5.96	**Yes**
	10/22/24	2.81 ± 0.60	10.40 ± 2.23	**Yes**	28.10 ± 1.33	103.97 ± 4.92	**Yes**
	10/29/24	1.90 ± 0.43	7.03 ± 1.59	**Yes**	28.30 ± 1.22	104.71 ± 4.51	**Yes**
	11/05/24	0.50 ± 0.24	1.85 ± 0.90	No	12.20 ± 0.82	45.14 ± 3.04	**Yes**
	11/12/24	1.89 ± 0.46	6.99 ± 1.70	**Yes**	31.90 ± 1.32	118.03 ± 4.88	**Yes**
	11/19/24	0.87 ± 0.28	3.20 ± 1.03	**Yes**	15.00 ± 0.91	55.50 ± 3.36	**Yes**
	11/26/24	1.87 ± 0.41	6.92 ± 1.53	**Yes**	23.30 ± 1.14	86.21 ± 4.22	**Yes**
	12/03/24	0.98 ± 0.32	3.64 ± 1.20	**Yes**	32.70 ± 1.30	120.99 ± 4.81	**Yes**
	12/10/24	3.88 ± 0.61	14.36 ± 2.25	**Yes**	50.10 ± 1.71	185.37 ± 6.33	**Yes**
	12/17/24	0.85 ± 0.29	3.15 ± 1.07	No	22.80 ± 1.15	84.36 ± 4.26	**Yes**
	12/23/24	-0.14 ± 0.02	-0.51 ± 0.08	No	2.13 ± 0.50	7.88 ± 1.83	**Yes**
SUGAR CITY	10/02/24	3.34 ± 0.59	12.36 ± 2.19	**Yes**	37.30 ± 1.41	138.01 ± 5.22	**Yes**
	10/09/24	2.25 ± 0.48	8.33 ± 1.77	**Yes**	31.80 ± 1.32	117.66 ± 4.88	**Yes**
	10/16/24	3.55 ± 0.57	13.14 ± 2.09	**Yes**	51.70 ± 1.68	191.29 ± 6.22	**Yes**
	10/23/24	1.00 ± 0.34	3.70 ± 1.26	No	26.20 ± 1.15	96.94 ± 4.26	**Yes**
	10/30/24	1.16 ± 0.32	4.29 ± 1.17	**Yes**	26.40 ± 1.16	97.68 ± 4.29	**Yes**
	11/06/24	0.83 ± 0.30	3.07 ± 1.11	No	13.10 ± 0.82	48.47 ± 3.04	**Yes**
	11/13/24	1.97 ± 0.47	7.29 ± 1.73	**Yes**	35.70 ± 1.39	132.09 ± 5.14	**Yes**
	11/20/24	1.07 ± 0.32	3.96 ± 1.18	**Yes**	13.30 ± 0.85	49.21 ± 3.16	**Yes**
	11/26/24	1.82 ± 0.47	6.73 ± 1.73	**Yes**	21.10 ± 1.15	78.07 ± 4.26	**Yes**
	12/04/24	1.55 ± 0.34	5.74 ± 1.27	**Yes**	27.80 ± 1.12	102.86 ± 4.14	**Yes**
	12/11/24	1.16 ± 0.34	4.29 ± 1.25	**Yes**	49.40 ± 1.56	182.78 ± 5.77	**Yes**
	12/18/24	0.73 ± 0.28	2.71 ± 1.02	No	18.40 ± 0.98	68.08 ± 3.64	**Yes**
	12/23/24	1.68 ± 0.46	6.22 ± 1.69	**Yes**	32.90 ± 1.58	121.73 ± 5.85	**Yes**
SUGAR CITY (duplicate)	10/02/24	1.99 ± 0.46	7.36 ± 1.71	**Yes**	33.20 ± 1.33	122.84 ± 4.92	**Yes**
	10/09/24	2.42 ± 0.52	8.95 ± 1.94	**Yes**	27.70 ± 1.24	102.49 ± 4.59	**Yes**
	10/16/24	2.90 ± 0.57	10.73 ± 2.09	**Yes**	43.50 ± 1.53	160.95 ± 5.66	**Yes**
	10/23/24	1.72 ± 0.41	6.36 ± 1.51	**Yes**	26.30 ± 1.16	97.31 ± 4.29	**Yes**
	10/30/24	1.45 ± 0.37	5.37 ± 1.35	**Yes**	25.90 ± 1.13	95.83 ± 4.18	**Yes**
	11/06/24	0.60 ± 0.26	2.21 ± 0.97	No	12.30 ± 0.82	45.51 ± 3.04	**Yes**
	11/13/24	2.10 ± 0.48	7.77 ± 1.79	**Yes**	33.80 ± 1.36	125.06 ± 5.03	**Yes**
	11/20/24	0.54 ± 0.23	1.98 ± 0.84	No	14.30 ± 0.89	52.91 ± 3.31	**Yes**
	11/26/24	1.10 ± 0.34	4.07 ± 1.26	**Yes**	20.10 ± 1.13	74.37 ± 4.18	**Yes**
	12/04/24	2.17 ± 0.43	8.03 ± 1.60	**Yes**	31.10 ± 1.19	115.07 ± 4.40	**Yes**
	12/11/24	4.54 ± 0.63	16.80 ± 2.34	**Yes**	55.20 ± 1.72	204.24 ± 6.36	**Yes**
	12/18/24	1.01 ± 0.31	3.74 ± 1.14	**Yes**	19.10 ± 1.05	70.67 ± 3.89	**Yes**
	12/23/24	1.33 ± 0.41	4.92 ± 1.52	**Yes**	30.10 ± 1.52	111.37 ± 5.62	**Yes**
ONSITE							
ATR COMPLEX	10/02/24	2.41 ± 0.46	8.92 ± 1.72	**Yes**	37.90 ± 1.42	140.23 ± 5.25	**Yes**
	10/09/24	3.43 ± 0.62	12.69 ± 2.31	**Yes**	33.50 ± 1.37	123.95 ± 5.07	**Yes**
	10/16/24	3.96 ± 0.65	14.65 ± 2.40	**Yes**	48.60 ± 1.59	179.82 ± 5.88	**Yes**
	10/23/24	1.80 ± 0.41	6.66 ± 1.50	**Yes**	26.80 ± 1.14	99.16 ± 4.22	**Yes**
	10/30/24	1.28 ± 0.37	4.74 ± 1.37	**Yes**	24.20 ± 1.12	89.54 ± 4.14	**Yes**
	11/06/24	0.77 ± 0.28	2.84 ± 1.02	No	12.00 ± 0.81	44.40 ± 3.01	**Yes**
	11/13/24	1.70 ± 0.41	6.29 ± 1.51	**Yes**	42.80 ± 1.46	158.36 ± 5.40	**Yes**
	11/20/24	1.28 ± 0.38	4.74 ± 1.39	**Yes**	29.50 ± 1.24	109.15 ± 4.59	**Yes**
	11/26/24	1.47 ± 0.43	5.44 ± 1.60	**Yes**	44.10 ± 1.62	163.17 ± 5.99	**Yes**
	12/04/24	1.65 ± 0.39	6.11 ± 1.44	**Yes**	43.30 ± 1.36	160.21 ± 5.03	**Yes**
	12/11/24	6.32 ± 0.80	23.38 ± 2.94	**Yes**	68.90 ± 1.86	254.93 ± 6.88	**Yes**
	12/18/24	1.92 ± 0.45	7.10 ± 1.65	**Yes**	25.00 ± 1.14	92.50 ± 4.22	**Yes**
	12/23/24	0.82 ± 0.33	3.05 ± 1.20	No	36.70 ± 1.63	135.79 ± 6.03	**Yes**
CFA	10/02/24	2.94 ± 0.54	10.88 ± 1.99	**Yes**	38.60 ± 1.43	142.82 ± 5.29	**Yes**
	10/09/24	2.75 ± 0.56	10.18 ± 2.08	**Yes**	36.00 ± 1.41	133.20 ± 5.22	**Yes**
	10/16/24	3.63 ± 0.64	13.43 ± 2.35	**Yes**	50.80 ± 1.64	187.96 ± 6.07	**Yes**
	10/23/24	1.17 ± 0.32	4.33 ± 1.17	**Yes**	28.50 ± 1.21	105.45 ± 4.48	**Yes**
	10/30/24	2.79 ± 0.53	10.32 ± 1.97	**Yes**	25.40 ± 1.15	93.98 ± 4.26	**Yes**
	11/06/24	0.68 ± 0.25	2.50 ± 0.92	No	12.80 ± 0.84	47.36 ± 3.09	**Yes**
	11/13/24	2.28 ± 0.47	8.44 ± 1.74	**Yes**	41.40 ± 1.45	153.18 ± 5.37	**Yes**
	11/20/24	1.56 ± 0.41	5.77 ± 1.50	**Yes**	14.00 ± 0.87	51.80 ± 3.22	**Yes**
	11/26/24	1.12 ± 0.38	4.14 ± 1.42	No	26.40 ± 1.26	97.68 ± 4.66	**Yes**
	12/04/24	2.14 ± 0.44	7.92 ± 1.64	**Yes**	44.40 ± 1.40	164.28 ± 5.18	**Yes**
	12/11/24	4.13 ± 0.65	15.28 ± 2.41	**Yes**	64.20 ± 1.80	237.54 ± 6.66	**Yes**
	12/18/24	0.11 ± 0.14	0.40 ± 0.52	No	0.33 ± 0.30	1.21 ± 1.12	No
	12/23/24	1.49 ± 0.48	5.51 ± 1.78	**Yes**	45.70 ± 1.81	169.09 ± 6.70	**Yes**
EBR-I	10/02/24	2.49 ± 0.52	9.21 ± 1.94	**Yes**	39.20 ± 1.45	145.04 ± 5.37	**Yes**
	10/09/24	2.95 ± 0.53	10.92 ± 1.94	**Yes**	35.60 ± 1.42	131.72 ± 5.25	**Yes**
	10/16/24	2.91 ± 0.54	10.77 ± 1.99	**Yes**	52.90 ± 1.66	195.73 ± 6.14	**Yes**
	10/23/24	0.89 ± 0.32	3.30 ± 1.18	No	27.20 ± 1.16	100.64 ± 4.29	**Yes**
	10/30/24	1.29 ± 0.34	4.77 ± 1.25	**Yes**	25.00 ± 1.08	92.50 ± 4.00	**Yes**
	11/06/24	0.60 ± 0.26	2.23 ± 0.98	No	13.10 ± 0.85	48.47 ± 3.15	**Yes**
	11/13/24	2.75 ± 0.55	10.18 ± 2.05	**Yes**	43.20 ± 1.53	159.84 ± 5.66	**Yes**
	11/20/24	0.77 ± 0.26	2.84 ± 0.97	No	16.70 ± 0.94	61.79 ± 3.49	**Yes**
	11/26/24	1.79 ± 0.43	6.62 ± 1.58	**Yes**	27.80 ± 1.31	102.86 ± 4.85	**Yes**
	12/04/24	1.66 ± 0.37	6.14 ± 1.38	**Yes**	45.00 ± 1.38	166.50 ± 5.11	**Yes**
	12/11/24	4.45 ± 0.62	16.47 ± 2.28	**Yes**	70.70 ± 1.91	261.59 ± 7.07	**Yes**
	12/18/24	1.04 ± 0.30	3.85 ± 1.12	**Yes**	24.50 ± 1.14	90.65 ± 4.22	**Yes**
	12/23/24	1.59 ± 0.49	5.88 ± 1.81	**Yes**	42.40 ± 1.79	156.88 ± 6.62	**Yes**
EFS	10/02/24	1.83 ± 0.42	6.77 ± 1.56	**Yes**	34.70 ± 1.33	128.39 ± 4.92	**Yes**

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

		GROSS ALPHA							GROSS BETA						
Sampling Group and Location	Sampling Date	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s	Result ± 1s Uncertainty ($\times 10^{-15}$ µCi/mL)			Result ± 1s Uncertainty ($\times 10^{-11}$ Bq/mL)			Result > 3s
	10/09/24	1.94	±	0.43	7.18	±	1.60	Yes	33.70	±	1.31	124.69	±	4.85	Yes
	10/16/24	2.68	±	0.48	9.92	±	1.77	Yes	50.60	±	1.61	187.22	±	5.96	Yes
	10/23/24	1.98	±	0.50	7.33	±	1.86	Yes	35.80	±	1.45	132.46	±	5.37	Yes
	10/30/24	1.70	±	0.41	6.29	±	1.52	Yes	20.80	±	1.01	76.96	±	3.74	Yes
	11/06/24	0.83	±	0.28	3.06	±	1.03	No	13.90	±	0.85	51.43	±	3.14	Yes
	11/13/24	2.27	±	0.46	8.40	±	1.70	Yes	41.90	±	1.43	155.03	±	5.29	Yes
	11/20/24	1.26	±	0.37	4.66	±	1.36	Yes	13.90	±	0.87	51.43	±	3.20	Yes
	11/26/24	2.49	±	0.55	9.21	±	2.03	Yes	25.60	±	1.24	94.72	±	4.59	Yes
	12/04/24	2.24	±	0.45	8.29	±	1.66	Yes	42.50	±	1.35	157.25	±	5.00	Yes
	12/11/24	2.65	±	0.52	9.81	±	1.91	Yes	54.80	±	1.65	202.76	±	6.11	Yes
	12/18/24	1.41	±	0.39	5.22	±	1.42	Yes	25.40	±	1.15	93.98	±	4.26	Yes
	12/23/24	2.11	±	0.55	7.81	±	2.04	Yes	40.20	±	1.67	148.74	±	6.18	Yes
GATE 4	10/02/24	2.77	±	0.49	10.25	±	1.82	Yes	42.70	±	1.49	157.99	±	5.51	Yes
	10/09/24	2.98	±	0.58	11.03	±	2.15	Yes	35.30	±	1.40	130.61	±	5.18	Yes
	10/16/24	2.28	±	0.48	8.44	±	1.78	Yes	44.20	±	1.47	163.54	±	5.44	Yes
	10/23/24	1.37	±	0.36	5.07	±	1.32	Yes	27.20	±	1.15	100.64	±	4.26	Yes
	10/30/24	1.46	±	0.38	5.40	±	1.40	Yes	26.00	±	1.11	96.20	±	4.11	Yes
	11/06/24	0.86	±	0.28	3.19	±	1.02	Yes	12.90	±	0.79	47.73	±	2.93	Yes
	11/13/24	0.85	±	0.56	3.15	±	2.06	No	18.00	±	1.95	66.60	±	7.22	Yes
	11/20/24	0.95	±	0.32	3.52	±	1.20	No	13.60	±	0.85	50.32	±	3.15	Yes
	11/26/24	2.69	±	0.58	9.95	±	2.14	Yes	28.90	±	1.34	106.93	±	4.96	Yes
	12/04/24	1.85	±	0.41	6.85	±	1.53	Yes	50.70	±	1.49	187.59	±	5.51	Yes
	12/11/24	6.07	±	0.78	22.46	±	2.87	Yes	75.60	±	1.94	279.72	±	7.18	Yes
	12/18/24	1.39	±	0.38	5.14	±	1.40	Yes	26.40	±	1.16	97.68	±	4.29	Yes
	12/23/24	3.31	±	0.66	12.25	±	2.43	Yes	61.00	±	2.05	225.70	±	7.59	Yes
HIGHWAY 26 REST AREA	10/02/24	1.47	±	0.37	5.44	±	1.36	Yes	36.40	±	1.40	134.68	±	5.18	Yes
	10/09/24	2.13	±	0.44	7.88	±	1.62	Yes	34.10	±	1.36	126.17	±	5.03	Yes
	10/16/24	2.81	±	0.53	10.40	±	1.96	Yes	51.70	±	1.64	191.29	±	6.07	Yes
	10/23/24	0.73	±	0.30	2.69	±	1.11	No	23.20	±	1.10	85.84	±	4.07	Yes
	10/30/24	1.09	±	0.32	4.03	±	1.18	Yes	23.10	±	1.07	85.47	±	3.96	Yes
	11/06/24	0.98	±	0.32	3.63	±	1.20	Yes	11.30	±	0.79	41.81	±	2.92	Yes
	11/13/24	1.84	±	0.45	6.81	±	1.66	Yes	36.40	±	1.39	134.68	±	5.14	Yes
	11/20/24	0.91	±	0.28	3.38	±	1.04	Yes	15.30	±	0.90	56.61	±	3.32	Yes
	11/26/24	1.30	±	0.37	4.81	±	1.36	Yes	26.50	±	1.28	98.05	±	4.74	Yes
	12/04/24	2.16	±	0.43	7.99	±	1.57	Yes	43.40	±	1.37	160.58	±	5.07	Yes
	12/11/24	4.61	±	0.62	17.06	±	2.29	Yes	68.30	±	1.86	252.71	±	6.88	Yes
	12/18/24	0.95	±	0.29	3.50	±	1.07	Yes	23.30	±	1.11	86.21	±	4.11	Yes
	12/23/24	3.28	±	0.64	12.14	±	2.37	Yes	43.10	±	1.81	159.47	±	6.70	Yes
HIGHWAY 26 REST AREA (duplicate)	10/02/24	1.86	±	0.46	6.88	±	1.69	Yes	36.60	±	1.40	135.42	±	5.18	Yes
	10/09/24	2.70	±	0.55	9.99	±	2.05	Yes	33.80	±	1.36	125.06	±	5.03	Yes
	10/16/24	2.97	±	0.58	10.99	±	2.13	Yes	51.90	±	1.65	192.03	±	6.11	Yes
	10/23/24	0.70	±	0.25	2.57	±	0.93	No	25.10	±	1.15	92.87	±	4.26	Yes
	10/30/24	1.09	±	0.31	4.03	±	1.15	Yes	23.60	±	1.11	87.32	±	4.11	Yes
	11/06/24	0.67	±	0.28	2.47	±	1.04	No	13.80	±	0.86	51.06	±	3.18	Yes
	11/13/24	1.66	±	0.43	6.14	±	1.59	Yes	30.10	±	1.27	111.37	±	4.70	Yes
	11/20/24	0.94	±	0.30	3.49	±	1.10	Yes	15.00	±	0.88	55.50	±	3.27	Yes
	11/26/24	1.57	±	0.43	5.81	±	1.59	Yes	26.10	±	1.26	96.57	±	4.66	Yes
	12/04/24	1.65	±	0.35	6.11	±	1.30	Yes	47.30	±	1.44	175.01	±	5.33	Yes
	12/11/24	3.62	±	0.58	13.39	±	2.16	Yes	66.00	±	1.81	244.20	±	6.70	Yes
	12/18/24	0.63	±	0.26	2.32	±	0.95	No	26.80	±	1.16	99.16	±	4.29	Yes
	12/23/24	2.36	±	0.58	8.73	±	2.14	Yes	41.20	±	1.76	152.44	±	6.51	Yes
INTEC (NE CORNER)	10/02/24	2.93	±	0.56	10.84	±	2.06	Yes	39.30	±	1.43	145.41	±	5.29	Yes
	10/09/24	1.52	±	0.37	5.62	±	1.38	Yes	35.90	±	1.40	132.83	±	5.18	Yes
	10/16/24	3.00	±	0.54	11.10	±	1.99	Yes	48.60	±	1.57	179.82	±	5.81	Yes
	10/23/24	1.45	±	0.39	5.37	±	1.45	Yes	24.40	±	1.10	90.28	±	4.07	Yes
	10/30/24	0.84	±	0.29	3.12	±	1.06	No	25.10	±	1.13	92.87	±	4.18	Yes
	11/06/24	0.40	±	0.22	1.47	±	0.81	No	13.50	±	0.85	49.95	±	3.16	Yes
	11/13/24	1.97	±	0.46	7.29	±	1.68	Yes	37.40	±	1.38	138.38	±	5.11	Yes
	11/20/24	0.61	±	0.24	2.24	±	0.87	No	14.80	±	0.90	54.76	±	3.32	Yes
	11/26/24	1.66	±	0.41	6.14	±	1.51	Yes	28.80	±	1.32	106.56	±	4.88	Yes
	12/04/24	1.49	±	0.35	5.51	±	1.31	Yes	46.50	±	1.40	172.05	±	5.18	Yes
	12/11/24	4.25	±	0.60	15.73	±	2.22	Yes	77.60	±	1.99	287.12	±	7.36	Yes
	12/18/24	0.69	±	0.25	2.56	±	0.93	No	26.80	±	1.18	99.16	±	4.37	Yes
	12/23/24	2.60	±	0.59	9.62	±	2.18	Yes	49.90	±	1.87	184.63	±	6.92	Yes
INTEC (WEST SIDE)	10/02/24	2.32	±	0.50	8.58	±	1.85	Yes	29.80	±	1.25	110.26	±	4.63	Yes
	10/09/24	3.38	±	0.66	12.51	±	2.43	Yes	36.00	±	1.68	133.20	±	6.22	Yes
	10/16/24	2.59	±	0.55	9.58	±	2.03	Yes	42.20	±	1.60	156.14	±	5.92	Yes
	10/23/24	2.01	±	0.47	7.44	±	1.72	Yes	25.30	±	1.14	93.61	±	4.22	Yes
	10/30/24	1.24	±	0.34	4.59	±	1.25	Yes	40.90	±	1.40	151.33	±	5.18	Yes
	11/06/24	0.50	±	0.24	1.84	±	0.90	No	13.40	±	0.86	49.58	±	3.16	Yes
	11/13/24	2.44	±	0.50	9.03	±	1.86	Yes	39.80	±	1.42	147.26	±	5.25	Yes
	11/20/24	0.69	±	0.25	2.55	±	0.93	No	15.00	±	0.90	55.50	±	3.34	Yes
	11/26/24	1.42	±	0.37	5.25	±	1.38	Yes	19.10	±	1.07	70.67	±	3.96	Yes
	12/04/24	1.91	±	0.40	7.07	±	1.48	Yes	42.70	±	1.35	157.99	±	5.00	Yes
	12/11/24	4.88	±	0.63	18.06	±	2.34	Yes	72.10	±	1.90	266.77	±	7.03	Yes
	12/18/24	1.23	±	0.32	4.55	±	1.19	Yes	28.60	±	1.20	105.82	±	4.44	Yes
	12/23/24	2.53	±	0.60	9.36	±	2.23	Yes	45.00	±	1.76	166.50	±	6.51	Yes
MAIN GATE	10/02/24	2.66	±	0.55	9.84	±	2.02	Yes	31.60	±	1.34	116.92	±	4.96	Yes
	10/09/24	2.29	±	0.48	8.47	±	1.76	Yes	30.40	±	1.27	112.48	±	4.70	Yes
	10/16/24	4.21	±	0.61	15.58	±	2.26	Yes	52.70	±	1.69	194.99	±	6.25	Yes
	10/23/24	1.23	±	0.36	4.55	±	1.33	Yes	24.30	±	1.08	89.91	±	4.00	Yes
	10/30/24	1.12	±	0.30	4.14	±	1.12	Yes	24.70	±	1.10	91.39	±	4.07	Yes
	11/06/24	0.57	±	0.26	2.11	±	0.97	No	12.30	±	0.82	45.51	±	3.03	Yes
	11/13/24	2.52	±	0.52	9.32	±	1.92	Yes	43.90	±	1.51	162.43	±	5.59	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
		11/20/24	1.04 ± 0.32	3.85 ± 1.17	**Yes**	28.20 ± 1.19	104.34 ± 4.40	**Yes**
		11/26/24	1.50 ± 0.41	5.55 ± 1.53	**Yes**	38.00 ± 1.47	140.60 ± 5.44	**Yes**
		12/04/24	1.81 ± 0.37	6.70 ± 1.35	**Yes**	48.10 ± 1.46	177.97 ± 5.40	**Yes**
		12/11/24	5.83 ± 0.73	21.57 ± 2.71	**Yes**	82.20 ± 2.01	304.14 ± 7.44	**Yes**
		12/18/24	0.73 ± 0.27	2.69 ± 1.01	No	12.30 ± 0.81	45.51 ± 3.01	**Yes**
		12/23/24	3.28 ± 0.69	12.14 ± 2.55	**Yes**	46.20 ± 1.81	170.94 ± 6.70	**Yes**
MFC NORTH	a	10/02/24						
	a	10/09/24						
	a	10/16/24						
	a	10/23/24						
		10/30/24	0.67 ± 0.24	2.49 ± 0.90	No	17.50 ± 0.96	64.75 ± 3.54	**Yes**
		11/06/24	0.77 ± 0.30	2.85 ± 1.10	No	9.70 ± 0.74	35.89 ± 2.73	**Yes**
		11/13/24	2.13 ± 0.48	7.88 ± 1.76	**Yes**	25.10 ± 1.16	92.87 ± 4.29	**Yes**
		11/20/24	0.32 ± 0.18	1.19 ± 0.67	No	11.40 ± 0.78	42.18 ± 2.89	**Yes**
		11/26/24	1.53 ± 0.42	5.66 ± 1.55	**Yes**	20.00 ± 1.10	74.00 ± 4.07	**Yes**
		12/04/24	1.15 ± 0.29	4.26 ± 1.08	**Yes**	33.20 ± 1.21	122.84 ± 4.48	**Yes**
		12/11/24	4.49 ± 0.65	16.61 ± 2.39	**Yes**	60.80 ± 1.74	224.96 ± 6.44	**Yes**
		12/18/24	1.31 ± 0.49	4.85 ± 1.83	No	28.20 ± 1.64	104.34 ± 6.07	**Yes**
		12/23/24	2.39 ± 0.57	8.84 ± 2.11	**Yes**	39.30 ± 1.68	145.41 ± 6.22	**Yes**
MFC SOUTH		10/02/24	2.06 ± 0.47	7.62 ± 1.72	**Yes**	35.20 ± 1.35	130.24 ± 5.00	**Yes**
		10/09/24	2.60 ± 0.50	9.62 ± 1.85	**Yes**	33.00 ± 1.30	122.10 ± 4.81	**Yes**
		10/16/24	2.49 ± 0.47	9.21 ± 1.73	**Yes**	48.40 ± 1.60	179.08 ± 5.92	**Yes**
		10/23/24	1.35 ± 0.38	5.00 ± 1.40	**Yes**	21.10 ± 1.02	78.07 ± 3.77	**Yes**
		10/30/24	0.92 ± 0.27	3.42 ± 1.01	**Yes**	23.60 ± 1.06	87.32 ± 3.92	**Yes**
		11/06/24	0.27 ± 0.20	1.00 ± 0.73	No	12.50 ± 0.82	46.25 ± 3.02	**Yes**
		11/13/24	1.62 ± 0.44	5.99 ± 1.62	**Yes**	34.90 ± 1.40	129.13 ± 5.18	**Yes**
		11/20/24	1.14 ± 0.34	4.22 ± 1.27	**Yes**	10.30 ± 0.79	38.11 ± 2.93	**Yes**
		11/26/24	1.90 ± 0.49	7.03 ± 1.80	**Yes**	23.80 ± 1.25	88.06 ± 4.63	**Yes**
		12/04/24	1.42 ± 0.34	5.25 ± 1.26	**Yes**	38.00 ± 1.36	140.60 ± 5.03	**Yes**
		12/11/24	7.07 ± 0.81	26.16 ± 2.99	**Yes**	66.80 ± 1.83	247.16 ± 6.77	**Yes**
		12/18/24	0.64 ± 0.26	2.35 ± 0.95	No	21.90 ± 1.06	81.03 ± 3.92	**Yes**
		12/23/24	2.21 ± 0.58	8.18 ± 2.13	**Yes**	38.20 ± 1.66	141.34 ± 6.14	**Yes**
NRF		10/02/24	2.11 ± 0.49	7.81 ± 1.81	**Yes**	37.60 ± 1.43	139.12 ± 5.29	**Yes**
		10/09/24	3.19 ± 0.60	11.80 ± 2.23	**Yes**	33.90 ± 1.38	125.43 ± 5.11	**Yes**
		10/16/24	3.00 ± 0.58	11.10 ± 2.15	**Yes**	47.20 ± 1.59	174.64 ± 5.88	**Yes**
		10/23/24	0.92 ± 0.28	3.40 ± 1.04	**Yes**	23.40 ± 1.10	86.58 ± 4.07	**Yes**
		10/30/24	1.42 ± 0.39	5.25 ± 1.44	**Yes**	25.20 ± 1.15	93.24 ± 4.26	**Yes**
		11/06/24	0.76 ± 0.26	2.82 ± 0.97	No	14.20 ± 0.88	52.54 ± 3.25	**Yes**
		11/13/24	2.15 ± 0.43	7.96 ± 1.59	**Yes**	44.30 ± 1.51	163.91 ± 5.59	**Yes**
		11/20/24	0.68 ± 0.28	2.52 ± 1.04	No	13.80 ± 0.87	51.06 ± 3.20	**Yes**
		11/26/24	1.23 ± 0.40	4.55 ± 1.48	**Yes**	25.50 ± 1.24	94.35 ± 4.59	**Yes**
		12/04/24	2.11 ± 0.44	7.81 ± 1.62	**Yes**	42.80 ± 1.37	158.36 ± 5.07	**Yes**
		12/11/24	5.54 ± 0.75	20.50 ± 2.76	**Yes**	73.80 ± 1.91	273.06 ± 7.07	**Yes**
		12/18/24	1.47 ± 0.40	5.44 ± 1.46	**Yes**	25.20 ± 1.14	93.24 ± 4.22	**Yes**
		12/23/24	2.85 ± 0.65	10.55 ± 2.39	**Yes**	55.50 ± 1.97	205.35 ± 7.29	**Yes**
PBF		10/02/24	2.52 ± 0.53	9.32 ± 1.97	**Yes**	54.20 ± 1.71	200.54 ± 6.33	**Yes**
		10/09/24	2.52 ± 0.48	9.32 ± 1.77	**Yes**	35.70 ± 1.41	132.09 ± 5.22	**Yes**
		10/16/24	1.82 ± 0.40	6.73 ± 1.49	**Yes**	33.20 ± 1.24	122.84 ± 4.59	**Yes**
		10/23/24	0.97 ± 0.33	3.60 ± 1.22	No	21.60 ± 1.04	79.92 ± 3.85	**Yes**
		10/30/24	1.57 ± 0.39	5.81 ± 1.43	**Yes**	22.50 ± 1.07	83.25 ± 3.96	**Yes**
		11/06/24	0.81 ± 0.30	2.98 ± 1.11	No	13.00 ± 0.85	48.10 ± 3.14	**Yes**
		11/13/24	2.39 ± 0.50	8.84 ± 1.85	**Yes**	34.60 ± 1.33	128.02 ± 4.92	**Yes**
		11/20/24	0.53 ± 0.22	1.95 ± 0.83	No	15.70 ± 0.93	58.09 ± 3.43	**Yes**
		11/26/24	1.37 ± 0.37	5.07 ± 1.38	**Yes**	25.10 ± 1.24	92.87 ± 4.59	**Yes**
		12/04/24	1.95 ± 0.41	7.22 ± 1.51	**Yes**	45.30 ± 1.41	167.61 ± 5.22	**Yes**
		12/11/24	4.85 ± 0.64	17.95 ± 2.35	**Yes**	72.70 ± 1.92	268.99 ± 7.10	**Yes**
		12/18/24	0.95 ± 0.29	3.53 ± 1.08	**Yes**	21.30 ± 1.07	78.81 ± 3.96	**Yes**
		12/23/24	2.70 ± 0.63	9.99 ± 2.32	**Yes**	43.60 ± 1.76	161.32 ± 6.51	**Yes**
RHLLW		10/02/24	2.32 ± 0.50	8.58 ± 1.84	**Yes**	36.60 ± 1.40	135.42 ± 5.18	**Yes**
		10/09/24	2.12 ± 0.48	7.84 ± 1.79	**Yes**	36.70 ± 1.40	135.79 ± 5.18	**Yes**
		10/16/24	3.61 ± 0.61	13.36 ± 2.25	**Yes**	54.50 ± 1.65	201.65 ± 6.11	**Yes**
		10/23/24	2.06 ± 0.43	7.62 ± 1.60	**Yes**	27.10 ± 1.15	100.27 ± 4.26	**Yes**
		10/30/24	1.28 ± 0.35	4.74 ± 1.29	**Yes**	26.10 ± 1.14	96.57 ± 4.22	**Yes**
		11/06/24	0.99 ± 0.33	3.66 ± 1.21	**Yes**	12.40 ± 0.83	45.88 ± 3.06	**Yes**
		11/13/24	2.02 ± 0.46	7.47 ± 1.68	**Yes**	38.50 ± 1.38	142.45 ± 5.11	**Yes**
		11/20/24	0.85 ± 0.28	3.15 ± 1.02	**Yes**	16.70 ± 0.94	61.79 ± 3.49	**Yes**
		11/26/24	1.52 ± 0.39	5.62 ± 1.43	**Yes**	22.20 ± 1.15	82.14 ± 4.26	**Yes**
		12/04/24	1.66 ± 0.37	6.14 ± 1.38	**Yes**	44.80 ± 1.38	165.76 ± 5.11	**Yes**
		12/11/24	2.13 ± 0.42	7.88 ± 1.56	**Yes**	30.40 ± 1.24	112.48 ± 4.59	**Yes**
		12/18/24	1.16 ± 0.31	4.29 ± 1.16	**Yes**	27.70 ± 1.18	102.49 ± 4.37	**Yes**
		12/23/24	1.35 ± 0.40	5.00 ± 1.48	**Yes**	42.20 ± 1.72	156.14 ± 6.36	**Yes**
RHLLW (duplicate)		10/02/24	1.54 ± 0.39	5.70 ± 1.44	**Yes**	38.60 ± 1.39	142.82 ± 5.14	**Yes**
		10/09/24	2.24 ± 0.47	8.29 ± 1.72	**Yes**	34.80 ± 1.34	128.76 ± 4.96	**Yes**
		10/16/24	2.41 ± 0.45	8.92 ± 1.67	**Yes**	49.60 ± 1.59	183.52 ± 5.88	**Yes**
		10/23/24	1.73 ± 0.43	6.40 ± 1.57	**Yes**	25.60 ± 1.12	94.72 ± 4.14	**Yes**
		10/30/24	1.78 ± 0.43	6.59 ± 1.59	**Yes**	22.40 ± 1.08	82.88 ± 4.00	**Yes**
		11/06/24	0.56 ± 0.23	2.07 ± 0.86	No	14.60 ± 0.87	54.02 ± 3.20	**Yes**
		11/13/24	1.92 ± 0.43	7.10 ± 1.57	**Yes**	40.60 ± 1.41	150.22 ± 5.22	**Yes**
		11/20/24	0.88 ± 0.32	3.27 ± 1.18	No	13.40 ± 0.86	49.58 ± 3.20	**Yes**
		11/26/24	2.20 ± 0.52	8.14 ± 1.94	**Yes**	25.10 ± 1.25	92.87 ± 4.63	**Yes**
		12/04/24	2.35 ± 0.47	8.70 ± 1.74	**Yes**	44.90 ± 1.42	166.13 ± 5.25	**Yes**
		12/11/24	3.42 ± 0.58	12.65 ± 2.16	**Yes**	46.70 ± 1.52	172.79 ± 5.62	**Yes**
		12/18/24	0.49 ± 0.23	1.82 ± 0.85	No	25.20 ± 1.11	93.24 ± 4.11	**Yes**
		12/23/24	2.07 ± 0.54	7.66 ± 2.01	**Yes**	44.30 ± 1.73	163.91 ± 6.40	**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
RWMC		10/02/24	3.01 ± 0.57	11.14 ± 2.12	**Yes**	36.30 ± 1.41	134.31 ± 5.22	**Yes**
		10/09/24	2.22 ± 0.51	8.21 ± 1.87	**Yes**	36.50 ± 1.42	135.05 ± 5.25	**Yes**
		10/16/24	4.08 ± 0.72	15.10 ± 2.65	**Yes**	54.80 ± 1.84	202.76 ± 6.81	**Yes**
		10/23/24	1.78 ± 0.40	6.59 ± 1.48	**Yes**	26.50 ± 1.13	98.05 ± 4.18	**Yes**
		10/30/24	1.46 ± 0.38	5.40 ± 1.40	**Yes**	23.20 ± 1.05	85.84 ± 3.89	**Yes**
		11/06/24	0.76 ± 0.27	2.80 ± 1.01	No	12.40 ± 0.82	45.88 ± 3.02	**Yes**
		11/13/24	1.19 ± 0.35	4.40 ± 1.30	**Yes**	42.40 ± 1.48	156.88 ± 5.48	**Yes**
		11/20/24	0.96 ± 0.33	3.56 ± 1.21	No	13.20 ± 0.85	48.84 ± 3.14	**Yes**
		11/26/24	1.63 ± 0.46	6.03 ± 1.70	**Yes**	26.80 ± 1.29	99.16 ± 4.77	**Yes**
		12/04/24	1.83 ± 0.41	6.77 ± 1.51	**Yes**	47.00 ± 1.42	173.90 ± 5.25	**Yes**
		12/11/24	4.90 ± 0.71	18.13 ± 2.61	**Yes**	68.40 ± 1.86	253.08 ± 6.88	**Yes**
		12/18/24	1.10 ± 0.38	4.07 ± 1.39	No	22.80 ± 1.20	84.36 ± 4.44	**Yes**
	a	12/23/24						
RWMC SOUTH	a	10/02/24						
		10/09/24	1.92 ± 0.44	7.10 ± 1.62	**Yes**	33.30 ± 1.33	123.21 ± 4.92	**Yes**
		10/16/24	2.79 ± 0.54	10.32 ± 2.01	**Yes**	54.50 ± 1.86	201.65 ± 6.88	**Yes**
		10/23/24	1.79 ± 0.44	6.62 ± 1.62	**Yes**	25.80 ± 1.14	95.46 ± 4.22	**Yes**
		10/30/24	2.39 ± 0.44	8.84 ± 1.63	**Yes**	27.80 ± 1.17	102.86 ± 4.33	**Yes**
		11/06/24	0.76 ± 0.30	2.81 ± 1.09	No	14.30 ± 0.87	52.91 ± 3.22	**Yes**
		11/13/24	2.76 ± 0.53	10.21 ± 1.97	**Yes**	42.50 ± 1.47	157.25 ± 5.44	**Yes**
		11/20/24	0.68 ± 0.25	2.50 ± 0.94	No	14.80 ± 0.88	54.76 ± 3.25	**Yes**
		11/26/24	1.55 ± 0.43	5.74 ± 1.58	**Yes**	26.20 ± 1.25	96.94 ± 4.63	**Yes**
		12/04/24	1.96 ± 0.37	7.25 ± 1.38	**Yes**	46.80 ± 1.41	173.16 ± 5.22	**Yes**
		12/11/24	4.06 ± 0.61	15.02 ± 2.25	**Yes**	69.00 ± 1.83	255.30 ± 6.77	**Yes**
		12/18/24	0.53 ± 0.24	1.96 ± 0.87	No	25.90 ± 1.14	95.83 ± 4.22	**Yes**
		12/23/24	3.01 ± 0.68	11.14 ± 2.52	**Yes**	48.20 ± 1.90	178.34 ± 7.03	**Yes**
SMC		10/02/24	2.47 ± 0.46	9.14 ± 1.69	**Yes**	31.50 ± 1.27	116.55 ± 4.70	**Yes**
		10/09/24	3.39 ± 0.63	12.54 ± 2.32	**Yes**	34.20 ± 1.40	126.54 ± 5.18	**Yes**
		10/16/24	2.77 ± 0.55	10.25 ± 2.04	**Yes**	45.60 ± 1.55	168.72 ± 5.74	**Yes**
		10/23/24	1.44 ± 0.36	5.33 ± 1.34	**Yes**	22.20 ± 1.04	82.14 ± 3.85	**Yes**
		10/30/24	1.26 ± 0.35	4.66 ± 1.30	**Yes**	21.20 ± 1.00	78.44 ± 3.70	**Yes**
		11/06/24	0.36 ± 0.18	1.33 ± 0.68	No	12.50 ± 0.78	46.25 ± 2.88	**Yes**
		11/13/24	2.10 ± 0.44	7.77 ± 1.64	**Yes**	37.20 ± 1.35	137.64 ± 5.00	**Yes**
		11/20/24	0.75 ± 0.29	2.78 ± 1.07	No	11.60 ± 0.79	42.92 ± 2.93	**Yes**
		11/26/24	1.90 ± 0.48	7.03 ± 1.78	**Yes**	22.90 ± 1.17	84.73 ± 4.33	**Yes**
		12/04/24	1.84 ± 0.41	6.81 ± 1.52	**Yes**	39.60 ± 1.31	146.52 ± 4.85	**Yes**
		12/11/24	4.84 ± 0.69	17.91 ± 2.55	**Yes**	62.30 ± 1.75	230.51 ± 6.48	**Yes**
		12/18/24	1.11 ± 0.34	4.11 ± 1.27	**Yes**	26.00 ± 1.16	96.20 ± 4.29	**Yes**
		12/23/24	3.70 ± 0.73	13.69 ± 2.71	**Yes**	59.10 ± 2.04	218.67 ± 7.55	**Yes**
VAN BUREN		10/02/24	1.96 ± 0.47	7.25 ± 1.72	**Yes**	37.90 ± 1.44	140.23 ± 5.33	**Yes**
		10/09/24	2.29 ± 0.48	8.47 ± 1.76	**Yes**	36.40 ± 1.39	134.68 ± 5.14	**Yes**
		10/16/24	3.06 ± 0.52	11.32 ± 1.94	**Yes**	54.10 ± 1.70	200.17 ± 6.29	**Yes**
		10/23/24	1.29 ± 0.36	4.77 ± 1.34	**Yes**	13.40 ± 0.81	49.58 ± 2.98	**Yes**
		10/30/24	1.23 ± 0.32	4.55 ± 1.20	**Yes**	26.00 ± 1.15	96.20 ± 4.26	**Yes**
		11/06/24	0.87 ± 0.31	3.20 ± 1.16	No	12.40 ± 0.82	45.88 ± 3.03	**Yes**
		11/13/24	1.72 ± 0.86	6.36 ± 3.17	No	28.10 ± 2.41	103.97 ± 8.92	**Yes**
		11/20/24	0.95 ± 0.30	3.50 ± 1.10	**Yes**	11.90 ± 0.80	44.03 ± 2.95	**Yes**
		11/26/24	1.27 ± 0.40	4.70 ± 1.47	**Yes**	25.60 ± 1.26	94.72 ± 4.66	**Yes**
		12/04/24	1.79 ± 0.37	6.62 ± 1.37	**Yes**	46.40 ± 1.45	171.68 ± 5.37	**Yes**
		12/11/24	3.84 ± 0.60	14.21 ± 2.23	**Yes**	64.90 ± 1.81	240.13 ± 6.70	**Yes**
		12/18/24	1.38 ± 0.37	5.11 ± 1.36	**Yes**	24.00 ± 1.12	88.80 ± 4.14	**Yes**
		12/23/24	2.55 ± 0.62	9.44 ± 2.31	**Yes**	41.40 ± 1.75	153.18 ± 6.48	**Yes**

a. Insufficent sample volume

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	10/02/24	160.89	±	99.71	595.29	±	368.93	No
	10/09/24	22.89	±	94.23	84.69	±	348.64	No
	10/16/24	71.74	±	94.12	265.42	±	348.23	No
	10/23/24	35.32	±	97.51	130.69	±	360.77	No
	10/30/24	37.25	±	85.68	137.81	±	317.03	No
	11/06/24	-133.14	±	95.64	-492.62	±	353.88	No
	11/13/24	-172.17	±	117.32	-637.03	±	434.08	No
	11/20/24	-153.00	±	154.29	-566.10	±	570.87	No
	11/26/24	4.64	±	197.72	17.17	±	731.56	No
	12/04/24	44.67	±	235.17	165.26	±	870.13	No
	12/11/24	62.13	±	282.01	229.90	±	1043.44	No
	12/18/24	146.16	±	289.91	540.79	±	1072.67	No
	12/23/24	85.53	±	139.89	316.47	±	517.59	No
ATOMIC CITY	10/02/24	35.65	±	114.51	131.90	±	423.69	No
	10/09/24	47.93	±	161.89	177.33	±	598.99	No
	10/16/24	3.02	±	1.56	11.17	±	5.77	No
	10/23/24	149.37	±	96.33	552.67	±	356.42	No
	10/30/24	-17.93	±	100.47	-66.34	±	371.74	No
	11/06/24	-182.96	±	123.86	-676.95	±	458.28	No
	11/13/24	-43.12	±	144.30	-159.54	±	533.91	No
	11/20/24	1.50	±	115.28	5.56	±	426.54	No
	11/26/24	-64.72	±	133.54	-239.46	±	494.10	No
	12/04/24	283.95	±	244.30	1050.62	±	903.91	No
	12/11/24	66.17	±	96.63	244.84	±	357.52	No
	12/18/24	-191.07	±	128.65	-706.96	±	476.01	No
	12/23/24	-164.98	±	209.08	-610.43	±	773.60	No
BLUE DOME	10/02/24	-35.88	±	97.28	-132.75	±	359.94	No
	10/09/24	40.88	±	133.27	151.24	±	493.10	No
	10/16/24	68.79	±	110.83	254.54	±	410.07	No
	10/23/24	78.36	±	145.67	289.94	±	538.98	No
	10/30/24	-75.58	±	106.57	-279.64	±	394.31	No
	11/06/24	-30.12	±	93.07	-111.45	±	344.37	No
	11/13/24	-174.13	±	145.91	-644.28	±	539.87	No
	11/20/24	-10.37	±	281.46	-38.35	±	1041.40	No
	11/26/24	203.39	±	312.54	752.54	±	1156.40	No
	12/04/24	20.30	±	74.82	75.10	±	276.83	No
	12/11/24	11.09	±	97.17	41.03	±	359.54	No
	12/18/24	-127.52	±	112.70	-471.82	±	416.99	No
	12/23/24	-242.46	±	210.44	-897.10	±	778.63	No
HOWE	10/02/24	11.29	±	98.79	41.76	±	365.52	No
	10/09/24	85.15	±	99.73	315.05	±	369.00	No
	10/16/24	50.87	±	91.06	188.22	±	336.92	No
	10/23/24	32.21	±	92.60	119.19	±	342.61	No
	10/30/24	16.80	±	91.57	62.17	±	338.81	No
	11/06/24	-57.37	±	93.45	-212.27	±	345.75	No
	11/13/24	-89.63	±	106.10	-331.62	±	392.57	No
	11/20/24	-74.50	±	97.34	-275.65	±	360.17	No
	11/26/24	-93.95	±	129.87	-347.60	±	480.52	No
	12/04/24	186.90	±	231.54	691.53	±	856.70	No
	12/11/24	-45.42	±	275.41	-168.04	±	1019.02	No
	12/18/24	-33.71	±	118.97	-124.73	±	440.19	No
	12/23/24	95.61	±	399.13	353.76	±	1476.78	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
HOWE (duplicate)	10/02/24	129.25	±	98.61	478.23	±	364.87	No
	10/09/24	66.26	±	122.89	245.16	±	454.69	No
	10/16/24	60.54	±	94.96	223.99	±	351.35	No
	10/23/24	10.56	±	113.58	39.06	±	420.25	No
	10/30/24	156.33	±	92.19	578.42	±	341.11	No
	11/06/24	44.28	±	99.57	163.84	±	368.40	No
	11/13/24	-25.51	±	106.43	-94.37	±	393.79	No
	11/20/24	-1.91	±	93.39	-7.06	±	345.54	No
	11/26/24	4.16	±	112.38	15.39	±	415.81	No
	12/04/24	52.67	±	118.06	194.89	±	436.82	No
	12/11/24	108.22	±	114.59	400.41	±	423.98	No
	12/18/24	-76.50	±	112.47	-283.04	±	416.14	No
	12/23/24	133.57	±	144.05	494.21	±	532.99	No
MONTEVIEW	10/02/24	37.27	±	144.26	137.90	±	533.76	No
	10/09/24	-38.19	±	142.94	-141.30	±	528.88	No
	10/16/24	20.65	±	100.09	76.39	±	370.33	No
	10/23/24	58.63	±	90.72	216.94	±	335.66	No
	10/30/24	-30.10	±	95.45	-111.35	±	353.18	No
	11/06/24	78.51	±	106.55	290.49	±	394.24	No
	11/13/24	-78.08	±	152.65	-288.90	±	564.81	No
	11/20/24	-64.65	±	120.03	-239.21	±	444.11	No
	11/26/24	36.72	±	172.54	135.85	±	638.40	No
	12/04/24	-40.63	±	95.10	-150.32	±	351.87	No
	12/11/24	-29.30	±	145.52	-108.40	±	538.42	No
	12/18/24	-3.81	±	283.70	-14.11	±	1049.69	No
	12/23/24	-252.49	±	170.01	-934.21	±	629.04	No
TERRETON	10/02/24	99.14	±	99.39	366.82	±	367.73	No
	10/09/24	165.09	±	92.59	610.83	±	342.59	No
	10/16/24	-16.00	±	134.94	-59.20	±	499.28	No
	10/23/24	-30.53	±	145.28	-112.97	±	537.54	No
	10/30/24	-119.31	±	216.97	-441.45	±	802.79	No
	11/06/24	79.39	±	109.58	293.74	±	405.45	No
	11/13/24	-28.10	±	99.41	-103.97	±	367.80	No
	11/20/24	-44.99	±	93.45	-166.44	±	345.77	No
	11/26/24	-87.74	±	133.89	-324.64	±	495.39	No
	12/04/24	-75.13	±	86.62	-277.98	±	320.51	No
	12/11/24	-57.79	±	113.11	-213.83	±	418.51	No
	12/18/24	-106.77	±	95.64	-395.05	±	353.88	No
	12/23/24	354.64	±	379.80	1312.17	±	1405.26	No
OFFSITE								
BLACKFOOT	10/02/24	17.05	±	103.36	63.10	±	382.43	No
	10/09/24	-9.39	±	104.46	-34.76	±	386.50	No
	10/16/24	90.37	±	150.77	334.38	±	557.85	No
	10/23/24	-54.06	±	236.48	-200.01	±	874.98	No
	10/30/24	-19.04	±	101.68	-70.44	±	376.22	No
	11/06/24	-47.91	±	105.73	-177.26	±	391.20	No
	11/13/24	-73.39	±	93.43	-271.55	±	345.68	No
	11/20/24	-36.34	±	251.03	-134.44	±	928.81	No
	11/26/24	59.65	±	112.10	220.71	±	414.77	No
	12/04/24	136.77	±	99.27	506.05	±	367.30	No
	12/11/24	-98.63	±	115.83	-364.95	±	428.57	No
	12/18/24	-16.53	±	297.21	-61.18	±	1099.68	No
	12/23/24	-123.22	±	153.63	-455.91	±	568.43	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
CRATERS OF THE MOON	10/02/24	1.04	±	148.87	3.86	±	550.82	No
	10/09/24	-9.30	±	103.57	-34.42	±	383.21	No
	10/16/24	217.18	±	146.20	803.57	±	540.94	No
	10/23/24	-63.42	±	94.30	-234.67	±	348.91	No
	10/30/24	122.38	±	87.44	452.81	±	323.51	No
	11/06/24	110.52	±	225.83	408.92	±	835.57	No
	11/13/24	-161.43	±	117.68	-597.29	±	435.42	No
	11/20/24	-77.26	±	97.14	-285.85	±	359.43	No
	11/26/24	-2.56	±	113.08	-9.47	±	418.40	No
	12/04/24	-13.28	±	82.69	-49.14	±	305.95	No
	12/11/24	274.39	±	262.85	1015.24	±	972.55	No
	12/18/24	-66.25	±	108.66	-245.13	±	402.04	No
	12/23/24	482.90	±	410.11	1786.73	±	1517.41	No
DUBOIS	10/02/24	8.43	±	98.87	31.20	±	365.82	No
	10/09/24	95.86	±	147.04	354.66	±	544.05	No
	10/16/24	125.28	±	121.50	463.54	±	449.55	No
	10/23/24	-61.25	±	99.18	-226.61	±	366.96	No
	10/30/24	-24.16	±	107.02	-89.40	±	395.97	No
	11/06/24	6.02	±	98.24	22.27	±	363.49	No
	11/13/24	-134.41	±	114.48	-497.32	±	423.58	No
	11/20/24	-30.63	±	94.20	-113.33	±	348.55	No
	11/26/24	-215.83	±	145.33	-798.57	±	537.72	No
	12/04/24	80.29	±	224.64	297.06	±	831.17	No
	12/11/24	137.60	±	144.70	509.12	±	535.39	No
	12/18/24	-10.86	±	108.47	-40.20	±	401.34	No
	12/23/24	185.78	±	147.87	687.39	±	547.12	No
IDAHO FALLS	10/02/24	14.18	±	91.63	52.47	±	339.05	No
	10/09/24	58.13	±	93.38	215.08	±	345.49	No
	10/16/24	-115.50	±	151.41	-427.35	±	560.22	No
	10/23/24	-131.75	±	235.79	-487.48	±	872.42	No
	10/30/24	-107.28	±	112.98	-396.94	±	418.03	No
	11/06/24	-79.57	±	98.86	-294.41	±	365.76	No
	11/13/24	89.46	±	218.13	331.01	±	807.08	No
	11/20/24	-175.66	±	147.20	-649.94	±	544.64	No
	11/26/24	-64.03	±	161.50	-236.91	±	597.55	No
	12/04/24	-83.23	±	90.82	-307.94	±	336.05	No
	12/11/24	56.72	±	267.77	209.86	±	990.75	No
	12/18/24	79.08	±	134.15	292.58	±	496.36	No
a	12/23/24		±			±		
IRC	10/02/24	-99.38	±	209.56	-367.70	±	775.37	No
	10/09/24	-94.09	±	100.62	-348.12	±	372.29	No
	10/16/24	204.09	±	102.93	755.13	±	380.84	No
	10/23/24	-57.55	±	91.12	-212.93	±	337.13	No
	10/30/24	-71.01	±	148.42	-262.73	±	549.15	No
	11/06/24	14.17	±	91.84	52.43	±	339.80	No
	11/13/24	-18.69	±	102.02	-69.17	±	377.47	No
	11/20/24	87.74	±	225.12	324.63	±	832.94	No
	11/26/24	-84.49	±	118.50	-312.61	±	438.45	No
	12/04/24	-29.52	±	89.02	-109.24	±	329.38	No
	12/11/24	265.63	±	158.01	982.83	±	584.64	No
	12/18/24	-90.33	±	99.82	-334.24	±	369.35	No
	12/23/24	46.31	±	408.59	171.33	±	1511.78	No
IRC NORTH	10/02/24	-92.72	±	128.22	-343.07	±	474.41	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
	10/09/24	13.43	±	87.10	49.68	±	322.26	No
	10/16/24	58.70	±	137.24	217.19	±	507.79	No
	10/23/24	-18.07	±	95.09	-66.86	±	351.84	No
	10/30/24	-31.96	±	113.59	-118.25	±	420.28	No
	11/06/24	-85.30	±	92.21	-315.61	±	341.16	No
	11/13/24	34.52	±	231.32	127.72	±	855.88	No
	11/20/24	-17.72	±	114.37	-65.58	±	423.17	No
	11/26/24	64.22	±	121.88	237.60	±	450.96	No
	12/04/24	62.76	±	243.12	232.21	±	899.54	No
	12/11/24	140.19	±	299.37	518.70	±	1107.67	No
	12/18/24	-157.97	±	114.39	-584.49	±	423.24	No
	12/23/24	-25.10	±	206.74	-92.87	±	764.94	No
JACKSON, WY	10/01/24	25.22	±	106.60	93.31	±	394.42	No
	10/08/24	85.02	±	120.56	314.56	±	446.07	No
	10/15/24	-31.37	±	135.58	-116.05	±	501.65	No
	10/22/24	-203.96	±	163.19	-754.65	±	603.80	No
	10/29/24	1.46	±	110.24	5.39	±	407.89	No
	11/05/24	57.03	±	97.51	211.02	±	360.79	No
	11/12/24	14.39	±	178.19	53.22	±	659.30	No
	11/19/24	25.27	±	101.98	93.51	±	377.33	No
	11/26/24	-23.04	±	447.17	-85.25	±	1654.53	No
	12/03/24	47.89	±	108.43	177.20	±	401.19	No
	12/10/24	46.15	±	112.70	170.76	±	416.99	No
	12/17/24	-72.42	±	121.42	-267.94	±	449.25	No
	12/23/24	38.81	±	145.85	143.61	±	539.65	No
SUGAR CITY	10/02/24	70.70	±	113.91	261.58	±	421.47	No
	10/09/24	-56.54	±	98.15	-209.21	±	363.14	No
	10/16/24	95.38	±	102.73	352.91	±	380.10	No
	10/23/24	-21.48	±	95.84	-79.46	±	354.62	No
	10/30/24	-101.41	±	150.73	-375.22	±	557.70	No
	11/06/24	149.29	±	216.88	552.37	±	802.46	No
	11/13/24	-145.20	±	97.45	-537.24	±	360.57	No
	11/20/24	14.21	±	108.65	52.58	±	402.01	No
	11/26/24	129.88	±	119.67	480.56	±	442.78	No
	12/04/24	-161.41	±	135.26	-597.22	±	500.46	No
	12/11/24	-65.25	±	100.47	-241.41	±	371.74	No
	12/18/24	-73.60	±	121.34	-272.33	±	448.96	No
	12/23/24	-6.95	±	171.14	-25.72	±	633.22	No
SUGAR CITY (duplicate)	10/02/24	157.30	±	181.27	582.01	±	670.70	No
	10/09/24	-147.59	±	106.03	-546.08	±	392.31	No
	10/16/24	-17.66	±	118.92	-65.35	±	440.00	No
	10/23/24	-102.60	±	225.10	-379.62	±	832.87	No
	10/30/24	-71.10	±	96.62	-263.07	±	357.51	No
	11/06/24	-43.90	±	222.31	-162.42	±	822.55	No
	11/13/24	-19.30	±	112.35	-71.39	±	415.70	No
	11/20/24	45.19	±	99.87	167.21	±	369.53	No
	11/26/24	-23.94	±	128.23	-88.56	±	474.45	No
	12/04/24	29.19	±	103.52	108.00	±	383.02	No
	12/11/24	-194.90	±	163.31	-721.13	±	604.25	No
	12/18/24	-12.93	±	158.66	-47.84	±	587.04	No
	12/23/24	-143.19	±	409.21	-529.80	±	1514.08	No
ONSITE								
ATR COMPLEX	10/02/24	46.07	±	93.60	170.46	±	346.30	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
	10/09/24	-166.91	±	146.34	-617.57	±	541.46	No
	10/16/24	-67.40	±	115.48	-249.36	±	427.28	No
	10/23/24	-11.08	±	86.22	-41.01	±	319.03	No
	10/30/24	133.89	±	207.38	495.39	±	767.31	No
	11/06/24	26.01	±	208.03	96.25	±	769.71	No
	11/13/24	-28.64	±	96.03	-105.98	±	355.31	No
	11/20/24	-11.92	±	97.09	-44.11	±	359.23	No
	11/26/24	52.03	±	111.71	192.50	±	413.33	No
	12/04/24	-15.34	±	77.84	-56.76	±	288.01	No
	12/11/24	12.47	±	90.55	46.12	±	335.03	No
	12/18/24	-126.24	±	272.07	-467.09	±	1006.66	No
	12/23/24	-113.29	±	125.72	-419.17	±	465.16	No
CFA	10/02/24	50.08	±	116.42	185.30	±	430.75	No
	10/09/24	-69.57	±	121.73	-257.41	±	450.40	No
	10/16/24	139.01	±	111.16	514.34	±	411.29	No
	10/23/24	44.54	±	85.96	164.81	±	318.05	No
	10/30/24	-49.56	±	87.49	-183.35	±	323.72	No
	11/06/24	-46.67	±	111.81	-172.69	±	413.70	No
	11/13/24	65.82	±	97.42	243.52	±	360.46	No
	11/20/24	-95.44	±	248.24	-353.14	±	918.49	No
	11/26/24	-62.59	±	141.07	-231.58	±	521.96	No
	12/04/24	20.44	±	233.79	75.64	±	865.02	No
	12/11/24	149.31	±	135.06	552.45	±	499.72	No
	12/18/24	-156.68	±	106.76	-579.72	±	395.01	No
	12/23/24	-86.99	±	194.27	-321.84	±	718.80	No
EBR-I	10/02/24	8.77	±	183.07	32.43	±	677.36	No
	10/09/24	63.62	±	99.79	235.39	±	369.20	No
	10/16/24	187.78	±	101.92	694.79	±	377.10	No
	10/23/24	43.66	±	92.97	161.53	±	343.99	No
	10/30/24	28.56	±	208.51	105.67	±	771.49	No
	11/06/24	13.50	±	110.71	49.93	±	409.63	No
	11/13/24	-92.18	±	107.26	-341.05	±	396.86	No
	11/20/24	-55.33	±	113.22	-204.73	±	418.91	No
	11/26/24	-216.74	±	181.63	-801.94	±	672.03	No
	12/04/24	20.97	±	102.15	77.59	±	377.96	No
	12/11/24	-84.87	±	97.90	-314.02	±	362.22	No
	12/18/24	-39.17	±	98.68	-144.93	±	365.11	No
	12/23/24	173.48	±	169.41	641.88	±	626.82	No
EFS	10/02/24	119.16	±	104.76	440.89	±	387.61	No
	10/09/24	29.45	±	89.85	108.95	±	332.43	No
	10/16/24	2.21	±	1.13	8.18	±	4.18	No
	10/23/24	26.89	±	108.84	99.48	±	402.71	No
	10/30/24	95.17	±	113.28	352.14	±	419.14	No
	11/06/24	-72.09	±	134.72	-266.71	±	498.46	No
	11/13/24	9.16	±	103.49	33.88	±	382.91	No
	11/20/24	-55.45	±	257.41	-205.17	±	952.42	No
	11/26/24	144.43	±	324.74	534.39	±	1201.54	No
	12/04/24	-16.89	±	78.87	-62.49	±	291.82	No
	12/11/24	6.51	±	134.20	24.10	±	496.54	No
	12/18/24	-104.12	±	93.35	-385.24	±	345.38	No
	12/23/24	39.77	±	355.95	147.13	±	1317.02	No
GATE 4	10/02/24	-97.96	±	118.48	-362.46	±	438.38	No
	10/09/24	71.57	±	103.58	264.80	±	383.25	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
	10/16/24	-34.44	±	114.63	-127.43	±	424.13	No
	10/23/24	-45.90	±	89.92	-169.82	±	332.72	No
	10/30/24	39.42	±	88.20	145.85	±	326.35	No
	11/06/24	44.10	±	135.03	163.18	±	499.61	No
	11/13/24	186.41	±	490.90	689.72	±	1816.33	No
	11/20/24	-130.49	±	247.37	-482.81	±	915.27	No
	11/26/24	25.82	±	107.68	95.52	±	398.42	No
	12/04/24	84.47	±	78.76	312.53	±	291.42	No
	12/11/24	278.00	±	141.07	1028.60	±	521.96	No
	12/18/24	131.07	±	269.01	484.96	±	995.34	No
	12/23/24	92.50	±	201.10	342.26	±	744.07	No
HIGHWAY 26 REST AREA	10/02/24	-61.32	±	116.56	-226.88	±	431.27	No
	10/09/24	74.42	±	116.66	275.35	±	431.64	No
	10/16/24	-30.31	±	124.43	-112.15	±	460.39	No
	10/23/24	37.95	±	119.59	140.41	±	442.48	No
	10/30/24	-31.96	±	100.82	-118.24	±	373.03	No
	11/06/24	-4.16	±	92.28	-15.40	±	341.44	No
	11/13/24	-78.24	±	301.88	-289.49	±	1116.96	No
	11/20/24	49.95	±	87.84	184.82	±	325.00	No
	11/26/24	-7.63	±	337.25	-28.21	±	1247.83	No
	12/04/24	41.20	±	129.19	152.43	±	478.00	No
	12/11/24	-41.89	±	96.65	-154.99	±	357.61	No
	12/18/24	-14.06	±	96.47	-52.03	±	356.93	No
	12/23/24	100.21	±	164.44	370.78	±	608.43	No
HIGHWAY 26 REST AREA (duplicate)	10/02/24	-190.53	±	126.25	-704.96	±	467.13	No
	10/09/24	68.32	±	97.45	252.77	±	360.55	No
	10/16/24	88.07	±	99.84	325.85	±	369.40	No
	10/23/24	73.95	±	93.36	273.60	±	345.45	No
	10/30/24	33.30	±	119.47	123.20	±	442.04	No
	11/06/24	5.61	±	93.87	20.75	±	347.33	No
	11/13/24	108.01	±	94.75	399.64	±	350.58	No
	11/20/24	-15.11	±	137.40	-55.91	±	508.38	No
	11/26/24	378.63	±	313.31	1400.93	±	1159.25	No
	12/04/24	-52.30	±	102.76	-193.51	±	380.21	No
	12/11/24	124.23	±	282.87	459.65	±	1046.62	No
	12/18/24	-87.04	±	291.80	-322.04	±	1079.66	No
	12/23/24	47.59	±	183.49	176.10	±	678.91	No
INTEC (NE CORNER)	10/02/24	37.21	±	91.69	137.66	±	339.24	No
	10/09/24	-39.36	±	125.25	-145.65	±	463.43	No
	10/16/24	184.94	±	112.77	684.28	±	417.25	No
	10/23/24	-95.66	±	86.77	-353.93	±	321.06	No
	10/30/24	7.86	±	89.15	29.08	±	329.84	No
	11/06/24	-126.46	±	110.35	-467.90	±	408.30	No
	11/13/24	24.38	±	96.05	90.21	±	355.39	No
	11/20/24	28.29	±	95.66	104.67	±	353.95	No
	11/26/24	78.23	±	121.82	289.44	±	450.73	No
	12/04/24	-73.28	±	84.25	-271.12	±	311.71	No
	12/11/24	-32.59	±	90.18	-120.60	±	333.66	No
	12/18/24	-5.01	±	90.31	-18.54	±	334.14	No
	12/23/24	4.61	±	165.92	17.05	±	613.90	No
INTEC (WEST SIDE)	10/02/24	-6.38	±	147.06	-23.59	±	544.12	No
	10/09/24	49.00	±	129.07	181.29	±	477.56	No
	10/16/24	12.49	±	116.78	46.19	±	432.09	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
		10/23/24	29.75	±	89.80	110.08	±	332.25	No
		10/30/24	11.45	±	92.90	42.38	±	343.72	No
		11/06/24	-100.85	±	98.03	-373.15	±	362.70	No
		11/13/24	-46.58	±	90.02	-172.33	±	333.07	No
		11/20/24	89.53	±	105.14	331.25	±	389.02	No
		11/26/24	73.01	±	321.20	270.15	±	1188.44	No
		12/04/24	111.29	±	84.29	411.77	±	311.88	No
		12/11/24	93.23	±	257.95	344.96	±	954.42	No
		12/18/24	-9.91	±	255.73	-36.65	±	946.20	No
		12/23/24	2.64	±	131.85	9.78	±	487.85	No
MAIN GATE		10/02/24	94.87	±	98.57	351.01	±	364.71	No
		10/09/24	-5.85	±	96.25	-21.64	±	356.14	No
		10/16/24	-0.65	±	0.97	-2.40	±	3.57	No
		10/23/24	9.76	±	197.24	36.11	±	729.79	No
		10/30/24	7.19	±	106.94	26.59	±	395.68	No
		11/06/24	84.97	±	89.74	314.40	±	332.04	No
		11/13/24	49.20	±	97.55	182.03	±	360.95	No
		11/20/24	-2.44	±	124.68	-9.04	±	461.32	No
		11/26/24	-129.78	±	114.90	-480.19	±	425.13	No
		12/04/24	72.17	±	78.37	267.04	±	289.97	No
		12/11/24	-0.16	±	105.24	-0.59	±	389.39	No
		12/18/24	-81.87	±	100.10	-302.92	±	370.37	No
		12/23/24	160.20	±	128.30	592.74	±	474.71	No
MFC NORTH	a	10/02/24		±			±		
	a	10/09/24		±			±		
	a	10/16/24		±			±		
	a	10/23/24		±			±		
		10/30/24	26.92	±	95.20	99.61	±	352.24	No
		11/06/24	-57.90	±	91.09	-214.23	±	337.04	No
		11/13/24	31.14	±	94.58	115.22	±	349.93	No
		11/20/24	57.87	±	164.09	214.13	±	607.13	No
		11/26/24	47.94	±	105.00	177.37	±	388.50	No
		12/04/24	-135.22	±	92.15	-500.31	±	340.94	No
		12/11/24	-76.06	±	259.09	-281.41	±	958.63	No
		12/18/24	439.79	±	463.97	1627.22	±	1716.69	No
		12/23/24	-243.09	±	210.98	-899.43	±	780.63	No
MFC SOUTH		10/02/24	263.09	±	168.39	973.43	±	623.04	No
		10/09/24	149.97	±	92.22	554.89	±	341.21	No
		10/16/24	-0.14	±	0.89	-0.53	±	3.30	No
		10/23/24	-114.61	±	139.81	-424.06	±	517.30	No
		10/30/24	-3.30	±	205.11	-12.19	±	758.91	No
		11/06/24	-69.69	±	102.75	-257.85	±	380.18	No
		11/13/24	-200.28	±	167.84	-741.04	±	621.01	No
		11/20/24	36.72	±	178.45	135.85	±	660.27	No
		11/26/24	-110.04	±	125.56	-407.15	±	464.57	No
		12/04/24	126.66	±	93.58	468.64	±	346.24	No
		12/11/24	156.19	±	138.15	577.90	±	511.16	No
		12/18/24	24.68	±	113.43	91.30	±	419.69	No
		12/23/24	24.76	±	168.99	91.59	±	625.26	No
NRF		10/02/24	-71.75	±	98.18	-265.48	±	363.25	No
		10/09/24	28.22	±	98.25	104.40	±	363.52	No
		10/16/24	3.33	±	140.92	12.31	±	521.40	No
		10/23/24	-26.64	±	108.89	-98.58	±	402.89	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
	10/30/24	51.49	±	95.38	190.50	±	352.92	No
	11/06/24	-127.16	±	90.65	-470.49	±	335.40	No
	11/13/24	-89.20	±	112.57	-330.04	±	416.51	No
	11/20/24	-8.32	±	104.40	-30.80	±	386.28	No
	11/26/24	164.99	±	121.65	610.46	±	450.11	No
	12/04/24	20.19	±	225.80	74.71	±	835.46	No
	12/11/24	86.65	±	88.54	320.62	±	327.59	No
	12/18/24	-28.77	±	89.13	-106.44	±	329.78	No
	12/23/24	135.82	±	356.23	502.53	±	1318.05	No
PBF	10/02/24	146.37	±	177.80	541.57	±	657.86	No
	10/09/24	137.10	±	102.52	507.27	±	379.32	No
	10/16/24	-11.60	±	104.99	-42.91	±	388.46	No
	10/23/24	-133.58	±	134.37	-494.25	±	497.17	No
	10/30/24	-83.38	±	142.62	-308.49	±	527.69	No
	11/06/24	-21.87	±	210.72	-80.93	±	779.66	No
	11/13/24	-21.15	±	107.64	-78.27	±	398.27	No
	11/20/24	62.38	±	105.31	230.80	±	389.65	No
	11/26/24	148.90	±	110.37	550.93	±	408.37	No
	12/04/24	105.85	±	221.12	391.65	±	818.14	No
	12/11/24	3.06	±	110.21	11.33	±	407.78	No
	12/18/24	-68.88	±	141.62	-254.85	±	523.99	No
	12/23/24	33.03	±	361.28	122.21	±	1336.74	No
RHLLW	10/02/24	-109.23	±	139.18	-404.15	±	514.97	No
	10/09/24	26.13	±	93.26	96.70	±	345.05	No
	10/16/24	94.96	±	89.70	351.36	±	331.90	No
	10/23/24	20.97	±	84.65	77.57	±	313.22	No
	10/30/24	88.21	±	103.26	326.37	±	382.06	No
	11/06/24	79.68	±	87.92	294.82	±	325.29	No
	11/13/24	5.64	±	275.52	20.86	±	1019.42	No
	11/20/24	-49.49	±	96.58	-183.12	±	357.34	No
	11/26/24	-154.90	±	286.21	-573.13	±	1058.98	No
	12/04/24	-8.24	±	89.06	-30.49	±	329.54	No
	12/11/24	113.03	±	250.77	418.21	±	927.85	No
	12/18/24	-25.28	±	249.50	-93.55	±	923.15	No
	12/23/24	62.53	±	186.81	231.36	±	691.20	No
RHLLW (duplicate)	10/02/24	176.87	±	110.40	654.42	±	408.48	No
	10/09/24	2.23	±	107.02	8.25	±	395.97	No
	10/16/24	7.33	±	88.41	27.11	±	327.12	No
	10/23/24	-43.40	±	86.44	-160.59	±	319.84	No
	10/30/24	48.95	±	146.60	181.12	±	542.42	No
	11/06/24	5.10	±	86.12	18.87	±	318.64	No
	11/13/24	32.55	±	277.47	120.45	±	1026.64	No
	11/20/24	-181.16	±	121.98	-670.29	±	451.33	No
	11/26/24	379.53	±	314.73	1404.26	±	1164.50	No
	12/04/24	77.79	±	246.53	287.82	±	912.16	No
	12/11/24	-12.34	±	137.14	-45.65	±	507.42	No
	12/18/24	124.51	±	84.45	460.69	±	312.46	No
	12/23/24	-56.01	±	149.32	-207.24	±	552.48	No
RWMC	10/02/24	111.61	±	124.91	412.96	±	462.17	No
	10/09/24	29.01	±	112.73	107.33	±	417.10	No
	10/16/24	194.05	±	115.44	717.99	±	427.13	No
	10/23/24	157.31	±	210.45	582.05	±	778.67	No
	10/30/24	156.18	±	202.47	577.87	±	749.14	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
		11/06/24	-58.63	±	105.45	-216.93	±	390.17	No
		11/13/24	-132.12	±	94.91	-488.84	±	351.16	No
		11/20/24	-166.09	±	113.17	-614.53	±	418.73	No
		11/26/24	27.82	±	326.40	102.93	±	1207.68	No
		12/04/24	31.30	±	83.07	115.81	±	307.35	No
		12/11/24	-106.01	±	107.63	-392.24	±	398.23	No
		12/18/24	-8.29	±	119.76	-30.67	±	443.11	No
	a	12/23/24		±			±		
RWMC SOUTH	a	10/02/24		±		0.00	±	0.00	No
		10/09/24	121.12	±	94.86	448.14	±	350.96	No
		10/16/24	90.10	±	135.31	333.35	±	500.65	No
		10/23/24	-13.79	±	118.01	-51.03	±	436.64	No
		10/30/24	-26.24	±	93.72	-97.08	±	346.78	No
		11/06/24	-33.85	±	94.17	-125.23	±	348.41	No
		11/13/24	-65.70	±	98.67	-243.09	±	365.08	No
		11/20/24	-92.67	±	105.44	-342.88	±	390.13	No
		11/26/24	-46.62	±	317.92	-172.48	±	1176.30	No
		12/04/24	-66.42	±	88.17	-245.75	±	326.24	No
		12/11/24	19.48	±	280.16	72.09	±	1036.59	No
		12/18/24	70.24	±	101.43	259.90	±	375.29	No
		12/23/24	124.39	±	158.88	460.24	±	587.86	No
SMC		10/02/24	117.57	±	94.76	435.01	±	350.62	No
		10/09/24	155.29	±	96.99	574.57	±	358.86	No
		10/16/24	40.73	±	94.12	150.71	±	348.26	No
		10/23/24	-2.40	±	90.54	-8.86	±	334.98	No
		10/30/24	-168.45	±	141.17	-623.27	±	522.33	No
		11/06/24	56.29	±	86.26	208.25	±	319.18	No
		11/13/24	-41.11	±	111.88	-152.10	±	413.96	No
		11/20/24	-188.78	±	127.11	-698.49	±	470.31	No
		11/26/24	50.00	±	102.88	185.00	±	380.66	No
		12/04/24	-147.63	±	123.72	-546.23	±	457.76	No
		12/11/24	84.57	±	91.36	312.89	±	338.04	No
		12/18/24	45.79	±	284.01	169.44	±	1050.84	No
		12/23/24	44.96	±	394.85	166.36	±	1460.95	No
VAN BUREN		10/02/24	97.28	±	103.36	359.94	±	382.43	No
		10/09/24	88.12	±	115.94	326.06	±	428.98	No
		10/16/24	-188.60	±	153.99	-697.82	±	569.76	No
		10/23/24	-15.27	±	87.48	-56.51	±	323.68	No
		10/30/24	90.81	±	92.21	336.00	±	341.17	No
		11/06/24	-56.32	±	148.21	-208.40	±	548.38	No
		11/13/24	176.47	±	339.95	652.94	±	1257.82	No
		11/20/24	-48.20	±	106.45	-178.33	±	393.87	No
		11/26/24	-12.07	±	118.18	-44.65	±	437.27	No
		12/04/24	-7.14	±	256.45	-26.43	±	948.87	No
		12/11/24	-86.95	±	117.00	-321.71	±	432.90	No
		12/18/24	98.29	±	116.60	363.67	±	431.42	No
		12/23/24	-118.80	±	160.58	-439.56	±	594.15	No

a. Insufficient sample volume

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	12/31/24	Americium-241	-1.42	±	2.19	-5.25	±	8.10	No
	12/31/24	Cesium-137	-78.00	±	65.90	-288.60	±	243.83	No
	12/31/24	Plutonium-238	2.54	±	2.54	9.40	±	9.40	No
	12/31/24	Plutonium-239/240	2.54	±	2.21	9.40	±	8.18	No
	12/31/24	Strontium-90	61.30	±	32.00	226.81	±	118.40	No
	12/31/24	Uranium-233/234	13.70	±	6.65	50.69	±	24.61	No
	12/31/24	Uranium-238	12.10	±	5.61	44.77	±	20.76	No
	12/31/24	Zinc-65	39.80	±	69.20	147.26	±	256.04	No
ATOMIC CITY	12/31/24	Americium-241	-1.00	±	2.25	-3.68	±	8.33	No
	12/31/24	Cesium-137	-69.00	±	63.60	-255.30	±	235.32	No
	12/31/24	Plutonium-238	-1.06	±	1.68	-3.92	±	6.22	No
	12/31/24	Plutonium-239/240	1.60	±	2.19	5.92	±	8.10	No
	12/31/24	Strontium-90	29.00	±	22.50	107.30	±	83.25	No
	12/31/24	Uranium-233/234	2.31	±	4.55	8.55	±	16.84	No
	12/31/24	Uranium-238	12.40	±	5.76	45.88	±	21.31	No
	12/31/24	Zinc-65	146.00	±	77.20	540.20	±	285.64	No
BLUE DOME	12/31/24	Americium-241	1.39	±	2.67	5.14	±	9.88	No
	12/31/24	Cesium-137	-24.70	±	48.10	-91.39	±	177.97	No
	12/31/24	Plutonium-238	0.42	±	1.27	1.57	±	4.70	No
	12/31/24	Plutonium-239/240	0.42	±	1.85	1.57	±	6.85	No
	12/31/24	Strontium-90	46.00	±	39.40	170.20	±	145.78	No
	12/31/24	Uranium-233/234	4.84	±	5.09	17.91	±	18.83	No
	12/31/24	Uranium-238	-1.25	±	2.88	-4.63	±	10.66	No
	12/31/24	Zinc-65	14.90	±	106.00	55.13	±	392.20	No
HOWE	12/31/24	Americium-241	-2.82	±	2.74	-10.43	±	10.14	No
	12/31/24	Cesium-137	6.68	±	36.60	24.72	±	135.42	No
	12/31/24	Plutonium-238	1.23	±	1.09	4.55	±	4.03	No
	12/31/24	Plutonium-239/240	1.64	±	1.74	6.07	±	6.44	No
	12/31/24	Strontium-90	4.43	±	25.00	16.39	±	92.50	No
	12/31/24	Uranium-233/234	10.30	±	3.96	38.11	±	14.65	No
	12/31/24	Uranium-238	12.60	±	4.12	46.62	±	15.24	**Yes**
	12/31/24	Zinc-65	64.00	±	80.50	236.80	±	297.85	No
HOWE (duplicate)	12/31/24	Americium-241	-0.85	±	3.00	-3.15	±	11.10	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
	12/31/24	Cesium-137	48.30	±	36.00	178.71	±	133.20	No
	12/31/24	Plutonium-238	-0.38	±	0.99	-1.39	±	3.66	No
	12/31/24	Plutonium-239/240	1.88	±	1.36	6.96	±	5.03	No
	12/31/24	Strontium-90	96.80	±	41.10	358.16	±	152.07	No
	12/31/24	Uranium-233/234	8.23	±	4.29	30.45	±	15.87	No
	12/31/24	Uranium-238	8.95	±	4.06	33.12	±	15.02	No
	12/31/24	Zinc-65	26.00	±	75.70	96.20	±	280.09	No
MONTEVIEW	12/31/24	Americium-241	4.34	±	3.20	16.06	±	11.84	No
	12/31/24	Cesium-137	41.80	±	27.40	154.66	±	101.38	No
	12/31/24	Plutonium-238	0.00	±	0.75	0.00	±	2.78	No
	12/31/24	Plutonium-239/240	0.76	±	0.92	2.80	±	3.40	No
	12/31/24	Strontium-90	18.30	±	21.30	67.71	±	78.81	No
	12/31/24	Uranium-233/234	20.20	±	6.43	74.74	±	23.79	**Yes**
	12/31/24	Uranium-238	19.70	±	5.82	72.89	±	21.53	**Yes**
	12/31/24	Zinc-65	-52.90	±	57.70	-195.73	±	213.49	No
TERRETON	12/31/24	Americium-241	0.07	±	2.80	0.27	±	10.36	No
	12/31/24	Cesium-137	-59.40	±	63.40	-219.78	±	234.58	No
	12/31/24	Plutonium-238	0.75	±	1.06	2.78	±	3.92	No
	12/31/24	Plutonium-239/240	-0.38	±	1.95	-1.39	±	7.22	No
	12/31/24	Strontium-90	-14.10	±	38.10	-52.17	±	140.97	No
	12/31/24	Uranium-233/234	28.70	±	9.17	106.19	±	33.93	**Yes**
	12/31/24	Uranium-238	16.00	±	6.55	59.20	±	24.24	No
	12/31/24	Zinc-65	-48.30	±	61.20	-178.71	±	226.44	No
OFFSITE									
BLACKFOOT	12/31/24	Americium-241	5.94	±	4.16	21.98	±	15.39	No
	12/31/24	Cesium-137	70.90	±	39.10	262.33	±	144.67	No
	12/31/24	Plutonium-238	2.44	±	1.29	9.03	±	4.77	No
	12/31/24	Plutonium-239/240	2.85	±	1.35	10.55	±	5.00	No
	12/31/24	Strontium-90	-116.00	±	36.10	-429.20	±	133.57	No
	12/31/24	Uranium-233/234	18.00	±	8.51	66.60	±	31.49	No
	12/31/24	Uranium-238	5.46	±	4.44	20.20	±	16.43	No
	12/31/24	Zinc-65	-5.12	±	68.20	-18.94	±	252.34	No
CRATERS OF THE MOON	12/31/24	Americium-241	1.34	±	2.56	4.96	±	9.47	No
	12/31/24	Cesium-137	-39.30	±	50.60	-145.41	±	187.22	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
	12/31/24	Plutonium-238	0.81	±	0.99	3.01	±	3.66	No
	12/31/24	Plutonium-239/240	0.81	±	0.99	3.01	±	3.66	No
	12/31/24	Strontium-90	61.30	±	38.20	226.81	±	141.34	No
	12/31/24	Uranium-233/234	-1.00	±	3.07	-3.68	±	11.36	No
	12/31/24	Uranium-238	2.72	±	2.98	10.06	±	11.03	No
	12/31/24	Zinc-65	-15.40	±	65.70	-56.98	±	243.09	No
DUBOIS	12/31/24	Americium-241	-0.91	±	2.06	-3.37	±	7.62	No
	12/31/24	Cesium-137	-8.43	±	39.90	-31.19	±	147.63	No
	12/31/24	Plutonium-238	1.20	±	1.20	4.44	±	4.44	No
	12/31/24	Plutonium-239/240	1.99	±	1.32	7.36	±	4.88	No
	12/31/24	Strontium-90	72.50	±	38.10	268.25	±	140.97	No
	12/31/24	Uranium-233/234	10.00	±	4.79	37.00	±	17.72	No
	12/31/24	Uranium-238	3.79	±	3.43	14.02	±	12.69	No
	12/31/24	Zinc-65	-58.30	±	99.20	-215.71	±	367.04	No
IDAHO FALLS	12/31/24	Americium-241	1.28	±	4.22	4.74	±	15.61	No
	12/31/24	Cesium-137	48.50	±	34.40	179.45	±	127.28	No
	12/31/24	Plutonium-238	1.20	±	1.20	4.44	±	4.44	No
	12/31/24	Plutonium-239/240	0.00	±	1.70	0.00	±	6.29	No
	12/31/24	Strontium-90	30.50	±	26.70	112.85	±	98.79	No
	12/31/24	Uranium-233/234	19.40	±	5.38	71.78	±	19.91	**Yes**
	12/31/24	Uranium-238	10.20	±	3.86	37.74	±	14.28	No
	12/31/24	Zinc-65	-68.90	±	85.90	-254.93	±	317.83	No
IRC	12/31/24	Americium-241	5.11	±	5.93	18.91	±	21.94	No
	12/31/24	Cesium-137	-5.33	±	37.50	-19.72	±	138.75	No
	12/31/24	Plutonium-238	0.41	±	0.92	1.52	±	3.40	No
	12/31/24	Plutonium-239/240	-0.41	±	1.59	-1.52	±	5.88	No
	12/31/24	Strontium-90	-27.60	±	34.50	-102.12	±	127.65	No
	12/31/24	Uranium-233/234	11.30	±	4.53	41.81	±	16.76	No
	12/31/24	Uranium-238	23.70	±	6.03	87.69	±	22.31	**Yes**
	12/31/24	Zinc-65	-7.80	±	82.90	-28.86	±	306.73	No
IRC NORTH	12/31/24	Americium-241	0.09	±	3.47	0.34	±	12.84	No
	12/31/24	Cesium-137	-23.70	±	37.30	-87.69	±	138.01	No
	12/31/24	Plutonium-238	0.00	±	1.18	0.00	±	4.37	No
	12/31/24	Plutonium-239/240	0.42	±	1.10	1.54	±	4.07	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
	12/31/24	Strontium-90	93.40	±	41.40	345.58	±	153.18	No
	12/31/24	Uranium-233/234	16.10	±	5.58	59.57	±	20.65	No
	12/31/24	Uranium-238	26.30	±	6.42	97.31	±	23.75	**Yes**
	12/31/24	Zinc-65	-186.00	±	141.00	-688.20	±	521.70	No
JACKSON, WY	12/31/24	Americium-241	5.59	±	3.63	20.68	±	13.43	No
	12/31/24	Cesium-137	4.22	±	33.80	15.61	±	125.06	No
	12/31/24	Plutonium-238	0.89	±	1.26	3.29	±	4.66	No
	12/31/24	Plutonium-239/240	0.00	±	1.78	0.00	±	6.59	No
	12/31/24	Strontium-90	46.10	±	34.50	170.57	±	127.65	No
	12/31/24	Uranium-233/234	11.30	±	4.82	41.81	±	17.83	No
	12/31/24	Uranium-238	10.70	±	4.34	39.59	±	16.06	No
	12/31/24	Zinc-65	104.00	±	87.30	384.80	±	323.01	No
SUGAR CITY	12/31/24	Americium-241	1.09	±	3.61	4.03	±	13.36	No
	12/31/24	Cesium-137	-7.32	±	22.90	-27.08	±	84.73	No
	12/31/24	Plutonium-238	-1.01	±	1.11	-3.74	±	4.11	No
	12/31/24	Plutonium-239/240	1.68	±	1.11	6.22	±	4.11	No
	12/31/24	Strontium-90	-80.30	±	15.70	-297.11	±	58.09	No
	12/31/24	Uranium-233/234	11.50	±	5.21	42.55	±	19.28	No
	12/31/24	Uranium-238	20.10	±	6.19	74.37	±	22.90	**Yes**
	12/31/24	Zinc-65	121.00	±	63.80	447.70	±	236.06	No
SUGAR CITY (duplicate)	12/31/24	Americium-241	-3.52	±	2.90	-13.02	±	10.73	No
	12/31/24	Cesium-137	20.80	±	37.00	76.96	±	136.90	No
	12/31/24	Plutonium-238	1.20	±	1.33	4.44	±	4.92	No
	12/31/24	Plutonium-239/240	-1.20	±	1.55	-4.44	±	5.74	No
	12/31/24	Strontium-90	-28.60	±	22.80	-105.82	±	84.36	No
	12/31/24	Uranium-233/234	21.80	±	6.07	80.66	±	22.46	**Yes**
	12/31/24	Uranium-238	25.90	±	6.40	95.83	±	23.68	**Yes**
	12/31/24	Zinc-65	-134.00	±	89.60	-495.80	±	331.52	No
ONSITE									
ATR COMPLEX	12/31/24	Americium-241	-0.43	±	1.87	-1.57	±	6.92	No
	12/31/24	Cesium-137	102.00	±	85.50	377.40	±	316.35	No
	12/31/24	Plutonium-238	2.05	±	1.23	7.59	±	4.55	No
	12/31/24	Plutonium-239/240	-0.82	±	1.42	-3.04	±	5.25	No
	12/31/24	Strontium-90	-34.20	±	32.10	-126.54	±	118.77	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
	12/31/24	Uranium-233/234	3.37	±	4.23	12.47	±	15.65	No
	12/31/24	Uranium-238	7.93	±	4.51	29.34	±	16.69	No
	12/31/24	Zinc-65	59.30	±	78.00	219.41	±	288.60	No
CFA	12/31/24	Americium-241	-0.40	±	1.77	-1.49	±	6.55	No
	12/31/24	Cesium-137	26.30	±	34.40	97.31	±	127.28	No
	12/31/24	Plutonium-238	1.88	±	1.13	6.96	±	4.18	No
	12/31/24	Plutonium-239/240	1.13	±	1.13	4.18	±	4.18	No
	12/31/24	Strontium-90	-111.00	±	28.30	-410.70	±	104.71	No
	12/31/24	Uranium-233/234	-7.55	±	3.81	-27.94	±	14.10	No
	12/31/24	Uranium-238	-12.60	±	4.93	-46.62	±	18.24	No
	12/31/24	Zinc-65	-84.70	±	87.10	-313.39	±	322.27	No
EBR-I	12/31/24	Americium-241	5.08	±	4.45	18.80	±	16.47	No
	12/31/24	Cesium-137	35.50	±	38.20	131.35	±	141.34	No
	12/31/24	Plutonium-238	1.19	±	1.19	4.40	±	4.40	No
	12/31/24	Plutonium-239/240	1.59	±	1.49	5.88	±	5.51	No
	12/31/24	Strontium-90	-51.90	±	27.70	-192.03	±	102.49	No
	12/31/24	Uranium-233/234	10.70	±	5.64	39.59	±	20.87	No
	12/31/24	Uranium-238	10.30	±	5.46	38.11	±	20.20	No
	12/31/24	Zinc-65	-26.60	±	89.90	-98.42	±	332.63	No
EFS	12/31/24	Americium-241	-1.43	±	4.30	-5.29	±	15.91	No
	12/31/24	Cesium-137	11.40	±	32.60	42.18	±	120.62	No
	12/31/24	Plutonium-238	2.11	±	1.41	7.81	±	5.22	No
	12/31/24	Plutonium-239/240	2.54	±	1.58	9.40	±	5.85	No
	12/31/24	Strontium-90	22.80	±	24.60	84.36	±	91.02	No
	12/31/24	Uranium-233/234	9.14	±	4.13	33.82	±	15.28	No
	12/31/24	Uranium-238	24.70	±	5.64	91.39	±	20.87	**Yes**
	12/31/24	Zinc-65	5.56	±	77.60	20.57	±	287.12	No
GATE 4	12/31/24	Americium-241	-2.78	±	2.69	-10.29	±	9.95	No
	12/31/24	Cesium-137	-60.90	±	33.60	-225.33	±	124.32	No
	12/31/24	Plutonium-238	0.39	±	0.86	1.44	±	3.18	No
	12/31/24	Plutonium-239/240	1.55	±	1.10	5.74	±	4.07	No
	12/31/24	Strontium-90	-125.00	±	24.70	-462.50	±	91.39	No
	12/31/24	Uranium-233/234	-6.65	±	3.78	-24.61	±	13.99	No
	12/31/24	Uranium-238	-6.52	±	2.92	-24.12	±	10.80	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
	12/31/24	Zinc-65	-57.10	±	77.30	-211.27	±	286.01	No
HIGHWAY 26 REST AREA	12/31/24	Americium-241	2.87	±	2.88	10.62	±	10.66	No
	12/31/24	Cesium-137	-17.90	±	26.50	-66.23	±	98.05	No
	12/31/24	Plutonium-238	1.62	±	1.28	5.99	±	4.74	No
	12/31/24	Plutonium-239/240	3.64	±	1.67	13.47	±	6.18	No
	12/31/24	Strontium-90	0.11	±	26.40	0.42	±	97.68	No
	12/31/24	Uranium-233/234	-0.70	±	3.99	-2.57	±	14.76	No
	12/31/24	Uranium-238	6.78	±	4.89	25.09	±	18.09	No
	12/31/24	Zinc-65	-24.70	±	65.60	-91.39	±	242.72	No
HIGHWAY 26 REST AREA	12/31/24	Americium-241	-0.66	±	2.32	-2.44	±	8.58	No
(duplicate)	12/31/24	Cesium-137	3.16	±	28.90	11.69	±	106.93	No
	12/31/24	Plutonium-238	0.43	±	0.95	1.58	±	3.52	No
	12/31/24	Plutonium-239/240	0.85	±	1.04	3.15	±	3.85	No
	12/31/24	Strontium-90	59.90	±	25.30	221.63	±	93.61	No
	12/31/24	Uranium-233/234	9.35	±	5.55	34.60	±	20.54	No
	12/31/24	Uranium-238	5.12	±	3.89	18.94	±	14.39	No
	12/31/24	Zinc-65	69.70	±	73.80	257.89	±	273.06	No
INTEC (NE CORNER)	12/31/24	Americium-241	0.10	±	3.70	0.36	±	13.69	No
	12/31/24	Cesium-137	4.36	±	28.10	16.13	±	103.97	No
	12/31/24	Plutonium-238	0.83	±	1.55	3.06	±	5.74	No
	12/31/24	Plutonium-239/240	-0.83	±	1.55	-3.06	±	5.74	No
	12/31/24	Strontium-90	45.40	±	37.10	167.98	±	137.27	No
	12/31/24	Uranium-233/234	11.80	±	5.01	43.66	±	18.54	No
	12/31/24	Uranium-238	1.99	±	2.95	7.36	±	10.92	No
	12/31/24	Zinc-65	141.00	±	73.60	521.70	±	272.32	No
INTEC (WEST SIDE)	12/31/24	Americium-241	-2.03	±	2.41	-7.51	±	8.92	No
	12/31/24	Cesium-137	11.20	±	35.80	41.44	±	132.46	No
	12/31/24	Plutonium-238	2.85	±	1.68	10.55	±	6.22	No
	12/31/24	Plutonium-239/240	0.00	±	1.72	0.00	±	6.36	No
	12/31/24	Strontium-90	8.25	±	25.60	30.53	±	94.72	No
	12/31/24	Uranium-233/234	0.04	±	5.43	0.13	±	20.09	No
	12/31/24	Uranium-238	-2.87	±	4.78	-10.62	±	17.69	No
	12/31/24	Zinc-65	153.00	±	106.00	566.10	±	392.20	No
MAIN GATE	12/31/24	Americium-241	-0.40	±	1.76	-1.47	±	6.51	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
	12/31/24	Cesium-137	46.80	±	30.00	173.16	±	111.00	No
	12/31/24	Plutonium-238	0.00	±	1.16	0.00	±	4.29	No
	12/31/24	Plutonium-239/240	2.45	±	2.01	9.07	±	7.44	No
	12/31/24	Strontium-90	69.60	±	23.10	257.52	±	85.47	**Yes**
	12/31/24	Uranium-233/234	7.16	±	4.29	26.49	±	15.87	No
	12/31/24	Uranium-238	13.00	±	5.04	48.10	±	18.65	No
	12/31/24	Zinc-65	-144.00	±	82.30	-532.80	±	304.51	No
MFC NORTH	12/31/24	Americium-241	-0.51	±	3.87	-1.87	±	14.32	No
	12/31/24	Cesium-137	16.00	±	35.50	59.20	±	131.35	No
	12/31/24	Chlorine-36	14.40	±	18.70	53.28	±	69.19	No
	12/31/24	Plutonium-238	1.10	±	1.35	4.07	±	5.00	No
	12/31/24	Plutonium-239/240	0.00	±	1.35	0.00	±	5.00	No
	12/31/24	Strontium-90	40.90	±	38.10	151.33	±	140.97	No
	12/31/24	Uranium-233/234	52.00	±	12.70	192.40	±	46.99	**Yes**
	12/31/24	Uranium-238	15.00	±	7.36	55.50	±	27.23	No
	12/31/24	Zinc-65	-99.40	±	83.90	-367.78	±	310.43	No
MFC SOUTH	12/31/24	Americium-241	0.06	±	2.37	0.23	±	8.77	No
	12/31/24	Cesium-137	-81.70	±	65.20	-302.29	±	241.24	No
	12/31/24	Chlorine-36	14.90	±	18.20	55.13	±	67.34	No
	12/31/24	Plutonium-238	0.40	±	1.33	1.49	±	4.92	No
	12/31/24	Plutonium-239/240	1.61	±	1.89	5.96	±	6.99	No
	12/31/24	Strontium-90	89.20	±	29.00	330.04	±	107.30	**Yes**
	12/31/24	Uranium-233/234	13.40	±	5.90	49.58	±	21.83	No
	12/31/24	Uranium-238	17.00	±	6.74	62.90	±	24.94	No
	12/31/24	Zinc-65	139.00	±	68.80	514.30	±	254.56	No
MFC SOUTH (duplicate)	12/31/24	Chlorine-36	-18.80	±	16.20	-69.56	±	59.94	No
NRF	12/31/24	Americium-241	1.41	±	2.70	5.22	±	9.99	No
	12/31/24	Cesium-137	42.70	±	59.70	157.99	±	220.89	No
	12/31/24	Plutonium-238	0.00	±	1.03	0.00	±	3.81	No
	12/31/24	Plutonium-239/240	1.68	±	1.33	6.22	±	4.92	No
	12/31/24	Strontium-90	16.70	±	32.60	61.79	±	120.62	No
	12/31/24	Uranium-233/234	14.10	±	5.32	52.17	±	19.68	No
	12/31/24	Uranium-238	21.10	±	5.91	78.07	±	21.87	**Yes**
	12/31/24	Zinc-65	113.00	±	121.00	418.10	±	447.70	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
PBF	12/31/24	Americium-241	1.19	±	2.27	4.40	±	8.40	No
	12/31/24	Cesium-137	46.20	±	29.40	170.94	±	108.78	No
	12/31/24	Plutonium-238	0.00	±	1.15	0.00	±	4.26	No
	12/31/24	Plutonium-239/240	0.41	±	1.95	1.50	±	7.22	No
	12/31/24	Strontium-90	56.90	±	23.20	210.53	±	85.84	No
	12/31/24	Uranium-233/234	7.63	±	4.26	28.23	±	15.76	No
	12/31/24	Uranium-238	2.48	±	2.88	9.18	±	10.66	No
	12/31/24	Zinc-65	109.00	±	67.20	403.30	±	248.64	No
RHLLW	12/31/24	Americium-241	2.33	±	2.74	8.62	±	10.14	No
	12/31/24	Cesium-137	25.30	±	35.60	93.61	±	131.72	No
	12/31/24	Plutonium-238	1.16	±	1.02	4.29	±	3.77	No
	12/31/24	Plutonium-239/240	2.32	±	1.22	8.58	±	4.51	No
	12/31/24	Strontium-90	64.20	±	38.10	237.54	±	140.97	No
	12/31/24	Uranium-233/234	5.43	±	4.06	20.09	±	15.02	No
	12/31/24	Uranium-238	9.69	±	4.30	35.85	±	15.91	No
	12/31/24	Zinc-65	-205.00	±	102.00	-758.50	±	377.40	No
RHLLW (duplicate)	12/31/24	Americium-241	1.29	±	4.24	4.77	±	15.69	No
	12/31/24	Cesium-137	71.00	±	83.50	262.70	±	308.95	No
	12/31/24	Plutonium-238	2.15	±	1.29	7.96	±	4.77	No
	12/31/24	Plutonium-239/240	1.29	±	1.97	4.77	±	7.29	No
	12/31/24	Strontium-90	-37.80	±	32.50	-139.86	±	120.25	No
	12/31/24	Uranium-233/234	6.89	±	3.97	25.49	±	14.69	No
	12/31/24	Uranium-238	7.95	±	4.00	29.42	±	14.80	No
	12/31/24	Zinc-65	-22.80	±	77.30	-84.36	±	286.01	No
RWMC	12/31/24	Americium-241	-5.86	±	2.39	-21.68	±	8.84	No
	12/31/24	Cesium-137	31.80	±	91.20	117.66	±	337.44	No
	12/31/24	Plutonium-238	0.00	±	1.06	0.00	±	3.92	No
	12/31/24	Plutonium-239/240	0.43	±	1.89	1.61	±	6.99	No
	12/31/24	Strontium-90	22.30	±	36.40	82.51	±	134.68	No
	12/31/24	Uranium-233/234	12.90	±	6.32	47.73	±	23.38	No
	12/31/24	Uranium-238	12.90	±	5.67	47.73	±	20.98	No
	12/31/24	Zinc-65	31.50	±	82.80	116.55	±	306.36	No
RWMC SOUTH	12/31/24	Americium-241	-1.09	±	2.53	-4.03	±	9.36	No
	12/31/24	Cesium-137	-6.96	±	37.70	-25.75	±	139.49	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
	12/31/24	Plutonium-238	0.42	±	1.50	1.54	±	5.55	No
	12/31/24	Plutonium-239/240	2.50	±	1.32	9.25	±	4.88	No
	12/31/24	Strontium-90	30.80	±	29.70	113.96	±	109.89	No
	12/31/24	Uranium-233/234	8.03	±	5.35	29.71	±	19.80	No
	12/31/24	Uranium-238	4.60	±	4.16	17.02	±	15.39	No
	12/31/24	Zinc-65	-12.00	±	82.40	-44.40	±	304.88	No
TAN	12/31/24	Americium-241	2.00	±	2.82	7.40	±	10.43	No
	12/31/24	Cesium-137	0.00	±	74.60	0.00	±	276.02	No
	12/31/24	Plutonium-238	1.54	±	1.22	5.70	±	4.51	No
	12/31/24	Plutonium-239/240	0.00	±	1.54	0.00	±	5.70	No
	12/31/24	Strontium-90	-8.29	±	38.50	-30.67	±	142.45	No
	12/31/24	Uranium-233/234	10.50	±	5.34	38.85	±	19.76	No
	12/31/24	Uranium-238	5.26	±	3.99	19.46	±	14.76	No
	12/31/24	Zinc-65	-38.90	±	109.00	-143.93	±	403.30	No
VAN BUREN	12/31/24	Americium-241	-0.32	±	2.42	-1.17	±	8.95	No
	12/31/24	Cesium-137	-1.81	±	34.90	-6.70	±	129.13	No
	12/31/24	Plutonium-238	0.77	±	0.94	2.84	±	3.48	No
	12/31/24	Plutonium-239/240	2.30	±	1.80	8.51	±	6.66	No
	12/31/24	Strontium-90	21.20	±	29.40	78.44	±	108.78	No
	12/31/24	Uranium-233/234	-3.36	±	4.21	-12.43	±	15.58	No
	12/31/24	Uranium-238	7.17	±	4.78	26.53	±	17.69	No
	12/31/24	Zinc-65	7.77	±	88.10	28.75	±	325.97	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	11/13/24	2.57	±	1.41	9.51	±	5.22	No
HOWE	10/09/24	2.11	±	1.09	7.81	±	4.03	No
	12/18/24	-0.24	±	0.92	-0.90	±	3.42	No
OFFSITE								
CRATERS OF THE MOON	10/02/24	-2.86	±	1.90	-10.58	±	7.03	No
	11/26/24	-1.15	±	0.89	-4.26	±	3.30	No
IDAHO FALLS (IRC)	10/02/24	5.18	±	3.48	19.17	±	12.88	No
	11/13/24	0.30	±	1.20	1.11	±	4.44	No
IDAHO FALLS (NOAA)	11/06/24	-0.65	±	1.36	-2.42	±	5.03	No
ONSITE								
EFS	10/30/24	3.00	±	2.35	11.10	±	8.70	No
RHLLW	10/09/24	4.57	±	1.50	16.91	±	5.55	**Yes**
	11/26/24	-0.61	±	1.03	-2.27	±	3.81	No
VAN BUREN	10/02/24	-0.45	±	1.16	-1.65	±	4.29	No
	11/26/24	1.35	±	1.05	5.00	±	3.89	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	09/25/24	10/23/24	40.50	±	26.20	1.50	±	0.97	No
	11/13/24	11/20/24	35.20	±	25.80	1.30	±	0.95	No
	12/11/24	12/18/24	-27.30	±	23.00	-1.01	±	0.85	No
HOWE	10/23/24	10/30/24	37.50	±	25.90	1.39	±	0.96	No
	10/30/24	11/06/24	73.70	±	28.80	2.73	±	1.07	No
	11/13/24	11/20/24	84.00	±	30.20	3.11	±	1.12	No
	11/20/24	11/26/24	22.70	±	26.90	0.84	±	1.00	No
	12/11/24	12/18/24	37.20	±	27.00	1.38	±	1.00	No
OFFSITE									
IDAHO FALLS	10/01/24	10/31/24	-14.60	±	23.50	-0.54	±	0.87	No
	11/01/24	11/30/24	35.40	±	25.80	1.31	±	0.95	No
	12/01/24	12/31/24	64.60	±	27.50	2.39	±	1.02	No
ONSITE									
EFS	10/16/24	10/24/24	67.20	±	27.80	2.49	±	1.03	No
	10/30/24	11/06/24	-20.60	±	22.40	-0.76	±	0.83	No
	11/06/24	11/13/24	2.33	±	24.70	0.09	±	0.91	No
	11/13/24	11/20/24	19.20	±	24.90	0.71	±	0.92	No
	11/20/24	11/26/24	34.40	±	26.20	1.27	±	0.97	No
	12/11/24	12/18/24	21.40	±	24.80	0.79	±	0.92	No
	12/18/24	12/23/24	-27.60	±	22.60	-1.02	±	0.84	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
ATR COMPLEX COLD WASTE POND	10/08/24	Americium-241	2.94	±	3.07	0.11	±	0.11	No
	10/08/24	Antimony-125	2.19	±	1.32	0.08	±	0.05	No
	10/08/24	Cerium-144	-0.22	±	2.99	-0.01	±	0.11	No
	10/08/24	Cesium-134	-0.11	±	0.48	0.00	±	0.02	No
	10/08/24	Cesium-137	-1.82	±	1.05	-0.07	±	0.04	No
	10/08/24	Cobalt-58	-0.15	±	0.45	-0.01	±	0.02	No
	10/08/24	Cobalt-60	0.73	±	0.46	0.03	±	0.02	No
	10/08/24	Europium-152	0.99	±	1.21	0.04	±	0.04	No
	10/08/24	Europium-154	-1.64	±	1.34	-0.06	±	0.05	No
	10/08/24	Europium-155	-1.17	±	2.71	-0.04	±	0.10	No
	10/08/24	Gross alpha	1.23	±	0.81	0.05	±	0.03	No
	10/08/24	Gross beta	1.62	±	0.77	0.06	±	0.03	No
	10/08/24	Manganese-54	-0.07	±	0.43	0.00	±	0.02	No
	10/08/24	Niobium-95	0.73	±	0.50	0.03	±	0.02	No
	10/08/24	Potassium-40	-17.40	±	12.90	-0.64	±	0.48	No
	10/08/24	Radium-226	-42.80	±	25.30	-1.59	±	0.94	No
	10/08/24	Ruthenium-103	-0.75	±	0.52	-0.03	±	0.02	No
	10/08/24	Ruthenium-106	0.71	±	3.95	0.03	±	0.15	No
	10/08/24	Silver-108 meta-stable	-0.53	±	0.56	-0.02	±	0.02	No
	10/08/24	Silver-110 meta-stable	0.16	±	0.56	0.01	±	0.02	No
	10/08/24	Tritium	-96.30	±	87.50	-3.57	±	3.24	No
	10/08/24	Uranium-235	-7.86	±	5.79	-0.29	±	0.21	No
	10/08/24	Zinc-65	-0.16	±	0.92	-0.01	±	0.03	No
	10/08/24	Zirconium-95	0.08	±	0.87	0.00	±	0.03	No
ATR COMPLEX COLD WASTE POND	11/05/24	Americium-241	0.96	±	1.23	0.04	±	0.05	No
	11/05/24	Antimony-125	0.65	±	0.89	0.02	±	0.03	No
	11/05/24	Cerium-144	-1.46	±	3.90	-0.05	±	0.14	No
	11/05/24	Cesium-134	-1.24	±	0.91	-0.05	±	0.03	No
	11/05/24	Cesium-137	-0.20	±	0.38	-0.01	±	0.01	No
	11/05/24	Cobalt-58	0.19	±	0.33	0.01	±	0.01	No
	11/05/24	Cobalt-60	-0.43	±	0.67	-0.02	±	0.02	No
	11/05/24	Europium-152	-0.56	±	0.98	-0.02	±	0.04	No
	11/05/24	Europium-154	0.78	±	0.96	0.03	±	0.04	No
	11/05/24	Europium-155	0.45	±	1.17	0.02	±	0.04	No
	11/05/24	Gross alpha	2.89	±	0.94	0.11	±	0.03	**Yes**
	11/05/24	Gross beta	2.26	±	0.67	0.08	±	0.02	**Yes**
	11/05/24	Manganese-54	0.17	±	0.35	0.01	±	0.01	No
	11/05/24	Niobium-95	-0.40	±	0.37	-0.01	±	0.01	No
	11/05/24	Potassium-40	-12.80	±	10.10	-0.47	±	0.37	No
	11/05/24	Radium-226	-31.30	±	17.40	-1.16	±	0.64	No
	11/05/24	Ruthenium-103	-0.38	±	0.40	-0.01	±	0.01	No
	11/05/24	Ruthenium-106	-2.69	±	3.31	-0.10	±	0.12	No
	11/05/24	Silver-108 meta-stable	0.55	±	0.32	0.02	±	0.01	No
	11/05/24	Silver-110 meta-stable	0.90	±	0.53	0.03	±	0.02	No
	11/05/24	Tritium	188.00	±	85.80	6.96	±	3.18	No
	11/05/24	Uranium-235	-4.43	±	3.88	-0.16	±	0.14	No
	11/05/24	Zinc-65	-1.29	±	0.89	-0.05	±	0.03	No
	11/05/24	Zirconium-95	-0.23	±	0.58	-0.01	±	0.02	No
ATR COMPLEX COLD WASTE POND	12/10/24	Americium-241	1.80	±	3.09	0.07	±	0.11	No
	12/10/24	Antimony-125	1.00	±	1.23	0.04	±	0.05	No
	12/10/24	Cerium-144	1.52	±	3.12	0.06	±	0.12	No
	12/10/24	Cesium-134	1.24	±	0.58	0.05	±	0.02	No
	12/10/24	Cesium-137	-1.00	±	1.09	-0.04	±	0.04	No
	12/10/24	Cobalt-58	0.13	±	0.55	0.00	±	0.02	No
	12/10/24	Cobalt-60	1.17	±	0.58	0.04	±	0.02	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
	12/10/24	Europium-152	2.87	±	1.42	0.11	±	0.05	No
	12/10/24	Europium-154	0.60	±	1.23	0.02	±	0.05	No
	12/10/24	Europium-155	-4.73	±	3.07	-0.18	±	0.11	No
	12/10/24	Gross alpha	2.10	±	1.32	0.08	±	0.05	No
	12/10/24	Gross beta	6.69	±	0.97	0.25	±	0.04	**Yes**
	12/10/24	Manganese-54	-0.51	±	0.44	-0.02	±	0.02	No
	12/10/24	Niobium-95	-0.14	±	0.93	-0.01	±	0.03	No
	12/10/24	Potassium-40	5.54	±	14.20	0.21	±	0.53	No
	12/10/24	Radium-226	14.80	±	28.20	0.55	±	1.04	No
	12/10/24	Ruthenium-103	-0.16	±	0.61	-0.01	±	0.02	No
	12/10/24	Ruthenium-106	3.11	±	4.11	0.12	±	0.15	No
	12/10/24	Silver-108 meta-stable	0.00	±	0.38	0.00	±	0.01	No
	12/10/24	Silver-110 meta-stable	-0.34	±	0.64	-0.01	±	0.02	No
	12/10/24	Tritium	45.60	±	85.20	1.69	±	3.16	No
	12/10/24	Uranium-235	-5.58	±	5.79	-0.21	±	0.21	No
	12/10/24	Zinc-65	-0.11	±	1.02	0.00	±	0.04	No
	12/10/24	Zirconium-95	-0.36	±	0.95	-0.01	±	0.04	No
MFC INDUSTRIAL WASTE POND	10/15/24	Americium-241	-1.07	±	2.32	-0.04	±	0.09	No
	10/15/24	Antimony-125	-0.58	±	0.87	-0.02	±	0.03	No
	10/15/24	Cerium-144	-0.12	±	2.30	0.00	±	0.09	No
	10/15/24	Cesium-134	1.02	±	0.81	0.04	±	0.03	No
	10/15/24	Cesium-137	0.54	±	0.37	0.02	±	0.01	No
	10/15/24	Cobalt-58	0.49	±	0.35	0.02	±	0.01	No
	10/15/24	Cobalt-60	0.28	±	0.38	0.01	±	0.01	No
	10/15/24	Europium-152	-0.24	±	0.93	-0.01	±	0.03	No
	10/15/24	Europium-154	-0.71	±	1.16	-0.03	±	0.04	No
	10/15/24	Europium-155	1.56	±	1.27	0.06	±	0.05	No
	10/15/24	Gross alpha	2.19	±	0.90	0.08	±	0.03	No
	10/15/24	Gross beta	5.99	±	0.95	0.22	±	0.04	**Yes**
	10/15/24	Manganese-54	-0.09	±	0.34	0.00	±	0.01	No
	10/15/24	Niobium-95	0.37	±	0.38	0.01	±	0.01	No
	10/15/24	Potassium-40	1.35	±	7.76	0.05	±	0.29	No
	10/15/24	Radium-226	-27.60	±	15.40	-1.02	±	0.57	No
	10/15/24	Ruthenium-103	0.25	±	0.39	0.01	±	0.01	No
	10/15/24	Ruthenium-106	-2.11	±	3.09	-0.08	±	0.11	No
	10/15/24	Silver-108 meta-stable	-0.48	±	0.47	-0.02	±	0.02	No
	10/15/24	Silver-110 meta-stable	0.20	±	0.46	0.01	±	0.02	No
	10/15/24	Tritium	-16.40	±	89.10	-0.61	±	3.30	No
	10/15/24	Uranium-235	-2.53	±	4.15	-0.09	±	0.15	No
	10/15/24	Zinc-65	-0.08	±	0.73	0.00	±	0.03	No
	10/15/24	Zirconium-95	-0.92	±	0.64	-0.03	±	0.02	No

Table B-7. Gross alpha, gross beta, and tritium concentrations in offsite surface water and drinking water.

Location	Sampling Date	Analyte	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
SURFACE WATER									
ALPHEUS SPRINGS	11/12/24	Gross Alpha	2.38	±	0.60	0.09	±	0.02	**Yes**
	11/12/24	Gross Beta	7.46	±	0.38	0.28	±	0.01	**Yes**
	11/12/24	Tritium	17.50	±	27.10	0.65	±	1.00	No
BILL JONES, JR. TROUT FARM	11/12/24	Gross Alpha	1.61	±	0.57	0.06	±	0.02	No
	11/12/24	Gross Beta	3.89	±	0.35	0.14	±	0.01	**Yes**
	11/12/24	Tritium	-41.60	±	24.70	-1.54	±	0.91	No
BILL JONES, JR. TROUT FARM (duplicate)	11/12/24	Gross Alpha	1.27	±	0.68	0.05	±	0.03	No
	11/12/24	Gross Beta	4.30	±	0.35	0.16	±	0.01	**Yes**
	11/12/24	Tritium	60.00	±	29.50	2.22	±	1.09	No
CLEAR SPRINGS	11/12/24	Gross Alpha	1.48	±	0.65	0.05	±	0.02	No
	11/12/24	Gross Beta	5.17	±	0.34	0.19	±	0.01	**Yes**
	11/12/24	Tritium	-7.69	±	26.40	-0.28	±	0.98	No
DRINKING WATER									
ATOMIC CITY	11/14/24	Gross Alpha	2.72	±	0.84	0.10	±	0.03	**Yes**
	11/14/24	Gross Beta	4.26	±	0.35	0.16	±	0.01	**Yes**
	11/14/24	Tritium	-2.05	±	26.90	-0.08	±	1.00	No
ATOMIC CITY (duplicate)	11/14/24	Gross Alpha	0.73	±	0.63	0.03	±	0.02	No
	11/14/24	Gross Beta	3.58	±	0.39	0.13	±	0.01	**Yes**
	11/14/24	Tritium	-6.64	±	25.30	-0.25	±	0.94	No
CONTROL	11/18/24	Gross Alpha	0.56	±	0.16	0.02	±	0.01	**Yes**
	11/18/24	Gross Beta	0.87	±	0.23	0.03	±	0.01	**Yes**
	11/18/24	Tritium	-8.51	±	24.60	-0.32	±	0.91	No
CRATERS OF THE MOON	11/06/24	Gross Alpha	2.84	±	0.73	0.11	±	0.03	**Yes**
	11/06/24	Gross Beta	3.43	±	0.35	0.13	±	0.01	**Yes**
	11/06/24	Tritium	-29.00	±	24.80	-1.07	±	0.92	No
HOWE	11/14/24	Gross Alpha	3.14	±	0.61	0.12	±	0.02	**Yes**
	11/14/24	Gross Beta	8.51	±	0.40	0.32	±	0.01	**Yes**
	11/14/24	Tritium	22.10	±	27.10	0.82	±	1.00	No
IDAHO FALLS	11/18/24	Gross Alpha	2.13	±	1.61	0.08	±	0.06	No
	11/18/24	Gross Beta	1.04	±	2.18	0.04	±	0.08	No
	11/18/24	Tritium	4.80	±	25.10	0.18	±	0.93	No
MINIDOKA	11/12/24	Gross Alpha	3.06	±	0.62	0.11	±	0.02	**Yes**
	11/12/24	Gross Beta	3.87	±	0.55	0.14	±	0.02	**Yes**
	11/12/24	Tritium	3.11	±	25.60	0.12	±	0.95	No
MUD LAKE	11/14/24	Gross Alpha	-0.33	±	0.39	-0.01	±	0.01	No
	11/14/24	Gross Beta	4.38	±	0.90	0.16	±	0.03	**Yes**
	11/14/24	Tritium	39.30	±	27.00	1.46	±	1.00	No
REST AREA	11/14/24	Gross Alpha	0.57	±	0.43	0.02	±	0.02	No

Table B-7. Gross alpha, gross beta, and tritium concentrations in offsite surface water and drinking water.

Location	Sampling Date	Analyte	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
	11/14/24	Gross Beta	2.91	±	0.39	0.11	±	0.01	**Yes**
	11/14/24	Tritium	18.00	±	27.40	0.67	±	1.01	No
SHOSHONE	11/12/24	Gross Alpha	6.30	±	0.67	0.23	±	0.02	**Yes**
	11/12/24	Gross Beta	3.71	±	0.41	0.14	±	0.02	**Yes**
	11/12/24	Tritium	-2.64	±	26.50	-0.10	±	0.98	No

Table B-8. Weekly and monthly iodine-131 concentrations in milk.

Location	Sampling Date	Iodine-131 Result ± 1s Uncertainty (pCi/L)	Iodine-131 Result ± 1s Uncertainty (Bq/L)	Iodine-131 Result > 3s	Cesium-137 Result ± 1s Uncertainty (pCi/L)	Cesium-137 Result ± 1s Uncertainty (Bq/L)	Cesium-137 Result > 3s
CONTROL	10/14/24	-0.46 ± 0.27	-0.02 ± 0.01	No	-1.27 ± 2.13	-0.05 ± 0.08	No
	11/19/24	0.36 ± 0.21	0.01 ± 0.01	No	0.73 ± 1.63	0.03 ± 0.06	No
	12/16/24	0.00 ± 0.19	0.00 ± 0.01	No	-0.21 ± 2.41	-0.01 ± 0.09	No
DIETRICH	10/15/24	0.02 ± 0.23	0.00 ± 0.01	No	0.00 ± 2.83	0.00 ± 0.10	No
duplicate	10/15/24	0.05 ± 0.23	0.00 ± 0.01	No	3.68 ± 4.22	0.14 ± 0.16	No
	11/19/24	-0.25 ± 0.20	-0.01 ± 0.01	No	0.83 ± 1.85	0.03 ± 0.07	No
	12/16/24	-0.42 ± 0.27	-0.02 ± 0.01	No	3.09 ± 2.12	0.11 ± 0.08	No
HOWE	10/15/24	0.26 ± 0.23	0.01 ± 0.01	No	2.03 ± 1.86	0.08 ± 0.07	No
	11/19/24	0.34 ± 0.19	0.01 ± 0.01	No	-1.17 ± 2.57	-0.04 ± 0.10	No
	12/16/24	-0.02 ± 0.21	0.00 ± 0.01	No	-3.15 ± 2.11	-0.12 ± 0.08	No
duplicate	12/16/24	0.16 ± 0.23	0.01 ± 0.01	No	0.31 ± 2.42	0.01 ± 0.09	No
MINIDOKA	10/15/24	-0.05 ± 0.19	0.00 ± 0.01	No	-0.25 ± 1.77	-0.01 ± 0.07	No
	11/19/24	0.03 ± 0.19	0.00 ± 0.01	No	-1.83 ± 1.68	-0.07 ± 0.06	No
duplicate	11/19/24	-0.06 ± 0.19	0.00 ± 0.01	No	-4.42 ± 3.41	-0.16 ± 0.13	No
	12/16/24	-0.19 ± 0.21	-0.01 ± 0.01	No	1.30 ± 1.64	0.05 ± 0.06	No
MONTEVIEW	10/14/24	-0.33 ± 0.25	-0.01 ± 0.01	No	0.00 ± 3.11	0.00 ± 0.12	No
	11/19/24	0.25 ± 0.24	0.01 ± 0.01	No	0.29 ± 2.20	0.01 ± 0.08	No
	12/16/24	0.21 ± 0.21	0.01 ± 0.01	No	0.48 ± 2.44	0.02 ± 0.09	No
RIGBY	10/1/2024	-0.01 ± 0.17	0.00 ± 0.01	No	2.88 ± 2.54	0.11 ± 0.09	No
	10/7/2024	-0.19 ± 0.27	-0.01 ± 0.01	No	1.60 ± 2.07	0.06 ± 0.08	No
	10/14/2024	0.04 ± 0.18	0.00 ± 0.01	No	2.36 ± 1.76	0.09 ± 0.07	No
	10/21/2024	-0.33 ± 0.20	-0.01 ± 0.01	No	2.01 ± 1.74	0.07 ± 0.06	No
	10/29/2024	-0.02 ± 0.25	0.00 ± 0.01	No	3.23 ± 1.70	0.12 ± 0.06	No
	11/4/2024	-0.36 ± 0.21	-0.01 ± 0.01	No	1.89 ± 1.97	0.07 ± 0.07	No
	11/12/2024	0.50 ± 0.26	0.02 ± 0.01	No	3.77 ± 2.48	0.14 ± 0.09	No
	11/19/2024	0.29 ± 0.17	0.01 ± 0.01	No	1.51 ± 2.19	0.06 ± 0.08	No
	11/26/2024	0.18 ± 0.13	0.01 ± 0.00	No	0.00 ± 2.50	0.00 ± 0.09	No
	12/2/2024	0.06 ± 0.23	0.00 ± 0.01	No	-2.06 ± 1.68	-0.08 ± 0.06	No
	12/10/2024	0.15 ± 0.22	0.01 ± 0.01	No	1.29 ± 2.03	0.05 ± 0.08	No
	12/16/2024	0.00 ± 0.19	0.00 ± 0.01	No	1.71 ± 1.99	0.06 ± 0.07	No
	12/23/2024	-0.10 ± 0.14	0.00 ± 0.01	No	-1.47 ± 1.64	-0.05 ± 0.06	No
TERRETON	10/01/24	-0.21 ± 0.22	-0.01 ± 0.01	No	2.18 ± 2.59	0.08 ± 0.10	No
	10/07/24	-0.07 ± 0.20	0.00 ± 0.01	No	2.45 ± 1.86	0.09 ± 0.07	No
	10/15/24	0.05 ± 0.26	0.00 ± 0.01	No	-0.01 ± 1.94	0.00 ± 0.07	No
	10/21/24	0.05 ± 0.18	0.00 ± 0.01	No	-4.48 ± 1.99	-0.17 ± 0.07	No
	10/29/24	-0.12 ± 0.23	0.00 ± 0.01	No	0.70 ± 2.40	0.03 ± 0.09	No
	11/04/24	-0.23 ± 0.22	-0.01 ± 0.01	No	1.01 ± 1.58	0.04 ± 0.06	No
	11/12/24	-0.06 ± 0.25	0.00 ± 0.01	No	-0.45 ± 1.70	-0.02 ± 0.06	No
	11/18/24	0.08 ± 0.23	0.00 ± 0.01	No	-3.23 ± 3.14	-0.12 ± 0.12	No
	11/26/24	-0.09 ± 0.12	0.00 ± 0.00	No	-4.89 ± 2.30	-0.18 ± 0.09	No

Table B-8. Weekly and monthly iodine-131 concentrations in milk.

Location	Sampling Date	Iodine-131							Cesium-137						
		Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
	12/02/24	0.13	±	0.24	0.00	±	0.01	No	1.28	±	1.72	0.05	±	0.06	No
	12/10/24	0.04	±	0.19	0.00	±	0.01	No	3.07	±	2.51	0.11	±	0.09	No
	12/16/24	0.08	±	0.19	0.00	±	0.01	No	3.12	±	1.75	0.12	±	0.06	No
	12/23/24	-0.21	±	0.16	-0.01	±	0.01	No	-0.34	±	2.11	-0.01	±	0.08	No

Appendix B-9. Strontium-90 and tritium concentrations in milk.

Location	Sampling Date	Result ± 1s Uncertainty (pCi/L)			Result ± 1s Uncertainty (Bq/L)			Result > 3s
STRONTIUM-90								
CONTROL (BROOMFIELD)	11/19/24	0.13	±	0.09	0.00	±	0.00	No
DEITRICH	11/19/24	-0.08	±	0.06	0.00	±	0.00	No
HOWE	11/19/24	0.10	±	0.08	0.00	±	0.00	No
MINIDOKA	11/19/24	0.00	±	0.06	0.00	±	0.00	No
MINIDOKA (duplicate)	11/19/24	-0.16	±	0.10	-0.01	±	0.00	No
MONTEVIEW	11/19/24	0.04	±	0.07	0.00	±	0.00	No
RIGBY	11/19/24	0.06	±	0.13	0.00	±	0.00	No
TERRETON	11/18/24	-0.19	±	0.16	-0.01	±	0.01	No
TRITIUM								
CONTROL (BROOMFIELD)	11/19/24	46.60	±	25.60	1.73	±	0.95	No
DEITRICH	11/19/24	46.20	±	25.40	1.71	±	0.94	No
HOWE	11/19/24	20.30	±	26.30	0.75	±	0.97	No
MINIDOKA	11/19/24	-27.90	±	22.00	-1.03	±	0.81	No
MINIDOKA (duplicate)	11/19/24	59.30	±	26.70	2.20	±	0.99	No
MONTEVIEW	11/19/24	-9.21	±	22.30	-0.34	±	0.83	No
RIGBY	11/19/24	-21.20	±	22.70	-0.79	±	0.84	No
TERRETON	11/18/24	-38.40	±	22.80	-1.42	±	0.84	No

Table B-10. Cesium and strontium-90 concentrations in potatoes.

Location	Sampling Date	Result ± 1s Uncertainty pCi/kg			Result ± 1s Uncertainty (x 10^{-2} Bq/kg)			Result > 3s
CESIUM-137								
ARCO	10/10/24	-5.26	±	3.04	-19.48	±	11.26	No
CONTROL	09/26/24	-0.05	±	1.49	-0.17	±	5.52	No
GROVELAND	10/08/24	1.34	±	2.17	4.96	±	8.04	No
IDAHO FALLS	10/10/24	1.08	±	2.96	4.00	±	10.96	No
PINGREE	10/08/24	0.49	±	1.61	1.83	±	5.96	No
POCATELLO	09/21/24	0.85	±	1.83	3.14	±	6.78	No
RAFT RIVER	10/08/24	1.65	±	1.63	6.11	±	6.04	No
RAFT RIVER (duplicate)	10/08/24	-2.88	±	3.10	-10.67	±	11.48	No
REXBURG	10/07/24	0.46	±	2.03	1.71	±	7.52	No
SHELLEY	10/08/24	2.17	±	1.66	8.04	±	6.15	No
TERRETON	10/10/24	-4.35	±	3.15	-16.11	±	11.67	No
STRONTIUM-90								
ARCO	10/10/24	-3.71	±	10.40	-13.74	±	38.52	No
CONTROL	09/26/24	-20.80	±	10.10	-77.04	±	37.41	No
GROVELAND	10/08/24	2.33	±	11.90	8.63	±	44.07	No
IDAHO FALLS	10/10/24	-21.80	±	13.30	-80.74	±	49.26	No
PINGREE	10/08/24	44.00	±	18.70	162.96	±	69.26	No
POCATELLO	09/21/24	-14.30	±	16.50	-52.96	±	61.11	No
RAFT RIVER	10/08/24	14.90	±	16.20	55.19	±	60.00	No
RAFT RIVER (duplicate)	10/08/24	2.51	±	10.20	9.30	±	37.78	No
REXBURG	10/07/24	22.30	±	15.30	82.59	±	56.67	No
SHELLEY	10/08/24	5.50	±	15.00	20.37	±	55.56	No
TERRETON	10/10/24	27.80	±	15.70	102.96	±	58.15	No

Table B-11. Cesium and strontium-90 concentrations in lettuce.

Location	Sampling Date	Result ± 1s Uncertainty pCi/kg			Result ± 1s Uncertainty (x 10^{-2} Bq/kg)			Result > 3s
CESIUM-137								
ATOMIC CITY	07/03/24	33.6	±	38.6	124.4	±	143.0	No
BLACKFOOT (loc 1)	06/21/24	11.9	±	23.5	44.1	±	87.0	No
BLACKFOOT (loc 2)	07/06/24	8.3	±	25.1	30.7	±	93.0	No
CONTROL	09/26/24	-2.3	±	32.5	-8.7	±	120.4	No
EFS	07/03/24	31.1	±	87.0	115.2	±	322.2	No
HOWE	06/21/24	-53.7	±	159.0	-198.9	±	588.9	No
IDAHO FALLS (loc 1)	08/04/24	-52.7	±	101.0	-195.2	±	374.1	No
IDAHO FALLS (loc 2)	08/06/24	127.0	±	96.7	470.4	±	358.1	No
MONTEVIEW	06/24/24	-9.1	±	27.1	-33.7	±	100.4	No
POCATELLO	07/13/24	31.6	±	26.7	117.0	±	98.9	No
POCATELLO (duplicate)	07/13/24	6.1	±	32.3	22.4	±	119.6	No
SUGAR CITY	07/03/24	40.6	±	24.4	150.4	±	90.4	No
STRONTIUM-90								
ATOMIC CITY	07/03/24	12.7	±	10.5	47.0	±	38.9	No
BLACKFOOT (loc 1)	06/21/24	6.2	±	11.4	23.0	±	42.2	No
BLACKFOOT (loc 2)	07/06/24	-20.0	±	7.8	-74.1	±	28.9	No
CONTROL	09/26/24	6.3	±	8.4	23.3	±	31.2	No
EFS	07/03/24	34.5	±	20.1	127.8	±	74.4	No
HOWE	06/21/24	9.8	±	10.3	36.2	±	38.1	No
IDAHO FALLS (loc 1)	08/04/24	1.4	±	9.5	5.0	±	35.3	No
IDAHO FALLS (loc 2)	08/06/24	28.5	±	11.2	105.6	±	41.5	No
MONTEVIEW	06/24/24	8.5	±	9.2	31.4	±	34.1	No
POCATELLO	07/13/24	-5.4	±	15.4	-19.9	±	57.0	No
POCATELLO (duplicate)	07/13/24	12.9	±	10.6	47.8	±	39.3	No
SUGAR CITY	07/03/24	7.4	±	9.3	27.4	±	34.4	No

Table B-12. Gamma emitters and strontium-90 in alfalfa.

Location	Sampling Date	Result ± 1s Uncertainty pCi/kg			Result ± 1s Uncertainty Bq/kg			Result > 3s
CESIUM-137								
BLACKFOOT	09/15/24	-23.50	±	38.80	-0.87	±	1.44	No
HOWE	09/11/24	2.44	±	22.80	0.09	±	0.84	No
IDAHO FALLS	09/11/24	25.70	±	29.50	0.95	±	1.09	No
MUDLAKE	09/11/24	39.70	±	28.80	1.47	±	1.07	No
STRONTIUM-90								
BLACKFOOT	09/15/24	5.86	±	12.80	0.22	±	0.47	No
HOWE	09/11/24	9.46	±	17.50	0.35	±	0.65	No
IDAHO FALLS	09/11/24	12.60	±	8.72	0.47	±	0.32	No
MUDLAKE	09/11/24	-5.92	±	11.40	-0.22	±	0.42	No

Table B-13. Cesium-137 and strontium-90 concentrations in grain.

Location	Sampling Date	Result ± 1s Uncertainty pCi/kg			Result ± 1s Uncertainty Bq/kg			Result > 3s
CESIUM-137								
AMERICAN FALLS	08/15/24	-0.61	±	2.51	-0.02	±	0.09	No
ARCO	08/06/24	2.24	±	1.65	0.08	±	0.06	No
BLACKFOOT	08/05/24	-4.41	±	2.98	-0.16	±	0.11	No
CONTROL	09/26/24	-0.64	±	1.35	-0.02	±	0.05	No
HOWE	08/22/24	-2.96	±	2.37	-0.11	±	0.09	No
IDAHO FALLS	08/15/24	3.13	±	1.81	0.12	±	0.07	No
KIMAMA	08/06/24	4.11	±	2.78	0.15	±	0.10	No
MONTEVIEW	08/15/24	1.54	±	2.35	0.06	±	0.09	No
MUDLAKE	08/22/24	-0.81	±	1.51	-0.03	±	0.06	No
REXBURG	08/15/24	0.00	±	2.84	0.00	±	0.11	No
ROBERTS	08/15/24	4.05	±	2.30	0.15	±	0.09	No
RUPERT	08/06/24	1.88	±	1.87	0.07	±	0.07	No
STRONTIUM-90								
AMERICAN FALLS	08/15/24	-21.00	±	13.80	-0.78	±	0.51	No
ARCO	08/06/24	-6.86	±	7.10	-0.25	±	0.26	No
BLACKFOOT	08/05/24	-3.35	±	10.70	-0.12	±	0.40	No
CONTROL	09/26/24	15.80	±	18.90	0.59	±	0.70	No
HOWE	08/22/24	-4.52	±	16.10	-0.17	±	0.60	No
IDAHO FALLS	08/15/24	27.30	±	14.60	1.01	±	0.54	No
KIMAMA	08/06/24	9.82	±	11.10	0.36	±	0.41	No
MONTEVIEW	08/15/24	0.74	±	12.60	0.03	±	0.47	No
MUDLAKE	08/22/24	13.60	±	17.90	0.50	±	0.66	No
REXBURG	08/15/24	-3.02	±	11.00	-0.11	±	0.41	No
ROBERTS	08/15/24	-1.33	±	9.99	-0.05	±	0.37	No
RUPERT	08/06/24	1.50	±	11.20	0.06	±	0.41	No

Table B-14. 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 [a]	12/09/24	Liver			±			±		
	12/09/24	Muscle	Cesium-137	0.84	±	1.56	3.09	±	5.77	No
	12/09/24	Thyroid	Iodine-131	-302.00	±	350.00	-1117.40	±	1295.00	No
ELK	12/17/24	Liver	Cesium-137	6.62	±	3.41	24.49	±	12.62	No
	12/17/24	Muscle	Cesium-137	0.29	±	1.70	1.08	±	6.29	No
	12/17/24	Thyroid	Iodine-131	-47.30	±	38.00	-175.01	±	140.60	No

a. A liver sample was not able to be collected.

Table B-15. Actinide, gamma-emitting radionuclides, and strontium-90 concentrations in edible tissues in waterfowl.

Location	Sampling Date	Species	Sub-sample	Analyte	Result ± Uncertainty 1s) pCi/kg			Result ± Uncertainty (1s) (x 10^{-2}) Bq/kg			Result > 3s
CFA #1	04/01/24	Canada goose	Edible	Americium-241	0.04	±	1.63	0.14	±	6.04	No
				Cesium-137	5.38	±	3.91	19.93	±	14.48	No
				Chromium-51	-58200.00	±	30600.00	-215555.56	±	113333.33	No
				Cobalt-60	5.54	±	4.56	20.52	±	16.89	No
				Plutonium-238	0.50	±	1.31	1.83	±	4.85	No
				Plutonium-239/240	-1.48	±	1.63	-5.48	±	6.04	No
				Strontium-90	4.77	±	2.25	17.67	±	8.33	No
				Zinc-65	13.80	±	16.40	51.11	±	60.74	No
			Exterior	Americium-241	0.89	±	2.66	3.31	±	9.85	No
				Cesium-137	37.80	±	17.60	140.00	±	65.19	No
				Chromium-51	0.00	±	106000.00	0.00	±	392592.59	No
				Cobalt-60	315.00	±	34.00	1166.67	±	125.93	**Yes**
				Plutonium-238	0.49	±	1.47	1.81	±	5.44	No
				Plutonium-239/240	0.00	±	1.82	0.00	±	6.74	No
				Strontium-90	3.22	±	2.03	11.93	±	7.52	No
				Zinc-65	-62.00	±	78.90	-229.63	±	292.22	No
			Remainder	Americium-241	-2.39	±	2.32	-8.85	±	8.59	No
				Cesium-137	11.30	±	8.60	41.85	±	31.85	No
				Chromium-51	0.00	±	79200.00	0.00	±	293333.33	No
				Cobalt-60	15.30	±	13.00	56.67	±	48.15	No
				Plutonium-238	1.64	±	1.16	6.07	±	4.30	No
				Plutonium-239/240	0.00	±	1.29	0.00	±	4.78	No
				Strontium-90	4.12	±	2.96	15.26	±	10.96	No
				Zinc-65	-10.30	±	47.80	-38.15	±	177.04	No
CFA #2	09/12/24	American coot	Edible	Americium-241	2.03	±	2.34	7.52	±	8.67	No
				Cesium-137	8.30	±	24.90	30.74	±	92.22	No
				Chromium-51	3180.00	±	4260.00	11777.78	±	15777.78	No
				Cobalt-60	-22.50	±	46.30	-83.33	±	171.48	No
				Plutonium-238	0.45	±	1.00	1.65	±	3.69	No
				Plutonium-239/240	0.44	±	1.47	1.64	±	5.44	No
				Strontium-90	5.40	±	2.28	20.00	±	8.44	No
				Zinc-65	3.62	±	73.20	13.41	±	271.11	No
			Exterior	Americium-241	4.41	±	3.04	16.33	±	11.26	No
				Cesium-137	-7.56	±	43.00	-28.00	±	159.26	No
				Chromium-51	244.00	±	6260.00	903.70	±	23185.19	No
				Cobalt-60	56.00	±	40.20	207.41	±	148.89	No
				Plutonium-238	0.94	±	1.34	3.50	±	4.96	No
				Plutonium-239/240	0.47	±	1.25	1.74	±	4.63	No
				Strontium-90	9.87	±	3.81	36.56	±	14.11	No
				Zinc-65	52.90	±	116.00	195.93	±	429.63	No
			Remainder	Americium-241	-0.21	±	1.96	-0.79	±	7.26	No
				Cesium-137	3.19	±	10.00	11.81	±	37.04	No
				Chromium-51	-362.00	±	1440.00	-1340.74	±	5333.33	No
				Cobalt-60	-11.80	±	9.67	-43.70	±	35.81	No
				Plutonium-238	2.77	±	3.06	10.26	±	11.33	No
				Plutonium-239/240	-8.29	±	3.57	-30.70	±	13.22	No
				Strontium-90	0.47	±	1.63	1.73	±	6.04	No
				Zinc-65	23.00	±	27.60	85.19	±	102.22	No
SEWAGE LAGOONS #1	10/04/24	American wigeon	Edible	Americium-241	0.94	±	2.30	3.46	±	8.52	No
				Cesium-137	18.20	±	8.35	67.41	±	30.93	No
				Chromium-51	-207.00	±	581.00	-766.67	±	2151.85	No
				Cobalt-60	0.28	±	8.42	1.02	±	31.19	No
				Plutonium-238	-0.48	±	1.26	-1.76	±	4.67	No
				Plutonium-239/240	0.95	±	1.50	3.51	±	5.56	No
				Strontium-90	0.39	±	1.57	1.46	±	5.81	No
				Zinc-65	14.80	±	25.80	54.81	±	95.56	No
			Exterior	Americium-241	2.12	±	1.50	7.85	±	5.56	No
				Cesium-137	11.90	±	19.30	44.07	±	71.48	No
				Chromium-51	508.00	±	1080.00	1881.48	±	4000.00	No
				Cobalt-60	23.70	±	16.00	87.78	±	59.26	No
				Plutonium-238	-0.92	±	1.30	-3.41	±	4.81	No
				Plutonium-239/240	1.38	±	1.53	5.11	±	5.67	No
				Strontium-90	-0.55	±	2.43	-2.03	±	9.00	No
				Zinc-65	31.10	±	40.50	115.19	±	150.00	No
			Remainder	Americium-241	0.55	±	1.23	2.04	±	4.56	No
				Cesium-137	-6.51	±	4.97	-24.11	±	18.41	No
				Chromium-51	-385.00	±	466.00	-1425.93	±	1725.93	No
				Cobalt-60	1.52	±	6.02	5.63	±	22.30	No
				Plutonium-238	1.32	±	1.46	4.89	±	5.41	No
				Plutonium-239/240	-3.50	±	1.38	-12.96	±	5.11	No
				Strontium-90	4.43	±	2.22	16.41	±	8.22	No
				Zinc-65	7.71	±	16.20	28.56	±	60.00	No

Table B-15. Actinide, gamma-emitting radionuclides, and strontium-90 concentrations in edible tissues in waterfowl.

Location	Sampling Date	Species	Sub-sample	Analyte	Result ± Uncertainty 1s) pCi/kg			Result ± Uncertainty (1s) (x 10^{-2}) Bq/kg			Result > 3s
SEWAGE LAGOONS #2	10/04/24	American wigeon	Edible	Americium-241	-0.57	±	1.50	-2.10	±	5.56	No
				Cesium-137	11.30	±	5.23	41.85	±	19.37	No
				Chromium-51	211.00	±	434.00	781.48	±	1607.41	No
				Cobalt-60	9.31	±	6.75	34.48	±	25.00	No
				Plutonium-238	3.51	±	2.07	13.00	±	7.67	No
				Plutonium-239/240	-0.50	±	2.50	-1.85	±	9.26	No
				Strontium-90	3.44	±	3.09	12.74	±	11.44	No
				Zinc-65	-8.69	±	16.80	-32.19	±	62.22	No
			Exterior	Americium-241	1.61	±	2.28	5.96	±	8.44	No
				Cesium-137	13.90	±	16.20	51.48	±	60.00	No
				Chromium-51	1680.00	±	1360.00	6222.22	±	5037.04	No
				Cobalt-60	-8.61	±	13.70	-31.89	±	50.74	No
				Plutonium-238	-0.41	±	1.23	-1.51	±	4.56	No
				Plutonium-239/240	1.63	±	1.15	6.04	±	4.26	No
				Strontium-90	-0.72	±	2.56	-2.67	±	9.48	No
				Zinc-65	-7.53	±	46.90	-27.89	±	173.70	No
			Remainder	Americium-241	-1.03	±	1.03	-3.81	±	3.81	No
				Cesium-137	-8.61	±	11.90	-31.89	±	44.07	No
				Chromium-51	-1330.00	±	703.00	-4925.93	±	2603.70	No
				Cobalt-60	3.77	±	9.44	13.96	±	34.96	No
				Plutonium-238	0.00	±	1.41	0.00	±	5.22	No
				Plutonium-239/240	1.15	±	1.63	4.26	±	6.04	No
				Strontium-90	-0.66	±	1.44	-2.43	±	5.33	No
				Zinc-65	7.77	±	25.70	28.78	±	95.19	No
SEWAGE LAGOONS #3	10/11/24	American wigeon	Edible	Americium-241	-1.47	±	1.63	-5.44	±	6.04	No
				Cesium-137	2.19	±	11.70	8.11	±	43.33	No
				Chromium-51	529.00	±	864.00	1959.26	±	3200.00	No
				Cobalt-60	0.00	±	26.10	0.00	±	96.67	No
				Plutonium-238	1.63	±	1.96	6.04	±	7.26	No
				Plutonium-239/240	1.62	±	1.80	6.00	±	6.67	No
				Strontium-90	0.63	±	1.62	2.33	±	6.00	No
				Zinc-65	-2.66	±	37.90	-9.85	±	140.37	No
			Exterior	Americium-241	1.51	±	1.51	5.59	±	5.59	No
				Cesium-137	0.00	±	22.9	0.00	±	84.81	No
				Chromium-51	172.00	±	636	637.04	±	2355.56	No
				Cobalt-60	40.70	±	13.5	150.74	±	50.00	**Yes**
				Plutonium-238	1.03	±	2.07	3.81	±	7.67	No
				Plutonium-239/240	0.52	±	2	1.91	±	7.41	No
				Strontium-90	2.56	±	1.96	9.48	±	7.26	No
				Zinc-65	3.06	±	23	11.33	±	85.19	No
			Remainder	Americium-241	1.36	±	1.51	5.04	±	5.59	No
				Cesium-137	-1.09	±	5.29	-4.04	±	19.59	No
				Chromium-51	-38.00	±	456	-140.74	±	1688.89	No
				Cobalt-60	5.94	±	7.83	22.00	±	29.00	No
				Plutonium-238	2.77	±	1.85	10.26	±	6.85	No
				Plutonium-239/240	2.77	±	1.6	10.26	±	5.93	No
				Strontium-90	0.65	±	1.74	2.39	±	6.44	No
				Zinc-65	-36.10	±	29.8	-133.70	±	110.37	No
CONTROL #1	12/24/24	Canada goose	Edible	Americium-241	0.08	±	1.97	0.31	±	7.30	No
				Cesium-137	4.31	±	6.39	15.96	±	23.67	No
				Chromium-51	-30.90	±	53.00	-114.44	±	196.30	No
				Cobalt-60	-6.41	±	5.03	-23.74	±	18.63	No
				Plutonium-238	1.06	±	1.51	3.93	±	5.59	No
				Plutonium-239/240	0.00	±	1.68	0.00	±	6.22	No
				Strontium-90	-1.41	±	1.73	-5.22	±	6.41	No
				Zinc-65	13.20	±	14.20	48.89	±	52.59	No
			Exterior	Americium-241	0.07	±	1.91	0.26	±	7.07	No
				Cesium-137	-42.90	±	20.9	-158.89	±	77.41	No
				Chromium-51	57.70	±	132	213.70	±	488.89	No
				Cobalt-60	40.20	±	14.2	148.89	±	52.59	No
				Plutonium-238	0.83	±	1.31	3.08	±	4.85	No
				Plutonium-239/240	-0.83	±	1.44	-3.08	±	5.33	No
				Strontium-90	7.92	±	3.45	29.33	±	12.78	No
				Zinc-65	39.00	±	31.2	144.44	±	115.56	No
			Remainder	Americium-241	-1.34	±	2.73	-4.96	±	10.11	No
				Cesium-137	2.13	±	6.75	7.89	±	25.00	No
				Chromium-51	-20.60	±	79.8	-76.30	±	295.56	No
				Cobalt-60	-7.47	±	7.57	-27.67	±	28.04	No
				Plutonium-238	1.47	±	1.9	5.44	±	7.04	No
				Plutonium-239/240	-0.49	±	1.77	-1.81	±	6.56	No
				Strontium-90	4.54	±	2.45	16.81	±	9.07	No
				Zinc-65	16.80	±	20.5	62.22	±	75.93	No

Table B-15. Actinide, gamma-emitting radionuclides, and strontium-90 concentrations in edible tissues in waterfowl.

Location	Sampling Date	Species	Sub-sample	Analyte	Result ± Uncertainty 1s) pCi/kg			Result ± Uncertainty (1s) (x 10^{-2}) Bq/kg			Result > 3s
CONTROL #2	12/24/24	Canada goose	Edible	Americium-241	0.00	±	1.66	0.00	±	6.15	No
				Cesium-137	-3.57	±	6.06	-13.22	±	22.44	No
				Chromium-51	22.80	±	47.40	84.44	±	175.56	No
				Cobalt-60	5.89	±	4.97	21.81	±	18.41	No
				Plutonium-238	0.97	±	1.37	3.58	±	5.07	No
				Plutonium-239/240	2.41	±	1.99	8.93	±	7.37	No
				Strontium-90	-1.33	±	1.85	-4.93	±	6.85	No
				Zinc-65	0.82	±	12.00	3.05	±	44.44	No
			Exterior	Americium-241	4.14	±	2.46	15.33	±	9.11	No
				Cesium-137	5.69	±	7.84	21.07	±	29.04	No
				Chromium-51	-181.00	±	99.9	-670.37	±	370.00	No
				Cobalt-60	3.42	±	8.65	12.67	±	32.04	No
				Plutonium-238	0.00	±	1.24	0.00	±	4.59	No
				Plutonium-239/240	0.44	±	1.45	1.62	±	5.37	No
				Strontium-90	12.80	±	4.04	47.41	±	14.96	**Yes**
				Zinc-65	16.30	±	18.6	60.37	±	68.89	No
			Remainder	Americium-241	0.82	±	2.86	3.02	±	10.59	No
				Cesium-137	7.60	±	6.67	28.15	±	24.70	No
				Chromium-51	8.52	±	68.1	31.56	±	252.22	No
				Cobalt-60	7.82	±	7.42	28.96	±	27.48	No
				Plutonium-238	1.50	±	1.66	5.56	±	6.15	No
				Plutonium-239/240	0.50	±	1.5	1.86	±	5.56	No
				Strontium-90	5.20	±	2.23	19.26	±	8.26	No
				Zinc-65	-27.60	±	20.8	-102.22	±	77.04	No

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result mrem		Sigma Uncertainty mrem	Dose mrem/day
BOUNDARY							
Arco	Arco O-1	05/01/24	11/04/24	67.90	±	3.40	0.36
Atomic City	Atomic City E-1	05/01/24	11/04/24	67.80	±	3.39	0.36
	Atomic City O-2	05/01/24	11/04/24	53.30	±	2.67	0.29
Blue Dome	Blue Dome E-1	05/01/24	11/04/24	52.10	±	2.61	0.28
East Butte	RRL5 O-1[a]	05/02/24			±		
Frenchmans Cabin	RRL3 O-1[b]	05/01/24			±		
Howe	Howe O-3	05/01/24	11/04/24	63.80	±	3.19	0.34
	RRL24 O-1	05/01/24	11/04/24	56.70	±	2.84	0.30
Monteview	Monteview O-4	05/01/24	11/04/24	56.60	±	2.83	0.30
	RRL17 O-1	05/01/24	11/04/24	64.50	±	3.23	0.35
Mud Lake	Mud Lake O-5	05/01/24	11/04/24	72.20	±	3.61	0.39
Reno Ranch	Reno Ranch O-6	05/01/24	11/04/24	52.90	±	2.65	0.28
	Boundary Average			**60.78**			**0.32**
OFFSITE							
Aberdeen	Aberdeen E-1	05/06/24	11/05/24	69.90	±	3.50	0.38
Blackfoot	Blackfoot O-9	05/01/24	11/05/24	58.50	±	2.93	0.31
Craters of the Moon	Craters of Moon O-7	05/01/24	11/05/24	68.60	±	3.43	0.36
Dubois	Dubois E-1	05/01/24	11/04/24	56.20	±	2.81	0.30
Idaho Falls	Idaho Falls O-10	05/06/24	11/05/24	61.70	±	3.09	0.34
	IF-603E O-2	05/02/24	11/05/24	51.60	±	2.58	0.28
	IF-603N O-1	05/02/24	11/05/24	60.60	±	3.03	0.32
	IF-603S O-3	05/02/24	11/05/24	54.80	±	2.74	0.29
	IF-603W O-4	05/02/24	11/05/24	61.70	±	3.09	0.33
	IF-616N O-36	05/01/24	11/05/24	55.80	±	2.79	0.30
	IF-627 O-30	05/02/24	11/05/24	58.00	±	2.90	0.31
	IF-638E O-2	05/02/24	11/05/24	50.20	±	2.51	0.27
	IF-638N O-1	05/02/24	11/05/24	57.60	±	2.88	0.31
	IF-638S O-3	05/02/24	11/05/24	60.30	±	3.02	0.32
	IF-638W O-4	05/02/24	11/05/24	61.00	±	3.05	0.33
	IF-652A O-1	05/06/24	11/05/24	79.20	±	3.96	0.43
	IF-652A O-2	05/06/24	11/05/24	64.30	±	3.22	0.35
	IF-652A O-3	05/06/24	11/05/24	65.60	±	3.28	0.36
	IF-652A O-4	05/06/24	11/05/24	76.40	±	3.82	0.42
	IF-665 O-1	05/06/24	11/05/24	52.20	±	2.61	0.29
	IF-665 O-2	05/06/24	11/05/24	60.70	±	3.04	0.33
	IF-665 O-3	05/06/24	11/05/24	61.00	±	3.05	0.33

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result		Sigma Uncertainty	Dose
				mrem			mrem/day
	IF-665 O-4	05/06/24	11/05/24	60.30	±	3.02	0.33
	IF-665 O-5	05/06/24	11/05/24	67.70	±	3.39	0.37
	IF-665W O-37	05/06/24	11/05/24	57.10	±	2.86	0.31
	IF-675D O-33	05/06/24	11/05/24	57.10	±	2.86	0.31
	IF-675E O-31	05/06/24	11/05/24	52.30	±	2.62	0.29
	IF-675S O-34	05/06/24	11/05/24	62.10	±	3.11	0.34
	IF-675W O-35	05/06/24	11/05/24	61.40	±	3.07	0.34
	IF-688B O-1	05/01/24	11/05/24	57.50	±	2.88	0.31
	IF-688B O-2	05/01/24	11/05/24	57.90	±	2.90	0.31
	IF-689 O-7	05/02/24	11/05/24	62.30	±	3.12	0.33
	IF-689 O-8	05/02/24	11/05/24	54.80	±	2.74	0.29
	IF-IDA O-38	05/06/24	11/05/24	59.20	±	2.96	0.32
	IF-IRC O-39	05/02/24	11/05/24	56.30	±	2.82	0.30
Jackson WY	Jackson E-1	05/03/24	11/08/24	59.00	±	2.95	0.31
Minidoka	Minidoka E-1	05/06/24	11/05/24	60.20	±	3.01	0.33
Roberts	RobNOAA	05/01/24	11/04/24	80.90	±	4.05	0.43
Sugar City	Sugar E-1	05/01/24	11/04/24	80.20	±	4.01	0.43
	Offsite Average			**61.34**			**0.33**
		ONSITE					
ARA	ARA I&II O-1	05/01/24	11/06/24	72.30	±	3.62	0.38
ATR Complex	LincolnBlvd O-5	05/01/24	11/04/24	78.00	±	3.90	0.42
	TRA O-1[a]	05/02/24			±		
	TRA O-10	05/02/24	11/06/24	100.30	±	5.02	0.53
	TRA O-11	05/02/24	11/06/24	107.50	±	5.38	0.57
	TRA O-12	05/02/24	11/06/24	69.30	±	3.47	0.37
	TRA O-13	05/02/24	11/06/24	80.50	±	4.03	0.43
	TRA O-14[a]	05/02/24			±		
	TRA O-15[a]	05/02/24			±		
	TRA O-16	05/02/24	11/06/24	76.70	±	3.84	0.41
	TRA O-17	05/06/24	11/06/24	60.60	±	3.03	0.33
	TRA O-18	05/06/24	11/06/24	79.10	±	3.96	0.43
	TRA O-19	05/06/24	11/06/24	70.40	±	3.52	0.38
	TRA O-20	05/06/24	11/06/24	73.60	±	3.68	0.40
	TRA O-21	05/06/24	11/06/24	72.60	±	3.63	0.39
	TRA O-22	05/06/24	11/06/24	65.00	±	3.25	0.35
	TRA O-23	05/02/24	11/06/24	74.10	±	3.71	0.39
	TRA O-24	05/02/24	11/06/24	79.50	±	3.98	0.42

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result		Sigma Uncertainty	Dose
				mrem			mrem/day
	TRA O-25	05/02/24	11/06/24	80.40	±	4.02	0.43
	TRA O-26	05/02/24	11/06/24	86.20	±	4.31	0.46
	TRA O-27	05/02/24	11/06/24	75.00	±	3.75	0.40
	TRA O-28	05/02/24	11/06/24	63.00	±	3.15	0.34
	TRA O-6	05/02/24	11/06/24	68.60	±	3.43	0.37
	TRA O-7	05/02/24	11/06/24	77.80	±	3.89	0.41
	TRA O-8	05/02/24	11/06/24	73.70	±	3.69	0.39
	TRA O-9	05/02/24	11/06/24	72.20	±	3.61	0.38
CFA	CFA O-1	05/01/24	11/04/24	68.80	±	3.44	0.37
	LincolnBlvd O-1	05/01/24	11/04/24	66.80	±	3.34	0.36
EBR-I	EBR I O-1	05/01/24	11/04/24	71.00	±	3.55	0.38
	EBR I O-2	05/01/24	11/04/24	93.00	±	4.65	0.50
	EBR I O-3	05/01/24	11/04/24	270.50	±	13.53	1.45
EFS	EFS O-1	05/01/24	11/04/24	71.90	±	3.60	0.38
Gate 4	Gate4 O-1	05/01/24	11/04/24	73.60	±	3.68	0.39
Highway	Hwy20 Mile O-266	05/02/24	11/04/24	73.70	±	3.69	0.40
	Hwy20 Mile O-270	05/02/24	11/04/24	64.80	±	3.24	0.35
	Hwy20 Mile O-276	05/02/24	11/04/24	64.10	±	3.21	0.34
	Hwy22 T28 O-1	05/01/24	11/04/24	63.40	±	3.17	0.34
	Hwy28 N2300 O-2	05/01/24	11/04/24	58.30	±	2.92	0.31
	Hwy33 T17 O-3	05/01/24	11/04/24	59.50	±	2.98	0.32
Highway 26 Rest Area	REST O-1	05/01/24	11/04/24	71.60	±	3.58	0.38
INTEC	ICPP O-14	05/01/24	11/04/24	141.50	±	7.08	0.76
	ICPP O-15	05/01/24	11/04/24	169.70	±	8.49	0.91
	ICPP O-17	05/01/24	11/04/24	78.40	±	3.92	0.42
	ICPP O-19	05/01/24	11/04/24	91.90	±	4.60	0.49
	ICPP O-20	05/01/24	11/04/24	305.10	±	15.26	1.63
	ICPP O-21	05/01/24	11/04/24	95.40	±	4.77	0.51
	ICPP O-22	05/01/24	11/04/24	97.60	±	4.88	0.52
	ICPP O-25	05/01/24	11/04/24	93.00	±	4.65	0.50
	ICPP O-26	05/01/24	11/04/24	91.90	±	4.60	0.49
	ICPP O-27	05/01/24	11/04/24	269.60	±	13.48	1.44
	ICPP O-28	05/01/24	11/04/24	248.80	±	12.44	1.33
	ICPP O-30	05/01/24	11/04/24	201.00	±	10.05	1.07
	ICPP O-9	05/01/24	11/04/24	97.00	±	4.85	0.52
	ICPP TreeFarm O-1	05/01/24	11/04/24	125.00	±	6.25	0.67
	ICPP TreeFarm O-2	05/01/24	11/04/24	93.40	±	4.67	0.50
	ICPP TreeFarm O-3	05/01/24	11/04/24	97.60	±	4.88	0.52

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result		Sigma Uncertainty	Dose
				mrem			mrem/day
	ICPP TreeFarm O-4	05/01/24	11/04/24	130.40	±	6.52	0.70
	LincolnBlvd O-3	05/01/24	11/04/24	77.60	±	3.88	0.42
Main Gate	Main Gate O-1	05/01/24	11/04/24	69.30	±	3.47	0.37
MFC	ANL O-12[a]	05/02/24			±		
	ANL O-14	05/02/24	11/06/24	67.30	±	3.37	0.36
	ANL O-15	05/02/24	11/06/24	70.30	±	3.52	0.37
	ANL O-16	05/02/24	11/06/24	67.80	±	3.39	0.36
	ANL O-18[a]	05/02/24			±		
	ANL O-19	05/02/24	11/06/24	67.30	±	3.37	0.36
	ANL O-20	05/02/24	11/06/24	63.70	±	3.19	0.34
	ANL O-21[a]	05/02/24			±		
	ANL O-22	05/02/24	11/06/24	73.10	±	3.66	0.39
	ANL O-23[a]	05/02/24			±		
	ANL O-24[a]	05/02/24			±		
	ANL O-25[a]	05/02/24			±		
	ANL O-26	05/02/24	11/06/24	87.50	±	4.38	0.47
	ANL O-7	05/02/24	11/06/24	71.00	±	3.55	0.38
	ANL O-8[a]	05/02/24			±		
	Haul E O-1	05/02/24	11/04/24	63.80	±	3.19	0.34
	RRL6 O-1	05/02/24	11/05/24	65.20	±	3.26	0.35
	TREAT O-1	05/02/24	11/06/24	64.20	±	3.21	0.34
	TREAT O-2	05/02/24	11/06/24	78.60	±	3.93	0.42
	TREAT O-3	05/02/24	11/06/24	68.10	±	3.41	0.36
	TREAT O-4	05/02/24	11/06/24	75.50	±	3.78	0.40
	TREAT O-5[a]	05/02/24			±		
	TREAT O-6	05/02/24	11/06/24	62.50	±	3.13	0.33
	TREAT O-7	05/02/24	11/06/24	59.80	±	2.99	0.32
	TREAT O-8	05/02/24	11/06/24	64.20	±	3.21	0.34
NRF	LincolnBlvd O-15	05/01/24	11/04/24	77.30	±	3.87	0.41
	LincolnBlvd O-9	05/01/24	11/04/24	73.80	±	3.69	0.39
	NRF O-11	05/01/24	11/04/24	69.00	±	3.45	0.37
	NRF O-16	05/01/24	11/04/24	84.60	±	4.23	0.45
	NRF O-18	05/01/24	11/04/24	61.40	±	3.07	0.33
	NRF O-19	05/01/24	11/04/24	80.80	±	4.04	0.43
	NRF O-20	05/01/24	11/04/24	68.10	±	3.41	0.36
	NRF O-25[a]	05/01/24			±		

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result		Sigma Uncertainty	Dose
				mrem			mrem/day
	NRF O-26	05/01/24	11/04/24	68.00	±	3.40	0.36
	NRF O-27	05/01/24	11/04/24	64.90	±	3.25	0.35
	NRF O-28	05/01/24	11/04/24	69.60	±	3.48	0.37
	NRF O-29	05/01/24	11/04/24	69.10	±	3.46	0.37
	NRF O-30	05/01/24	11/04/24	69.20	±	3.46	0.37
	NRF O-31	05/01/24	11/04/24	70.10	±	3.51	0.37
	NRF O-32	05/01/24	11/04/24	85.40	±	4.27	0.46
PBF	Haul W O-2	05/01/24	11/04/24	76.60	±	3.83	0.41
	PBF SPERT O-1	05/01/24	11/04/24	70.60	±	3.53	0.38
RHLLW	RHLLW O-1	05/02/24	11/06/24	68.50	±	3.43	0.36
	RHLLW O-2	05/02/24	11/06/24	67.90	±	3.40	0.36
	RHLLW O-3	05/02/24	11/06/24	74.00	±	3.70	0.39
	RHLLW O-4	05/02/24	11/06/24	79.50	±	3.98	0.42
	RHLLW O-5	05/02/24	11/06/24	64.50	±	3.23	0.34
	RHLLW O-6	05/02/24	11/06/24	67.30	±	3.37	0.36
RWMC	RWMC O-11A	05/01/24	11/04/24	59.30	±	2.97	0.32
	RWMC O-13A	05/01/24	11/04/24	70.20	±	3.51	0.38
	RWMC O-19A	05/01/24	11/04/24	64.30	±	3.22	0.34
	RWMC O-21A	05/01/24	11/04/24	70.80	±	3.54	0.38
	RWMC O-23A	05/01/24	11/04/24	69.20	±	3.46	0.37
	RWMC O-25A	05/01/24	11/04/24	74.40	±	3.72	0.40
	RWMC O-27A	05/01/24	11/04/24	64.00	±	3.20	0.34
	RWMC O-29A	05/01/24	11/04/24	62.60	±	3.13	0.33
	RWMC O-39	05/01/24	11/04/24	68.00	±	3.40	0.36
	RWMC O-3A[a]	05/01/24			±		
	RWMC O-41	05/01/24	11/04/24	121.90	±	6.10	0.65
	RWMC O-43	05/01/24	11/04/24	65.90	±	3.30	0.35
	RWMC O-46	05/01/24	11/04/24	68.30	±	3.42	0.37
	RWMC O-47	05/01/24	11/04/24	74.60	±	3.73	0.40
	RWMC O-5A	05/01/24	11/04/24	55.90	±	2.80	0.30
	RWMC O-7A	05/01/24	11/04/24	65.90	±	3.30	0.35
	RWMC O-9A	05/01/24	11/04/24	62.60	±	3.13	0.33
TAN	LincolnBlvd O-25	05/01/24	11/04/24	75.70	±	3.79	0.40
	TAN LOFT O-10	05/01/24	11/05/24	70.60	±	3.53	0.38
	TAN LOFT O-11	05/01/24	11/05/24	74.10	±	3.71	0.39
	TAN LOFT O-12	05/01/24	11/05/24	64.70	±	3.24	0.34
	TAN LOFT O-13	05/01/24	11/05/24	66.60	±	3.33	0.35
	TAN LOFT O-6	05/01/24	11/05/24	66.20	±	3.31	0.35

Table B-16. Environmental radiation measurements using OSLDs.

Location	Dosimetry Name	Start Date	End Date	Radiation Measurement ± 1s Uncertainty Result		Sigma Uncertainty	Dose
				mrem			mrem/day
	TAN LOFT O-7	05/01/24	11/05/24	71.80	±	3.59	0.38
	TAN LOFT O-8	05/01/24	11/05/24	66.50	±	3.33	0.35
	TAN LOFT O-9	05/01/24	11/05/24	63.20	±	3.16	0.34
Van Buren	VANB O-1	05/01/24	11/04/24	73.90	±	3.70	0.40
	Onsite Average			**83.16**			**0.44**

a. Dosimeter missing from sample site.
b. Dosimeter damaged and unable to get a reading.

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	78	15001.50	192.3269		
Onsite	228	47297.00	207.4430	1.123227	0.5703
Offsite	103	21546.50	209.1893		
October	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	30	2229.000	74.30000		
Onsite	85	6564.500	77.22941	0.6154133	0.7351
Offsite	40	3296.500	82.41250		
November	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	24	1439.000	59.95833		
Onsite	72	4575.500	63.54861	1.122713	0.5704
Offsite	32	2241.500	70.04688		
December	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	24	1405.500	58.56250		
Onsite	71	4774.500	67.24648	1.712462	0.4248
Offsite	31	1821.000	58.74194		
GROSS BETA					
Quarter	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	78	14682.00	188.2308		
Onsite	228	49358.50	216.4846	4.914932	0.0857
Offsite	103	19804.50	192.2767		
October	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	30	2076.000	69.20000		
Onsite	85	6978.000	82.09412	1.947689	0.3776
Offsite	40	3036.000	75.90000		
November	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	24	1453.500	60.56250		
Onsite	72	4811.500	66.82639	0.6747431	0.7136
Offsite	32	1991.000	62.21875		

Table C-1. continued.

December	Valid N	Sum of Ranks	Mean Ranks	H[a]	P[b]
Boundary	24	1351.000	56.29167		
Onsite	71	4984.000	70.19718	5.537016	0.0628
Offsite	31	1666.000	53.74194		

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 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) (4th Qtr 2024_QA_Air Query in 4th-Qtr-24-LVf)
Independent (grouping) variable: Location
Kruskal-Wallis test: H (31, N= 461) =10.07604 p =.9999
Include condition: v9='gross alpha'

Depend.: Coded result (x10-15)	Arco R:195.96	Atomic City R:242.50	ATR Complex R:243.54	Blackfoot R:263.54	Blue Dome R:198.12	CFA R:251.85	Craters of the Moon R:217.27	Dubois R:223.46	EBR 1 R:230.50	EFS R:258.58	Gate 4 R:252.69	Highway 26 Rest Area R:211.90	Howe R:220.67	Idaho Falls R:264.04	INTEC (NE Corner) R:212.35	INTEC (West side) R:251.69	IRC R:266.81	IRC North R:240.81	Jackson WY R:218.54	Main Gate R:244.54	MFC North R:181.89	MFC South R:213.85	Monteview R:226.92	NRF R:244.19	PBF R:227.73	RHLLW R:227.56	RWMC R:235.79	RWMC South R:248.54	SMC R:251.88	Sugar City R:211.27	Terreton R:225.27	Van Buren R:229.50
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	0.963135	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-I	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
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
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
INTEC (West side)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
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
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
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
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
MFC North	1.000000	1.000000	1.000000	1.000000	0.963135	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
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
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
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
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
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
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
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
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
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	

Table C-3. Results of multiple comparisons of gross beta results between locations during the 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.

Depend.: Coded result (x10-15)	Multiple Comparisons p values (2-tailed); Coded result (x10-15) (4th Qtr 2024_QA_Air Query in 4th-Qtr-24-LVf) Independent (grouping) variable: Location Kruskal-Wallis test: H (31, N= 461) =12.92980 p =.9982 Include condition: v9='gross beta'																														
	Arco R:190.46	Atomic City R:229.65	ATR Complex R:272.92	Blackfoot R:231.08	Blue Dome R:204.23	CFA R:249.62	Craters of the Moon R:226.42	Dubois R:205.58	EBR 1 R:262.08	EFS R:248.31	Gate 4 R:252.54	Highway 26 Rest Area R:241.44	Howe R:214.90	Idaho Falls R:223.21	INTEC (NE Corner) R:263.58	INTEC (West side) R:254.23	IRC R:217.65	IRC North R:226.46	Jackson WY R:193.50	Main Gate R:259.65	MFC North R:175.39	MFC South R:213.15	Monteview R:219.77	NRF R:256.35	PBF R:231.69	RHLLW R:242.58	RWMC R:242.17	RWMC South R:264.00	SMC R:226.15	Sugar City R:206.19	Terreton R:221.04	Van Buren R:230.58
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
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
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
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
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
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
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
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
EBR-I	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	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
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
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
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
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
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
INTEC (West side)	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000		1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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	