



Paducah Gaseous Diffusion Plant
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JUN 27 2019

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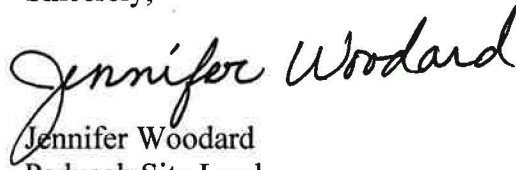
Dear Mr. Alteri, Ms. Banister, and Mr. Rosnick:

RETRACTION REQUEST AND RESUBMITTAL OF THE NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS ANNUAL REPORT FOR 2018 U.S. DEPARTMENT OF ENERGY RADIOLOGICAL EMISSIONS AT THE PADUCAH GASEOUS DIFFUSION PLANT (FRNP-RPT-0099)

The U.S. Department of Energy (DOE) respectfully retracts the June 26, 2019, submittal of the calendar year 2018 Annual National Emissions Standards for Hazardous Air Pollutants (NESHAP) Report, required by 40 *Code of Federal Regulations (CFR)* Part 61, Subpart H. Enclosed is the resubmittal of the calendar year 2018 NESHAP report. This report summarizes airborne radionuclide emissions from the DOE Paducah Site. The total 2018 effective dose equivalent from DOE emissions was 0.0000902 mrem. This is below the annual effective dose equivalent limit of 10 mrem per year established in 40 *CFR* § 61.92.

If you have any questions or require additional information, please contact Gilbert Whitehurst at (740) 897-2948.

Sincerely,



Jennifer Woodard
Paducah Site Lead
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Pages
2. NESHAP Annual Report for 2018, FRNP-RPT-0099

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CERTIFICATION

Document Identification: *National Emissions Standards for Hazardous Air Pollutants Annual Report for 2018 U.S. Department of Energy Radiological Emissions at the Paducah Gaseous Diffusion Plant, FRNP-RPT-0099*

This certification pertains to the following emission source:

Paducah Deactivation Project

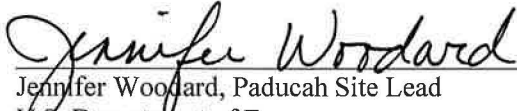
I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. (See 18 U.S.C. 1001)



Myrna E. Redfield, Deputy Program Manager
Four Rivers Nuclear Partnership, LLC

6/27/19

Date Signed



Jennifer Woodard, Paducah Site Lead
U.S. Department of Energy

6/27/19

Date Signed

CERTIFICATION

Document Identification: *National Emissions Standards for Hazardous Air Pollutants Annual Report for 2018 U.S. Department of Energy Radiological Emissions at the Paducah Gaseous Diffusion Plant, FRNP-RPT-0099*

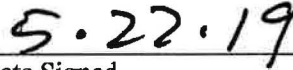
This certification pertains to the following emission source:

Depleted Uranium Hexafluoride Conversion Facility (MCS)

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. (See 18 U.S.C. 1001)



T. Zack Smith, President and Project Manager
Mid-America Conversion Services, LLC



Date Signed

**National Emissions Standards for Hazardous Air Pollutants
Annual Report for 2018 U.S. Department of Energy
Radiological Emissions at the
Paducah Gaseous Diffusion Plant**



This document is approved for public release per review by:


FRNP Classification Support

6-27-19
Date

FRNP-RPT-0099

**National Emissions Standards for Hazardous Air Pollutants
Annual Report for 2018 U.S. Department of Energy
Radiological Emissions at the
Paducah Gaseous Diffusion Plant**

Date Issued—June 2019

U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
Four Rivers Nuclear Partnership, LLC,
managing the
Deactivation and Remediation Project at the
Paducah Gaseous Diffusion Plant
under Contract DE-EM0004895

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ACRONYMS

CAP-88 PC	Clean Air Act Assessment Package-1988 Version 4
<i>CFR</i>	<i>Code of Federal Regulations</i>
DAC	derived air concentration
DOE	U.S. Department of Energy
DUF ₆	depleted uranium hexafluoride
EDE	effective dose equivalent
EPA	U.S. Environmental Protection Agency
EW	extraction well
HEPA	high-efficiency particulate air
<i>KAR</i>	<i>Kentucky Administrative Regulations</i>
NEPCS	Northeast Plume Containment System
NESHAP	National Emission Standards for Hazardous Air Pollutants
PGDP	Paducah Gaseous Diffusion Plant
SX	seal exhaust
WA	wet air

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EXECUTIVE SUMMARY

The Kentucky Division for Air Quality regulates air emissions of radionuclides, other than radon, from the U.S. Department of Energy (DOE) Paducah Site under 401 *KAR* 57:002 and 40 *CFR* Part 61, Subparts A and H. Submission of this report fulfills the annual reporting requirements of 40 *CFR* § 61.94.

Paducah Site radionuclide emissions include emissions from the depleted uranium hexafluoride (DUF_6) conversion facility, which began operation in 2011. The DUF_6 facility converts by-product that was generated by the uranium enrichment process to a more stable uranium oxide compound. Other emission sources include deactivation and remediation of the Paducah Gaseous Diffusion Plant activities, waste management facilities, inactive buildings, and environmental restoration operations.

DOE emissions were used to estimate the Paducah Site dose to the public. The dose to the public is calculated using the computer modeling program (Clean Air Act Assessment Package-1988, Version 4) specified in 40 *CFR* § 61.93. Inputs to the computer program are obtained through continuous monitoring, engineering estimates, emission factors, and other U.S. Environmental Protection Agency-approved methods. This report meets the annual reporting requirements and establishes the total annual effective dose equivalent (EDE) to the maximally exposed member of the public from the Paducah Site emissions to be 0.0000902 mrem for calendar year 2018. This is below the annual EDE limit of 10 mrem per year set forth in 40 *CFR* § 61.92.

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1. FACILITY DESCRIPTION

Site Name: Paducah Site

Location: Paducah, Kentucky

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2. INTRODUCTION

The U.S. Department of Energy (DOE) owns the Paducah Site, which has radionuclide air emissions. The site was established to enrich uranium and was known as the Paducah Gaseous Diffusion Plant (PGDP). When enrichment activities ceased in 2014, DOE subsequently began deactivation and remediation of the enrichment facilities, and the entire DOE-owned area was identified as the Paducah Site.

Paducah Site emissions include emissions from deactivation and remediation activities, waste management facilities, inactive buildings, environmental restoration operations, and the depleted uranium hexafluoride (DUF₆) conversion facility. The DUF₆ facility, which began operations in 2011, converts by-products that were generated by the enrichment process to a more stable uranium oxide compound.

Emissions from all of these sources were analyzed together and used to calculate the resultant dose.

3. SITE DESCRIPTION

The Paducah Site was established to support the nation's nuclear program. The Paducah Site, consisting of approximately 3,500 acres, is located in western McCracken County, 10 miles west of Paducah, Kentucky, and 3.5 miles south of the Ohio River. Roughly 600 acres of the site are enclosed within a fenced security area. During World War II, Kentucky Ordnance Works, a trinitrotoluene production

facility, was operated in an area southwest of the plant on what is now a wildlife management area. Kentucky Ordnance Works was not located on the Paducah Site.

Construction of the PGDP facility began in 1951. The plant was fully operational by 1955, supplying enriched uranium for commercial reactors and defense uses. Enriched uranium is defined as uranium in which the concentration of the fissionable uranium-235 (U-235) isotope has been increased from its natural assay. Natural uranium is primarily uranium-238 (U-238), with about 0.71% U-235 and 0.0055% uranium-234 (U-234). Uranium mills process the ores to produce concentrated uranium oxide [triuranium octoxide (U_3O_8)], which then is converted commercially to uranium hexafluoride (UF_6). The UF_6 then was sent to PGDP for enrichment. One by-product of the enrichment process is DUF_6 , which is stored at PGDP. In 2011, DOE began operation of a facility to convert the stored DUF_6 to a more stable uranium oxide, primarily U_3O_8 .

The radioactive materials used at PGDP are associated with enrichment of the uranium isotope U-235 using a gaseous diffusion process. During enriching operations from 1953 to 1975, UF_6 feed material was derived from recycled uranium (called “reactor tails”) from government reactors; “work for others” material also was used intermittently; and UF_6 processed from uranium ore, which typically was used. Reactor tails were the spent fuel from nuclear reactors that was depleted of U-235 content that had been reprocessed to remove most of the fission products. The reactor fuel assemblies were processed at other DOE facilities (where most of the fission products were removed). The enriched uranium and the remaining fission products were fed into the PGDP cascade system in the chemical form of UF_6 . Use of the reactor tails resulted in the introduction of technetium-99 (Tc-99), a fission by-product, and transuranics, most notably neptunium-237 (Np-237) and plutonium-239 (Pu-239), into the cascade.

The West Kentucky Wildlife Management Area and lightly populated farmlands are in the immediate environs of PGDP. Based on population data from the 2010 census, the population within a 50-mile radius is approximately 534,000 persons. Of these, 89,000 live within 10 miles of the plant and 104,000 live within 20 miles of the plant. The unincorporated communities of Grahamville and Heath are 1.24 and 1.86 miles east of the plant, respectively. Portions of 28 counties—11 of which are in Kentucky, 4 in Missouri, 10 in Illinois, and 3 in Tennessee—are located within the 50-mile radius of the plant. Larger cities in the region include Paducah, Kentucky, located 10 air miles east of the plant; Cape Girardeau, Missouri, located 40 air miles to the west; and Metropolis, Illinois, located 6 air miles to the northeast. The nearest neighbor residences in each direction are observed and entered into the dose modeling software. The results of the dose modeling are presented in Section 6.

Paducah is located in the humid subtropical zone. Summers generally are dry; precipitation occurs mainly in the spring and fall. Winters are characterized by moderately cold days; the average temperature during the coldest month, January, is about 35°F. Summers are warm and humid; the average temperature in July is 79°F. Yearly precipitation averages about 49 inches. The prevailing wind direction is south to southwest.

4. PADUCAH SITE SOURCE HANDLING AND PROCESSING DESCRIPTION

Radioactive material handling and processing that occurred last year (2018) included conversion of DUF_6 to uranium oxides, clean out of the uranium enrichment processes, environmental remediation of hazardous and radioactive materials, and management of radioactive waste.

The point sources from shutdown and clean out of the enrichment processes are grouped as described in the following sections. Some of these activities will be reduced or may cease as deactivation of the enrichment facilities progresses.

4.1 DEPLETED URANIUM HEXAFLUORIDE CONVERSION FACILITY

The DUF₆ conversion facility has operated since 2011. The facility converts DUF₆ stored in cylinders to a more stable uranium oxide powder. The form of uranium oxide is primarily U₃O₈. Multiple prefilters and primary high-efficiency particulate air (HEPA) filter banks within the facility heating, ventilation, and air-conditioning system control particulate emissions of oxide powder. Prior to atmospheric venting of process off-gas through the stack, air passes through a secondary set of HEPA filter banks. The conversion building also is maintained at negative pressure to help eliminate the possibility of fugitive emissions. Radioactive emissions from the conversion operations are monitored continuously.

4.2 DEACTIVATION AND REMEDIATION OF THE PADUCAH GASEOUS DIFFUSION PLANT

The emission point sources previously analyzed during operation of PGDP also are emission sources for deactivation and remediation. These deactivation sources are grouped in the same manner as the enrichment source grouping. Groups no longer included were removed because their sources have been deactivated. The sources were grouped based on similar emissions, controls, and location.

4.2.1 Group A—the C-400 Group

This grouping includes all of the C-400 sources. Deactivation of the C-400 facility began in 2016.

4.2.1.1 C-400 laundry

The C-400 laundry washed and dried protective clothing used to prevent skin contamination on personnel working in radiological areas. The driers were equipped with lint filters. Emissions from the laundry are estimated using data from health physics lint filter surveys. Alpha radiation is assumed to be 10% Np-237 and 90% uranium. Beta emissions are assumed to be Tc-99. The emission factor for cloth filters in 40 *CFR* Part 61, Appendix D, is used to estimate the emissions. The C-400 laundry was removed from service in June 2016. The source was not operational during 2018; therefore, it is not included in the summary tables.

4.2.2 Group D—C-709/C-710 Laboratory Hoods

The C-709/C-710 laboratories are the main facilities for sample analysis and research at the Paducah Site. Laboratory hoods and canopies in the C-709/C-710 Buildings left in place were used for radiological activities during the year. The radionuclides involved in analyses consist primarily of uranium, with a slight potential for emissions of Tc-99, Np-237, Pu-239, and the thorium daughter products of uranium.

Four methods are used to estimate emissions, depending on the type of operation occurring in the hood or radiological area in which each hood is located.

1. Estimation of the maximum quantity of uranium lost based on laboratory methods (i.e., if an American Society for Testing and Materials analytical method specifies a maximum 1.6% mass loss

during analysis, all samples analyzed using that method were assumed to lose 1.6% of the uranium in the sample).

2. 40 *CFR* Part 61, Appendix D, emission factors.
3. Chemical trap efficiencies and uranium throughput information.
4. Knowledge of analytical or sample preparation process.

All methods use the total inventory of uranium processed in the hood or radiological area as the basis for the emission estimate.

4.2.3 Group E—C-310 Stack

The C-310 stack is located near the southwest corner of the C-310 Product Withdrawal Building. It was the primary emission point of potential radionuclide air emissions during uranium enrichment operations. The effluent is routed through alumina traps prior to being emitted via the C-310 stack. The stack was inactive in 2018; therefore, the stack is not included in the summary tables.

4.2.4 Group F—Seal Exhaust/Wet Air Group

The seal exhaust (SX) and wet air (WA) systems have been evaluated for air emissions. It was determined the alumina traps, which are designed to protect pump oil and not to control emissions, are not pollution control devices under 40 *CFR* Part 61, Subpart H. The determination was forwarded to the U.S. Environmental Protection Agency (EPA) January 28, 1994.

4.2.4.1 Seal exhaust systems

Emissions from the SX systems are routed through alumina traps and pump oil prior to venting. Seals on the UF₆ compressors are supplied with an intricate array of air pressures to minimize releases during seal failure. A seal failure allows UF₆ to enter the SX system. If UF₆ reaches the pump by virtue of trap breakthrough, it reacts with the pump oil creating a thick sludge that quickly causes pump failure. In turn, pump failure limits the amount that can be emitted. Although the pump oil serves as an excellent uranium emission control device due to the reaction between UF₆ and pump oil, no credit is taken for it as a pollution control device.

There is one SX vent per cascade building, one on the C-310 Product Withdrawal Building, and one on the C-315 Tails Withdrawal Building. The locations of the six SX systems are as follows:

- C-310 Product Withdrawal Building
- C-315 Tails Withdrawal Building
- C-331 Cascade Building
- C-333 Cascade Building
- C-335 Cascade Building
- C-337 Cascade Building

Periodic confirmatory measurements on a five-year basis are made on each type of SX/WA system to verify emissions. Emissions from these systems were estimated based on results from the latest measurement that was performed in September 2017. To better detail any possible emissions from site sources, FRNP used the actual results for any nondetects shown on Oak Ridge Environmental Information System report for the SX/WA Stack Test Performed in 2017 to calculate the average

concentration. During this calculation, the average concentration for Pu-239 netted a negative value. Clean Air Act Assessment Package-1988 Version 4 PC model (CAP-88) will not allow a negative value as an input; therefore, the reporting limit for each run was used for the calculation for Pu-239 only. Please note that all of the actual results for Pu-239 were less than the reporting limit.

Building ventilation and cylinder valve disconnection activities are grouped in with the SX/WA group because these sources are not serviced by a stack. Radiological areas within the cascade buildings at PGDP are established under health physics procedures, DOE Orders, and 10 *CFR* Part 835.

4.2.4.2 Wet air exhaust systems

When maintenance is required on cascade equipment, it is evacuated to other sections of the cascade or surge drums. The equipment is swept in a series of purges with dry plant air. After maintenance, the system is closed, and the ambient WA is pumped from the system by the WA pumps. During dry air purges and WA evacuations, air is routed through alumina traps for uranium trapping to protect the WA pump oil and then to an exhaust vent. In cascade buildings C-310, C-335, and C-337, the exhaust vent is shared with the SX system for those buildings. As discussed under SX systems, emissions from the WA exhaust systems are estimated based on the most recent Method 5 stack sampling results. The following are the locations of the five WA exhaust systems.

- C-310 Product Withdrawal Building (same as SX)
- C-331 Cascade Building
- C-333 Cascade Building
- C-335 Cascade Building (same as SX)
- C-337 Cascade Building (same as SX)

4.2.4.3 CFC-114/UF₆ separation system

The chlorofluorocarbon (CFC)-114/UF₆ separation system is located in C-335 and is used to freeze out UF₆ from cascade gas that has been contaminated significantly with CFC-114 coolant. Such mixtures usually result from equipment failure, but also may result from abnormal cascade operation. Surge drums are used to store these mixtures until they can be separated. The primary purpose of the CFC-114/UF₆ separation system is to remove the coolant and return the UF₆ to the cascade.

The separation system operates by freezing out the UF₆ from the cascade gas. To freeze out the UF₆, the UF₆/CFC-114 mixture is transferred from the surge drum through a refrigerated set of favorable geometry cold traps. The gas stream then passes through sodium fluoride traps and alumina traps to absorb any residual UF₆. Typically the gas stream flows through the alumina traps, although these traps can be bypassed. The trap discharge is connected to the SX/WA pump system and to atmosphere through the existing common discharge header. The UF₆ is sublimed back to cascade after the processing of the contaminated gas has been completed.

To improve nuclear criticality safety, modification of the CFC-114/UF₆ separation system was made, and initial baseline emissions testing completed in 2004. The modification reduced potential radionuclide emissions. The CFC-114/UF₆ separation system has been inactive since 2014; therefore, the stack is not included in the summary tables.

4.3 ENVIRONMENTAL REMEDIATION ACTIVITIES

DOE had three point sources for environmental remediation activities, C-612 Northwest Plume Interim Remedial Action Project and units C-765 and C-765-A as part of the Northeast Plume Containment System (NEPCS).

4.3.1 Northwest Plume Interim Remedial Action Project

On September 1, 1995, DOE began operation of a treatment system designed to remove trichloroethene (TCE) and Tc-99 from contaminated groundwater at PGDP. The facility, C-612, is located at the northwest corner of the PGDP site security area. The facility consists of an air stripper to remove volatile organics.

Historical sampling has shown very little change in the concentration of Tc-99 in the water when it passes through the air stripper. Emissions of Tc-99 were estimated using 40 *CFR* Part 61, Appendix D, emission factors and the analysis of the groundwater. The exhaust from the air stripper is passed through a carbon adsorption unit prior to release to the atmosphere. Historical data have shown that Tc-99 is not retained in the carbon; therefore, no reduction in Tc-99 emissions due to use of the adsorption unit was assumed. The Northwest Plume Treatment System treated 102,160,438 gal during calendar year 2018. The results of the analysis of the estimated emissions are reported in Section 6.

4.3.2 Northeast Plume Containment System

DOE began normal operation of the original NEPCS (C-614 Northeast Plume Treatment System), a second treatment system, on February 28, 1997, as an interim remedial action also to treat contaminated groundwater. The C-614 system extracted contaminated groundwater and pumped it to an air stripper for removal of TCE. Tc-99 was not identified as a contaminant of concern as part of this interim remedial action; however, low concentration Tc-99 was detected in the groundwater and, consequently, could have been emitted to the air since 2005. The original NEPCS operated two extraction wells (EWs) (EW331 and EW332), which extracted the contaminated groundwater to treatment unit C-765, and the original NEPCS was operated until August 2017.

The NEPCS underwent an optimization and was fully operational in October 2017. The optimized NEPCS consists of two new EWs (EW234 and EW235), each of which has its own treatment unit capable of operating independently. C-765 treatment unit is operated to treat water extracted from EW234, and the C-765-A treatment unit is operated to treat water extracted from EW235. The optimized NEPCS treated 101,347,005 gal during the 2018 calendar year.

Emissions of Tc-99 were estimated using 40 *CFR* Part 61, Appendix D, emission factors and the analysis of the groundwater. The results of the analysis of the estimated emissions are reported in Section 6.

4.4 FUGITIVE AND DIFFUSE SOURCES

Diffuse/fugitive emission sources include any source that is distributed spatially, diffuse in nature, or not emitted with forced air from a stack, vent, or other confined conduit. In this case, radionuclides are transported entirely by diffusion and/or thermally driven air currents. Typical examples of diffuse/fugitive emissions include emissions from building breathing; resuspension of contaminated soils, debris, or other materials; unventilated tanks; ponds, lakes, and streams; wastewater treatment systems; outdoor storage and processing areas; and leaks in piping, valves, or other cascade equipment. DOE has identified many potential fugitive and diffuse emission sources such as inactive facilities, building roofs, scrap metal

storage yards, landfills, cylinder yards, and various contamination areas. Specific activities that could generate fugitive emissions include transport and disposal of waste, demolition of contaminated facilities, and most environmental remediation. The use of ambient air monitors to evaluate emissions from fugitive and diffuse sources is described in Section 9. In 2018, the Paducah Site had no unplanned airborne releases. Analyses of ambient air monitoring results for 2018 were compared using the methods in the EPA-approved National Emission Standards for Hazardous Air Pollutants (NESHAP) Management Plan. The analysis indicated that plant-derived radionuclides were not detected in concentrations greater than 40 *CFR* Part 61, Appendix E, Table 2, concentrations, as depicted in the tables provided in the appendix of this report. DOE utilizes ambient air monitoring to verify insignificant levels of radionuclides in off-site ambient air. The ambient air monitors are not included in the annual dose calculation as a point source.

5. WAIVER OF CONSTRUCTION AND MODIFICATION ACTIVITIES

No construction or modification activities occurred in this reporting period that were waived under 40 *CFR* § 61.96.

6. SOURCE CHARACTERISTICS AND AIR EMISSIONS DATA

Tables 1 through 4 contain specific emission information for each Paducah Site emission point. Table 1 lists the emission points and efficiency of control devices, as required by 40 *CFR* § 61.94 (b) (4) and (5). It is assumed that control for the Northwest Plume Treatment System has 0% efficiency because no credit is taken for any Tc-99 removal as a result of carbon filtration. Table 2 lists the distances from each emission point to receptors of concern, as listed in 40 *CFR* § 61.94 (b) (6). Table 3 contains emission point information required to estimate the resulting potential exposure, as required by 40 *CFR* § 61.94 (b) (7). Table 4 contains a list of Paducah Site radioactive materials, as required by 40 *CFR* § 61.94 (b) (2), their emission rates, and total Paducah Site emissions by nuclide.

Table 1. Emission Point Effluent Controls and Efficiencies

Emission Points	Type Control	Efficiency %
Group D C-709/710 Laboratory Hoods	None	0
Group F SX/WA Group	Alumina Traps	98.60
Northwest Plume Treatment System	Carbon	0
Northeast Plume Treatment Unit C-765	None	0
Northeast Plume Treatment Unit C-765-A	None	0
DUF ₆ Conversion Facility	HEPA	99.90

NOTE: The building ventilation and cylinder valve connection activities not serviced by a stack are grouped with the SX/WA group or respective building.

Table 2. Distances to Selected Receptors

Emission Points	Distances (m) to Selected Receptors			
	Nearest Farm	Nearest Business	Nearest School	Nearest Residence
Group D C-709/710 Laboratory Hoods	2,458	2,692	3,968	1,935
Group F SX/WA Group	1,798	2,412	4,200	1,571
Northwest Plume Treatment System	1,761	1,290	5,455	1,149
Northeast Plume Treatment Unit C-765	1,327	2,196	3,769	1,003
Northeast Plume Treatment Unit C-765-A	1,488	2,054	3,514	944
DUF ₆ Conversion Facility	2,143	2,849	3,516	2,143

Table 3. Characteristics of Stacks, Vents, or Other Emission Points that Emit Radionuclides

Emission Points	Type	Height (m)	Diameter (m)	Gas Exit Velocity (m/s)	Gas Exit Temp. (°C)	Distance (m) & Direction to Maximally Exposed Individual for Each Source
Group D C-709/710 Laboratory Hoods	Point	7.09	0.50	0.00	Ambient	2,438 N
Group F SX/WA Group	Point	21.00	0.50	0.00	Ambient	1571 SE
Northwest Plume Treatment System	Point	7.00	0.36	9.45	Ambient	1,149 NNE
Northeast Plume Treatment Unit C-765	Point	5.94	0.19	10.76	Ambient	1003 SE
Northeast Plume Treatment Unit C-765-A	Point	5.94	0.19	10.76	Ambient	944 ESE
DUF ₆ Conversion Facility	Point	21.95	1.07	16.19	33.90	2143 SSW

Table 4. Radionuclide Materials and Emissions Data (Curies)

Nuclide	Group D C-709/710 Lab	Group F SX/WA	Northwest Plume	Northeast Plume C-765	Northeast Plume C-765-A	DUF ₆ Conversion Facility	Total Site Emissions
U-234	1.16E-05	1.37E-05	0	0	0	1.12E-06	2.64E-05
U-235	7.53E-07	7.38E-07	0	0	0	5.11E-08	1.54E-06
U-238	2.63E-05	5.46E-06	0	0	0	2.74E-06	3.45E-05
Tc-99	0	2.28E-06	9.17E-05	1.24E-05	6.06E-06	0	1.12E-04
Th-230	0	1.22E-08	0	0	0	0	1.22E-08
Th-231	0	0	0	0	0	2.05E-07	2.05E-07
Th-234	0	0	0	0	0	1.88E-05	1.88E-05
Np-237	0	5.22E-09	0	0	0	0	5.22E-09
Pu-239	0	1.20E-08	0	0	0	0	1.20E-08
Pa-234m	0	0	0	0	0	1.88E-05	1.88E-05
Total Curies/Year	3.86E-05	2.22E-05	9.17E-05	1.24E-05	6.06E-06	4.17E-05	2.13E-04

7. DOSE ASSESSMENT

7.1 DESCRIPTION OF DOSE MODEL

The CAP-88 PC is a set of computer programs, databases, and associated utility programs for estimation of dose and risk from radionuclide emissions to air. CAP-88 PC is composed of modified versions of the AIRDOS-EPA and DARTAB computer codes. CAP-88 PC contains EPA's version of the AIRDOS-EPA computer code, which implements a steady-state, Gaussian plume, atmospheric dispersion model to calculate environmental concentrations of released radionuclides; and then, food chain models are used to calculate human exposures, both internal and external, to the environmental concentrations.

CAP-88 PC incorporates age-dependent dose factors from DCFPAK-2.2 combined with factors and method of Federal Guidance Report 13. The Federal Guidance Report 13 dose factors are based on the methods in 1996 Publication 72 of the International Commission on Radiological Protection. The dose factors are used to calculate effective doses. The effective dose is the weighted sum of equivalent doses to 12 specific tissues and organs, plus a general category that accounts for the remaining organs and tissues.

7.2 SUMMARY OF INPUT PARAMETERS

Default input parameters are used except for those provided in Section 6 and immediately below.

Meteorological input information is from the National Weather Service at Paducah, except for the on-site joint frequency distribution information. The 2018 annual precipitation and average air temperature from the National Climatic Data Center "Climate at a Glance" database were used to account for current rainfall and air temperatures. The rainfall rate in 2018 (145.36 cm) was slightly less than the 1971–2000 average rainfall (149.8 cm). The mixing height of 542 m is based on evaluation of 2014 National Weather Service data for the Paducah area by K. Birdwell (Oak Ridge National Laboratory meteorologist) (ORNL 2015). The mixing height from 2014 was used for the 2018 CAP-88 PC runs. Typically, mixing heights do not vary much from year-to-year; however, they can vary more over a period of years.

Joint frequency distribution: Five-year stability array (STAR) distribution from 60-m station on PGDP meteorological tower for the years 1988 through 1992.

Rainfall rate: 145.36 cm/year

Average air temperature: 15°C

Average mixing layer height: 542 m

Fraction of foodstuffs from (rural default values):

	<u>Local Area</u>	<u>50-Mile Radius</u>	<u>Beyond 50 Miles</u>
Vegetables and produce:	0.70	0.30	0.00
Meat:	0.40	0.60	0.00
Milk:	0.44	0.56	0.00

7.3 DOSE ESTIMATE

Effective dose equivalent (EDE) to the maximally exposed individual for each individual point source at the Paducah Site, as well as the collective EDE to the 50-mile population, is provided in Table 5.

The maximally exposed individual from all facility emissions is located 1,149 m north-northeast of the Northwest Plume Treatment System. The total annual EDE to the maximally exposed member of the public from Paducah Site emissions of 0.0000902 mrem for calendar year 2018 was lower than in calendar year 2017.

Table 5. Dose Analysis

Emission Sources	EDE to the Maximum Exposed Individual for Each Source (mrem)	EDE to the Maximum Exposed Individual for the Plant (mrem)	Collective EDE to the 50-mile Population (person-rem)
Group D— C-709/C-710 Laboratory Hoods	1.80E-05	1.80E-05	1.89E-04
Group F—SX/WA Group	8.00E-06	6.50E-06	7.86E-05
Northwest Plume Treatment System	6.10E-05	6.10E-05	2.61E-04
Northeast Plume Treatment Unit C-765	6.20E-06	2.40E-06	3.52E-05
Northeast Plume Treatment Unit C-765-A	2.70E-06	1.10E-06	1.72E-05
DUF ₆ Conversion Facility	1.80E-06	1.20E-06	1.97E-05
Total from All Sources		9.02E-05	6.01E-04

U.S. Census (2010) counts population at the block level. These population counts were joined to their respective Census blocks, and then incorporated into a dasymetric computer model to distribute the counts spatially within each block. A dasymetric model uses a likelihood dataset (i.e., where the people are most likely to be located) to distribute the population mathematically. This likelihood dataset incorporated such things as land cover, distance to roads, building height, etc. The result was a 3-arcsecond gridded population database. This grid was intersected with the sector-annuli rose to tabulate the final population counts. The resulting population data then were converted into a population data file by CAP-88 PC. Based on population data from the 2010 census, the total collective EDE to the 50-mile population (approximately 534,000 persons) was 0.000601 person-rem. The total collective EDE to the 50-mile population is calculated by summing the total collective EDE from each source as generated from CAP-88 PC.

8. UNPLANNED RELEASES

There were no DOE unplanned radioactive airborne releases in 2018.

9. AMBIENT AIR MONITORING

In accordance with the *National Emission Standards for Hazardous Air Pollutants Management Plan for Emission of Radionuclides for the U.S. Department of Energy Operations at the Paducah Site, Paducah, Kentucky*, CP2-EC-0002, September 2018, DOE used ambient air monitoring data to verify insignificant levels of radionuclides in off-site ambient air. Ambient air stations collect radionuclide samples at sites surrounding the plant. The ambient air monitors capture airborne radionuclides emitted from all sources, including fugitive and diffuse sources. The locations of the ambient air monitoring stations are shown in Figure 1.

The ambient air monitoring stations operate continuously, drawing air through a paper filter to capture particles that may be radioactive. Filter paper is changed weekly and composited for three months. Composited filter papers are analyzed for radioactivity by a laboratory.

Analyses of ambient air monitoring results for 2018 were compared using the methods in the EPA-approved NESHAP Management Plan. The analysis indicated that plant-derived radionuclides were not detected in concentrations greater than 40 *CFR* Part 61, Appendix E, Table 2, concentrations, as depicted in the tables provided in the appendix of this report. As stated in Section 8, there were no unplanned radioactive airborne releases from the Paducah Site in 2018. The data presented in the appendix of this report used all analytical results, positive and negative values, which is in accordance with Section 8.5.2 of DOE-HDBK-1216-2015 (DOE 2015), regarding the use of “Less-Than-Detectable-Values” for data reporting.

10. STATUS OF 40 *CFR* PART 61, SUBPART H, COMPLIANCE

DOE remains in compliance with 40 *CFR* Part 61, Subpart H. Kentucky Division for Air Quality has received a delegation of authority to administer the NESHAP program.

Ambient air monitors measure radionuclide emissions from Paducah Site point sources, fugitive air emission sources, and background levels of radionuclides. In accordance with the NESHAP Management Plan, ambient air monitors are used to confirm that radiological emissions from the site produce a dose less than the levels allowed by 40 *CFR* Part 61, Subpart H.

11. REFERENCES

- DOE (U.S. Department of Energy) 2015. Part 8.5.2 of DOE-HDBK-1216-2015, *Environmental Radiological Effluent Monitoring and Environmental Surveillance*, pp. 143–145, March.
- ORNL (Oak Ridge National Laboratory) 2015. E-mail from P. Scofield, Oak Ridge National Laboratory, to S. Knaus, Fluor Federal Services, Inc., Paducah Deactivation Project, “2014 RadNeshaps Report and Tables,” May 11.

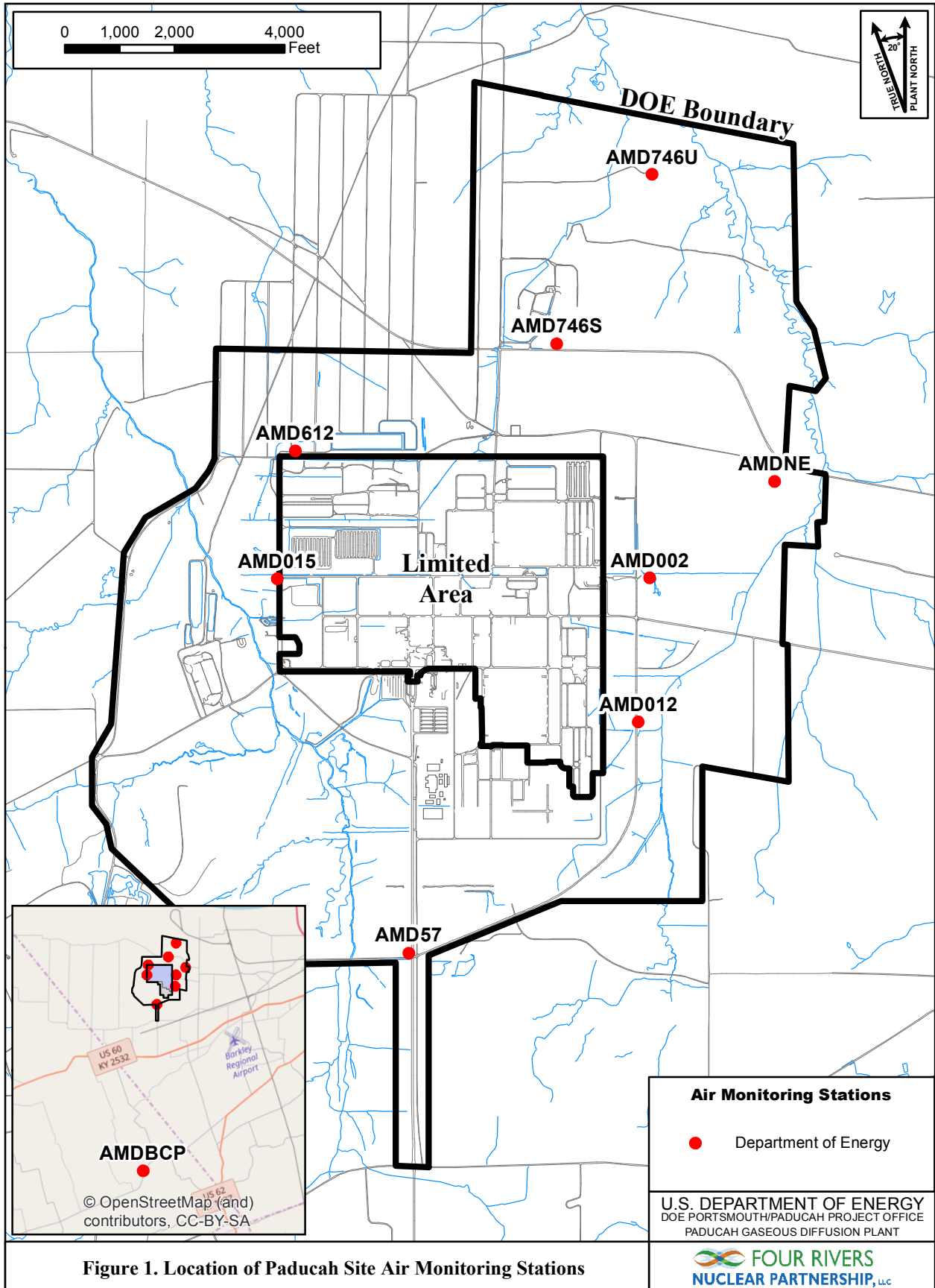


Figure 1. Location of Paducah Site Air Monitoring Stations

FIGURE No. EMP/DOE_AMD2019R1.mxd
DATE 05-28-2019

APPENDIX

AMBIENT AIR MONITORING DATA

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Table A.1. Sum of the Fractions Standard

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of Standard	Qualifier ^{a,b}
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1st Quarter January through March

Quarter Air Flow		6753	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD002	Q2AMD0022-18	11-Apr-18	Americium-241	2.53	pCi/sample	3.75E-04	3.75E-16	1.90E-15	1.97E-01	U
AMD002	Q2AMD0022-18	11-Apr-18	Neptunium-237	-3.83	pCi/sample	-5.67E-04	-5.67E-16	1.20E-15	-4.73E-01	U
AMD002	Q2AMD0022-18	11-Apr-18	Plutonium-238	0.0414	pCi/sample	6.13E-06	6.13E-18	2.10E-15	2.92E-03	U
AMD002	Q2AMD0022-18	11-Apr-18	Plutonium-239/240	-0.00955	pCi/sample	-1.41E-06	-1.41E-18	2.00E-15	-7.07E-04	U
AMD002	Q2AMD0022-18	11-Apr-18	Techneium-99	24.1	pCi/sample	3.57E-03	3.57E-15	1.40E-13	2.55E-02	U
AMD002	Q2AMD0022-18	11-Apr-18	Thorium-234	44.6	pCi/sample	6.60E-03	6.60E-15	2.20E-12	3.00E-03	U
AMD002	Q2AMD0022-18	11-Apr-18	Uranium-234	1.29	pCi/sample	1.91E-04	1.91E-16	7.70E-15	2.48E-02	
AMD002	Q2AMD0022-18	11-Apr-18	Uranium-235	0.212	pCi/sample	3.14E-05	3.14E-17	7.10E-15	4.42E-03	U
AMD002	Q2AMD0022-18	11-Apr-18	Uranium-238	1.54	pCi/sample	2.28E-04	2.28E-16	8.30E-15	2.75E-02	
Sum of the Fractions of the Standard									-1.88E-01	

Quarter Air Flow		6809	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD012	Q2AMD0122-18	11-Apr-18	Americium-241	2.64	pCi/sample	3.88E-04	3.88E-16	1.90E-15	2.04E-01	U
AMD012	Q2AMD0122-18	11-Apr-18	Neptunium-237	1.23	pCi/sample	1.81E-04	1.81E-16	1.20E-15	1.51E-01	U
AMD012	Q2AMD0122-18	11-Apr-18	Plutonium-238	0.152	pCi/sample	2.23E-05	2.23E-17	2.10E-15	1.06E-02	U
AMD012	Q2AMD0122-18	11-Apr-18	Plutonium-239/240	0.0532	pCi/sample	7.81E-06	7.81E-18	2.00E-15	3.91E-03	U
AMD012	Q2AMD0122-18	11-Apr-18	Techneium-99	6.15	pCi/sample	9.03E-04	9.03E-16	1.40E-13	6.45E-03	U
AMD012	Q2AMD0122-18	11-Apr-18	Thorium-234	-12.5	pCi/sample	-1.84E-03	-1.84E-15	2.20E-12	-8.34E-04	U
AMD012	Q2AMD0122-18	11-Apr-18	Uranium-234	1.87	pCi/sample	2.75E-04	2.75E-16	7.70E-15	3.57E-02	
AMD012	Q2AMD0122-18	11-Apr-18	Uranium-235	0.105	pCi/sample	1.54E-05	1.54E-17	7.10E-15	2.17E-03	U
AMD012	Q2AMD0122-18	11-Apr-18	Uranium-238	1.39	pCi/sample	2.04E-04	2.04E-16	8.30E-15	2.46E-02	
Sum of the Fractions of the Standard									4.37E-01	

Quarter Air Flow		6822	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD015	Q2AMD0152-18	11-Apr-18	Americium-241	-5.51	pCi/sample	-8.08E-04	-8.08E-16	1.90E-15	-4.25E-01	U
AMD015	Q2AMD0152-18	11-Apr-18	Neptunium-237	-0.824	pCi/sample	-1.21E-04	-1.21E-16	1.20E-15	-1.01E-01	U
AMD015	Q2AMD0152-18	11-Apr-18	Plutonium-238	-0.0979	pCi/sample	-1.43E-05	-1.43E-17	2.10E-15	-6.83E-03	U
AMD015	Q2AMD0152-18	11-Apr-18	Plutonium-239/240	-0.189	pCi/sample	-2.77E-05	-2.77E-17	2.00E-15	-1.39E-02	U
AMD015	Q2AMD0152-18	11-Apr-18	Techneium-99	39.7	pCi/sample	5.82E-03	5.82E-15	1.40E-13	4.16E-02	U
AMD015	Q2AMD0152-18	11-Apr-18	Thorium-234	6.7	pCi/sample	9.82E-04	9.82E-16	2.20E-12	4.46E-04	U

^a"U" value reported is less than the MDA and/or TPU.

^b"X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of Standard	Qualifier ^{a,b}
1st Quarter January through March										
AMD015	Q2AMD0152-18	11-Apr-18	Uranium-234	1.85	pCi/sample	2.71E-04	2.71E-16	7.70E-15	3.52E-02	
AMD015	Q2AMD0152-18	11-Apr-18	Uranium-235	0.143	pCi/sample	2.10E-05	2.10E-17	7.10E-15	2.95E-03	U
AMD015	Q2AMD0152-18	11-Apr-18	Uranium-238	2.01	pCi/sample	2.95E-04	2.95E-16	8.30E-15	3.55E-02	
Sum of the Fractions of the Standard									-4.31E-01	
Quarter Air Flow		6839	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD57	Q2AMD572-18	11-Apr-18	Americium-241	-3.03	pCi/sample	-4.43E-04	-4.43E-16	1.90E-15	-2.33E-01	U
AMD57	Q2AMD572-18	11-Apr-18	Neptunium-237	-0.932	pCi/sample	-1.36E-04	-1.36E-16	1.20E-15	-1.14E-01	U
AMD57	Q2AMD572-18	11-Apr-18	Plutonium-238	-0.0803	pCi/sample	-1.17E-05	-1.17E-17	2.10E-15	-5.59E-03	U
AMD57	Q2AMD572-18	11-Apr-18	Plutonium-239/240	0.258	pCi/sample	3.77E-05	3.77E-17	2.00E-15	1.89E-02	U
AMD57	Q2AMD572-18	11-Apr-18	Techneium-99	11.7	pCi/sample	1.71E-03	1.71E-15	1.40E-13	1.22E-02	U
AMD57	Q2AMD572-18	11-Apr-18	Thorium-234	3	pCi/sample	4.39E-04	4.39E-16	2.20E-12	1.99E-04	U
AMD57	Q2AMD572-18	11-Apr-18	Uranium-234	1.87	pCi/sample	2.73E-04	2.73E-16	7.70E-15	3.55E-02	
AMD57	Q2AMD572-18	11-Apr-18	Uranium-235	0.419	pCi/sample	6.13E-05	6.13E-17	7.10E-15	8.63E-03	
AMD57	Q2AMD572-18	11-Apr-18	Uranium-238	1.44	pCi/sample	2.11E-04	2.11E-16	8.30E-15	2.54E-02	
Sum of the Fractions of the Standard									-2.52E-01	
Quarter Air Flow		6828	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD612	Q2AMD6122-18	11-Apr-18	Americium-241	-1.67	pCi/sample	-2.45E-04	-2.45E-16	1.90E-15	-1.29E-01	U
AMD612	Q2AMD6122-18	11-Apr-18	Neptunium-237	0.109	pCi/sample	1.60E-05	1.60E-17	1.20E-15	1.33E-02	U
AMD612	Q2AMD6122-18	11-Apr-18	Plutonium-238	0.0883	pCi/sample	1.29E-05	1.29E-17	2.10E-15	6.16E-03	U
AMD612	Q2AMD6122-18	11-Apr-18	Plutonium-239/240	-0.0815	pCi/sample	-1.19E-05	-1.19E-17	2.00E-15	-5.97E-03	U
AMD612	Q2AMD6122-18	11-Apr-18	Techneium-99	14.6	pCi/sample	2.14E-03	2.14E-15	1.40E-13	1.53E-02	U
AMD612	Q2AMD6122-18	11-Apr-18	Thorium-234	33.8	pCi/sample	4.95E-03	4.95E-15	2.20E-12	2.25E-03	U
AMD612	Q2AMD6122-18	11-Apr-18	Uranium-234	1.76	pCi/sample	2.58E-04	2.58E-16	7.70E-15	3.35E-02	
AMD612	Q2AMD6122-18	11-Apr-18	Uranium-235	0.404	pCi/sample	5.92E-05	5.92E-17	7.10E-15	8.33E-03	
AMD612	Q2AMD6122-18	11-Apr-18	Uranium-238	1.57	pCi/sample	2.30E-04	2.30E-16	8.30E-15	2.77E-02	
Sum of the Fractions of the Standard									-2.82E-02	
Quarter Air Flow		6817	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746S	Q2AMD746S2-18	11-Apr-18	Americium-241	-2.12	pCi/sample	-3.11E-04	-3.11E-16	1.90E-15	-1.64E-01	U
AMD746S	Q2AMD746S2-18	11-Apr-18	Neptunium-237	3.42	pCi/sample	5.02E-04	5.02E-16	1.20E-15	4.18E-01	U

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of Standard	Qualifier ^{a,b}
1st Quarter January through March										
AMD746S	Q2AMD746S2-18	11-Apr-18	Plutonium-238	-0.0214	pCi/sample	-3.14E-06	-3.14E-18	2.10E-15	-1.49E-03	U
AMD746S	Q2AMD746S2-18	11-Apr-18	Plutonium-239/240	-0.0267	pCi/sample	-3.92E-06	-3.92E-18	2.00E-15	-1.96E-03	U
AMD746S	Q2AMD746S2-18	11-Apr-18	Technetium-99	10.3	pCi/sample	1.51E-03	1.51E-15	1.40E-13	1.08E-02	U
AMD746S	Q2AMD746S2-18	11-Apr-18	Thorium-234	32.3	pCi/sample	4.74E-03	4.74E-15	2.20E-12	2.15E-03	U
AMD746S	Q2AMD746S2-18	11-Apr-18	Uranium-234	1.52	pCi/sample	2.23E-04	2.23E-16	7.70E-15	2.90E-02	
AMD746S	Q2AMD746S2-18	11-Apr-18	Uranium-235	0.253	pCi/sample	3.71E-05	3.71E-17	7.10E-15	5.23E-03	
AMD746S	Q2AMD746S2-18	11-Apr-18	Uranium-238	1.58	pCi/sample	2.32E-04	2.32E-16	8.30E-15	2.79E-02	
Sum of the Fractions of the Standard									3.26E-01	

	Quarter Air Flow	6725	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746U	Q2AMD746U2-18	11-Apr-18	Americium-241	-3.48	pCi/sample	-5.17E-04	-5.17E-16	1.90E-15	-2.72E-01	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Neptunium-237	-0.285	pCi/sample	-4.24E-05	-4.24E-17	1.20E-15	-3.53E-02	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Plutonium-238	-0.171	pCi/sample	-2.54E-05	-2.54E-17	2.10E-15	-1.21E-02	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Plutonium-239/240	0.209	pCi/sample	3.11E-05	3.11E-17	2.00E-15	1.55E-02	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Technetium-99	23.7	pCi/sample	3.52E-03	3.52E-15	1.40E-13	2.52E-02	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Thorium-234	-50.5	pCi/sample	-7.51E-03	-7.51E-15	2.20E-12	-3.41E-03	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Uranium-234	1.32	pCi/sample	1.96E-04	1.96E-16	7.70E-15	2.55E-02	
AMD746U	Q2AMD746U2-18	11-Apr-18	Uranium-235	0.0852	pCi/sample	1.27E-05	1.27E-17	7.10E-15	1.78E-03	U
AMD746U	Q2AMD746U2-18	11-Apr-18	Uranium-238	1.24	pCi/sample	1.84E-04	1.84E-16	8.30E-15	2.22E-02	
Sum of the Fractions of the Standard									-2.33E-01	

	Quarter Air Flow	5500	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Americium-241	1.9	pCi/sample	3.45E-04	3.45E-16	1.90E-15	1.82E-01	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Neptunium-237	0.856	pCi/sample	1.56E-04	1.56E-16	1.20E-15	1.30E-01	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Plutonium-238	0.0948	pCi/sample	1.72E-05	1.72E-17	2.10E-15	8.21E-03	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Plutonium-239/240	-0.0599	pCi/sample	-1.09E-05	-1.09E-17	2.00E-15	-5.45E-03	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Technetium-99	-9.54	pCi/sample	-1.73E-03	-1.73E-15	1.40E-13	-1.24E-02	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Thorium-234	-80.6	pCi/sample	-1.47E-02	-1.47E-14	2.20E-12	-6.66E-03	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Uranium-234	1.68	pCi/sample	3.05E-04	3.05E-16	7.70E-15	3.97E-02	
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Uranium-235	0.2	pCi/sample	3.64E-05	3.64E-17	7.10E-15	5.12E-03	U
AMDBCP	Q2AMDBCP2-18	11-Apr-18	Uranium-238	1.32	pCi/sample	2.40E-04	2.40E-16	8.30E-15	2.89E-02	
Sum of the Fractions of the Standard									3.69E-01	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of Standard	Qualifier ^{a,b}
1st Quarter January through March										
	Quarter Air Flow	7008	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDNE	Q2AMDNE2-18	11-Apr-18	Americium-241	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	UX
AMDNE	Q2AMDNE2-18	11-Apr-18	Neptunium-237	-0.216	pCi/sample	-3.08E-05	-3.08E-17	1.20E-15	-2.57E-02	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Plutonium-238	-0.0336	pCi/sample	-4.79E-06	-4.79E-18	2.10E-15	-2.28E-03	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Plutonium-239/240	-0.0671	pCi/sample	-9.57E-06	-9.57E-18	2.00E-15	-4.79E-03	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Technetium-99	26.5	pCi/sample	3.78E-03	3.78E-15	1.40E-13	2.70E-02	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Thorium-234	65.9	pCi/sample	9.40E-03	9.40E-15	2.20E-12	4.27E-03	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Uranium-234	1.92	pCi/sample	2.74E-04	2.74E-16	7.70E-15	3.56E-02	
AMDNE	Q2AMDNE2-18	11-Apr-18	Uranium-235	0.309	pCi/sample	4.41E-05	4.41E-17	7.10E-15	6.21E-03	U
AMDNE	Q2AMDNE2-18	11-Apr-18	Uranium-238	1.23	pCi/sample	1.76E-04	1.76E-16	8.30E-15	2.11E-02	
Sum of the Fractions of the Standard									6.15E-02	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
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2nd Quarter April through June

Quarter Air Flow		7483	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD002	Q3AMD0023-18	12-Jul-18	Americium-241	2.04	pCi/Sample	2.73E-04	2.73E-16	1.90E-15	1.43E-01	U
AMD002	Q3AMD0023-18	12-Jul-18	Neptunium-237	1.31	pCi/Sample	1.75E-04	1.75E-16	1.20E-15	1.46E-01	U
AMD002	Q3AMD0023-18	12-Jul-18	Plutonium-238	0.13	pCi/Sample	1.74E-05	1.74E-17	2.10E-15	8.27E-03	U
AMD002	Q3AMD0023-18	12-Jul-18	Plutonium-239/240	0.0338	pCi/Sample	4.52E-06	4.52E-18	2.00E-15	2.26E-03	U
AMD002	Q3AMD0023-18	12-Jul-18	Technetium-99	-7.91	pCi/Sample	-1.06E-03	-1.06E-15	1.40E-13	-7.55E-03	U
AMD002	Q3AMD0023-18	12-Jul-18	Thorium-234	-147	pCi/Sample	-1.96E-02	-1.96E-14	2.20E-12	-8.93E-03	U
AMD002	Q3AMD0023-18	12-Jul-18	Uranium-234	1.54	pCi/Sample	2.06E-04	2.06E-16	7.70E-15	2.67E-02	
AMD002	Q3AMD0023-18	12-Jul-18	Uranium-235	0.232	pCi/Sample	3.10E-05	3.10E-17	7.10E-15	4.37E-03	
AMD002	Q3AMD0023-18	12-Jul-18	Uranium-238	1.13	pCi/Sample	1.51E-04	1.51E-16	8.30E-15	1.82E-02	
Sum of the Fractions of the Standard									3.33E-01	

Quarter Air Flow		7484	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD012	Q3AMD0123-18	12-Jul-18	Americium-241	0.733	pCi/Sample	9.79E-05	9.79E-17	1.90E-15	5.15E-02	U
AMD012	Q3AMD0123-18	12-Jul-18	Neptunium-237	-1.15	pCi/Sample	-1.54E-04	-1.54E-16	1.20E-15	-1.28E-01	U
AMD012	Q3AMD0123-18	12-Jul-18	Plutonium-238	0.0476	pCi/Sample	6.36E-06	6.36E-18	2.10E-15	3.03E-03	U
AMD012	Q3AMD0123-18	12-Jul-18	Plutonium-239/240	0.125	pCi/Sample	1.67E-05	1.67E-17	2.00E-15	8.35E-03	U
AMD012	Q3AMD0123-18	12-Jul-18	Technetium-99	0.263	pCi/Sample	3.51E-05	3.51E-17	1.40E-13	2.51E-04	U
AMD012	Q3AMD0123-18	12-Jul-18	Thorium-234	-125	pCi/Sample	-1.67E-02	-1.67E-14	2.20E-12	-7.59E-03	U
AMD012	Q3AMD0123-18	12-Jul-18	Uranium-234	1.38	pCi/Sample	1.84E-04	1.84E-16	7.70E-15	2.39E-02	
AMD012	Q3AMD0123-18	12-Jul-18	Uranium-235	0.394	pCi/Sample	5.26E-05	5.26E-17	7.10E-15	7.42E-03	U
AMD012	Q3AMD0123-18	12-Jul-18	Uranium-238	1.78	pCi/Sample	2.38E-04	2.38E-16	8.30E-15	2.87E-02	
Sum of the Fractions of the Standard									-1.24E-02	

Quarter Air Flow		7482	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD015	Q3AMD0153-18	12-Jul-18	Americium-241	3.06	pCi/Sample	4.09E-04	4.09E-16	1.90E-15	2.15E-01	U
AMD015	Q3AMD0153-18	12-Jul-18	Neptunium-237	-1.3	pCi/Sample	-1.74E-04	-1.74E-16	1.20E-15	-1.45E-01	U
AMD015	Q3AMD0153-18	12-Jul-18	Plutonium-238	0.0442	pCi/Sample	5.91E-06	5.91E-18	2.10E-15	2.81E-03	U
AMD015	Q3AMD0153-18	12-Jul-18	Plutonium-239/240	0.0883	pCi/Sample	1.18E-05	1.18E-17	2.00E-15	5.90E-03	U
AMD015	Q3AMD0153-18	12-Jul-18	Technetium-99	-7.77	pCi/Sample	-1.04E-03	-1.04E-15	1.40E-13	-7.42E-03	U
AMD015	Q3AMD0153-18	12-Jul-18	Thorium-234	33.2	pCi/Sample	4.44E-03	4.44E-15	2.20E-12	2.02E-03	U

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
2nd Quarter April through June										
AMD015	Q3AMD0153-18	12-Jul-18	Uranium-234	2.07	pCi/Sample	2.77E-04	2.77E-16	7.70E-15	3.59E-02	
AMD015	Q3AMD0153-18	12-Jul-18	Uranium-235	0.435	pCi/Sample	5.81E-05	5.81E-17	7.10E-15	8.19E-03	U
AMD015	Q3AMD0153-18	12-Jul-18	Uranium-238	1.42	pCi/Sample	1.90E-04	1.90E-16	8.30E-15	2.29E-02	
Sum of the Fractions of the Standard									1.41E-01	
	Quarter Air Flow	7502	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD57	Q3AMD573-18	12-Jul-18	Americium-241	1.19	pCi/Sample	1.59E-04	1.59E-16	1.90E-15	8.35E-02	U
AMD57	Q3AMD573-18	12-Jul-18	Neptunium-237	-0.731	pCi/Sample	-9.74E-05	-9.74E-17	1.20E-15	-8.12E-02	U
AMD57	Q3AMD573-18	12-Jul-18	Plutonium-238	0.202	pCi/Sample	2.69E-05	2.69E-17	2.10E-15	1.28E-02	U
AMD57	Q3AMD573-18	12-Jul-18	Plutonium-239/240	-0.0385	pCi/Sample	-5.13E-06	-5.13E-18	2.00E-15	-2.57E-03	U
AMD57	Q3AMD573-18	12-Jul-18	Technetium-99	-12.6	pCi/Sample	-1.68E-03	-1.68E-15	1.40E-13	-1.20E-02	U
AMD57	Q3AMD573-18	12-Jul-18	Thorium-234	57	pCi/Sample	7.60E-03	7.60E-15	2.20E-12	3.45E-03	U
AMD57	Q3AMD573-18	12-Jul-18	Uranium-234	1.7	pCi/Sample	2.27E-04	2.27E-16	7.70E-15	2.94E-02	
AMD57	Q3AMD573-18	12-Jul-18	Uranium-235	0.201	pCi/Sample	2.68E-05	2.68E-17	7.10E-15	3.77E-03	U
AMD57	Q3AMD573-18	12-Jul-18	Uranium-238	1.41	pCi/Sample	1.88E-04	1.88E-16	8.30E-15	2.26E-02	
Sum of the Fractions of the Standard									5.98E-02	
	Quarter Air Flow	7484	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD612	Q3AMD6123-18	12-Jul-18	Americium-241	5.34	pCi/Sample	7.14E-04	7.14E-16	1.90E-15	3.76E-01	U
AMD612	Q3AMD6123-18	12-Jul-18	Neptunium-237	-0.745	pCi/Sample	-9.95E-05	-9.95E-17	1.20E-15	-8.30E-02	U
AMD612	Q3AMD6123-18	12-Jul-18	Plutonium-238	0.0761	pCi/Sample	1.02E-05	1.02E-17	2.10E-15	4.84E-03	U
AMD612	Q3AMD6123-18	12-Jul-18	Plutonium-239/240	-0.023	pCi/Sample	-3.07E-06	-3.07E-18	2.00E-15	-1.54E-03	U
AMD612	Q3AMD6123-18	12-Jul-18	Technetium-99	-14.3	pCi/Sample	-1.91E-03	-1.91E-15	1.40E-13	-1.36E-02	U
AMD612	Q3AMD6123-18	12-Jul-18	Thorium-234	-21.8	pCi/Sample	-2.91E-03	-2.91E-15	2.20E-12	-1.32E-03	U
AMD612	Q3AMD6123-18	12-Jul-18	Uranium-234	2.19	pCi/Sample	2.93E-04	2.93E-16	7.70E-15	3.80E-02	
AMD612	Q3AMD6123-18	12-Jul-18	Uranium-235	0.237	pCi/Sample	3.17E-05	3.17E-17	7.10E-15	4.46E-03	U
AMD612	Q3AMD6123-18	12-Jul-18	Uranium-238	2.39	pCi/Sample	3.19E-04	3.19E-16	8.30E-15	3.85E-02	
Sum of the Fractions of the Standard									3.62E-01	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
2nd Quarter April through June										
	Quarter Air Flow	7488	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746S	Q3AMD746S3-18	12-Jul-18	Americium-241	-0.743	pCi/Sample	-9.92E-05	-9.92E-17	1.90E-15	-5.22E-02	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Neptunium-237	-0.792	pCi/Sample	-1.06E-04	-1.06E-16	1.20E-15	-8.81E-02	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Plutonium-238	0.0694	pCi/Sample	9.27E-06	9.27E-18	2.10E-15	4.41E-03	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Plutonium-239/240	0.168	pCi/Sample	2.24E-05	2.24E-17	2.00E-15	1.12E-02	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Technetium-99	-7.28	pCi/Sample	-9.72E-04	-9.72E-16	1.40E-13	-6.94E-03	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Thorium-234	-12.4	pCi/Sample	-1.66E-03	-1.66E-15	2.20E-12	-7.53E-04	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Uranium-234	1.32	pCi/Sample	1.76E-04	1.76E-16	7.70E-15	2.29E-02	
AMD746S	Q3AMD746S3-18	12-Jul-18	Uranium-235	0.155	pCi/Sample	2.07E-05	2.07E-17	7.10E-15	2.92E-03	U
AMD746S	Q3AMD746S3-18	12-Jul-18	Uranium-238	1.8	pCi/Sample	2.40E-04	2.40E-16	8.30E-15	2.90E-02	
Sum of the Fractions of the Standard									-7.77E-02	
	Quarter Air Flow	7496	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746U	Q3AMD746U3-18	12-Jul-18	Americium-241	-0.833	pCi/Sample	-1.11E-04	-1.11E-16	1.90E-15	-5.85E-02	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Neptunium-237	-0.577	pCi/Sample	-7.70E-05	-7.70E-17	1.20E-15	-6.41E-02	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Plutonium-238	0.288	pCi/Sample	3.84E-05	3.84E-17	2.10E-15	1.83E-02	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Plutonium-239/240	0.0457	pCi/Sample	6.10E-06	6.10E-18	2.00E-15	3.05E-03	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Technetium-99	-31.8	pCi/Sample	-4.24E-03	-4.24E-15	1.40E-13	-3.03E-02	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Thorium-234	-26.2	pCi/Sample	-3.50E-03	-3.50E-15	2.20E-12	-1.59E-03	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Uranium-234	1.04	pCi/Sample	1.39E-04	1.39E-16	7.70E-15	1.80E-02	
AMD746U	Q3AMD746U3-18	12-Jul-18	Uranium-235	0.174	pCi/Sample	2.32E-05	2.32E-17	7.10E-15	3.27E-03	U
AMD746U	Q3AMD746U3-18	12-Jul-18	Uranium-238	0.912	pCi/Sample	1.22E-04	1.22E-16	8.30E-15	1.47E-02	
Sum of the Fractions of the Standard									-9.72E-02	
	Quarter Air Flow	7688	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Americium-241	1.58	pCi/Sample	2.06E-04	2.06E-16	1.90E-15	1.08E-01	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Neptunium-237	-0.565	pCi/Sample	-7.35E-05	-7.35E-17	1.20E-15	-6.12E-02	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Plutonium-238	0.219	pCi/Sample	2.85E-05	2.85E-17	2.10E-15	1.36E-02	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Plutonium-239/240	0.152	pCi/Sample	1.98E-05	1.98E-17	2.00E-15	9.89E-03	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Technetium-99	-17.5	pCi/Sample	-2.28E-03	-2.28E-15	1.40E-13	-1.63E-02	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Thorium-234	2.36	pCi/Sample	3.07E-04	3.07E-16	2.20E-12	1.40E-04	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Uranium-234	1.34	pCi/Sample	1.74E-04	1.74E-16	7.70E-15	2.26E-02	
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Uranium-235	-0.0252	pCi/Sample	-3.28E-06	-3.28E-18	7.10E-15	-4.62E-04	U
AMDBCP	Q3AMDBCP3-18	12-Jul-18	Uranium-238	0.744	pCi/Sample	9.68E-05	9.68E-17	8.30E-15	1.17E-02	
Sum of the Fractions of the Standard									8.81E-02	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
2nd Quarter April through June										
	Quarter Air Flow	7488	m³			pCi/m³	Ci/m³	Ci/m³	fraction	
AMDNE	Q3AMDNE3-18	12-Jul-18	Americium-241	-0.568	pCi/Sample	-7.59E-05	-7.59E-17	1.90E-15	-3.99E-02	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Neptunium-237	0.202	pCi/Sample	2.70E-05	2.70E-17	1.20E-15	2.25E-02	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Plutonium-238	0.138	pCi/Sample	1.84E-05	1.84E-17	2.10E-15	8.78E-03	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Plutonium-239/240	-0.198	pCi/Sample	-2.64E-05	-2.64E-17	2.00E-15	-1.32E-02	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Technetium-99	-16.2	pCi/Sample	-2.16E-03	-2.16E-15	1.40E-13	-1.55E-02	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Thorium-234	23	pCi/Sample	3.07E-03	3.07E-15	2.20E-12	1.40E-03	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Uranium-234	1.48	pCi/Sample	1.98E-04	1.98E-16	7.70E-15	2.57E-02	
AMDNE	Q3AMDNE3-18	12-Jul-18	Uranium-235	0.165	pCi/Sample	2.20E-05	2.20E-17	7.10E-15	3.10E-03	U
AMDNE	Q3AMDNE3-18	12-Jul-18	Uranium-238	1.97	pCi/Sample	2.63E-04	2.63E-16	8.30E-15	3.17E-02	
Sum of the Fractions of the Standard									2.45E-02	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
3rd Quarter July through September										
	Quarter Air Flow	7398	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD002	Q4AMD0024-18	15-Oct-18	Americium-241	0.76	pCi/Sample	1.03E-04	1.03E-16	1.90E-15	5.41E-02	U
AMD002	Q4AMD0024-18	15-Oct-18	Neptunium-237	-4.92	pCi/Sample	-6.65E-04	-6.65E-16	1.20E-15	-5.54E-01	U
AMD002	Q4AMD0024-18	15-Oct-18	Plutonium-238	8.88	pCi/Sample	1.20E-03	1.20E-15	2.10E-15	5.72E-01	
AMD002	Q4AMD0024-18	15-Oct-18	Plutonium-239/240	0.253	pCi/Sample	3.42E-05	3.42E-17	2.00E-15	1.71E-02	U
AMD002	Q4AMD0024-18	15-Oct-18	Technetium-99	11.9	pCi/Sample	1.61E-03	1.61E-15	1.40E-13	1.15E-02	U
AMD002	Q4AMD0024-18	15-Oct-18	Thorium-234	1.79	pCi/Sample	2.42E-04	2.42E-16	2.20E-12	1.10E-04	U
AMD002	Q4AMD0024-18	15-Oct-18	Uranium-234	1.38	pCi/Sample	1.87E-04	1.87E-16	7.70E-15	2.42E-02	
AMD002	Q4AMD0024-18	15-Oct-18	Uranium-235	0.281	pCi/Sample	3.80E-05	3.80E-17	7.10E-15	5.35E-03	U
AMD002	Q4AMD0024-18	15-Oct-18	Uranium-238	1.16	pCi/Sample	1.57E-04	1.57E-16	8.30E-15	1.89E-02	
Sum of the Fractions of the Standard									1.49E-01	
	Quarter Air Flow	7407	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD012	Q4AMD0124-18	15-Oct-18	Americium-241	0.544	pCi/Sample	7.34E-05	7.34E-17	1.90E-15	3.87E-02	U
AMD012	Q4AMD0124-18	15-Oct-18	Neptunium-237	1.45	pCi/Sample	1.96E-04	1.96E-16	1.20E-15	1.63E-01	U
AMD012	Q4AMD0124-18	15-Oct-18	Plutonium-238	-0.0145	pCi/Sample	-1.96E-06	-1.96E-18	2.10E-15	-9.32E-04	U
AMD012	Q4AMD0124-18	15-Oct-18	Plutonium-239/240	0.0954	pCi/Sample	1.29E-05	1.29E-17	2.00E-15	6.44E-03	U
AMD012	Q4AMD0124-18	15-Oct-18	Technetium-99	4.44	pCi/Sample	5.99E-04	5.99E-16	1.40E-13	4.28E-03	U
AMD012	Q4AMD0124-18	15-Oct-18	Thorium-234	-5.96	pCi/Sample	-8.05E-04	-8.05E-16	2.20E-12	-3.66E-04	U
AMD012	Q4AMD0124-18	15-Oct-18	Uranium-234	1.46	pCi/Sample	1.97E-04	1.97E-16	7.70E-15	2.56E-02	
AMD012	Q4AMD0124-18	15-Oct-18	Uranium-235	0.059	pCi/Sample	7.97E-06	7.97E-18	7.10E-15	1.12E-03	U
AMD012	Q4AMD0124-18	15-Oct-18	Uranium-238	1.38	pCi/Sample	1.86E-04	1.86E-16	8.30E-15	2.24E-02	
Sum of the Fractions of the Standard									2.60E-01	
	Quarter Air Flow	7400	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD015	Q4AMD0154-18	15-Oct-18	Americium-241	-0.129	pCi/Sample	-1.74E-05	-1.74E-17	1.90E-15	-9.18E-03	U
AMD015	Q4AMD0154-18	15-Oct-18	Neptunium-237	-0.0986	pCi/Sample	-1.33E-05	-1.33E-17	1.20E-15	-1.11E-02	U
AMD015	Q4AMD0154-18	15-Oct-18	Plutonium-238	-0.0693	pCi/Sample	-9.37E-06	-9.37E-18	2.10E-15	-4.46E-03	U
AMD015	Q4AMD0154-18	15-Oct-18	Plutonium-239/240	-0.0317	pCi/Sample	-4.28E-06	-4.28E-18	2.00E-15	-2.14E-03	U
AMD015	Q4AMD0154-18	15-Oct-18	Technetium-99	18	pCi/Sample	2.43E-03	2.43E-15	1.40E-13	1.74E-02	U
AMD015	Q4AMD0154-18	15-Oct-18	Thorium-234	0.575	pCi/Sample	7.77E-05	7.77E-17	2.20E-12	3.53E-05	U
AMD015	Q4AMD0154-18	15-Oct-18	Uranium-234	1.49	pCi/Sample	2.01E-04	2.01E-16	7.70E-15	2.62E-02	
AMD015	Q4AMD0154-18	15-Oct-18	Uranium-235	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD015	Q4AMD0154-18	15-Oct-18	Uranium-238	1.39	pCi/Sample	1.88E-04	1.88E-16	8.30E-15	2.26E-02	
Sum of the Fractions of the Standard									3.93E-02	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
3rd Quarter July through September										
	Quarter Air Flow	7418	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD57	Q4AMD574-18	15-Oct-18	Americium-241	0.247	pCi/Sample	3.33E-05	3.33E-17	1.90E-15	1.75E-02	U
AMD57	Q4AMD574-18	15-Oct-18	Neptunium-237	1.1	pCi/Sample	1.48E-04	1.48E-16	1.20E-15	1.24E-01	U
AMD57	Q4AMD574-18	15-Oct-18	Plutonium-238	0.0443	pCi/Sample	5.97E-06	5.97E-18	2.10E-15	2.84E-03	U
AMD57	Q4AMD574-18	15-Oct-18	Plutonium-239/240	-0.0505	pCi/Sample	-6.81E-06	-6.81E-18	2.00E-15	-3.40E-03	U
AMD57	Q4AMD574-18	15-Oct-18	Technetium-99	16.8	pCi/Sample	2.26E-03	2.26E-15	1.40E-13	1.62E-02	U
AMD57	Q4AMD574-18	15-Oct-18	Thorium-234	7.18	pCi/Sample	9.68E-04	9.68E-16	2.20E-12	4.40E-04	U
AMD57	Q4AMD574-18	15-Oct-18	Uranium-234	1.35	pCi/Sample	1.82E-04	1.82E-16	7.70E-15	2.36E-02	
AMD57	Q4AMD574-18	15-Oct-18	Uranium-235	0.341	pCi/Sample	4.60E-05	4.60E-17	7.10E-15	6.47E-03	U
AMD57	Q4AMD574-18	15-Oct-18	Uranium-238	0.866	pCi/Sample	1.17E-04	1.17E-16	8.30E-15	1.41E-02	
Sum of the Fractions of the Standard									2.01E-01	
	Quarter Air Flow	7391	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD612	Q4AMD6124-18	15-Oct-18	Americium-241	-0.105	pCi/Sample	-1.42E-05	-1.42E-17	1.90E-15	-7.48E-03	U
AMD612	Q4AMD6124-18	15-Oct-18	Neptunium-237	-2.5	pCi/Sample	-3.38E-04	-3.38E-16	1.20E-15	-2.82E-01	U
AMD612	Q4AMD6124-18	15-Oct-18	Plutonium-238	0.0792	pCi/Sample	1.07E-05	1.07E-17	2.10E-15	5.10E-03	U
AMD612	Q4AMD6124-18	15-Oct-18	Plutonium-239/240	-0.0538	pCi/Sample	-7.28E-06	-7.28E-18	2.00E-15	-3.64E-03	U
AMD612	Q4AMD6124-18	15-Oct-18	Technetium-99	1.98	pCi/Sample	2.68E-04	2.68E-16	1.40E-13	1.91E-03	U
AMD612	Q4AMD6124-18	15-Oct-18	Thorium-234	13	pCi/Sample	1.76E-03	1.76E-15	2.20E-12	8.00E-04	U
AMD612	Q4AMD6124-18	15-Oct-18	Uranium-234	1.07	pCi/Sample	1.45E-04	1.45E-16	7.70E-15	1.88E-02	
AMD612	Q4AMD6124-18	15-Oct-18	Uranium-235	0.066	pCi/Sample	8.93E-06	8.93E-18	7.10E-15	1.26E-03	U
AMD612	Q4AMD6124-18	15-Oct-18	Uranium-238	1.24	pCi/Sample	1.68E-04	1.68E-16	8.30E-15	2.02E-02	
Sum of the Fractions of the Standard									-2.45E-01	
	Quarter Air Flow	7393	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746S	Q4AMD746S4-18	15-Oct-18	Americium-241	-0.371	pCi/Sample	-5.02E-05	-5.02E-17	1.90E-15	-2.64E-02	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Neptunium-237	-2.15	pCi/Sample	-2.91E-04	-2.91E-16	1.20E-15	-2.42E-01	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Plutonium-238	-0.0162	pCi/Sample	-2.19E-06	-2.19E-18	2.10E-15	-1.04E-03	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Plutonium-239/240	0.0188	pCi/Sample	2.54E-06	2.54E-18	2.00E-15	1.27E-03	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Technetium-99	10.1	pCi/Sample	1.37E-03	1.37E-15	1.40E-13	9.76E-03	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Thorium-234	10.8	pCi/Sample	1.46E-03	1.46E-15	2.20E-12	6.64E-04	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Uranium-234	1.22	pCi/Sample	1.65E-04	1.65E-16	7.70E-15	2.14E-02	
AMD746S	Q4AMD746S4-18	15-Oct-18	Uranium-235	0.158	pCi/Sample	2.14E-05	2.14E-17	7.10E-15	3.01E-03	U
AMD746S	Q4AMD746S4-18	15-Oct-18	Uranium-238	1.26	pCi/Sample	1.70E-04	1.70E-16	8.30E-15	2.05E-02	
Sum of the Fractions of the Standard									-2.13E-01	

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^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
3rd Quarter July through September										
	Quarter Air Flow	7400	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746U	Q4AMD746U4-18	15-Oct-18	Americium-241	0.76	pCi/Sample	1.03E-04	1.03E-16	1.90E-15	5.41E-02	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Neptunium-237	1.16	pCi/Sample	1.57E-04	1.57E-16	1.20E-15	1.31E-01	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Plutonium-238	0.0217	pCi/Sample	2.93E-06	2.93E-18	2.10E-15	1.40E-03	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Plutonium-239/240	0.0588	pCi/Sample	7.95E-06	7.95E-18	2.00E-15	3.97E-03	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Technetium-99	23.2	pCi/Sample	3.13E-03	3.13E-15	1.40E-13	2.24E-02	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Thorium-234	0	pCi/Sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMD746U	Q4AMD746U4-18	15-Oct-18	Uranium-234	1.03	pCi/Sample	1.39E-04	1.39E-16	7.70E-15	1.81E-02	
AMD746U	Q4AMD746U4-18	15-Oct-18	Uranium-235	0.153	pCi/Sample	2.07E-05	2.07E-17	7.10E-15	2.91E-03	U
AMD746U	Q4AMD746U4-18	15-Oct-18	Uranium-238	0.522	pCi/Sample	7.05E-05	7.05E-17	8.30E-15	8.50E-03	U
Sum of the Fractions of the Standard									2.42E-01	
	Quarter Air Flow	7398	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Americium-241	-0.39	pCi/Sample	-5.27E-05	-5.27E-17	1.90E-15	-2.77E-02	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Neptunium-237	0.492	pCi/Sample	6.65E-05	6.65E-17	1.20E-15	5.54E-02	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Plutonium-238	0.046	pCi/Sample	6.22E-06	6.22E-18	2.10E-15	2.96E-03	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Plutonium-239/240	-0.108	pCi/Sample	-1.46E-05	-1.46E-17	2.00E-15	-7.30E-03	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Technetium-99	2.42	pCi/Sample	3.27E-04	3.27E-16	1.40E-13	2.34E-03	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Thorium-234	0	pCi/Sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Uranium-234	1.5	pCi/Sample	2.03E-04	2.03E-16	7.70E-15	2.63E-02	
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Uranium-235	0.262	pCi/Sample	3.54E-05	3.54E-17	7.10E-15	4.99E-03	U
AMDBCP	Q4AMDBCP4-18	15-Oct-18	Uranium-238	1.2	pCi/Sample	1.62E-04	1.62E-16	8.30E-15	1.95E-02	
Sum of the Fractions of the Standard									7.65E-02	
	Quarter Air Flow	7395	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDNE	Q4AMDNE4-18	15-Oct-18	Americium-241	-0.185	pCi/Sample	-2.50E-05	-2.50E-17	1.90E-15	-1.32E-02	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Neptunium-237	0.467	pCi/Sample	6.32E-05	6.32E-17	1.20E-15	5.26E-02	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Plutonium-238	-0.158	pCi/Sample	-2.14E-05	-2.14E-17	2.10E-15	-1.02E-02	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Plutonium-239/240	-0.257	pCi/Sample	-3.48E-05	-3.48E-17	2.00E-15	-1.74E-02	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Technetium-99	10.3	pCi/Sample	1.39E-03	1.39E-15	1.40E-13	9.95E-03	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Thorium-234	-16.7	pCi/Sample	-2.26E-03	-2.26E-15	2.20E-12	-1.03E-03	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Uranium-234	1.55	pCi/Sample	2.10E-04	2.10E-16	7.70E-15	2.72E-02	
AMDNE	Q4AMDNE4-18	15-Oct-18	Uranium-235	0.035	pCi/Sample	4.73E-06	4.73E-18	7.10E-15	6.67E-04	U
AMDNE	Q4AMDNE4-18	15-Oct-18	Uranium-238	1.51	pCi/Sample	2.04E-04	2.04E-16	8.30E-15	2.46E-02	
Sum of the Fractions of the Standard									7.33E-02	

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^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
4th Quarter October through December										
	Quarter Air Flow	7400	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD002	Q1AMD0021-19	14-Jan-19	Americium-241	-0.152	pCi/sample	-2.05E-05	-2.05E-17	1.90E-15	-1.08E-02	U
AMD002	Q1AMD0021-19	14-Jan-19	Neptunium-237	-0.664	pCi/sample	-8.97E-05	-8.97E-17	1.20E-15	-7.48E-02	U
AMD002	Q1AMD0021-19	14-Jan-19	Plutonium-238	-0.274	pCi/sample	-3.70E-05	-3.70E-17	2.10E-15	-1.76E-02	U
AMD002	Q1AMD0021-19	14-Jan-19	Plutonium-239/240	-0.17	pCi/sample	-2.30E-05	-2.30E-17	2.00E-15	-1.15E-02	U
AMD002	Q1AMD0021-19	14-Jan-19	Technetium-99	-7.45	pCi/sample	-1.01E-03	-1.01E-15	1.40E-13	-7.19E-03	U
AMD002	Q1AMD0021-19	14-Jan-19	Thorium-234	1.68	pCi/sample	2.27E-04	2.27E-16	2.20E-12	1.03E-04	U
AMD002	Q1AMD0021-19	14-Jan-19	Uranium-234	2.85	pCi/sample	3.85E-04	3.85E-16	7.70E-15	5.00E-02	
AMD002	Q1AMD0021-19	14-Jan-19	Uranium-235	-0.046	pCi/sample	-6.22E-06	-6.22E-18	7.10E-15	-8.76E-04	U
AMD002	Q1AMD0021-19	14-Jan-19	Uranium-238	2.46	pCi/sample	3.32E-04	3.32E-16	8.30E-15	4.01E-02	
Sum of the Fractions of the Standard									-3.26E-02	
	Quarter Air Flow	7410	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD012	Q1AMD0121-19	14-Jan-19	Americium-241	0.516	pCi/sample	6.96E-05	6.96E-17	1.90E-15	3.66E-02	U
AMD012	Q1AMD0121-19	14-Jan-19	Neptunium-237	-0.771	pCi/sample	-1.04E-04	-1.04E-16	1.20E-15	-8.67E-02	U
AMD012	Q1AMD0121-19	14-Jan-19	Plutonium-238	-0.069	pCi/sample	-9.31E-06	-9.31E-18	2.10E-15	-4.43E-03	U
AMD012	Q1AMD0121-19	14-Jan-19	Plutonium-239/240	-0.0919	pCi/sample	-1.24E-05	-1.24E-17	2.00E-15	-6.20E-03	U
AMD012	Q1AMD0121-19	14-Jan-19	Technetium-99	-25.6	pCi/sample	-3.45E-03	-3.45E-15	1.40E-13	-2.47E-02	U
AMD012	Q1AMD0121-19	14-Jan-19	Thorium-234	41.4	pCi/sample	5.59E-03	5.59E-15	2.20E-12	2.54E-03	U
AMD012	Q1AMD0121-19	14-Jan-19	Uranium-234	1.93	pCi/sample	2.60E-04	2.60E-16	7.70E-15	3.38E-02	
AMD012	Q1AMD0121-19	14-Jan-19	Uranium-235	0.291	pCi/sample	3.93E-05	3.93E-17	7.10E-15	5.53E-03	U
AMD012	Q1AMD0121-19	14-Jan-19	Uranium-238	1.4	pCi/sample	1.89E-04	1.89E-16	8.30E-15	2.28E-02	
Sum of the Fractions of the Standard									-2.07E-02	
	Quarter Air Flow	7259	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD015	Q1AMD0151-19	14-Jan-19	Americium-241	-1	pCi/sample	-1.38E-04	-1.38E-16	1.90E-15	-7.25E-02	U
AMD015	Q1AMD0151-19	14-Jan-19	Neptunium-237	0.384	pCi/sample	5.29E-05	5.29E-17	1.20E-15	4.41E-02	U
AMD015	Q1AMD0151-19	14-Jan-19	Plutonium-238	-0.075	pCi/sample	-1.03E-05	-1.03E-17	2.10E-15	-4.92E-03	U
AMD015	Q1AMD0151-19	14-Jan-19	Plutonium-239/240	0.275	pCi/sample	3.79E-05	3.79E-17	2.00E-15	1.89E-02	U
AMD015	Q1AMD0151-19	14-Jan-19	Technetium-99	9.58	pCi/sample	1.32E-03	1.32E-15	1.40E-13	9.43E-03	U
AMD015	Q1AMD0151-19	14-Jan-19	Thorium-234	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMD015	Q1AMD0151-19	14-Jan-19	Uranium-234	3.24	pCi/sample	4.46E-04	4.46E-16	7.70E-15	5.80E-02	
AMD015	Q1AMD0151-19	14-Jan-19	Uranium-235	0.116	pCi/sample	1.60E-05	1.60E-17	7.10E-15	2.25E-03	U
AMD015	Q1AMD0151-19	14-Jan-19	Uranium-238	2.18	pCi/sample	3.00E-04	3.00E-16	8.30E-15	3.62E-02	
Sum of the Fractions of the Standard									9.14E-02	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
4th Quarter October through December										
	Quarter Air Flow	7349	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD57	Q1AMD571-19	14-Jan-19	Americium-241	0.434	pCi/sample	5.91E-05	5.91E-17	1.90E-15	3.11E-02	U
AMD57	Q1AMD571-19	14-Jan-19	Neptunium-237	-0.229	pCi/sample	-3.12E-05	-3.12E-17	1.20E-15	-2.60E-02	U
AMD57	Q1AMD571-19	14-Jan-19	Plutonium-238	-0.136	pCi/sample	-1.85E-05	-1.85E-17	2.10E-15	-8.81E-03	U
AMD57	Q1AMD571-19	14-Jan-19	Plutonium-239/240	0.0491	pCi/sample	6.68E-06	6.68E-18	2.00E-15	3.34E-03	U
AMD57	Q1AMD571-19	14-Jan-19	Technetium-99	3.47	pCi/sample	4.72E-04	4.72E-16	1.40E-13	3.37E-03	U
AMD57	Q1AMD571-19	14-Jan-19	Thorium-234	12.5	pCi/sample	1.70E-03	1.70E-15	2.20E-12	7.73E-04	U
AMD57	Q1AMD571-19	14-Jan-19	Uranium-234	2.26	pCi/sample	3.08E-04	3.08E-16	7.70E-15	3.99E-02	
AMD57	Q1AMD571-19	14-Jan-19	Uranium-235	0.455	pCi/sample	6.19E-05	6.19E-17	7.10E-15	8.72E-03	U
AMD57	Q1AMD571-19	14-Jan-19	Uranium-238	2.12	pCi/sample	2.88E-04	2.88E-16	8.30E-15	3.48E-02	
Sum of the Fractions of the Standard									8.72E-02	
	Quarter Air Flow	7203	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD612	Q1AMD6121-19	14-Jan-19	Americium-241	-0.171	pCi/sample	-2.37E-05	-2.37E-17	1.90E-15	-1.25E-02	U
AMD612	Q1AMD6121-19	14-Jan-19	Neptunium-237	2.75	pCi/sample	3.82E-04	3.82E-16	1.20E-15	3.18E-01	U
AMD612	Q1AMD6121-19	14-Jan-19	Plutonium-238	0.00237	pCi/sample	3.29E-07	3.29E-19	2.10E-15	1.57E-04	U
AMD612	Q1AMD6121-19	14-Jan-19	Plutonium-239/240	0.258	pCi/sample	3.58E-05	3.58E-17	2.00E-15	1.79E-02	U
AMD612	Q1AMD6121-19	14-Jan-19	Technetium-99	5.44	pCi/sample	7.55E-04	7.55E-16	1.40E-13	5.39E-03	U
AMD612	Q1AMD6121-19	14-Jan-19	Thorium-234	16.4	pCi/sample	2.28E-03	2.28E-15	2.20E-12	1.03E-03	U
AMD612	Q1AMD6121-19	14-Jan-19	Uranium-234	3.05	pCi/sample	4.23E-04	4.23E-16	7.70E-15	5.50E-02	
AMD612	Q1AMD6121-19	14-Jan-19	Uranium-235	0.134	pCi/sample	1.86E-05	1.86E-17	7.10E-15	2.62E-03	U
AMD612	Q1AMD6121-19	14-Jan-19	Uranium-238	2.89	pCi/sample	4.01E-04	4.01E-16	8.30E-15	4.83E-02	
Sum of the Fractions of the Standard									4.36E-01	
	Quarter Air Flow	7428	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746S	Q1AMD746S1-19	14-Jan-19	Americium-241	0.482	pCi/sample	6.49E-05	6.49E-17	1.90E-15	3.42E-02	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Neptunium-237	1.42	pCi/sample	1.91E-04	1.91E-16	1.20E-15	1.59E-01	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Plutonium-238	-0.0327	pCi/sample	-4.40E-06	-4.40E-18	2.10E-15	-2.10E-03	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Plutonium-239/240	0.282	pCi/sample	3.80E-05	3.80E-17	2.00E-15	1.90E-02	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Technetium-99	-13.5	pCi/sample	-1.82E-03	-1.82E-15	1.40E-13	-1.30E-02	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Thorium-234	-19.1	pCi/sample	-2.57E-03	-2.57E-15	2.20E-12	-1.17E-03	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Uranium-234	2.02	pCi/sample	2.72E-04	2.72E-16	7.70E-15	3.53E-02	
AMD746S	Q1AMD746S1-19	14-Jan-19	Uranium-235	0.317	pCi/sample	4.27E-05	4.27E-17	7.10E-15	6.01E-03	U
AMD746S	Q1AMD746S1-19	14-Jan-19	Uranium-238	1.88	pCi/sample	2.53E-04	2.53E-16	8.30E-15	3.05E-02	
Sum of the Fractions of the Standard									2.68E-01	

^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.1. Sum of the Fractions Standard (Continued)

Station	Client Sample ID	Date Collected	Analysis	Result	Units	Concentration	Concentration	Standard	Fraction of standard	Qualifier ^{a,b}
4th Quarter October through December										
	Quarter Air Flow	7321	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMD746U	Q1AMD746U1-19	14-Jan-19	Americium-241	-0.118	pCi/sample	-1.61E-05	-1.61E-17	1.90E-15	-8.48E-03	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Neptunium-237	0.678	pCi/sample	9.26E-05	9.26E-17	1.20E-15	7.72E-02	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Plutonium-238	0.00272	pCi/sample	3.72E-07	3.72E-19	2.10E-15	1.77E-04	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Plutonium-239/240	0.228	pCi/sample	3.11E-05	3.11E-17	2.00E-15	1.56E-02	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Technetium-99	-59.9	pCi/sample	-8.18E-03	-8.18E-15	1.40E-13	-5.84E-02	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Thorium-234	9.61	pCi/sample	1.31E-03	1.31E-15	2.20E-12	5.97E-04	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Uranium-234	1.86	pCi/sample	2.54E-04	2.54E-16	7.70E-15	3.30E-02	
AMD746U	Q1AMD746U1-19	14-Jan-19	Uranium-235	-0.0229	pCi/sample	-3.13E-06	-3.13E-18	7.10E-15	-4.41E-04	U
AMD746U	Q1AMD746U1-19	14-Jan-19	Uranium-238	1.89	pCi/sample	2.58E-04	2.58E-16	8.30E-15	3.11E-02	
Sum of the Fractions of the Standard									9.03E-02	
	Quarter Air Flow	7406	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Americium-241	-0.439	pCi/sample	-5.93E-05	-5.93E-17	1.90E-15	-3.12E-02	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Neptunium-237	0.429	pCi/sample	5.79E-05	5.79E-17	1.20E-15	4.83E-02	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Plutonium-238	-0.0148	pCi/sample	-2.00E-06	-2.00E-18	2.10E-15	-9.52E-04	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Plutonium-239/240	-0.089	pCi/sample	-1.20E-05	-1.20E-17	2.00E-15	-6.01E-03	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Technetium-99	-5.41	pCi/sample	-7.30E-04	-7.30E-16	1.40E-13	-5.22E-03	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Thorium-234	10.3	pCi/sample	1.39E-03	1.39E-15	2.20E-12	6.32E-04	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Uranium-234	2	pCi/sample	2.70E-04	2.70E-16	7.70E-15	3.51E-02	
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Uranium-235	-0.0442	pCi/sample	-5.97E-06	-5.97E-18	7.10E-15	-8.41E-04	U
AMDBCP	Q1AMDBCP1-19	14-Jan-19	Uranium-238	2.52	pCi/sample	3.40E-04	3.40E-16	8.30E-15	4.10E-02	
Sum of the Fractions of the Standard									8.08E-02	
	Quarter Air Flow	7404	m ³			pCi/m ³	Ci/m ³	Ci/m ³	fraction	
AMDNE	Q1AMDNE1-19	14-Jan-19	Americium-241	-0.26	pCi/sample	-3.51E-05	-3.51E-17	1.90E-15	-1.85E-02	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Neptunium-237	-0.549	pCi/sample	-7.41E-05	-7.41E-17	1.20E-15	-6.18E-02	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Plutonium-238	-0.0407	pCi/sample	-5.50E-06	-5.50E-18	2.10E-15	-2.62E-03	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Plutonium-239/240	0.0204	pCi/sample	2.76E-06	2.76E-18	2.00E-15	1.38E-03	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Technetium-99	1.56	pCi/sample	2.11E-04	2.11E-16	1.40E-13	1.50E-03	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Thorium-234	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMDNE	Q1AMDNE1-19	14-Jan-19	Uranium-234	2.51	pCi/sample	3.39E-04	3.39E-16	7.70E-15	4.40E-02	
AMDNE	Q1AMDNE1-19	14-Jan-19	Uranium-235	0.444	pCi/sample	6.00E-05	6.00E-17	7.10E-15	8.45E-03	U
AMDNE	Q1AMDNE1-19	14-Jan-19	Uranium-238	3.49	pCi/sample	4.71E-04	4.71E-16	8.30E-15	5.68E-02	
Sum of the Fractions of the Standard									2.93E-02	

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^a "U" value reported is less than the MDA and/or TPU.

^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.2. Ambient Air Data

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD002	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	2.53	pCi/sample	U	7.09	4.25	4.41
AMD002	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	-3.83	pCi/sample	U	3.86	3.85	4.23
AMD002	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0414	pCi/Sample	U	0.262	0.141	0.142
AMD002	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.00955	pCi/Sample	U	0.191	0.0823	0.0825
AMD002	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	-3.83	pCi/sample	U	3.86	3.85	4.23
AMD002	11-Apr-18	Technetium-99	DOE TC-02-RC	24.1	pCi/Sample	U	46.8	27.8	27.9
AMD002	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	44.6	pCi/sample	U	78.7	93.1	95.8
AMD002	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.29	pCi/Sample		0.362	0.488	0.52
AMD002	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.212	pCi/Sample	U	0.346	0.258	0.259
AMD002	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	44.6	pCi/sample	U	78.7	93.1	95.8
AMD002	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.54	pCi/Sample		0.329	0.523	0.562
AMD002	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	2.04	pCi/sample	U	20	11.2	11.2
AMD002	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	1.31	pCi/sample	U	5.14	2.8	2.86
AMD002	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.13	pCi/Sample	U	0.195	0.223	0.224
AMD002	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0338	pCi/Sample	U	0.36	0.188	0.188
AMD002	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	1.31	pCi/sample	U	5.14	2.8	2.86
AMD002	12-Jul-18	Technetium-99	DOE TC-02-RC	-7.91	pCi/Sample	U	70.5	40.9	40.9
AMD002	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	-147	pCi/sample	U	186	154	171
AMD002	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.54	pCi/Sample		0.598	0.668	0.704
AMD002	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.232	pCi/Sample		0.232	0.306	0.307
AMD002	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.13	pCi/Sample		0.506	0.57	0.59
AMD002	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	-147	pCi/sample	U	186	154	171
AMD002	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	0.76	pCi/sample	U	2.74	1.72	1.75
AMD002	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	-4.92	pCi/sample	U	4.83	5.1	5.58
AMD002	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	8.88	pCi/Sample		0.799	1.56	1.99
AMD002	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.253	pCi/Sample	U	0.468	0.329	0.331
AMD002	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	-4.92	pCi/sample	U	4.83	5.1	5.58
AMD002	15-Oct-18	Technetium-99	DOE TC-02-RC	11.9	pCi/Sample	U	61.1	35.2	35.2
AMD002	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	1.79	pCi/sample	U	26.5	43.8	43.8
AMD002	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.38	pCi/Sample		0.555	0.706	0.741
AMD002	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.281	pCi/Sample	U	0.488	0.405	0.407
AMD002	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	1.79	pCi/sample	U	26.5	43.8	43.8
AMD002	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.16	pCi/Sample		0.665	0.675	0.699

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^b "X" other specific flags and footnotes may be required to define the results properly.

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD002	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-0.152	pCi/sample	U	1.33	0.791	0.794
AMD002	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	-0.664	pCi/sample	U	3.65	2.14	2.16
AMD002	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.274	pCi/Sample	U	1.1	0.448	0.448
AMD002	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.17	pCi/Sample	U	0.762	0.264	0.264
AMD002	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	-0.664	pCi/sample	U	3.65	2.14	2.16
AMD002	14-Jan-19	Technetium-99	DOE TC-02-RC	-7.45	pCi/Sample	U	70.2	41	41
AMD002	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	1.68	pCi/sample	U	14.2	8.32	8.36
AMD002	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	2.85	pCi/Sample		0.88	1.36	1.48
AMD002	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	-0.046	pCi/Sample	U	0.902	0.384	0.386
AMD002	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	2.46	pCi/Sample		0.652	1.25	1.34
AMD002	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	1.68	pCi/sample	U	14.2	8.32	8.36
AMD012	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	2.64	pCi/sample	U	7.42	4.12	4.29
AMD012	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	1.23	pCi/sample	U	4.04	2.19	2.27
AMD012	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	0.152	pCi/Sample	U	0.824	0.442	0.443
AMD012	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0532	pCi/Sample	U	0.702	0.343	0.344
AMD012	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	1.23	pCi/sample	U	4.04	2.19	2.27
AMD012	11-Apr-18	Technetium-99	DOE TC-02-RC	6.15	pCi/Sample	U	54.4	31.4	31.4
AMD012	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	-12.5	pCi/sample	U	80.9	85.1	85.4
AMD012	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.87	pCi/Sample		0.392	0.615	0.669
AMD012	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.105	pCi/Sample	U	0.286	0.206	0.207
AMD012	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	-12.5	pCi/sample	U	80.9	85.1	85.4
AMD012	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.39	pCi/Sample		0.231	0.518	0.552
AMD012	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	0.733	pCi/sample	U	7.47	4.24	4.26
AMD012	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-1.15	pCi/sample	U	4.2	2.4	2.46
AMD012	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0476	pCi/Sample	U	0.3	0.179	0.179
AMD012	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.125	pCi/Sample	U	0.188	0.215	0.216
AMD012	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-1.15	pCi/sample	U	4.2	2.4	2.46
AMD012	12-Jul-18	Technetium-99	DOE TC-02-RC	0.263	pCi/Sample	U	76	44.3	44.3
AMD012	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	-125	pCi/sample	U	82.5	105	123
AMD012	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.38	pCi/Sample		0.495	0.607	0.637
AMD012	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.394	pCi/Sample	U	0.456	0.393	0.397
AMD012	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.78	pCi/Sample		0.446	0.673	0.715
AMD012	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	-125	pCi/sample	U	82.5	105	123

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^b"X" other specific flags and footnotes may be required to define the results properly.

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD012	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	0.544	pCi/sample	U	2.52	1.46	1.48
AMD012	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	1.45	pCi/sample	U	4.75	2.65	2.73
AMD012	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0145	pCi/Sample	U	0.507	0.217	0.217
AMD012	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0954	pCi/Sample	U	0.56	0.299	0.3
AMD012	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	1.45	pCi/sample	U	4.75	2.65	2.73
AMD012	15-Oct-18	Technetium-99	DOE TC-02-RC	4.44	pCi/Sample	U	64.1	36.5	36.5
AMD012	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	-5.96	pCi/sample	U	43.8	36.8	36.9
AMD012	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.46	pCi/Sample		0.746	0.792	0.829
AMD012	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.059	pCi/Sample	U	0.628	0.328	0.328
AMD012	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	-5.96	pCi/sample	U	43.8	36.8	36.9
AMD012	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.38	pCi/Sample		0.275	0.72	0.754
AMD012	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	0.516	pCi/sample	U	6.13	3.44	3.44
AMD012	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	-0.771	pCi/sample	U	6.86	4.57	4.58
AMD012	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.069	pCi/Sample	U	0.585	0.208	0.209
AMD012	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0919	pCi/Sample	U	0.631	0.213	0.213
AMD012	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	-0.771	pCi/sample	U	6.86	4.57	4.58
AMD012	14-Jan-19	Technetium-99	DOE TC-02-RC	-25.6	pCi/Sample	U	64.5	37.3	37.3
AMD012	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	41.4	pCi/sample	U	51.9	92.8	93.3
AMD012	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	1.93	pCi/Sample		0.663	0.979	1.04
AMD012	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.291	pCi/Sample	U	0.436	0.495	0.497
AMD012	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	1.4	pCi/Sample		0.495	0.832	0.867
AMD012	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	41.4	pCi/sample	U	51.9	92.8	93.3
AMD015	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	-5.51	pCi/sample	U	8.96	5.75	6.28
AMD015	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	-0.824	pCi/sample	U	3.95	2.24	2.27
AMD015	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0979	pCi/Sample	U	0.828	0.334	0.335
AMD015	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.189	pCi/Sample	U	0.733	0.215	0.216
AMD015	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	-0.824	pCi/sample	U	3.95	2.24	2.27
AMD015	11-Apr-18	Technetium-99	DOE TC-02-RC	39.7	pCi/Sample	U	50	30.3	30.6
AMD015	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	6.7	pCi/sample	U	100	131	131
AMD015	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.85	pCi/Sample		0.333	0.566	0.62
AMD015	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.143	pCi/Sample	U	0.249	0.207	0.207
AMD015	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	2.01	pCi/Sample		0.201	0.577	0.636
AMD015	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	6.7	pCi/sample	U	100	131	131

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^b"X" other specific flags and footnotes may be required to define the results properly.

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD015	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	3.06	pCi/sample	U	7.21	4.27	4.5
AMD015	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-1.3	pCi/sample	U	3.91	2.22	2.3
AMD015	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0442	pCi/Sample	U	0.279	0.166	0.166
AMD015	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0883	pCi/Sample	U	0.322	0.203	0.203
AMD015	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-1.3	pCi/sample	U	3.91	2.22	2.3
AMD015	12-Jul-18	Technetium-99	DOE TC-02-RC	-7.77	pCi/Sample	U	73.9	42.9	42.9
AMD015	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	33.2	pCi/sample	U	59.3	88.4	88.7
AMD015	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	2.07	pCi/Sample		0.557	0.755	0.81
AMD015	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.435	pCi/Sample	U	0.437	0.414	0.418
AMD015	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.42	pCi/Sample		0.39	0.616	0.646
AMD015	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	33.2	pCi/sample	U	59.3	88.4	88.7
AMD015	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	-0.129	pCi/sample	U	2.67	1.55	1.56
AMD015	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	-0.0986	pCi/sample	U	4.88	2.76	2.76
AMD015	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0693	pCi/Sample	U	0.475	0.16	0.161
AMD015	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0317	pCi/Sample	U	0.533	0.219	0.219
AMD015	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	-0.0986	pCi/sample	U	4.88	2.76	2.76
AMD015	15-Oct-18	Technetium-99	DOE TC-02-RC	18	pCi/Sample	U	54.7	31.9	32
AMD015	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	0.575	pCi/sample	U	53.9	46.5	46.5
AMD015	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.49	pCi/Sample		0.721	0.781	0.818
AMD015	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0	pCi/Sample	U	0.327	0.22	0.221
AMD015	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	0.575	pCi/sample	U	53.9	46.5	46.5
AMD015	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.39	pCi/Sample		0.619	0.741	0.772
AMD015	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-1	pCi/sample	U	2.36	1.52	1.58
AMD015	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	0.384	pCi/sample	U	4.33	2.42	2.43
AMD015	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.075	pCi/Sample	U	0.515	0.174	0.174
AMD015	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.275	pCi/Sample	U	0.432	0.348	0.35
AMD015	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	0.384	pCi/sample	U	4.33	2.42	2.43
AMD015	14-Jan-19	Technetium-99	DOE TC-02-RC	9.58	pCi/Sample	U	71.2	41.9	41.9
AMD015	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	23.4	50.5	51
AMD015	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	3.24	pCi/Sample		0.909	1.41	1.55
AMD015	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.116	pCi/Sample	U	0.922	0.509	0.511
AMD015	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	23.4	50.5	51
AMD015	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	2.18	pCi/Sample		0.617	1.15	1.22

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD57	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	-3.03	pCi/sample	U	9.48	5.82	5.99
AMD57	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	-0.932	pCi/sample	U	5.13	3	3.03
AMD57	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0803	pCi/Sample	U	0.681	0.242	0.243
AMD57	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.258	pCi/Sample	U	0.863	0.51	0.513
AMD57	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	-0.932	pCi/sample	U	5.13	3	3.03
AMD57	11-Apr-18	Technetium-99	DOE TC-02-RC	11.7	pCi/Sample	U	50.9	29.6	29.7
AMD57	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	3	pCi/sample	U	94.4	91.6	91.6
AMD57	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.87	pCi/Sample		0.408	0.59	0.643
AMD57	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.419	pCi/Sample		0.259	0.319	0.324
AMD57	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.44	pCi/Sample		0.288	0.508	0.544
AMD57	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	3	pCi/sample	U	94.4	91.6	91.6
AMD57	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	1.19	pCi/sample	U	10.1	5.7	5.72
AMD57	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-0.731	pCi/sample	U	4.19	2.37	2.4
AMD57	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.202	pCi/Sample	U	0.538	0.327	0.329
AMD57	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0385	pCi/Sample	U	0.538	0.226	0.227
AMD57	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-0.731	pCi/sample	U	4.19	2.37	2.4
AMD57	12-Jul-18	Technetium-99	DOE TC-02-RC	-12.6	pCi/Sample	U	73.9	42.8	42.8
AMD57	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	57	pCi/sample	U	79.5	108	109
AMD57	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.7	pCi/Sample		0.48	0.683	0.726
AMD57	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.201	pCi/Sample	U	0.442	0.319	0.32
AMD57	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	57	pCi/sample	U	79.5	108	109
AMD57	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.41	pCi/Sample		0.452	0.624	0.654
AMD57	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	0.247	pCi/sample	U	2.48	1.56	1.57
AMD57	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	1.1	pCi/sample	U	4.54	2.82	2.86
AMD57	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0443	pCi/Sample	U	0.585	0.286	0.286
AMD57	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0505	pCi/Sample	U	0.707	0.297	0.298
AMD57	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	1.1	pCi/sample	U	4.54	2.82	2.86
AMD57	15-Oct-18	Technetium-99	DOE TC-02-RC	16.8	pCi/Sample	U	55.1	32.1	32.1
AMD57	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	7.18	pCi/sample	U	23.7	38.5	38.6
AMD57	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.35	pCi/Sample		0.537	0.662	0.694
AMD57	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.341	pCi/Sample	U	0.435	0.402	0.405
AMD57	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	0.866	pCi/Sample		0.514	0.545	0.559
AMD57	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	7.18	pCi/sample	U	23.7	38.5	38.6

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD57	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	0.434	pCi/sample	U	1.97	1.23	1.25
AMD57	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	-0.229	pCi/sample	U	3.56	2.03	2.03
AMD57	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.136	pCi/Sample	U	0.699	0.219	0.22
AMD57	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0491	pCi/Sample	U	0.523	0.273	0.273
AMD57	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	-0.229	pCi/sample	U	3.56	2.03	2.03
AMD57	14-Jan-19	Technetium-99	DOE TC-02-RC	3.47	pCi/Sample	U	78.2	45.8	45.8
AMD57	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	12.5	pCi/sample	U	19	36.8	36.9
AMD57	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	2.26	pCi/Sample		0.87	1.14	1.22
AMD57	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.455	pCi/Sample	U	0.775	0.649	0.654
AMD57	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	12.5	pCi/sample	U	19	36.8	36.9
AMD57	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	2.12	pCi/Sample		0.561	1.08	1.14
AMD612	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	-1.67	pCi/sample	U	5.63	3.77	3.85
AMD612	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	0.109	pCi/sample	U	3.86	2.2	2.2
AMD612	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0883	pCi/Sample	U	0.559	0.302	0.302
AMD612	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0815	pCi/Sample	U	0.559	0.189	0.189
AMD612	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	0.109	pCi/sample	U	3.86	2.2	2.2
AMD612	11-Apr-18	Technetium-99	DOE TC-02-RC	14.6	pCi/Sample	U	47.9	28	28.1
AMD612	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	33.8	pCi/sample	U	74.2	93.4	95
AMD612	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.76	pCi/Sample		0.485	0.646	0.697
AMD612	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.404	pCi/Sample		0.202	0.351	0.356
AMD612	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.57	pCi/Sample		0.261	0.586	0.629
AMD612	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	33.8	pCi/sample	U	74.2	93.4	95
AMD612	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	5.34	pCi/sample	U	10.1	5.92	6.44
AMD612	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-0.745	pCi/sample	U	5.03	2.92	2.94
AMD612	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0761	pCi/Sample	U	0.447	0.239	0.239
AMD612	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.023	pCi/Sample	U	0.5	0.215	0.215
AMD612	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-0.745	pCi/sample	U	5.03	2.92	2.94
AMD612	12-Jul-18	Technetium-99	DOE TC-02-RC	-14.3	pCi/Sample	U	76.3	44.2	44.2
AMD612	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	-21.8	pCi/sample	U	97.4	105	105
AMD612	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	2.19	pCi/Sample		0.421	0.725	0.785
AMD612	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.237	pCi/Sample	U	0.441	0.323	0.325
AMD612	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	2.39	pCi/Sample		0.175	0.742	0.808
AMD612	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	-21.8	pCi/sample	U	97.4	105	105

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD612	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	-0.105	pCi/sample	U	6.48	3.63	3.64
AMD612	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	-2.5	pCi/sample	U	7.61	4.74	4.88
AMD612	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0792	pCi/Sample	U	0.238	0.223	0.223
AMD612	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0538	pCi/Sample	U	0.614	0.243	0.244
AMD612	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	-2.5	pCi/sample	U	7.61	4.74	4.88
AMD612	15-Oct-18	Technetium-99	DOE TC-02-RC	1.98	pCi/Sample	U	48.2	27.3	27.3
AMD612	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	13	pCi/sample	U	56.5	82.3	82.4
AMD612	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.07	pCi/Sample		0.76	0.734	0.758
AMD612	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.066	pCi/Sample	U	0.703	0.367	0.368
AMD612	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.24	pCi/Sample		0.83	0.793	0.82
AMD612	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	13	pCi/sample	U	56.5	82.3	82.4
AMD612	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-0.171	pCi/sample	U	1.56	0.929	0.932
AMD612	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	2.75	pCi/sample	U	4.32	2.32	2.65
AMD612	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	0.00237	pCi/Sample	U	0.391	0.176	0.176
AMD612	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.258	pCi/Sample	U	0.53	0.342	0.344
AMD612	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	2.75	pCi/sample	U	4.32	2.32	2.65
AMD612	14-Jan-19	Technetium-99	DOE TC-02-RC	5.44	pCi/Sample	U	79.9	46.9	46.9
AMD612	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	16.4	pCi/sample	U	17.9	13.6	15.9
AMD612	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	3.05	pCi/Sample		1.11	1.49	1.62
AMD612	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.134	pCi/Sample	U	1.07	0.59	0.592
AMD612	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	2.89	pCi/Sample		1.09	1.46	1.57
AMD612	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	16.4	pCi/sample	U	17.9	13.6	15.9
AMD746S	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	-2.12	pCi/sample	U	5.11	3.28	3.42
AMD746S	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	3.42	pCi/sample	U	4.11	3.41	3.75
AMD746S	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0214	pCi/Sample	U	1.12	0.496	0.496
AMD746S	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0267	pCi/Sample	U	0.937	0.401	0.402
AMD746S	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	3.42	pCi/sample	U	4.11	3.41	3.75
AMD746S	11-Apr-18	Technetium-99	DOE TC-02-RC	10.3	pCi/Sample	U	49.7	28.9	28.9
AMD746S	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	32.3	pCi/sample	U	46.4	82.9	83.2
AMD746S	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.52	pCi/Sample		0.313	0.509	0.549
AMD746S	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.253	pCi/Sample		0.152	0.244	0.247
AMD746S	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	32.3	pCi/sample	U	46.4	82.9	83.2
AMD746S	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.58	pCi/Sample		0.227	0.509	0.549

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^b"X" other specific flags and footnotes may be required to define the results properly.

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD746S	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	-0.743	pCi/sample	U	5.95	3.62	3.63
AMD746S	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-0.792	pCi/sample	U	3.99	2.31	2.34
AMD746S	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0694	pCi/Sample	U	0.44	0.237	0.237
AMD746S	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.168	pCi/Sample	U	0.369	0.267	0.269
AMD746S	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-0.792	pCi/sample	U	3.99	2.31	2.34
AMD746S	12-Jul-18	Technetium-99	DOE TC-02-RC	-7.28	pCi/Sample	U	67.8	39.4	39.4
AMD746S	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	-12.4	pCi/sample	U	74.4	65.3	65.6
AMD746S	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.32	pCi/Sample		0.616	0.662	0.691
AMD746S	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.155	pCi/Sample	U	0.422	0.305	0.305
AMD746S	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	-12.4	pCi/sample	U	74.4	65.3	65.6
AMD746S	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.8	pCi/Sample		0.435	0.729	0.773
AMD746S	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	-0.371	pCi/sample	U	2.61	1.65	1.66
AMD746S	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	-2.15	pCi/sample	U	4.55	2.66	2.85
AMD746S	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0162	pCi/Sample	U	0.323	0.139	0.14
AMD746S	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0188	pCi/Sample	U	0.411	0.197	0.197
AMD746S	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	-2.15	pCi/sample	U	4.55	2.66	2.85
AMD746S	15-Oct-18	Technetium-99	DOE TC-02-RC	10.1	pCi/Sample	U	85.8	49.1	49.1
AMD746S	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	10.8	pCi/sample	U	54	49.2	49.5
AMD746S	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.22	pCi/Sample		0.898	0.799	0.827
AMD746S	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.158	pCi/Sample	U	0.756	0.436	0.437
AMD746S	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.26	pCi/Sample		0.869	0.801	0.828
AMD746S	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	10.8	pCi/sample	U	54	49.2	49.5
AMD746S	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	0.482	pCi/sample	U	2.39	1.36	1.38
AMD746S	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	1.42	pCi/sample	U	4.49	2.48	2.57
AMD746S	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0327	pCi/Sample	U	0.549	0.226	0.226
AMD746S	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.282	pCi/Sample	U	0.521	0.366	0.369
AMD746S	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	1.42	pCi/sample	U	4.49	2.48	2.57
AMD746S	14-Jan-19	Technetium-99	DOE TC-02-RC	-13.5	pCi/Sample	U	77.1	44.9	44.9
AMD746S	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	-19.1	pCi/sample	U	49.2	40.8	41.9
AMD746S	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	2.02	pCi/Sample		1.03	1.19	1.26
AMD746S	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.317	pCi/Sample	U	0.984	0.663	0.666
AMD746S	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	1.88	pCi/Sample		1	1.15	1.21
AMD746S	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	-19.1	pCi/sample	U	49.2	40.8	41.9

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD746U	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	-3.48	pCi/sample	U	8.79	5.11	5.35
AMD746U	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	-0.285	pCi/sample	U	4.18	2.33	2.33
AMD746U	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.171	pCi/Sample	U	0.878	0.276	0.277
AMD746U	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.209	pCi/Sample	U	0.569	0.41	0.412
AMD746U	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	-0.285	pCi/sample	U	4.18	2.33	2.33
AMD746U	11-Apr-18	Technetium-99	DOE TC-02-RC	23.7	pCi/Sample	U	48.3	28.6	28.7
AMD746U	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	-50.5	pCi/sample	U	102	82.2	86.1
AMD746U	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.32	pCi/Sample		0.328	0.469	0.5
AMD746U	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.0852	pCi/Sample	U	0.232	0.167	0.168
AMD746U	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	-50.5	pCi/sample	U	102	82.2	86.1
AMD746U	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.24	pCi/Sample		0.188	0.442	0.469
AMD746U	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	-0.833	pCi/sample	U	4.88	2.86	2.88
AMD746U	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-0.577	pCi/sample	U	3.86	2.19	2.21
AMD746U	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.288	pCi/Sample	U	0.376	0.302	0.306
AMD746U	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0457	pCi/Sample	U	0.4	0.205	0.205
AMD746U	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-0.577	pCi/sample	U	3.86	2.19	2.21
AMD746U	12-Jul-18	Technetium-99	DOE TC-02-RC	-31.8	pCi/Sample	U	75.7	43.4	43.4
AMD746U	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	-26.2	pCi/sample	U	58.4	56.7	58.2
AMD746U	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.04	pCi/Sample		0.502	0.545	0.565
AMD746U	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.174	pCi/Sample	U	0.465	0.307	0.308
AMD746U	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	0.912	pCi/Sample		0.432	0.503	0.518
AMD746U	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	-26.2	pCi/sample	U	58.4	56.7	58.2
AMD746U	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	0.76	pCi/sample	U	2.66	1.63	1.67
AMD746U	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	1.16	pCi/sample	U	4.78	2.65	2.7
AMD746U	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0217	pCi/Sample	U	0.473	0.227	0.227
AMD746U	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0588	pCi/Sample	U	0.371	0.221	0.221
AMD746U	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	1.16	pCi/sample	U	4.78	2.65	2.7
AMD746U	15-Oct-18	Technetium-99	DOE TC-02-RC	23.2	pCi/Sample	U	55.7	32.8	32.9
AMD746U	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	26.7	44.7	45.4
AMD746U	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.03	pCi/Sample		0.78	0.672	0.693
AMD746U	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.153	pCi/Sample	U	0.558	0.352	0.353
AMD746U	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	0.522	pCi/Sample	U	0.811	0.552	0.558
AMD746U	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	26.7	44.7	45.4

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMD746U	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-0.118	pCi/sample	U	2.23	1.4	1.4
AMD746U	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	0.678	pCi/sample	U	3.99	2.22	2.24
AMD746U	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	0.00272	pCi/Sample	U	0.448	0.201	0.202
AMD746U	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.228	pCi/Sample	U	0.608	0.369	0.37
AMD746U	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	0.678	pCi/sample	U	3.99	2.22	2.24
AMD746U	14-Jan-19	Technetium-99	DOE TC-02-RC	-59.9	pCi/Sample	U	73.5	41.9	41.9
AMD746U	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	9.61	pCi/sample	U	21.1	41	41.1
AMD746U	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	1.86	pCi/Sample		1.21	1.18	1.24
AMD746U	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	-0.0229	pCi/Sample	U	0.802	0.379	0.381
AMD746U	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	9.61	pCi/sample	U	21.1	41	41.1
AMD746U	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	1.89	pCi/Sample		0.919	1.14	1.19
AMDBCP	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	1.9	pCi/sample	U	14.6	8.44	8.49
AMDBCP	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	0.856	pCi/sample	U	5.05	2.85	2.87
AMDBCP	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	0.0948	pCi/Sample	U	0.598	0.356	0.357
AMDBCP	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0599	pCi/Sample	U	0.691	0.265	0.266
AMDBCP	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	0.856	pCi/sample	U	5.05	2.85	2.87
AMDBCP	11-Apr-18	Technetium-99	DOE TC-02-RC	-9.54	pCi/Sample	U	45.3	25.5	25.5
AMDBCP	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	-80.6	pCi/sample	U	143	153	159
AMDBCP	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.68	pCi/Sample		0.384	0.59	0.637
AMDBCP	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.2	pCi/Sample	U	0.372	0.273	0.275
AMDBCP	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	-80.6	pCi/sample	U	143	153	159
AMDBCP	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.32	pCi/Sample		0.236	0.513	0.544
AMDBCP	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	1.58	pCi/sample	U	2.4	1.39	1.56
AMDBCP	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	-0.565	pCi/sample	U	4.28	2.42	2.44
AMDBCP	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.219	pCi/Sample	U	0.407	0.299	0.301
AMDBCP	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	0.152	pCi/Sample	U	0.407	0.269	0.27
AMDBCP	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	-0.565	pCi/sample	U	4.28	2.42	2.44
AMDBCP	12-Jul-18	Technetium-99	DOE TC-02-RC	-17.5	pCi/Sample	U	76.7	44.3	44.3
AMDBCP	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	2.36	pCi/sample	U	23.7	47.9	47.9
AMDBCP	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.34	pCi/Sample		0.572	0.71	0.742
AMDBCP	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	-0.0252	pCi/Sample	U	0.503	0.217	0.218
AMDBCP	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	2.36	pCi/sample	U	23.7	47.9	47.9
AMDBCP	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	0.744	pCi/Sample		0.407	0.53	0.542

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMDBCP	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	-0.39	pCi/sample	U	2.63	1.66	1.67
AMDBCP	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	0.492	pCi/sample	U	4.94	2.77	2.78
AMDBCP	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	0.046	pCi/Sample	U	0.403	0.206	0.206
AMDBCP	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.108	pCi/Sample	U	0.53	0.187	0.187
AMDBCP	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	0.492	pCi/sample	U	4.94	2.77	2.78
AMDBCP	15-Oct-18	Technetium-99	DOE TC-02-RC	2.42	pCi/Sample	U	59.9	34	34
AMDBCP	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	25.2	47.8	48.3
AMDBCP	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.5	pCi/Sample		0.438	0.585	0.619
AMDBCP	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.262	pCi/Sample	U	0.427	0.319	0.321
AMDBCP	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.2	pCi/Sample		0.44	0.53	0.552
AMDBCP	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	25.2	47.8	48.3
AMDBCP	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-0.439	pCi/sample	U	1.99	1.28	1.3
AMDBCP	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	0.429	pCi/sample	U	3.83	2.16	2.17
AMDBCP	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0148	pCi/Sample	U	0.296	0.128	0.128
AMDBCP	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.089	pCi/Sample	U	0.457	0.143	0.144
AMDBCP	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	0.429	pCi/sample	U	3.83	2.16	2.17
AMDBCP	14-Jan-19	Technetium-99	DOE TC-02-RC	-5.41	pCi/Sample	U	64.7	37.8	37.8
AMDBCP	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	10.3	pCi/sample	U	19.6	39.3	39.4
AMDBCP	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	2	pCi/Sample		1.1	1.17	1.24
AMDBCP	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	-0.0442	pCi/Sample	U	0.867	0.369	0.371
AMDBCP	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	2.52	pCi/Sample		0.987	1.28	1.37
AMDBCP	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	10.3	pCi/sample	U	19.6	39.3	39.4
AMDNE	11-Apr-18	Americium-241	HASL 300, 4.5.2.3	0	pCi/sample	UX	7.63	7.03	7.13
AMDNE	11-Apr-18	Neptunium-237	HASL 300, 4.5.2.3	-0.216	pCi/sample	U	3.83	2.12	2.12
AMDNE	11-Apr-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.0336	pCi/Sample	U	0.671	0.29	0.291
AMDNE	11-Apr-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0671	pCi/Sample	U	0.775	0.297	0.298
AMDNE	11-Apr-18	Protactinium-233	HASL 300, 4.5.2.3	-0.216	pCi/sample	U	3.83	2.12	2.12
AMDNE	11-Apr-18	Technetium-99	DOE TC-02-RC	26.5	pCi/Sample	U	46.8	27.9	28
AMDNE	11-Apr-18	Thorium-234	HASL 300, 4.5.2.3	65.9	pCi/sample	U	86.4	81.7	88.3
AMDNE	11-Apr-18	Uranium-234	HASL 300, U-02-RC M	1.92	pCi/Sample		0.336	0.609	0.666
AMDNE	11-Apr-18	Uranium-235	HASL 300, U-02-RC M	0.309	pCi/Sample	U	0.357	0.308	0.311
AMDNE	11-Apr-18	Uranium-238	HASL 300, U-02-RC M	1.23	pCi/Sample		0.382	0.504	0.531
AMDNE	11-Apr-18	Uranium-238	HASL 300, 4.5.2.3	65.9	pCi/sample	U	86.4	81.7	88.3

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL ^{a,b}	DETECT_LIMIT	RAD_ERR	TPU
AMDNE	12-Jul-18	Americium-241	HASL 300, 4.5.2.3	-0.568	pCi/sample	U	9.14	5.6	5.61
AMDNE	12-Jul-18	Neptunium-237	HASL 300, 4.5.2.3	0.202	pCi/sample	U	4.27	2.36	2.36
AMDNE	12-Jul-18	Plutonium-238	HASL 300, Pu-11-RC M	0.138	pCi/Sample	U	0.816	0.431	0.432
AMDNE	12-Jul-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.198	pCi/Sample	U	0.815	0.278	0.279
AMDNE	12-Jul-18	Protactinium-233	HASL 300, 4.5.2.3	0.202	pCi/sample	U	4.27	2.36	2.36
AMDNE	12-Jul-18	Technetium-99	DOE TC-02-RC	-16.2	pCi/Sample	U	77.1	44.6	44.6
AMDNE	12-Jul-18	Thorium-234	HASL 300, 4.5.2.3	23	pCi/sample	U	77.3	98.7	98.9
AMDNE	12-Jul-18	Uranium-234	HASL 300, U-02-RC M	1.48	pCi/Sample		0.552	0.659	0.693
AMDNE	12-Jul-18	Uranium-235	HASL 300, U-02-RC M	0.165	pCi/Sample	U	0.533	0.328	0.329
AMDNE	12-Jul-18	Uranium-238	HASL 300, 4.5.2.3	23	pCi/sample	U	77.3	98.7	98.9
AMDNE	12-Jul-18	Uranium-238	HASL 300, U-02-RC M	1.97	pCi/Sample		0.431	0.729	0.778
AMDNE	15-Oct-18	Americium-241	HASL 300, 4.5.2.3	-0.185	pCi/sample	U	2.51	1.48	1.48
AMDNE	15-Oct-18	Neptunium-237	HASL 300, 4.5.2.3	0.467	pCi/sample	U	4.53	2.56	2.57
AMDNE	15-Oct-18	Plutonium-238	HASL 300, Pu-11-RC M	-0.158	pCi/Sample	U	0.666	0.199	0.2
AMDNE	15-Oct-18	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.257	pCi/Sample	U	0.781	0.217	0.217
AMDNE	15-Oct-18	Protactinium-233	HASL 300, 4.5.2.3	0.467	pCi/sample	U	4.53	2.56	2.57
AMDNE	15-Oct-18	Technetium-99	DOE TC-02-RC	10.3	pCi/Sample	U	54.6	31.5	31.5
AMDNE	15-Oct-18	Thorium-234	HASL 300, 4.5.2.3	-16.7	pCi/sample	U	43.7	36.9	37.8
AMDNE	15-Oct-18	Uranium-234	HASL 300, U-02-RC M	1.55	pCi/Sample		0.526	0.619	0.654
AMDNE	15-Oct-18	Uranium-235	HASL 300, U-02-RC M	0.035	pCi/Sample	U	0.373	0.194	0.195
AMDNE	15-Oct-18	Uranium-238	HASL 300, 4.5.2.3	-16.7	pCi/sample	U	43.7	36.9	37.8
AMDNE	15-Oct-18	Uranium-238	HASL 300, U-02-RC M	1.51	pCi/Sample		0.382	0.588	0.621
AMDNE	14-Jan-19	Americium-241	HASL 300, 4.5.2.3	-0.26	pCi/sample	U	5.24	2.95	2.95
AMDNE	14-Jan-19	Neptunium-237	HASL 300, 4.5.2.3	-0.549	pCi/sample	U	5.82	3.55	3.56
AMDNE	14-Jan-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0407	pCi/Sample	U	0.57	0.24	0.24
AMDNE	14-Jan-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0204	pCi/Sample	U	0.493	0.232	0.232
AMDNE	14-Jan-19	Protactinium-233	HASL 300, 4.5.2.3	-0.549	pCi/sample	U	5.82	3.55	3.56
AMDNE	14-Jan-19	Technetium-99	DOE TC-02-RC	1.56	pCi/Sample	U	62.8	36.8	36.8
AMDNE	14-Jan-19	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	44.8	83.9	84.8
AMDNE	14-Jan-19	Uranium-234	HASL 300, U-02-RC M	2.51	pCi/Sample		1.48	1.51	1.6
AMDNE	14-Jan-19	Uranium-235	HASL 300, U-02-RC M	0.444	pCi/Sample	U	0.994	0.806	0.811
AMDNE	14-Jan-19	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	44.8	83.9	84.8
AMDNE	14-Jan-19	Uranium-238	HASL 300, U-02-RC M	3.49	pCi/Sample		1.14	1.68	1.84

^a"U" value reported is less than the MDA and/or TPU.

^b"X" other specific flags and footnotes may be required to define the results properly.

Table A.3. Weekly Flow Data

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
1	2769	Flow-total	AMD002	ft ³	04-Jan-18	W01AMD0022-18
1	20061	Flow-total	AMD002	ft ³	11-Jan-18	W02AMD0022-18
1	20238	Flow-total	AMD002	ft ³	18-Jan-18	W03AMD0022-18
1	18151	Flow-total	AMD002	ft ³	25-Jan-18	W04AMD0022-18
1	20031	Flow-total	AMD002	ft ³	01-Feb-18	W05AMD0022-18
1	20062	Flow-total	AMD002	ft ³	08-Feb-18	W06AMD0022-18
1	19908	Flow-total	AMD002	ft ³	15-Feb-18	W07AMD0022-18
1	19676	Flow-total	AMD002	ft ³	22-Feb-18	W08AMD0022-18
1	20094	Flow-total	AMD002	ft ³	01-Mar-18	W09AMD0022-18
1	20130	Flow-total	AMD002	ft ³	08-Mar-18	W10AMD0022-18
1	20032	Flow-total	AMD002	ft ³	15-Mar-18	W11AMD0022-18
1	20802	Flow-total	AMD002	ft ³	22-Mar-18	W12AMD0022-18
1	16497	Flow-total	AMD002	ft ³	28-Mar-18	W13AMD0022-18
1	2744	Flow-total	AMD012	ft ³	04-Jan-18	W01AMD0122-18
1	20011	Flow-total	AMD012	ft ³	11-Jan-18	W02AMD0122-18
1	20103	Flow-total	AMD012	ft ³	18-Jan-18	W03AMD0122-18
1	20001	Flow-total	AMD012	ft ³	25-Jan-18	W04AMD0122-18
1	20187	Flow-total	AMD012	ft ³	01-Feb-18	W05AMD0122-18
1	19977	Flow-total	AMD012	ft ³	08-Feb-18	W06AMD0122-18
1	20112	Flow-total	AMD012	ft ³	15-Feb-18	W07AMD0122-18
1	19725	Flow-total	AMD012	ft ³	22-Feb-18	W08AMD0122-18
1	20099	Flow-total	AMD012	ft ³	01-Mar-18	W09AMD0122-18
1	20125	Flow-total	AMD012	ft ³	08-Mar-18	W10AMD0122-18
1	20043	Flow-total	AMD012	ft ³	15-Mar-18	W11AMD0122-18
1	20753	Flow-total	AMD012	ft ³	22-Mar-18	W12AMD0122-18
1	16546	Flow-total	AMD012	ft ³	28-Mar-18	W13AMD0122-18
1	2829	Flow-total	AMD015	ft ³	04-Jan-18	W01AMD0152-18
1	20065	Flow-total	AMD015	ft ³	11-Jan-18	W02AMD0152-18
1	20093	Flow-total	AMD015	ft ³	18-Jan-18	W03AMD0152-18
1	20092	Flow-total	AMD015	ft ³	25-Jan-18	W04AMD0152-18
1	20121	Flow-total	AMD015	ft ³	01-Feb-18	W05AMD0152-18
1	20042	Flow-total	AMD015	ft ³	08-Feb-18	W06AMD0152-18
1	20156	Flow-total	AMD015	ft ³	15-Feb-18	W07AMD0152-18
1	20111	Flow-total	AMD015	ft ³	22-Feb-18	W08AMD0152-18
1	19940	Flow-total	AMD015	ft ³	01-Mar-18	W09AMD0152-18
1	20123	Flow-total	AMD015	ft ³	08-Mar-18	W10AMD0152-18
1	20032	Flow-total	AMD015	ft ³	15-Mar-18	W11AMD0152-18
1	20685	Flow-total	AMD015	ft ³	22-Mar-18	W12AMD0152-18
1	16609	Flow-total	AMD015	ft ³	28-Mar-18	W13AMD0152-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
1	2831	Flow-total	AMD57	ft ³	04-Jan-18	W01AMD572-18
1	20134	Flow-total	AMD57	ft ³	11-Jan-18	W02AMD572-18
1	20136	Flow-total	AMD57	ft ³	18-Jan-18	W03AMD572-18
1	20153	Flow-total	AMD57	ft ³	25-Jan-18	W04AMD572-18
1	20183	Flow-total	AMD57	ft ³	01-Feb-18	W05AMD572-18
1	20130	Flow-total	AMD57	ft ³	08-Feb-18	W06AMD572-18
1	20183	Flow-total	AMD57	ft ³	15-Feb-18	W07AMD572-18
1	19882	Flow-total	AMD57	ft ³	22-Feb-18	W08AMD572-18
1	20158	Flow-total	AMD57	ft ³	01-Mar-18	W09AMD572-18
1	20183	Flow-total	AMD57	ft ³	08-Mar-18	W10AMD572-18
1	20096	Flow-total	AMD57	ft ³	15-Mar-18	W11AMD572-18
1	20744	Flow-total	AMD57	ft ³	22-Mar-18	W12AMD572-18
1	16660	Flow-total	AMD57	ft ³	28-Mar-18	W13AMD572-18
1	2882	Flow-total	AMD612	ft ³	04-Jan-18	W01AMD6122-18
1	20074	Flow-total	AMD612	ft ³	11-Jan-18	W02AMD6122-18
1	20087	Flow-total	AMD612	ft ³	18-Jan-18	W03AMD6122-18
1	20101	Flow-total	AMD612	ft ³	25-Jan-18	W04AMD6122-18
1	20132	Flow-total	AMD612	ft ³	01-Feb-18	W05AMD6122-18
1	20040	Flow-total	AMD612	ft ³	08-Feb-18	W06AMD6122-18
1	20170	Flow-total	AMD612	ft ³	15-Feb-18	W07AMD6122-18
1	20179	Flow-total	AMD612	ft ³	22-Feb-18	W08AMD6122-18
1	19944	Flow-total	AMD612	ft ³	01-Mar-18	W09AMD6122-18
1	20137	Flow-total	AMD612	ft ³	08-Mar-18	W10AMD6122-18
1	20036	Flow-total	AMD612	ft ³	15-Mar-18	W11AMD6122-18
1	20698	Flow-total	AMD612	ft ³	22-Mar-18	W12AMD6122-18
1	16618	Flow-total	AMD612	ft ³	28-Mar-18	W13AMD6122-18
1	2848	Flow-total	AMD746S	ft ³	04-Jan-18	W01AMD746S2-18
1	20109	Flow-total	AMD746S	ft ³	11-Jan-18	W02AMD746S2-18
1	20075	Flow-total	AMD746S	ft ³	18-Jan-18	W03AMD746S2-18
1	19975	Flow-total	AMD746S	ft ³	25-Jan-18	W04AMD746S2-18
1	20184	Flow-total	AMD746S	ft ³	01-Feb-18	W05AMD746S2-18
1	20070	Flow-total	AMD746S	ft ³	08-Feb-18	W06AMD746S2-18
1	20091	Flow-total	AMD746S	ft ³	15-Feb-18	W07AMD746S2-18
1	19780	Flow-total	AMD746S	ft ³	22-Feb-18	W08AMD746S2-18
1	20086	Flow-total	AMD746S	ft ³	01-Mar-18	W09AMD746S2-18
1	20123	Flow-total	AMD746S	ft ³	08-Mar-18	W10AMD746S2-18
1	20069	Flow-total	AMD746S	ft ³	15-Mar-18	W11AMD746S2-18
1	20762	Flow-total	AMD746S	ft ³	22-Mar-18	W12AMD746S2-18
1	16520	Flow-total	AMD746S	ft ³	28-Mar-18	W13AMD746S2-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
1	2802	Flow-total	AMD746U	ft ³	04-Jan-18	W01AMD746U2-18
1	19774	Flow-total	AMD746U	ft ³	11-Jan-18	W02AMD746U2-18
1	16947	Flow-total	AMD746U	ft ³	18-Jan-18	W03AMD746U2-18
1	20008	Flow-total	AMD746U	ft ³	25-Jan-18	W04AMD746U2-18
1	20160	Flow-total	AMD746U	ft ³	01-Feb-18	W05AMD746U2-18
1	20053	Flow-total	AMD746U	ft ³	08-Feb-18	W06AMD746U2-18
1	20147	Flow-total	AMD746U	ft ³	15-Feb-18	W07AMD746U2-18
1	19771	Flow-total	AMD746U	ft ³	22-Feb-18	W08AMD746U2-18
1	20143	Flow-total	AMD746U	ft ³	01-Mar-18	W09AMD746U2-18
1	20133	Flow-total	AMD746U	ft ³	08-Mar-18	W10AMD746U2-18
1	20132	Flow-total	AMD746U	ft ³	15-Mar-18	W11AMD746U2-18
1	20828	Flow-total	AMD746U	ft ³	22-Mar-18	W12AMD746U2-18
1	16560	Flow-total	AMD746U	ft ³	28-Mar-18	W13AMD746U2-18
1	2953	Flow-total	AMDBCP	ft ³	04-Jan-18	W01AMDBCP2-18
1	21300	Flow-total	AMDBCP	ft ³	11-Jan-18	W02AMDBCP2-18
1	20864	Flow-total	AMDBCP	ft ³	18-Jan-18	W03AMDBCP2-18
1	21191	Flow-total	AMDBCP	ft ³	25-Jan-18	W04AMDBCP2-18
1	21041	Flow-total	AMDBCP	ft ³	01-Feb-18	W05AMDBCP2-18
1	21080	Flow-total	AMDBCP	ft ³	08-Feb-18	W06AMDBCP2-18
1	21131	Flow-total	AMDBCP	ft ³	15-Feb-18	W07AMDBCP2-18
1	20963	Flow-total	AMDBCP	ft ³	22-Feb-18	W08AMDBCP2-18
1	20029	Flow-total	AMDBCP	ft ³	01-Mar-18	W09AMDBCP2-18
1	924	Flow-total	AMDBCP	ft ³	08-Mar-18	W10AMDBCP2-18
1	6012	Flow-total	AMDBCP	ft ³	22-Mar-18	W12AMDBCP2-18
1	16726	Flow-total	AMDBCP	ft ³	28-Mar-18	W13AMDBCP2-18
1	2874	Flow-total	AMDNE	ft ³	04-Jan-18	W01AMDNE2-18
1	20106	Flow-total	AMDNE	ft ³	11-Jan-18	W02AMDNE2-18
1	20081	Flow-total	AMDNE	ft ³	18-Jan-18	W03AMDNE2-18
1	19995	Flow-total	AMDNE	ft ³	25-Jan-18	W04AMDNE2-18
1	20118	Flow-total	AMDNE	ft ³	01-Feb-18	W05AMDNE2-18
1	20126	Flow-total	AMDNE	ft ³	08-Feb-18	W06AMDNE2-18
1	20086	Flow-total	AMDNE	ft ³	15-Feb-18	W07AMDNE2-18
1	19725	Flow-total	AMDNE	ft ³	22-Feb-18	W08AMDNE2-18
1	21273	Flow-total	AMDNE	ft ³	01-Mar-18	W09AMDNE2-18
1	25730	Flow-total	AMDNE	ft ³	08-Mar-18	W10AMDNE2-18
1	19997	Flow-total	AMDNE	ft ³	15-Mar-18	W11AMDNE2-18
1	20829	Flow-total	AMDNE	ft ³	22-Mar-18	W12AMDNE2-18
1	16523	Flow-total	AMDNE	ft ³	28-Mar-18	W13AMDNE2-18
2	23060	Flow-total	AMD002	ft ³	05-Apr-18	W01AMD0023-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
2	20247	Flow-total	AMD002	ft ³	12-Apr-18	W02AMD0023-18
2	20264	Flow-total	AMD002	ft ³	19-Apr-18	W03AMD0023-18
2	19948	Flow-total	AMD002	ft ³	26-Apr-18	W04AMD0023-18
2	20610	Flow-total	AMD002	ft ³	03-May-18	W05AMD0023-18
2	19348	Flow-total	AMD002	ft ³	10-May-18	W06AMD0023-18
2	20226	Flow-total	AMD002	ft ³	17-May-18	W07AMD0023-18
2	20620	Flow-total	AMD002	ft ³	24-May-18	W08AMD0023-18
2	19412	Flow-total	AMD002	ft ³	31-May-18	W09AMD0023-18
2	20137	Flow-total	AMD002	ft ³	07-Jun-18	W10AMD0023-18
2	20150	Flow-total	AMD002	ft ³	14-Jun-18	W11AMD0023-18
2	20091	Flow-total	AMD002	ft ³	21-Jun-18	W12AMD0023-18
2	20127	Flow-total	AMD002	ft ³	28-Jun-18	W13AMD0023-18
2	23064	Flow-total	AMD012	ft ³	05-Apr-18	W01AMD0123-18
2	20251	Flow-total	AMD012	ft ³	12-Apr-18	W02AMD0123-18
2	20269	Flow-total	AMD012	ft ³	19-Apr-18	W03AMD0123-18
2	19942	Flow-total	AMD012	ft ³	26-Apr-18	W04AMD0123-18
2	20609	Flow-total	AMD012	ft ³	03-May-18	W05AMD0123-18
2	19344	Flow-total	AMD012	ft ³	10-May-18	W06AMD0123-18
2	20245	Flow-total	AMD012	ft ³	17-May-18	W07AMD0123-18
2	20605	Flow-total	AMD012	ft ³	24-May-18	W08AMD0123-18
2	19413	Flow-total	AMD012	ft ³	31-May-18	W09AMD0123-18
2	20139	Flow-total	AMD012	ft ³	07-Jun-18	W10AMD0123-18
2	20152	Flow-total	AMD012	ft ³	14-Jun-18	W11AMD0123-18
2	20099	Flow-total	AMD012	ft ³	21-Jun-18	W12AMD0123-18
2	20123	Flow-total	AMD012	ft ³	28-Jun-18	W13AMD0123-18
2	23011	Flow-total	AMD015	ft ³	05-Apr-18	W01AMD0153-18
2	20215	Flow-total	AMD015	ft ³	12-Apr-18	W02AMD0153-18
2	20291	Flow-total	AMD015	ft ³	19-Apr-18	W03AMD0153-18
2	19938	Flow-total	AMD015	ft ³	26-Apr-18	W04AMD0153-18
2	20325	Flow-total	AMD015	ft ³	03-May-18	W05AMD0153-18
2	19811	Flow-total	AMD015	ft ³	10-May-18	W06AMD0153-18
2	19970	Flow-total	AMD015	ft ³	17-May-18	W07AMD0153-18
2	20706	Flow-total	AMD015	ft ³	24-May-18	W08AMD0153-18
2	19478	Flow-total	AMD015	ft ³	31-May-18	W09AMD0153-18
2	20126	Flow-total	AMD015	ft ³	07-Jun-18	W10AMD0153-18
2	20087	Flow-total	AMD015	ft ³	14-Jun-18	W11AMD0153-18
2	20111	Flow-total	AMD015	ft ³	21-Jun-18	W12AMD0153-18
2	20117	Flow-total	AMD015	ft ³	28-Jun-18	W13AMD0153-18
2	23077	Flow-total	AMD57	ft ³	05-Apr-18	W01AMD573-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
2	20306	Flow-total	AMD57	ft ³	12-Apr-18	W02AMD573-18
2	20322	Flow-total	AMD57	ft ³	19-Apr-18	W03AMD573-18
2	19996	Flow-total	AMD57	ft ³	26-Apr-18	W04AMD573-18
2	20734	Flow-total	AMD57	ft ³	03-May-18	W05AMD573-18
2	19403	Flow-total	AMD57	ft ³	10-May-18	W06AMD573-18
2	20138	Flow-total	AMD57	ft ³	17-May-18	W07AMD573-18
2	20768	Flow-total	AMD57	ft ³	24-May-18	W08AMD573-18
2	19531	Flow-total	AMD57	ft ³	31-May-18	W09AMD573-18
2	20136	Flow-total	AMD57	ft ³	07-Jun-18	W10AMD573-18
2	20133	Flow-total	AMD57	ft ³	14-Jun-18	W11AMD573-18
2	20167	Flow-total	AMD57	ft ³	21-Jun-18	W12AMD573-18
2	20176	Flow-total	AMD57	ft ³	28-Jun-18	W13AMD573-18
2	23026	Flow-total	AMD612	ft ³	05-Apr-18	W01AMD6123-18
2	20217	Flow-total	AMD612	ft ³	12-Apr-18	W02AMD6123-18
2	20302	Flow-total	AMD612	ft ³	19-Apr-18	W03AMD6123-18
2	19941	Flow-total	AMD612	ft ³	26-Apr-18	W04AMD6123-18
2	20337	Flow-total	AMD612	ft ³	03-May-18	W05AMD6123-18
2	19796	Flow-total	AMD612	ft ³	10-May-18	W06AMD6123-18
2	19988	Flow-total	AMD612	ft ³	17-May-18	W07AMD6123-18
2	20716	Flow-total	AMD612	ft ³	24-May-18	W08AMD6123-18
2	19476	Flow-total	AMD612	ft ³	31-May-18	W09AMD6123-18
2	20129	Flow-total	AMD612	ft ³	07-Jun-18	W10AMD6123-18
2	20089	Flow-total	AMD612	ft ³	14-Jun-18	W11AMD6123-18
2	20117	Flow-total	AMD612	ft ³	21-Jun-18	W12AMD6123-18
2	20124	Flow-total	AMD612	ft ³	28-Jun-18	W13AMD6123-18
2	23053	Flow-total	AMD746S	ft ³	05-Apr-18	W01AMD746S3-18
2	20249	Flow-total	AMD746S	ft ³	12-Apr-18	W02AMD746S3-18
2	20267	Flow-total	AMD746S	ft ³	19-Apr-18	W03AMD746S3-18
2	20005	Flow-total	AMD746S	ft ³	26-Apr-18	W04AMD746S3-18
2	20549	Flow-total	AMD746S	ft ³	03-May-18	W05AMD746S3-18
2	19343	Flow-total	AMD746S	ft ³	10-May-18	W06AMD746S3-18
2	20186	Flow-total	AMD746S	ft ³	17-May-18	W07AMD746S3-18
2	20671	Flow-total	AMD746S	ft ³	24-May-18	W08AMD746S3-18
2	19419	Flow-total	AMD746S	ft ³	31-May-18	W09AMD746S3-18
2	20127	Flow-total	AMD746S	ft ³	07-Jun-18	W10AMD746S3-18
2	20160	Flow-total	AMD746S	ft ³	14-Jun-18	W11AMD746S3-18
2	20102	Flow-total	AMD746S	ft ³	21-Jun-18	W12AMD746S3-18
2	20283	Flow-total	AMD746S	ft ³	28-Jun-18	W13AMD746S3-18
2	23126	Flow-total	AMD746U	ft ³	05-Apr-18	W01AMD746U3-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
2	20310	Flow-total	AMD746U	ft ³	12-Apr-18	W02AMD746U3-18
2	20323	Flow-total	AMD746U	ft ³	19-Apr-18	W03AMD746U3-18
2	20047	Flow-total	AMD746U	ft ³	26-Apr-18	W04AMD746U3-18
2	20621	Flow-total	AMD746U	ft ³	03-May-18	W05AMD746U3-18
2	19404	Flow-total	AMD746U	ft ³	10-May-18	W06AMD746U3-18
2	20231	Flow-total	AMD746U	ft ³	17-May-18	W07AMD746U3-18
2	20683	Flow-total	AMD746U	ft ³	24-May-18	W08AMD746U3-18
2	19419	Flow-total	AMD746U	ft ³	31-May-18	W09AMD746U3-18
2	20134	Flow-total	AMD746U	ft ³	07-Jun-18	W10AMD746U3-18
2	20158	Flow-total	AMD746U	ft ³	14-Jun-18	W11AMD746U3-18
2	20100	Flow-total	AMD746U	ft ³	21-Jun-18	W12AMD746U3-18
2	20132	Flow-total	AMD746U	ft ³	28-Jun-18	W13AMD746U3-18
2	22899	Flow-total	AMDBCP	ft ³	05-Apr-18	W01AMDBCP3-18
2	20251	Flow-total	AMDBCP	ft ³	12-Apr-18	W02AMDBCP3-18
2	27667	Flow-total	AMDBCP	ft ³	19-Apr-18	W03AMDBCP3-18
2	19882	Flow-total	AMDBCP	ft ³	26-Apr-18	W04AMDBCP3-18
2	19895	Flow-total	AMDBCP	ft ³	03-May-18	W05AMDBCP3-18
2	20070	Flow-total	AMDBCP	ft ³	10-May-18	W06AMDBCP3-18
2	20154	Flow-total	AMDBCP	ft ³	17-May-18	W07AMDBCP3-18
2	20706	Flow-total	AMDBCP	ft ³	24-May-18	W08AMDBCP3-18
2	19573	Flow-total	AMDBCP	ft ³	31-May-18	W09AMDBCP3-18
2	20401	Flow-total	AMDBCP	ft ³	07-Jun-18	W10AMDBCP3-18
2	19726	Flow-total	AMDBCP	ft ³	14-Jun-18	W11AMDBCP3-18
2	20108	Flow-total	AMDBCP	ft ³	21-Jun-18	W12AMDBCP3-18
2	20119	Flow-total	AMDBCP	ft ³	28-Jun-18	W13AMDBCP3-18
2	23051	Flow-total	AMDNE	ft ³	05-Apr-18	W01AMDNE3-18
2	20250	Flow-total	AMDNE	ft ³	12-Apr-18	W02AMDNE3-18
2	20268	Flow-total	AMDNE	ft ³	19-Apr-18	W03AMDNE3-18
2	20018	Flow-total	AMDNE	ft ³	26-Apr-18	W04AMDNE3-18
2	20533	Flow-total	AMDNE	ft ³	03-May-18	W05AMDNE3-18
2	19342	Flow-total	AMDNE	ft ³	10-May-18	W06AMDNE3-18
2	20125	Flow-total	AMDNE	ft ³	17-May-18	W07AMDNE3-18
2	20735	Flow-total	AMDNE	ft ³	24-May-18	W08AMDNE3-18
2	19422	Flow-total	AMDNE	ft ³	31-May-18	W09AMDNE3-18
2	20122	Flow-total	AMDNE	ft ³	07-Jun-18	W10AMDNE3-18
2	20164	Flow-total	AMDNE	ft ³	14-Jun-18	W11AMDNE3-18
2	20096	Flow-total	AMDNE	ft ³	21-Jun-18	W12AMDNE3-18
2	20287	Flow-total	AMDNE	ft ³	28-Jun-18	W13AMDNE3-18
3	20169	Flow-total	AMD002	ft ³	05-Jul-18	W01AMD0024-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
3	20299	Flow-total	AMD002	ft ³	12-Jul-18	W02AMD0024-18
3	20009	Flow-total	AMD002	ft ³	19-Jul-18	W03AMD0024-18
3	19861	Flow-total	AMD002	ft ³	26-Jul-18	W04AMD0024-18
3	20105	Flow-total	AMD002	ft ³	02-Aug-18	W05AMD0024-18
3	20093	Flow-total	AMD002	ft ³	09-Aug-18	W06AMD0024-18
3	20592	Flow-total	AMD002	ft ³	16-Aug-18	W07AMD0024-18
3	20050	Flow-total	AMD002	ft ³	23-Aug-18	W08AMD0024-18
3	19719	Flow-total	AMD002	ft ³	30-Aug-18	W09AMD0024-18
3	20664	Flow-total	AMD002	ft ³	06-Sep-18	W10AMD0024-18
3	19473	Flow-total	AMD002	ft ³	13-Sep-18	W11AMD0024-18
3	20020	Flow-total	AMD002	ft ³	20-Sep-18	W12AMD0024-18
3	20155	Flow-total	AMD002	ft ³	27-Sep-18	W13AMD0024-18
3	20166	Flow-total	AMD012	ft ³	05-Jul-18	W01AMD0124-18
3	20314	Flow-total	AMD012	ft ³	12-Jul-18	W02AMD0124-18
3	20031	Flow-total	AMD012	ft ³	19-Jul-18	W03AMD0124-18
3	19860	Flow-total	AMD012	ft ³	26-Jul-18	W04AMD0124-18
3	20113	Flow-total	AMD012	ft ³	02-Aug-18	W05AMD0124-18
3	20115	Flow-total	AMD012	ft ³	09-Aug-18	W06AMD0124-18
3	20618	Flow-total	AMD012	ft ³	16-Aug-18	W07AMD0124-18
3	20047	Flow-total	AMD012	ft ³	23-Aug-18	W08AMD0124-18
3	19732	Flow-total	AMD012	ft ³	30-Aug-18	W09AMD0124-18
3	20746	Flow-total	AMD012	ft ³	06-Sep-18	W10AMD0124-18
3	19583	Flow-total	AMD012	ft ³	13-Sep-18	W11AMD0124-18
3	20031	Flow-total	AMD012	ft ³	20-Sep-18	W12AMD0124-18
3	20169	Flow-total	AMD012	ft ³	27-Sep-18	W13AMD0124-18
3	20108	Flow-total	AMD015	ft ³	05-Jul-18	W01AMD0154-18
3	20391	Flow-total	AMD015	ft ³	12-Jul-18	W02AMD0154-18
3	19804	Flow-total	AMD015	ft ³	19-Jul-18	W03AMD0154-18
3	20057	Flow-total	AMD015	ft ³	26-Jul-18	W04AMD0154-18
3	20096	Flow-total	AMD015	ft ³	02-Aug-18	W05AMD0154-18
3	20118	Flow-total	AMD015	ft ³	09-Aug-18	W06AMD0154-18
3	20646	Flow-total	AMD015	ft ³	16-Aug-18	W07AMD0154-18
3	19991	Flow-total	AMD015	ft ³	23-Aug-18	W08AMD0154-18
3	19711	Flow-total	AMD015	ft ³	30-Aug-18	W09AMD0154-18
3	20671	Flow-total	AMD015	ft ³	06-Sep-18	W10AMD0154-18
3	19564	Flow-total	AMD015	ft ³	13-Sep-18	W11AMD0154-18
3	20019	Flow-total	AMD015	ft ³	20-Sep-18	W12AMD0154-18
3	20112	Flow-total	AMD015	ft ³	27-Sep-18	W13AMD0154-18
3	20186	Flow-total	AMD57	ft ³	05-Jul-18	W01AMD574-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
3	20430	Flow-total	AMD57	ft ³	12-Jul-18	W02AMD574-18
3	19864	Flow-total	AMD57	ft ³	19-Jul-18	W03AMD574-18
3	20019	Flow-total	AMD57	ft ³	26-Jul-18	W04AMD574-18
3	20155	Flow-total	AMD57	ft ³	02-Aug-18	W05AMD574-18
3	20168	Flow-total	AMD57	ft ³	09-Aug-18	W06AMD574-18
3	20684	Flow-total	AMD57	ft ³	16-Aug-18	W07AMD574-18
3	20077	Flow-total	AMD57	ft ³	23-Aug-18	W08AMD574-18
3	19781	Flow-total	AMD57	ft ³	30-Aug-18	W09AMD574-18
3	20713	Flow-total	AMD57	ft ³	06-Sep-18	W10AMD574-18
3	19624	Flow-total	AMD57	ft ³	13-Sep-18	W11AMD574-18
3	20075	Flow-total	AMD57	ft ³	20-Sep-18	W12AMD574-18
3	20166	Flow-total	AMD57	ft ³	27-Sep-18	W13AMD574-18
3	19767	Flow-total	AMD612	ft ³	05-Jul-18	W01AMD6124-18
3	20394	Flow-total	AMD612	ft ³	12-Jul-18	W02AMD6124-18
3	19793	Flow-total	AMD612	ft ³	19-Jul-18	W03AMD6124-18
3	20068	Flow-total	AMD612	ft ³	26-Jul-18	W04AMD6124-18
3	20089	Flow-total	AMD612	ft ³	02-Aug-18	W05AMD6124-18
3	20135	Flow-total	AMD612	ft ³	09-Aug-18	W06AMD6124-18
3	20664	Flow-total	AMD612	ft ³	16-Aug-18	W07AMD6124-18
3	19976	Flow-total	AMD612	ft ³	23-Aug-18	W08AMD6124-18
3	19711	Flow-total	AMD612	ft ³	30-Aug-18	W09AMD6124-18
3	20676	Flow-total	AMD612	ft ³	06-Sep-18	W10AMD6124-18
3	19564	Flow-total	AMD612	ft ³	13-Sep-18	W11AMD6124-18
3	20021	Flow-total	AMD612	ft ³	20-Sep-18	W12AMD6124-18
3	20116	Flow-total	AMD612	ft ³	27-Sep-18	W13AMD6124-18
3	20026	Flow-total	AMD746S	ft ³	05-Jul-18	W01AMD746S4-18
3	20368	Flow-total	AMD746S	ft ³	12-Jul-18	W02AMD746S4-18
3	20026	Flow-total	AMD746S	ft ³	19-Jul-18	W03AMD746S4-18
3	19994	Flow-total	AMD746S	ft ³	26-Jul-18	W04AMD746S4-18
3	20162	Flow-total	AMD746S	ft ³	02-Aug-18	W05AMD746S4-18
3	20141	Flow-total	AMD746S	ft ³	09-Aug-18	W06AMD746S4-18
3	20034	Flow-total	AMD746S	ft ³	16-Aug-18	W07AMD746S4-18
3	20176	Flow-total	AMD746S	ft ³	23-Aug-18	W08AMD746S4-18
3	19778	Flow-total	AMD746S	ft ³	30-Aug-18	W09AMD746S4-18
3	20745	Flow-total	AMD746S	ft ³	06-Sep-18	W10AMD746S4-18
3	19611	Flow-total	AMD746S	ft ³	13-Sep-18	W11AMD746S4-18
3	19787	Flow-total	AMD746S	ft ³	20-Sep-18	W12AMD746S4-18
3	20203	Flow-total	AMD746S	ft ³	27-Sep-18	W13AMD746S4-18
3	20119	Flow-total	AMD746U	ft ³	05-Jul-18	W01AMD746U4-18

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
3	20310	Flow-total	AMD746U	ft ³	12-Jul-18	W02AMD746U4-18
3	19874	Flow-total	AMD746U	ft ³	19-Jul-18	W03AMD746U4-18
3	20024	Flow-total	AMD746U	ft ³	26-Jul-18	W04AMD746U4-18
3	20100	Flow-total	AMD746U	ft ³	02-Aug-18	W05AMD746U4-18
3	20093	Flow-total	AMD746U	ft ³	09-Aug-18	W06AMD746U4-18
3	20539	Flow-total	AMD746U	ft ³	16-Aug-18	W07AMD746U4-18
3	20115	Flow-total	AMD746U	ft ³	23-Aug-18	W08AMD746U4-18
3	19722	Flow-total	AMD746U	ft ³	30-Aug-18	W09AMD746U4-18
3	20711	Flow-total	AMD746U	ft ³	06-Sep-18	W10AMD746U4-18
3	19527	Flow-total	AMD746U	ft ³	13-Sep-18	W11AMD746U4-18
3	20022	Flow-total	AMD746U	ft ³	20-Sep-18	W12AMD746U4-18
3	20154	Flow-total	AMD746U	ft ³	27-Sep-18	W13AMD746U4-18
3	20132	Flow-total	AMDBCP	ft ³	05-Jul-18	W01AMDBCP4-18
3	20439	Flow-total	AMDBCP	ft ³	12-Jul-18	W02AMDBCP4-18
3	19750	Flow-total	AMDBCP	ft ³	19-Jul-18	W03AMDBCP4-18
3	20061	Flow-total	AMDBCP	ft ³	26-Jul-18	W04AMDBCP4-18
3	20128	Flow-total	AMDBCP	ft ³	02-Aug-18	W05AMDBCP4-18
3	20130	Flow-total	AMDBCP	ft ³	09-Aug-18	W06AMDBCP4-18
3	20342	Flow-total	AMDBCP	ft ³	16-Aug-18	W07AMDBCP4-18
3	20247	Flow-total	AMDBCP	ft ³	23-Aug-18	W08AMDBCP4-18
3	19724	Flow-total	AMDBCP	ft ³	30-Aug-18	W09AMDBCP4-18
3	20786	Flow-total	AMDBCP	ft ³	06-Sep-18	W10AMDBCP4-18
3	19635	Flow-total	AMDBCP	ft ³	13-Sep-18	W11AMDBCP4-18
3	19852	Flow-total	AMDBCP	ft ³	20-Sep-18	W12AMDBCP4-18
3	20012	Flow-total	AMDBCP	ft ³	27-Sep-18	W13AMDBCP4-18
3	19956	Flow-total	AMDNE	ft ³	05-Jul-18	W01AMDNE4-18
3	20305	Flow-total	AMDNE	ft ³	12-Jul-18	W02AMDNE4-18
3	19827	Flow-total	AMDNE	ft ³	19-Jul-18	W03AMDNE4-18
3	20074	Flow-total	AMDNE	ft ³	26-Jul-18	W04AMDNE4-18
3	20116	Flow-total	AMDNE	ft ³	02-Aug-18	W05AMDNE4-18
3	20060	Flow-total	AMDNE	ft ³	09-Aug-18	W06AMDNE4-18
3	20537	Flow-total	AMDNE	ft ³	16-Aug-18	W07AMDNE4-18
3	20116	Flow-total	AMDNE	ft ³	23-Aug-18	W08AMDNE4-18
3	19718	Flow-total	AMDNE	ft ³	30-Aug-18	W09AMDNE4-18
3	20692	Flow-total	AMDNE	ft ³	06-Sep-18	W10AMDNE4-18
3	19551	Flow-total	AMDNE	ft ³	13-Sep-18	W11AMDNE4-18
3	20024	Flow-total	AMDNE	ft ³	20-Sep-18	W12AMDNE4-18
3	20140	Flow-total	AMDNE	ft ³	27-Sep-18	W13AMDNE4-18
4	20165	Flow-total	AMD002	ft ³	04-Oct-18	W01AMD0021-19

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
4	19963	Flow-total	AMD002	ft ³	11-Oct-18	W02AMD0021-19
4	20669	Flow-total	AMD002	ft ³	18-Oct-18	W03AMD0021-19
4	19621	Flow-total	AMD002	ft ³	25-Oct-18	W04AMD0021-19
4	20100	Flow-total	AMD002	ft ³	01-Nov-18	W05AMD0021-19
4	20269	Flow-total	AMD002	ft ³	08-Nov-18	W06AMD0021-19
4	20036	Flow-total	AMD002	ft ³	15-Nov-18	W07AMD0021-19
4	14436	Flow-total	AMD002	ft ³	20-Nov-18	W08AMD0021-19
4	25745	Flow-total	AMD002	ft ³	29-Nov-18	W09AMD0021-19
4	20041	Flow-total	AMD002	ft ³	06-Dec-18	W10AMD0021-19
4	20144	Flow-total	AMD002	ft ³	13-Dec-18	W11AMD0021-19
4	19891	Flow-total	AMD002	ft ³	20-Dec-18	W12AMD0021-19
4	20202	Flow-total	AMD002	ft ³	27-Dec-18	W13AMD0021-19
4	20174	Flow-total	AMD012	ft ³	04-Oct-18	W01AMD0121-19
4	19938	Flow-total	AMD012	ft ³	11-Oct-18	W02AMD0121-19
4	20715	Flow-total	AMD012	ft ³	18-Oct-18	W03AMD0121-19
4	19632	Flow-total	AMD012	ft ³	25-Oct-18	W04AMD0121-19
4	20106	Flow-total	AMD012	ft ³	01-Nov-18	W05AMD0121-19
4	20274	Flow-total	AMD012	ft ³	08-Nov-18	W06AMD0121-19
4	20048	Flow-total	AMD012	ft ³	15-Nov-18	W07AMD0121-19
4	14447	Flow-total	AMD012	ft ³	20-Nov-18	W08AMD0121-19
4	25757	Flow-total	AMD012	ft ³	29-Nov-18	W09AMD0121-19
4	20045	Flow-total	AMD012	ft ³	06-Dec-18	W10AMD0121-19
4	20162	Flow-total	AMD012	ft ³	13-Dec-18	W11AMD0121-19
4	20143	Flow-total	AMD012	ft ³	20-Dec-18	W12AMD0121-19
4	20220	Flow-total	AMD012	ft ³	27-Dec-18	W13AMD0121-19
4	20116	Flow-total	AMD015	ft ³	04-Oct-18	W01AMD0151-19
4	20172	Flow-total	AMD015	ft ³	11-Oct-18	W02AMD0151-19
4	20372	Flow-total	AMD015	ft ³	18-Oct-18	W03AMD0151-19
4	19754	Flow-total	AMD015	ft ³	25-Oct-18	W04AMD0151-19
4	20150	Flow-total	AMD015	ft ³	01-Nov-18	W05AMD0151-19
4	15160	Flow-total	AMD015	ft ³	08-Nov-18	W06AMD0151-19
4	20030	Flow-total	AMD015	ft ³	15-Nov-18	W07AMD0151-19
4	14386	Flow-total	AMD015	ft ³	20-Nov-18	W08AMD0151-19
4	25810	Flow-total	AMD015	ft ³	29-Nov-18	W09AMD0151-19
4	20035	Flow-total	AMD015	ft ³	06-Dec-18	W10AMD0151-19
4	20153	Flow-total	AMD015	ft ³	13-Dec-18	W11AMD0151-19
4	20136	Flow-total	AMD015	ft ³	20-Dec-18	W12AMD0151-19
4	20048	Flow-total	AMD015	ft ³	27-Dec-18	W13AMD0151-19
4	20179	Flow-total	AMD57	ft ³	04-Oct-18	W01AMD571-19

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
4	20159	Flow-total	AMD57	ft ³	11-Oct-18	W02AMD571-19
4	20632	Flow-total	AMD57	ft ³	18-Oct-18	W03AMD571-19
4	19617	Flow-total	AMD57	ft ³	25-Oct-18	W04AMD571-19
4	20214	Flow-total	AMD57	ft ³	01-Nov-18	W05AMD571-19
4	18014	Flow-total	AMD57	ft ³	08-Nov-18	W06AMD571-19
4	20086	Flow-total	AMD57	ft ³	15-Nov-18	W07AMD571-19
4	14255	Flow-total	AMD57	ft ³	20-Nov-18	W08AMD571-19
4	25940	Flow-total	AMD57	ft ³	29-Nov-18	W09AMD571-19
4	20039	Flow-total	AMD57	ft ³	06-Dec-18	W10AMD571-19
4	20161	Flow-total	AMD57	ft ³	13-Dec-18	W11AMD571-19
4	20140	Flow-total	AMD57	ft ³	20-Dec-18	W12AMD571-19
4	20059	Flow-total	AMD57	ft ³	27-Dec-18	W13AMD571-19
4	18233	Flow-total	AMD612	ft ³	04-Oct-18	W01AMD6121-19
4	18194	Flow-total	AMD612	ft ³	11-Oct-18	W02AMD6121-19
4	18376	Flow-total	AMD612	ft ³	18-Oct-18	W03AMD6121-19
4	17919	Flow-total	AMD612	ft ³	25-Oct-18	W04AMD6121-19
4	20846	Flow-total	AMD612	ft ³	01-Nov-18	W05AMD6121-19
4	20136	Flow-total	AMD612	ft ³	08-Nov-18	W06AMD6121-19
4	20034	Flow-total	AMD612	ft ³	15-Nov-18	W07AMD6121-19
4	14389	Flow-total	AMD612	ft ³	20-Nov-18	W08AMD6121-19
4	25802	Flow-total	AMD612	ft ³	29-Nov-18	W09AMD6121-19
4	20045	Flow-total	AMD612	ft ³	06-Dec-18	W10AMD6121-19
4	20147	Flow-total	AMD612	ft ³	13-Dec-18	W11AMD6121-19
4	20147	Flow-total	AMD612	ft ³	20-Dec-18	W12AMD6121-19
4	20053	Flow-total	AMD612	ft ³	27-Dec-18	W13AMD6121-19
4	20244	Flow-total	AMD746S	ft ³	04-Oct-18	W01AMD746S1-19
4	20221	Flow-total	AMD746S	ft ³	11-Oct-18	W02AMD746S1-19
4	20535	Flow-total	AMD746S	ft ³	18-Oct-18	W03AMD746S1-19
4	19668	Flow-total	AMD746S	ft ³	25-Oct-18	W04AMD746S1-19
4	20166	Flow-total	AMD746S	ft ³	01-Nov-18	W05AMD746S1-19
4	20318	Flow-total	AMD746S	ft ³	08-Nov-18	W06AMD746S1-19
4	20090	Flow-total	AMD746S	ft ³	15-Nov-18	W07AMD746S1-19
4	14486	Flow-total	AMD746S	ft ³	20-Nov-18	W08AMD746S1-19
4	25822	Flow-total	AMD746S	ft ³	29-Nov-18	W09AMD746S1-19
4	20101	Flow-total	AMD746S	ft ³	06-Dec-18	W10AMD746S1-19
4	20212	Flow-total	AMD746S	ft ³	13-Dec-18	W11AMD746S1-19
4	20249	Flow-total	AMD746S	ft ³	20-Dec-18	W12AMD746S1-19
4	20163	Flow-total	AMD746S	ft ³	27-Dec-18	W13AMD746S1-19
4	20180	Flow-total	AMD746U	ft ³	04-Oct-18	W01AMD746U1-19

Table A.3. Weekly Flow Data (Continued)

Quarter	Results	Chemical Name	Station	Units	Date Collected	Project Sample ID
4	20165	Flow-total	AMD746U	ft ³	11-Oct-18	W02AMD746U1-19
4	20509	Flow-total	AMD746U	ft ³	18-Oct-18	W03AMD746U1-19
4	19586	Flow-total	AMD746U	ft ³	25-Oct-18	W04AMD746U1-19
4	20103	Flow-total	AMD746U	ft ³	01-Nov-18	W05AMD746U1-19
4	20259	Flow-total	AMD746U	ft ³	08-Nov-18	W06AMD746U1-19
4	20034	Flow-total	AMD746U	ft ³	15-Nov-18	W07AMD746U1-19
4	14439	Flow-total	AMD746U	ft ³	20-Nov-18	W08AMD746U1-19
4	25749	Flow-total	AMD746U	ft ³	29-Nov-18	W09AMD746U1-19
4	20044	Flow-total	AMD746U	ft ³	06-Dec-18	W10AMD746U1-19
4	20151	Flow-total	AMD746U	ft ³	13-Dec-18	W11AMD746U1-19
4	17896	Flow-total	AMD746U	ft ³	20-Dec-18	W12AMD746U1-19
4	19390	Flow-total	AMD746U	ft ³	27-Dec-18	W13AMD746U1-19
4	20131	Flow-total	AMDBCP	ft ³	04-Oct-18	W01AMDBCP1-19
4	20161	Flow-total	AMDBCP	ft ³	11-Oct-18	W02AMDBCP1-19
4	20390	Flow-total	AMDBCP	ft ³	18-Oct-18	W03AMDBCP1-19
4	19754	Flow-total	AMDBCP	ft ³	25-Oct-18	W04AMDBCP1-19
4	20249	Flow-total	AMDBCP	ft ³	01-Nov-18	W05AMDBCP1-19
4	20255	Flow-total	AMDBCP	ft ³	08-Nov-18	W06AMDBCP1-19
4	20044	Flow-total	AMDBCP	ft ³	15-Nov-18	W07AMDBCP1-19
4	14309	Flow-total	AMDBCP	ft ³	20-Nov-18	W08AMDBCP1-19
4	25886	Flow-total	AMDBCP	ft ³	29-Nov-18	W09AMDBCP1-19
4	20051	Flow-total	AMDBCP	ft ³	06-Dec-18	W10AMDBCP1-19
4	20146	Flow-total	AMDBCP	ft ³	13-Dec-18	W11AMDBCP1-19
4	20203	Flow-total	AMDBCP	ft ³	20-Dec-18	W12AMDBCP1-19
4	19924	Flow-total	AMDBCP	ft ³	27-Dec-18	W13AMDBCP1-19
4	20139	Flow-total	AMDNE	ft ³	04-Oct-18	W01AMDNE1-19
4	20163	Flow-total	AMDNE	ft ³	11-Oct-18	W02AMDNE1-19
4	20482	Flow-total	AMDNE	ft ³	18-Oct-18	W03AMDNE1-19
4	19652	Flow-total	AMDNE	ft ³	25-Oct-18	W04AMDNE1-19
4	20110	Flow-total	AMDNE	ft ³	01-Nov-18	W05AMDNE1-19
4	20254	Flow-total	AMDNE	ft ³	08-Nov-18	W06AMDNE1-19
4	20032	Flow-total	AMDNE	ft ³	15-Nov-18	W07AMDNE1-19
4	14440	Flow-total	AMDNE	ft ³	20-Nov-18	W08AMDNE1-19
4	25748	Flow-total	AMDNE	ft ³	29-Nov-18	W09AMDNE1-19
4	20039	Flow-total	AMDNE	ft ³	06-Dec-18	W10AMDNE1-19
4	20152	Flow-total	AMDNE	ft ³	13-Dec-18	W11AMDNE1-19
4	20190	Flow-total	AMDNE	ft ³	20-Dec-18	W12AMDNE1-19
4	20051	Flow-total	AMDNE	ft ³	27-Dec-18	W13AMDNE1-19