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CALLAWAY ENERGY CENTER
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ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

to

THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Part I

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Submitted by

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PREFACE

This Annual Radiological Environmental Operating Report (AREOR) describes the Ameren Missouri Callaway Energy Center Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2025. It is submitted in accordance with section 5.6.2 of the Callaway Energy Center Technical Specifications.

Staff members of Teledyne Brown Engineering Laboratory in Knoxville, TN were responsible for the acquisition of data presented in this report. Environmental samples were collected by Ameren Missouri personnel or contractors to Ameren Missouri and shipped to Teledyne Brown Engineering Laboratory-Knoxville and Stanford Dosimetry, LLC, for analysis.

The report was prepared by Teledyne Brown Engineering and the Ameren Missouri Callaway Energy Center.

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1.0 INTRODUCTION

This report presents an analysis of the results of the Radiological Environmental Monitoring Program (REMP) conducted during 2025 for the Union Electric Company (dba Ameren Missouri) Callaway Energy Center.

The objectives of the REMP are to monitor potential critical pathways of radioactive effluent to man and determine the radiological impact on the environment caused by operation of the Callaway Energy Center. The Radiological Environmental Monitoring Program was initiated in April 1982.

The Callaway Energy Center consists of one 3565 MWt pressurized water reactor, which achieved initial criticality on October 2, 1984. The plant is located on a plateau approximately ten miles southeast of the City of Fulton in Callaway County, Missouri and approximately eighty miles west of the St. Louis metropolitan area. The Missouri River flows by the site in an easterly direction approximately five miles south of the site at its closest point.

Tabulation of the individual analyses for the year 2025 is included in Part II of this report.

2.0 SUMMARY

The Radiological Environmental Monitoring Program, as required by the U.S. Nuclear Regulatory Commission (NRC) Technical Specifications for the Callaway Energy Center is described herein. Results for the year 2025 are summarized and discussed.

For the year, the Callaway Energy Center was operated in compliance with Offsite Dose Calculation Manual (ODCM) and Radiological Effluent Controls (REC) requirements. Results from the REMP indicate the Callaway Energy Center has had no significant radiological impact on the health and safety of the public or on the environment.

3.0 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

3.1 Program Design and Data Interpretation

The purpose of the Radiological Environmental Monitoring Program at the Callaway Energy Center is to assess the impact of the plant on its environment. For this purpose, samples are collected from waterborne, airborne, ingestion and terrestrial pathways and analyzed for radioactive content. Direct radiation levels are monitored by thermoluminescent dosimeters (TLDs).

Sources of environmental radiation can include the following:

- (1) Natural background radiation arising from cosmic rays and primordial radionuclides;
- (2) Fallout from atmospheric nuclear detonations;
- (3) Releases from nuclear power plants, planned or accidental; and
- (4) Industrial and medical radioactive waste.

Effects due to operation of the Callaway Energy Center must be distinguished from those due to other sources in interpreting the data.

The indicator-control concept is a major interpretive aid; where feasible the design of the Callaway Energy Center program has both indicator and control stations. Most types of samples are collected at indicator locations (nearby, downwind, or downstream) and at control locations (distant, upwind, or upstream). A station effect would be indicated if the radiation level at an indicator location was significantly larger than that at the control location. The difference would have to be greater than could be accounted for by typical fluctuations in radiation levels arising from other sources.

The monitoring program includes analyses for iodine-131, a fission product, and tritium, which is produced by cosmic rays, atmospheric nuclear detonations, and also by nuclear power plants. Most samples are analyzed for gamma-emitting isotopes, with results for the following groups quantified: zirconium-95, cesium-137, and cerium-144. These three gamma-emitting isotopes are selected as radiological impact indicators because of the different characteristic proportions in which they appear in the fission product mix produced by a nuclear reactor and that produced by a nuclear detonation. Each of the three isotopes is produced in roughly equivalent amounts by a reactor: each constitutes about 10% of the total activity of fission products ten days after reactor shutdown. On the other hand, ten days after a nuclear explosion, the contributions of zirconium-95, cerium-144, and cesium-137 to the activity of the resulting debris are in the approximate ratio 4:1:0.03 (Eisenbud, 1963).

The other group quantified consists of niobium-95, ruthenium-103 and -106, cesium-134, barium-lanthanum-140, and cerium-141. These isotopes are released in small quantities by nuclear power plants, but to date their major source of injection into the general environment has been atmospheric nuclear testing. Nuclides of the next group, manganese-54, cobalt-58 and -60, and zinc-65, are activation products and arise from activation of corrosion products. They are typical components of nuclear power plant effluents but are not produced in significant quantities by nuclear detonation.

Nuclides of the final group, beryllium-7, which is of cosmogenic origin, and potassium-40, a naturally-occurring isotope, were chosen as analytical monitors and should not be considered radiological impact indicators.

Other means of distinguishing sources of environmental radiation can be employed in interpreting the data. Current radiation levels can be compared with previous levels, including pre-operational data. Results of the monitoring program can be related to those obtained in other parts of the world. Finally, results can be related to events known to cause elevated levels of radiation in the environment, e.g., a nuclear accident.

3.2 Program Description

The sampling and analysis schedules for the environmental radiological monitoring program at the Callaway Energy Center are summarized in Tables 5.1 and 5.2 and briefly reviewed below. Table 5.1 identifies sampling locations and specifies as to type (indicator or control) and its distance, and direction relative to the reactor site. The types of samples collected at each location, required analyses and the frequency of collections are presented in Table 5.2.

To monitor the air environment, airborne particulate and airborne iodine samples are collected by continuous pumping, at six locations. The airborne particulates are collected on glass fiber filters and the airborne iodine through activated charcoal cartridges. Both filters and cartridges are exchanged weekly. Airborne particulates are analyzed for gamma-emitting isotopes. Charcoal cartridges are analyzed for iodine-131.

The ingestion pathway is monitored by sampling of milk (if available), fish and green leafy vegetation.

Milk samples are collected semimonthly when animals are on pasture and monthly the rest of the year. There were no milk indicator or control stations identified by the Land Use Census for the subject year. Milk samples are analyzed for iodine-131 and gamma-emitting isotopes when available.

Monthly during the growing season, edible green leafy vegetation is collected from both indicator and control locations. Vegetation samples typically consist of mustard greens, turnip greens, cabbage, lettuce, collards, radish greens, swiss chard, broccoli and poke. Other edible broad leaf vegetation is collected if primary varieties are not available. The samples are analyzed for iodine-131 and other gamma-emitting isotopes.

The waterborne pathway is monitored by sampling surface water, groundwater and drinking water, and shoreline sediments. Water samples are analyzed for tritium and gamma-emitting isotopes, and sediments are analyzed for gamma-emitting isotopes.

The waterborne pathway is also monitored by upstream and downstream semiannual collections of fish. The five most abundant recreational or commercial fish species are collected. The edible portions of the samples are analyzed for gamma-emitting isotopes.

Monthly composite samples of surface water from the Missouri River are collected from one indicator location (S02) and from one control location (S01). The surface water samples are composites of daily collections by automatic river samplers.

Onsite surface water from ponds is analyzed for tritium and gamma-emitting isotopes. The collection frequencies are semiannually.

To monitor possible sources of ground water contamination due to plant operations, non-potable ground water samples were collected monthly or quarterly from well locations both onsite and along the discharge pipeline. The samples were analyzed for tritium and gamma-emitting isotopes.

Potable well water samples are collected quarterly from the plant drinking water supply and neighboring property owners. The samples were analyzed for tritium and gamma-emitting isotopes.

Shoreline sediment is collected semiannually at the plant's intake (A) and discharge (C). These samples are collected within two feet of the edge of the water. The samples are analyzed for gamma-emitting isotopes.

3.2 Program Description (continued)

The direct ambient gamma radiation pathway is also considered. This exposure is monitored by thermoluminescent dosimeters (TLDs) at forty-four locations in and around the Callaway site. The TLDs are placed in 16 sectors around the plant as specified in the ODCM-RECS. Five of the TLD stations have neutron monitoring capability and three locations are designated as controls. TLDs are exchanged and analyzed quarterly.

Soil is collected annually from seven indicator locations (F2, F6, PR3, PR7, W2, W5 and W6) and two control locations (M9, W1) to monitor the terrestrial environment. The samples are analyzed for gamma-emitting isotopes.

3.3 Program Execution

The program was executed as described in the preceding section with the following exceptions.

(1) Airborne Particulate and Iodine: Total OOS time <2% for the year.

Air sampler A-1 had a loss of power on 10/23/2025, but the sampler missed only 3 hours and 4 minutes of the 168 hours of weekly sample. The samples were analyzed, and no deviations were found (CR#202506391).

Air station A-11 was found not running on 01/23/2025, 02/13/2025, 03/06/2025, 03/27/2025 and 04/10/2025. Due to low air volume, the required detection limit for I-131 could not be met for the CA-AIO-A11 air iodine samples collected on 03/27/2025 and 04/10/2025. Eventually troubleshooting resolved the issue to a faulty GFCI, which was finally replaced in June 2025 (CR#'s 202500378, 202500736, 202501150, 202501587, and 202502210).

Air station A-7 was unobtainable on 06/26/25 and the CA-AIO-A7 and CA-APT-A7 samples were missed. It was determined that there was a possible human performance error, and the sampler may not have been properly restarted the previous week (CR#202504052). Air Station A-7 was found not running on 12/18/2025. Due to low air volume, the required detection limit for I-131 could not be met for the CA-AIO-A7 air iodine sample (CR#202507464).

On 10/16/2025, it was discovered that air station A-8 had ~17.2 hours of missed sample time for the week. The samples were analyzed, and no deviations were found (CR# 202506259). Air Station A-8 was found not running on 10/30/2025 and experienced a power loss on 11/06/25, causing the CA-AIO-A8 and CA-APT-A8 samples to be missed (CR#'s 202506548, 202506675 and 202506677). Air sample location A8 did not collect a full week of sample on 11/13/2025. Due to low air volume, the required detection limits for Cs-134, Cs-137 and I-131 could not be met for the CA-APT-A8 and CA-AIO-A8 samples (CR#202506819).

(2) Direct Radiation:

While performing the quarterly environmental TLD change on 07/05/2025, the 2nd quarter TLD and cage were missing from station CA-IDM-32. This is an ODCM required sample. There was a new power pole installed, which is most likely why the TLD was missing (CR#202504243).

(3) Milk Collection: Milk is not ODCM required. Vegetables are sampled to meet the ODCM.

A milk sample was unable to be collected at location CA-MLK-M11 on 01/29/2025. The new milk provider was not prepared for the commitment to provide milk samples on time and

eventually changed their mind about being a provider. Milk is not an ODCM required sample (CR#202500480).

An insufficient sample size was collected for milk sample CA-MLK-V21 on 09/22/2025 and 09/24/2025. Both samples were combined and analyzed for gamma analysis. I-131 low level analysis was unable to be performed due to the low volume. This is not an ODCM required sample (CR#'s 202505808 and 202505828).

Milk sample CA-MLK-V21 was unavailable on 12/18/2025. This is not an ODCM required sample (CR#202507455).

(4) Food Products-Leafy Green Vegetables:

There were no environmental vegetation samples available for collection on 04/06/2025 (CR# 202502012).

Environmental vegetation samples CA-FPL-V20 and CA-FPL-V21 were unavailable on 05/06/2025 (CR#202503163).

Leafy green vegetable sample was unable to be obtained for CA-FPL-V19 on 06/03/2025 (CR#202503606).

The vegetation sample CA-FPL-V21 was unavailable on 08/04/2025 (CR# 202504856).

On 09/09/2025 vegetation samples CA-FPL-V19, CA-FPL-V16 and CA-FPL-V21 were unavailable due to excess heat (CR#202505470).

Environmental vegetation samples CA-FPL-V9, CA-FPL-V16, and CA-FPL-V19 were unattainable on 10/07/2025 as it was too late in the season for the crops to grow (CR#202506107).

(5) Drinking Water:

The drinking water at location CA-DWA-4 was unavailable on 02/18/2025 (CR# 202500781).

On 10/30/2025 the drinking water sample from location CA-DWA-21 was unavailable (CR# 202506547).

(6) Surface Water:

CA-SWA-S02 was not obtainable due to unsafe weather conditions on 02/18/25 and a daily grab sample was provided for analysis instead. (CR#202500778).

On 03/14/25 it was determined that the Portland River Sampler had not collected any sample. A daily grab sample was taken due to the sampler collecting a low hourly volume (CR# 202501309).

Part of the Portland river sampler checklist is to check the vault. On 10/23/2025, it was discovered that the vault water level was too high and was contacting the bottom of the electric motor for the pump. Job 25004082 was written to have the water pumped out. (CR#202506394).

The Portland river sampler was found under sampling on 12/13/2025 at 19:00. A grab sample was obtained, and sampling requirements were met (CR#202507389).

Upon entering Portland river sampler room on 12/15/2025, it was found that the sampling line and composites were frozen. Portland sampler has not been sampling when it gets below freezing (CR#202507396).

(7) Non-potable Wells:

During quarterly environmental sampling on 02/19/2025, 08/18/2025 and 11/14/2025 sample CA-WWA-U1MW-047 was found to have no measurable amount of water in it. The well was eventually removed from the program (CR#'s 202500801, 202501141 and 202506847).

CA-SWA-Sludge Lagoon #6 was not received at the laboratory with the other pond water samples collected on 03/10/2025. The sample was lost in transit, and a back-up sample was provided for analysis This sample is not ODCM required (CR#202503044).

Sample CA-WWA-U1MW-937D collected on 08/11/2025 arrived without a lid and leaked out. A back-up sample was provided for analysis and the client required detection limits were met (CR#202504979).

Sample CA-WWA-U1MW-939R collected on 08/11/2025 was initially positive for I-131 low level analysis. After counting the I-131 mount for gamma, it showed Pb-210, K-40, and Th-228 interferences which the laboratory believes caused the positive I-131 result. The station's backup sample was sent for re-analysis and the result was non-detect, but the detection limit of 1 pCi/L was unable to be met due to the age of the sample at the time of analysis (CR#202506403).

Sample CA-WWA-U1MW-GWS was inaccessible on 10/16/2025 and the sample was missed (CR#202506257).

3.4 Laboratory Procedures

Gamma-spectroscopic analyses were performed with HPGe detectors. Levels of iodine-131 in vegetation and concentrations of airborne iodine-131 in charcoal samples were also determined by gamma spectroscopy.

Tritium was measured by liquid scintillation.

The procedures and specifications followed in the laboratory for these analyses are as required in the Teledyne Brown Engineering Quality Assurance manual and are explained in the Teledyne Brown Engineering Analytical Procedures. A synopsis of analytical procedures used for the environmental samples is provided in Appendix B. In addition to internal quality control measures performed by Teledyne Brown Engineering, the laboratory also participates in an Interlaboratory Comparison Program. Participation in this program ensures that independent checks on the precision and accuracy of the measurements of radioactive material in environmental samples are performed. The results of the Interlaboratory Comparison are provided in Appendix A.

Radiological analyses of environmental media characteristically approach and frequently fall below the detection limits of state-of-the-art measurement methods. The "less than" values in the data tables were calculated from each specific analysis and are dependent on sample size, detector efficiency, length of counting time, chemical yield (when appropriate) and the radioactive decay factor from time of counting to time of collection. Teledyne Brown Engineering's analytical methods meet or are below the Lower Limit of Detection (LLD) requirements given in Table 2 of the USNRC Branch Technical Position, Radiological Monitoring Acceptable Program (November 1979, Revision 1). Appendix B contains a discussion of the LLD formulas.

Environmental TLDs are processed by Environmental Dosimetry Company, affiliated with Stanford Dosimetry, LLC.

3.5 Program Modifications

Milk Collection – Added M9 as Milk control and V21 as a new milk provider near the plant. Broadleaf vegetables will still be collected to satisfy the ODCM.

Drinking Water Collection – Removed Albert Miller's residence from drinking water due to no one living at this residence for over a year.

Vegetation Collection – Added V21 as a new food products provider, not ODCM required.

3.6 Detection and Reporting Limits

Table 5.3 gives the minimum required detection limits for radiological environmental sample analysis. For each sample type, the table lists the detection level for each isotope. The lower limit of detection (LLD) used in this report is described in NRC Regulatory Guide 4.1 Rev. 1, "Program for Monitoring Radioactivity in the Environs of Nuclear Power Plants" and the NRC Radiological Assessment Branch Technical Position, Rev. 1, November 1979, "An Acceptable Radiological Environmental Monitoring Program".

3.7 Land Use Census

The Land Use Census is performed annually during the growing season. In 2025 the field inspection of the sectors was conducted October 14, 2025, within a five-mile radius of the Callaway Energy Center. The area around the plant was divided into 16 meteorological sectors. The locations of the nearest resident, nearest milk animal, and nearest garden of greater than 500 square feet producing broadleaf vegetation were identified.

The results of the census are presented in Table 5.4. The table includes radial direction and distance from the Callaway Energy Center for each location. The bearings listed in Table 5.4 were measured from the Callaway Plant to the sample location.

There are no changes to the closest residents in 2025. No milking animals were located during the survey, but Andy Trachsel is a potential new participant who has a farm and shared he anticipates having a garden next year. All residents included in the summary report were verified by the Callaway County Assessor's GIS aerial photography.

The Missouri Department of Natural Resources has not identified any new water wells along the Mud Creek or Logan Creek corridors.

The US Army Corps of Engineers was contacted, and they confirmed that no new drinking water intakes have been located along the Missouri River within ten (10) river miles downstream from the Callaway Plant. Also, no irrigation uses of the Missouri River were identified between the discharge point and Portland, MO during the survey.

3.8 Errata from previous Annual Radiological Environmental Operating Reports

None.

4.0 RESULTS AND DISCUSSION

All collections and analyses were made as scheduled, except for those listed in Table 5.5.

Results are summarized in Table 5.6 as recommended by the Nuclear Regulatory Commission. For each type of analysis and sample medium, the table lists the mean and range of all indicator and control locations, as well as that location with the highest mean and range.

The tabulated results of all measurements are not included in this section, although references to these results will be made in the discussion. A complete tabulation of results for 2025 is contained in Part II of the Annual Report on the Radiological Environmental Monitoring Program for the Callaway Energy Center.

4.1 Atmospheric Nuclear Detonations and Nuclear Accidents

The Fukushima Daiichi nuclear accident occurred March 11, 2011. There were no reported accidents involving significant release to the environment at nuclear reactor facilities in 2025. The last reported atmospheric test was conducted on October 16, 1980, by the People's Republic of China. There were no reported atmospheric nuclear tests in 2025.

4.2 Program Findings

Airborne Particulates and Iodine

No gamma-emitting isotopes were identified other than naturally occurring Be-7. There was no I-131 activity detected in any of the charcoal canister samples.

Air sampling for 2025 indicates no radiological effects of plant operation.

Direct Radiation (TLDs)

Forty-four gamma sensitive TLDs were placed in 16 sectors around the Callaway site each quarter. Measurements from forty-one indicator locations averaged 14.88 mrem/quarter and the three control locations averaged 14.13 mrem/quarter. Readings ranged from 10.17 to 18.34 mrem/quarter, with the highest quarterly average from the indicator location CA-IDM-32, averaging 17.25 mrem/quarter. The TLD readings were consistent with the results for the years 2000 through 2025 as detailed in table 5.7.

Five neutron sensitive TLDs were placed in locations at the Site Boundary closest to the Independent Spent Fuel Storage Facility Installation (ISFSI) and at a control location approximately 14 miles from the site. There was no significant measurable neutron dose and there was no effect from the ISFSI in 2025.

Milk

No milking animals were located during the 2025 Land Use Census survey. Sampling was restored at M9 as a milk control location and V21 as a new milk provider. However, there are not enough sampling locations to fulfill the ODCM milk sampling requirement, so leafy green (broadleaf) vegetation sampling was still performed. There was no I-131 activity detected in milk samples. No gamma-emitting isotopes were detected in milk samples except for naturally occurring potassium-40.

4.2 Program Findings (continued)

Broadleaf Vegetation

There was no I-131 activity detected in broadleaf vegetation samples. No gamma-emitting isotopes were detected in broadleaf vegetation samples except for naturally occurring potassium-40. Vegetation data for 2025 show no radiological effects of plant operation.

Fish

Edible portions of fish were analyzed by gamma spectroscopy. No gamma-emitting isotopes, except for naturally occurring potassium-40, were detected in fish.

Soil

Cesium-137 activity was detected at four of the seven indicator sample locations at an average concentration of 228 pCi/kg dry. The cesium-137 activity is consistent with levels observed from 1999 through 2024; these levels are attributable to the deposition of fallout from previous decades.

Surface Water

Tritium was detected in five out of the twelve samples tested in 2025 at the downstream location S02 ranging from 344 pCi/L to 831 pCi/L. No gamma-emitting isotopes were detected in any of the samples taken in 2025.

Surface Water, Ponds

No tritium or gamma activity was detected in any of the twelve pond samples analyzed in 2025.

Drinking Water Wells (potable water)

Fifty-nine samples from fifteen different locations were analyzed for tritium and gamma-emitting isotopes in 2025. No tritium or gamma-emitting isotopes were detected.

Wells and Ponds (non-potable water)

Eight groundwater samples from deep wells F-05 and F-15 were analyzed for tritium and gamma-emitting isotopes. No tritium or gamma emitting isotopes detected from any of the deep well samples taken in 2025.

Twenty-five samples from the wells that were part of the limited site investigation (LSI) in 2014 were analyzed for tritium in 2025 including wells CA-WWA-U1MW-031, CA-WWA-U1MW-034, CA-WWA-U1MW-036, CA-WWA-U1MW-039, CA-WWA-U1MW-047, CA-WWA-U1MW-058 and CA-WWA-U1MW-059. Tritium activity was detected in one of the wells, CA-WWA-U1MW-031 at a concentration of 228 pCi/L. These levels were a slight decline from 2024 and show that the contamination is being remedied by natural attenuation as described in previous AREOR's.

Wells, CA-WWA-U1MW-GWS, CA-WWA-U1MW-937B, CA-WWA-U1MW-937D, CA-WWA-U1MW-939R, CA-WWA-U1MW-940, CA-WWA-U1MW-941 and CA-WWA-U1MW-IFSM (sump) are in the Plant Protected Area adjacent to the power block. As described in previous AREOR's, the tritium activity in the wells within the power block are believed to be the result of washout from gaseous effluents. The 2025 results are consistent with the results from 2015 through 2024 and demonstrate the continued decline from previous years due to natural attenuation.

4.2 Program Findings (continued)

Sediments

Two samples of shoreline sediments were collected in March and again in October of 2025 at both an indicator and a control location and analyzed for gamma-emitting isotopes. No gamma-emitting isotopes were detected except for naturally occurring potassium-40 in any of the sediment samples.

5.0 TABLES

Table 5.1. Sampling Locations. (TLDs)

Location Code	Distance / Direction ¹	Description	Sample Types ²
1a	10.8 mi. 310° NW	City of Fulton on Hwy Z, 0.65 mi. E of Bus. 54, W of Campus Apartments	IDM
3	1.2 mi. 308° NW	0.1 mi. West of Hwy CC on Gravel Rd., 0.8 mi. South Hwy O	IDM
5	1.3 mi. 79° ENE	Meteorological Tower	IDM
6	2.0 mi. 274° W	Cty Rd. 428, 1.2 mi. West of Hwy CC	IDM
7	1.4 mi. 184° S	Cty Rd. 459, 2.6 mi. North of Hwy 94	IDM
9	3.8 mi. 183° S	NW Side of the Cty Rd. 459 and Hwy 94 Junction	IDM
10	3.9 mi. 159° SSE	Hwy 94, 1.8 mi. East of Cty Rd. 459	IDM
11a	4.7 mi. 139° SE	City of Portland	IDM
14	4.9 mi. 122° ESE	SE Side of Intersection Hwy D and Hwy 94	IDM
17	3.7 mi. 88° E	Cty Rd. 4053, 0.3 mi. E of Hwy 94	IDM
18a	3.7 mi. 67° ENE	East side of Hwy D, 0.5 mi. South of Hwy O	IDM
20	4.7 mi. 46° NE	City of Readsville	IDM
21	3.8 mi. 23° NNE	Cty Rd. 155, 1.9 mi. North of Hwy O	IDM
22a	0.9 mi. 10° NNE	Cty Rd 448, 0.9 mi south of HWY O, co-located with air station A8	IDM
23	6.6 mi. 15° NNE	City of Yucatan	IDM
26 ³	11.7 mi. 82° E	Town of Americus	IDM
27 ³	9.3 mi. 114° ESE	Town of Bluffton	IDM
30a	4.4 mi. 206° SSW	City of Steedman, N side of Belgian Dr., 150 ft. East of Hwy CC	IDM
31a	7.8 mi. 224° SW	City of Mokane, Jct. Hwy C and Cty Rd. 400, 0.9 mi. N. of Hwy 94	IDM
32	5.4 mi. 250° WSW	Hwy VV, 0.6 mi. west of Cty Rd. 447	IDM
32a	5.0 mi. 243° WSW	Cty Rd. 447	IDM
33	7.4 mi. 272° W	City of Hams Prairie, SE of Hwy C and Hwy AD Junction	IDM
34	9.5 mi. 292° WNW	NE Side of Hwy C and Cty Rd. 408 Junction	IDM
35	5.8 mi. 340° NNW	City of Toledo	IDM
36	4.9 mi. 7° N	Cty Rd. 155, 0.8 mi. South of Cty Rd. 132	IDM
37	0.5 mi. 195° SSW	Cty Rd. 459, 0.9 mi. South of Hwy CC	IDM
38	4.6 mi. 334° NNW	Cty Rd. 133, 1.5 mi. South of Hwy UU	IDM
39	5.4 mi. 312° NW	Cty Rd. 111	IDM
39a	5.0 mi. 308° NW	Cty Rd. 111	IDM
40	4.2 mi. 292° WNW	NE Side of Cty Rd. 112 and Hwy O Junction	IDM
41	5.2 mi. 277° W	Hwy AD, 2.5 mi. East of Hwy C	IDM
42	4.4 mi. 231° SW	Cty Rd. 447, 2.6 mi. North of Cty Rd. 463	IDM
43	0.5 mi. 223° SW	Cty Rd. 459, 0.7 mi. South of Hwy CC	IDM
44	1.7 mi. 254° WSW	Hwy CC, 1.0 mi. South of Cty Rd. 459	IDM
45	1.0 mi. 285° WNW	Cty Rd. 428, 0.1 mi. West of Hwy CC	IDM
46	1.5 mi. 328° NNW	NE Side of Hwy CC and Cty Rd. 466 Intersection	IDM
47	1.0 mi. 10° N	Cty Rd. 448, 0.9 mi. South of Hwy O	IDM
48	0.4 mi. NE	Cty Rd. 448, 1.5 mi. South of Hwy O, Plant Security Sign Post	IDM
49	1.6 mi. 95° E	Cty Rd. 448, Reform Wildlife Mgmt. Parking Area, Gate Post.	IDM
50	0.9 mi. 168° SSE	Cty Rd. 459, 3.3 mi. North of Hwy 94	IDM
51a	0.3 mi. 150° SE	Owner Control Fence, SE of the Water Treatment Plant	IDM
52	0.4 mi. 111° ESE	Light Pole Near the East Plant Security Fence	IDM
60 ³	13.5 mi. 224° SW	Just past Tebbetts City sign	IDM

Table 5.1. Sampling Locations. (TLDs, continued)

Location Code	Distance / Direction ¹	Description	Sample Types ²
60N ³	13.5 mi 224° SW	Co-located with location 60	IDM
61	1.9 mi 334° NNW	Community of Reform, Corner of CC and O	IDM
61N	1.9 mi 334° NNW	Co-located with location 61	IDM
62N	1.2 mi. 308° NW	Co-located with location 3	IDM
63N	0.9 mi. 10° NNE	Co-located with air station A8 and location 22a	IDM
64N	1.0 mi. 285° WNW	Co-located with location 45	IDM

Table 5.1. Sampling Locations (Airborne Radioiodine and Particulate samples, Surface Ponds, Potable Water)

A1	1.3 mi. 79° ENE	Meteorological Tower	APT, AIO
A7	9.5 mi. 312° NW	C. Bartley Farm, Fulton, MO	APT, AIO
A8	0.9 mi. 10° NNE	County Road 448, 0.9 miles South of Hwy 0	APT, AIO
A9	1.9 mi. 334° NNW	Community of Reform	APT, AIO
A10	0.89 mi 276° W	EOF Parking lot	APT, AIO
A11	0.71 mi 166° SSE	Sludge lagoons lift pumps area	APT, AIO
3	2.9 mi. 168° SSE	Potable water, County Road 448 Ward Residence	DWA
5	2.5 mi. 153° SSE	Potable water, County Road 448 Brucker Brothers Farm	DWA
7	2.1 mi. 108° ESE	Potable water, County Road 448 S. Kriete Residence	DWA
8 ⁴	3.4 mi. 193° SSW	Potable water, County Road 457 Curry Residence	DWA
9	2.9 mi. 204° SSW	Potable water, County Road 457 Clardy Residence	DWA
10	2.7 mi. 208° SSW	Potable water, County Road 457 T. Dillon Residence	DWA
12	3.6 mi. 165° SSE	Potable water, County Road 464 J. Dillon Residence	DWA
21	2.4 mi. 120° ESE	Potable water, County Road 469 Baumgarth Residence	DWA
22	4.8 mi. 140° SE	Potable water, State Road 94 Plummer Residence	DWA
23	5.6 mi. 142° SE	Potable water, County Road 466 Curdt Residence	DWA
24	2.9 mi. 203° SSW	Potable water, County Road 457 Farley Residence	DWA
25	1.89 mi. 79° E	Potable water, County Road 448 M. Kriete Residence	DWA
V16	1.64 mi. 255° WSW	Potable water, Hwy CC Wallendorf Farm, Steedman, MO	DWA
V19	3.28 MI. 162° SSE	Potable water, Dillon Drive, Dillon Farm, Portland, MO	DWA
PW1	Callaway Cafeteria, 0.13 mi. 234° SW	Potable water, Unit 1 Construction well #3 open from 400'-1400'	DWA
Pond 01	0.6 mi. 264° W	Fishing Pond	SWA
Pond 02	0.7 mi. 232° SW	Fishing Pond	SWA
Outfall 010	0.6 mi. 42° NE	Stormwater Run-Off Pond	SWA
Wetlands 01	0.6 mi. 152° SSE	Wetlands Pond #1	SWA
Wetlands 02	0.7 mi. 160° SSE	Wetlands Pond #2	SWA
Sludge Lagoon	~0.8 mi. 153° SSE ⁵	In-service Sludge Lagoon	SWA
S01 ³	4.8 mi. 150° SSE	555 feet Upstream of Discharge North Bank	SWA
S02	4.9 mi. 138° SE	1.1 River Miles Downstream of Discharge North Bank	SWA

Table 5.1. Sampling Locations, Non-potable Groundwater Wells

Location Code	Distance / Direction ¹	Description	Sample Types ²
U1MW-937B	Plant Peninsula Area, 0.04 mi. 209° SSW	Monitoring Well, West of the Turbine Bldg.	WWA
U1MW-937D	Plant Peninsula Area, 0.1 mi. 92° E	Monitoring Well, North of Discharge Monitor Tanks	WWA
U1MW-939R	Plant Peninsula Area, 0.05 mi. 109° ESE	Monitoring Well, East of the Fuel Bldg.	WWA
U1MW-940	Plant Peninsula Area, 0.05 mi. 78° ENE	Monitoring Well, West of the Radwaste Bldg.	WWA
U1MW-941	Plant Peninsula Area, 0.07 mi. 81° E	Monitoring Well, West of the Radwaste Bldg.	WWA
U1MW-GWS	Plant Peninsula Area, 0.02 mi. 135° SE	Ground Water Sump, West of Reactor Bldg. and Fuel Bldg.	WWA
U1MW-ISFSI	ISFSI sump, 0.08 mi. 21° NNE	Near ISFSI pad	WWA
U1MW-004	3.7 mi. 165° SSE	South of Dillon residence, Groundwater Monitoring Well	WWA
U1MW-005	3.8 mi. 160° SSE	South of Brownlee / Hudson residence, Groundwater Monitoring Well	WWA
U1MW-006	3.0 mi. 171° S	South of Ward Residence, Groundwater Monitoring Well	WWA
U1MW-010	3.1 mi. 173° S	Old Pipeline Bed, Groundwater Monitoring Well	WWA
U1MW-013	0.8 mi. 159° SSE	Pipeline Corridor, south of sludge ponds	WWA
U1MW-014	3.7 mi. 171° S	Pipeline Corridor, near manhole 6B	WWA
U1MW-015	3.9 mi. 162° SSE	Pipeline Corridor, North of HWY 94.	WWA
U1MW-016	4.5 mi. 151° SSE	Pipeline Corridor, near heavy haul road at intake structure	WWA
U1MW-017	3.68 mi. 171° S	Pipeline Corridor, near manhole 6B	WWA
U1MW-018	3.75 mi. 172° S	Pipeline Corridor, near manhole 6B	WWA
U1MW-019	3.71 mi. 172° S	Pipeline Corridor, near manhole 5	WWA
U1MW-020	3.88 mi. 164° SSE	Pipeline Corridor, near manhole 3B	WWA
U1MW-031	0.18 mi. 78° ENE	~1m from manhole 86-2 & 1m from HDPE discharge pipeline	WWA
U1MW-034	0.21 mi. 98° E	~130m from manhole 86-2, HDPE discharge line bedding	WWA
U1MW-036	0.26 mi. 122° ESE	~300m from MH 86-2, HDPE discharge line bedding at cross connection pipe	WWA
U1MW-039	0.61 mi. 168° SSE	~1100m from manhole 86-2, HDPE discharge line bedding outside OCA	WWA
U1MW-047	4.56 mi. 151° SSE	Upstream side of HDPE gate valve vault at intake structure inside HDPE pipeline bedding	WWA
U1MW-058	0.31 mi. 132° SE	~400m from manhole 86-2, Techite discharge line bedding	WWA
U1MW-059	1.04 mi. 166° SSE	~1700m from MH86-2, Techite discharge line bedding outside OCA	WWA
U2 MW 2S	1.8 mi. 5° N	Located on the periphery of the plateau	WWA
U2 MW 5S	1.1 mi. 261° W	Located on the periphery of the plateau	WWA
U2 MW 8	0.4 mi. 12° NNE	Located radially outward from central part of the plateau	WWA
U2 MW 16	2.9 mi. 203° SSW	Located along Mud Creek, Farley Property, screened for CJC aquifer	WWA
F05	0.9 mi. 169° S	CJC aquifer monitoring well	WWA
F15	0.4 mi. 29° NNE	Outside OCA fence in center portion of plateau, screened for CJC aquifer	WWA

Table 5.1. Sampling Locations, Soil, Food Products, Milk, Fish, and Sediments.

Location Code	Distance / Direction ¹	Description	Sample Types ²
F2	1.0 mi. 235° SW	Callaway Plant Forest Ecology Plot F2.	SOL
F6	1.6 mi. 51° NE	Callaway Plant Forest Ecology Plot F6.	SOL
PR3	0.95 mi. 108° ESE	Callaway Plant Forest Ecology Plot PR3.	SOL
PR7	0.46 mi. 320° NNW	Callaway Plant Forest Ecology Plot PR7.	SOL
W1 ³	0.52 mi. 150° SSE	Callaway Plant Wetlands #1, High Ground.	SOL
W2	0.55 mi. 155° SSE	Callaway Plant Wetlands #1, Inlet Area.	SOL
W5	~0.8 mi. 153° SSE ⁵	In-service Sludge Lagoon.	SOL
W6	0.67 mi. 154° SSE	Callaway Plant Wetlands #2, inlet area	SOL
M9 ³	13 mi. 228° SW	Ferguson Farm, Tebbetts, MO.	SOL
M9 ³	13 mi. 228° SW	Ferguson Farm, Tebbetts, MO.	MLK
V21	1.42 mi. 265° WSW	Justin Miller, 8279 State Road CC Steedman, MO	MLK
V9	1.9 mi. 294° WNW	Meehan Farm, Steedman, MO	FPL
V16	1.64 mi. 255° WSW	Wallendorf Farm, Steedman, MO	FPL
V19	3.28 mi. 162° SSE	Richard and Amy Dillon Farm	FPL
V20	17.73 mi. 238° WSW	Nathaniel Kline, 3651 State Road AA, Holts Summit, MO	FPL
V21	1.42 mi. 265° WSW	Justin Miller, 8279 State Road CC Steedman, MO	FPL
A ^{3,6}	~4.8 mi. 150° SSE	Between 0.6 and 10.0 river miles upstream of the plant intake.	AQF
A ³	~4.8 mi. 150° SSE	Upstream of the plant intake.	AQS
C ⁶	~4.9 mi. 138° SE	Downstream, of the plant discharge, between the confluence of the Missouri River and Logan Creek and the Portland boat ramp	AQF
C	~4.9 mi. 138° SE	Vicinity of Portland – north bank	AQS

¹ Distances are measured from the midpoint of the two reactors as described in Final Safety Analysis Report (FSAR) Sec. 2.1.1.1.

² AIO = Air Iodine, APT = Air Particulate, AQF = Fish, AQS = Sediment, FPL = Leafy Green Vegetables, FC = Food Crops, IDM = TLD, MLK = Milk, SOL = Soil, SWA = Surface Water, DWA = Drinking Water, WWA = Ground Water.

³ Control Location.

⁴ Property ownership changed from Brandt to Curry in 2022.

⁵ The coordinates of the in-service sludge lagoon are determined at the time of sampling in accordance with HTP-ZZ-07101-DTI-REMP-SMPL-SCHED.

⁶ The expanded collection areas provide sufficient habitat to collect the required number of species, see HTP-ZZ-07101-DTI-REMP-SMPL-SCHED.

Table 5.2. Collection Frequencies and Required Analyses ¹ (January 1 through December 31, 2025)

Sample Type	Media Code	Collection Frequency	Required Analyses
Direct radiation	IDM	Quarterly	Gamma dose for each sample. Neutron dose for the samples monitoring ISFSI direct radiation.
Airborne iodine	AIO	Weekly	¹³¹ I
Air particulate	APT	Weekly	PGE ³ each sample
Surface water (river)	SWA	Monthly composite	PGE and ³ H
Surface water (onsite ponds)	SWA	Semiannually	PGE and ³ H. If contaminated with gamma emitting nuclides of plant origin, analyze for HTD ⁴ nuclides.
Groundwater (not potable)	WWA	Quarterly ⁵	PGE and ³ H. If contaminated with gamma emitting nuclides of plant origin, analyze for HTD ⁴ nuclides. ⁶
Well water-potable	DWA	Quarterly	PGE and ³ H. If contaminated with gamma emitting nuclides of plant origin, analyze for HTD ⁴ nuclides.
Shoreline sediment	AQS	Semiannually	PGE
Sludge pond sediment	SOL	Annually	PGE
Soil	SOL	Annually	PGE
Milk animal	MLK	Semimonthly when animals are on pasture, monthly other times	PGE and ¹³¹ I
Leafy green vegetables	FPL	Monthly when available ²	PGE and ¹³¹ I
Fish	AQF	Semiannually	PGE on edible portion

¹ Samples required by ODCM unless specified otherwise.

² The growing season is defined as the months April 1- November 1 but will vary according to weather conditions.

³ Principal Gamma Emitters (PGE) are defined as ⁵⁴Mn, ⁵⁹Fe, ⁵⁸Co, ⁶⁰Co, ⁶⁵Zn, ⁹⁵Zr/Nb, ¹³⁴Cs, ¹³⁷Cs, ¹⁴⁰Ba/La and other gamma- emitting nuclides that may be identified during the gamma spectroscopy analysis.

⁴ Hard to Detect (HTD) nuclides are defined as ⁸⁹Sr, ⁹⁰Sr, ⁵⁵Fe, ⁶³Ni, ²³⁷Np, ²³⁸Pu, ^{239/240}Pu, ²⁴¹Pu, ²⁴¹Am, ²⁴²Cm and ^{243/244}Cm.

⁵ Monthly for locations U1MW-937B, U1MW-937D, U1MW-939R, U1MW-940, U1MW-941 and U1MW-GWS.

⁶ Wells ISFSI Sump, U1MW-18, U1MW-19, U1MW-20, U1MW-31, U1MW-34, U1MW-36, U1MW-39, U1MW-47, U1MW-58, U1MW-59, U2MW-2S, U2MW-5S, U2MW-8, and U2MW-16 are analyzed for tritium only.

Table 5.3. Minimum Required Detection Capabilities for REMP Sample Analysis¹

Analysis	Water (pCi/L)	Airborne (pCi/m ³)	Fish (pCi/kg wet)	Milk (pCi/L)	Food Products (pCi/kg wet)	Non-Food Products (pCi/kg wet)	Soil and Sediment (pCi/kg dry)
H-3	3000/2000 ³					3000	
Mn-54	15		130				
Fe-59	30		260				
Co-58/60	15		130				
Zn-65	30		260				
Zr-Nb-95 ²	15						
I-131	1000/1 ³	0.07		1	60		
Cs-134	15	0.05	130	15	60	60	150
Cs-137	18	0.06	150	18	80	80	180
Ba-La-140 ²	15			15			

¹ This list does not mean only these nuclides will be detected and reported. Other peaks which are measurable and identifiable will be reported.

² Total activity, parent plus daughter activity.

³ LLDs for Surface and Drinking / Ground water are the same, with the exception of H-3 and I-131. The Drinking / Ground water LLDs for H-3 and I-131 are 2000 and 1 pCi/liter respectively.

Table 5.4 2025 Land Use Census Results.

Closest Receptor in Miles

Sector	Residence	Garden ^{1, 2}	Milk ¹
N(A)	2.37	NI	NI
NNE(B)	2.16	2.97	NI
NE(C)	2.26	NI	NI
ENE(D)	2.86	NI	NI
E(E)	3.51	NI	NI
ESE(F)	2.11	4.47	NI
SE(G)	2.72	NI	NI
SSE(H)	3.11	3.28	NI
S(J)	2.86	NI	NI
SSW(K)	2.38	NI	NI
SW(L)	2.63	2.72	NI
WSW(M)	1.20	1.96	NI
W(N)	1.56	3.55	NI
WNW(P)	1.93	1.93	NI
NW(Q)	2.07	NI	NI
NNW(R)	1.81	2.12	NI

¹ NI = None Identified.

² Broadleaf Vegetation

Table 5.5. Missed Collections and Analyses, Callaway Energy Center

Sample Type	Analysis	Location(s)	Collection Date or Period	Comments
MLK	Gamma	CA-MLK-M11	01/29/2025	Unable to collect milk sample (CR#202500480).
DWA	Gamma	CA-DWA-4	02/18/2025	Sample was unavailable (CR#202500781).
WWA	H-3	CA-WWA-U1MW-047	02/18/2025	No water due to dry well (CR#202500801).
FPL	Gamma	(CA-FPL-V9, CA-FPL-V16, CA-FPL-V19, CA-FPL-V20)	04/06/2025	No environmental vegetation samples available (CR#202502012).
FPL	Gamma	(CA-FPL-V20, CA-FPL-V21)	05/06/2025	Vegetation samples unavailable (CR#202503163).
FPL	Gamma	CA-FPL-V19	06/03/2025	Vegetation sample unavailable (CR#202503606)
APT	Gamma	CA-APT-A7	06/26/2025	Air station A-7 found without power (CR#202504052).
AIO	I-131	CA-AIO-A7	06/26/2025	Air station A-7 found without power (CR#202504052).
IDM	Gamma	CA-IDM-32	07/05/2025	TLD missing from station 32 (CR#202504243).
FPL	Gamma	CA-FPL-V21	08/06/2025	Vegetation sample unavailable (CR#202504856).
WWA	H-3	CA-WWA-U1MW-047	08/18/2025	No water due to dry well (CR#202501141).
FPL	Gamma	(CA-FPL-V16, CA-FPL-V19, CA-FPL-V21)	09/09/2025	Vegetation samples unavailable (CR#202505470).
DWA	Gamma	CA-DWA-21	11/06/2025	Sample was unavailable (CR#202506547).
APT	Gamma	CA-APT-08	11/06/2025	Air station A-8 found without power (CR#202506677).
AIO	I-131	CA-AIO-08	11/06/2025	Air station A-8 found without power (CR#202506677).
WWA	H-3	CA-WWA-U1MW-047	11/14/2025	No water due to dry well (CR#202506847).
MLK	Gamma	CA-MLK-V21	12/18/2025	Unable to collect milk sample (CR#202507455).

Table 5.6 Radiological Environmental Monitoring Program Summary

Sample Type (Units)	Type and Number of Analyses(a)		Req'd LLD(b)	Indicator Locations Mean, Fraction, Range (c)	Location with Highest Annual Mean		Control Locations Mean, Fraction, Range (c)	Number Non-Routine Results(e)
					Location (d)	Mean, Fraction, Range (c)		
Waterborne Pathway								
Surface Water (pCi/L)	H-3	24	3000	484 (5/12) (344-831)	-	-	ND	0
	GS	24	(b)	ND	-	-	ND	0
Surface Water, Ponds (pCi/L)	H-3	12	3000	ND	-	-	None	0
	GS	12	(b)	ND	-	-	None	0
Potable Wells (pCi/L)	H-3	59	2000	ND	-	-	ND	0
	GS	59	(b)	ND	-	-	ND	0
	I-131	59	1	ND	-	-	ND	0
Wells (non-potable) (pCi/L)	H-3	172	3000	437 (26/172) (187-1460)	CA-U1MW-GWS 0.02 mi. 135° / SE	579 (6/11) (222-1460)	None	0
	GS	116	(b)	ND	-	-	None	0
	I-131	116	1	ND	-	-	None	0
Sediments (pCi/kg) dry	Cs-134	4	150	ND	-	-	ND	0
	Cs-137	4	180	ND	-	-	ND	0
Airborne Pathway								
Airborne Particulates (pCi/m ³)	GS	310	(b)	ND	-	-	None	0
Airborne Iodine (pCi/m ³)	I-131	310	0.07	ND	-	-	None	0
Soil								
Soil (pCi/kg) dry	Cs-134	9	150	ND	-	-	ND	0
	Cs-137	9	180	228 (4/7) (165-388)	F-006 1.6 mi. 51° / NE	388 (1/1)	ND	0

Table 5.6 Radiological Environmental Monitoring Program Summary

Sample Type (Units)	Type and Number of Analyses(a)		Req'd LLD(b)	Indicator Locations Mean, Fraction, Range (c)	Location with Highest Annual Mean		Control Locations Mean, Fraction, Range (c)	Number Non-Routine Results(e)
					Location (d)	Mean, Fraction, Range (c)		
Ingestion Pathway								
Food Products Leafy Green Vegetables (pCi/kg wet)	GS	56	(b)	ND	-	-	ND	0
Fish Edible Flesh (pCi/kg) wet	GS	20	(b)	ND	-	-	ND	0
Milk (pCi/L)	I-131	27	1	ND	-	-	ND	0
	GS	27	(b)	ND	-	-	ND	0
Direct Radiation								
(Quarterly TLDs) (mrem/Qtr)	Gamma	176	-	14.9 (164/164) (10.2-18.3)	CA-IDM-32 5.4 mi. 250° WSW	17.2 (4/4) (15.6-18.3)	14.1 (12/12) (10.1-17.5)	0
	Neutron	20	-	ND	-	-	ND	0

(a) GS = gamma spectroscopy.

(b) LLD = nominal lower limit of detection based on a 4.66 sigma counting error for background sample. LLD's for gamma spectroscopy are in Table 5.3.

(c) Mean and range are based on detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (F). ND= not detected.

(d) Locations are specified by station code (Table 5.2) and distance (miles) and direction relative to reactor site.

(e) Non-routine results are those which exceed ten times the control station value. If no control station value is available, the result is considered non-routine if it exceeds ten times the preoperational value for the location.

(f) Units: pCi/L.

Table 5.7 Direct Radiation Dose (mrem/90 days) for the Period 2000-2025.

Station Code	Mean	3 σ	Mean + 3 σ	Max
CA-IDM-1A	15.7	2.7	18.5	18.0
CA-IDM-3*	16.7	2.9	19.6	20.0
CA-IDM-5	14.1	2.8	16.9	17.1
CA-IDM-6	16.0	3.6	19.6	19.0
CA-IDM-7	15.9	3.1	19.0	19.0
CA-IDM-9	14.8	2.5	17.3	17.0
CA-IDM-10	16.8	2.7	19.5	19.3
CA-IDM-11A	16.8	3.0	19.8	19.3
CA-IDM-14	15.7	2.6	18.3	18.7
CA-IDM-17	15.7	3.2	18.9	18.3
CA-IDM-18A	15.9	4.3	20.2	18.9
CA-IDM-20	16.3	2.9	19.2	19.3
CA-IDM-21	16.1	3.4	19.5	19.0
CA-IDM-22A*	14.0	5.3	19.3	18.0
CA-IDM-23	16.4	2.5	19.0	19.0
CA-IDM-26(C)	11.2	2.3	13.5	13.1
CA-IDM-27(C)	17.0	2.8	19.8	20.0
CA-IDM-30A	15.5	2.7	18.2	18.2
CA-IDM-31A	16.7	2.7	19.4	19.0
CA-IDM-32	16.6	2.8	19.4	19.0
CA-IDM-32A	15.8	3.8	19.6	20.0
CA-IDM-33	15.8	2.6	18.4	18.0
CA-IDM-34	15.2	2.8	18.0	18.0
CA-IDM-35	14.6	2.6	17.2	17.3
CA-IDM-36	15.1	3.6	18.7	18.7
CA-IDM-37	15.6	2.7	18.4	18.0
CA-IDM-38	11.2	2.3	13.5	13.9
CA-IDM-39	15.5	3.2	18.7	19.0
CA-IDM-39A	16.0	3.5	19.5	19.0
CA-IDM-40	16.6	3.4	20.0	19.2
CA-IDM-41	15.5	3.3	18.8	19.0
CA-IDM-42	13.5	2.5	16.0	16.2
CA-IDM-43	15.7	2.9	18.6	18.7
CA-IDM-44	16.0	3.3	19.2	19.0
CA-IDM-45*	14.5	3.2	17.8	20.0
CA-IDM-46	16.2	2.8	19.0	19.9
CA-IDM-47	15.4	2.8	18.2	18.0
CA-IDM-48	16.3	2.8	19.2	19.0
CA-IDM-49	15.1	3.2	18.3	18.0
CA-IDM-50	16.0	3.0	19.0	20.0
CA-IDM-51A	16.8	2.7	19.6	19.8
CA-IDM-52	16.4	2.8	19.3	19.1
CA-IDM-60(C)*	15.8	2.7	18.5	18.0
CA-IDM-61*	14.1	3.5	17.6	15.7

* ISFSI monitoring
(C) Control location

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APPENDIX A
SUMMARY OF INTRALABORATORY COMPARISONS

INTERLABORATORY COMPARISION PROGRAM

The purpose of the Interlaboratory Comparison Program (ICP) is to confirm the accuracy of results produced by Teledyne Brown Engineering. Samples of various matrices (i.e. soil, water, vegetation, air filters, and milk) are spiked with known amounts of radioactivity by commercial vendors of this service and by departments within the government. TBE participates in three programs. Two are commercial, Analytics Inc. and Environmental Resource Associates (ERA) and one is a government sponsored program, the Department of Energy's (DOE) Mixed Analyte Performance Evaluation Program (MAPEP). The DOE's MAPEP was created to mimic conditions found at DOE sites which do not resemble typical environmental samples obtained at commercial nuclear power facilities. All three programs are blind performance evaluation studies in which samples with known activities are sent to TBE for analysis. Once analyzed, TBE submits the results to the respective agency for evaluation. The results of these evaluations are published in TBE's quarterly and annual QA reports.

The National Institute of Standards and Technology (NIST) is the approval authority for laboratory providers participating in Intercomparison Study Programs; however, at this time, there are no approved laboratories for environmental and/or radiochemical isotope analyses.

For the TBE laboratory, 157 out of 164 required analyses performed met the specified acceptance criteria. Seven analyses did not meet the specified acceptance criteria and were addressed through the TBE Corrective Action Program. A summary of the NCR dispositions is provided.

DOE Mixed Analyte Performance Evaluation Program (MAPEP)

Teledyne Brown Engineering - Environmental Services

Month/Year	Identification Number	Matrix	Nuclide	Units	TBE Reported Value	Known Value ^(a)	Acceptance Range	Acceptance Ratio (%)	Evaluation ^(b)
Mar 2025	25-MaS52	Soil	Ni-63	Bq/kg	964	1560	1092-2028	61.8	N ⁽¹⁾
Mar 2025	25-MaS52	Soil	Tc-99	Bq/kg	659	725	508-943	90.9	A
Mar 2025	25-MaS52	Soil	Th-228	Bq/kg	44.3	44.4	31.1-57.7	99.8	A
Mar 2025	25-MaS52	Soil	Th-230	Bq/kg	46.4	47	32.9-61.1	98.7	A
Mar 2025	25-MaS52	Soil	Th-232	Bq/kg	39.9	41.4	29.0-53.8	96.4	A
Mar 2025	25-MaSU52	Urine	Cs-134	Bq/L	-0.0104		False Positive	N/A	A
Mar 2025	25-MaSU52	Urine	Cs-137	Bq/L	0.497	0.608	0.426-0.490	81.7	A
Mar 2025	25-MaSU52	Urine	Co-57	Bq/L	0.0472		False Positive	N/A	A
Mar 2025	25-MaSU52	Urine	Co-60	Bq/L	0.104	0.0765	Sensitivity Eval	N/A	A
Mar 2025	25-MaSU52	Urine	Mn-54	Bq/L	0.0365		False Positive	N/A	A
Mar 2025	25-MaSU52	Urine	U-234	Bq/L	0.0963	0.105	0.074-0.137	91.7	A
Mar 2025	25-MaSU52	Urine	U-238	Bq/L	0.108	0.109	0.076-0.142	99.1	A
Mar 2025	25-MaSU52	Urine	Zn-65	Bq/L	-0.278		False Positive	N/A	A
Mar 2025	25-MaW52	Water	Ni-63	Bq/L	37.3	38.9	27.2-50.6	95.9	A
Mar 2025	25-MaW52	Water	Tc-99	Bq/L	6.64	6.34	4.44-8.24	104.7	A
Mar 2025	25-RdV52	Vegetation	Cs-134	Bq/sample	0.0452		False Positive	N/A	A
Mar 2025	25-RdV52	Vegetation	Cs-137	Bq/sample	0.558	0.707	0.495-0.919	78.9	W
Mar 2025	25-RdV52	Vegetation	Co-57	Bq/sample	2.86	3.40	2.38-4.42	84.1	A
Mar 2025	25-RdV52	Vegetation	Co-60	Bq/sample	0.0284		False Positive	N/A	A
Mar 2025	25-RdV52	Vegetation	Mn-54	Bq/sample	2.22	2.72	1.90-3.54	81.6	A
Mar 2025	25-RdV52	Vegetation	Sr-90	Bq/sample	0.222	0.370	0.259-0.481	60.0	N ⁽²⁾
Mar 2025	25-RdV52	Vegetation	Zn-65	Bq/sample	1.5	1.87	1.31-2.43	80.2	A
Mar 2025	25-RdV52 (R)	Vegetation	Sr-90	Bq/sample	0.356	0.370	0.259-0.481	96.2	A
Mar 2025	25-RdV52 (R)	Vegetation	Sr-90	Bq/sample	0.4	0.370	0.259-0.481	108.1	A
Sep 2025	25-MaS53	Soil	Ni-63	Bq/kg	865	1474	1032-1916	58.7	N ⁽³⁾
Sep 2025	25-MaS53	Soil	Tc-99	Bq/kg	314	370	259-481	84.9	A
Sep 2025	25-MaS53	Soil	Th-228	Bq/kg	51.2	41.7	29.2-54.2	123	W
Sep 2025	25-MaS53	Soil	Th-230	Bq/kg	54.8	45.6	31.9-59.3	120	W
Sep 2025	25-MaS53	Soil	Th-232	Bq/kg	50.4	38.7	27.1-50.3	130	N ⁽⁴⁾
Sep 2025	25-MaW53	Water	Ni-63	Bq/L	23.0	25.0	17.5-32.5	92	A
Sep 2025	25-MaW53	Water	Tc-99	Bq/L	0.17		False Pos	N/A	A
Sep 2025	25-RdV53	Vegetation	Cs-134	Bq/sample	0.1051		False Pos	N/A	A
Sep 2025	25-RdV53	Vegetation	Cs-137	Bq/sample	0.9581	0.986	0.69-1.282	97	A
Sep 2025	25-RdV53	Vegetation	Co-57	Bq/sample	4.54	4.47	3.13-5.81	102	A
Sep 2025	25-RdV53	Vegetation	Co-60	Bq/sample	2.08	2.3	1.61-2.99	90	A
Sep 2025	25-RdV53	Vegetation	Mn-54	Bq/sample	2.64	3.1	2.17-4.03	85	A
Sep 2025	25-RdV53	Vegetation	Sr-90	Bq/sample	1.5	1.43	1.00-1.86	105	A
Sep 2025	25-RdV53	Vegetation	Zn-65	Bq/sample	8.39	9.29	6.50-12.08	90	A

KEY

(a) The MAPEP known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) DOE/MAPEP evaluation:

- A = Acceptable - reported result falls within ratio limits of 0.80-1.20
- W = Acceptable with warning - reported result falls within 0.70-0.80 or 1.20-1.30
- N = Not Acceptable - reported result falls outside the ratio limits of < 0.70 and > 1.30

Results Flags:

- A = Result acceptable.....|Bias| <= 20%
- W = Result acceptable with warning.....20% < |Bias| <= 30%
- N = Result not acceptable.....|Bias| > 30%
- RW = Report Warning
- NR = Not Reported

Uncertainty Flags:

- NOT ACCEPTABLE.....RP < 2%
- ACCEPTABLE.....2% <= RP <= 15%
- ACCEPTABLE WITH WARNING.....15% < RP <= 30%
- NOT ACCEPTABLE.....RP > 30%
- Relative Precision (RP) = (Reported Uncertainty / Reported Result) x 100

N⁽¹⁾ = NCR 25-05

N⁽²⁾ = NCR 25-04

(R)= Additional Study for N⁽²⁾ failure

N⁽³⁾ = NCR 25-12

N⁽⁴⁾ = NCR 25-13

ERA
Environmental Radioactivity Crosscheck Program
 Teledyne Brown Engineering - Environmental Services

Month Year	Identification Number	Matrix	Nuclide	Units	TBE Reported Value	Known Value ^(a)	Acceptance Range	Acceptance Ratio (%)	Evaluation ^(b)
Mar 2025	MRAD-42	Soil	Am-241	pCi/kg	955	1060	572-1500	90.1	A
Mar 2025	MRAD-42	Soil	Pu-238	pCi/kg	1010	1070	534-1630	94.4	A
Mar 2025	MRAD-42	Soil	Pu-239	pCi/kg	1020	1150	627-1650	88.7	A
Mar 2025	MRAD-42	Soil	Sr-90	pCi/kg	3540	5710	1780-8890	62.0	A
Mar 2025	MRAD-42	Soil	U-234	pCi/kg	3598	3500	1640-4590	103	A
Mar 2025	MRAD-42	Soil	U-238	pCi/kg	3857	3470	1900-4660	111	A
Mar 2025	MRAD-42	AP	Am-241	pCi/Filter	73.5	67.7	48.3-90.3	109	A
Mar 2025	MRAD-42	AP	Fe-55	pCi/Filter	224	181	66.1-289	124	A
Mar 2025	MRAD-42	AP	Pu-238	pCi/Filter	41.7	40.2	30.4-49.4	104	A
Mar 2025	MRAD-42	AP	Pu-239	pCi/Filter	64.5	62.3	46.6-75.2	104	A
Mar 2025	MRAD-42	AP	U-234	pCi/Filter	30.8	34.2	25.4-40.1	90.1	A
Mar 2025	MRAD-42	AP	U-238	pCi/Filter	29.4	33.9	25.6-40.4	86.7	A
Mar 2025	MRAD-42	AP	Gr-A (Th-230)	pCi/Filter	44.8	39.5	20.6-65.1	113	A
Mar 2025	MRAD-42	AP	Gr-B (Cs-137)	pCi/Filter	62.6	55.2	33.5-83.4	113	A
Mar 2025	MRAD-42	Water	Am-241	pCi/L	40.5	39.5	27.1-50.5	103	A
Mar 2025	MRAD-42	Water	Fe-55	pCi/L	892.6	1460	858-2120	61.1	A
Mar 2025	MRAD-42	Water	Pu-238	pCi/L	74.9	77.2	46.4-100	97.0	A
Mar 2025	MRAD-42	Water	Pu-239	pCi/L	59.2	58.4	36.1-72.0	101	A
Apr 2025	RAD-141	Water	Ba-133	pCi/L	42.7	48.3	34.3-62.3	88.4	A
Apr 2025	RAD-141	Water	Cs-134	pCi/L	19.5	16.5	5.65-27.4	118	A
Apr 2025	RAD-141	Water	Cs-137	pCi/L	47.3	50.8	27.3-74.3	93.1	A
Apr 2025	RAD-141	Water	Co-60	pCi/L	99.2	104	84.4-124	95.4	A
Apr 2025	RAD-141	Water	Zn-65	pCi/L	317	341	279-403	93.0	A
Apr 2025	RAD-141	Water	GR-A	pCi/L	22.2	15.6	10.0-21.2	142.3	N ⁽¹⁾
Apr 2025	RAD-141	Water	GR-B	pCi/L	21.6	22.9	15.0-30.8	94.3	A
Apr 2025	RAD-141	Water	H-3	pCi/L	19900	21200	18200-24200	93.9	A
Apr 2025	RAD-141	Water	I-131 (Low Level)	pCi/L	26.1	26.8	23.2-30.4	97.4	A
Apr 2025	RAD-141	Water	Sr-89	pCi/L	70.8	67.1	51.2-83.0	106	A
Apr 2025	RAD-141	Water	Sr-90	pCi/L	22.5	23.9	19.7-28.1	94.1	A
Apr 2025	RAD-141	Water	U (Total)	pCi/L	48.0	49.6	44.0-55.2	96.8	A
Sept 2025	MRAD-43	Soil	Sr-90	pCi/kg	6790	9490	2950-14800	71.5	A
Sept 2025	MRAD-43	AP	Am-241	pCi/Filter	40.2	39.8	28.4-53.1	101	A
Sept 2025	MRAD-43	AP	Fe-55	pCi/Filter	125	166	60.6-265	75.3	A
Sept 2025	MRAD-43	AP	Pu-238	pCi/Filter	26	15.1	11.4-18.6	172	N ⁽³⁾
Sept 2025	MRAD-43	AP	U-234	pCi/Filter	57.7	63.4	47.0-74.3	91.0	A
Sept 2025	MRAD-43	AP	U-238	pCi/Filter	63.1	62.9	47.5-75.0	100	A
Sept 2025	MRAD-43	AP	Gr-A (Th-230)	pCi/Filter	28.2	22	11.5-36.2	128	A
Sept 2025	MRAD-43	AP	Gr-B (Cs-137)	pCi/Filter	38.6	40.5	24.6-61.2	95.3	A
Sept 2025	MRAD-43	Water	Am-241	pCi/L	69.2	68.6	47.1-87.7	101	A
Sept 2025	MRAD-43	Water	Fe-55	pCi/L	304	399	234-580	76.2	A
Sept 2025	MRAD-43	Water	Pu-238	pCi/L	104	115	56.7-122	90.4	A
Sept 2025	MRAD-43	Water	Pu-239	pCi/L	37.8	39.8	24.6-49.0	95.0	A
Oct 2025	RAD	Water	Ba-133	pCi/L	21.3	17.5	6.55-28.5	122	A
Oct 2025	RAD	Water	Cs-134	pCi/L	53.8	58	43.0-73.0	92.8	A
Oct 2025	RAD	Water	Cs-137	pCi/L	179.5	178	142-214	101	A
Oct 2025	RAD	Water	Co-60	pCi/L	58.3	55	40.3-69.7	106	A
Oct 2025	RAD	Water	Zn-65	pCi/L	37.04	36.8	5.51-68.1	101	A
Oct 2025	RAD	Water	GR-A	pCi/L	64.8	59.9	45.5-74.3	108	A
Oct 2025	RAD	Water	GR-B	pCi/L	19.3	19.3	12.2-26.4	100	A
Oct 2025	RAD	Water	H-3	pCi/L	18400	21200	18200-24200	86.8	A
Oct 2025	RAD	Water	I-131 (Low Level)	pCi/L	23.9	24.3	20.9-27.7	98.4	A
Oct 2025	RAD	Water	Sr-89	pCi/L	69.7	64.2	48.6-79.8	109	A
Oct 2025	RAD	Water	Sr-90	pCi/L	39.8	43.8	37.6-50.0	90.9	A
Oct 2025	RAD	Water	U (Total)	pCi/L	47.1	54	48.0-60.0	87.2	N ⁽²⁾

KEY

(a) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) ERA evaluation:

A = Acceptable - Reported value falls within the Acceptance Limits

N = Not Acceptable - Reported value falls outside of the Acceptance Limits

N⁽¹⁾ = NCR 25-06

N⁽²⁾ = NCR 25-11

N⁽³⁾ = NCR 25-10

Eckert & Ziegler Analytics
Environmental Radioactivity Crosscheck Program
 Teledyne Brown Engineering - Environmental Services

Month/Year	Identification Number	Matrix	Nuclide	Units	TBE		Acceptance Ratio (%)	Evaluation ^(b)
					Reported Value	Known Value ^(a)		
March 2025	E14230	Milk	Ce-141	pCi/L	68.1	75.8	90	A
March 2025	E14230	Milk	Cs-134	pCi/L	121	142	85	A
March 2025	E14230	Milk	Cs-137	pCi/L	154	168	92	A
March 2025	E14230	Milk	Cr-51	pCi/L	278	291	96	A
March 2025	E14230	Milk	Co-58	pCi/L	95.4	105	91	A
March 2025	E14230	Milk	Co-60	pCi/L	169	193	88	A
March 2025	E14230	Milk	Fe-59	pCi/L	125	135	93	A
March 2025	E14230	Milk	Mn-54	pCi/L	172	189	91	A
March 2025	E14230	Milk	Zn-65	pCi/L	229	251	91	A
March 2025	E14230	Milk	I-131 (Low Level)	pCi/L	88.4	94.7	93	A
March 2025	E14229	Milk	Sr-89	pCi/L	84.9	91.9	92	A
March 2025	E14229	Milk	Sr-90	pCi/L	11.1	15.6	71	W
March 2025	E14323	AP	Ce-141	pCi	55.9	54.2	103	A
March 2025	E14323	AP	Cs-134	pCi	93.0	102	91	A
March 2025	E14323	AP	Cs-137	pCi	107	120	89	A
March 2025	E14323	AP	Cr-51	pCi	194	208	93	A
March 2025	E14323	AP	Co-58	pCi	68.4	75.2	91	A
March 2025	E14323	AP	Co-60	pCi	142	138	103	A
March 2025	E14323	AP	Fe-59	pCi	95.0	96.3	99	A
March 2025	E14323	AP	Mn-54	pCi	123	135	91	A
March 2025	E14234	AP	Zn-65	pCi	181	179	101	A
March 2025	E14336	AP	Ni-63	pCi/Total	81.5	87.4	93	A
March 2025	E14234	AP	Sr-89	pCi	81.6	88.5	92	A
March 2025	E14234	AP	Sr-90	pCi	13.6	15	90	A
March 2025	E14231	Charcoal	I-131	pCi	70.3	66.3	106	A
March 2025	E14233	Soil	Ce-141	pCi/g	0.124	0.129	96	A
March 2025	E14233	Soil	Cs-134	pCi/g	0.283	0.242	117	A
March 2025	E14233	Soil	Cs-137	pCi/g	0.333	0.351	95	A
March 2025	E14233	Soil	Cr-51	pCi/g	0.495	0.494	100	A
March 2025	E14233	Soil	Co-58	pCi/g	0.193	0.179	108	A
March 2025	E14233	Soil	Co-60	pCi/g	0.323	0.327	99	A
March 2025	E14233	Soil	Fe-59	pCi/g	0.231	0.229	101	A
March 2025	E14233	Soil	Mn-54	pCi/g	0.325	0.321	101	A
March 2025	E14233	Soil	Zn-65	pCi/g	0.446	0.426	105	A
March 2025	E14235	Water	Gr-A (Am-241)	pCi/L	79.6	89.4	89	A
March 2025	E14235	Water	Gr-B (Cs-137)	pCi/L	242	285	85	A

Sept 2025	E14237	Milk	Ce-141	pCi/L	91.6	89.5	102	A
Sept 2025	E14237	Milk	Cs-134	pCi/L	121	142	85	A
Sept 2025	E14237	Milk	Cs-137	pCi/L	115	126	91	A
Sept 2025	E14237	Milk	Cr-51	pCi/L	280	260	108	A
Sept 2025	E14237	Milk	Co-58	pCi/L	104	105	99	A
Sept 2025	E14237	Milk	Co-60	pCi/L	145	150	97	A
Sept 2025	E14237	Milk	Fe-59	pCi/L	91.4	98.6	93	A
Sept 2025	E14237	Milk	Mn-54	pCi/L	159	161	99	A
Sept 2025	E14237	Milk	Zn-65	pCi/L	205	196	105	A
Sept 2025	E14237	Milk	I-131 (Low Level)	pCi/L	79.5	76.3	104	A
Sept 2025	E14236	Milk	Sr-89	pCi/L	109	89.8	121	W
Sept 2025	E14236	Milk	Sr-90	pCi/L	10.9	13.1	83	A
Sept 2025	E14239	AP	Ce-141	pCi	67.5	68.1	99	A
Sept 2025	E14239	AP	Cs-134	pCi	103	108	95	A
Sept 2025	E14239	AP	Cs-137	pCi	98.4	96.1	102	A
Sept 2025	E14239	AP	Cr-51	pCi	227	197	115	A
Sept 2025	E14239	AP	Co-58	pCi	79.6	79.9	100	A
Sept 2025	E14239	AP	Co-60	pCi	131	114	115	A
Sept 2025	E14239	AP	Fe-59	pCi	74.7	75	100	A
Sept 2025	E14239	AP	Mn-54	pCi	120	123	98	A
Sept 2025	E14239	AP	Zn-65	pCi	133	149	89	A
Sept 2025	E14337	AP	Ni-63	pCi/Total	71.4	85.1	84	A
Sept 2025	E14241	AP	Sr-89	pCi	78.2	84.2	93	A
Sept 2025	E14241	AP	Sr-90	pCi	13.7	12.2	112	A
Sept 2025	E14238	Charcoal	I-131	pCi	80.8	79	102	A
Sept 2025	E14240	Soil	Ce-141	pCi/g	0.133	0.149	89	A
Sept 2025	E14240	Soil	Cs-134	pCi/g	0.166	0.236	70	W
Sept 2025	E14240	Soil	Cs-137	pCi/g	0.22	0.276	80	A
Sept 2025	E14240	Soil	Cr-51	pCi/g	0.486	0.432	112	A
Sept 2025	E14240	Soil	Co-58	pCi/g	0.16	0.175	91	A
Sept 2025	E14240	Soil	Co-60	pCi/g	0.234	0.251	93	A
Sept 2025	E14240	Soil	Fe-59	pCi/g	0.154	0.164	94	A
Sept 2025	E14240	Soil	Mn-54	pCi/g	0.241	0.269	90	A
Sept 2025	E14240	Soil	Zn-65	pCi/g	0.308	0.326	94	A
Sept 2025	E14242	Water	Gr-A (Am-241)	pCi/L	97.2	99.7	97	A
Sept 2025	E14242	Water	Gr-B (Cs-137)	pCi/L	200	201	100	A

(a) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(b) Analytics evaluation based on TBE internal QC limits:

A = Acceptable - reported result falls within ratio limits of 0.80-1.20

W = Acceptable with warning - reported result falls within 0.70-0.80 or 1.20-1.30

N = Not Acceptable - reported result falls outside the ratio limits of < 0.70 and > 1.30

- A. NCR 25-04: MAPEP 25, RdV52 vegetation study for Sr-90 evaluated as “Not Acceptable.” Possible sample interference issue. Study results stated 8 out of 18 participants passed the study. All internal data reviewed and deemed accurate with internal quality control measures for sample also passing. The laboratory performed testing with Sr-85 spike with successful outcomes. The following provider study, RdV53, returned with passing results.
- B. NCR 25-05: Interlaboratory crosscheck failure: MAPEP 25-MaS52 Ni-63 in soil. A manual data-entry error in the carrier volume for one nuclide/matrix led to an incorrect LIMS value. Manual verification showed that the crosscheck would have passed with the correct volume. The procedure has been revised with more prominent notation to assist technicians. No recurrence identified and the following crosscheck study did not result in repeated error supporting effectiveness of corrective action.
- C. NCR 25-06: Interlaboratory crosscheck failure: ERA RAD141 Gr-A in water. The provider’s acceptance range was 10.0–21.2, and their reported value of 15.6 fell within this interval. TBE-ES obtained 22.2 ± 3.76 , which satisfied internal QC criteria and would have aligned with the acceptance range if error margins had been considered. The QC duplicate result of 17.8 met internal requirements, and the 22% RPD demonstrated internal consistency. The provider’s Gr-A samples have historically been the lowest spiked. No internal failures identified so no corrective action deemed necessary. The following ERA RAD143 study’s performance evaluation results returned acceptable/passing.
- D. NCR 25-10: *IN-PROGRESS* Interlaboratory crosscheck failure: ERA MRAD 43, PU-239/240 (AS) in Air Particulate (filter).
- E. NCR 25-11: Interlaboratory crosscheck failure: ERA RAD-143 crosscheck failure of Uranium in water. Provider acceptance range: 48.0 – 60.0. TBE-ES result of 47.1 with internal acceptance ratio of 87.2 and no prior failures. No corrective action deemed necessary.
- F. NCR 25-12: *IN-PROGRESS* Interlaboratory crosscheck failure: MAPEP Series 53, Ni-63 in Soil.
- G. NCR 25-13: *IN-PROGRESS* Interlaboratory crosscheck failure: MAPEP Series 53, Th-232 in Soil.

APPENDIX B
SYNOPSIS OF ANALYTICAL PROCEDURES

SYNOPSIS OF ANALYTICAL PROCEDURES

Appendix B is a synopsis of the analytical procedures performed during this reporting period on samples collected for Ameren Missouri Callaway Energy Center's Radiological Environmental Monitoring Program. All analyses have been mutually agreed upon by Callaway Energy Center and Teledyne Brown Engineering and include those recommended by the USNRC Branch Technical Position, Rev. 1, November 1979.

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GROSS BETA ANALYSIS OF AIR PARTICULATE SAMPLES

Air Particulates

After a delay of five or more days, allowing for the radon-222 and radon-220 (thoron) daughter products to decay, the filters are counted in a gas-flow proportional counter.

Calculations of the results, the two sigma error and the lower limit of detection (LLD):

$$\text{RESULT (pCi/m}^3\text{)} = ((S/T) - (B/t))/(2.22 V E)$$

$$\text{TWO SIGMA ERROR (pCi/m}^3\text{)} = 2((S/T)^2 + (B/t^2))^{1/2}/(2.22 V E)$$

$$\text{LLD (pCi/m}^3\text{)} = 4.66(B^{1/2})/(2.22 V E t)$$

where:

- S = Gross counts of sample including blank
- B = Counts of blank
- E = Counting efficiency
- T = Number of minutes sample was counted
- t = Number of minutes blank was counted
- V = Sample aliquot size (cubic meters)

DETERMINATION OF GROSS BETA ACTIVITY IN WATER SAMPLES

Introduction

The procedures described in this section are used to measure the overall radioactivity of water samples without identifying the radioactive species present. No chemical separation techniques are involved.

One liter of the sample is evaporated on a hot plate. A smaller volume may be used if the sample has a significant salt content as measured gravimetrically. If requested by the customer, the sample is filtered through No. 54 filter paper before evaporation, removing particles greater than 30 microns in size.

After evaporating to a small volume in a beaker, the sample is rinsed into a 2-inch diameter stainless steel planchette, which is stamped with a concentric ring pattern to distribute residue evenly. Final evaporation to dryness takes place under heat lamps.

Residue mass is determined by weighing the planchette before and after mounting the sample. The planchette is counted for beta activity on an automatic proportional counter. Results are calculated using empirical self-absorption curves which allow for the change in effective counting efficiency caused by the residue mass.

Detection Capability

Detection capability depends upon the sample volume actually represented on the planchette, the background and the efficiency of the counting instrument, and upon self-absorption of beta particles by the mounted sample. Because the radioactive species are not identified, no decay corrections are made and the reported activity refers to the counting time.

The minimum detectable level (MDL) for water samples is nominally 1.6 picoCuries per liter for gross beta at the 4.66 sigma level (1.0 pCi/L at the 2.83 sigma level), assuming that 1 liter of sample is used and that 0.5 gram of sample residue is mounted on the planchette. These figures are based upon a counting time of 50 minutes and upon representative values of counting efficiency and background of 0.2 and 1.2 cpm, respectively

The MDL becomes significantly lower as the mount weight decreases because of reduced self-absorption. At a zero mount weight, the 4.66 sigma MDL for gross beta is 0.9 pCi/L. These values reflect a beta counting efficiency of 0.38.

ANALYSIS OF SAMPLES FOR TRITIUM
(Liquid Scintillation)

Water

Ten milliliters of water are mixed with 10 ml of a liquid scintillation "cocktail" and then the mixture is counted in an automatic liquid scintillator.

Calculation of the results, the two sigma error and the lower limit detection (LLD) in pCi/L:

RESULT = $(N-B)/(2.22 V E)$

TWO SIGMA ERROR = $2((N + B)/\Delta t)^{1/2} / (2.22 V E)$

LLD = $4.66(B/\Delta t)^{1/2} / (2.22 V E)$

where:

N	=	the gross cpm of the sample
B	=	the background of the detector in cpm
2.22	=	conversion factor changing dpm to pCi
V	=	volume of the sample in ml
E	=	efficiency of the detector
Δt	=	counting time for the sample

ANALYSIS OF SAMPLES FOR IODINE-131

Milk or Water

Two or more liters of sample are first equilibrated with stable iodide carrier. A batch treatment with anion exchange resin is used to remove iodine from the sample. The iodine is then stripped from the resin with sodium hypochlorite solution, is reduced with hydroxylamine hydrochloride and is extracted into carbon tetrachloride as free iodine. It is then back-extracted as iodide into sodium bisulfite solution and is precipitated as palladium iodide. The precipitate is weighed for chemical yield and is mounted on a nylon planchette for low-level beta counting.

Calculations of results, two sigma error and the lower limit of detection (LLD) in pCi/L:

$$\begin{aligned} \text{RESULT} &= (N/\Delta t - B)/(2.22 E V Y DF) \\ \text{TWO SIGMA ERROR} &= 2((N/\Delta t + B)/\Delta t)^{1/2} / (2.22 E V Y DF) \\ \text{LLD} &= 4.66(B/\Delta t)^{1/2} / (2.22 E V Y DF) \end{aligned}$$

where:	N	=	total counts from sample (counts)
	Δt	=	counting time for sample (min)
	B	=	background rate of counter (cpm)
	2.22	=	dpm/pCi
	V	=	volume or weight of sample analyzed
	Y	=	chemical yield of the mount or sample counted
	DF	=	decay factor from the collection to the counting date
	E	=	efficiency of the counter for I-131, corrected for self absorption effects by the formula
	E	=	$E_s(\exp-0.0061M)/(\exp-0.0061M_s)$
	E_s	=	efficiency of the counter determined from an I-131 standard mount
	M_s	=	mass of PdI ₂ on the standard mount, mg
	M	=	mass of PdI ₂ on the sample mount, mg

GAMMA SPECTROMETRY OF SAMPLES

Milk or Water

A 1.0 or 4.0 liter Marinelli beaker is filled with a representative aliquot of the sample. The sample is then counted until detection limits are met with a shielded high purity germanium (HPGe) detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Dried Solids other than Soils and Sediments

A large quantity of the sample is dried at a low temperature, less than 100°C. As much as possible (up to the total sample) is loaded into a tare, standard 240 cc container and weighed. The sample is then counted until detection limits are met with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Fish

As much as possible (up to the total sample) of the edible portion of the sample is loaded into a tared Marinelli and weighed. The sample is then counted until detection limits are met with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Soils and Sediments

Soils and sediments are dried at a low temperature, less than 100°C. The soil or sediment is loaded fully into a tared, standard 240 cc container and weighed. The sample is then counted until detection limits are met with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height and analysis.

Charcoal Cartridges (Air Iodine)

Charcoal cartridges are counted up to five at a time, with one positioned on the face of an HPGe detector and up to four on the side of the HPGe detector. Each HPGe detector is calibrated for both positions. The detection limit for iodine-131 of each charcoal cartridge can be determined (assuming no positive iodine-131) uniquely from the volume of air, which passed through it. In the event iodine-131 is observed in the initial counting of a set, each charcoal cartridge is then counted separately, positioned on the face of the detector.

Air Particulates

The thirteen airborne particulate filters for a quarterly composite for each field station are aligned one in front of another and then counted until detection limits are met with a shielded HPGe detector coupled to a VAX-based data acquisition system which performs pulse height analysis.

A VAX software program defines peaks by certain changes in the slope of the spectrum. The program also compares the energy of each peak with a library of peaks for isotope identification and then performs the radioactivity calculation using the appropriate fractional gamma ray abundance, half-life, detector efficiency, and net counts in the peak region.

The calculation of results, two sigma error and the lower limit of detection (LLD) in pCi/volume or pCi/mass:

$$\text{RESULT} = (S-B)/(2.22 t E V F DF)$$

$$\text{TWO SIGMA ERROR} = 2(S+B)^{1/2}/(2.22 t E V F DF)$$

$$\text{LLD} = 4.66(B)^{1/2}/(2.22 t E V F DF)$$

where:	S	=	Area, in counts, of sample peak and background (region of spectrum of interest)
	B	=	Background area, in counts, under sample peak, determined by a linear interpolation of the representative backgrounds on either side of the peak
	t	=	length of time in minutes the sample was counted
	2.22	=	dpm/pCi
	E	=	detector efficiency for energy of interest and geometry of sample
	V	=	sample aliquot size (liters, cubic meters, kilograms, or grams)
	F	=	fractional gamma abundance (specific for each emitted gamma)
	DF	=	decay factor from the mid-collection date to the counting date

ADDENDUM TO GAMMA SPECTROMETRY PROCEDURE

Ba-140 (half-life = ~12.8d) decays to La-140 (half-life ~40 hrs) and the daughter radionuclide, La-140 approaches ~ 90 % of the Ba-140 activity within ~ 6 days. The La-140 photon energy at 1596 keV is used to quantify the Ba-140 activity due to its high photon emission probability yield (96%) producing a higher count rate when present and therefore, a smaller associated counting error.

Zr-95 (half-life = ~65d) decays to Nb-95 (half-life = ~35d). The photon energy of Nb-95 (~765 keV) is used to quantify Zr-95 because of the high photon emission probability yield (~100%) yielding a higher count rate and an associated lower counting error. The daughter radionuclide, Nb-95 approaches the Zr-95 activity after a time period of ~65 days, an estimated time interval occurring between sample exposure, collection and shipping, and analysis.

Appendix C. NON-RADIOLOGICAL MONITORING PROGRAM

1.0. Introduction

Union Electric Company Callaway Plant, d.b.a. Ameren Missouri Callaway Energy Center, in accordance with federal regulations and a desire to maintain the quality of the local environment around Callaway Plant has implemented an Environmental Protection Plan, (EPP) contained in Appendix B of the Callaway Plant Operating License.

The objective of the EPP is to provide for protection of non-radiological environmental values during operation of the Callaway Plant.

This report describes the conduct of the EPP for the Callaway Plant during 2025.

2.0. Unusual or Important Events

No unusual or important events reportable under the EPP Section 4.1 were identified during 2025.

3.0. EPP Non-compliances

During 2025, there was zero non-compliance with the EPP.

4.0. Nonroutine Reports

There were no nonroutine reports submitted in accordance with the EPP, Section 5.4.2 in 2025.

5.0. Plant Design and Operation Environmental Evaluations.

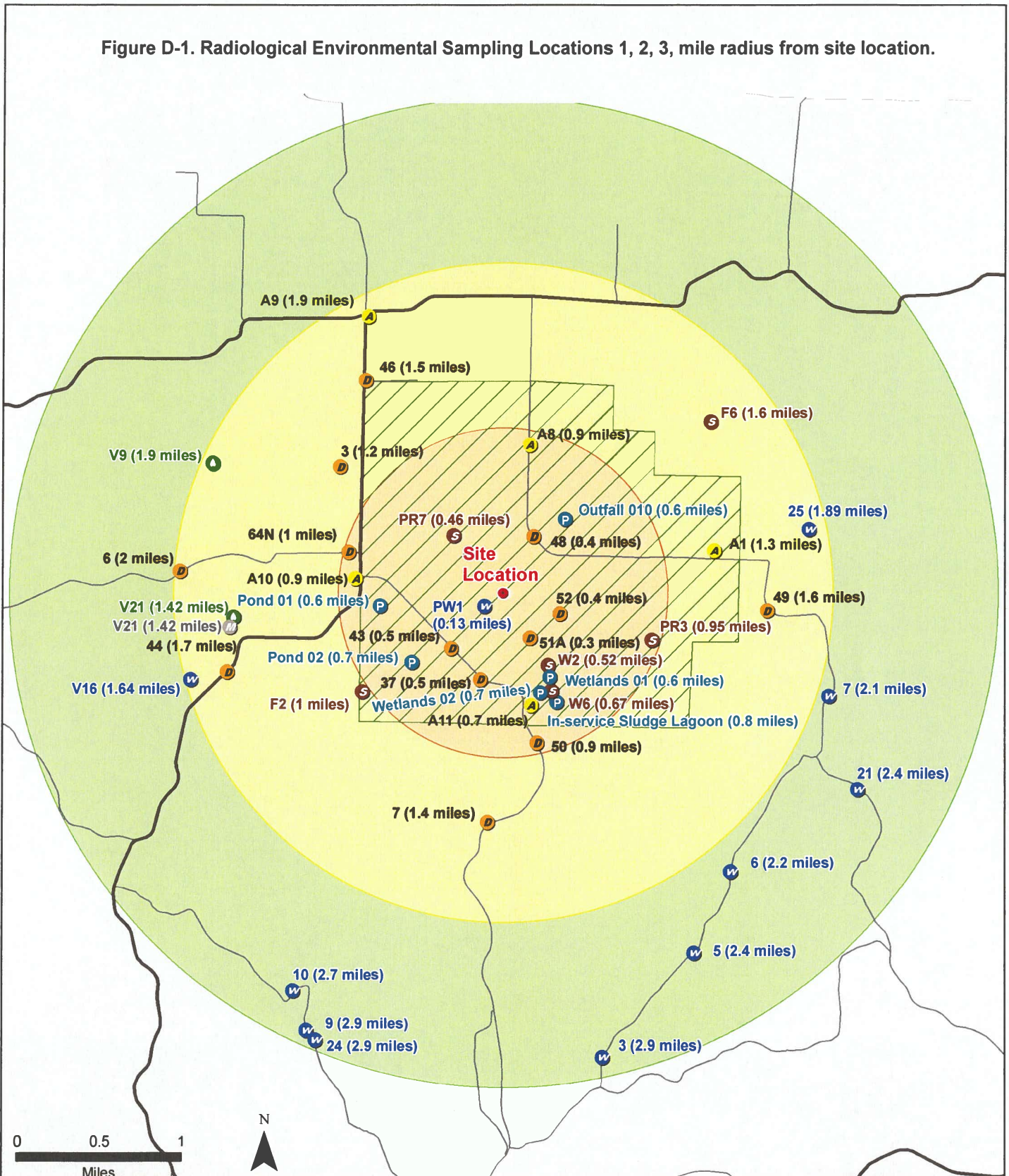
This section lists all changes in the plant design, operation, tests or experiments installed during 2025, which could have involved a potentially significant unreviewed environmental question in accordance with section 3.1 of Appendix B.

During 2025, no major plant changes were completed that could have involved a potentially significant unreviewed environmental question.

APPENDIX D

Sampling Location Maps

Figure D-1. Radiological Environmental Sampling Locations 1, 2, 3, mile radius from site location.



Radiological Environmental Sampling Locations
1, 2, 3 mile radius from Site location

- | | |
|---|---|
| A Airborne Radioiodine & Particulate | M Milk |
| D Direct Radiation Dosimeter | NP Non-Potable Groundwater Wells |
| W Drinking Well Water | S Soil |
| F Fish and Sediment | P Surface Water (Ponds) |
| FC Farm Crops | R Surface Water (River) |
| FP Food Products- Leafy Green Vegetables | |



Callaway
Energy Center



Figure D-2. Radiological Environmental Sampling Locations 3, 4, 5, 6 mile radius from site location.



Callaway
Energy Center



Figure D-3. Radiological Environmental Sampling Locations 5, 10, 15 mile radius from site location.



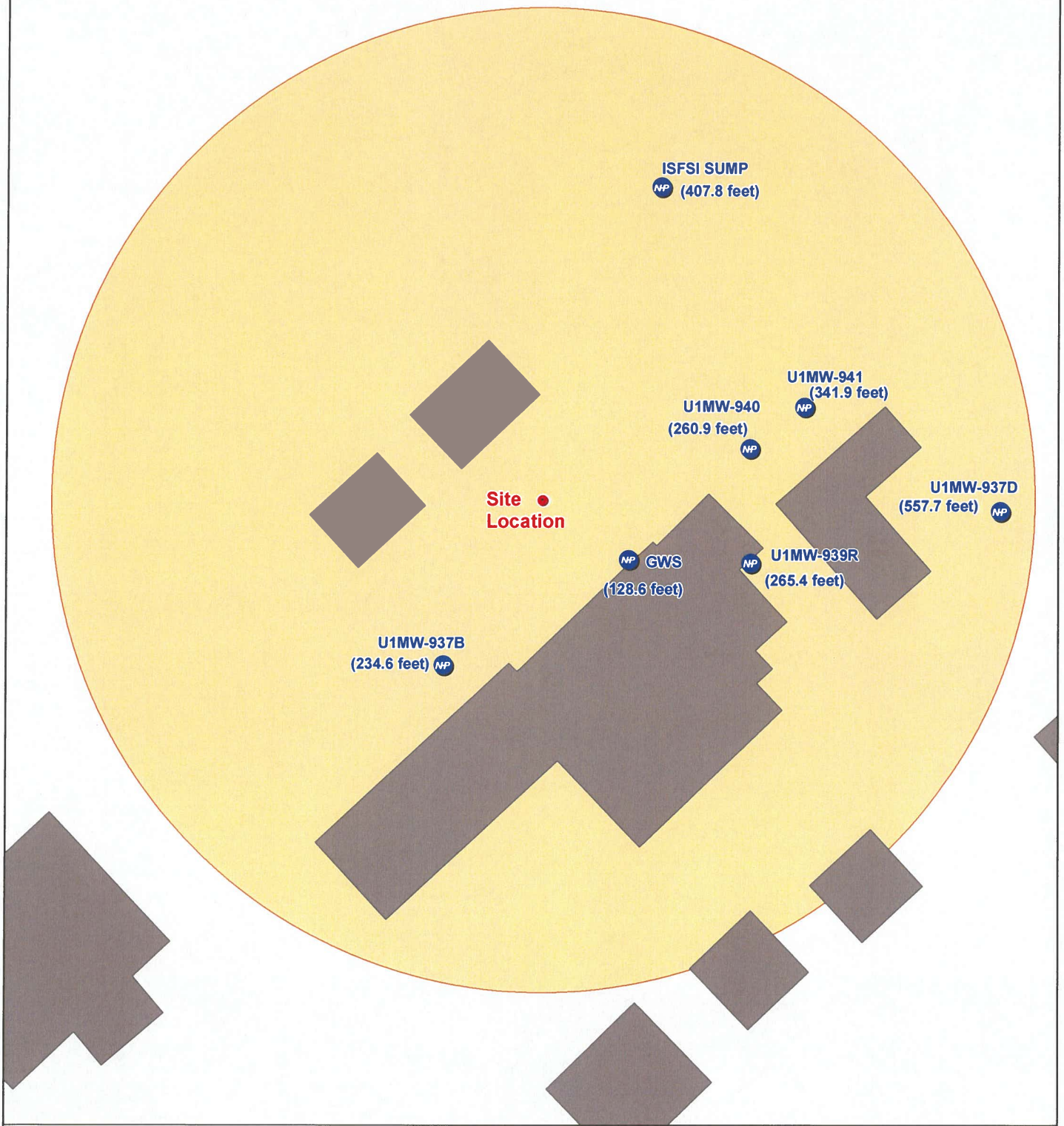
Callaway Energy Center



**Radiological Environmental Sampling Locations
5, 10, 15 mile radius from Site location**

- | | |
|---|---|
| A Airborne Radioiodine & Particulate | M Milk |
| D Direct Radiation Dosimeter | NP Non-Potable Groundwater Wells |
| W Drinking Well Water | S Soil |
| F Fish and Sediment | P Surface Water (Ponds) |
| FC Farm Crops | R Surface Water (River) |
| FP Food Products- Leafy Green Vegetables | |

Figure D-4. Non-Potable Groundwater Monitoring Wells, 600 ft radius from Site.



Callaway
Energy Center

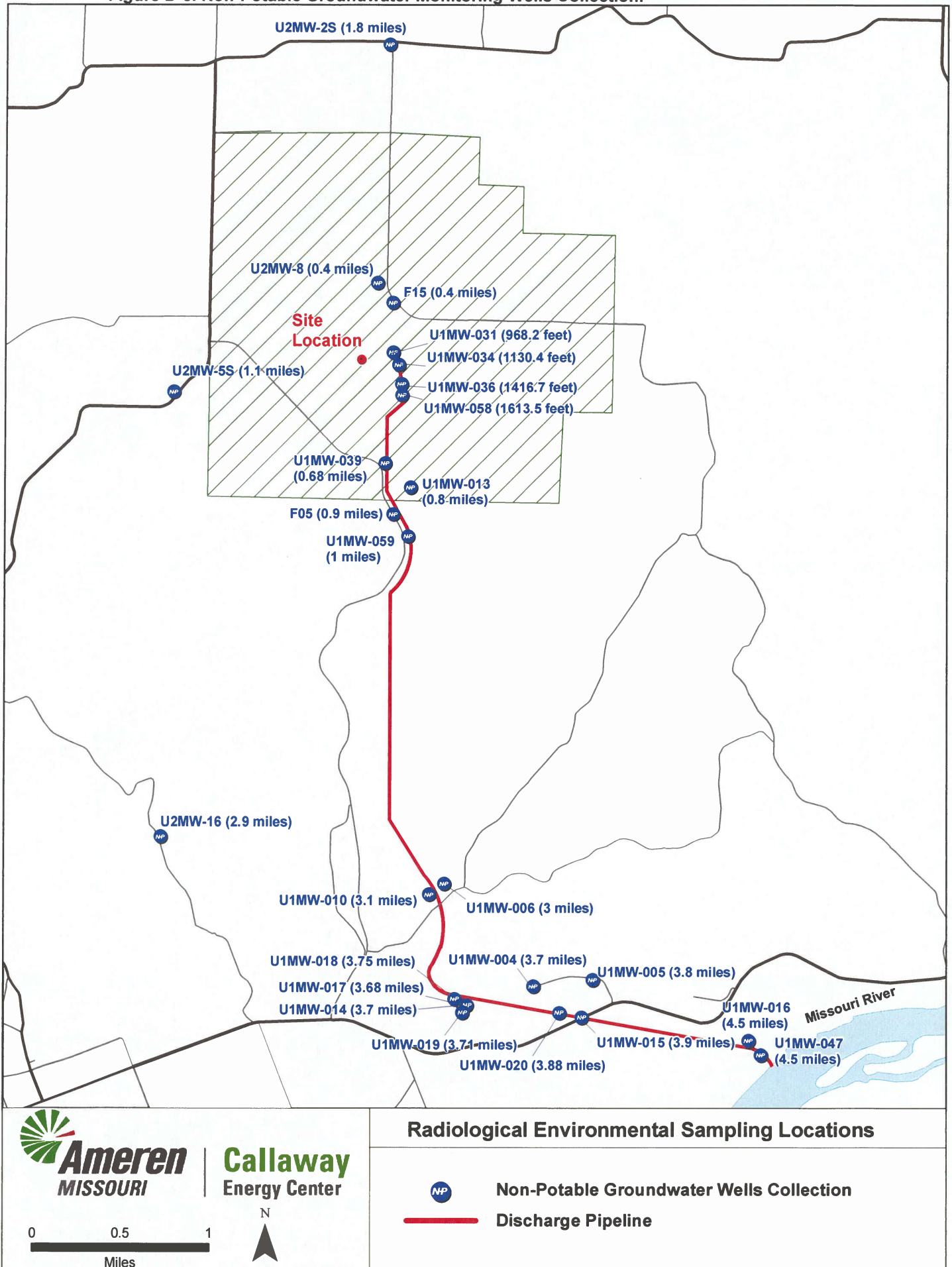
Radiological Environmental Sampling Locations
600 ft radius from Site location



Non-Potable Groundwater Wells Collection



Figure D-5. Non-Potable Groundwater Monitoring Wells Collection.





AMEREN MISSOURI
CALLAWAY ENERGY CENTER
FULTON, MISSOURI

Docket Numbers 50-483 and 72-1045

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

to

THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Part II

DATA TABULATIONS AND ANALYSES

January 1 to December 31, 2025

Prepared by

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Project No. AM001-3EREMPCALL-24

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1.0 Introduction

The following constitutes a supplement to the Annual Report for the Radiological Environmental Monitoring Program conducted at the Ameren Missouri, Callaway Energy Center, Fulton, Missouri in 2025. Results of completed analyses are presented in the attached tables.

For information regarding sampling locations, type and frequency of collection, and sample codes, refer to Part I, Tables 5.1 - 5.2 and the figures in Appendix D.

Analyses results from additional sampling may be found in Appendix A.

2.0 Analytical Data Tables

for

Callaway Energy Center

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
Collect Date	Volume					0.050	0.060		
Sample Location: CA-APT-A1									
01-02-25	293600	< 0.167	< 0.021	< 0.025	< 0.032	< 0.023	< 0.019	< 0.039	< 0.082
01-09-25	271800	< 0.273	< 0.033	< 0.018	< 0.049	< 0.040	< 0.029	< 0.067	< 0.114
01-16-25	266400	< 0.163	< 0.017	< 0.018	< 0.027	< 0.014	< 0.013	< 0.023	< 0.058
01-23-25	266500	< 0.202	< 0.037	< 0.040	< 0.066	< 0.033	< 0.023	< 0.053	< 0.095
01-30-25	271200	< 0.236	< 0.026	< 0.027	< 0.041	< 0.026	< 0.027	< 0.058	< 0.099
02-06-25	278000	< 0.208	< 0.022	< 0.024	< 0.045	< 0.023	< 0.021	< 0.069	< 0.083
02-13-25	271300	< 0.359	< 0.046	< 0.054	< 0.084	< 0.046	< 0.044	< 0.098	< 0.137
02-20-25	260800	< 0.181	< 0.018	< 0.026	< 0.041	< 0.016	< 0.010	< 0.020	< 0.068
02-27-25	273700	< 0.359	< 0.039	< 0.036	< 0.058	< 0.036	< 0.033	< 0.063	< 0.180
03-06-25	280400	< 0.282	< 0.031	< 0.037	< 0.044	< 0.032	< 0.020	< 0.054	< 0.129
03-13-25	283900	< 0.215	< 0.015	< 0.035	< 0.043	< 0.022	< 0.020	< 0.026	< 0.096
03-20-25	290800	< 0.266	< 0.028	< 0.030	< 0.052	< 0.031	< 0.030	< 0.043	< 0.154
03-27-25	287600	< 0.308	< 0.031	< 0.034	< 0.043	< 0.037	< 0.027	< 0.055	< 0.119
04-03-25	285000	< 0.212	< 0.022	< 0.028	< 0.042	< 0.023	< 0.024	< 0.055	< 0.090
04-10-25	280800	< 0.194	< 0.015	< 0.023	< 0.040	< 0.022	< 0.021	< 0.048	< 0.075
04-17-25	285400	< 0.230	< 0.025	< 0.038	< 0.054	< 0.027	< 0.031	< 0.036	< 0.105
04-24-25	291800	< 0.296	< 0.034	< 0.038	< 0.042	< 0.038	< 0.031	< 0.062	< 0.117
05-01-25	289600	< 0.296	< 0.039	< 0.039	< 0.048	< 0.027	< 0.032	< 0.086	< 0.159
05-08-25	290700	< 0.334	< 0.033	< 0.026	< 0.064	< 0.035	< 0.031	< 0.055	< 0.169
05-15-25	291700	0.208 +/- 0.107	< 0.021	< 0.028	< 0.050	< 0.015	< 0.025	< 0.026	< 0.076
05-22-25	296300	< 0.197	< 0.023	< 0.023	< 0.033	< 0.019	< 0.016	< 0.032	< 0.076
05-29-25	290200	< 0.269	< 0.021	< 0.025	< 0.049	< 0.017	< 0.021	< 0.156	< 0.086
06-05-25	295100	< 0.328	< 0.039	< 0.031	< 0.072	< 0.031	< 0.025	< 0.064	< 0.147
06-12-25	295600	< 0.322	< 0.034	< 0.028	< 0.047	< 0.031	< 0.027	< 0.057	< 0.161
06-19-25	298400	< 0.317	< 0.033	< 0.042	< 0.047	< 0.035	< 0.033	< 0.064	< 0.152
06-26-25	302800	< 0.254	< 0.022	< 0.026	< 0.048	< 0.026	< 0.027	< 0.039	< 0.124
07-03-25	298200	< 0.344	< 0.035	< 0.042	< 0.076	< 0.048	< 0.034	< 0.099	< 0.167
07-10-25	298800	< 0.335	< 0.039	< 0.051	< 0.061	< 0.046	< 0.040	< 0.060	< 0.137
07-17-25	300000	< 0.363	< 0.055	< 0.053	< 0.079	< 0.041	< 0.037	< 0.132	< 0.151
07-24-25	303500	< 0.201	< 0.021	< 0.026	< 0.045	< 0.027	< 0.028	< 0.076	< 0.064
07-31-25	303800	< 0.408	< 0.041	< 0.046	< 0.063	< 0.043	< 0.036	< 0.155	< 0.164
08-07-25	295500	< 0.423	< 0.045	< 0.055	< 0.085	< 0.047	< 0.038	< 0.192	< 0.180
08-14-25	297900	< 0.285	< 0.036	< 0.033	< 0.046	< 0.024	< 0.028	< 0.034	< 0.096
08-21-25	302200	< 0.350	< 0.035	< 0.054	< 0.062	< 0.041	< 0.037	< 0.084	< 0.121
08-28-25	292800	< 0.324	< 0.032	< 0.027	< 0.052	< 0.029	< 0.028	< 0.154	< 0.083
09-04-25	295100	< 0.366	< 0.041	< 0.046	< 0.075	< 0.035	< 0.035	< 0.094	< 0.125
09-11-25	291300	< 0.334	< 0.033	< 0.036	< 0.063	< 0.037	< 0.041	< 0.102	< 0.161
09-18-25	302500	< 0.297	< 0.038	< 0.043	< 0.063	< 0.030	< 0.036	< 0.102	< 0.144
09-25-25	294900	< 0.301	< 0.035	< 0.036	< 0.063	< 0.040	< 0.027	< 0.075	< 0.151
10-02-25	278200	< 0.293	< 0.024	< 0.038	< 0.064	< 0.022	< 0.027	< 0.051	< 0.112
10-09-25	295100	< 0.426	< 0.052	< 0.048	< 0.081	< 0.044	< 0.040	< 0.192	< 0.190
10-16-25	293100	< 0.312	< 0.028	< 0.036	< 0.058	< 0.035	< 0.026	< 0.203	< 0.140
10-23-25	283300	< 0.259	< 0.031	< 0.028	< 0.050	< 0.023	< 0.026	< 0.133	< 0.100
10-30-25	284600	< 0.343	< 0.033	< 0.029	< 0.066	< 0.032	< 0.030	< 0.092	< 0.134
11-06-25	282400	< 0.328	< 0.045	< 0.043	< 0.055	< 0.041	< 0.044	< 0.085	< 0.131
11-13-25	279000	< 0.335	< 0.042	< 0.036	< 0.057	< 0.036	< 0.028	< 0.183	< 0.130
11-20-25	290700	< 0.294	< 0.032	< 0.032	< 0.059	< 0.031	< 0.029	< 0.104	< 0.140
11-26-25	239500	< 0.296	< 0.039	< 0.041	< 0.067	< 0.037	< 0.037	< 0.083	< 0.145
12-04-25	306500	< 0.157	< 0.019	< 0.023	< 0.034	< 0.018	< 0.016	< 0.101	< 0.075
12-11-25	274900	< 0.382	< 0.043	< 0.032	< 0.071	< 0.033	< 0.032	< 0.155	< 0.174
12-18-25	272100	< 0.343	< 0.039	< 0.035	< 0.068	< 0.039	< 0.030	< 0.209	< 0.153
12-26-25	319300	< 0.179	< 0.020	< 0.014	< 0.036	< 0.017	< 0.018	< 0.067	< 0.066

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
Collect Date	Volume	-	-	-	-	0.050	0.060	-	-
Sample Location: CA-APT-A7									
01-02-25	303500	< 0.173	< 0.025	< 0.031	< 0.030	< 0.020	< 0.026	< 0.026	< 0.085
01-09-25	293400	< 0.444	< 0.046	< 0.070	< 0.092	< 0.046	< 0.046	< 0.099	< 0.196
01-16-25	299400	< 0.141	< 0.014	< 0.016	< 0.026	< 0.017	< 0.016	< 0.026	< 0.055
01-23-25	295900	< 0.216	< 0.017	< 0.023	< 0.038	< 0.023	< 0.022	< 0.039	< 0.098
01-30-25	299000	< 0.270	< 0.020	< 0.040	< 0.044	< 0.024	< 0.027	< 0.039	< 0.110
02-06-25	301600	< 0.266	< 0.027	< 0.034	< 0.050	< 0.030	< 0.026	< 0.080	< 0.126
02-13-25	301000	< 0.262	< 0.025	< 0.027	< 0.042	< 0.022	< 0.031	< 0.049	< 0.093
02-20-25	292900	< 0.205	< 0.019	< 0.032	< 0.024	< 0.019	< 0.007	< 0.013	< 0.071
02-27-25	297200	< 0.324	< 0.032	< 0.034	< 0.057	< 0.035	< 0.034	< 0.067	< 0.169
03-06-25	305700	< 0.198	< 0.020	< 0.027	< 0.042	< 0.025	< 0.022	< 0.045	< 0.089
03-13-25	301900	< 0.473	< 0.050	< 0.063	< 0.081	< 0.050	< 0.045	< 0.078	< 0.214
03-20-25	308400	< 0.325	< 0.035	< 0.047	< 0.064	< 0.043	< 0.033	< 0.048	< 0.161
03-27-25	301000	< 0.291	< 0.027	< 0.035	< 0.043	< 0.030	< 0.024	< 0.068	< 0.113
04-03-25	307200	< 0.229	< 0.027	< 0.025	< 0.053	< 0.024	< 0.026	< 0.032	< 0.084
04-10-25	300900	< 0.258	< 0.028	< 0.017	< 0.048	< 0.033	< 0.026	< 0.069	< 0.093
04-17-25	302200	< 0.270	< 0.031	< 0.026	< 0.046	< 0.027	< 0.030	< 0.051	< 0.114
04-24-25	306800	< 0.234	< 0.021	< 0.033	< 0.040	< 0.028	< 0.025	< 0.036	< 0.108
05-01-25	305300	< 0.249	< 0.024	< 0.026	< 0.050	< 0.025	< 0.020	< 0.069	< 0.091
05-08-25	292000	< 0.275	< 0.031	< 0.033	< 0.054	< 0.034	< 0.034	< 0.060	< 0.133
05-15-25	293900	< 0.204	< 0.018	< 0.026	< 0.029	< 0.021	< 0.018	< 0.058	< 0.078
05-22-25	297800	< 0.219	< 0.027	< 0.034	< 0.044	< 0.025	< 0.023	< 0.052	< 0.097
05-29-25	291500	< 0.373	< 0.045	< 0.034	< 0.068	< 0.035	< 0.028	< 0.164	< 0.165
06-05-25	296700	< 0.242	< 0.014	< 0.030	< 0.028	< 0.022	< 0.018	< 0.058	< 0.072
06-12-25	296800	< 0.223	< 0.026	< 0.034	< 0.047	< 0.020	< 0.025	< 0.055	< 0.117
06-19-25	299500	< 0.219	< 0.027	< 0.028	< 0.041	< 0.031	< 0.028	< 0.064	< 0.128
06-26-25		No Sample*							
07-03-25	299300	0.203 +/- 0.110	< 0.011	< 0.018	< 0.043	< 0.022	< 0.023	< 0.044	< 0.060
07-10-25	299700	< 0.310	< 0.037	< 0.040	< 0.065	< 0.037	< 0.034	< 0.058	< 0.161
07-17-25	302100	< 0.379	< 0.049	< 0.043	< 0.084	< 0.048	< 0.040	< 0.098	< 0.200
07-24-25	305600	< 0.433	< 0.054	< 0.053	< 0.076	< 0.040	< 0.045	< 0.207	< 0.187
07-31-25	304000	< 0.362	< 0.039	< 0.043	< 0.084	< 0.040	< 0.033	< 0.214	< 0.135
08-07-25	297000	< 0.475	< 0.054	< 0.043	< 0.098	< 0.044	< 0.040	< 0.153	< 0.143
08-14-25	300300	< 0.326	< 0.033	< 0.039	< 0.060	< 0.041	< 0.037	< 0.065	< 0.154
08-21-25	303400	< 0.404	< 0.039	< 0.054	< 0.072	< 0.046	< 0.040	< 0.108	< 0.204
08-28-25	295600	< 0.365	< 0.041	< 0.047	< 0.065	< 0.037	< 0.034	< 0.173	< 0.160
09-04-25	296600	< 0.439	< 0.049	< 0.044	< 0.091	< 0.048	< 0.042	< 0.105	< 0.159
09-11-25	295400	< 0.398	< 0.049	< 0.050	< 0.090	< 0.044	< 0.040	< 0.119	< 0.137
09-18-25	297500	0.306 +/- 0.206	< 0.026	< 0.022	< 0.051	< 0.025	< 0.032	< 0.061	< 0.104
09-25-25	290800	< 0.369	< 0.036	< 0.054	< 0.077	< 0.047	< 0.039	< 0.105	< 0.156
10-02-25	289800	< 0.259	< 0.025	< 0.041	< 0.053	< 0.025	< 0.022	< 0.060	< 0.081
10-09-25	291900	< 0.215	< 0.029	< 0.038	< 0.062	< 0.032	< 0.031	< 0.125	< 0.105
10-16-25	289700	< 0.472	< 0.046	< 0.051	< 0.073	< 0.042	< 0.031	< 0.224	< 0.157
10-23-25	284600	< 0.406	< 0.039	< 0.037	< 0.059	< 0.034	< 0.030	< 0.169	< 0.153
10-30-25	282700	< 0.454	< 0.061	< 0.057	< 0.112	< 0.047	< 0.038	< 0.267	< 0.168
11-06-25	277000	< 0.280	< 0.034	< 0.025	< 0.064	< 0.029	< 0.025	< 0.152	< 0.099
11-13-25	276000	< 0.334	< 0.042	< 0.040	< 0.072	< 0.042	< 0.032	< 0.198	< 0.108
11-20-25	287300	< 0.317	< 0.046	< 0.055	< 0.083	< 0.044	< 0.037	< 0.153	< 0.119
11-26-25	237600	< 0.251	< 0.026	< 0.028	< 0.052	< 0.028	< 0.026	< 0.052	< 0.134
12-04-25	306400	< 0.217	< 0.025	< 0.022	< 0.047	< 0.018	< 0.018	< 0.047	< 0.092
12-11-25	273500	< 0.183	< 0.017	< 0.031	< 0.033	< 0.013	< 0.015	< 0.080	< 0.072
12-18-25	121500	< 0.442	< 0.046	< 0.052	< 0.079	< 0.042	< 0.037	< 0.221	< 0.175
12-26-25	316500	< 0.304	< 0.033	< 0.036	< 0.067	< 0.035	< 0.028	< 0.106	< 0.121

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
		-	-	-	-	0.050	0.060	-	-
Collect Date	Volume								
Sample Location: CA-APT-A8									
01-02-25	282000	< 0.232	< 0.029	< 0.029	< 0.045	< 0.030	< 0.023	< 0.047	< 0.109
01-09-25	283800	< 0.297	< 0.035	< 0.037	< 0.055	< 0.035	< 0.029	< 0.053	< 0.148
01-16-25	282100	< 0.133	< 0.013	< 0.017	< 0.023	< 0.015	< 0.012	< 0.022	< 0.052
01-23-25	280600	< 0.266	< 0.026	< 0.025	< 0.045	< 0.028	< 0.024	< 0.042	< 0.094
01-30-25	278400	< 0.261	< 0.036	< 0.042	< 0.045	< 0.038	< 0.025	< 0.069	< 0.119
02-06-25	275000	< 0.166	< 0.024	< 0.022	< 0.037	< 0.022	< 0.020	< 0.045	< 0.074
02-13-25	278200	< 0.229	< 0.033	< 0.033	< 0.052	< 0.034	< 0.024	< 0.070	< 0.086
02-20-25	276300	< 0.180	< 0.017	< 0.027	< 0.036	< 0.021	< 0.021	< 0.061	< 0.088
02-27-25	273500	< 0.289	< 0.032	< 0.048	< 0.054	< 0.038	< 0.028	< 0.055	< 0.118
03-06-25	271000	0.224 +/- 0.075	< 0.015	< 0.021	< 0.025	< 0.014	< 0.016	< 0.040	< 0.054
03-13-25	267200	< 0.276	< 0.042	< 0.044	< 0.061	< 0.037	< 0.030	< 0.068	< 0.112
03-20-25	284900	< 0.270	< 0.026	< 0.029	< 0.034	< 0.030	< 0.028	< 0.041	< 0.092
03-27-25	297500	< 0.252	< 0.027	< 0.026	< 0.048	< 0.020	< 0.021	< 0.056	< 0.094
04-03-25	298400	< 0.238	< 0.030	< 0.040	< 0.048	< 0.034	< 0.034	< 0.044	< 0.118
04-10-25	301000	< 0.270	< 0.031	< 0.043	< 0.056	< 0.035	< 0.034	< 0.073	< 0.146
04-17-25	300300	< 0.317	< 0.034	< 0.038	< 0.059	< 0.032	< 0.032	< 0.055	< 0.170
04-24-25	307100	< 0.353	< 0.035	< 0.041	< 0.060	< 0.039	< 0.041	< 0.063	< 0.157
05-01-25	310800	< 0.228	< 0.021	< 0.026	< 0.033	< 0.024	< 0.019	< 0.058	< 0.072
05-08-25	268800	< 0.255	< 0.033	< 0.037	< 0.036	< 0.036	< 0.030	< 0.047	< 0.105
05-15-25	284500	< 0.258	< 0.028	< 0.022	< 0.037	< 0.031	< 0.021	< 0.050	< 0.085
05-22-25	276400	< 0.231	< 0.030	< 0.030	< 0.056	< 0.037	< 0.027	< 0.066	< 0.109
05-29-25	285900	< 0.428	< 0.049	< 0.043	< 0.102	< 0.048	< 0.034	< 0.173	< 0.145
06-05-25	289600	< 0.407	< 0.047	< 0.050	< 0.094	< 0.037	< 0.037	< 0.154	< 0.135
06-12-25	304500	< 0.317	< 0.043	< 0.046	< 0.060	< 0.035	< 0.037	< 0.110	< 0.135
06-19-25	272100	< 0.229	< 0.022	< 0.035	< 0.037	< 0.016	< 0.025	< 0.036	< 0.087
06-26-25	270700	< 0.305	< 0.034	< 0.042	< 0.047	< 0.030	< 0.028	< 0.068	< 0.119
07-03-25	276200	< 0.335	< 0.039	< 0.053	< 0.069	< 0.047	< 0.041	< 0.092	< 0.140
07-10-25	284000	< 0.239	< 0.019	< 0.033	< 0.028	< 0.024	< 0.020	< 0.025	< 0.070
07-17-25	294800	< 0.254	< 0.030	< 0.043	< 0.052	< 0.018	< 0.021	< 0.098	< 0.088
07-24-25	270200	< 0.353	< 0.048	< 0.043	< 0.075	< 0.036	< 0.031	< 0.158	< 0.162
07-31-25	266600	< 0.369	< 0.045	< 0.032	< 0.048	< 0.035	< 0.028	< 0.150	< 0.111
08-07-25	269000	< 0.277	< 0.037	< 0.036	< 0.048	< 0.032	< 0.033	< 0.123	< 0.118
08-14-25	265700	0.318 +/- 0.192	< 0.032	< 0.030	< 0.068	< 0.030	< 0.030	< 0.080	< 0.121
08-21-25	267300	< 0.392	< 0.042	< 0.051	< 0.099	< 0.047	< 0.033	< 0.101	< 0.149
08-28-25	267100	< 0.305	< 0.043	< 0.034	< 0.064	< 0.022	< 0.030	< 0.157	< 0.110
09-04-25	297500	< 0.517	< 0.042	< 0.067	< 0.092	< 0.048	< 0.044	< 0.197	< 0.180
09-11-25	293600	< 0.266	< 0.028	< 0.018	< 0.037	< 0.034	< 0.034	< 0.101	< 0.126
09-18-25	303900	< 0.426	< 0.043	< 0.055	< 0.074	< 0.047	< 0.046	< 0.122	< 0.197
09-25-25	294100	< 0.234	< 0.028	< 0.025	< 0.041	< 0.023	< 0.020	< 0.042	< 0.067
10-02-25	294000	< 0.365	< 0.041	< 0.058	< 0.068	< 0.046	< 0.039	< 0.089	< 0.171
10-09-25	296600	< 0.450	< 0.057	< 0.060	< 0.112	< 0.047	< 0.046	< 0.156	< 0.207
10-16-25	263300	< 0.318	< 0.029	< 0.031	< 0.046	< 0.035	< 0.020	< 0.251	< 0.113
10-23-25	289900	< 0.416	< 0.043	< 0.056	< 0.085	< 0.045	< 0.033	< 0.228	< 0.170
10-30-25	227700	< 0.306	< 0.028	< 0.028	< 0.049	< 0.031	< 0.030	< 0.147	< 0.116
11-06-25		No Sample*							
11-13-25	38260	< 1.9	< 0.240	< 0.230	< 0.450	< 0.234	< 0.227	< 0.860	< 0.710
11-20-25	292200	< 0.327	< 0.034	< 0.024	< 0.068	< 0.030	< 0.026	< 0.142	< 0.137
11-26-25	240900	< 0.305	< 0.041	< 0.037	< 0.074	< 0.046	< 0.039	< 0.086	< 0.178
12-04-25	308400	< 0.364	< 0.043	< 0.036	< 0.067	< 0.032	< 0.036	< 0.160	< 0.143
12-11-25	276600	< 0.434	< 0.048	< 0.048	< 0.071	< 0.032	< 0.040	< 0.194	< 0.191
12-18-25	273700	< 0.281	< 0.028	< 0.025	< 0.058	< 0.019	< 0.022	< 0.166	< 0.115
12-26-25	321300	< 0.229	< 0.026	< 0.021	< 0.044	< 0.025	< 0.020	< 0.100	< 0.115

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
		-	-	-	-	0.050	0.060	-	-
Collect Date	Volume								
Sample Location: CA-APT-A9									
01-02-25	275500	< 0.292	< 0.040	< 0.056	< 0.069	< 0.048	< 0.037	< 0.061	< 0.137
01-09-25	280900	< 0.304	< 0.033	< 0.032	< 0.058	< 0.032	< 0.032	< 0.070	< 0.123
01-16-25	275400	< 0.133	< 0.013	< 0.020	< 0.021	< 0.011	< 0.011	< 0.024	< 0.054
01-23-25	279900	< 0.264	< 0.028	< 0.027	< 0.064	< 0.045	< 0.034	< 0.077	< 0.135
01-30-25	273700	< 0.323	< 0.033	< 0.042	< 0.058	< 0.038	< 0.034	< 0.051	< 0.144
02-06-25	271300	< 0.177	< 0.016	< 0.024	< 0.036	< 0.017	< 0.018	< 0.066	< 0.067
02-13-25	276900	< 0.225	< 0.024	< 0.026	< 0.042	< 0.019	< 0.015	< 0.064	< 0.084
02-20-25	279500	< 0.249	< 0.011	< 0.017	< 0.052	< 0.023	< 0.025	< 0.024	< 0.117
02-27-25	220900	< 0.307	< 0.040	< 0.044	< 0.072	< 0.044	< 0.037	< 0.076	< 0.117
03-06-25	271500	< 0.253	< 0.031	< 0.031	< 0.057	< 0.033	< 0.029	< 0.056	< 0.097
03-13-25	268000	< 0.213	< 0.027	< 0.039	< 0.038	< 0.027	< 0.024	< 0.061	< 0.124
03-20-25	269500	< 0.288	< 0.036	< 0.051	< 0.056	< 0.035	< 0.037	< 0.053	< 0.126
03-27-25	277000	< 0.222	< 0.028	< 0.033	< 0.049	< 0.031	< 0.018	< 0.047	< 0.100
04-03-25	264200	< 0.230	< 0.023	< 0.030	< 0.042	< 0.020	< 0.026	< 0.059	< 0.087
04-10-25	270200	< 0.292	< 0.028	< 0.027	< 0.044	< 0.025	< 0.027	< 0.054	< 0.100
04-17-25	276500	< 0.257	< 0.025	< 0.029	< 0.041	< 0.026	< 0.023	< 0.015	< 0.091
04-24-25	268600	< 0.155	< 0.017	< 0.018	< 0.032	< 0.020	< 0.017	< 0.029	< 0.084
05-01-25	267300	< 0.381	< 0.047	< 0.038	< 0.070	< 0.038	< 0.047	< 0.113	< 0.157
05-08-25	250100	< 0.246	< 0.031	< 0.030	< 0.051	< 0.030	< 0.019	< 0.056	< 0.133
05-15-25	253900	< 0.318	< 0.019	< 0.037	< 0.051	< 0.034	< 0.028	< 0.057	< 0.107
05-22-25	296500	< 0.322	< 0.033	< 0.055	< 0.075	< 0.045	< 0.040	< 0.091	< 0.122
05-29-25	290300	< 0.351	< 0.025	< 0.027	< 0.053	< 0.026	< 0.026	< 0.123	< 0.085
06-05-25	295300	< 0.254	< 0.024	< 0.025	< 0.043	< 0.028	< 0.020	< 0.040	< 0.068
06-12-25	295400	< 0.199	< 0.020	< 0.028	< 0.045	< 0.030	< 0.018	< 0.031	< 0.079
06-19-25	298500	< 0.284	< 0.025	< 0.033	< 0.056	< 0.026	< 0.021	< 0.043	< 0.116
06-26-25	302600	< 0.323	< 0.033	< 0.040	< 0.070	< 0.036	< 0.033	< 0.066	< 0.115
07-03-25	298000	< 0.304	< 0.029	< 0.039	< 0.052	< 0.039	< 0.028	< 0.054	< 0.144
07-10-25	298900	< 0.289	< 0.024	< 0.043	< 0.058	< 0.030	< 0.034	< 0.064	< 0.140
07-17-25	300200	< 0.493	< 0.047	< 0.057	< 0.107	< 0.045	< 0.044	< 0.112	< 0.228
07-24-25	304900	< 0.270	< 0.025	< 0.031	< 0.051	< 0.031	< 0.023	< 0.089	< 0.094
07-31-25	302500	< 0.282	< 0.028	< 0.028	< 0.049	< 0.028	< 0.025	< 0.100	< 0.113
08-07-25	295400	< 0.288	< 0.042	< 0.043	< 0.057	< 0.029	< 0.023	< 0.116	< 0.105
08-14-25	298400	< 0.339	< 0.034	< 0.035	< 0.068	< 0.046	< 0.037	< 0.127	< 0.142
08-21-25	302000	< 0.253	< 0.034	< 0.038	< 0.058	< 0.033	< 0.032	< 0.045	< 0.158
08-28-25	293200	< 0.387	< 0.041	< 0.043	< 0.069	< 0.038	< 0.036	< 0.132	< 0.163
09-04-25	295000	< 0.239	< 0.022	< 0.025	< 0.042	< 0.028	< 0.019	< 0.053	< 0.078
09-11-25	291400	< 0.243	< 0.023	< 0.038	< 0.039	< 0.035	< 0.024	< 0.091	< 0.093
09-18-25	301200	0.217 +/- 0.140	< 0.023	< 0.030	< 0.047	< 0.024	< 0.025	< 0.060	< 0.076
09-25-25	292800	< 0.275	< 0.022	< 0.034	< 0.034	< 0.034	< 0.027	< 0.062	< 0.113
10-02-25	291400	< 0.328	< 0.020	< 0.030	< 0.056	< 0.030	< 0.028	< 0.128	< 0.116
10-09-25	293700	< 0.372	< 0.045	< 0.037	< 0.071	< 0.036	< 0.034	< 0.143	< 0.156
10-16-25	293000	< 0.259	< 0.025	< 0.022	< 0.045	< 0.023	< 0.021	< 0.210	< 0.093
10-23-25	287800	< 0.526	< 0.061	< 0.065	< 0.067	< 0.037	< 0.042	< 0.274	< 0.167
10-30-25	284500	< 0.299	< 0.029	< 0.031	< 0.063	< 0.030	< 0.025	< 0.073	< 0.128
11-06-25	282100	< 0.341	< 0.035	< 0.034	< 0.059	< 0.042	< 0.033	< 0.083	< 0.166
11-13-25	279800	< 0.305	< 0.035	< 0.027	< 0.051	< 0.032	< 0.024	< 0.131	< 0.133
11-20-25	291900	< 0.236	< 0.023	< 0.024	< 0.043	< 0.022	< 0.022	< 0.090	< 0.082
11-26-25	241100	< 0.249	< 0.028	< 0.029	< 0.052	< 0.030	< 0.027	< 0.062	< 0.114
12-04-25	308500	< 0.274	< 0.035	< 0.030	< 0.054	< 0.028	< 0.027	< 0.116	< 0.122
12-11-25	276500	< 0.394	< 0.036	< 0.038	< 0.074	< 0.031	< 0.028	< 0.212	< 0.138
12-18-25	273600	< 0.249	< 0.024	< 0.026	< 0.048	< 0.023	< 0.022	< 0.127	< 0.110
12-26-25	321400	< 0.321	< 0.029	< 0.032	< 0.060	< 0.033	< 0.031	< 0.140	< 0.126

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
Collect Date		-	-	-	-	0.050	0.060	-	-
Volume									
Sample Location: CA-APT-A10									
01-02-25	293800	< 0.140	< 0.016	< 0.015	< 0.022	< 0.014	< 0.013	< 0.026	< 0.057
01-09-25	301800	< 0.398	< 0.041	< 0.046	< 0.095	< 0.042	< 0.043	< 0.089	< 0.198
01-16-25	299300	< 0.125	< 0.010	< 0.014	< 0.022	< 0.013	< 0.011	< 0.030	< 0.046
01-23-25	301900	< 0.409	< 0.042	< 0.054	< 0.071	< 0.028	< 0.032	< 0.048	< 0.169
01-30-25	298500	< 0.236	< 0.022	< 0.036	< 0.038	< 0.022	< 0.021	< 0.049	< 0.089
02-06-25	295800	< 0.255	< 0.026	< 0.026	< 0.053	< 0.030	< 0.026	< 0.115	< 0.094
02-13-25	301500	< 0.103	< 0.011	< 0.012	< 0.020	< 0.013	< 0.010	< 0.024	< 0.043
02-20-25	306200	< 0.204	< 0.019	< 0.036	< 0.036	< 0.024	< 0.020	< 0.047	< 0.101
02-27-25	296700	< 0.260	< 0.019	< 0.035	< 0.056	< 0.038	< 0.025	< 0.040	< 0.112
03-06-25	297200	< 0.277	< 0.033	< 0.033	< 0.052	< 0.034	< 0.032	< 0.024	< 0.115
03-13-25	288900	< 0.236	< 0.018	< 0.033	< 0.047	< 0.021	< 0.020	< 0.024	< 0.073
03-20-25	288900	0.234 +/- 0.127	< 0.033	< 0.037	< 0.055	< 0.041	< 0.031	< 0.049	< 0.124
03-27-25	294800	< 0.361	< 0.038	< 0.047	< 0.059	< 0.044	< 0.035	< 0.083	< 0.132
04-03-25	291700	< 0.168	< 0.025	< 0.028	< 0.040	< 0.028	< 0.026	< 0.041	< 0.110
04-10-25	294300	< 0.238	< 0.023	< 0.028	< 0.039	< 0.028	< 0.024	< 0.040	< 0.128
04-17-25	289200	< 0.228	< 0.023	< 0.032	< 0.043	< 0.014	< 0.020	< 0.048	< 0.089
04-24-25	291200	< 0.212	< 0.024	< 0.029	< 0.042	< 0.025	< 0.029	< 0.042	< 0.098
05-01-25	291000	< 0.175	< 0.030	< 0.031	< 0.043	< 0.022	< 0.027	< 0.075	< 0.067
05-08-25	296700	< 0.288	< 0.038	< 0.042	< 0.053	< 0.033	< 0.034	< 0.053	< 0.151
05-15-25	291200	0.202 +/- 0.135	< 0.026	< 0.017	< 0.057	< 0.025	< 0.026	< 0.053	< 0.099
05-22-25	290500	< 0.148	< 0.017	< 0.014	< 0.034	< 0.011	< 0.012	< 0.027	< 0.059
05-29-25	296700	< 0.294	< 0.023	< 0.028	< 0.051	< 0.027	< 0.026	< 0.115	< 0.105
06-05-25	291500	< 0.257	< 0.026	< 0.018	< 0.050	< 0.030	< 0.022	< 0.093	< 0.082
06-12-25	294400	< 0.228	< 0.021	< 0.029	< 0.051	< 0.027	< 0.022	< 0.084	< 0.085
06-19-25	285600	< 0.301	< 0.028	< 0.022	< 0.048	< 0.027	< 0.022	< 0.044	< 0.097
06-26-25	287900	< 0.250	< 0.020	< 0.014	< 0.043	< 0.028	< 0.021	< 0.029	< 0.090
07-03-25	283900	< 0.377	< 0.044	< 0.050	< 0.078	< 0.042	< 0.043	< 0.066	< 0.142
07-10-25	286200	< 0.311	< 0.031	< 0.027	< 0.055	< 0.037	< 0.035	< 0.078	< 0.167
07-17-25	285800	< 0.284	< 0.036	< 0.034	< 0.040	< 0.028	< 0.030	< 0.072	< 0.109
07-24-25	287200	< 0.359	< 0.032	< 0.038	< 0.071	< 0.036	< 0.030	< 0.082	< 0.151
07-31-25	289000	< 0.431	< 0.044	< 0.057	< 0.064	< 0.047	< 0.047	< 0.107	< 0.164
08-07-25	295100	< 0.418	< 0.042	< 0.054	< 0.067	< 0.047	< 0.043	< 0.073	< 0.178
08-14-25	296400	< 0.360	< 0.030	< 0.034	< 0.062	< 0.034	< 0.037	< 0.088	< 0.155
08-21-25	300300	< 0.196	< 0.020	< 0.021	< 0.038	< 0.025	< 0.022	< 0.042	< 0.069
08-28-25	292000	< 0.487	< 0.056	< 0.062	< 0.085	< 0.048	< 0.051	< 0.193	< 0.242
09-04-25	293200	< 0.256	< 0.016	< 0.024	< 0.036	< 0.039	< 0.019	< 0.073	< 0.069
09-11-25	289800	< 0.254	< 0.038	< 0.048	< 0.055	< 0.021	< 0.026	< 0.101	< 0.106
09-18-25	302400	< 0.317	< 0.025	< 0.035	< 0.050	< 0.028	< 0.024	< 0.058	< 0.112
09-25-25	289500	< 0.281	< 0.025	< 0.036	< 0.048	< 0.026	< 0.027	< 0.053	< 0.106
10-02-25	290600	< 0.264	< 0.017	< 0.034	< 0.045	< 0.028	< 0.022	< 0.064	< 0.112
10-09-25	293300	< 0.433	< 0.053	< 0.039	< 0.089	< 0.049	< 0.038	< 0.179	< 0.148
10-16-25	289800	< 0.290	< 0.026	< 0.025	< 0.049	< 0.026	< 0.021	< 0.158	< 0.103
10-23-25	287600	< 0.282	< 0.033	< 0.032	< 0.073	< 0.027	< 0.023	< 0.141	< 0.139
10-30-25	283000	< 0.210	< 0.020	< 0.021	< 0.034	< 0.022	< 0.019	< 0.070	< 0.087
11-06-25	279500	< 0.224	< 0.026	< 0.030	< 0.041	< 0.034	< 0.031	< 0.147	< 0.104
11-13-25	277600	< 0.325	< 0.030	< 0.028	< 0.057	< 0.033	< 0.021	< 0.109	< 0.100
11-20-25	291200	< 0.265	< 0.028	< 0.034	< 0.050	< 0.025	< 0.023	< 0.103	< 0.109
11-26-25	241400	< 0.270	< 0.032	< 0.034	< 0.059	< 0.032	< 0.030	< 0.097	< 0.105
12-04-25	307300	< 0.305	< 0.028	< 0.030	< 0.049	< 0.028	< 0.026	< 0.133	< 0.122
12-11-25	275800	< 0.495	< 0.063	< 0.048	< 0.113	< 0.041	< 0.043	< 0.151	< 0.147
12-18-25	272700	< 0.285	< 0.028	< 0.036	< 0.049	< 0.033	< 0.021	< 0.097	< 0.112
12-26-25	320800	< 0.234	< 0.025	< 0.017	< 0.043	< 0.023	< 0.021	< 0.086	< 0.108

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

Project LLDs		BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
Collect Date		-	-	-	-	0.050	0.060	-	-
Volume									
Sample Location: CA-APT-A11									
01-02-25	278800	< 0.200	< 0.020	< 0.025	< 0.030	< 0.025	< 0.023	< 0.046	< 0.098
01-09-25	275200	< 0.321	< 0.034	< 0.043	< 0.064	< 0.038	< 0.032	< 0.068	< 0.149
01-16-25	279800	< 0.135	< 0.012	< 0.010	< 0.015	< 0.014	< 0.006	< 0.024	< 0.044
01-23-25	114700	< 0.232	< 0.030	< 0.030	< 0.047	< 0.030	< 0.028	< 0.067	< 0.120
01-30-25	281300	< 0.340	< 0.045	< 0.049	< 0.057	< 0.043	< 0.036	< 0.090	< 0.148
02-06-25	287900	< 0.167	< 0.017	< 0.021	< 0.030	< 0.017	< 0.017	< 0.045	< 0.059
02-13-25	282200	< 0.256	< 0.024	< 0.021	< 0.045	< 0.029	< 0.022	< 0.042	< 0.101
02-20-25	272200	< 0.236	< 0.021	< 0.027	< 0.052	< 0.032	< 0.024	< 0.022	< 0.133
02-27-25	286700	< 0.287	< 0.030	< 0.037	< 0.051	< 0.033	< 0.028	< 0.053	< 0.121
03-06-25	198600	< 0.373	< 0.032	< 0.032	< 0.065	< 0.032	< 0.034	< 0.066	< 0.149
03-13-25	304000	< 0.336	< 0.039	< 0.053	< 0.043	< 0.042	< 0.037	< 0.064	< 0.154
03-20-25	300300	< 0.224	< 0.024	< 0.033	< 0.044	< 0.025	< 0.023	< 0.051	< 0.098
03-27-25	111200	< 0.398	< 0.045	< 0.056	< 0.071	< 0.047	< 0.045	< 0.087	< 0.182
04-03-25	289700	< 0.255	< 0.027	< 0.034	< 0.048	< 0.026	< 0.022	< 0.064	< 0.105
04-10-25	40650	< 0.288	< 0.032	< 0.038	< 0.063	< 0.038	< 0.034	< 0.075	< 0.149
04-17-25	284500	< 0.239	< 0.032	< 0.022	< 0.048	< 0.030	< 0.021	< 0.056	< 0.113
04-24-25	291000	0.362 +/- 0.178	< 0.011	< 0.027	< 0.039	< 0.023	< 0.018	< 0.024	< 0.089
05-01-25	289500	< 0.286	< 0.032	< 0.041	< 0.053	< 0.030	< 0.025	< 0.038	< 0.104
05-08-25	289400	< 0.206	< 0.022	< 0.038	< 0.045	< 0.027	< 0.020	< 0.026	< 0.085
05-15-25	290500	< 0.268	< 0.032	< 0.034	< 0.036	< 0.033	< 0.030	< 0.061	< 0.107
05-22-25	295200	< 0.261	< 0.026	< 0.028	< 0.052	< 0.032	< 0.026	< 0.058	< 0.144
05-29-25	289000	< 0.308	< 0.030	< 0.027	< 0.052	< 0.025	< 0.030	< 0.122	< 0.094
06-05-25	293000	< 0.294	< 0.019	< 0.037	< 0.050	< 0.031	< 0.023	< 0.060	< 0.094
06-12-25	294800	< 0.328	< 0.044	< 0.050	< 0.055	< 0.047	< 0.036	< 0.105	< 0.136
06-19-25	297400	< 0.219	< 0.026	< 0.031	< 0.035	< 0.022	< 0.022	< 0.047	< 0.088
06-26-25	301000	0.289 +/- 0.109	< 0.022	< 0.024	< 0.045	< 0.020	< 0.022	< 0.045	< 0.071
07-03-25	296100	< 0.272	< 0.019	< 0.037	< 0.045	< 0.026	< 0.020	< 0.068	< 0.080
07-10-25	298300	< 0.426	< 0.046	< 0.058	< 0.069	< 0.046	< 0.043	< 0.106	< 0.166
07-17-25	298600	< 0.362	< 0.037	< 0.049	< 0.067	< 0.035	< 0.045	< 0.134	< 0.133
07-24-25	301800	< 0.378	< 0.041	< 0.039	< 0.064	< 0.038	< 0.037	< 0.103	< 0.129
07-31-25	302100	< 0.391	< 0.055	< 0.059	< 0.076	< 0.046	< 0.047	< 0.187	< 0.179
08-07-25	295600	< 0.277	< 0.033	< 0.024	< 0.064	< 0.038	< 0.026	< 0.105	< 0.083
08-14-25	297300	< 0.263	< 0.035	< 0.029	< 0.056	< 0.032	< 0.025	< 0.050	< 0.099
08-21-25	301100	< 0.244	< 0.026	< 0.027	< 0.045	< 0.028	< 0.031	< 0.040	< 0.114
08-28-25	292700	< 0.454	< 0.043	< 0.045	< 0.081	< 0.046	< 0.041	< 0.178	< 0.141
09-04-25	293900	< 0.378	< 0.039	< 0.057	< 0.087	< 0.041	< 0.038	< 0.161	< 0.134
09-11-25	290800	< 0.241	< 0.041	< 0.036	< 0.058	< 0.030	< 0.020	< 0.055	< 0.099
09-18-25	303400	< 0.413	< 0.037	< 0.054	< 0.084	< 0.048	< 0.038	< 0.089	< 0.134
09-25-25	290900	< 0.384	< 0.041	< 0.055	< 0.076	< 0.033	< 0.036	< 0.094	< 0.138
10-02-25	291400	< 0.230	< 0.026	< 0.028	< 0.047	< 0.024	< 0.026	< 0.051	< 0.098
10-09-25	294100	< 0.433	< 0.047	< 0.063	< 0.095	< 0.045	< 0.040	< 0.205	< 0.191
10-16-25	290900	< 0.401	< 0.043	< 0.049	< 0.075	< 0.039	< 0.029	< 0.252	< 0.159
10-23-25	289300	< 0.332	< 0.045	< 0.033	< 0.093	< 0.044	< 0.039	< 0.155	< 0.119
10-30-25	284400	< 0.275	< 0.028	< 0.026	< 0.066	< 0.031	< 0.029	< 0.100	< 0.104
11-06-25	281100	< 0.351	< 0.036	< 0.042	< 0.074	< 0.040	< 0.034	< 0.105	< 0.156
11-13-25	279100	< 0.271	< 0.028	< 0.027	< 0.057	< 0.025	< 0.021	< 0.114	< 0.110
11-20-25	289900	< 0.331	< 0.039	< 0.039	< 0.069	< 0.041	< 0.036	< 0.135	< 0.126
11-26-25	240100	< 0.397	< 0.045	< 0.032	< 0.083	< 0.047	< 0.049	< 0.094	< 0.197
12-04-25	305600	< 0.228	< 0.024	< 0.022	< 0.048	< 0.025	< 0.020	< 0.090	< 0.097
12-11-25	273800	< 0.278	< 0.028	< 0.029	< 0.071	< 0.036	< 0.025	< 0.129	< 0.105
12-18-25	271300	< 0.365	< 0.043	< 0.039	< 0.065	< 0.032	< 0.031	< 0.189	< 0.131
12-26-25	318900	< 0.270	< 0.030	< 0.035	< 0.052	< 0.029	< 0.027	< 0.100	< 0.087

Table 1A Airborne particulate sample analysis results for gamma emitters

Collection: Weekly

Units: pCi/m3

	BE-7	CO-58	CO-60	ZR-95	CS-134	CS-137	BALA140	CE-144
Project LLDs	-	-	-	-	0.050	0.060	-	-
Collect Date	Volume							

* No Sample - Please refer to Section 1.0 List of Missing Samples

Table 1B Charcoal sample analysis results I-131

Collection: Weekly

Units: pCi/m³

All charcoal samples were below the client's Lower Limit of Detection for I-131 of 0.070 pCi/m³

Table 2 Milk sample analysis results for iodine 131 and gamma emitters

Collection: Semi-monthly during grazing season, monthly otherwise

Units: pCi/L

Project LLDs	I-131 (LOW LVL)	K-40	ZN-65	CO-58	CO-60	BALA140
Collect Date	1	-	-	15	18	15
Sample Location M9						
01-28-25	< 0.926	1243 +/- 180.5	< 23.1	< 10.0	< 9.0	< 9.0
05-14-25	< 0.979	937.2 +/- 193.9	< 18.7	< 7.9	< 7.3	< 12.1
05-27-25	< 0.893	1166 +/- 166.9	< 17.8	< 4.3	< 6.9	< 7.0
06-10-25	< 0.986	842.9 +/- 157.9	< 14.6	< 7.7	< 8.0	< 10.4
06-24-25	< 0.765	1202 +/- 175.2	< 21.1	< 8.1	< 8.9	< 11.3
07-08-25	< 0.696	1185 +/- 151.5	< 19.0	< 8.9	< 5.8	< 8.9
07-22-25	< 0.377	1549 +/- 183.4	< 20.6	< 9.7	< 9.6	< 11.5
08-13-25	< 0.875	1097 +/- 167.6	< 20.7	< 9.6	< 8.6	< 14.6
08-26-25	< 0.916	1339 +/- 164.2	< 15.4	< 7.1	< 7.9	< 14.5
09-09-25	< 0.539	1185 +/- 132.7	< 15.6	< 6.7	< 6.4	< 7.4
09-22-25	< 0.911	1004 +/- 162.6	< 17.8	< 8.5	< 8.7	< 13.2
10-14-25	< 0.881	1037 +/- 148.6	< 15.8	< 8.3	< 7.9	< 14.4
10-27-25	< 0.911	913.4 +/- 147.2	< 15.7	< 7.6	< 8.0	< 9.3
11-24-25	< 0.860	1474 +/- 170.1	< 15.9	< 6.8	< 6.0	< 14.8
12-16-25	< 0.963	1146 +/- 160.8	< 15.7	< 7.7	< 7.1	< 10.2
Sample Location V21						
05-12-25	< 0.870	401.9 +/- 126.9	< 17.0	< 10.7	< 7.8	< 14.1
05-26-25	< 0.949	467.0 +/- 122.6	< 12.4	< 6.0	< 6.5	< 10.6
06-09-25	< 0.934	531.8 +/- 131.6	< 12.5	< 7.6	< 6.4	< 9.6
06-24-25	< 0.868	398.6 +/- 120.1	< 14.2	< 9.0	< 7.1	< 7.8
07-08-25	< 0.579	472.0 +/- 121.6	< 15.5	< 8.8	< 7.9	< 6.0
07-22-25	< 0.418	504.6 +/- 133.1	< 17.4	< 8.2	< 8.4	< 9.6
08-05-25	< 0.880	228.9 +/- 107.5	< 13.9	< 7.6	< 5.5	< 7.7
08-26-25	< 0.948	299.0 +/- 115.6	< 13.4	< 8.3	< 7.2	< 14.1
09-07-25	< 0.894	683.3 +/- 109.5	< 15.5	< 7.8	< 7.4	< 8.3
09-24-25		767.4 +/- 111.7	< 11.2	< 5.1	< 4.9	< 7.1
10-14-25	< 0.952	1176 +/- 169.3	< 16.7	< 9.1	< 8.4	< 12.5
10-28-25	< 0.757	847.9 +/- 160.1	< 21.9	< 10.8	< 11.6	< 13.4
11-24-25	< 0.848	804.6 +/- 121.2	< 16.1	< 7.4	< 6.2	< 14.0
12-18-25	No Sample*					

* No Sample - Please refer to Section 1.0 List of Missing Samples

Table 3 Vegetation sample analysis results for gamma emitters

Collection: Monthly during growing season

Units: pCi/kg wet

Collect Date	Sample Type	Project LLDs						
		K-40	MN-54	CO-58	CO-60	I-131	CS-134	CS-137
		-	-	-	-	60	60	80
Sample Location: CA-FPL-V16								
06-MAY-25	Cabbage 3lbs	3011 +/- 533.0	< 14.7	< 20.2	< 22.5	< 22.5	< 28.1	< 21.6
06-MAY-25	Collards 3lbs	3085 +/- 518.0	< 30.6	< 36.4	< 36.3	< 38.8	< 32.9	< 32.6
06-MAY-25	Kale 3lbs	4493 +/- 841.5	< 39.1	< 31.1	< 40.8	< 49.7	< 42.8	< 53.4
02-JUN-25	3LB Lettuce	4564 +/- 703.7	< 45.3	< 30.9	< 29.7	< 40.4	< 43.9	< 31.8
02-JUN-25	3LB Collards	3750 +/- 475.4	< 22.5	< 25.0	< 30.0	< 28.3	< 26.8	< 23.5
02-JUN-25	3LB Kale	5175 +/- 968.9	< 46.3	< 37.9	< 44.0	< 44.4	< 38.7	< 40.0
07-JUL-25	3LB Collard Greens	4377 +/- 563.7	< 23.0	< 22.0	< 30.2	< 43.6	< 26.1	< 21.4
07-JUL-25	3LB Kale	4313 +/- 377.1	< 18.5	< 18.8	< 19.6	< 28.5	< 18.8	< 17.6
04-AUG-25	3LB Cabbage	3878 +/- 582.3	< 28.9	< 30.3	< 35.5	< 51.7	< 25.9	< 27.2
08-SEP-25		No Sample*						
Sample Location: CA-FPL-V19								
08-APR-25	Turnip Greens 3lbs	4532 +/- 727.3	< 30.9	< 37.4	< 42.9	< 53.7	< 41.7	< 36.7
05-MAY-25	Turnip Greens 3lbs	2831 +/- 627.6	< 36.0	< 27.9	< 29.9	< 43.5	< 34.4	< 39.8
03-JUN-25		No Sample*						
07-JUL-25	3LB Cabbage/Kale	3009 +/- 760.1	< 36.0	< 24.7	< 40.5	< 48.1	< 24.7	< 35.5
04-AUG-25	3LB Cabbage/Kale	7756 +/- 619.5	< 22.3	< 21.0	< 31.5	< 45.4	< 23.5	< 22.1
08-SEP-25		No Sample*						
Sample Location: CA-FPL-V20								
02-JUN-25	3LB Swiss Chard	2367 +/- 316.8	< 17.2	< 16.1	< 17.0	< 34.0	< 20.2	< 17.5
02-JUN-25	3LB Cabbage	2424 +/- 336.1	< 15.2	< 13.0	< 17.1	< 23.2	< 13.2	< 13.4
07-JUL-25	3LB Kale	2673 +/- 440.1	< 20.0	< 25.7	< 28.4	< 47.9	< 25.7	< 24.1
07-JUL-25	3LB Swiss Chard	4968 +/- 688.6	< 30.1	< 26.4	< 35.4	< 43.6	< 34.5	< 25.8
04-AUG-25	3LB Cabbage	6316 +/- 657.8	< 24.6	< 21.5	< 20.7	< 54.4	< 25.4	< 23.2
04-AUG-25	3LB Poke	6520 +/- 755.6	< 28.2	< 27.0	< 29.2	< 50.4	< 26.9	< 24.7
08-SEP-25	3LB Poke Weed	7253 +/- 914.5	< 38.6	< 35.3	< 46.0	< 38.0	< 42.6	< 30.8
08-SEP-25	3LB Cabbage	3375 +/- 589.4	< 32.3	< 29.2	< 36.1	< 36.6	< 37.5	< 36.9
06-OCT-25	3LB Mustard Greens	4564 +/- 565.2	< 23.3	< 27.0	< 31.3	< 51.3	< 29.6	< 25.8
06-OCT-25	3LB Collard Greens	3509 +/- 503.6	< 25.4	< 23.8	< 39.0	< 43.8	< 32.1	< 30.4
06-OCT-25	3LB Kale	4443 +/- 580.9	< 25.5	< 28.2	< 34.4	< 41.7	< 24.5	< 30.1
06-OCT-25	3LB Cabbage	2706 +/- 454.5	< 26.1	< 22.0	< 30.7	< 41.7	< 25.2	< 25.5
Sample Location: CA-FPL-V21								
03-JUN-25	3LB Red Lettuce	2930 +/- 814.6	< 42.0	< 49.6	< 49.4	< 52.6	< 53.7	< 62.3
03-JUN-25	3LB Kale	4586 +/- 604.8	< 28.9	< 22.6	< 26.1	< 38.1	< 27.4	< 26.3
08-JUL-25	3LB Kale	5589 +/- 589.4	< 25.8	< 24.9	< 33.9	< 34.4	< 25.3	< 28.0
08-JUL-25	3LB Red Lettuce	3065 +/- 490.8	< 27.5	< 32.0	< 38.7	< 47.2	< 33.3	< 35.1
04-AUG-25		No Sample*						
08-SEP-25		No Sample*						
06-OCT-25	3LB Kale	2855 +/- 418.6	< 23.4	< 23.5	< 23.9	< 46.6	< 27.4	< 25.4
Sample Location: CA-FPL-V9								
06-MAY-25	Turnip 3lbs	3279 +/- 533.3	< 21.7	< 15.7	< 26.8	< 20.4	< 18.1	< 21.7
06-MAY-25	Pak Choy 3lbs	3540 +/- 431.1	< 20.6	< 17.6	< 23.7	< 24.9	< 24.0	< 20.6
06-MAY-25	Lettuce 3lbs	3393 +/- 572.9	< 16.3	< 24.5	< 29.1	< 29.5	< 23.0	< 28.8
06-MAY-25	Mustard 3lbs	3271 +/- 507.8	< 21.9	< 25.2	< 25.4	< 28.5	< 23.9	< 22.2
06-MAY-25	Collards 3lbs	3082 +/- 447.1	< 25.1	< 23.3	< 21.4	< 23.7	< 22.4	< 25.9
03-JUN-25	3LB Mustard Greens	4025 +/- 441.8	< 21.3	< 20.8	< 22.3	< 26.6	< 23.4	< 18.9
03-JUN-25	3LB Cabbage	4060 +/- 462.4	< 17.3	< 17.3	< 23.9	< 25.6	< 21.4	< 19.3
03-JUN-25	3LB Kale	4212 +/- 511.0	< 26.2	< 22.2	< 26.9	< 40.0	< 27.2	< 27.1
03-JUN-25	3LB Lettuce	2876 +/- 396.0	< 18.7	< 17.6	< 21.1	< 32.4	< 18.5	< 20.0
03-JUN-25	3LB Collards	3997 +/- 557.7	< 28.8	< 29.2	< 27.2	< 47.6	< 37.4	< 28.0
03-JUN-25	3LB Chinese Cabbage	3872 +/- 451.9	< 21.9	< 19.4	< 28.5	< 33.8	< 21.2	< 22.8
03-JUN-25	3LB Turnip Greens	3997 +/- 550.7	< 24.0	< 20.6	< 22.4	< 39.3	< 23.9	< 23.5
03-JUN-25	3LB Swiss Chard	5295 +/- 563.5	< 21.5	< 22.6	< 29.0	< 24.8	< 22.5	< 17.8
08-JUL-25	3LB Lettuce	3089 +/- 604.6	< 28.6	< 25.5	< 27.6	< 41.4	< 26.1	< 25.0
08-JUL-25	3LB Collard Greens	2558 +/- 534.9	< 27.7	< 28.2	< 23.3	< 34.9	< 23.4	< 26.0
08-JUL-25	3LB Swiss Chard	4998 +/- 630.6	< 29.2	< 29.9	< 32.1	< 43.9	< 33.4	< 29.8
05-AUG-25	3LB Chinese Cabbage	3894 +/- 474.9	< 23.8	< 19.9	< 28.3	< 41.7	< 26.7	< 19.8
05-AUG-25	3LB Turnip	3294 +/- 405.3	< 14.2	< 20.0	< 26.4	< 36.9	< 20.4	< 19.2
05-AUG-25	3LB Collards	2689 +/- 462.9	< 18.5	< 17.4	< 25.0	< 36.4	< 26.2	< 17.6
05-AUG-25	3LB Swiss Chard	3892 +/- 493.7	< 22.4	< 19.4	< 30.5	< 48.6	< 28.1	< 24.9
05-AUG-25	3LB Cabbage	2818 +/- 500.8	< 28.5	< 26.3	< 26.9	< 47.8	< 29.8	< 26.1
09-SEP-25	3LB Turnip Greens	4991 +/- 809.8	< 24.3	< 28.1	< 30.5	< 35.1	< 38.2	< 28.9
09-SEP-25	3LB Red cabbage	3574 +/- 555.4	< 24.8	< 29.7	< 36.0	< 29.1	< 26.0	< 29.5
09-SEP-25	3LB Swiss Chard	7221 +/- 647.6	< 21.1	< 19.9	< 25.7	< 31.0	< 27.3	< 26.8
09-SEP-25	3LB Collard Greens	4324 +/- 590.2	< 33.2	< 27.6	< 30.1	< 40.2	< 33.9	< 33.4
09-SEP-25	3LB Chinese cabbage	4991 +/- 570.6	< 23.2	< 21.5	< 30.2	< 26.6	< 21.5	< 25.3

Table 4 Soil sample analysis results for gamma emitters

Collection: Annually

Collect Date	Units: pCi/kg dry								
	K-40	MN-54	FE-59	CO-58	CO-60	ZRNB-95	CS-134	CS-137	BAL-140
Project LLDs	-	-	-	-	-	-	150	180	-
Sample Locator: F2 18-NOV-25	11940 +/- 1196	< 56.8	< 145.5	< 63.8	< 58.1	< 86.5	< 66.6	166.7 +/- 67.4	< 194.9
Sample Locator: F6 18-NOV-25	8811 +/- 1748	< 99.0	< 266.1	< 123.8	< 113.9	< 142.5	< 109.0	388.1 +/- 99.5	< 470.1
Sample Locator: M9 21-NOV-25	13050 +/- 1359	< 66.2	< 170.5	< 69.1	< 70.7	< 80.7	< 78.5	< 77.6	< 271.5
Sample Locator: PR3 18-NOV-25	11620 +/- 1192	< 64.2	< 180.2	< 62.2	< 57.7	< 90.4	< 69.2	165.2 +/- 94.7	< 280.4
Sample Locator: PR7 17-NOV-25	10100 +/- 1285	< 77.1	< 215.8	< 85.4	< 56.5	< 112.8	< 97.3	191.5 +/- 61.8	< 390.1
Sample Locator: W1 19-NOV-25	10050 +/- 1036	< 56.7	< 161.8	< 71.3	< 58.9	< 89.7	< 68.2	< 58.1	< 319.2
Sample Locator: W2 19-NOV-25	8159 +/- 1248	< 57.8	< 165.6	< 71.9	< 51.7	< 72.7	< 75.0	< 61.9	< 364.1
Sample Locator: W5 19-NOV-25	11130 +/- 1176	< 56.9	< 171.8	< 76.4	< 69.1	< 90.0	< 71.1	< 67.2	< 327.3
Sample Locator: W6 19-NOV-25	6847 +/- 1454	< 101.1	< 264.2	< 109.6	< 79.9	< 117.8	< 101.5	< 80.2	< 443.1

Table 5 Surface water analysis results for tritium and gamma emitters

Collection: Monthly

Units: pCi/L

	H-3 (DIST)	MN-54	FE-59	CO-58	CO-60	ZN-65	ZRNB-95	ZRNB-95	CS-137	BALA140	I-131
Project LLDs	200	15	30	15	15	30	15	15	18	15	1000
Collect Date											
Sample Location:	CA-SWA-S01										
01-28-25	< 180.0	< 3.0	< 7.3	< 3.6	< 3.7	< 7.4	< 4.3	< 3.7	< 3.6	< 9.9	< 13.6
02-25-25	< 190.0	< 1.6	< 3.6	< 1.7	< 1.7	< 3.2	< 1.8	< 1.7	< 1.5	< 5.2	< 8.4
03-25-25	< 175.0	< 1.6	< 4.3	< 1.8	< 1.8	< 3.5	< 2.0	< 2.0	< 1.7	< 5.1	< 8.6
04-29-25	< 179.0	< 1.7	< 4.7	< 2.0	< 2.1	< 3.8	< 2.1	< 1.8	< 1.7	< 7.8	< 12.3
05-28-25	< 187.0	< 1.5	< 4.3	< 1.7	< 1.8	< 3.4	< 1.7	< 1.8	< 1.6	< 5.3	< 8.4
06-24-25	< 195.0	< 1.8	< 4.4	< 2.1	< 2.0	< 3.6	< 2.2	< 2.1	< 2.0	< 5.7	< 8.9
07-29-25	< 187.0	< 1.9	< 5.5	< 2.4	< 2.2	< 4.1	< 2.5	< 2.2	< 1.9	< 8.6	< 17.9
08-26-25	< 185.0	< 1.9	< 4.7	< 2.1	< 2.3	< 3.9	< 2.2	< 2.0	< 1.9	< 6.4	< 10.6
09-30-25	< 193.0	< 1.8	< 5.3	< 2.1	< 2.2	< 4.0	< 2.1	< 2.1	< 2.0	< 6.4	< 11.6
10-28-25	< 189.0	< 2.0	< 5.0	< 2.3	< 2.3	< 3.8	< 2.3	< 2.1	< 2.0	< 5.6	< 10.4
11-25-25	< 192.0	< 1.8	< 5.0	< 2.2	< 2.1	< 3.8	< 2.1	< 1.9	< 1.9	< 9.8	< 19.3
12-30-25	< 180.0	< 1.8	< 5.0	< 2.0	< 2.0	< 3.9	< 2.2	< 2.0	< 1.9	< 9.6	< 18.6
Sample Location:	CA-SWA-S02										
01-28-25	501.0 +/- 134.0	< 2.8	< 5.7	< 3.1	< 4.0	< 6.0	< 3.2	< 3.3	< 3.0	< 8.5	< 11.6
02-25-25	398.0 +/- 135.0	< 1.6	< 4.2	< 1.8	< 1.7	< 3.0	< 2.0	< 1.8	< 1.6	< 5.7	< 8.7
03-25-25	831.0 +/- 155.0	< 1.4	< 3.7	< 1.8	< 1.5	< 3.2	< 1.9	< 1.6	< 1.6	< 5.3	< 8.7
04-29-25	344.0 +/- 127.0	< 1.8	< 4.3	< 2.1	< 2.0	< 3.6	< 2.1	< 1.9	< 1.9	< 6.3	< 13.3
05-28-25	346.0 +/- 129.0	< 1.6	< 4.3	< 1.8	< 1.6	< 3.4	< 1.9	< 1.8	< 1.8	< 5.2	< 8.7
06-24-25	< 192.0	< 1.7	< 4.4	< 2.0	< 2.1	< 3.5	< 2.0	< 2.0	< 1.8	< 5.4	< 8.3
07-29-25	< 189.0	< 1.9	< 5.2	< 2.2	< 2.1	< 4.1	< 2.5	< 1.9	< 1.8	< 8.1	< 14.9
08-26-25	< 187.0	< 1.7	< 4.4	< 2.0	< 2.0	< 3.7	< 2.0	< 1.8	< 1.8	< 6.1	< 10.0
09-30-25	< 195.0	< 2.0	< 5.3	< 2.4	< 2.1	< 4.1	< 2.3	< 2.2	< 1.9	< 7.6	< 12.4
10-28-25	< 192.0	< 1.8	< 4.7	< 2.0	< 1.9	< 4.0	< 2.2	< 2.0	< 2.0	< 6.0	< 11.2
11-25-25	< 192.0	< 1.7	< 5.0	< 2.1	< 1.7	< 3.5	< 2.3	< 2.0	< 1.8	< 8.6	< 18.8
12-30-25	< 186.0	< 1.7	< 5.5	< 2.1	< 2.1	< 3.5	< 2.3	< 1.9	< 1.8	< 9.0	< 20.1

Table 6 Pond water analysis results for tritium and gamma emitters

		Units: pCi/L									
Project LLDs	H-3 (DIST)	MN-54	FE-59	CO-58	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA140	I-131
	200	15	30	15	15	30	15	15	18	15	15
Collect Date											
Sample Location:	OUTFALL 010										
10-MAR-25	< 194.0	< 7.0	< 17.5	< 7.8	< 7.9	< 13.9	< 7.2	< 6.6	< 8.2	< 10.2	< 13.8
10-SEP-25	< 183.0	< 7.8	< 17.3	< 8.1	< 6.7	< 15.3	< 5.8	< 9.4	< 7.9	< 12.4	< 11.9
Sample Location:	POND 01										
10-MAR-25	< 172.0	< 5.7	< 13.1	< 7.5	< 7.3	< 13.7	< 6.2	< 6.4	< 6.6	< 7.0	< 10.9
10-SEP-25	< 186.0	< 6.7	< 16.1	< 6.8	< 10.0	< 14.5	< 6.6	< 8.4	< 8.0	< 11.0	< 13.0
Sample Location:	POND 02										
10-MAR-25	< 195.0	< 6.7	< 17.6	< 7.2	< 7.4	< 15.1	< 7.8	< 8.7	< 8.4	< 11.5	< 14.2
10-SEP-25	< 194.0	< 6.2	< 16.4	< 6.0	< 8.4	< 9.3	< 6.5	< 6.4	< 6.3	< 8.7	< 10.9
Sample Location:	SLUDGE LAGOON										
10-MAR-25	< 187.0	< 2.0	< 8.5	< 2.9	< 1.9	< 4.2	< 3.1	< 2.1	< 1.8	< 48.8	< 244.3
10-SEP-25	< 189.0	< 6.5	< 15.1	< 7.3	< 7.8	< 12.1	< 7.5	< 6.5	< 7.1	< 11.2	< 13.1
Sample Location:	WETLANDS 01										
10-MAR-25	< 194.0	< 7.0	< 15.7	< 7.4	< 7.3	< 14.3	< 7.2	< 8.6	< 7.0	< 13.5	< 12.9
10-SEP-25	< 191.0	< 8.8	< 20.1	< 9.0	< 8.9	< 19.6	< 8.0	< 9.3	< 6.7	< 13.5	< 13.9
Sample Location:	WETLANDS 02										
10-MAR-25	< 194.0	< 8.7	< 14.8	< 6.3	< 8.1	< 13.2	< 8.6	< 8.0	< 8.8	< 13.1	< 14.6
10-SEP-25	< 190.0	< 7.6	< 15.9	< 7.6	< 7.6	< 17.1	< 7.0	< 8.3	< 7.6	< 11.4	< 13.2

Table 7 Well water (drinking) analysis results for tritium and gamma emitters

		Units: pCi/L										
Project LLds	H-3 (DIST)	I-131 (LOW LVL)	MN-54	FE-59	CO-58	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA140	I-131
	200	1	15	30	15	15	30	15	15	18	15	15
Collect Date												
Sample Location:	CA-DWA-10 DILLON, TOM											
02-04-25	< 184.0	< 0.921	< 6.2	< 16.0	< 7.1	< 6.8	< 15.8	< 8.4	< 7.2	< 6.8	< 13.2	< 13.2
04-30-25	< 182.0	< 0.756	< 5.9	< 16.5	< 7.1	< 9.6	< 12.3	< 7.9	< 6.9	< 5.2	< 12.6	< 12.8
08-04-25	< 186.0	< 0.853	< 6.5	< 13.2	< 8.1	< 7.3	< 19.9	< 7.8	< 7.3	< 6.3	< 14.0	< 14.0
10-29-25	< 184.0	< 0.929	< 5.2	< 12.5	< 4.7	< 4.8	< 11.2	< 6.3	< 5.9	< 6.3	< 9.7	< 11.7
Sample Location:	CA-DWA-12 DILLON, JOE											
02-04-25	< 188.0	< 0.879	< 6.5	< 13.5	< 5.2	< 6.3	< 16.3	< 7.5	< 6.0	< 6.7	< 9.5	< 14.2
04-30-25	< 183.0	< 0.833	< 8.4	< 20.6	< 8.5	< 11.0	< 15.2	< 8.8	< 10.8	< 7.2	< 11.8	< 14.0
08-04-25	< 185.0	< 0.940	< 4.7	< 13.2	< 6.2	< 7.0	< 10.8	< 7.0	< 6.3	< 6.3	< 11.4	< 14.7
10-29-25	< 187.0	< 0.926	< 6.1	< 13.1	< 5.6	< 5.4	< 15.0	< 7.1	< 5.7	< 6.1	< 10.6	< 14.3
Sample Location:	CA-DWA-21 BAUMGARTH											
02-04-25	< 180.0	< 0.917	< 5.5	< 14.6	< 6.7	< 6.8	< 16.1	< 5.7	< 6.8	< 7.3	< 12.7	< 14.5
04-30-25	< 188.0	< 0.916	< 5.9	< 16.1	< 8.1	< 6.9	< 12.7	< 6.5	< 6.1	< 6.9	< 11.6	< 11.7
08-04-25	< 188.0	< 0.926	< 5.2	< 13.4	< 6.0	< 5.3	< 11.1	< 6.8	< 6.4	< 6.9	< 9.8	< 13.5
10-30-25	No Sample*											
Sample Location:	CA-DWA-22 PLUMMER											
02-04-25	< 181.0	< 0.900	< 6.4	< 13.4	< 5.6	< 7.6	< 13.1	< 5.8	< 5.4	< 5.2	< 8.5	< 12.7
04-30-25	< 181.0	< 0.889	< 4.4	< 11.4	< 6.2	< 4.2	< 11.9	< 4.4	< 4.9	< 6.0	< 14.5	< 9.7
08-04-25	< 186.0	< 0.919	< 5.6	< 15.1	< 6.4	< 6.6	< 12.3	< 7.9	< 8.6	< 7.7	< 10.3	< 14.1
10-29-25	< 187.0	< 0.798	< 5.5	< 12.3	< 6.0	< 6.3	< 10.9	< 6.6	< 5.9	< 6.0	< 10.9	< 11.9
Sample Location:	CA-DWA-23 CURDT											
02-04-25	< 182.0	< 0.854	< 6.5	< 14.1	< 5.1	< 7.8	< 13.8	< 6.7	< 6.1	< 6.7	< 9.9	< 13.9
04-30-25	< 180.0	< 0.870	< 6.3	< 14.7	< 7.5	< 6.0	< 13.6	< 7.7	< 6.3	< 8.2	< 9.8	< 14.0
08-04-25	< 186.0	< 0.881	< 4.9	< 11.3	< 5.2	< 5.7	< 10.0	< 5.2	< 6.0	< 4.8	< 9.2	< 10.5
10-29-25	< 185.0	< 0.777	< 6.1	< 11.5	< 6.0	< 8.0	< 10.9	< 4.9	< 6.0	< 5.4	< 10.7	< 12.1
Sample Location:	CA-DWA-24 FARLEY											
02-04-25	< 189.0	< 0.872	< 4.1	< 13.1	< 6.5	< 6.1	< 13.0	< 5.7	< 6.0	< 5.9	< 8.9	< 12.3
04-30-25	< 180.0	< 0.723	< 7.8	< 17.5	< 8.2	< 10.6	< 14.3	< 7.9	< 6.0	< 6.4	< 9.8	< 12.6
08-04-25	< 187.0	< 0.898	< 6.9	< 16.0	< 7.3	< 6.4	< 15.7	< 7.3	< 6.8	< 7.7	< 13.5	< 14.5
10-29-25	< 186.0	< 0.848	< 5.9	< 10.4	< 7.0	< 6.8	< 9.7	< 7.1	< 7.1	< 5.5	< 9.8	< 12.6
Sample Location:	CA-DWA-25 KRIETE, MARIO											
02-04-25	< 181.0	< 0.908	< 5.9	< 13.1	< 7.4	< 6.6	< 12.8	< 6.4	< 7.5	< 7.9	< 13.6	< 14.1
05-01-25	< 183.0	< 0.837	< 6.9	< 15.8	< 5.5	< 8.1	< 18.0	< 7.8	< 7.8	< 6.0	< 13.3	< 10.3
08-04-25	< 188.0	< 0.952	< 6.3	< 12.8	< 7.5	< 8.3	< 16.4	< 7.6	< 8.6	< 7.3	< 12.9	< 13.8
10-29-25	< 189.0	< 0.925	< 4.2	< 10.3	< 4.8	< 5.3	< 10.0	< 5.1	< 4.9	< 4.7	< 11.0	< 12.8
Sample Location:	CA-DWA-3 WARD											
02-04-25	< 188.0	< 0.978	< 3.0	< 7.8	< 3.4	< 3.8	< 7.3	< 4.9	< 3.9	< 4.2	< 9.5	< 8.2
04-30-25	< 180.0	< 0.902	< 7.8	< 18.1	< 7.0	< 8.0	< 13.8	< 7.9	< 9.1	< 9.7	< 14.2	< 14.5
08-04-25	< 187.0	< 0.934	< 6.2	< 15.7	< 5.7	< 5.9	< 11.7	< 6.4	< 6.0	< 5.3	< 12.7	< 13.8
10-29-25	< 186.0	< 0.928	< 5.7	< 10.1	< 5.7	< 4.7	< 10.0	< 6.7	< 4.9	< 5.6	< 9.3	< 12.1
Sample Location:	CA-DWA-5 BRUCKER BROTHERS											
02-05-25	< 188.0	< 0.972	< 7.3	< 10.6	< 6.6	< 7.5	< 14.1	< 6.7	< 6.2	< 6.4	< 10.1	< 13.7
04-29-25	< 186.0	< 0.973	< 7.5	< 16.0	< 7.5	< 8.1	< 15.8	< 6.6	< 6.2	< 6.6	< 7.5	< 12.4
08-04-25	< 186.0	< 0.997	< 6.4	< 14.5	< 6.8	< 8.5	< 13.3	< 8.2	< 5.8	< 7.0	< 10.8	< 12.9
10-27-25	< 185.0	< 0.862	< 4.9	< 12.2	< 6.3	< 6.8	< 10.4	< 6.7	< 5.9	< 4.4	< 12.4	< 14.7
Sample Location:	CA-DWA-7 KRIETE, STAN											
02-04-25	< 181.0	< 0.920	< 3.7	< 11.9	< 5.1	< 6.6	< 11.5	< 5.3	< 5.8	< 4.3	< 12.4	< 10.2
04-30-25	< 188.0	< 0.765	< 7.3	< 16.1	< 7.3	< 5.4	< 14.5	< 8.0	< 7.4	< 7.3	< 9.8	< 13.9
08-04-25	< 186.0	< 0.867	< 6.3	< 13.0	< 6.8	< 7.4	< 13.1	< 5.1	< 7.1	< 6.7	< 11.6	< 13.0
10-29-25	< 186.0	< 0.844	< 6.1	< 14.4	< 5.8	< 6.5	< 14.9	< 7.4	< 6.1	< 5.4	< 12.4	< 14.6
Sample Location:	CA-DWA-8 CURRY											
02-04-25	< 199.0	< 0.865	< 4.6	< 12.5	< 5.2	< 5.6	< 10.7	< 5.2	< 5.6	< 5.1	< 11.6	< 10.1
04-30-25	< 178.0	< 0.979	< 6.2	< 17.0	< 6.3	< 9.0	< 12.2	< 7.2	< 7.2	< 6.9	< 9.0	< 14.4
08-05-25	< 189.0	< 0.790	< 6.9	< 19.1	< 6.8	< 6.9	< 15.0	< 7.3	< 8.1	< 8.1	< 11.0	< 14.8
10-29-25	< 189.0	< 0.923	< 6.8	< 17.1	< 5.8	< 7.5	< 14.1	< 8.4	< 6.4	< 6.4	< 12.8	< 12.9
Sample Location:	CA-DWA-9 CLARDY											
02-04-25	< 190.0	< 0.881	< 5.4	< 11.7	< 5.6	< 6.2	< 13.0	< 7.7	< 7.2	< 6.7	< 11.1	< 11.1
04-30-25	< 181.0	< 0.836	< 7.2	< 13.3	< 8.0	< 7.9	< 11.1	< 6.7	< 9.1	< 8.1	< 9.9	< 10.0
08-04-25	< 187.0	< 0.877	< 6.7	< 17.4	< 8.0	< 9.7	< 6.1	< 5.8	< 7.7	< 5.4	< 12.3	< 12.2
10-29-25	< 190.0	< 0.862	< 6.7	< 12.3	< 5.3	< 8.7	< 15.7	< 8.5	< 5.9	< 6.3	< 11.3	< 14.5
Sample Location:	CA-DWA-PW1 UNIT 1 WELL											
02-04-25	< 190.0	< 0.894	< 7.0	< 13.7	< 4.7	< 6.9	< 14.4	< 6.5	< 7.5	< 6.2	< 6.0	< 13.5
05-01-25	< 183.0	< 0.841	< 6.2	< 13.5	< 4.7	< 8.4	< 11.1	< 6.8	< 7.4	< 7.4	< 14.6	< 10.0
08-04-25	< 185.0	< 0.854	< 4.3	< 9.8	< 5.3	< 6.2	< 9.8	< 5.3	< 5.8	< 5.0	< 14.7	< 11.5
10-29-25	< 184.0	< 0.828	< 5.2	< 11.9	< 6.3	< 7.4	< 13.9	< 7.5	< 5.2	< 6.6	< 7.8	< 13.6
Sample Location:	CA-DWA-V16 WALLENDORF											
02-04-25	< 189.0	< 0.934	< 5.9	< 13.3	< 5.5	< 3.5	< 11.5	< 8.2	< 6.7	< 7.9	< 8.1	< 11.7
04-30-25	< 180.0	< 0.778	< 6.8	< 15.2	< 6.7	< 5.5	< 16.5	< 7.4	< 6.6	< 6.7	< 10.0	< 13.9
08-04-25	< 189.0	< 0.940	< 7.5	< 14.7	< 7.2	< 7.9	< 17.1	< 6.4	< 7.3	< 6.2	< 14.5	< 14.3
10-29-25	< 186.0	< 0.778	< 4.5	< 11.5	< 4.8	< 4.6	< 12.3	< 5.4	< 5.6	< 5.5	< 11.6	< 12.2
Sample Location:	CA-DWA-V-19 DILLON, RICHARD											
02-04-25	< 185.0	< 0.998	< 6.4	< 14.0	< 6.9	< 6.2	< 15.8	< 7.6	< 8.7	< 7.2	< 9.9	< 13.8
04-30-25	< 184.0	< 0.883	< 8.0	< 17.0	< 8.1	< 10.5	< 13.1	< 8.9	< 9.1	< 7.4	< 11.6	< 14.6
08-04-25	< 191.0	< 0.931	< 5.4	< 12.3	< 5.5	< 6.7	< 11.0	< 5.6	< 7.1	< 6.2	< 11.8	< 12.5
10-29-25	< 189.0	< 0.970	< 4.0	< 10.0	< 5.8	< 4.4	< 11.8	< 6.2	< 5.5	< 5.1	< 7.4	< 14.2

* No Sample - Please refer to Section 1.0 List of Missing Samples

Table 8 Well water (non-potable) analysis for tritium and gamma emitters

Units: pCi/L

Project LLDs	H-3 (DIST) 200	I-131 (LOW LVL) 1	MN-54 15	FE-59 30	CO-58 15	CO-60 15	ZN-65 30	ZRNB-95 15	CS-134 15	CS-137 18	BALA140 15	I-131 15
Collect Date												
Sample Location:	F05											
03-JAN-25	< 185.0	< 0.874	< 4.5	< 13.4	< 6.7	< 5.5	< 10.3	< 6.8	< 5.3	< 6.0	< 10.9	< 12.4
14-APR-25	< 195.0	< 0.887	< 5.3	< 10.5	< 4.7	< 5.4	< 14.0	< 5.5	< 4.1	< 5.7	< 8.7	< 7.4
07-JUL-25	< 193.0	< 0.879	< 1.9	< 3.8	< 1.9	< 2.2	< 4.1	< 2.1	< 2.1	< 2.1	< 2.6	< 3.3
03-OCT-25	< 188.0	< 0.961	< 5.3	< 14.2	< 6.7	< 7.4	< 14.1	< 7.5	< 7.2	< 6.2	< 12.7	< 14.3
Sample Location:	F15											
03-JAN-25	< 185.0	< 0.720	< 5.4	< 16.2	< 7.4	< 8.5	< 15.2	< 6.7	< 7.0	< 5.0	< 14.5	< 12.2
14-APR-25	< 192.0	< 0.843	< 4.9	< 8.8	< 5.1	< 4.7	< 9.7	< 5.6	< 5.4	< 5.4	< 6.6	< 6.9
30-JUL-25	< 182.0	< 0.880	< 7.1	< 17.6	< 7.2	< 9.9	< 13.9	< 7.3	< 8.3	< 8.0	< 10.5	< 10.7
03-OCT-25	< 190.0	< 0.840	< 4.0	< 10.1	< 4.5	< 5.0	< 10.2	< 5.8	< 4.8	< 4.4	< 9.5	< 10.3
Sample Location:	UIMW-004											
12-FEB-25	< 193.0	< 0.915	< 2.9	< 8.1	< 3.3	< 3.9	< 7.2	< 3.5	< 3.9	< 3.3	< 7.6	< 9.2
16-MAY-25	< 185.0	< 0.919	< 6.7	< 24.1	< 8.0	< 10.1	< 16.2	< 9.4	< 9.8	< 9.0	< 13.6	< 11.5
15-AUG-25	< 193.0	< 0.881	< 5.2	< 10.4	< 5.3	< 6.8	< 14.4	< 7.1	< 6.9	< 5.1	< 14.3	< 13.8
07-NOV-25	< 200.0	< 0.849	< 2.0	< 5.0	< 2.2	< 2.0	< 4.0	< 2.3	< 2.1	< 2.0	< 6.0	< 9.7
Sample Location:	UIMW-005											
12-FEB-25	< 191.0	< 0.910	< 3.1	< 7.2	< 3.0	< 3.1	< 6.6	< 3.9	< 3.3	< 3.0	< 6.0	< 10.1
16-MAY-25	< 184.0	< 0.940	< 7.8	< 16.1	< 9.4	< 8.7	< 18.2	< 7.9	< 7.9	< 6.8	< 9.5	< 11.2
15-AUG-25	< 193.0	< 0.959	< 5.5	< 11.6	< 5.9	< 6.8	< 12.8	< 6.1	< 5.0	< 4.6	< 13.0	< 12.4
07-NOV-25	< 196.0	< 0.825	< 2.0	< 5.2	< 2.4	< 2.1	< 4.1	< 2.4	< 2.2	< 2.0	< 6.2	< 9.5
Sample Location:	UIMW-006											
10-FEB-25	< 187.0	< 0.918	< 1.9	< 4.5	< 1.8	< 2.4	< 4.3	< 2.1	< 2.1	< 1.9	< 4.9	< 6.3
16-MAY-25	< 180.0	< 0.963	< 8.2	< 14.8	< 8.7	< 9.2	< 20.7	< 10.4	< 7.8	< 8.4	< 14.2	< 14.4
18-AUG-25	< 193.0	< 0.754	< 7.8	< 16.5	< 7.6	< 9.1	< 15.3	< 8.6	< 8.2	< 6.1	< 12.2	< 13.4
07-NOV-25	< 196.0	< 0.858	< 1.5	< 3.9	< 1.7	< 1.8	< 3.3	< 1.7	< 1.6	< 1.6	< 5.2	< 8.1
Sample Location:	UIMW-010											
10-FEB-25	< 187.0	< 0.909	< 1.9	< 4.9	< 2.4	< 2.3	< 4.7	< 2.5	< 2.2	< 2.2	< 5.2	< 7.6
16-MAY-25	< 189.0	< 0.782	< 7.3	< 15.1	< 8.6	< 7.8	< 17.3	< 9.7	< 9.5	< 8.6	< 12.0	< 10.9
18-AUG-25	< 193.0	< 0.784	< 6.9	< 13.7	< 7.4	< 7.8	< 12.3	< 7.1	< 6.7	< 7.4	< 12.8	< 14.0
07-NOV-25	< 193.0	< 0.896	< 2.0	< 5.4	< 2.2	< 1.9	< 4.2	< 2.3	< 2.4	< 2.2	< 6.5	< 11.3
Sample Location:	UIMW-013											
11-FEB-25	< 192.0	< 0.896	< 2.5	< 6.0	< 2.5	< 2.6	< 4.8	< 2.9	< 2.6	< 2.5	< 5.1	< 7.4
16-MAY-25	< 189.0	< 0.951	< 10.0	< 18.1	< 6.8	< 12.1	< 18.0	< 9.9	< 8.9	< 5.1	< 7.8	< 14.4
13-AUG-25	< 193.0	< 0.903	< 3.1	< 7.4	< 3.4	< 3.7	< 6.8	< 3.6	< 3.6	< 3.4	< 8.0	< 9.1
07-NOV-25	< 199.0	< 0.823	< 2.8	< 7.3	< 3.2	< 2.9	< 6.4	< 3.3	< 3.1	< 2.9	< 9.1	< 13.6
Sample Location:	UIMW-014											
11-FEB-25	< 192.0	< 0.949	< 3.5	< 8.5	< 4.1	< 3.9	< 8.3	< 4.3	< 3.9	< 4.2	< 8.8	< 12.2
15-MAY-25	< 186.0	< 0.901	< 7.0	< 11.1	< 5.3	< 10.5	< 12.6	< 6.6	< 7.8	< 6.6	< 14.1	< 9.8
15-AUG-25	< 192.0	< 0.932	< 5.5	< 13.0	< 5.7	< 5.8	< 9.9	< 6.0	< 6.1	< 5.6	< 9.7	< 14.2
06-NOV-25	< 197.0	< 0.919	< 1.3	< 3.6	< 1.5	< 1.6	< 3.2	< 1.8	< 1.6	< 1.5	< 5.0	< 7.7
Sample Location:	UIMW-015											
11-FEB-25	< 195.0	< 0.909	< 2.0	< 5.5	< 2.3	< 2.5	< 4.8	< 2.7	< 2.5	< 2.2	< 5.3	< 7.5
16-MAY-25	< 188.0	< 0.903	< 6.2	< 16.1	< 6.6	< 8.2	< 12.9	< 8.4	< 8.9	< 7.4	< 9.4	< 12.6
15-AUG-25	< 197.0	< 0.935	< 5.5	< 13.0	< 5.5	< 5.8	< 10.4	< 4.7	< 5.6	< 4.7	< 10.9	< 14.7
14-NOV-25	< 196.0	< 0.867	< 6.1	< 14.2	< 5.8	< 6.0	< 13.6	< 8.5	< 8.1	< 5.6	< 12.9	< 14.7
Sample Location:	UIMW-016											
11-FEB-25	< 183.0	< 0.949	< 2.8	< 8.0	< 3.0	< 2.7	< 6.2	< 3.3	< 3.5	< 3.0	< 7.2	< 8.8
16-MAY-25	< 186.0	< 0.898	< 6.8	< 14.7	< 6.6	< 9.1	< 13.0	< 6.3	< 7.6	< 7.7	< 14.0	< 10.4
18-AUG-25	< 191.0	< 0.781	< 6.2	< 12.4	< 5.8	< 5.8	< 11.9	< 5.8	< 6.2	< 6.6	< 9.4	< 14.3
14-NOV-25	< 195.0	< 0.811	< 5.7	< 13.9	< 6.8	< 7.4	< 12.4	< 6.5	< 6.4	< 6.2	< 14.2	< 13.6
Sample Location:	UIMW-017											
11-FEB-25	< 195.0	< 0.938	< 3.0	< 6.3	< 3.9	< 3.6	< 7.0	< 3.6	< 3.5	< 3.4	< 8.6	< 10.2
15-MAY-25	< 181.0	< 0.731	< 8.2	< 15.2	< 7.2	< 8.3	< 17.3	< 7.1	< 8.0	< 8.0	< 8.9	< 11.8
15-AUG-25	< 190.0	< 0.917	< 6.1	< 14.2	< 4.8	< 6.0	< 10.8	< 6.3	< 6.5	< 6.2	< 13.0	< 14.7
06-NOV-25	No Sample*											
06-NOV-25	< 199.0	< 0.878	< 1.6	< 4.3	< 1.8	< 1.8	< 3.4	< 1.9	< 1.6	< 1.7	< 5.7	< 8.5
Sample Location:	UIMW-018											
11-FEB-25	< 195.0											
16-MAY-25	< 192.0											
15-AUG-25	< 190.0											
06-NOV-25	< 198.0											
Sample Location:	UIMW-019											
11-FEB-25	< 194.0											
15-MAY-25	< 184.0											
15-AUG-25	< 189.0											
14-NOV-25	< 196.0											
Sample Location:	UIMW-020											
11-FEB-25	< 191.0											
15-MAY-25	< 186.0											
15-AUG-25	< 190.0											
07-NOV-25	< 197.0											

Table 8 Well water (non-potable) analysis for tritium and gamma emitters

Units: pCi/L

Project LLDs	H-3 (DIST)	I-131 (LOW LVL)	MN-54	FE-59	CO-58	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA140	I-131
	200	1	15	30	15	15	30	15	15	18	15	15
Collect Date:	U1MW-031											
Sample Location:	U1MW-031											
14-FEB-25	228.0 +/-	123.0										
18-MAY-25	< 182.0											
18-AUG-25	< 196.0											
14-NOV-25	< 198.0											
Sample Location:	U1MW-034											
14-FEB-25	< 194.0											
18-MAY-25	< 184.0											
08-AUG-25	< 191.0											
14-NOV-25	< 197.0											
Sample Location:	U1MW-036											
14-FEB-25	< 192.0											
18-MAY-25	< 182.0											
18-AUG-25	< 191.0											
14-NOV-25	< 197.0											
Sample Location:	U1MW-039											
10-FEB-25	< 196.0											
18-MAY-25	< 183.0											
13-AUG-25	< 193.0											
14-NOV-25	< 199.0											
Sample Location:	U1MW-047											
10-FEB-25	No Sample*											
16-MAY-25	< 184.0											
14-NOV-25	No Sample*											
Sample Location:	U1MW-058											
14-FEB-25	< 191.0											
18-MAY-25	< 185.0											
18-AUG-25	< 193.0											
14-NOV-25	< 200.0											
Sample Location:	U1MW-059											
10-FEB-25	< 196.0											
16-MAY-25	< 184.0											
13-AUG-25	< 192.0											
14-NOV-25	< 196.0											
Sample Location:	U1MW-937B											
17-JAN-25	< 184.0	< 0.870	< 4.6	< 12.9	< 6.1	< 5.7	< 14.1	< 6.7	< 7.0	< 6.5	< 13.2	< 12.3
12-FEB-25	< 182.0	< 0.886	< 5.4	< 11.6	< 6.2	< 6.1	< 14.7	< 7.0	< 5.9	< 6.9	< 13.0	< 9.6
12-MAR-25	< 191.0	< 0.600	< 5.2	< 10.0	< 4.4	< 5.0	< 8.0	< 5.3	< 5.3	< 5.5	< 6.8	< 8.2
15-APR-25	< 194.0	< 0.886	< 5.3	< 12.1	< 5.7	< 6.7	< 12.3	< 6.8	< 5.6	< 5.7	< 8.7	< 7.0
11-MAY-25	< 193.0	< 0.801	< 5.9	< 12.0	< 6.9	< 7.4	< 13.6	< 7.6	< 7.9	< 7.2	< 9.4	< 8.9
08-JUN-25	< 185.0	< 0.824	< 8.8	< 16.4	< 9.4	< 11.3	< 17.7	< 8.6	< 10.1	< 9.3	< 10.5	< 10.3
14-JUL-25	< 187.0	< 0.910	< 5.8	< 14.7	< 6.2	< 7.3	< 14.8	< 7.1	< 7.6	< 6.4	< 9.3	< 8.4
11-AUG-25	< 190.0	< 0.954	< 7.1	< 12.9	< 6.4	< 8.3	< 15.8	< 8.1	< 8.1	< 6.7	< 11.0	< 10.0
12-SEP-25	< 185.0	< 0.771	< 7.0	< 14.2	< 6.8	< 7.0	< 13.8	< 7.7	< 6.4	< 5.8	< 11.5	< 13.2
16-OCT-25	< 192.0	< 0.884	< 3.7	< 8.0	< 3.6	< 3.7	< 7.9	< 3.9	< 4.2	< 3.9	< 6.2	< 8.3
13-NOV-25	< 195.0	< 0.520	< 9.9	< 12.3	< 7.5	< 6.8	< 18.2	< 7.9	< 9.3	< 8.9	< 14.6	< 9.6
16-DEC-25	< 198.0	< 0.909	< 4.8	< 8.9	< 4.5	< 5.0	< 9.2	< 5.1	< 5.3	< 4.5	< 9.5	< 14.7
Sample Location:	U1MW-937D											
17-JAN-25	< 185.0	< 0.948	< 5.5	< 12.9	< 6.1	< 5.8	< 13.2	< 7.1	< 5.9	< 5.7	< 13.4	< 14.5
12-FEB-25	< 187.0	< 0.757	< 5.3	< 12.0	< 5.1	< 6.3	< 10.5	< 7.2	< 6.3	< 5.8	< 7.3	< 11.4
12-MAR-25	< 190.0	< 0.562	< 4.4	< 10.1	< 4.7	< 5.4	< 12.3	< 5.3	< 5.1	< 4.7	< 8.0	< 7.4
14-APR-25	< 195.0	< 0.939	< 5.9	< 10.2	< 6.0	< 7.0	< 12.2	< 6.4	< 5.7	< 5.8	< 6.5	< 6.8
11-MAY-25	< 188.0	< 0.810	< 7.0	< 14.1	< 7.5	< 7.4	< 16.3	< 7.9	< 7.5	< 8.2	< 9.6	< 12.5
08-JUN-25	< 186.0	< 0.853	< 8.3	< 13.0	< 7.8	< 8.6	< 12.1	< 8.3	< 7.1	< 7.3	< 12.8	< 8.4
14-JUL-25	< 182.0	< 0.858	< 8.8	< 16.1	< 7.3	< 8.1	< 17.1	< 8.6	< 7.5	< 9.3	< 9.7	< 10.1
11-AUG-25	273.0 +/-	< 0.937	< 7.4	< 15.0	< 7.3	< 8.0	< 15.1	< 8.0	< 9.1	< 7.7	< 13.9	< 13.9
12-SEP-25	< 187.0	< 0.794	< 6.3	< 20.1	< 8.0	< 10.1	< 13.4	< 7.0	< 9.2	< 8.9	< 9.9	< 12.5
16-OCT-25	< 194.0	< 0.821	< 6.3	< 11.5	< 6.8	< 6.8	< 13.9	< 6.7	< 5.9	< 6.7	< 13.2	< 13.8
12-NOV-25	< 193.0	< 0.532	< 6.9	< 11.7	< 6.8	< 7.0	< 16.5	< 7.8	< 7.8	< 7.0	< 10.2	< 13.6
15-DEC-25	< 197.0	< 0.938	< 4.6	< 9.5	< 4.5	< 6.0	< 8.0	< 4.9	< 5.1	< 4.7	< 10.1	< 14.1
Sample Location:	U1MW-939R											
17-JAN-25	756.0 +/-	< 0.935	< 5.4	< 11.8	< 5.6	< 6.0	< 10.7	< 6.2	< 5.4	< 5.5	< 9.3	< 13.4
12-FEB-25	479.0 +/-	< 0.796	< 7.4	< 14.3	< 8.0	< 9.1	< 17.4	< 7.9	< 8.5	< 6.0	< 9.9	< 12.8
12-MAR-25	290.0 +/-	< 0.812	< 7.5	< 13.5	< 7.6	< 6.9	< 14.8	< 7.1	< 8.3	< 7.6	< 9.7	< 11.0
14-APR-25	402.0 +/-	< 0.824	< 7.2	< 13.0	< 7.3	< 7.5	< 12.6	< 7.2	< 6.6	< 6.7	< 11.0	< 8.5
11-MAY-25	803.0 +/-	< 0.838	< 7.7	< 14.1	< 7.2	< 7.5	< 18.5	< 7.0	< 8.7	< 8.3	< 12.1	< 10.5
08-JUN-25	594.0 +/-	< 0.826	< 8.1	< 18.3	< 7.1	< 11.0	< 13.9	< 8.7	< 8.0	< 9.0	< 10.4	< 8.5
14-JUL-25	679.0 +/-	< 0.812	< 7.5	< 17.6	< 5.5	< 10.6	< 8.0	< 6.3	< 8.1	< 7.1	< 6.4	< 8.1
11-AUG-25	393.0 +/-	< 4.2	< 7.3	< 15.7	< 6.2	< 7.1	< 17.3	< 9.8	< 6.2	< 9.5	< 11.2	< 9.1
12-SEP-25	329.0 +/-	< 0.867	< 9.2	< 16.7	< 9.0	< 8.7	< 11.5	< 9.6	< 10.0	< 9.0	< 14.7	< 13.8
16-OCT-25	< 190.0	< 0.857	< 8.7	< 12.8	< 11.1	< 10.0	< 15.9	< 7.9	< 8.8	< 8.8	< 12.1	< 13.4
13-NOV-25	240.0 +/-	< 0.988	< 7.7	< 12.2	< 8.1	< 9.8	< 16.5	< 8.5	< 9.2	< 6.2	< 13.5	< 14.1
16-DEC-25	< 191.0	< 0.904	< 2.8	< 6.0	< 2.9	< 3.1	< 4.8	< 2.6	< 2.8	< 2.6	< 5.5	< 7.9

Table 8 Well water (non-potable) analysis for tritium and gamma emitters

Units: pCi/L

Project LIDs	H-3 (DIST) 200	I-131 (LOW LVL) 1	MN-54 15	FE-59 30	CO-58 15	CO-60 15	ZN-65 30	ZRNB-95 15	CS-134 15	CS-137 18	BALA140 15	I-131 15
Collect Date:	UIMW-940											
Sample Location:	UIMW-940											
17-JAN-25	187.0 +/- 120.0	< 0.868	< 6.1	< 13.8	< 7.6	< 8.0	< 11.6	< 7.9	< 7.7	< 4.9	< 14.0	< 14.2
12-FEB-25	No Sample*											
14-FEB-25	< 187.0	< 0.699	< 4.4	< 8.1	< 4.7	< 5.0	< 10.8	< 5.8	< 4.9	< 4.7	< 12.0	< 11.9
12-MAR-25	487.0 +/- 138.0	< 0.632	< 7.0	< 14.5	< 7.4	< 7.6	< 15.5	< 8.4	< 9.5	< 8.4	< 12.5	< 11.3
14-APR-25	< 195.0	< 0.860	< 6.0	< 13.3	< 7.7	< 7.2	< 12.0	< 6.8	< 7.2	< 7.4	< 9.3	< 7.7
11-MAY-25	434.0 +/- 135.0	< 0.815	< 7.2	< 18.6	< 6.5	< 8.8	< 16.0	< 6.5	< 9.2	< 8.2	< 14.7	< 10.6
08-JUN-25	< 186.0	< 0.875	< 7.8	< 15.9	< 7.2	< 9.7	< 16.8	< 6.5	< 8.9	< 7.9	< 11.7	< 9.0
14-JUL-25	354.0 +/- 128.0	< 0.817	< 6.3	< 12.7	< 6.4	< 6.4	< 12.1	< 5.2	< 6.8	< 6.2	< 7.9	< 8.0
11-AUG-25	252.0 +/- 130.0	< 0.815	< 8.3	< 18.7	< 8.5	< 11.7	< 13.8	< 9.0	< 8.4	< 7.8	< 12.6	< 12.1
12-SEP-25	< 196.0	< 0.855	< 4.5	< 9.1	< 4.8	< 5.3	< 8.3	< 4.7	< 5.0	< 4.4	< 9.3	< 9.1
16-OCT-25	< 191.0	< 0.801	< 8.1	< 18.0	< 8.2	< 8.9	< 19.6	< 8.6	< 8.2	< 9.7	< 13.6	< 13.9
12-NOV-25	235.0 +/- 128.0	< 0.601	< 6.3	< 12.6	< 5.9	< 3.8	< 13.9	< 5.8	< 6.3	< 5.9	< 9.3	< 10.6
18-DEC-25	< 190.0	< 0.867	< 4.9	< 10.7	< 4.4	< 5.7	< 8.8	< 5.1	< 4.8	< 5.2	< 11.3	< 14.0
Sample Location:	UIMW-941											
17-JAN-25	< 178.0	< 0.872	< 4.9	< 8.8	< 5.8	< 6.5	< 12.8	< 6.5	< 6.3	< 5.8	< 9.7	< 11.3
12-FEB-25	< 185.0	< 0.895	< 6.3	< 14.3	< 6.9	< 8.3	< 14.6	< 7.3	< 7.3	< 7.2	< 10.5	< 11.5
12-MAR-25	207.0 +/- 124.0	< 0.517	< 8.0	< 13.0	< 8.0	< 8.1	< 23.2	< 9.2	< 7.1	< 7.4	< 13.0	< 11.5
14-APR-25	< 195.0	< 0.928	< 7.0	< 11.1	< 7.1	< 9.1	< 18.1	< 10.2	< 7.6	< 6.8	< 10.1	< 10.3
11-MAY-25	< 189.0	< 0.814	< 8.4	< 12.2	< 8.2	< 9.3	< 19.5	< 7.4	< 9.0	< 8.8	< 11.0	< 11.6
08-JUN-25	< 186.0	< 0.808	< 6.9	< 12.9	< 7.3	< 8.2	< 15.3	< 7.9	< 8.8	< 7.1	< 7.8	< 10.6
14-JUL-25	261.0 +/- 124.0	< 0.847	< 5.8	< 13.2	< 6.9	< 9.2	< 10.1	< 8.5	< 9.9	< 8.9	< 10.1	< 11.5
11-AUG-25	< 193.0	< 0.886	< 6.5	< 13.4	< 7.4	< 7.1	< 14.3	< 8.6	< 8.1	< 6.8	< 9.2	< 11.1
12-SEP-25	< 183.0	< 0.837	< 7.9	< 17.1	< 8.3	< 8.9	< 13.7	< 8.3	< 8.0	< 8.8	< 11.1	< 12.8
16-OCT-25	< 190.0	< 0.843	< 6.5	< 12.3	< 6.6	< 7.5	< 12.7	< 7.2	< 7.3	< 7.3	< 13.5	< 13.9
12-NOV-25	< 192.0	< 0.670	< 6.5	< 13.7	< 5.5	< 7.3	< 13.9	< 8.0	< 8.3	< 7.7	< 11.6	< 12.1
15-DEC-25	< 198.0	< 0.932	< 4.0	< 10.0	< 4.0	< 4.1	< 8.8	< 4.7	< 4.5	< 4.4	< 10.8	< 14.0
Sample Location:	UIMW-GWS											
17-JAN-25	< 184.0	< 0.838	< 5.5	< 12.6	< 5.8	< 5.0	< 15.6	< 7.0	< 6.2	< 6.0	< 11.6	< 14.4
12-FEB-25	< 192.0	< 0.925	< 5.2	< 11.6	< 5.8	< 6.6	< 14.2	< 5.5	< 5.5	< 6.0	< 10.3	< 9.7
12-MAR-25	< 190.0	< 0.536	< 6.3	< 14.9	< 6.5	< 7.7	< 10.6	< 7.7	< 5.6	< 7.1	< 12.2	< 9.1
15-APR-25	325.0 +/- 132.0	< 0.899	< 8.4	< 14.5	< 7.6	< 9.2	< 19.5	< 10.3	< 8.5	< 8.5	< 12.4	< 9.1
11-MAY-25	386.0 +/- 133.0	< 0.815	< 7.1	< 11.6	< 7.6	< 9.6	< 13.6	< 7.9	< 9.5	< 7.9	< 12.3	< 10.2
08-JUN-25	1460 +/- 225.0	< 0.840	< 7.3	< 9.4	< 5.9	< 7.4	< 13.4	< 7.1	< 7.6	< 6.9	< 11.3	< 9.1
14-JUL-25	371.0 +/- 128.0	< 0.822	< 10.1	< 16.4	< 10.1	< 11.9	< 22.4	< 11.5	< 12.5	< 9.5	< 11.4	< 13.5
11-AUG-25	712.0 +/- 153.0	< 0.908	< 8.2	< 14.1	< 8.0	< 4.6	< 14.6	< 6.6	< 7.9	< 6.7	< 10.3	< 10.0
12-SEP-25	222.0 +/- 122.0	< 0.801	< 5.8	< 17.6	< 7.8	< 6.0	< 19.7	< 7.2	< 8.9	< 8.4	< 13.5	< 12.8
13-NOV-25	< 194.0	< 0.594	< 5.7	< 14.2	< 6.9	< 6.7	< 13.8	< 7.0	< 5.7	< 6.9	< 8.3	< 10.3
16-DEC-25	< 192.0	< 0.878	< 4.4	< 10.5	< 5.5	< 5.4	< 9.5	< 5.6	< 5.2	< 5.0	< 11.5	< 14.2
Sample Location:	UIMW-ISFSI											
14-FEB-25	< 193.0											
18-MAY-25	< 186.0											
18-AUG-25	< 193.0											
13-NOV-25	< 194.0											
Sample Location:	U2MW-16											
13-FEB-25	< 192.0											
16-MAY-25	< 184.0											
08-AUG-25	< 190.0											
14-NOV-25	< 187.0											
Sample Location:	U2MW-2S											
13-FEB-25	< 190.0											
16-MAY-25	< 183.0											
18-AUG-25	< 196.0											
14-NOV-25	< 200.0											
Sample Location:	U2MW-5S											
13-FEB-25	< 195.0											
16-MAY-25	< 189.0											
13-AUG-25	< 189.0											
14-NOV-25	< 196.0											
Sample Location:	U2MW-8											
13-FEB-25	< 194.0											
18-MAY-25	< 184.0											
08-AUG-25	< 191.0											
14-NOV-25	< 197.0											

*No Sample - Please refer to Section 1.0 List of Missing Sample

Table 9 Shoreline sediment analysis for gamma emitters

Collection: Semiannually

Units: pCi/kg dry

	K-40	MN-54	FE-59	CO-58	CO-60	ZRNB-95	CS-134	CS-137	BALA140
Project LLDs	-	-	-	-	-	-	150	180	-
Collect Date									
Sample Location	CA-AQS-A-SHORELINE								
03-26-25	15210 +/- 2136	< 61.3	< 142.7	< 55.0	< 65.0	< 74.3	< 75.5	< 121.9	< 118.5
10-13-25	13910 +/- 2016	< 70.7	< 278.7	< 92.7	< 86.3	< 118.5	< 115.2	< 95.0	< 254.4
Sample Location	CA-AQS-C-SHORELINE								
03-26-25	12440 +/- 1818	< 103.8	< 177.6	< 95.1	< 122.9	< 78.4	< 137.6	< 120.4	< 167.5
10-13-25	15670 +/- 1733	< 81.7	< 202.6	< 86.6	< 95.3	< 120.7	< 100.7	< 79.8	< 380.5

Table 10 Fish analysis results for gamma emitters

Collection: Semiannually

Units: pCi/kg wet

		K-40	MN-54	FE-59	CO-58	CO-60	ZN-65	CS-134	CS-137
Project LLDs		-	130	260	130	130	260	130	150
Collect Date	Sample Type								
Sample Location: CA-AQF-A-CC									
03-26-25	Common Carp CC	3573 +/- 1021	< 52.0	< 105.7	< 50.7	< 58.0	< 113.1	< 73.1	< 67.5
10-13-25	Common Carp CC	3319 +/- 1214	< 94.8	< 228.9	< 108.3	< 93.7	< 144.8	< 102.8	< 88.7
Sample Location: CA-AQF-A-FD									
03-26-25	Freshwater Drum FD	2753 +/- 943.5	< 48.3	< 155.8	< 54.5	< 69.5	< 88.3	< 60.2	< 56.2
10-13-25	Freshwater Drum FD	2240 +/- 1048	< 84.5	< 196.3	< 85.7	< 94.3	< 193.1	< 75.5	< 77.9
Sample Location: CA-AQF-A-RC									
03-26-25	River Carpsucker RC	3233 +/- 968.6	< 63.3	< 160.7	< 73.7	< 80.5	< 155.8	< 80.0	< 59.6
10-13-25	River Carpsucker RC	3170 +/- 942.7	< 77.5	< 185.8	< 84.5	< 87.9	< 181.1	< 85.5	< 75.6
Sample Location: CA-AQF-A-SB									
03-26-25	Smallmouth Buffalo SB	2872 +/- 989.5	< 60.5	< 121.5	< 62.3	< 86.5	< 181.5	< 82.8	< 82.7
10-13-25	Smallmouth Buffalo SB	2956 +/- 1096	< 62.7	< 115.2	< 46.5	< 66.2	< 96.8	< 81.9	< 51.3
Sample Location: CA-AQF-A-SC									
03-26-25	Silver Carp SC	3076 +/- 1156	< 80.3	< 233.8	< 104.4	< 97.6	< 131.5	< 96.8	< 73.0
10-13-25	Silver Carp SC	2394 +/- 923.5	< 66.7	< 154.4	< 72.0	< 83.4	< 175.2	< 57.7	< 76.0
Sample Location: CA-AQF-C-CC									
03-26-25	Common Carp CC	1958 +/- 1104	< 75.4	< 150.9	< 64.5	< 72.5	< 153.1	< 96.1	< 79.3
10-13-25	Common Carp CC	2399 +/- 1023	< 107.4	< 207.5	< 90.6	< 114.1	< 190.2	< 81.4	< 98.1
Sample Location: CA-AQF-C-FD									
03-26-25	Freshwater Drum FD	2257 +/- 688.6	< 53.2	< 149.2	< 47.9	< 54.0	< 96.8	< 56.2	< 63.9
10-13-25	Freshwater Drum FD	2706 +/- 1030	< 78.6	< 180.7	< 80.7	< 63.5	< 166.6	< 91.8	< 71.2
Sample Location: CA-AQF-C-RC									
03-26-25	River Carpsucker RC	2970 +/- 1044	< 61.1	< 76.8	< 50.9	< 62.9	< 122.7	< 55.5	< 54.4
10-13-25	River Carpsucker RC	3770 +/- 1044	< 84.6	< 211.4	< 103.6	< 104.8	< 211.4	< 88.2	< 82.1
Sample Location: CA-AQF-C-SB									
03-26-25	Smallmouth Buffalo SB	3930 +/- 1095	< 67.3	< 46.4	< 47.0	< 76.6	< 132.2	< 63.4	< 58.2
10-13-25	Smallmouth Buffalo SB	3044 +/- 1121	< 69.8	< 161.0	< 52.2	< 82.1	< 88.8	< 77.2	< 69.9
Sample Location: CA-AQF-C-SC									
03-26-25	Silver Carp SC	2773 +/- 996.4	< 79.4	< 162.0	< 79.1	< 87.1	< 140.6	< 74.0	< 83.0
10-13-25	Silver Carp SC	2569 +/- 1075	< 78.7	< 220.6	< 105.7	< 95.4	< 205.8	< 91.9	< 99.9

Table 11a. Direct Radiation (quarterly exposure)

Location	Gamma Dose (mrem/90 days)			
	QTR 1	QTR 2	QTR 3	QTR 4
CA-IDM-1A	15.14	15.28	15.47	15.75
CA-IDM-3*	16.20	14.82	16.90	15.83
CA-IDM-5	12.92	13.26	12.84	13.73
CA-IDM-6	14.59	14.28	15.06	15.42
CA-IDM-7	14.14	15.04	15.62	16.25
CA-IDM-9	13.76	13.97	14.44	14.82
CA-IDM-10	14.85	16.10	15.91	16.73
CA-IDM-11A	15.05	15.78	16.37	16.85
CA-IDM-14	15.02	14.89	15.22	15.60
CA-IDM-17	13.94	13.80	14.56	15.63
CA-IDM-18A	15.01	14.74	16.00	16.37
CA-IDM-20	15.47	15.47	15.87	15.85
CA-IDM-21	14.37	14.74	15.78	15.54
CA-IDM-22A*	12.48	11.90	12.33	12.71
CA-IDM-23	15.00	15.64	15.96	16.98
CA-IDM-26(C)	10.38	10.10	11.13	10.97
CA-IDM-27(C)	15.82	16.23	17.27	17.54
CA-IDM-30A	13.75	14.77	15.30	15.54
CA-IDM-31A	15.87	15.60	17.06	16.58
CA-IDM-32	15.57	17.76	17.31	18.34
CA-IDM-32A	14.23	14.75	14.80	15.73
CA-IDM-33	16.40	15.30	15.74	15.65
CA-IDM-34	13.80	14.66	14.83	15.28
CA-IDM-35	12.88	13.70	14.50	14.49
CA-IDM-36	14.60	13.20	14.15	14.39
CA-IDM-37	14.61	14.71	15.89	15.95
CA-IDM-38	10.17	10.52	10.31	10.51
CA-IDM-39	13.58	14.52	15.41	15.80
CA-IDM-39A	14.25	14.66	15.93	15.84
CA-IDM-40	14.83	15.22	16.19	15.83
CA-IDM-41	12.94	13.87	15.79	14.77
CA-IDM-42	12.68	13.31	13.09	13.69
CA-IDM-43	14.23	14.64	15.08	14.85
CA-IDM-44	14.43	15.45	15.71	15.24
CA-IDM-45*	13.57	12.58	13.93	13.77
CA-IDM-46*	15.28	14.65	15.70	16.14
CA-IDM-47	14.30	13.94	15.03	14.93
CA-IDM-48	15.47	15.29	16.31	15.98
CA-IDM-49	14.08	13.99	14.64	14.45
CA-IDM-50	14.83	14.93	15.28	15.48
CA-IDM-51A	16.01	15.99	16.69	16.56
CA-IDM-52	15.36	15.31	15.82	16.24
CA-IDM-60(C)*	14.50	14.49	15.77	15.34
CA-IDM-61*	13.55	13.21	15.00	14.37

*ISFSI monitoring

(C) Controls

Table 11b. Direct Radiation Neutron (quarterly exposure)

Location	Neutron Dose (mrem/90 days)			
	QTR 1	QTR 2	QTR 3	QTR 4
CA-IDM-60N (C)	0.0 ± 2.0	0.0 ± 1.4	0.0 ± 0.8	0.0 ± 1.3
CA-IDM-61N	0.0 ± 0.8	0.0 ± 0.9	0.0 ± 0.8	0.0 ± 1.3
CA-IDM-62N	0.0 ± 0.8	0.0 ± 1.2	0.0 ± 1.0	0.0 ± 0.8
CA-IDM-63N	0.0 ± 0.8	0.0 ± 1.2	0.0 ± 0.7	0.0 ± 1.1
CA-IDM-64N	0.0 ± 0.6	0.0 ± 1.1	0.0 ± 2.4	0.0 ± 1.3

(C) Control