FRNP-RPT-0146

National Emission Standards for Hazardous Air Pollutants Annual Report for 2019 U.S. Department of Energy Radiological Emissions at the Paducah Gaseous Diffusion Plant

FOUR RIVERS NUCLEAR PARTNERSHIP, LLC

This document is approved for public release per review by:

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FRNP Classification Support

6-24-2020
Date

FRNP-RPT-0146

National Emission Standards for Hazardous Air Pollutants Annual Report for 2019 U.S. Department of Energy Radiological Emissions at the Paducah Gaseous Diffusion Plant

Date Issued—June 2020

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

AIRDOS	Atmospheric Dispersion of Radionuclides
CAP-88 PC	Clean Air Act Assessment Package-1988 Version 4
CFR	*Code of Federal Regulations*
DOE	U.S. Department of Energy
EDE	effective dose equivalent
EPA	U.S. Environmental Protection Agency
EW	extraction well
HEPA	high-efficiency particulate air
KAR	*Kentucky Administrative Regulations*
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 0.0000850 mrem for calendar year 2019. 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

Owner: U.S. Department of Energy
Portsmouth/Paducah Project Office
5501 Hobbs Road
Kevil, Kentucky 42053
Jennifer Woodard, Paducah Site Lead
(270) 441-6820

Operators: Four Rivers Nuclear Partnership, LLC
5511 Hobbs Road
Kevil, Kentucky 42053
Myrna Redfield, Program Manager
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Mid-America Conversion Services, LLC (Paducah Office)
5509 Hobbs Rd
Kevil, Kentucky 42053
T. Zack Smith, President and Project Manager
(859) 685-2060

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 (DUF_6) conversion facility. The DUF_6 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 (2019) 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 DUF_6 conversion facility has operated since 2011. The facility converts DUF_6 stored in cylinders to a more stable uranium oxide powder. The form of uranium oxide is primarily U_3O_8. 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 2019; 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 2019; 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 UF_6 compressors are supplied with an intricate array of air pressures to minimize releases during seal failure. A seal failure allows UF_6 to enter the SX system. If UF_6 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 UF_6 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

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. The operations from the SX/WA system have not changed since the stack test was performed. 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, even though all of the actual results 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 radiological protection 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/UF_6 separation system

The chlorofluorocarbon (CFC)-114/UF_6 separation system is located in C-335 and is used to freeze out UF_6 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/UF_6 separation system is to remove the coolant and return the UF_6 to the cascade.

The separation system operates by freezing out the UF_6 from the cascade gas. To freeze out the UF_6, the UF_6/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 UF_6. 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 UF_6 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/UF_6 separation system was made, and initial baseline emissions testing completed in 2004. The modification reduced potential radionuclide emissions. The CFC-114/UF_6 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, an ion exchange resin is in place to treat for Tc-99. However, for purposes of this report, it was assumed that 100% of the Tc-99 in the groundwater was emitted. The Northwest Plume Treatment System treated 104,107,950 gal during calendar year 2019. 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. 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 C-765 and C-765-A units treated 45,302,224 gal and 34,762,531 gal respectively, during the 2019 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 2019, the Paducah Site had no unplanned airborne releases. Analyses of ambient air monitoring results for 2019 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 since it is not 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	1,571 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	1,003 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	33.9	2,143 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	5.16E-05	8.61E-06	0	0	0	1.03E-06	6.12E-05
U-235	2.38E-06	4.65E-07	0	0	0	4.70E-08	2.90E-06
U-238	8.99E-06	3.44E-06	0	0	0	2.52E-06	1.50E-05
Tc-99	0	1.43E-06	8.07E-05	8.92E-06	3.89E-06	0	9.50E-05
Th-230	0	7.67E-09	0	0	0	0	7.67E-09
Th-231	0	0	0	0	0	1.69E-07	1.69E-07
Th-234	0	0	0	0	0	1.55E-05	1.55E-05
Np-237	0	3.29E-09	0	0	0	0	3.29E-09
Pu-239	0	7.53E-09	0	0	0	0	7.53E-09
Pa-234m	0	0	0	0	0	1.55E-05	1.55E-05
Total Curies/ Year	**6.30E-05**	**1.40E-05**	**8.07E-05**	**8.92E-06**	**3.89E-06**	**3.48E-05**	**2.05E-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 Atmospheric Dispersion of Radionuclides (AIRDOS)-EPA and Dose and Risk Assessment Tabulation (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 2019 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 2019 (178.56 cm) was greater 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 2019 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:	178.56 cm/year
Average air temperature:	15°C
Average mixing layer height:	542 m

Fraction of foodstuffs from (rural default values):

	Local Area	50-Mile Radius	Beyond 50 Miles
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 0.0000850 mrem for calendar year 2019 was lower than in calendar year 2018.

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	2.00E-05	2.00E-05	1.80E-04
Group F—SX/WA Group	5.30E-06	4.30E-06	4.75E-05
Northwest Plume Treatment System	5.70E-05	5.70E-05	2.20E-04
Northeast Plume Treatment Unit C-765	4.70E-06	1.80E-06	2.48E-05
Northeast Plume Treatment Unit C-765-A	1.80E-06	7.40E-07	1.08E-05
DUF_6 Conversion Facility	1.80E-06	1.20E-06	1.76E-05
Total from All Sources		**8.50E-05**	**5.01E-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 0.000501 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 2019.

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, October 2019, 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 2019 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 2019. The data presented in the appendix (Tables A.2 and A.3) 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.

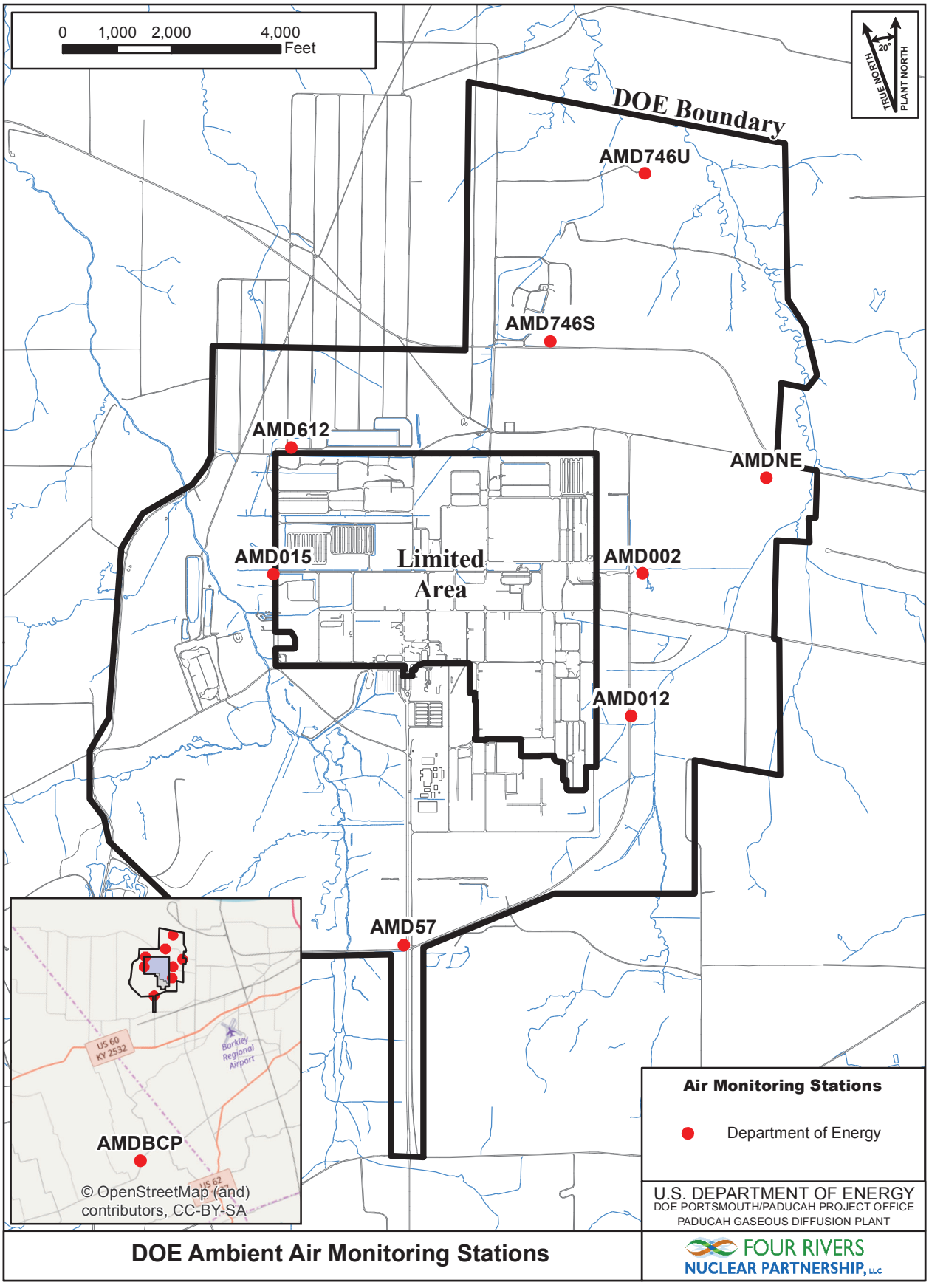

Figure 1. Location of Paducah Site Ambient Air Monitoring Stations

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
1st Quarter January through March										
	Quarter Air Flow	7175	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD002	Q2AMD0022-19	22-Apr-19	Americium-241	0.906	pCi/sample	1.26E-04	1.26E-16	1.90E-15	6.65E-02	U
AMD002	Q2AMD0022-19	22-Apr-19	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD002	Q2AMD0022-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD002	Q2AMD0022-19	22-Apr-19	Plutonium-239/240	0.0464	pCi/sample	6.47E-06	6.47E-18	2.00E-15	3.23E-03	U
AMD002	Q2AMD0022-19	22-Apr-19	Technetium-99	19.2	pCi/sample	2.68E-03	2.68E-15	1.40E-13	1.91E-02	U
AMD002	Q2AMD0022-19	22-Apr-19	Thorium-234	9.41	pCi/sample	1.31E-03	1.31E-15	2.20E-12	5.96E-04	U
AMD002	Q2AMD0022-19	22-Apr-19	**Uranium-234**	**1.66**	pCi/sample	2.31E-04	2.31E-16	7.70E-15	3.00E-02	
AMD002	Q2AMD0022-19	22-Apr-19	Uranium-235	0.247	pCi/sample	3.44E-05	3.44E-17	7.10E-15	4.85E-03	U
AMD002	Q2AMD0022-19	22-Apr-19	**Uranium-238**	**1.37**	**pCi/sample**	1.91E-04	1.91E-16	8.30E-15	2.30E-02	
								Sum of the Fractions of the Standard	1.47E-01	
	Quarter Air Flow	7393	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD012	Q2AMD0122-19	22-Apr-19	Americium-241	0.694	pCi/sample	9.39E-05	9.39E-17	1.90E-15	4.94E-02	U
AMD012	Q2AMD0122-19	22-Apr-19	Neptunium-237	0.638	pCi/sample	8.63E-05	8.63E-17	1.20E-15	7.19E-02	U
AMD012	Q2AMD0122-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD012	Q2AMD0122-19	22-Apr-19	Plutonium-239/240	0.511	pCi/sample	6.91E-05	6.91E-17	2.00E-15	3.46E-02	U
AMD012	Q2AMD0122-19	22-Apr-19	Technetium-99	42.8	pCi/sample	5.79E-03	5.79E-15	1.40E-13	4.14E-02	U
AMD012	Q2AMD0122-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD012	Q2AMD0122-19	22-Apr-19	**Uranium-234**	**1.19**	pCi/sample	1.61E-04	1.61E-16	7.70E-15	2.09E-02	
AMD012	Q2AMD0122-19	22-Apr-19	Uranium-235	0.146	pCi/sample	1.97E-05	1.97E-17	7.10E-15	2.78E-03	U
AMD012	Q2AMD0122-19	22-Apr-19	**Uranium-238**	**0.889**	pCi/sample	1.20E-04	1.20E-16	8.30E-15	1.45E-02	
								Sum of the Fractions of the Standard	2.35E-01	
	Quarter Air Flow	7397	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD015	Q2AMD0152-19	22-Apr-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD015	Q2AMD0152-19	22-Apr-19	Neptunium-237	0.517	pCi/sample	6.99E-05	6.99E-17	1.20E-15	5.82E-02	U
AMD015	Q2AMD0152-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD015	Q2AMD0152-19	22-Apr-19	Plutonium-239/240	0.0428	pCi/sample	5.79E-06	5.79E-18	2.00E-15	2.89E-03	U
AMD015	Q2AMD0152-19	22-Apr-19	Technetium-99*	0	pCi/sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD015	Q2AMD0152-19	22-Apr-19	Thorium-234	1.84	pCi/sample	2.49E-04	2.49E-16	2.20E-12	1.13E-04	U
AMD015	Q2AMD0152-19	22-Apr-19	Uranium-234	0.739	pCi/sample	9.99E-05	9.99E-17	7.70E-15	1.30E-02	U
AMD015	Q2AMD0152-19	22-Apr-19	Uranium-235	0.00596	pCi/sample	8.06E-07	8.06E-19	7.10E-15	1.13E-04	U
AMD015	Q2AMD0152-19	22-Apr-19	**Uranium-238**	**1**	pCi/sample	1.35E-04	1.35E-16	8.30E-15	1.63E-02	
								Sum of the Fractions of the Standard	9.06E-02	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
1st Quarter January through March										
	Quarter Air Flow	7399	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD57	Q2AMD572-19	22-Apr-19	Americium-241	0.0847	pCi/sample	1.14E-05	1.14E-17	1.90E-15	6.03E-03	U
AMD57	Q2AMD572-19	22-Apr-19	Neptunium-237	0.231	pCi/sample	3.12E-05	3.12E-17	1.20E-15	2.60E-02	U
AMD57	Q2AMD572-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD57	Q2AMD572-19	22-Apr-19	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD57	Q2AMD572-19	22-Apr-19	Technetium-99	19.4	pCi/sample	2.62E-03	2.62E-15	1.40E-13	1.87E-02	U
AMD57	Q2AMD572-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD57	Q2AMD572-19	22-Apr-19	**Uranium--234**	**1.13**	pCi/sample	1.53E-04	1.53E-16	7.70E-15	1.98E-02	
AMD57	Q2AMD572-19	22-Apr-19	Uranium-235	0.246	pCi/sample	3.32E-05	3.32E-17	7.10E-15	4.68E-03	U
AMD57	Q2AMD572-19	22-Apr-19	**Uranium-238**	**1.22**	pCi/sample	1.65E-04	1.65E-16	8.30E-15	1.99E-02	
								Sum of the Fractions of the Standard	9.52E-02	
	Quarter Air Flow	7398	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD612	Q2AMD6122-19	22-Apr-19	Americium-241	0.717	pCi/sample	9.69E-05	9.69E-17	1.90E-15	5.10E-02	U
AMD612	Q2AMD6122-19	22-Apr-19	Neptunium-237	0.124	pCi/sample	1.68E-05	1.68E-17	1.20E-15	1.40E-02	U
AMD612	Q2AMD6122-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD612	Q2AMD6122-19	22-Apr-19	Plutonium-239/240	0.0597	pCi/sample	8.07E-06	8.07E-18	2.00E-15	4.03E-03	U
AMD612	Q2AMD6122-19	22-Apr-19	Technetium-99*	0	pCi/sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD612	Q2AMD6122-19	22-Apr-19	Thorium-234	1.09	pCi/sample	1.47E-04	1.47E-16	2.20E-12	6.70E-05	U
AMD612	Q2AMD6122-19	22-Apr-19	**Uranium-234**	**1.19**	pCi/sample	1.61E-04	1.61E-16	7.70E-15	2.09E-02	
AMD612	Q2AMD6122-19	22-Apr-19	Uranium-235	0.119	pCi/sample	1.61E-05	1.61E-17	7.10E-15	2.27E-03	U
AMD612	Q2AMD6122-19	22-Apr-19	**Uranium-238**	**1.54**	pCi/sample	2.08E-04	2.08E-16	8.30E-15	2.51E-02	
								Sum of the Fractions of the Standard	1.17E-01	
	Quarter Air Flow	7421	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746S	Q2AMD746S2-19	22-Apr-19	Americium-241	0.213	pCi/sample	2.87E-05	2.87E-17	1.90E-15	1.51E-02	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Neptunium-237	0.16	pCi/sample	2.16E-05	2.16E-17	1.20E-15	1.80E-02	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Plutonium-238	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Plutonium-239/240	0.0655	pCi/sample	8.83E-06	8.83E-18	2.00E-15	4.41E-03	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Technetium-99	11.8	pCi/sample	1.59E-03	1.59E-15	1.40E-13	1.14E-02	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Uranium-234	0.339	pCi/sample	4.57E-05	4.57E-17	7.70E-15	5.93E-03	U
AMD746S	Q2AMD746S2-19	22-Apr-19	Uranium-235*	0	pCi/sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD746S	Q2AMD746S2-19	22-Apr-19	**Uranium-238**	**1.48**	pCi/sample	1.99E-04	1.99E-16	8.30E-15	2.40E-02	
								Sum of the Fractions of the Standard	7.88E-02	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
1st Quarter January through March										
	Quarter Air Flow	6757	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746U	Q2AMD746U2-19	22-Apr-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Neptunium-237	0.729	pCi/sample	1.08E-04	1.08E-16	1.20E-15	8.99E-02	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Plutonium-238	0.116	pCi/sample	1.72E-05	1.72E-17	2.10E-15	8.18E-03	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Technetium-99	61.9	pCi/sample	9.16E-03	9.16E-15	1.40E-13	6.54E-02	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Uranium-234	0.745	pCi/sample	1.10E-04	1.10E-16	7.70E-15	1.43E-02	U
AMD746U	Q2AMD746U2-19	22-Apr-19	Uranium-235	0	pCi/sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD746U	Q2AMD746U2-19	22-Apr-19	**Uranium-238**	**1.46**	pCi/sample	2.16E-04	2.16E-16	8.30E-15	2.60E-02	
								Sum of the Fractions of the Standard	2.04E-01	
	Quarter Air Flow	7395	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Americium-241	2.63	pCi/sample	3.56E-04	3.56E-16	1.90E-15	1.87E-01	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Technetium-99	24.1	pCi/sample	3.26E-03	3.26E-15	1.40E-13	2.33E-02	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	**Uranium-234**	**1.2**	pCi/sample	1.62E-04	1.62E-16	7.70E-15	2.11E-02	
AMDBCP	Q2AMDBCP2-19	22-Apr-19	Uranium-235*	0	pCi/sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMDBCP	Q2AMDBCP2-19	22-Apr-19	**Uranium-238**	**1.71**	pCi/sample	2.31E-04	2.31E-16	8.30E-15	2.79E-02	
								Sum of the Fractions of the Standard	2.59E-01	
	Quarter Air Flow	6997	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDNE	Q2AMDNE2-19	22-Apr-19	Americium-241	0.151	pCi/sample	2.16E-05	2.16E-17	1.90E-15	1.14E-02	U
AMDNE	Q2AMDNE2-19	22-Apr-19	Neptunium-237	0.769	pCi/sample	1.10E-04	1.10E-16	1.20E-15	9.16E-02	U
AMDNE	Q2AMDNE2-19	22-Apr-19	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMDNE	Q2AMDNE2-19	22-Apr-19	Plutonium-239/240	0.445	pCi/sample	6.36E-05	6.36E-17	2.00E-15	3.18E-02	U
AMDNE	Q2AMDNE2-19	22-Apr-19	Technetium-99	47.5	pCi/sample	6.79E-03	6.79E-15	1.40E-13	4.85E-02	U
AMDNE	Q2AMDNE2-19	22-Apr-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMDNE	Q2AMDNE2-19	22-Apr-19	**Uranium-234**	**1.74**	pCi/sample	2.49E-04	2.49E-16	7.70E-15	3.23E-02	
AMDNE	Q2AMDNE2-19	22-Apr-19	Uranium-235	0.0838	pCi/sample	1.20E-05	1.20E-17	7.10E-15	1.69E-03	U
AMDNE	Q2AMDNE2-19	22-Apr-19	**Uranium-238**	**0.981**	pCi/sample	1.40E-04	1.40E-16	8.30E-15	1.69E-02	
								Sum of the Fractions of the Standard	2.34E-01	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
2nd Quarter April through June										
	Quarter Air Flow	7382	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD002	Q3AMD0023-19	16-Jul-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD002	Q3AMD0023-19	16-Jul-19	Neptunium-237	0.396	pCi/sample	5.36E-05	5.36E-17	1.20E-15	4.47E-02	U
AMD002	Q3AMD0023-19	16-Jul-19	Plutonium-238	0.221	pCi/Sample	2.99E-05	2.99E-17	2.10E-15	1.43E-02	U
AMD002	Q3AMD0023-19	16-Jul-19	Plutonium-239/240	0.077	pCi/Sample	1.04E-05	1.04E-17	2.00E-15	5.22E-03	U
AMD002	Q3AMD0023-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD002	Q3AMD0023-19	16-Jul-19	**Thorium-234**	**5.62**	pCi/sample	7.61E-04	7.61E-16	2.20E-12	3.46E-04	U
AMD002	Q3AMD0023-19	16-Jul-19	**Uranium-234**	**1.67**	pCi/Sample	2.26E-04	2.26E-16	7.70E-15	2.94E-02	
AMD002	Q3AMD0023-19	16-Jul-19	Uranium-235*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD002	Q3AMD0023-19	16-Jul-19	Uranium-238	0.466	pCi/Sample	6.31E-05	6.31E-17	8.30E-15	7.61E-03	U
							Sum of the Fractions of the Standard		1.02E-01	
	Quarter Air Flow	7330	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD012	Q3AMD0123-19	16-Jul-19	Americium-241	5.59	pCi/sample	7.63E-04	7.63E-16	1.90E-15	4.01E-01	U
AMD012	Q3AMD0123-19	16-Jul-19	Neptunium-237	0.281	pCi/sample	3.83E-05	3.83E-17	1.20E-15	3.19E-02	U
AMD012	Q3AMD0123-19	16-Jul-19	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD012	Q3AMD0123-19	16-Jul-19	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD012	Q3AMD0123-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD012	Q3AMD0123-19	16-Jul-19	Thorium-234	0.352	pCi/sample	4.80E-05	4.80E-17	2.20E-12	2.18E-05	U
AMD012	Q3AMD0123-19	16-Jul-19	**Uranium-234**	**1.58**	pCi/Sample	2.16E-04	2.16E-16	7.70E-15	2.80E-02	
AMD012	Q3AMD0123-19	16-Jul-19	Uranium-235	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD012	Q3AMD0123-19	16-Jul-19	Uranium-238	1.07	pCi/sample	1.46E-04	1.46E-16	8.30E-15	1.76E-02	U
							Sum of the Fractions of the Standard		4.79E-01	
	Quarter Air Flow	7566	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD015	Q3AMD0153-19	16-Jul-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD015	Q3AMD0153-19	16-Jul-19	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD015	Q3AMD0153-19	16-Jul-19	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD015	Q3AMD0153-19	16-Jul-19	Plutonium-239/240	0.0518	pCi/Sample	6.85E-06	6.85E-18	2.00E-15	3.42E-03	U
AMD015	Q3AMD0153-19	16-Jul-19	Technetium-99	0.0317	pCi/Sample	4.19E-06	4.19E-18	1.40E-13	2.99E-05	U
AMD015	Q3AMD0153-19	16-Jul-19	Thorium-234	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMD015	Q3AMD0153-19	16-Jul-19	Uranium-234	0.286	pCi/Sample	3.78E-05	3.78E-17	7.70E-15	4.91E-03	U
AMD015	Q3AMD0153-19	16-Jul-19	Uranium-235	0.102	pCi/Sample	1.35E-05	1.35E-17	7.10E-15	1.90E-03	U
AMD015	Q3AMD0153-19	16-Jul-19	**Uranium-238**	**1.52**	pCi/Sample	2.01E-04	2.01E-16	8.30E-15	2.42E-02	
							Sum of the Fractions of the Standard		3.45E-02	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
2nd Quarter April through June										
	Quarter Air Flow	7346	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD57	Q3AMD573-19	16-Jul-19	Americium-241	0.722	pCi/sample	9.83E-05	9.83E-17	1.90E-15	5.17E-02	U
AMD57	Q3AMD573-19	16-Jul-19	Neptunium-237	1.55	pCi/sample	2.11E-04	2.11E-16	1.20E-15	1.76E-01	U
AMD57	Q3AMD573-19	16-Jul-19	Plutonium-238	0.00769	pCi/Sample	1.05E-06	1.05E-18	2.10E-15	4.98E-04	U
AMD57	Q3AMD573-19	16-Jul-19	Plutonium-239/240	1.04	pCi/Sample	1.42E-04	1.42E-16	2.00E-15	7.08E-02	U
AMD57	Q3AMD573-19	16-Jul-19	Technetium-99	13.4	pCi/Sample	1.82E-03	1.82E-15	1.40E-13	1.30E-02	U
AMD57	Q3AMD573-19	16-Jul-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD57	Q3AMD573-19	16-Jul-19	**Uranium-234**	**1.19**	pCi/Sample	1.62E-04	1.62E-16	7.70E-15	2.10E-02	
AMD57	Q3AMD573-19	16-Jul-19	Uranium-235*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD57	Q3AMD573-19	16-Jul-19	**Uranium-238**	**1.69**	pCi/Sample	2.30E-04	2.30E-16	8.30E-15	2.77E-02	
							Sum of the Fractions of the Standard		3.61E-01	
	Quarter Air Flow	7394	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD612	Q3AMD6123-19	16-Jul-19	Americium-241	0.314	pCi/sample	4.25E-05	4.25E-17	1.90E-15	2.24E-02	U
AMD612	Q3AMD6123-19	16-Jul-19	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD612	Q3AMD6123-19	16-Jul-19	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD612	Q3AMD6123-19	16-Jul-19	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD612	Q3AMD6123-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD612	Q3AMD6123-19	16-Jul-19	Thorium-234	2.51	pCi/sample	3.39E-04	3.39E-16	2.20E-12	1.54E-04	U
AMD612	Q3AMD6123-19	16-Jul-19	Uranium-234	0.841	pCi/Sample	1.14E-04	1.14E-16	7.70E-15	1.48E-02	U
AMD612	Q3AMD6123-19	16-Jul-19	Uranium-235	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD612	Q3AMD6123-19	16-Jul-19	**Uranium-238**	**1.69**	pCi/Sample	2.29E-04	2.29E-16	8.30E-15	2.75E-02	
							Sum of the Fractions of the Standard		6.48E-02	
	Quarter Air Flow	7405	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746S	Q3AMD746S3-19	16-Jul-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	**Uranium-234**	**1.13**	pCi/Sample	1.53E-04	1.53E-16	7.70E-15	1.98E-02	
AMD746S	Q3AMD746S3-19	16-Jul-19	Uranium-235*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD746S	Q3AMD746S3-19	16-Jul-19	**Uranium-238**	**0.796**	pCi/Sample	1.07E-04	1.07E-16	8.30E-15	1.30E-02	
							Sum of the Fractions of the Standard		3.28E-02	

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X = False Positive

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
2nd Quarter April through June										
	Quarter Air Flow	7395	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746U	Q3AMD746U3-19	16-Jul-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Neptunium-237	2.79	pCi/sample	3.77E-04	3.77E-16	1.20E-15	3.14E-01	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Uranium-234	1.14	pCi/Sample	1.54E-04	1.54E-16	7.70E-15	2.00E-02	U
AMD746U	Q3AMD746U3-19	16-Jul-19	Uranium-235	0.0837	pCi/Sample	1.13E-05	1.13E-17	7.10E-15	1.59E-03	U
AMD746U	Q3AMD746U3-19	16-Jul-19	**Uranium-238**	**0.98**	pCi/Sample	1.33E-04	1.33E-16	8.30E-15	1.60E-02	
							Sum of the Fractions of the Standard		3.52E-01	
	Quarter Air Flow	7366	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Neptunium-237	0.876	pCi/sample	1.19E-04	1.19E-16	1.20E-15	9.91E-02	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Plutonium-238	0.0443	pCi/Sample	6.01E-06	6.01E-18	2.10E-15	2.86E-03	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Plutonium-239/240	0.244	pCi/Sample	3.31E-05	3.31E-17	2.00E-15	1.66E-02	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Thorium-234	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	UX
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Uranium-234	0.812	pCi/Sample	1.10E-04	1.10E-16	7.70E-15	1.43E-02	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Uranium-235	0.203	pCi/Sample	2.76E-05	2.76E-17	7.10E-15	3.88E-03	U
AMDBCP	Q3AMDBCP3-19	16-Jul-19	Uranium-238	0.349	pCi/Sample	4.74E-05	4.74E-17	8.30E-15	5.71E-03	U
							Sum of the Fractions of the Standard		1.42E-01	
	Quarter Air Flow	7398	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDNE	Q3AMDNE3-19	16-Jul-19	Americium-241	0.924	pCi/sample	1.25E-04	1.25E-16	1.90E-15	6.57E-02	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Neptunium-237	2.14	pCi/sample	2.89E-04	2.89E-16	1.20E-15	2.41E-01	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Plutonium-238	0.0321	pCi/Sample	4.34E-06	4.34E-18	2.10E-15	2.07E-03	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMDNE	Q3AMDNE3-19	16-Jul-19	**Uranium-234**	**1.35**	pCi/Sample	1.82E-04	1.82E-16	7.70E-15	2.37E-02	
AMDNE	Q3AMDNE3-19	16-Jul-19	Uranium-235*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMDNE	Q3AMDNE3-19	16-Jul-19	Uranium-238	0.754	pCi/Sample	1.02E-04	1.02E-16	8.30E-15	1.23E-02	U
							Sum of the Fractions of the Standard		3.45E-01	

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X = False Positive

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
3rd Quarter July through September										
	Quarter Air Flow	7401	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD002	Q4AMD0024-19	10/21/2019	Americium-241	0.463	pCi/sample	6.26E-05	6.26E-17	1.90E-15	3.29E-02	U
AMD002	Q4AMD0024-19	10/21/2019	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD002	Q4AMD0024-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD002	Q4AMD0024-19	10/21/2019	Plutonium-239/240	0.161	pCi/Sample	2.18E-05	2.18E-17	2.00E-15	1.09E-02	U
AMD002	Q4AMD0024-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD002	Q4AMD0024-19	10/21/2019	Thorium-234	19.1	pCi/sample	2.58E-03	2.58E-15	2.20E-12	1.17E-03	U
AMD002	Q4AMD0024-19	10/21/2019	**Uranium-233/234**	**2.28**	pCi/Sample	3.08E-04	3.08E-16	7.70E-15	4.00E-02	
AMD002	Q4AMD0024-19	10/21/2019	Uranium-235/236*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD002	Q4AMD0024-19	10/21/2019	**Uranium-238**	**1.34**	pCi/Sample	1.81E-04	1.81E-16	8.30E-15	2.18E-02	
								Sum of the Fractions of the Standard	1.07E-01	
	Quarter Air Flow	7419	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD012	Q4AMD0124-19	10/21/2019	Americium-241	0.77	pCi/sample	1.04E-04	1.04E-16	1.90E-15	5.46E-02	U
AMD012	Q4AMD0124-19	10/21/2019	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD012	Q4AMD0124-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD012	Q4AMD0124-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD012	Q4AMD0124-19	10/21/2019	Technetium-99	7.17	pCi/Sample	9.66E-04	9.66E-16	1.40E-13	6.90E-03	U
AMD012	Q4AMD0124-19	10/21/2019	Thorium-234	27.7	pCi/sample	3.73E-03	3.73E-15	2.20E-12	1.70E-03	U
AMD012	Q4AMD0124-19	10/21/2019	**Uranium-233/234**	**1.31**	pCi/Sample	1.77E-04	1.77E-16	7.70E-15	2.29E-02	
AMD012	Q4AMD0124-19	10/21/2019	Uranium-235/236	0.301	pCi/Sample	4.06E-05	4.06E-17	7.10E-15	5.71E-03	U
AMD012	Q4AMD0124-19	10/21/2019	**Uranium-238**	**0.807**	pCi/Sample	1.09E-04	1.09E-16	8.30E-15	1.31E-02	
								Sum of the Fractions of the Standard	1.05E-01	
	Quarter Air Flow	8081	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD015	Q4AMD0154-19	10/21/2019	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD015	Q4AMD0154-19	10/21/2019	Neptunium-237	0.298	pCi/sample	3.69E-05	3.69E-17	1.20E-15	3.07E-02	U
AMD015	Q4AMD0154-19	10/21/2019	Plutonium-238	0.441	pCi/Sample	5.46E-05	5.46E-17	2.10E-15	2.60E-02	U
AMD015	Q4AMD0154-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD015	Q4AMD0154-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD015	Q4AMD0154-19	10/21/2019	Thorium-234	10.3	pCi/sample	1.27E-03	1.27E-15	2.20E-12	5.79E-04	U
AMD015	Q4AMD0154-19	10/21/2019	**Uranium-233/234**	**0.752**	pCi/Sample	9.31E-05	9.31E-17	7.70E-15	1.21E-02	
AMD015	Q4AMD0154-19	10/21/2019	Uranium-235/236	0.0745	pCi/Sample	9.22E-06	9.22E-18	7.10E-15	1.30E-03	U
AMD015	Q4AMD0154-19	10/21/2019	**Uranium-238**	**1.62**	pCi/Sample	2.00E-04	2.00E-16	8.30E-15	2.42E-02	
								Sum of the Fractions of the Standard	9.48E-02	

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X = False Positive

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
3rd Quarter July through September										
	Quarter Air Flow	6976	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD57	Q4AMD574-19	10/21/2019	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD57	Q4AMD574-19	10/21/2019	Neptunium-237	0.329	pCi/sample	4.72E-05	4.72E-17	1.20E-15	3.93E-02	U
AMD57	Q4AMD574-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD57	Q4AMD574-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD57	Q4AMD574-19	10/21/2019	Technetium-99	5.61	pCi/Sample	8.04E-04	8.04E-16	1.40E-13	5.74E-03	U
AMD57	Q4AMD574-19	10/21/2019	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD57	Q4AMD574-19	10/21/2019	**Uranium-233/234**	**1.03**	pCi/Sample	1.48E-04	1.48E-16	7.70E-15	1.92E-02	
AMD57	Q4AMD574-19	10/21/2019	Uranium-235/236	0.381	pCi/Sample	5.46E-05	5.46E-17	7.10E-15	7.69E-03	U
AMD57	Q4AMD574-19	10/21/2019	**Uranium-238**	**1.55**	pCi/Sample	2.22E-04	2.22E-16	8.30E-15	2.68E-02	
								Sum of the Fractions of the Standard	9.87E-02	
	Quarter Air Flow	7324	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD612	Q4AMD6124-19	10/21/2019	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD612	Q4AMD6124-19	10/21/2019	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD612	Q4AMD6124-19	10/21/2019	Plutonium-238	0.114	pCi/Sample	1.56E-05	1.56E-17	2.10E-15	7.41E-03	U
AMD612	Q4AMD6124-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD612	Q4AMD6124-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD612	Q4AMD6124-19	10/21/2019	Thorium-234	3.69	pCi/sample	5.04E-04	5.04E-16	2.20E-12	2.29E-04	U
AMD612	Q4AMD6124-19	10/21/2019	**Uranium-233/234**	**1.3**	pCi/Sample	1.77E-04	1.77E-16	7.70E-15	2.31E-02	
AMD612	Q4AMD6124-19	10/21/2019	Uranium-235/236	0.162	pCi/Sample	2.21E-05	2.21E-17	7.10E-15	3.12E-03	U
AMD612	Q4AMD6124-19	10/21/2019	**Uranium-238**	**1.51**	pCi/Sample	2.06E-04	2.06E-16	8.30E-15	2.48E-02	
								Sum of the Fractions of the Standard	5.86E-02	
	Quarter Air Flow	7400	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746S	Q4AMD746S4-19	10/21/2019	Americium-241	1.06	pCi/sample	1.43E-04	1.43E-16	1.90E-15	7.54E-02	U
AMD746S	Q4AMD746S4-19	10/21/2019	Neptunium-237	0.133	pCi/sample	1.80E-05	1.80E-17	1.20E-15	1.50E-02	U
AMD746S	Q4AMD746S4-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD746S	Q4AMD746S4-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD746S	Q4AMD746S4-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD746S	Q4AMD746S4-19	10/21/2019	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746S	Q4AMD746S4-19	10/21/2019	**Uranium-233/234**	**1.54**	pCi/Sample	2.08E-04	2.08E-16	7.70E-15	2.70E-02	
AMD746S	Q4AMD746S4-19	10/21/2019	Uranium-235/236*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMD746S	Q4AMD746S4-19	10/21/2019	**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	1.42E-01	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
3rd Quarter July through September										
	Quarter Air Flow	6820	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746U	Q4AMD746U4-19	10/21/2019	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD746U	Q4AMD746U4-19	10/21/2019	Neptunium-237	0.558	pCi/sample	8.18E-05	8.18E-17	1.20E-15	6.82E-02	U
AMD746U	Q4AMD746U4-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD746U	Q4AMD746U4-19	10/21/2019	Plutonium-239/240	0.113	pCi/Sample	1.66E-05	1.66E-17	2.00E-15	8.28E-03	U
AMD746U	Q4AMD746U4-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMD746U	Q4AMD746U4-19	10/21/2019	Thorium-234	6.54	pCi/sample	9.59E-04	9.59E-16	2.20E-12	4.36E-04	U
AMD746U	Q4AMD746U4-19	10/21/2019	**Uranium-233/234**	**0.861**	pCi/Sample	1.26E-04	1.26E-16	7.70E-15	1.64E-02	
AMD746U	Q4AMD746U4-19	10/21/2019	Uranium-235/236	0.0726	pCi/Sample	1.06E-05	1.06E-17	7.10E-15	1.50E-03	U
AMD746U	Q4AMD746U4-19	10/21/2019	**Uranium-238**	**1.16**	pCi/Sample	1.70E-04	1.70E-16	8.30E-15	2.05E-02	
								Sum of the Fractions of the Standard	1.15E-01	
	Quarter Air Flow	7418	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDBCP	Q4AMDBCP4-19	10/21/2019	Americium-241	0.313	pCi/sample	4.22E-05	4.22E-17	1.90E-15	2.22E-02	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	Plutonium-238	0.0999	pCi/Sample	1.35E-05	1.35E-17	2.10E-15	6.41E-03	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	Plutonium-239/240*	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	Technetium-99	4.09	pCi/Sample	5.51E-04	5.51E-16	1.40E-13	3.94E-03	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	Thorium-234	16.4	pCi/sample	2.21E-03	2.21E-15	2.20E-12	1.00E-03	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	**Uranium-233/234**	**1.26**	pCi/Sample	1.70E-04	1.70E-16	7.70E-15	2.21E-02	
AMDBCP	Q4AMDBCP4-19	10/21/2019	Uranium-235/236	0.346	pCi/Sample	4.66E-05	4.66E-17	7.10E-15	6.57E-03	U
AMDBCP	Q4AMDBCP4-19	10/21/2019	**Uranium-238**	**1.15**	pCi/Sample	1.55E-04	1.55E-16	8.30E-15	1.87E-02	
								Sum of the Fractions of the Standard	8.09E-02	
	Quarter Air Flow	7413	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDNE	Q4AMDNE4-19	10/21/2019	Americium-241	0.214	pCi/sample	2.89E-05	2.89E-17	1.90E-15	1.52E-02	U
AMDNE	Q4AMDNE4-19	10/21/2019	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMDNE	Q4AMDNE4-19	10/21/2019	Plutonium-238*	0	pCi/Sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMDNE	Q4AMDNE4-19	10/21/2019	Plutonium-239/240	0	pCi/Sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMDNE	Q4AMDNE4-19	10/21/2019	Technetium-99*	0	pCi/Sample	0.00E+00	0.00E+00	1.40E-13	0.00E+00	U
AMDNE	Q4AMDNE4-19	10/21/2019	Thorium-234	12.6	pCi/sample	1.70E-03	1.70E-15	2.20E-12	7.73E-04	U
AMDNE	Q4AMDNE4-19	10/21/2019	**Uranium-233/234**	**2.12**	pCi/Sample	2.86E-04	2.86E-16	7.70E-15	3.71E-02	
AMDNE	Q4AMDNE4-19	10/21/2019	Uranium-235/236*	0	pCi/Sample	0.00E+00	0.00E+00	7.10E-15	0.00E+00	U
AMDNE	Q4AMDNE4-19	10/21/2019	**Uranium-238**	**1.58**	pCi/Sample	2.13E-04	2.13E-16	8.30E-15	2.57E-02	
								Sum of the Fractions of the Standard	7.88E-02	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
4th Quarter October through December										
	Quarterly Air Flow	7518	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD002	Q1AMD0021-20	01/21/2020	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD002	Q1AMD0021-20	01/21/2020	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD002	Q1AMD0021-20	01/21/2020	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD002	Q1AMD0021-20	01/21/2020	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD002	Q1AMD0021-20	01/21/2020	Technetium-99	4.68	pCi/sample	6.23E-04	6.23E-16	1.40E-13	4.45E-03	U
AMD002	Q1AMD0021-20	01/21/2020	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD002	Q1AMD0021-20	01/21/2020	**Uranium-233/234**	**1.66**	pCi/sample	2.21E-04	2.21E-16	7.70E-15	2.87E-02	
AMD002	Q1AMD0021-20	01/21/2020	Uranium-235/236	0.105	pCi/sample	1.40E-05	1.40E-17	7.10E-15	1.97E-03	U
AMD002	Q1AMD0021-20	01/21/2020	**Uranium-238**	**1.6**	pCi/sample	2.13E-04	2.13E-16	8.30E-15	2.56E-02	
								Sum of the Fractions of the Standard	6.07E-02	
	Quarterly Air Flow	7427	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD012	Q1AMD0121-20	01/21/2020	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD012	Q1AMD0121-20	01/21/2020	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMD012	Q1AMD0121-20	01/21/2020	Plutonium-238	0.0444	pCi/sample	5.98E-06	5.98E-18	2.10E-15	2.85E-03	U
AMD012	Q1AMD0121-20	01/21/2020	Plutonium-239/240	0.0444	pCi/sample	5.98E-06	5.98E-18	2.00E-15	2.99E-03	U
AMD012	Q1AMD0121-20	01/21/2020	Technetium-99	7.32	pCi/sample	9.86E-04	9.86E-16	1.40E-13	7.04E-03	U
AMD012	Q1AMD0121-20	01/21/2020	Thorium-234	1.49	pCi/sample	2.01E-04	2.01E-16	2.20E-12	9.12E-05	U
AMD012	Q1AMD0121-20	01/21/2020	**Uranium-233/234**	**1.04**	pCi/sample	1.40E-04	1.40E-16	7.70E-15	1.82E-02	
AMD012	Q1AMD0121-20	01/21/2020	Uranium-235/236	0.0762	pCi/sample	1.03E-05	1.03E-17	7.10E-15	1.45E-03	U
AMD012	Q1AMD0121-20	01/21/2020	**Uranium-238**	**1.99**	pCi/sample	2.68E-04	2.68E-16	8.30E-15	3.23E-02	
								Sum of the Fractions of the Standard	6.49E-02	
	Quarterly Air Flow	7688	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD015	Q1AMD0151-20	01/21/2020	Americium-241	0.0531	pCi/sample	6.91E-06	6.91E-18	1.90E-15	3.64E-03	U
AMD015	Q1AMD0151-20	01/21/2020	Neptunium-237	0.245	pCi/sample	3.19E-05	3.19E-17	1.20E-15	2.66E-02	U
AMD015	Q1AMD0151-20	01/21/2020	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD015	Q1AMD0151-20	01/21/2020	Plutonium-239/240	0.039	pCi/sample	5.07E-06	5.07E-18	2.00E-15	2.54E-03	U
AMD015	Q1AMD0151-20	01/21/2020	Technetium-99	24.7	pCi/sample	3.21E-03	3.21E-15	1.40E-13	2.29E-02	U
AMD015	Q1AMD0151-20	01/21/2020	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD015	Q1AMD0151-20	01/21/2020	**Uranium-233/234**	**1.1**	pCi/sample	1.43E-04	1.43E-16	7.70E-15	1.86E-02	
AMD015	Q1AMD0151-20	01/21/2020	Uranium-235/236	0.0442	pCi/sample	5.75E-06	5.75E-18	7.10E-15	8.10E-04	U
AMD015	Q1AMD0151-20	01/21/2020	**Uranium-238**	**1.07**	pCi/sample	1.39E-04	1.39E-16	8.30E-15	1.68E-02	
								Sum of the Fractions of the Standard	9.18E-02	

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U = Value reported is less than the MDA and/or TPU
X = False Positive

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
4th Quarter October through December										
	Quarterly Air Flow	7490	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD57	Q1AMD571-20	01/21/2020	Americium-241	0.67	pCi/sample	8.95E-05	8.95E-17	1.90E-15	4.71E-02	U
AMD57	Q1AMD571-20	01/21/2020	Neptunium-237	2.91	pCi/sample	3.89E-04	3.89E-16	1.20E-15	3.24E-01	U
AMD57	Q1AMD571-20	01/21/2020	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMD57	Q1AMD571-20	01/21/2020	Plutonium-239/240	0.0712	pCi/sample	9.51E-06	9.51E-18	2.00E-15	4.75E-03	U
AMD57	Q1AMD571-20	01/21/2020	Technetium-99	15.8	pCi/sample	2.11E-03	2.11E-15	1.40E-13	1.51E-02	U
AMD57	Q1AMD571-20	01/21/2020	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD57	Q1AMD571-20	01/21/2020	**Uranium-233/234**	**1.6**	pCi/sample	2.14E-04	2.14E-16	7.70E-15	2.77E-02	
AMD57	Q1AMD571-20	01/21/2020	Uranium-235/236	0.0571	pCi/sample	7.62E-06	7.62E-18	7.10E-15	1.07E-03	U
AMD57	Q1AMD571-20	01/21/2020	**Uranium-238**	**1.69**	pCi/sample	2.26E-04	2.26E-16	8.30E-15	2.72E-02	
								Sum of the Fractions of the Standard	4.47E-01	
	Quarterly Air Flow	7406	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD612	Q1AMD6121-20	01/21/2020	Americium-241	1.16	pCi/sample	1.57E-04	1.57E-16	1.90E-15	8.24E-02	U
AMD612	Q1AMD6121-20	01/21/2020	Neptunium-237	0.295	pCi/sample	3.98E-05	3.98E-17	1.20E-15	3.32E-02	U
AMD612	Q1AMD6121-20	01/21/2020	Plutonium-238	0.0692	pCi/sample	9.34E-06	9.34E-18	2.10E-15	4.45E-03	U
AMD612	Q1AMD6121-20	01/21/2020	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMD612	Q1AMD6121-20	01/21/2020	Technetium-99	10.3	pCi/sample	1.39E-03	1.39E-15	1.40E-13	9.93E-03	U
AMD612	Q1AMD6121-20	01/21/2020	Thorium-234	38.8	pCi/sample	5.24E-03	5.24E-15	2.20E-12	2.38E-03	U
AMD612	Q1AMD6121-20	01/21/2020	**Uranium-233/234**	**1.52**	pCi/sample	2.05E-04	2.05E-16	7.70E-15	2.67E-02	
AMD612	Q1AMD6121-20	01/21/2020	Uranium-235/236	0.0245	pCi/sample	3.31E-06	3.31E-18	7.10E-15	4.66E-04	U
AMD612	Q1AMD6121-20	01/21/2020	**Uranium-238**	**1.17**	pCi/sample	1.58E-04	1.58E-16	8.30E-15	1.90E-02	
								Sum of the Fractions of the Standard	1.79E-01	
	Quarter Air Flow	6928	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746S	Q1AMD746S1-20	01/21/2020	Americium-241	1.58	pCi/sample	2.28E-04	2.28E-16	1.90E-15	1.20E-01	U
AMD746S	Q1AMD746S1-20	01/21/2020	Neptunium-237	1.21	pCi/sample	1.75E-04	1.75E-16	1.20E-15	1.46E-01	U
AMD746S	Q1AMD746S1-20	01/21/2020	Plutonium-238	0.0748	pCi/sample	1.08E-05	1.08E-17	2.10E-15	5.14E-03	U
AMD746S	Q1AMD746S1-20	01/21/2020	Plutonium-239/240	0.147	pCi/sample	2.12E-05	2.12E-17	2.00E-15	1.06E-02	U
AMD746S	Q1AMD746S1-20	01/21/2020	Technetium-99	52.3	pCi/sample	7.55E-03	7.55E-15	1.40E-13	5.39E-02	U
AMD746S	Q1AMD746S1-20	01/21/2020	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746S	Q1AMD746S1-20	01/21/2020	**Uranium-233/234**	**1.46**	pCi/sample	2.11E-04	2.11E-16	7.70E-15	2.74E-02	
AMD746S	Q1AMD746S1-20	01/21/2020	Uranium-235/236	0.0683	pCi/sample	9.86E-06	9.86E-18	7.10E-15	1.39E-03	U
AMD746S	Q1AMD746S1-20	01/21/2020	**Uranium-238**	**0.773**	pCi/sample	1.12E-04	1.12E-16	8.30E-15	1.34E-02	
								Sum of the Fractions of the Standard	3.77E-01	

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Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

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
4th Quarter October through December										
	Quarterly Air Flow	7211	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMD746U	Q1AMD746U1-20	01/21/2020	Americium-241*	0	pCi/sample	0.00E+00	0.00E+00	1.90E-15	0.00E+00	U
AMD746U	Q1AMD746U1-20	01/21/2020	Neptunium-237	0.0872	pCi/sample	1.21E-05	1.21E-17	1.20E-15	1.01E-02	U
AMD746U	Q1AMD746U1-20	01/21/2020	Plutonium-238	0.111	pCi/sample	1.54E-05	1.54E-17	2.10E-15	7.33E-03	U
AMD746U	Q1AMD746U1-20	01/21/2020	Plutonium-239/240	0.0469	pCi/sample	6.50E-06	6.50E-18	2.00E-15	3.25E-03	U
AMD746U	Q1AMD746U1-20	01/21/2020	Technetium-99	17.3	pCi/sample	2.40E-03	2.40E-15	1.40E-13	1.71E-02	U
AMD746U	Q1AMD746U1-20	01/21/2020	Thorium-234*	0	pCi/sample	0.00E+00	0.00E+00	2.20E-12	0.00E+00	U
AMD746U	Q1AMD746U1-20	01/21/2020	**Uranium-233/234**	**2.2**	pCi/sample	3.05E-04	3.05E-16	7.70E-15	3.96E-02	
AMD746U	Q1AMD746U1-20	01/21/2020	Uranium-235/236	0.105	pCi/sample	1.46E-05	1.46E-17	7.10E-15	2.05E-03	U
AMD746U	Q1AMD746U1-20	01/21/2020	**Uranium-238**	**2.24**	pCi/sample	3.11E-04	3.11E-16	8.30E-15	3.74E-02	
								Sum of the Fractions of the Standard	1.17E-01	
	Quarterly Air Flow	6944	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDBCP	Q1AMDBCP1-20	01/21/2020	Americium-241	2.03	pCi/sample	2.92E-04	2.92E-16	1.90E-15	1.54E-01	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	Neptunium-237	1.85	pCi/sample	2.66E-04	2.66E-16	1.20E-15	2.22E-01	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	Plutonium-238*	0	pCi/sample	0.00E+00	0.00E+00	2.10E-15	0.00E+00	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	Plutonium-239/240	0.0315	pCi/sample	4.54E-06	4.54E-18	2.00E-15	2.27E-03	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	Technetium-99	21	pCi/sample	3.02E-03	3.02E-15	1.40E-13	2.16E-02	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	Thorium-234	5.31	pCi/sample	7.65E-04	7.65E-16	2.20E-12	3.48E-04	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	**Uranium-233/234**	**1.83**	pCi/sample	2.64E-04	2.64E-16	7.70E-15	3.42E-02	
AMDBCP	Q1AMDBCP1-20	01/21/2020	Uranium-235/236	0.129	pCi/sample	1.86E-05	1.86E-17	7.10E-15	2.62E-03	U
AMDBCP	Q1AMDBCP1-20	01/21/2020	**Uranium-238**	**2.8**	pCi/sample	4.03E-04	4.03E-16	8.30E-15	4.86E-02	
								Sum of the Fractions of the Standard	4.85E-01	
	Quarterly Air Flow	7408	m3			pCi/m3	Ci/m3	Ci/m3	fraction	
AMDNE	Q1AMDNE1-20	01/21/2020	Americium-241	0.589	pCi/sample	7.95E-05	7.95E-17	1.90E-15	4.18E-02	U
AMDNE	Q1AMDNE1-20	01/21/2020	Neptunium-237*	0	pCi/sample	0.00E+00	0.00E+00	1.20E-15	0.00E+00	U
AMDNE	Q1AMDNE1-20	01/21/2020	Plutonium-238	0.0326	pCi/sample	4.40E-06	4.40E-18	2.10E-15	2.10E-03	U
AMDNE	Q1AMDNE1-20	01/21/2020	Plutonium-239/240*	0	pCi/sample	0.00E+00	0.00E+00	2.00E-15	0.00E+00	U
AMDNE	Q1AMDNE1-20	01/21/2020	Technetium-99	12	pCi/sample	1.62E-03	1.62E-15	1.40E-13	1.16E-02	U
AMDNE	Q1AMDNE1-20	01/21/2020	Thorium-234	37.5	pCi/sample	5.06E-03	5.06E-15	2.20E-12	2.30E-03	U
AMDNE	Q1AMDNE1-20	01/21/2020	**Uranium-233/234**	**1.76**	pCi/sample	2.38E-04	2.38E-16	7.70E-15	3.09E-02	
AMDNE	Q1AMDNE1-20	01/21/2020	Uranium-235/236	0.168	pCi/sample	2.27E-05	2.27E-17	7.10E-15	3.19E-03	U
AMDNE	Q1AMDNE1-20	01/21/2020	**Uranium-238**	**1.45**	pCi/sample	1.96E-04	1.96E-16	8.30E-15	2.36E-02	
								Sum of the Fractions of the Standard	1.15E-01	

* = Negative result replaced with a zero for calculation
Bold = Detection above MDC
U = Value reported is less than the MDA and/or TPU
X = False Positive

Table A.2. Ambient Air Data

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD002	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.906	pCi/sample	U	2.21	1.27	1.34
AMD002	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	-0.474	pCi/sample	U	3.31	2.02	2.03
AMD002	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.168	pCi/sample	U	1.95	0.9	0.9
AMD002	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0464	pCi/sample	U	1.12	0.529	0.529
AMD002	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	-0.474	pCi/sample	U	3.31	2.02	2.03
AMD002	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	19.2	pCi/sample	U	85	50.3	50.4
AMD002	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	9.41	pCi/sample	U	21.8	37.8	37.9
AMD002	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.66	pCi/sample		0.834	0.882	0.913
AMD002	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.247	pCi/sample	U	0.37	0.423	0.424
AMD002	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.37	pCi/sample		0.478	0.76	0.781
AMD002	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	9.41	pCi/sample	U	21.8	37.8	37.9
AMD002	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	-0.373	pCi/sample	U	1.68	1.01	1.03
AMD002	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	0.396	pCi/sample	U	3.66	2.08	2.09
AMD002	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	0.221	pCi/sample	U	1.47	0.769	0.77
AMD002	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.077	pCi/sample	U	1.11	0.542	0.542
AMD002	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	0.396	pCi/sample	U	3.66	2.08	2.09
AMD002	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-0.887	pCi/sample	U	38	22.3	22.3
AMD002	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	5.62	pCi/sample	U	18.3	17.8	18.1
AMD002	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.67	pCi/sample		0.829	0.938	0.97
AMD002	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	-0.0685	pCi/sample	U	0.79	0.303	0.304
AMD002	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	5.62	pCi/sample	U	18.3	17.8	18.1
AMD002	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	0.466	pCi/sample	U	0.761	0.567	0.571
AMD002	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	0.463	pCi/sample	U	2.38	1.38	1.39
AMD002	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	-0.612	pCi/sample	U	3.63	2.21	2.23
AMD002	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0219	pCi/sample	U	0.769	0.363	0.365
AMD002	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.161	pCi/sample	U	0.768	0.51	0.511
AMD002	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	-0.612	pCi/sample	U	3.63	2.21	2.23
AMD002	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-0.668	pCi/sample	U	76.6	44.3	44.3
AMD002	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	19.1	pCi/sample	U	23	34.8	35.1
AMD002	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	2.28	pCi/sample		1.05	1.32	1.4
AMD002	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	-0.0256	pCi/sample	U	0.899	0.425	0.427
AMD002	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.34	pCi/sample		0.814	1.02	1.06
AMD002	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	19.1	pCi/sample	U	23	34.8	35.1
AMD002	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	-0.0555	pCi/sample	U	2.3	1.26	1.26
AMD002	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	-1.08	pCi/sample	U	3.4	2.1	2.15
AMD002	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	-0.0397	pCi/sample	U	0.336	0.12	0.12
AMD002	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0396	pCi/sample	U	0.336	0.12	0.12
AMD002	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	-1.08	pCi/sample	U	3.4	2.1	2.15
AMD002	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	4.68	pCi/sample	U	82.9	47.9	47.9
AMD002	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	-28.1	pCi/sample	U	35.9	29.6	32.8
AMD002	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.66	pCi/sample		0.593	0.704	0.745
AMD002	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.105	pCi/sample	U	0.499	0.288	0.288

U = Value reported is less than the MDA and/or TPU
X = See Laboratory report

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD002	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	-28.1	pCi/sample	U	35.9	29.6	32.8
AMD002	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.6	pCi/sample		0.404	0.663	0.701
AMD012	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.694	pCi/sample	U	1.85	1.05	1.1
AMD012	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.638	pCi/sample	U	3.59	2.03	2.05
AMD012	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.112	pCi/sample	U	0.953	0.339	0.34
AMD012	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.511	pCi/sample	U	0.953	0.699	0.703
AMD012	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.638	pCi/sample	U	3.59	2.03	2.05
AMD012	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	42.8	pCi/sample	U	83.6	49.7	49.9
AMD012	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-5.66	pCi/sample	U	18.7	18.8	19
AMD012	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.19	pCi/sample		0.931	0.844	0.864
AMD012	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.146	pCi/sample	U	0.438	0.411	0.411
AMD012	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	0.889	pCi/sample		0.655	0.702	0.712
AMD012	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-5.66	pCi/sample	U	18.7	18.8	19
AMD012	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	5.59	pCi/sample	U	6.58	3.61	4.44
AMD012	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	0.281	pCi/sample	U	6.16	3.72	3.72
AMD012	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.223	pCi/sample	U	1.15	0.36	0.361
AMD012	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.142	pCi/sample	U	1.25	0.482	0.482
AMD012	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	0.281	pCi/sample	U	6.16	3.72	3.72
AMD012	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-6.25	pCi/sample	U	41.4	24.2	24.2
AMD012	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	0.352	pCi/sample	U	55.7	87.2	87.2
AMD012	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.58	pCi/sample		1.45	1.23	1.26
AMD012	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	0	pCi/sample	U	0.66	0.443	0.445
AMD012	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	0.352	pCi/sample	U	55.7	87.2	87.2
AMD012	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	1.07	pCi/sample	U	1.17	1	1.02
AMD012	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	0.77	pCi/sample	U	2.2	1.25	1.3
AMD012	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	-1.11	pCi/sample	U	3.38	2.08	2.14
AMD012	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0755	pCi/sample	U	1.07	0.423	0.425
AMD012	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.201	pCi/sample	U	1.34	0.436	0.439
AMD012	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	-1.11	pCi/sample	U	3.38	2.08	2.14
AMD012	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	7.17	pCi/sample	U	74.7	43.4	43.4
AMD012	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	27.7	pCi/sample	U	36.2	42.2	44.5
AMD012	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	1.31	pCi/sample		0.822	0.862	0.896
AMD012	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.301	pCi/sample	U	0.451	0.511	0.514
AMD012	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	27.7	pCi/sample	U	36.2	42.2	44.5
AMD012	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	0.807	pCi/sample		0.619	0.676	0.691
AMD012	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	-0.683	pCi/sample	U	1.8	1.15	1.19
AMD012	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	-0.481	pCi/sample	U	3.7	2.2	2.21
AMD012	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	0.0444	pCi/sample	U	0.28	0.167	0.167
AMD012	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0444	pCi/sample	U	0.28	0.166	0.167
AMD012	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	-0.481	pCi/sample	U	3.7	2.2	2.21
AMD012	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	7.32	pCi/sample	U	81.7	47.3	47.3
AMD012	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	1.49	pCi/sample	U	19.6	21	21

U = Value reported is less than the MDA and/or TPU
X = False Positive

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD012	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.04	pCi/sample		0.668	0.644	0.666
AMD012	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.0762	pCi/sample	U	0.481	0.286	0.286
AMD012	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.99	pCi/sample		0.449	0.813	0.868
AMD012	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	1.49	pCi/sample	U	19.6	21	21
AMD015	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	-0.4	pCi/sample	U	1.85	1.11	1.13
AMD015	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.517	pCi/sample	U	3.84	2.17	2.18
AMD015	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0245	pCi/sample	U	1.28	0.567	0.568
AMD015	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0428	pCi/sample	U	0.934	0.448	0.448
AMD015	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.517	pCi/sample	U	3.84	2.17	2.18
AMD015	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	-5.27	pCi/sample	U	88.3	51.8	51.8
AMD015	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	1.84	pCi/sample	U	20.2	23.3	23.3
AMD015	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	0.739	pCi/sample	U	1.09	0.766	0.776
AMD015	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.00596	pCi/sample	U	0.982	0.442	0.442
AMD015	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	1.84	pCi/sample	U	20.2	23.3	23.3
AMD015	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1	pCi/sample		0.934	0.8	0.813
AMD015	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	-0.29	pCi/sample	U	2.15	1.28	1.29
AMD015	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	-0.0163	pCi/sample	U	3.54	2.14	2.14
AMD015	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0584	pCi/sample	U	1.58	0.701	0.701
AMD015	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0518	pCi/sample	U	1.26	0.591	0.591
AMD015	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	-0.0163	pCi/sample	U	3.54	2.14	2.14
AMD015	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	0.0317	pCi/sample	U	41	24	24
AMD015	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	21.9	38.2	38.5
AMD015	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	0.286	pCi/sample	U	1.08	0.638	0.641
AMD015	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	0.102	pCi/sample	U	1.09	0.569	0.57
AMD015	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	21.9	38.2	38.5
AMD015	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	1.52	pCi/sample		0.883	1.04	1.07
AMD015	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	-0.211	pCi/sample	U	2.51	1.55	1.55
AMD015	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	0.298	pCi/sample	U	3.91	2.17	2.17
AMD015	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	0.441	pCi/sample	U	0.948	0.693	0.699
AMD015	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.056	pCi/sample	U	1.22	0.506	0.507
AMD015	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	0.298	pCi/sample	U	3.91	2.17	2.17
AMD015	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-42.4	pCi/sample	U	82.9	46.5	46.5
AMD015	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	10.3	pCi/sample	U	25.1	42.8	42.8
AMD015	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	0.752	pCi/sample		0.621	0.643	0.659
AMD015	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.0745	pCi/sample	U	0.775	0.404	0.405
AMD015	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.62	pCi/sample		0.348	0.88	0.925
AMD015	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	10.3	pCi/sample	U	25.1	42.8	42.8
AMD015	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	0.0531	pCi/sample	U	2.97	1.64	1.64
AMD015	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	0.245	pCi/sample	U	4.08	2.38	2.38
AMD015	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	-0.0361	pCi/sample	U	0.416	0.16	0.16
AMD015	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.039	pCi/sample	U	0.416	0.217	0.217
AMD015	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	0.245	pCi/sample	U	4.08	2.38	2.38

U = Value reported is less than the MDA and/or TPU
X = False Positive

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD015	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	24.7	pCi/sample	U	97.2	56.9	56.9
AMD015	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	-34.4	pCi/sample	U	60	47.9	50.9
AMD015	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.1	pCi/sample		0.634	0.612	0.634
AMD015	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.0442	pCi/sample	U	0.471	0.246	0.246
AMD015	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.07	pCi/sample		0.381	0.559	0.579
AMD015	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	-34.4	pCi/sample	U	60	47.9	50.9
AMD57	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.0847	pCi/sample	U	1.75	1.03	1.03
AMD57	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.231	pCi/sample	U	3.58	2.05	2.06
AMD57	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0713	pCi/sample	U	1.2	0.492	0.493
AMD57	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.57	pCi/sample	U	1.88	0.664	0.665
AMD57	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.231	pCi/sample	U	3.58	2.05	2.06
AMD57	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	19.4	pCi/sample	U	90.9	53.8	53.8
AMD57	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-3.99	pCi/sample	U	18	10.9	11.1
AMD57	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.13	pCi/sample		0.895	0.809	0.827
AMD57	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.246	pCi/sample	U	0.671	0.484	0.485
AMD57	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-3.99	pCi/sample	U	18	10.9	11.1
AMD57	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.22	pCi/sample		0.543	0.772	0.79
AMD57	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	0.722	pCi/sample	U	2.26	1.23	1.27
AMD57	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	1.55	pCi/sample	U	3.75	2.19	2.31
AMD57	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	0.00769	pCi/sample	U	1.27	0.57	0.571
AMD57	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	1.04	pCi/sample	U	1.91	1.24	1.26
AMD57	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	1.55	pCi/sample	U	3.75	2.19	2.31
AMD57	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	13.4	pCi/sample	U	37.4	22.2	22.2
AMD57	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	-68.4	pCi/sample	U	31.6	30.9	46.6
AMD57	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.19	pCi/sample		0.758	0.787	0.807
AMD57	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	-0.0329	pCi/sample	U	0.657	0.284	0.284
AMD57	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	1.69	pCi/sample		0.677	0.902	0.931
AMD57	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	-68.4	pCi/sample	U	31.6	30.9	46.6
AMD57	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	-0.756	pCi/sample	U	2.54	1.47	1.51
AMD57	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	0.329	pCi/sample	U	3.97	2.19	2.2
AMD57	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.11	pCi/sample	U	0.91	0.314	0.316
AMD57	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0733	pCi/sample	U	0.827	0.31	0.311
AMD57	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	0.329	pCi/sample	U	3.97	2.19	2.2
AMD57	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	5.61	pCi/sample	U	82	47.6	47.6
AMD57	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	-15.9	pCi/sample	U	47.9	33.9	34.8
AMD57	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	1.03	pCi/sample		0.755	0.73	0.753
AMD57	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.381	pCi/sample	U	0.557	0.521	0.524
AMD57	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	-15.9	pCi/sample	U	47.9	33.9	34.8
AMD57	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.55	pCi/sample		0.579	0.841	0.88
AMD57	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	0.67	pCi/sample	U	2.52	1.45	1.48
AMD57	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	2.91	pCi/sample	U	3.32	3.86	3.86
AMD57	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	-0.0342	pCi/sample	U	0.394	0.151	0.151

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD57	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0712	pCi/sample	U	0.213	0.2	0.2
AMD57	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	2.91	pCi/sample	U	3.32	3.86	3.86
AMD57	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	15.8	pCi/sample	U	91.2	53.1	53.1
AMD57	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	-90.8	pCi/sample	U	56.4	48	66.6
AMD57	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.6	pCi/sample		0.535	0.658	0.695
AMD57	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.0571	pCi/sample	U	0.36	0.214	0.214
AMD57	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.69	pCi/sample		0.426	0.656	0.696
AMD57	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	-90.8	pCi/sample	U	56.4	48	66.6
AMD612	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.717	pCi/sample	U	2.91	1.59	1.62
AMD612	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.124	pCi/sample	U	4.42	2.66	2.66
AMD612	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0256	pCi/sample	U	0.512	0.221	0.221
AMD612	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0597	pCi/sample	U	0.788	0.385	0.386
AMD612	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.124	pCi/sample	U	4.42	2.66	2.66
AMD612	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	-6.35	pCi/sample	U	79.6	46.8	46.8
AMD612	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	1.09	pCi/sample	U	44.1	48.5	48.5
AMD612	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.19	pCi/sample		0.833	0.763	0.782
AMD612	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.119	pCi/sample	U	0.356	0.334	0.334
AMD612	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	1.09	pCi/sample	U	44.1	48.5	48.5
AMD612	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.54	pCi/sample		0.288	0.778	0.804
AMD612	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	0.314	pCi/sample	U	1.82	1.05	1.06
AMD612	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	-0.501	pCi/sample	U	3.58	2.09	2.1
AMD612	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.091	pCi/sample	U	0.772	0.275	0.275
AMD612	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0606	pCi/sample	U	0.699	0.268	0.268
AMD612	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	-0.501	pCi/sample	U	3.58	2.09	2.1
AMD612	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-0.854	pCi/sample	U	35.1	20.6	20.6
AMD612	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	2.51	pCi/sample	U	18.4	10.8	10.8
AMD612	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	0.841	pCi/sample	U	0.88	0.728	0.74
AMD612	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	0	pCi/sample	U	0.431	0.289	0.29
AMD612	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	2.51	pCi/sample	U	18.4	10.8	10.8
AMD612	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	1.69	pCi/sample		0.643	0.916	0.945
AMD612	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	-0.143	pCi/sample	U	1.73	1.03	1.03
AMD612	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	-0.847	pCi/sample	U	3.61	2.13	2.16
AMD612	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	0.114	pCi/sample	U	1.19	0.618	0.62
AMD612	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.184	pCi/sample	U	1.36	0.453	0.456
AMD612	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	-0.847	pCi/sample	U	3.61	2.13	2.16
AMD612	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-11.4	pCi/sample	U	79.3	45.4	45.4
AMD612	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	3.69	pCi/sample	U	18.5	10.8	11
AMD612	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	1.3	pCi/sample		1.02	0.974	1.01
AMD612	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.162	pCi/sample	U	0.775	0.514	0.515
AMD612	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	3.69	pCi/sample	U	18.5	10.8	11
AMD612	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.51	pCi/sample		0.922	1.02	1.06
AMD612	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	1.16	pCi/sample	U	2.69	1.6	1.69

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD612	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	0.295	pCi/sample	U	4	2.22	2.22
AMD612	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	0.0692	pCi/sample	U	0.437	0.26	0.26
AMD612	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0437	pCi/sample	U	0.504	0.193	0.194
AMD612	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	0.295	pCi/sample	U	4	2.22	2.22
AMD612	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	10.3	pCi/sample	U	92.5	53.7	53.7
AMD612	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	38.8	pCi/sample	U	47.6	39	43.6
AMD612	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.52	pCi/sample		0.52	0.683	0.721
AMD612	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.0245	pCi/sample	U	0.535	0.256	0.257
AMD612	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.17	pCi/sample		0.392	0.592	0.616
AMD612	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	38.8	pCi/sample	U	47.6	39	43.6
AMD746S	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.213	pCi/sample	U	2.16	1.19	1.19
AMD746S	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.16	pCi/sample	U	3.46	2.08	2.08
AMD746S	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	0	pCi/sample	U	0.379	0.254	0.255
AMD746S	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0655	pCi/sample	U	0.698	0.364	0.365
AMD746S	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.16	pCi/sample	U	3.46	2.08	2.08
AMD746S	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	11.8	pCi/sample	U	78.9	46.6	46.6
AMD746S	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-58.1	pCi/sample	U	31.4	30.3	42.4
AMD746S	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	0.339	pCi/sample	U	0.893	0.599	0.603
AMD746S	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	-0.045	pCi/sample	U	0.9	0.388	0.389
AMD746S	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-58.1	pCi/sample	U	31.4	30.3	42.4
AMD746S	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.48	pCi/sample		0.728	0.992	1.02
AMD746S	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	-1.36	pCi/sample	U	2.84	1.69	1.8
AMD746S	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	-0.821	pCi/sample	U	4.15	2.37	2.4
AMD746S	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.113	pCi/sample	U	0.773	0.261	0.262
AMD746S	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0563	pCi/sample	U	0.649	0.249	0.249
AMD746S	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	-0.821	pCi/sample	U	4.15	2.37	2.4
AMD746S	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-0.233	pCi/sample	U	34.1	20	20
AMD746S	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	-27.7	pCi/sample	U	59.2	39.6	42
AMD746S	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.13	pCi/sample		0.997	0.845	0.863
AMD746S	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	-0.0349	pCi/sample	U	0.698	0.301	0.302
AMD746S	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	0.796	pCi/sample		0.565	0.658	0.667
AMD746S	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	-27.7	pCi/sample	U	59.2	39.6	42
AMD746S	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	1.06	pCi/sample	U	2.53	1.41	1.49
AMD746S	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	0.133	pCi/sample	U	3.76	2.08	2.09
AMD746S	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.119	pCi/sample	U	0.988	0.341	0.343
AMD746S	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.139	pCi/sample	U	1.03	0.343	0.345
AMD746S	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	0.133	pCi/sample	U	3.76	2.08	2.09
AMD746S	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-12	pCi/sample	U	75.2	43	43
AMD746S	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	-16.3	pCi/sample	U	45.5	32.2	33.2
AMD746S	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	1.54	pCi/sample		1.09	1.05	1.1
AMD746S	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	-0.022	pCi/sample	U	0.771	0.364	0.366
AMD746S	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	-16.3	pCi/sample	U	45.5	32.2	33.2

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD746S	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.51	pCi/sample		0.918	1.01	1.05
AMD746S	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	1.58	pCi/sample	U	2.46	1.3	1.49
AMD746S	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	1.21	pCi/sample	U	3.37	1.96	2.04
AMD746S	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	0.0748	pCi/sample	U	0.357	0.206	0.206
AMD746S	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.147	pCi/sample	U	0.323	0.234	0.234
AMD746S	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	1.21	pCi/sample	U	3.37	1.96	2.04
AMD746S	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	52.3	pCi/sample	U	96.3	57.4	57.6
AMD746S	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	-33	pCi/sample	U	34.3	28.7	33.3
AMD746S	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.46	pCi/sample		0.387	0.572	0.606
AMD746S	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.0683	pCi/sample	U	0.433	0.233	0.233
AMD746S	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	-33	pCi/sample	U	34.3	28.7	33.3
AMD746S	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	0.773	pCi/sample		0.393	0.434	0.446
AMD746U	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	-3	pCi/sample	U	2.93	3.08	3.38
AMD746U	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.729	pCi/sample	U	4.42	2.63	2.65
AMD746U	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	0.116	pCi/sample	U	0.347	0.325	0.325
AMD746U	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0277	pCi/sample	U	0.553	0.239	0.239
AMD746U	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.729	pCi/sample	U	4.42	2.63	2.65
AMD746U	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	61.9	pCi/sample	U	93.5	55.9	56.2
AMD746U	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-34.1	pCi/sample	U	41.9	37.2	41
AMD746U	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	0.745	pCi/sample	U	0.837	0.709	0.72
AMD746U	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0	pCi/sample	U	0.471	0.316	0.317
AMD746U	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.46	pCi/sample		0.703	0.903	0.928
AMD746U	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-34.1	pCi/sample	U	41.9	37.2	41
AMD746U	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	-0.0928	pCi/sample	U	2.5	1.43	1.43
AMD746U	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	2.79	pCi/sample	U	3.79	4.78	4.94
AMD746U	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.162	pCi/sample	U	0.945	0.306	0.307
AMD746U	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.097	pCi/sample	U	0.823	0.293	0.293
AMD746U	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	2.79	pCi/sample	U	3.79	4.78	4.94
AMD746U	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-13.2	pCi/sample	U	34.3	19.9	19.9
AMD746U	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	-23	pCi/sample	U	44.8	36.4	38.2
AMD746U	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.14	pCi/sample	U	1.35	0.985	1
AMD746U	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	0.0837	pCi/sample	U	0.892	0.465	0.466
AMD746U	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	-23	pCi/sample	U	44.8	36.4	38.2
AMD746U	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	0.98	pCi/sample		0.722	0.773	0.786
AMD746U	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	-0.188	pCi/sample	U	1.68	1	1
AMD746U	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	0.558	pCi/sample	U	3.82	2.35	2.36
AMD746U	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0179	pCi/sample	U	0.626	0.296	0.297
AMD746U	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.113	pCi/sample	U	0.7	0.416	0.417
AMD746U	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	0.558	pCi/sample	U	3.82	2.35	2.36
AMD746U	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-14	pCi/sample	U	72.5	41.4	41.4
AMD746U	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	6.54	pCi/sample	U	17.4	9.93	10.5
AMD746U	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	0.861	pCi/sample		0.789	0.704	0.722

U = Value reported is less than the MDA and/or TPU
X = False Positive

Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMD746U	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.0726	pCi/sample	U	0.755	0.394	0.394
AMD746U	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	6.54	pCi/sample	U	17.4	9.93	10.5
AMD746U	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.16	pCi/sample		0.672	0.77	0.796
AMD746U	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	-0.548	pCi/sample	U	1.94	1.23	1.25
AMD746U	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	0.0872	pCi/sample	U	3.85	2.26	2.26
AMD746U	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	0.111	pCi/sample	U	0.433	0.252	0.253
AMD746U	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0469	pCi/sample	U	0.296	0.176	0.176
AMD746U	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	0.0872	pCi/sample	U	3.85	2.26	2.26
AMD746U	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	17.3	pCi/sample	U	89	51.9	51.9
AMD746U	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	-6.63	pCi/sample	U	19.9	21.7	22
AMD746U	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	2.2	pCi/sample		0.518	0.785	0.847
AMD746U	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.105	pCi/sample	U	0.502	0.289	0.29
AMD746U	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	2.24	pCi/sample		0.319	0.772	0.834
AMD746U	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	-6.63	pCi/sample	U	19.9	21.7	22
AMDBCP	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	2.63	pCi/sample	U	3.05	3.07	3.08
AMDBCP	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	-0.319	pCi/sample	U	4.75	2.89	2.89
AMDBCP	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0383	pCi/sample	U	0.765	0.33	0.331
AMDBCP	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0319	pCi/sample	U	1.12	0.478	0.479
AMDBCP	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	-0.319	pCi/sample	U	4.75	2.89	2.89
AMDBCP	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	24.1	pCi/sample	U	96.2	57	57.1
AMDBCP	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-45.8	pCi/sample	U	44.5	42.6	48.5
AMDBCP	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.2	pCi/sample		1.02	0.902	0.922
AMDBCP	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	-0.0389	pCi/sample	U	0.778	0.336	0.337
AMDBCP	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	1.71	pCi/sample		0.865	1.01	1.04
AMDBCP	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-45.8	pCi/sample	U	44.5	42.6	48.5
AMDBCP	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	-0.451	pCi/sample	U	2.1	1.26	1.28
AMDBCP	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	0.876	pCi/sample	U	3.47	2.05	2.09
AMDBCP	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	0.0443	pCi/sample	U	1.07	0.505	0.506
AMDBCP	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.244	pCi/sample	U	0.664	0.479	0.48
AMDBCP	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	0.876	pCi/sample	U	3.47	2.05	2.09
AMDBCP	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-8.91	pCi/sample	U	39.4	23	23
AMDBCP	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	0	pCi/sample	UX	20.5	34	34.3
AMDBCP	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	0.812	pCi/sample	U	1.69	1.06	1.07
AMDBCP	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	0.203	pCi/sample	U	0.61	0.572	0.573
AMDBCP	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	0	pCi/sample	UX	20.5	34	34.3
AMDBCP	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	0.349	pCi/sample	U	1.52	0.838	0.84
AMDBCP	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	0.313	pCi/sample	U	2.21	1.28	1.29
AMDBCP	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	-1.25	pCi/sample	U	3.42	2.12	2.19
AMDBCP	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	0.0999	pCi/sample	U	0.795	0.439	0.44
AMDBCP	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0749	pCi/sample	U	0.845	0.317	0.318
AMDBCP	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	-1.25	pCi/sample	U	3.42	2.12	2.19
AMDBCP	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	4.09	pCi/sample	U	84.7	49.1	49.1

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMDBCP	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	16.4	pCi/sample	U	35.5	38.6	39.5
AMDBCP	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	1.26	pCi/sample		0.954	1.01	1.04
AMDBCP	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	0.346	pCi/sample	U	1.07	0.723	0.727
AMDBCP	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.15	pCi/sample		0.803	0.949	0.979
AMDBCP	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	16.4	pCi/sample	U	35.5	38.6	39.5
AMDBCP	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	2.03	pCi/sample	U	3.5	2.17	2.36
AMDBCP	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	1.85	pCi/sample	U	4.64	2.85	2.97
AMDBCP	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	-0.0291	pCi/sample	U	0.335	0.128	0.129
AMDBCP	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	0.0315	pCi/sample	U	0.335	0.175	0.175
AMDBCP	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	1.85	pCi/sample	U	4.64	2.85	2.97
AMDBCP	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	21	pCi/sample	U	84.2	49.3	49.3
AMDBCP	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	5.31	pCi/sample	U	33.3	59.6	59.6
AMDBCP	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.83	pCi/sample		0.651	0.757	0.804
AMDBCP	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.129	pCi/sample	U	0.47	0.296	0.297
AMDBCP	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	2.8	pCi/sample		0.482	0.886	0.972
AMDBCP	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	5.31	pCi/sample	U	33.3	59.6	59.6
AMDNE	22-Apr-19	Americium-241	HASL 300, 4.5.2.3	0.151	pCi/sample	U	2.26	1.24	1.24
AMDNE	22-Apr-19	Neptunium-237	HASL 300, 4.5.2.3	0.769	pCi/sample	U	3.61	2.14	2.17
AMDNE	22-Apr-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0652	pCi/sample	U	0.752	0.288	0.289
AMDNE	22-Apr-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0.445	pCi/sample	U	0.829	0.608	0.611
AMDNE	22-Apr-19	Protactinium-233	HASL 300, 4.5.2.3	0.769	pCi/sample	U	3.61	2.14	2.17
AMDNE	22-Apr-19	Technetium-99	HASL 300, Tc-02-RC M	47.5	pCi/sample	U	94.5	56.3	56.5
AMDNE	22-Apr-19	Thorium-234	HASL 300, 4.5.2.3	-60.2	pCi/sample	U	32.3	30.7	43.3
AMDNE	22-Apr-19	Uranium-234	HASL 300, U-02-RC M	1.74	pCi/sample		0.968	1.03	1.06
AMDNE	22-Apr-19	Uranium-235	HASL 300, U-02-RC M	0.0838	pCi/sample	U	0.893	0.466	0.466
AMDNE	22-Apr-19	Uranium-238	HASL 300, U-02-RC M	0.981	pCi/sample		0.722	0.774	0.787
AMDNE	22-Apr-19	Uranium-238	HASL 300, 4.5.2.3	-60.2	pCi/sample	U	32.3	30.7	43.3
AMDNE	16-Jul-19	Americium-241	HASL 300, 4.5.2.3	0.924	pCi/sample	U	2.64	1.48	1.54
AMDNE	16-Jul-19	Neptunium-237	HASL 300, 4.5.2.3	2.14	pCi/sample	U	3.98	2.13	2.35
AMDNE	16-Jul-19	Plutonium-238	HASL 300, Pu-11-RC M	0.0321	pCi/sample	U	0.7	0.335	0.336
AMDNE	16-Jul-19	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.247	pCi/sample	U	0.959	0.282	0.282
AMDNE	16-Jul-19	Protactinium-233	HASL 300, 4.5.2.3	2.14	pCi/sample	U	3.98	2.13	2.35
AMDNE	16-Jul-19	Technetium-99	HASL 300, Tc-02-RC M	-11.9	pCi/sample	U	37.8	22	22
AMDNE	16-Jul-19	Thorium-234	HASL 300, 4.5.2.3	-17.1	pCi/sample	U	45.7	37.4	38.3
AMDNE	16-Jul-19	Uranium-234	HASL 300, U-02-RC M	1.35	pCi/sample		1.34	1.09	1.11
AMDNE	16-Jul-19	Uranium-235	HASL 300, U-02-RC M	-0.0466	pCi/sample	U	0.931	0.402	0.403
AMDNE	16-Jul-19	Uranium-238	HASL 300, U-02-RC M	0.754	pCi/sample	U	1.1	0.835	0.843
AMDNE	16-Jul-19	Uranium-238	HASL 300, 4.5.2.3	-17.1	pCi/sample	U	45.7	37.4	38.3
AMDNE	18-Oct-19	Americium-241	HASL 300, 4.5.2.3	0.214	pCi/sample	U	1.79	1.04	1.05
AMDNE	18-Oct-19	Neptunium-237	HASL 300, 4.5.2.3	-0.618	pCi/sample	U	3.64	2.13	2.15
AMDNE	18-Oct-19	Plutonium-238	HASL 300, Pu-11-RC M	-0.0198	pCi/sample	U	0.696	0.329	0.33
AMDNE	18-Oct-19	Plutonium-239/240	HASL 300, Pu-11-RC M	0	pCi/sample	U	0.496	0.326	0.328

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Table A.2. Ambient Air Data (Continued)

STA_NAME	D_COLLECTED	CHEMICAL_NAME	ANA_METHOD	RESULTS	UNITS	RSLTQUAL	DETECT_LIMIT	RAD_ERR	TPU
AMDNE	18-Oct-19	Protactinium-233	HASL 300, 4.5.2.3	-0.618	pCi/sample	U	3.64	2.13	2.15
AMDNE	18-Oct-19	Technetium-99	HASL 300, Tc-02-RC M	-10.7	pCi/sample	U	82.7	47.5	47.5
AMDNE	18-Oct-19	Thorium-234	HASL 300, 4.5.2.3	12.6	pCi/sample	U	18.3	13.2	13.5
AMDNE	18-Oct-19	Uranium-234	HASL 300, U-02-RC M	2.12	pCi/sample		0.933	1.18	1.26
AMDNE	18-Oct-19	Uranium-235	HASL 300, U-02-RC M	-0.0223	pCi/sample	U	0.782	0.37	0.372
AMDNE	18-Oct-19	Uranium-238	HASL 300, 4.5.2.3	12.6	pCi/sample	U	18.3	13.2	13.5
AMDNE	18-Oct-19	Uranium-238	HASL 300, U-02-RC M	1.58	pCi/sample		0.814	1.02	1.07
AMDNE	16-Jan-20	Americium-241	HASL 300, 4.5.2.3	0.589	pCi/sample	U	2.56	1.54	1.57
AMDNE	16-Jan-20	Neptunium-237	HASL 300, 4.5.2.3	-1.2	pCi/sample	U	3.73	2.12	2.19
AMDNE	16-Jan-20	Plutonium-238	HASL 300, Pu-11-RC M	0.0326	pCi/sample	U	0.347	0.181	0.181
AMDNE	16-Jan-20	Plutonium-239/240	HASL 300, Pu-11-RC M	-0.0602	pCi/sample	U	0.413	0.139	0.14
AMDNE	16-Jan-20	Protactinium-233	HASL 300, 4.5.2.3	-1.2	pCi/sample	U	3.73	2.12	2.19
AMDNE	16-Jan-20	Technetium-99	HASL 300, Tc-02-RC M	12	pCi/sample	U	84	48.8	48.8
AMDNE	16-Jan-20	Thorium-234	HASL 300, 4.5.2.3	37.5	pCi/sample	U	46	44.3	48.2
AMDNE	16-Jan-20	Uranium-234	HASL 300, U-02-RC M	1.76	pCi/sample		0.53	0.761	0.809
AMDNE	16-Jan-20	Uranium-235	HASL 300, U-02-RC M	0.168	pCi/sample	U	0.459	0.331	0.332
AMDNE	16-Jan-20	Uranium-238	HASL 300, U-02-RC M	1.45	pCi/sample		0.371	0.681	0.715
AMDNE	16-Jan-20	Uranium-238	HASL 300, 4.5.2.3	37.5	pCi/sample	U	46	44.3	48.2

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Table A.3. Weekly Flow Data

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
1	20126	Flow-total	AMD002	ft^3	03-Jan-19	W01AMD0022-19
1	19990	Flow-total	AMD002	ft^3	10-Jan-19	W02AMD0022-19
1	18164	Flow-total	AMD002	ft^3	17-Jan-19	W03AMD0022-19
1	14953	Flow-total	AMD002	ft^3	24-Jan-19	W04AMD0022-19
1	19762	Flow-total	AMD002	ft^3	31-Jan-19	W05AMD0022-19
1	20292	Flow-total	AMD002	ft^3	07-Feb-19	W06AMD0022-19
1	19574	Flow-total	AMD002	ft^3	14-Feb-19	W07AMD0022-19
1	20086	Flow-total	AMD002	ft^3	21-Feb-19	W08AMD0022-19
1	20133	Flow-total	AMD002	ft^3	28-Feb-19	W09AMD0022-19
1	20226	Flow-total	AMD002	ft^3	07-Mar-19	W10AMD0022-19
1	20357	Flow-total	AMD002	ft^3	14-Mar-19	W11AMD0022-19
1	19601	Flow-total	AMD002	ft^3	21-Mar-19	W12AMD0022-19
1	20135	Flow-total	AMD002	ft^3	28-Mar-19	W13AMD0022-19
1	20112	Flow-total	AMD012	ft^3	03-Jan-19	W01AMD0122-19
1	19969	Flow-total	AMD012	ft^3	10-Jan-19	W02AMD0122-19
1	20784	Flow-total	AMD012	ft^3	17-Jan-19	W03AMD0122-19
1	20075	Flow-total	AMD012	ft^3	24-Jan-19	W04AMD0122-19
1	19801	Flow-total	AMD012	ft^3	31-Jan-19	W05AMD0122-19
1	20249	Flow-total	AMD012	ft^3	07-Feb-19	W06AMD0122-19
1	19632	Flow-total	AMD012	ft^3	14-Feb-19	W07AMD0122-19
1	20078	Flow-total	AMD012	ft^3	21-Feb-19	W08AMD0122-19
1	20128	Flow-total	AMD012	ft^3	28-Feb-19	W09AMD0122-19
1	20199	Flow-total	AMD012	ft^3	07-Mar-19	W10AMD0122-19
1	20370	Flow-total	AMD012	ft^3	14-Mar-19	W11AMD0122-19
1	19577	Flow-total	AMD012	ft^3	21-Mar-19	W12AMD0122-19
1	20119	Flow-total	AMD012	ft^3	28-Mar-19	W13AMD0122-19
1	20161	Flow-total	AMD015	ft^3	03-Jan-19	W01AMD0152-19
1	20055	Flow-total	AMD015	ft^3	10-Jan-19	W02AMD0152-19
1	20672	Flow-total	AMD015	ft^3	17-Jan-19	W03AMD0152-19
1	20069	Flow-total	AMD015	ft^3	24-Jan-19	W04AMD0152-19
1	19913	Flow-total	AMD015	ft^3	31-Jan-19	W05AMD0152-19
1	20281	Flow-total	AMD015	ft^3	07-Feb-19	W06AMD0152-19
1	19573	Flow-total	AMD015	ft^3	14-Feb-19	W07AMD0152-19
1	20114	Flow-total	AMD015	ft^3	21-Feb-19	W08AMD0152-19
1	20121	Flow-total	AMD015	ft^3	28-Feb-19	W09AMD0152-19
1	20212	Flow-total	AMD015	ft^3	07-Mar-19	W10AMD0152-19
1	20363	Flow-total	AMD015	ft^3	14-Mar-19	W11AMD0152-19
1	19582	Flow-total	AMD015	ft^3	21-Mar-19	W12AMD0152-19
1	20117	Flow-total	AMD015	ft^3	28-Mar-19	W13AMD0152-19
1	20168	Flow-total	AMD57	ft^3	03-Jan-19	W01AMD572-19
1	20169	Flow-total	AMD57	ft^3	10-Jan-19	W02AMD572-19
1	20562	Flow-total	AMD57	ft^3	17-Jan-19	W03AMD572-19
1	20081	Flow-total	AMD57	ft^3	24-Jan-19	W04AMD572-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
1	19913	Flow-total	AMD57	ft^3	31-Jan-19	W05AMD572-19
1	20279	Flow-total	AMD57	ft^3	07-Feb-19	W06AMD572-19
1	19619	Flow-total	AMD57	ft^3	14-Feb-19	W07AMD572-19
1	20081	Flow-total	AMD57	ft^3	21-Feb-19	W08AMD572-19
1	20129	Flow-total	AMD57	ft^3	28-Feb-19	W09AMD572-19
1	20213	Flow-total	AMD57	ft^3	07-Mar-19	W10AMD572-19
1	20360	Flow-total	AMD57	ft^3	14-Mar-19	W11AMD572-19
1	19588	Flow-total	AMD57	ft^3	21-Mar-19	W12AMD572-19
1	20122	Flow-total	AMD57	ft^3	28-Mar-19	W13AMD572-19
1	20120	Flow-total	AMD612	ft^3	03-Jan-19	W01AMD6122-19
1	20103	Flow-total	AMD612	ft^3	10-Jan-19	W02AMD6122-19
1	20675	Flow-total	AMD612	ft^3	17-Jan-19	W03AMD6122-19
1	20073	Flow-total	AMD612	ft^3	24-Jan-19	W04AMD6122-19
1	19913	Flow-total	AMD612	ft^3	31-Jan-19	W05AMD6122-19
1	20285	Flow-total	AMD612	ft^3	07-Feb-19	W06AMD6122-19
1	19537	Flow-total	AMD612	ft^3	14-Feb-19	W07AMD6122-19
1	20161	Flow-total	AMD612	ft^3	21-Feb-19	W08AMD6122-19
1	20123	Flow-total	AMD612	ft^3	28-Feb-19	W09AMD6122-19
1	20212	Flow-total	AMD612	ft^3	07-Mar-19	W10AMD6122-19
1	20362	Flow-total	AMD612	ft^3	14-Mar-19	W11AMD6122-19
1	19584	Flow-total	AMD612	ft^3	21-Mar-19	W12AMD6122-19
1	20118	Flow-total	AMD612	ft^3	28-Mar-19	W13AMD6122-19
1	20162	Flow-total	AMD746S	ft^3	03-Jan-19	W01AMD746S2-19
1	20236	Flow-total	AMD746S	ft^3	10-Jan-19	W02AMD746S2-19
1	20617	Flow-total	AMD746S	ft^3	17-Jan-19	W03AMD746S2-19
1	20163	Flow-total	AMD746S	ft^3	24-Jan-19	W04AMD746S2-19
1	20158	Flow-total	AMD746S	ft^3	31-Jan-19	W05AMD746S2-19
1	20159	Flow-total	AMD746S	ft^3	07-Feb-19	W06AMD746S2-19
1	19750	Flow-total	AMD746S	ft^3	14-Feb-19	W07AMD746S2-19
1	20061	Flow-total	AMD746S	ft^3	21-Feb-19	W08AMD746S2-19
1	20198	Flow-total	AMD746S	ft^3	28-Feb-19	W09AMD746S2-19
1	20298	Flow-total	AMD746S	ft^3	07-Mar-19	W10AMD746S2-19
1	20380	Flow-total	AMD746S	ft^3	14-Mar-19	W11AMD746S2-19
1	19588	Flow-total	AMD746S	ft^3	21-Mar-19	W12AMD746S2-19
1	20299	Flow-total	AMD746S	ft^3	28-Mar-19	W13AMD746S2-19
1	19529	Flow-total	AMD746U	ft^3	03-Jan-19	W01AMD746U2-19
1	20202	Flow-total	AMD746U	ft^3	10-Jan-19	W02AMD746U2-19
1	18208	Flow-total	AMD746U	ft^3	17-Jan-19	W03AMD746U2-19
1	15946	Flow-total	AMD746U	ft^3	24-Jan-19	W04AMD746U2-19
1	20099	Flow-total	AMD746U	ft^3	31-Jan-19	W05AMD746U2-19
1	19774	Flow-total	AMD746U	ft^3	07-Feb-19	W06AMD746U2-19
1	18973	Flow-total	AMD746U	ft^3	14-Feb-19	W07AMD746U2-19
1	20002	Flow-total	AMD746U	ft^3	21-Feb-19	W08AMD746U2-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
1	20140	Flow-total	AMD746U	ft^3	28-Feb-19	W09AMD746U2-19
1	20237	Flow-total	AMD746U	ft^3	07-Mar-19	W10AMD746U2-19
1	20312	Flow-total	AMD746U	ft^3	14-Mar-19	W11AMD746U2-19
1	19526	Flow-total	AMD746U	ft^3	21-Mar-19	W12AMD746U2-19
1	5659	Flow-total	AMD746U	ft^3	28-Mar-19	W13AMD746U2-19
1	20164	Flow-total	AMDBCP	ft^3	03-Jan-19	W01AMDBCP2-19
1	20171	Flow-total	AMDBCP	ft^3	10-Jan-19	W02AMDBCP2-19
1	20563	Flow-total	AMDBCP	ft^3	17-Jan-19	W03AMDBCP2-19
1	20087	Flow-total	AMDBCP	ft^3	24-Jan-19	W04AMDBCP2-19
1	20264	Flow-total	AMDBCP	ft^3	31-Jan-19	W05AMDBCP2-19
1	19954	Flow-total	AMDBCP	ft^3	07-Feb-19	W06AMDBCP2-19
1	19694	Flow-total	AMDBCP	ft^3	14-Feb-19	W07AMDBCP2-19
1	20011	Flow-total	AMDBCP	ft^3	21-Feb-19	W08AMDBCP2-19
1	20134	Flow-total	AMDBCP	ft^3	28-Feb-19	W09AMDBCP2-19
1	20021	Flow-total	AMDBCP	ft^3	07-Mar-19	W10AMDBCP2-19
1	20247	Flow-total	AMDBCP	ft^3	14-Mar-19	W11AMDBCP2-19
1	19726	Flow-total	AMDBCP	ft^3	21-Mar-19	W12AMDBCP2-19
1	20127	Flow-total	AMDBCP	ft^3	28-Mar-19	W13AMDBCP2-19
1	20160	Flow-total	AMDNE	ft^3	03-Jan-19	W01AMDNE2-19
1	20192	Flow-total	AMDNE	ft^3	10-Jan-19	W02AMDNE2-19
1	20543	Flow-total	AMDNE	ft^3	17-Jan-19	W03AMDNE2-19
1	20056	Flow-total	AMDNE	ft^3	24-Jan-19	W04AMDNE2-19
1	20148	Flow-total	AMDNE	ft^3	31-Jan-19	W05AMDNE2-19
1	20057	Flow-total	AMDNE	ft^3	07-Feb-19	W06AMDNE2-19
1	19683	Flow-total	AMDNE	ft^3	14-Feb-19	W07AMDNE2-19
1	20006	Flow-total	AMDNE	ft^3	21-Feb-19	W08AMDNE2-19
1	20182	Flow-total	AMDNE	ft^3	28-Feb-19	W09AMDNE2-19
1	5979	Flow-total	AMDNE	ft^3	07-Mar-19	W10AMDNE2-19
1	20378	Flow-total	AMDNE	ft^3	14-Mar-19	W11AMDNE2-19
1	19532	Flow-total	AMDNE	ft^3	21-Mar-19	W12AMDNE2-19
1	20182	Flow-total	AMDNE	ft^3	28-Mar-19	W13AMDNE2-19
2	19425	Flow-total	AMD002	ft^3	04-Apr-19	W01AMD0023-19
2	20116	Flow-total	AMD002	ft^3	11-Apr-19	W02AMD0023-19
2	17219	Flow-total	AMD002	ft^3	17-Apr-19	W03AMD0023-19
2	22994	Flow-total	AMD002	ft^3	25-Apr-19	W04AMD0023-19
2	20649	Flow-total	AMD002	ft^3	02-May-19	W05AMD0023-19
2	17613	Flow-total	AMD002	ft^3	08-May-19	W06AMD0023-19
2	22075	Flow-total	AMD002	ft^3	16-May-19	W07AMD0023-19
2	20078	Flow-total	AMD002	ft^3	23-May-19	W08AMD0023-19
2	20633	Flow-total	AMD002	ft^3	30-May-19	W09AMD0023-19
2	19579	Flow-total	AMD002	ft^3	06-Jun-19	W10AMD0023-19
2	20140	Flow-total	AMD002	ft^3	13-Jun-19	W11AMD0023-19
2	20134	Flow-total	AMD002	ft^3	20-Jun-19	W12AMD0023-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
2	20039	Flow-total	AMD002	ft^3	27-Jun-19	W13AMD0023-19
2	17616	Flow-total	AMD012	ft^3	04-Apr-19	W01AMD0123-19
2	20111	Flow-total	AMD012	ft^3	11-Apr-19	W02AMD0123-19
2	17215	Flow-total	AMD012	ft^3	17-Apr-19	W03AMD0123-19
2	22985	Flow-total	AMD012	ft^3	25-Apr-19	W04AMD0123-19
2	20642	Flow-total	AMD012	ft^3	02-May-19	W05AMD0123-19
2	17604	Flow-total	AMD012	ft^3	08-May-19	W06AMD0123-19
2	22067	Flow-total	AMD012	ft^3	16-May-19	W07AMD0123-19
2	20075	Flow-total	AMD012	ft^3	23-May-19	W08AMD0123-19
2	20624	Flow-total	AMD012	ft^3	30-May-19	W09AMD0123-19
2	19574	Flow-total	AMD012	ft^3	06-Jun-19	W10AMD0123-19
2	20132	Flow-total	AMD012	ft^3	13-Jun-19	W11AMD0123-19
2	20116	Flow-total	AMD012	ft^3	20-Jun-19	W12AMD0123-19
2	20088	Flow-total	AMD012	ft^3	27-Jun-19	W13AMD0123-19
2	17930	Flow-total	AMD015	ft^3	04-Apr-19	W01AMD0153-19
2	20104	Flow-total	AMD015	ft^3	11-Apr-19	W02AMD0153-19
2	17215	Flow-total	AMD015	ft^3	17-Apr-19	W03AMD0153-19
2	23001	Flow-total	AMD015	ft^3	25-Apr-19	W04AMD0153-19
2	18735	Flow-total	AMD015	ft^3	02-May-19	W05AMD0153-19
2	17569	Flow-total	AMD015	ft^3	08-May-19	W06AMD0153-19
2	22097	Flow-total	AMD015	ft^3	16-May-19	W07AMD0153-19
2	22365	Flow-total	AMD015	ft^3	23-May-19	W08AMD0153-19
2	22406	Flow-total	AMD015	ft^3	30-May-19	W09AMD0153-19
2	21539	Flow-total	AMD015	ft^3	06-Jun-19	W10AMD0153-19
2	22084	Flow-total	AMD015	ft^3	13-Jun-19	W11AMD0153-19
2	22185	Flow-total	AMD015	ft^3	20-Jun-19	W12AMD0153-19
2	19954	Flow-total	AMD015	ft^3	27-Jun-19	W13AMD0153-19
2	16393	Flow-total	AMD57	ft^3	04-Apr-19	W01AMD573-19
2	20110	Flow-total	AMD57	ft^3	11-Apr-19	W02AMD573-19
2	17220	Flow-total	AMD57	ft^3	17-Apr-19	W03AMD573-19
2	22988	Flow-total	AMD57	ft^3	25-Apr-19	W04AMD573-19
2	20441	Flow-total	AMD57	ft^3	02-May-19	W05AMD573-19
2	17604	Flow-total	AMD57	ft^3	08-May-19	W06AMD573-19
2	22077	Flow-total	AMD57	ft^3	16-May-19	W07AMD573-19
2	20079	Flow-total	AMD57	ft^3	23-May-19	W08AMD573-19
2	20625	Flow-total	AMD57	ft^3	30-May-19	W09AMD573-19
2	19575	Flow-total	AMD57	ft^3	06-Jun-19	W10AMD573-19
2	20133	Flow-total	AMD57	ft^3	13-Jun-19	W11AMD573-19
2	21119	Flow-total	AMD57	ft^3	20-Jun-19	W12AMD573-19
2	21048	Flow-total	AMD57	ft^3	27-Jun-19	W13AMD573-19
2	20080	Flow-total	AMD612	ft^3	04-Apr-19	W01AMD6123-19
2	20116	Flow-total	AMD612	ft^3	11-Apr-19	W02AMD6123-19
2	17222	Flow-total	AMD612	ft^3	17-Apr-19	W03AMD6123-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
2	23006	Flow-total	AMD612	ft^3	25-Apr-19	W04AMD6123-19
2	20642	Flow-total	AMD612	ft^3	02-May-19	W05AMD6123-19
2	17337	Flow-total	AMD612	ft^3	08-May-19	W06AMD6123-19
2	22131	Flow-total	AMD612	ft^3	16-May-19	W07AMD6123-19
2	20366	Flow-total	AMD612	ft^3	23-May-19	W08AMD6123-19
2	20341	Flow-total	AMD612	ft^3	30-May-19	W09AMD6123-19
2	19580	Flow-total	AMD612	ft^3	06-Jun-19	W10AMD6123-19
2	20080	Flow-total	AMD612	ft^3	13-Jun-19	W11AMD6123-19
2	20169	Flow-total	AMD612	ft^3	20-Jun-19	W12AMD6123-19
2	20045	Flow-total	AMD612	ft^3	27-Jun-19	W13AMD6123-19
2	20091	Flow-total	AMD746S	ft^3	04-Apr-19	W01AMD746S3-19
2	20261	Flow-total	AMD746S	ft^3	11-Apr-19	W02AMD746S3-19
2	17114	Flow-total	AMD746S	ft^3	17-Apr-19	W03AMD746S3-19
2	23058	Flow-total	AMD746S	ft^3	25-Apr-19	W04AMD746S3-19
2	20636	Flow-total	AMD746S	ft^3	02-May-19	W05AMD746S3-19
2	17322	Flow-total	AMD746S	ft^3	08-May-19	W06AMD746S3-19
2	22604	Flow-total	AMD746S	ft^3	16-May-19	W07AMD746S3-19
2	19942	Flow-total	AMD746S	ft^3	23-May-19	W08AMD746S3-19
2	20665	Flow-total	AMD746S	ft^3	30-May-19	W09AMD746S3-19
2	19498	Flow-total	AMD746S	ft^3	06-Jun-19	W10AMD746S3-19
2	20172	Flow-total	AMD746S	ft^3	13-Jun-19	W11AMD746S3-19
2	20172	Flow-total	AMD746S	ft^3	20-Jun-19	W12AMD746S3-19
2	19957	Flow-total	AMD746S	ft^3	27-Jun-19	W13AMD746S3-19
2	20005	Flow-total	AMD746U	ft^3	04-Apr-19	W01AMD746U3-19
2	20220	Flow-total	AMD746U	ft^3	11-Apr-19	W02AMD746U3-19
2	17071	Flow-total	AMD746U	ft^3	17-Apr-19	W03AMD746U3-19
2	22985	Flow-total	AMD746U	ft^3	25-Apr-19	W04AMD746U3-19
2	20638	Flow-total	AMD746U	ft^3	02-May-19	W05AMD746U3-19
2	17302	Flow-total	AMD746U	ft^3	08-May-19	W06AMD746U3-19
2	22441	Flow-total	AMD746U	ft^3	16-May-19	W07AMD746U3-19
2	20012	Flow-total	AMD746U	ft^3	23-May-19	W08AMD746U3-19
2	20678	Flow-total	AMD746U	ft^3	30-May-19	W09AMD746U3-19
2	19493	Flow-total	AMD746U	ft^3	06-Jun-19	W10AMD746U3-19
2	20174	Flow-total	AMD746U	ft^3	13-Jun-19	W11AMD746U3-19
2	20155	Flow-total	AMD746U	ft^3	20-Jun-19	W12AMD746U3-19
2	19969	Flow-total	AMD746U	ft^3	27-Jun-19	W13AMD746U3-19
2	18372	Flow-total	AMDBCP	ft^3	04-Apr-19	W01AMDBCP3-19
2	20033	Flow-total	AMDBCP	ft^3	11-Apr-19	W02AMDBCP3-19
2	17277	Flow-total	AMDBCP	ft^3	17-Apr-19	W03AMDBCP3-19
2	23054	Flow-total	AMDBCP	ft^3	25-Apr-19	W04AMDBCP3-19
2	20687	Flow-total	AMDBCP	ft^3	02-May-19	W05AMDBCP3-19
2	17603	Flow-total	AMDBCP	ft^3	08-May-19	W06AMDBCP3-19
2	22123	Flow-total	AMDBCP	ft^3	16-May-19	W07AMDBCP3-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
2	20267	Flow-total	AMDBCP	ft^3	23-May-19	W08AMDBCP3-19
2	20543	Flow-total	AMDBCP	ft^3	30-May-19	W09AMDBCP3-19
2	19735	Flow-total	AMDBCP	ft^3	06-Jun-19	W10AMDBCP3-19
2	20197	Flow-total	AMDBCP	ft^3	13-Jun-19	W11AMDBCP3-19
2	20074	Flow-total	AMDBCP	ft^3	20-Jun-19	W12AMDBCP3-19
2	20160	Flow-total	AMDBCP	ft^3	27-Jun-19	W13AMDBCP3-19
2	20092	Flow-total	AMDNE	ft^3	04-Apr-19	W01AMDNE3-19
2	20151	Flow-total	AMDNE	ft^3	11-Apr-19	W02AMDNE3-19
2	17120	Flow-total	AMDNE	ft^3	17-Apr-19	W03AMDNE3-19
2	22992	Flow-total	AMDNE	ft^3	25-Apr-19	W04AMDNE3-19
2	20595	Flow-total	AMDNE	ft^3	02-May-19	W05AMDNE3-19
2	17344	Flow-total	AMDNE	ft^3	08-May-19	W06AMDNE3-19
2	22528	Flow-total	AMDNE	ft^3	16-May-19	W07AMDNE3-19
2	19895	Flow-total	AMDNE	ft^3	23-May-19	W08AMDNE3-19
2	20666	Flow-total	AMDNE	ft^3	30-May-19	W09AMDNE3-19
2	19580	Flow-total	AMDNE	ft^3	06-Jun-19	W10AMDNE3-19
2	20143	Flow-total	AMDNE	ft^3	13-Jun-19	W11AMDNE3-19
2	20174	Flow-total	AMDNE	ft^3	20-Jun-19	W12AMDNE3-19
2	19983	Flow-total	AMDNE	ft^3	27-Jun-19	W13AMDNE3-19
3	14410	Flow-total	AMD002	ft^3	02-Jul-19	W01AMD0024-19
3	25834	Flow-total	AMD002	ft^3	11-Jul-19	W02AMD0024-19
3	20378	Flow-total	AMD002	ft^3	18-Jul-19	W03AMD0024-19
3	19743	Flow-total	AMD002	ft^3	25-Jul-19	W04AMD0024-19
3	20254	Flow-total	AMD002	ft^3	01-Aug-19	W05AMD0024-19
3	20098	Flow-total	AMD002	ft^3	08-Aug-19	W06AMD0024-19
3	20629	Flow-total	AMD002	ft^3	15-Aug-19	W07AMD0024-19
3	19824	Flow-total	AMD002	ft^3	22-Aug-19	W08AMD0024-19
3	20489	Flow-total	AMD002	ft^3	29-Aug-19	W09AMD0024-19
3	19554	Flow-total	AMD002	ft^3	05-Sep-19	W10AMD0024-19
3	19992	Flow-total	AMD002	ft^3	12-Sep-19	W11AMD0024-19
3	20358	Flow-total	AMD002	ft^3	19-Sep-19	W12AMD0024-19
3	19800	Flow-total	AMD002	ft^3	26-Sep-19	W13AMD0024-19
3	14443	Flow-total	AMD012	ft^3	02-Jul-19	W01AMD0124-19
3	25898	Flow-total	AMD012	ft^3	11-Jul-19	W02AMD0124-19
3	20428	Flow-total	AMD012	ft^3	18-Jul-19	W03AMD0124-19
3	19796	Flow-total	AMD012	ft^3	25-Jul-19	W04AMD0124-19
3	20302	Flow-total	AMD012	ft^3	01-Aug-19	W05AMD0124-19
3	20137	Flow-total	AMD012	ft^3	08-Aug-19	W06AMD0124-19
3	20683	Flow-total	AMD012	ft^3	15-Aug-19	W07AMD0124-19
3	19873	Flow-total	AMD012	ft^3	22-Aug-19	W08AMD0124-19
3	20546	Flow-total	AMD012	ft^3	29-Aug-19	W09AMD0124-19
3	19550	Flow-total	AMD012	ft^3	05-Sep-19	W10AMD0124-19
3	20095	Flow-total	AMD012	ft^3	12-Sep-19	W11AMD0124-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
3	20406	Flow-total	AMD012	ft^3	19-Sep-19	W12AMD0124-19
3	19854	Flow-total	AMD012	ft^3	26-Sep-19	W13AMD0124-19
3	15856	Flow-total	AMD015	ft^3	02-Jul-19	W01AMD0154-19
3	28404	Flow-total	AMD015	ft^3	11-Jul-19	W02AMD0154-19
3	22413	Flow-total	AMD015	ft^3	18-Jul-19	W03AMD0154-19
3	19662	Flow-total	AMD015	ft^3	25-Jul-19	W04AMD0154-19
3	22252	Flow-total	AMD015	ft^3	01-Aug-19	W05AMD0154-19
3	22057	Flow-total	AMD015	ft^3	08-Aug-19	W06AMD0154-19
3	22750	Flow-total	AMD015	ft^3	15-Aug-19	W07AMD0154-19
3	21803	Flow-total	AMD015	ft^3	22-Aug-19	W08AMD0154-19
3	22541	Flow-total	AMD015	ft^3	29-Aug-19	W09AMD0154-19
3	21438	Flow-total	AMD015	ft^3	05-Sep-19	W10AMD0154-19
3	22046	Flow-total	AMD015	ft^3	12-Sep-19	W11AMD0154-19
3	22384	Flow-total	AMD015	ft^3	19-Sep-19	W12AMD0154-19
3	21781	Flow-total	AMD015	ft^3	26-Sep-19	W13AMD0154-19
3	15130	Flow-total	AMD57	ft^3	02-Jul-19	W01AMD574-19
3	6189	Flow-total	AMD57	ft^3	11-Jul-19	W02AMD574-19
3	20066	Flow-total	AMD57	ft^3	18-Jul-19	W03AMD574-19
3	18833	Flow-total	AMD57	ft^3	25-Jul-19	W04AMD574-19
3	20236	Flow-total	AMD57	ft^3	01-Aug-19	W05AMD574-19
3	18284	Flow-total	AMD57	ft^3	08-Aug-19	W06AMD574-19
3	21657	Flow-total	AMD57	ft^3	15-Aug-19	W07AMD574-19
3	20810	Flow-total	AMD57	ft^3	22-Aug-19	W08AMD574-19
3	21512	Flow-total	AMD57	ft^3	29-Aug-19	W09AMD574-19
3	20462	Flow-total	AMD57	ft^3	05-Sep-19	W10AMD574-19
3	21040	Flow-total	AMD57	ft^3	12-Sep-19	W11AMD574-19
3	21365	Flow-total	AMD57	ft^3	19-Sep-19	W12AMD574-19
3	20784	Flow-total	AMD57	ft^3	26-Sep-19	W13AMD574-19
3	14422	Flow-total	AMD612	ft^3	02-Jul-19	W01AMD6124-19
3	25816	Flow-total	AMD612	ft^3	11-Jul-19	W02AMD6124-19
3	20376	Flow-total	AMD612	ft^3	18-Jul-19	W03AMD6124-19
3	19741	Flow-total	AMD612	ft^3	25-Jul-19	W04AMD6124-19
3	20230	Flow-total	AMD612	ft^3	01-Aug-19	W05AMD6124-19
3	17399	Flow-total	AMD612	ft^3	08-Aug-19	W06AMD6124-19
3	20687	Flow-total	AMD612	ft^3	15-Aug-19	W07AMD6124-19
3	19822	Flow-total	AMD612	ft^3	22-Aug-19	W08AMD6124-19
3	20494	Flow-total	AMD612	ft^3	29-Aug-19	W09AMD6124-19
3	19485	Flow-total	AMD612	ft^3	05-Sep-19	W10AMD6124-19
3	20035	Flow-total	AMD612	ft^3	12-Sep-19	W11AMD6124-19
3	20343	Flow-total	AMD612	ft^3	19-Sep-19	W12AMD6124-19
3	19801	Flow-total	AMD612	ft^3	26-Sep-19	W13AMD6124-19
3	14420	Flow-total	AMD746S	ft^3	02-Jul-19	W01AMD746S4-19
3	25910	Flow-total	AMD746S	ft^3	11-Jul-19	W02AMD746S4-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
3	20255	Flow-total	AMD746S	ft^3	18-Jul-19	W03AMD746S4-19
3	19809	Flow-total	AMD746S	ft^3	25-Jul-19	W04AMD746S4-19
3	20198	Flow-total	AMD746S	ft^3	01-Aug-19	W05AMD746S4-19
3	20089	Flow-total	AMD746S	ft^3	08-Aug-19	W06AMD746S4-19
3	20621	Flow-total	AMD746S	ft^3	15-Aug-19	W07AMD746S4-19
3	19843	Flow-total	AMD746S	ft^3	22-Aug-19	W08AMD746S4-19
3	20447	Flow-total	AMD746S	ft^3	29-Aug-19	W09AMD746S4-19
3	19551	Flow-total	AMD746S	ft^3	05-Sep-19	W10AMD746S4-19
3	19992	Flow-total	AMD746S	ft^3	12-Sep-19	W11AMD746S4-19
3	20412	Flow-total	AMD746S	ft^3	19-Sep-19	W12AMD746S4-19
3	19792	Flow-total	AMD746S	ft^3	26-Sep-19	W13AMD746S4-19
3	14426	Flow-total	AMD746U	ft^3	02-Jul-19	W01AMD746U4-19
3	25910	Flow-total	AMD746U	ft^3	11-Jul-19	W02AMD746U4-19
3	20266	Flow-total	AMD746U	ft^3	18-Jul-19	W03AMD746U4-19
3	19809	Flow-total	AMD746U	ft^3	25-Jul-19	W04AMD746U4-19
3	20193	Flow-total	AMD746U	ft^3	01-Aug-19	W05AMD746U4-19
3	20072	Flow-total	AMD746U	ft^3	08-Aug-19	W06AMD746U4-19
3	68	Flow-total	AMD746U	ft^3	15-Aug-19	W07AMD746U4-19
3	19846	Flow-total	AMD746U	ft^3	22-Aug-19	W08AMD746U4-19
3	20461	Flow-total	AMD746U	ft^3	29-Aug-19	W09AMD746U4-19
3	19570	Flow-total	AMD746U	ft^3	05-Sep-19	W10AMD746U4-19
3	19989	Flow-total	AMD746U	ft^3	12-Sep-19	W11AMD746U4-19
3	20427	Flow-total	AMD746U	ft^3	19-Sep-19	W12AMD746U4-19
3	19800	Flow-total	AMD746U	ft^3	26-Sep-19	W13AMD746U4-19
3	14443	Flow-total	AMDBCP	ft^3	02-Jul-19	W01AMDBCP4-19
3	25835	Flow-total	AMDBCP	ft^3	11-Jul-19	W02AMDBCP4-19
3	20265	Flow-total	AMDBCP	ft^3	18-Jul-19	W03AMDBCP4-19
3	19951	Flow-total	AMDBCP	ft^3	25-Jul-19	W04AMDBCP4-19
3	20552	Flow-total	AMDBCP	ft^3	01-Aug-19	W05AMDBCP4-19
3	19993	Flow-total	AMDBCP	ft^3	08-Aug-19	W06AMDBCP4-19
3	20659	Flow-total	AMDBCP	ft^3	15-Aug-19	W07AMDBCP4-19
3	19899	Flow-total	AMDBCP	ft^3	22-Aug-19	W08AMDBCP4-19
3	20517	Flow-total	AMDBCP	ft^3	29-Aug-19	W09AMDBCP4-19
3	19603	Flow-total	AMDBCP	ft^3	05-Sep-19	W10AMDBCP4-19
3	20044	Flow-total	AMDBCP	ft^3	12-Sep-19	W11AMDBCP4-19
3	20343	Flow-total	AMDBCP	ft^3	19-Sep-19	W12AMDBCP4-19
3	19851	Flow-total	AMDBCP	ft^3	26-Sep-19	W13AMDBCP4-19
3	14373	Flow-total	AMDNE	ft^3	02-Jul-19	W01AMDNE4-19
3	25899	Flow-total	AMDNE	ft^3	11-Jul-19	W02AMDNE4-19
3	20342	Flow-total	AMDNE	ft^3	18-Jul-19	W03AMDNE4-19
3	19975	Flow-total	AMDNE	ft^3	25-Jul-19	W04AMDNE4-19
3	20252	Flow-total	AMDNE	ft^3	01-Aug-19	W05AMDNE4-19
3	20252	Flow-total	AMDNE	ft^3	08-Aug-19	W06AMDNE4-19

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
3	20617	Flow-total	AMDNE	ft^3	15-Aug-19	W07AMDNE4-19
3	19855	Flow-total	AMDNE	ft^3	22-Aug-19	W08AMDNE4-19
3	20457	Flow-total	AMDNE	ft^3	29-Aug-19	W09AMDNE4-19
3	19557	Flow-total	AMDNE	ft^3	05-Sep-19	W10AMDNE4-19
3	19991	Flow-total	AMDNE	ft^3	12-Sep-19	W11AMDNE4-19
3	20420	Flow-total	AMDNE	ft^3	19-Sep-19	W12AMDNE4-19
3	19802	Flow-total	AMDNE	ft^3	26-Sep-19	W13AMDNE4-19
4	20852	Flow-total	AMD002	ft^3	03-Oct-19	W01AMD0021-20
4	19544	Flow-total	AMD002	ft^3	10-Oct-19	W02AMD0021-20
4	20042	Flow-total	AMD002	ft^3	17-Oct-19	W03AMD0021-20
4	20062	Flow-total	AMD002	ft^3	24-Oct-19	W04AMD0021-20
4	20193	Flow-total	AMD002	ft^3	31-Oct-19	W05AMD0021-20
4	22637	Flow-total	AMD002	ft^3	07-Nov-19	W06AMD0021-20
4	21590	Flow-total	AMD002	ft^3	14-Nov-19	W07AMD0021-20
4	22122	Flow-total	AMD002	ft^3	21-Nov-19	W08AMD0021-20
4	14180	Flow-total	AMD002	ft^3	26-Nov-19	W09AMD0021-20
4	25496	Flow-total	AMD002	ft^3	05-Dec-19	W10AMD0021-20
4	20432	Flow-total	AMD002	ft^3	12-Dec-19	W11AMD0021-20
4	18218	Flow-total	AMD002	ft^3	19-Dec-19	W12AMD0021-20
4	20143	Flow-total	AMD002	ft^3	26-Dec-19	W13AMD0021-20
4	20925	Flow-total	AMD012	ft^3	03-Oct-19	W01AMD0121-20
4	19576	Flow-total	AMD012	ft^3	10-Oct-19	W02AMD0121-20
4	20083	Flow-total	AMD012	ft^3	17-Oct-19	W03AMD0121-20
4	20120	Flow-total	AMD012	ft^3	24-Oct-19	W04AMD0121-20
4	20248	Flow-total	AMD012	ft^3	31-Oct-19	W05AMD0121-20
4	20644	Flow-total	AMD012	ft^3	07-Nov-19	W06AMD0121-20
4	19685	Flow-total	AMD012	ft^3	14-Nov-19	W07AMD0121-20
4	20170	Flow-total	AMD012	ft^3	21-Nov-19	W08AMD0121-20
4	14540	Flow-total	AMD012	ft^3	26-Nov-19	W09AMD0121-20
4	25755	Flow-total	AMD012	ft^3	05-Dec-19	W10AMD0121-20
4	20491	Flow-total	AMD012	ft^3	12-Dec-19	W11AMD0121-20
4	19844	Flow-total	AMD012	ft^3	19-Dec-19	W12AMD0121-20
4	20202	Flow-total	AMD012	ft^3	26-Dec-19	W13AMD0121-20
4	22516	Flow-total	AMD015	ft^3	03-Oct-19	W01AMD0151-20
4	21900	Flow-total	AMD015	ft^3	10-Oct-19	W02AMD0151-20
4	21976	Flow-total	AMD015	ft^3	17-Oct-19	W03AMD0151-20
4	22064	Flow-total	AMD015	ft^3	24-Oct-19	W04AMD0151-20
4	22431	Flow-total	AMD015	ft^3	31-Oct-19	W05AMD0151-20
4	20352	Flow-total	AMD015	ft^3	07-Nov-19	W06AMD0151-20
4	19626	Flow-total	AMD015	ft^3	14-Nov-19	W07AMD0151-20
4	20112	Flow-total	AMD015	ft^3	21-Nov-19	W08AMD0151-20
4	14499	Flow-total	AMD015	ft^3	26-Nov-19	W09AMD0151-20
4	25680	Flow-total	AMD015	ft^3	05-Dec-19	W10AMD0151-20

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
4	20380	Flow-total	AMD015	ft^3	12-Dec-19	W11AMD0151-20
4	19839	Flow-total	AMD015	ft^3	19-Dec-19	W12AMD0151-20
4	20121	Flow-total	AMD015	ft^3	26-Dec-19	W13AMD0151-20
4	21928	Flow-total	AMD57	ft^3	03-Oct-19	W01AMD571-20
4	20504	Flow-total	AMD57	ft^3	10-Oct-19	W02AMD571-20
4	20096	Flow-total	AMD57	ft^3	17-Oct-19	W03AMD571-20
4	21064	Flow-total	AMD57	ft^3	24-Oct-19	W04AMD571-20
4	21122	Flow-total	AMD57	ft^3	31-Oct-19	W05AMD571-20
4	20656	Flow-total	AMD57	ft^3	07-Nov-19	W06AMD571-20
4	19625	Flow-total	AMD57	ft^3	14-Nov-19	W07AMD571-20
4	20111	Flow-total	AMD57	ft^3	21-Nov-19	W08AMD571-20
4	13344	Flow-total	AMD57	ft^3	26-Nov-19	W09AMD571-20
4	25680	Flow-total	AMD57	ft^3	05-Dec-19	W10AMD571-20
4	20379	Flow-total	AMD57	ft^3	12-Dec-19	W11AMD571-20
4	19841	Flow-total	AMD57	ft^3	19-Dec-19	W12AMD571-20
4	20146	Flow-total	AMD57	ft^3	26-Dec-19	W13AMD571-20
4	20457	Flow-total	AMD612	ft^3	03-Oct-19	W01AMD6121-20
4	19996	Flow-total	AMD612	ft^3	10-Oct-19	W02AMD6121-20
4	19953	Flow-total	AMD612	ft^3	17-Oct-19	W03AMD6121-20
4	20061	Flow-total	AMD612	ft^3	24-Oct-19	W04AMD6121-20
4	20389	Flow-total	AMD612	ft^3	31-Oct-19	W05AMD6121-20
4	20391	Flow-total	AMD612	ft^3	07-Nov-19	W06AMD6121-20
4	19626	Flow-total	AMD612	ft^3	14-Nov-19	W07AMD6121-20
4	20118	Flow-total	AMD612	ft^3	21-Nov-19	W08AMD6121-20
4	14516	Flow-total	AMD612	ft^3	26-Nov-19	W09AMD6121-20
4	25689	Flow-total	AMD612	ft^3	05-Dec-19	W10AMD6121-20
4	20383	Flow-total	AMD612	ft^3	12-Dec-19	W11AMD6121-20
4	19841	Flow-total	AMD612	ft^3	19-Dec-19	W12AMD6121-20
4	20130	Flow-total	AMD612	ft^3	26-Dec-19	W13AMD6121-20
4	20698	Flow-total	AMD746S	ft^3	03-Oct-19	W01AMD746S1-20
4	19443	Flow-total	AMD746S	ft^3	10-Oct-19	W02AMD746S1-20
4	20314	Flow-total	AMD746S	ft^3	17-Oct-19	W03AMD746S1-20
4	19954	Flow-total	AMD746S	ft^3	24-Oct-19	W04AMD746S1-20
4	20247	Flow-total	AMD746S	ft^3	31-Oct-19	W05AMD746S1-20
4	20600	Flow-total	AMD746S	ft^3	07-Nov-19	W06AMD746S1-20
4	19662	Flow-total	AMD746S	ft^3	14-Nov-19	W07AMD746S1-20
4	20115	Flow-total	AMD746S	ft^3	21-Nov-19	W08AMD746S1-20
4	14405	Flow-total	AMD746S	ft^3	26-Nov-19	W09AMD746S1-20
4	25761	Flow-total	AMD746S	ft^3	05-Dec-19	W10AMD746S1-20
4	20368	Flow-total	AMD746S	ft^3	12-Dec-19	W11AMD746S1-20
4	19784	Flow-total	AMD746S	ft^3	19-Dec-19	W12AMD746S1-20
4	3320	Flow-total	AMD746S	ft^3	26-Dec-19	W13AMD746S1-20
4	20744	Flow-total	AMD746U	ft^3	03-Oct-19	W01AMD746U1-20

Table A.3. Weekly Flow Data (Continued)

QUARTER	RESULTS	CHEMICAL_NAME	STA_NAME	UNITS	D_COLLECTED	PROJ_SAMPLE_ID
4	19446	Flow-total	AMD746U	ft^3	10-Oct-19	W02AMD746U1-20
4	20204	Flow-total	AMD746U	ft^3	17-Oct-19	W03AMD746U1-20
4	19952	Flow-total	AMD746U	ft^3	24-Oct-19	W04AMD746U1-20
4	20174	Flow-total	AMD746U	ft^3	31-Oct-19	W05AMD746U1-20
4	20587	Flow-total	AMD746U	ft^3	07-Nov-19	W06AMD746U1-20
4	19231	Flow-total	AMD746U	ft^3	14-Nov-19	W07AMD746U1-20
4	20135	Flow-total	AMD746U	ft^3	21-Nov-19	W08AMD746U1-20
4	13131	Flow-total	AMD746U	ft^3	26-Nov-19	W09AMD746U1-20
4	24647	Flow-total	AMD746U	ft^3	05-Dec-19	W10AMD746U1-20
4	19150	Flow-total	AMD746U	ft^3	12-Dec-19	W11AMD746U1-20
4	17263	Flow-total	AMD746U	ft^3	19-Dec-19	W12AMD746U1-20
4	20002	Flow-total	AMD746U	ft^3	26-Dec-19	W13AMD746U1-20
4	20769	Flow-total	AMDBCP	ft^3	03-Oct-19	W01AMDBCP1-20
4	19635	Flow-total	AMDBCP	ft^3	10-Oct-19	W02AMDBCP1-20
4	4093	Flow-total	AMDBCP	ft^3	17-Oct-19	W03AMDBCP1-20
4	19960	Flow-total	AMDBCP	ft^3	24-Oct-19	W04AMDBCP1-20
4	20077	Flow-total	AMDBCP	ft^3	31-Oct-19	W05AMDBCP1-20
4	20585	Flow-total	AMDBCP	ft^3	07-Nov-19	W06AMDBCP1-20
4	19668	Flow-total	AMDBCP	ft^3	14-Nov-19	W07AMDBCP1-20
4	20087	Flow-total	AMDBCP	ft^3	21-Nov-19	W08AMDBCP1-20
4	14550	Flow-total	AMDBCP	ft^3	26-Nov-19	W09AMDBCP1-20
4	25266	Flow-total	AMDBCP	ft^3	05-Dec-19	W10AMDBCP1-20
4	20355	Flow-total	AMDBCP	ft^3	12-Dec-19	W11AMDBCP1-20
4	20185	Flow-total	AMDBCP	ft^3	19-Dec-19	W12AMDBCP1-20
4	20005	Flow-total	AMDBCP	ft^3	26-Dec-19	W13AMDBCP1-20
4	20667	Flow-total	AMDNE	ft^3	03-Oct-19	W01AMDNE1-20
4	19509	Flow-total	AMDNE	ft^3	10-Oct-19	W02AMDNE1-20
4	20309	Flow-total	AMDNE	ft^3	17-Oct-19	W03AMDNE1-20
4	19957	Flow-total	AMDNE	ft^3	24-Oct-19	W04AMDNE1-20
4	20245	Flow-total	AMDNE	ft^3	31-Oct-19	W05AMDNE1-20
4	20602	Flow-total	AMDNE	ft^3	07-Nov-19	W06AMDNE1-20
4	19702	Flow-total	AMDNE	ft^3	14-Nov-19	W07AMDNE1-20
4	20029	Flow-total	AMDNE	ft^3	21-Nov-19	W08AMDNE1-20
4	14447	Flow-total	AMDNE	ft^3	26-Nov-19	W09AMDNE1-20
4	25765	Flow-total	AMDNE	ft^3	05-Dec-19	W10AMDNE1-20
4	20325	Flow-total	AMDNE	ft^3	12-Dec-19	W11AMDNE1-20
4	19841	Flow-total	AMDNE	ft^3	19-Dec-19	W12AMDNE1-20
4	20222	Flow-total	AMDNE	ft^3	26-Dec-19	W13AMDNE1-20

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