REVISION 0

ST. LOUIS DOWNTOWN SITE ANNUAL ENVIRONMENTAL MONITORING DATA AND ANALYSIS REPORT FOR CALENDAR YEAR 2014

ST. LOUIS, MISSOURI

JUNE 30, 2015

U.S. Army Corps of Engineers
St. Louis District Office
Formerly Utilized Sites Remedial Action Program

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prepared by:
U.S. Army Corps of Engineers, St. Louis District Office,
Formerly Utilized Sites Remedial Action Program

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ACRONYMS AND ABBREVIATIONS

Both English and metric units are used in this report. The units used in a specific situation are based on common unit usage or regulatory language (e.g., depths are given in feet and meters, and areas are given in square feet and square meters). Acres are given for areas when applicable.

°C	degree(s) Celsius
µCi/mL	microcurie(s) per milliliter
µg/L	microgram(s) per liter
µS/cm	microSiemen(s) per centimeter
AEC	U.S. Atomic Energy Commission
amsl	above mean sea level
ARAR	applicable or relevant and appropriate requirement
ATD	alpha track detector
BTOC	below top of casing
CEDE	committed effective dose equivalent
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
Ci	curie(s)
Ci/yr	curie(s) per year
COC	contaminant of concern
CY	calendar year
DL	detection limit
DO	dissolved oxygen
DOD	U.S. Department of Defense
DOD QSM	*Department of Defense Quality Systems Manual for Environmental Laboratories*
DQO	data quality objective
EDE	effective dose equivalent
ELAP	Environmental Laboratory Accreditation Program
EM	Engineer Manual
EMDAR	Environmental Monitoring Data and Analysis Report
EMG	*Environmental Monitoring Guide for the St. Louis Sites*
EMICY	Environmental Monitoring Implementation for Calendar Year
EMICY14	*Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for Calendar Year 2014*
EMP	Environmental Monitoring Program
ER	Engineer Regulation
ft	foot/feet
ft^2	square foot/feet
FUSRAP	Formerly Utilized Sites Remedial Action Program
GRAAA	ground-water remedial action alternative assessment
HU	hydrostratigraphic unit
ICP	inductively coupled plasma
IL	investigative limit
K	potassium
KPA	kinetic phosphorescence analysis
m	meter(s)
m^2	square meter(s)
m^3	cubic meter(s)

ACRONYMS AND ABBREVIATIONS (Continued)

Mallinckrodt	Mallinckrodt LLC
MARSSIM	*Multi-Agency Radiation Survey and Site Investigation Manual*
MDNR	Missouri Department of Natural Resources
MDA	minimum detectable activity
MDC	minimum detectable concentration
MDL	method detection limit
MED	Manhattan Engineer District
mg/L	milligram(s) per liter
mL	milliliter(s)
mL/min	milliliter(s) per minute
mrem	millirem
mrem/qtr	millirem per quarter
mrem/yr	millirem per year
MSD	Metropolitan St. Louis Sewer District
mSv/yr	millisievert per year
mV	millivolt(s)
NAD	normalized absolute difference
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NRC	U.S. Nuclear Regulatory Commission
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PDI	pre-design investigation
QA	quality assurance
QAPP	Quality Assurance Program Plan
QC	quality control
Ra	radium
RA	remedial action
RL	reporting limit
RME	reasonably maximally exposed
Rn	radon
ROD	*Record of Decision for the St. Louis Downtown Site*
RPD	relative percent difference
SAG	*Sampling and Analysis Guide for the St. Louis Sites*
SLDS	St. Louis Downtown Site
SLS	St. Louis Sites
SOP	standard operating procedure
SOR	sum of ratios
SU	survey unit
TEDE	total effective dose equivalent
Th	thorium
TLD	thermoluminescent dosimeter
TSS	total suspended solid(s)
U	uranium
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
USACE	U.S. Army Corps of Engineers
USCS	Unified Soil Classification System

ACRONYMS AND ABBREVIATIONS (Continued)

USEPA	U.S. Environmental Protection Agency
VP	vicinity property
VQ	validation qualifier
WL	working level
WRS	Wilcoxon Rank Sum
yd^3	cubic yard(s)

EXECUTIVE SUMMARY

This Annual Environmental Monitoring Data and Analysis Report (EMDAR) for calendar year (CY) 2014 applies to the St. Louis Downtown Site (SLDS) within the Formerly Utilized Sites Remedial Action Program (FUSRAP) (Figure 1-1). This EMDAR provides an evaluation of the data collected as part of the implementation of the Environmental Monitoring Program (EMP) for the SLDS within the FUSRAP. The SLDS consists of the Mallinckrodt LLC (Mallinckrodt) plant and surrounding vicinity properties (VPs) (Figure 1-2). Environmental monitoring of various media at the SLDS is required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and under the commitments in the *Record of Decision for the St. Louis Downtown Site* (ROD) (USACE 1998a).

The purpose of this report is:

1) to document the environmental monitoring activities, and
2) to assess whether the remedial actions (RAs) had a measurable environmental impact by:
    a) reporting the current condition of the SLDS,
    b) summarizing the data collection effort for CY 2014, and
    c) providing an analysis of the environmental monitoring data to date.

The U.S. Army Corps of Engineers (USACE) St. Louis District collects comprehensive environmental data for decision-making and planning purposes. Environmental monitoring, performed as a Best Management Practice or as a component of RA, serves as a critical component in the evaluation of the current status of residual contaminants and assessment of the potential future migration of residual contaminants.

All environmental monitoring required through implementation of the *Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for Calendar Year 2014* (EMICY14) (USACE 2013) was conducted as planned during CY 2014. Evaluation of the environmental monitoring data for all SLDS properties demonstrates compliance with applicable or relevant and appropriate requirements (ARARs).

RADIOLOGICAL AIR MONITORING

Radiological air data were collected and evaluated at the SLDS through airborne radioactive particulate, radon (indoor and outdoor), and gamma radiation monitoring, as required in the EMICY14. In addition to environmental monitoring purposes, radiological air data were also used as inputs to calculate total effective dose equivalent (TEDE) to the hypothetical maximally exposed individual at the SLDS.

The TEDE calculated for the hypothetical maximally exposed individual at the SLDS was less than 0.1 millirem per year (mrem/yr) (0.001 millisievert per year [mSv/yr]). The results of the radiological air monitoring conducted at the SLDS demonstrated compliance with ARARs for the SLDS.

EXCAVATION-WATER DISCHARGE MONITORING AT THE ST. LOUIS DOWNTOWN SITE

CY 2014 was the sixteenth year that excavation-water discharge from the SLDS was monitored and reported. Excavation water from the SLDS was discharged to the St. Louis sanitary sewer system in compliance with the requirements stated in the July 23, 2001, Metropolitan St. Louis Sewer District (MSD) authorization letter (MSD 2001) and amended in the October 13, 2004,

MSD letter (MSD 2004). This authorization was extended through the issuance of letters dated June 19, 2006, May 22, 2008, May 10, 2010, May 24, 2012, and June 23, 2014 (MSD 2006, 2008, 2010, 2012, 2014). This authorization expires July 23, 2016 (MSD 2014). During CY 2014, no exceedances of the MSD limits occurred at the SLDS.

GROUND-WATER MONITORING

Ground water was sampled during CY 2014 at the SLDS following a protocol for individual wells and analytes. Samples were analyzed for various radiological constituents and inorganic parameters. Static ground-water elevations for all SLDS wells were measured quarterly.

The environmental sampling requirements and ground-water criteria for each analyte are consistent with the EMICY14. The ground-water criteria are used for comparison and discussion purposes. The criteria for assessing ground-water sampling data at the SLDS include the investigative limits (ILs) as identified in the ROD (USACE 1998a) and the combined radium (Ra)-226/Ra-228 concentration limit from 40 *Code of Federal Regulations* (*CFR*) 192.02 (Table 1 of Subpart A). The ground-water criteria are presented in Table 2-6 of the EMICY14 and in Section 4.0 of this report. For those stations where an analyte exceeded the ground-water criteria at least once during CY 2014 and sufficient data were available to evaluate trends, Mann-Kendall statistical trend analyses were completed to assess whether analyte concentrations were increasing or decreasing through time.

During CY 2014, three hydrostratigraphic unit (HU)-A monitoring wells (B16W06S, B16W08S, and DW21) were sampled (Figure 4-3). B16W06S and B16W08S were sampled for arsenic, cadmium, Ra-226, Ra-228, thorium (Th)-228, Th-230, Th-232, uranium (U)-234, U-235, and U-238 during the second quarter and fourth quarter, respectively. DW21 was sampled for Ra-226, Ra-228, Th-228, Th-230, Th-232, U-234, U-235, and U-238 during the second quarter. Trend analysis was conducted for arsenic in B16W06S and for total U in B16W08S. Based on the graph and a quantitative evaluation of the trend using the Mann-Kendall Trend Test (Section 4.2.3), there is a downward trend in arsenic concentrations in B16W06S. There is no trend for total U in HU-A well B16W08S. Because total U values are calculated using the U-234, U-235, and U-238 values, the trends in their values should be the same as the total U trend results. Therefore, it was unnecessary to perform a separate trend analysis for each of the isotopes. Because the majority of their historical results were near or below their detection limits (DLs), a trend analysis was not performed for Th-230 in B16W08S or DW21.The remaining SLDS contaminants of concern (COCs) (Ra-226, Ra-228, Th-228, and Th-232) were not detected in HU-A ground water during CY 2014.

During CY 2014, eight SLDS wells completed in the Mississippi Alluvial Aquifer (HU-B) were sampled. Mann-Kendall Trend Testing was conducted for two of the three COCs that exceeded the ILs in HU-B wells during CY 2014: arsenic in DW14 and DW18, and total U in DW19. A trend analysis was not conducted for cadmium in DW17 or DW19, because historical results were generally below or only slightly above their DLs. The results of the Mann-Kendall Trend Tests for arsenic indicate a statistically significant downward trend in DW14 and a statistically significant upward trend in DW18. The Mann-Kendall Trend Test results indicate no statistically significant trend for total U in HU-B well DW19, but levels have remained above the IL since 1999.

Potentiometric surface maps were created from ground-water elevations measured in May and December to illustrate ground-water flow conditions in wet and dry seasons, respectively. The ground-water surface in HU-A under the eastern portion of the Mallinckrodt plant is generally sloping northeastward toward the Mississippi River (Figures 4-7 and 4-9). In HU-B,

ground-water flow and direction are strongly influenced by river stage, which indicates a hydraulic connection to the Mississippi River. Both the May and December 2014 potentiometric surface maps (Figures 4-8 and 4-10) indicate the presence of relatively low hydraulic gradients in the vicinity of DW19 and the former location of Building 101. The December 2014 potentiometric surface map for HU-B indicates a potentiometric high located in the vicinity of DW16. The flow direction at the site is generally northeast toward the Mississippi River.

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1.0 HISTORICAL SITE BACKGROUND AND CURRENT SITE STATUS

1.1 INTRODUCTION

This Annual Environmental Monitoring Data and Analysis Report (EMDAR) for calendar year (CY) 2014 applies to the St. Louis Downtown Site (SLDS) within the Formerly Utilized Sites Remedial Action Program (FUSRAP) (Figure 1-1). This EMDAR provides an evaluation of the data collected as part of the implementation of the Environmental Monitoring Program (EMP) for the SLDS within the FUSRAP. The SLDS consists of the Mallinckrodt LLC (Mallinckrodt) plant and surrounding vicinity properties (VPs) (Figure 1-2). Environmental monitoring of various media at the SLDS is required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and under the commitments in the *Record of Decision for the St. Louis Downtown Site* (ROD) (USACE 1998a).

1.2 PURPOSE

The purpose of this report is to document the environmental monitoring activities and to assess whether the remedial actions (RAs) being performed at the SLDS had a measurable environmental impact. In addition, this report serves to enhance the reader's awareness of the current condition of the SLDS, summarizes the data collection efforts for CY 2014, and provides analysis of the CY 2014 environmental monitoring data results. This document presents the following information:

- Sample collection data for various media at the SLDS and interpretation of CY 2014 EMP results;
- The compliance status of the SLDS with federal and state applicable or relevant and appropriate requirements (ARARs) or other benchmarks (e.g., *Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for CY 2014* [EMICY14] [USACE 2013]);
- Dose assessments for radiological contaminants as appropriate at the SLDS;
- A summary of trends based on changes in contaminant concentrations to support RAs, public safety, and maintain surveillance monitoring requirements at the SLDS; and
- The identification of data gaps and future EMP needs.

1.3 ST. LOUIS SITE PROGRAM AND SITE BACKGROUND

The FUSRAP was executed by the U.S. Atomic Energy Commission (AEC) in 1974 to identify, remediate, or otherwise control sites where residual radioactivity remains from operations conducted for the Manhattan Engineer District (MED) and AEC during the early years of the nation's atomic energy program. The FUSRAP was continued by the follow-on agencies to the AEC until 1997, when the U.S. Congress transferred responsibility for FUSRAP to the U.S. Army Corps of Engineers (USACE).

The SLDS properties were involved with some of the following operations: refinement of uranium ores, production of uranium metal and compounds, uranium recovery from residues and scrap, and the storage and disposal of associated process byproducts. The processing activities were conducted in parts of the SLDS under contract to the MED/AEC between the early 1940s and the 1950s.

Detailed descriptions and histories for the SLDS can be found in the *Remedial Investigation Report for the St. Louis Site* (DOE 1994); the *Remedial Investigation Addendum for the St. Louis Site* (DOE 1995); the ROD (USACE 1998a); and the *Environmental Monitoring Guide for the St. Louis Sites* (EMG) (USACE 1999a).

During CY 2014, the following documents were finalized:

- *Proposed Plan for No Further Action for the Inaccessible Soil Operable Unit Associated with Group 1 Properties at the St. Louis Downtown Site, St. Louis, Missouri* (January 3);
- *Review of the Radiation Protection Program Fourth Quarter 2013* (January 9);
- *Community Involvement Plan for the St. Louis FUSRAP Sites* (February 18; September 2);
- *CY2013 Fourth Quarter Laboratory QA/QC Report for the FUSRAP St. Louis Radioanalytical Laboratory & Associated Satellite Laboratories, St. Louis, Missouri* (March);
- *CY2014 First Quarter Laboratory QA/QC Report for the FUSRAP St. Louis Radioanalytical Laboratory & Associated Satellite Laboratories, St. Louis, Missouri* (June);
- *CY2014 Second Quarter Radiation Protection Program Review, St. Louis, Missouri* (July 14)
- *St. Louis Downtown Site Annual Environmental Monitoring Data and Analysis Report For Calendar Year 2013, St. Louis, Missouri* (July 23);
- *Mallinckrodt Plant 2 North Remedial Action Work Area-Specific Description and Design Package, FUSRAP St. Louis Downtown Site, St. Louis, Missouri* (July 29);
- *CY2014 Second Quarter Laboratory QA/QC Report for the FUSRAP St. Louis Radioanalytical Laboratory & Associated Satellite Laboratories, St. Louis, Missouri* (August);
- *Pre-Design Investigation Summary Report Destrehan Street - East, FUSRAP St. Louis Downtown Site, St. Louis, Missouri* (August 11);
- *Record of Decision for the Inaccessible Soil Operable Unit Associated with Group 1 Properties at the St. Louis Downtown Site, St. Louis, Missouri* (September 29);
- *CY2014 Third Quarter Radiation Protection Program Review, St. Louis, Missouri* (October 23);
- *CY2014 Third Quarter Laboratory QA/QC Report for the FUSRAP St. Louis Radioanalytical Laboratory & Associated Satellite Laboratories, St. Louis, Missouri* (November); and
- *Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for Calendar Year 2014, St. Louis, Missouri* (December 23).

1.3.1 St. Louis Downtown Site Calendar Year 2014 Remedial Actions

During CY 2014, RAs were performed at the following SLDS properties (Figure 1-2): Plant 6 West Half Building 101, Kiesel Hall Street Property (and adjacent City Property and Gunther Salt Property), and City Property VP (DT-2) Phase 2 East of the Levee. RAs were performed at the Plant 6 West Half Building 101 Property throughout the year. RAs at the Kiesel Hall Street Property and DT-2 Phase 2 East of the Levee were performed in the first, second, and

third quarters. A total of 28,116 cubic yards (yd^3) (21,496 cubic meters [m^3]) of contaminated material were shipped from the SLDS via railcar to US Ecology in Idaho for proper disposal.

During CY 2014, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)* (DOD 2000) Class 1 verifications were performed at DT-2 Phase 2 East of the Levee (survey unit [SU]-5), Keisel Hall Street and Keisel Hall Street (Gunther Salt) (SU-2), Keisel Hall Street (Gunther Salt) (SU-1 and SU-3), Keisel Hall Street (City Property) (SU-1), and Plant 6 West Half (SU-12 through SU-15).

During CY 2014 MARSSIM Class 2 verifications were performed at DT-9 and Plant 6 West Half. No MARSSIM Class 3 verifications were performed. Verifications at the SLDS were performed to confirm that the remediation goals of the ROD were achieved. The SLDS is shown on Figure 1-2.

A characterization/pre-design investigation (PDI) was performed at the Kiesel Hall Street Property (Gunther Salt) during CY 2014.

No monitoring wells were decommissioned in CY 2014.

In accordance with the Metropolitan St. Louis Sewer District (MSD) authorization letter for the SLDS, 2,188,720 gallons of excavation water were discharged in CY 2014. Since the beginning of the project, 18,198,886 gallons have been treated and released to MSD at the SLDS.

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2.0 EVALUATION OF RADIOLOGICAL AIR MONITORING DATA

This section documents environmental monitoring activities related to radiological air data. The radiological air measurements taken at the SLDS are conducted as part of the EMP. Radiological air data are collected to evaluate the compliance status of each site with respect to ARARs, to evaluate trends, and to perform dose assessments for radiological contaminants, as appropriate, at each site. Section 2.1 includes a description of the types of radiological measurements conducted at the SLDS, potential sources of the contaminants to be measured (including natural background), and measurement techniques employed during CY 2014.

All radiological air monitoring required through implementation of the EMICY14 (USACE 2013) was conducted as planned during CY 2014. The evaluations of radiological air monitoring data for all SLDS properties demonstrate compliance with ARARs.

A total effective dose equivalent (TEDE) for the reasonably maximally exposed (RME) member of the public was calculated for the SLDS by summing the dose due to gamma radiation, radiological air particulates, and radon. The TEDE for the RME individual at the SLDS was less than 0.1 millirem per year (mrem/yr) (less than 0.001 millisievert per year [mSv/yr]). The TEDE for the SLDS was below the 10 *Code of Federal Regulations* (*CFR)* 20.1301 limit for members of the public, which is 100 mrem/yr (1 mSv/yr). Details of the radiological dose assessment (TEDE calculation) are presented in Section 6.0.

2.1 RADIOLOGICAL AIR MEASUREMENTS

The three types of radiological air monitoring conducted at the St. Louis Sites (SLS) during CY 2014 are gamma radiation, airborne radioactive particulates, and airborne radon. Section 2.2 provides details of the air monitoring conducted at the SLDS.

2.1.1 Gamma Radiation

Gamma radiation is emitted from natural, cosmic, and manmade sources. The earth naturally contains gamma radiation-emitting substances, such as the uranium decay series, the thorium decay series, and potassium (K)-40. Cosmic radiation originates in outer space and filters through the atmosphere to the earth. Together, these two sources make up the majority of natural gamma background radiation. The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) estimates that the total naturally occurring background radiation dose equivalent due to gamma exposure is 65 mrem/yr (0.65 mSv/yr), 35 mrem/yr (0.35 mSv/yr) of which originates from sources on earth and 30 mrem/yr (0.3 mSv/yr) of which originates from cosmic sources (UNSCEAR 1982). The background monitoring locations for the SLS (Figure 2-1) are reasonably representative of background gamma radiation for the St. Louis Metropolitan Area.

Gamma radiation was measured at the SLDS during CY 2014 using thermoluminescent dosimeters (TLDs). TLDs were located at locations representative of areas accessible to the public (Figure 2-2) in order to provide input for calculation of the TEDE.

The TLDs were placed at the monitoring location approximately 3 feet (ft) (0.9 meters [m]) above the ground surface inside a housing shelter. The TLDs were collected quarterly and sent to a properly certified, off-site laboratory for analysis.

2.1.2 Airborne Radioactive Particulates

2.1.2.1 Air Sampling

Airborne radioactive particulates result from radionuclides in soils that become suspended in the air. The radionuclides in soil normally become airborne as a result of wind erosion of the surface soil or as a result of soil disturbance (e.g., excavation). This airborne radioactive material includes naturally occurring background concentrations, as well as above-background concentrations of radioactive materials present at the SLDS.

Airborne radioactive particulates were measured at the SLDS by drawing air through a filter membrane with an air sampling pump placed approximately 3 ft (0.9 m) above the ground, and then analyzing the material contained on the filter. The results of the analysis, when compared to the amount of air drawn through the filter, were reported as radioactive contaminant concentrations (i.e., microcuries per milliliter [µCi/mL]). Particulate air monitors were located in predominant wind directions at excavation and loadout area perimeter locations, as appropriate, to provide input for the National Emissions Standard for Hazardous Air Pollutants (NESHAP) Report and calculation of TEDE to the critical receptor. Air particulate samples were typically collected weekly or more frequently.

2.1.2.2 Estimation of Emissions in Accordance with the National Emissions Standard for Hazardous Air Pollutants

The SLDS CY 2014 NESHAP Report (Appendix A) presents the calculation of the effective dose equivalent (EDE) from radionuclide emissions to critical receptors in accordance with the NESHAP. The report is prepared in accordance with the requirements and procedures contained in 40 *CFR* 61, Subpart I.

Emission rates calculated using air sampling data, activity fractions, and other site-specific information were used for the SLDS as inputs to the U.S. Environmental Protection Agency (USEPA) CAP88-PC Version 4.0 modeling code (USEPA 2014) to demonstrate compliance with the 10 mrem/yr ARAR in 40 *CFR* 61, Subpart I.

CY 2014 monitoring results for the SLDS demonstrate compliance with the 10 mrem/yr ARAR prescribed in 40 *CFR* 61, Subpart I. See Section 2.2.1 for further details.

2.1.3 Airborne Radon

Uranium (U)-238 is a naturally occurring radionuclide commonly found in soil and rock. Radon (Rn)-222 is a naturally occurring radioactive gas found in the uranium decay series. A fraction of the radon produced from the radioactive decay of naturally occurring U-238 diffuses from soil and rock into the atmosphere, accounting for natural background airborne radon concentrations. In addition to this natural source, radon is produced from the above-background concentrations of radioactive materials present at the SLDS.

Outdoor airborne radon concentration is governed by the emission rate and dilution factors, both of which are strongly affected by meteorological conditions. Surface soil is the largest source of radon. Secondary contributors include oceans, natural gas, geothermal fluids, volcanic gases, ventilation from caves and mines, and coal combustion. Radon levels in the atmosphere have been observed to vary with elevation, season, time of day, or location. The chief meteorological parameter governing airborne radon concentration is atmospheric stability; however, the largest variations in atmospheric radon occur spatially (USEPA 1987).

Radon alpha track detectors (ATDs) were used at the SLDS to measure alpha particles emitted from radon and its associated decay products. Radon ATDs were co-located with environmental TLDs 3 ft (0.9 m) above the ground surface in housing shelters at locations representative of areas accessible to the public (Figure 2-2). Outdoor ATDs were collected approximately every 6 months and sent to an off-site laboratory for analysis. Recorded radon concentrations are listed in picocurie per liter (pCi/L), and are compared to the value of 0.5 pCi/L average annual concentration above background as listed in 40 *CFR* 192.02(b).

CY 2014 monitoring results for the SLDS demonstrate compliance with the 0.5 pCi/L ARAR prescribed in 40 *CFR* 192.02(b). See Section 2.2.3 for further details.

At the SLDS, ATDs were also placed in locations within applicable structures (Building 26 at Plant 1 and the South Storage Building at DT-4 North) to monitor for indoor radon exposure. The ATDs were located in areas that represent the highest likely exposure from indoor radon. ATD locations were selected with consideration given to known radium (Ra)-226 concentrations under applicable buildings and occupancy times at any one location within each building. Annual average indoor radon data in each applicable building were compared to the 40 *CFR* 192.12(b) ARAR value of 0.02 working levels (WLs). In accordance with 40 *CFR* 192.12(b), reasonable effort shall be made to achieve, in each habitable or occupied building, an annual average (or equivalent) radon decay product concentration (including background) not to exceed 0.02 WL. In any case, the radon decay product concentration shall not exceed 0.03 WL. Background indoor radon monitors were not necessary, because the regulatory standard of 0.02 WL includes background. Indoor ATDs were also collected approximately every 6 months and sent to an off-site laboratory for analysis.

CY 2014 monitoring results for the SLDS demonstrate compliance with the 0.02 WL ARAR prescribed by 40 *CFR* 192.12(b). See Section 2.2.4 for further details.

2.2 EVALUATION OF RADIOLOGICAL AIR MONITORING DATA

2.2.1 Evaluation of Gamma Radiation Data

Gamma radiation monitoring was performed at the SLDS during CY 2014 at four locations representative of areas accessible to the public (Figure 2-2) and at the background location (Figure 2-1) to compare on-site/off-site exposure and to provide input for calculation of TEDE to the critical receptor. The EMP uses two TLDs at Monitoring Station DA-1 (for each monitoring period) to provide additional quality control (QC) of monitoring data (Figure 2-2). A summary of TLD monitoring results for CY 2014 at the SLDS is shown in Table 2-1. TLD data are located in Appendix B, Table B-2, of this report.

Table 2-1. Summary of SLDS Gamma Radiation Data for CY 2014

Monitoring Location	Monitoring Station	First Quarter TLD Data (mrem/qtr) Rpt./Cor.		Second Quarter TLD Data (mrem/qtr) Rpt./Cor.		Third Quarter TLD Data (mrem/qtr) Rpt./Cor.		Fourth Quarter TLD Data (mrem/qtr) Rpt./Cor.		CY 2014 Net TLD Data (mrem/yr)
		Rpt.	Cor.[a,b]	Rpt.	Cor.[a,b]	Rpt.	Cor.[a,b]	Rpt.	Cor.[a,b]	
SLDS Perimeter	DA-1	17	0	16.3	0	18.4	0	19.5	0	0
	DA-1[c]	16.4	0	17.1	0	17.7	0	18.9	0	0
	DA-2	18.6	0	18.9	0.2	19.3	0	21.1	0	0.2
	DA-3	17.9	0	18.3	0	18.9	0	21	0	0
	DA-6	18.2	0	19	0.4	21.3	1.0	22	0.2	2
Background	BA-1	19.5	---	18.7	---	20.3	---	21.8	---	20.1

[a] All quarterly data reported from the vendor have been normalized to exactly one quarter's exposure above background.
[b] CY 2014 net TLD data are corrected for background, shelter absorption (s/a = 1.075), and fade.
[c] A QC duplicate is collected at the same time and location, and is analyzed by the same method for evaluating precision in sampling and analysis. Duplicate sample results were not included in calculations.
mrem/qtr = millirem per quarter
Rpt. = reported; Cor. = corrected
--- Result calculation not required.

2.2.2 Evaluation of Airborne Radioactive Particulate Data

Air sampling for radiological particulates during CY 2014 was conducted by the RA contractor at the perimeter of each active excavation and loadout area within the SLDS. Air particulate data were used as inputs to the NESHAP Report (Appendix A) and calculation of TEDE to the critical receptor (Section 6.0). Air sampling for radiological particulates was not conducted at the SLDS perimeter locations during CY 2014 due to the insignificant potential for material to become airborne at the site. The ground surface at the SLDS is generally covered with asphalt or concrete, which limits the potential for material to become airborne. A summary of air particulate monitoring data from excavation perimeters is shown in Table 2-2. Airborne radioactive particulate data are located in Appendix B, Table B-1, of this report.

Table 2-2. Summary of SLDS Airborne Radioactive Particulate Data for CY 2014

Monitoring Location	Average Concentration (μCi/mL)	
	Gross Alpha	Gross Beta
DT-2	5.11E-15	1.98E-14
Kiesel Hall Street	4.12E-15	1.82E-14
Plant 6	4.21E-15	2.31E-14
Plant 6 Loadout	3.91E-15	2.80E-14
Background Concentration[a]	3.63E-15	1.92E-14

[a] These concentrations are only provided for informational purposes.

2.2.3 Evaluation of Outdoor Airborne Radon Data

Outdoor airborne radon monitoring was performed at the SLDS using ATDs to measure radon emissions. Four detectors were co-located with the TLDs at locations shown on Figure 2-2. One additional detector was located at Monitoring Station DA-1 as a QC duplicate. A background ATD, co-located with the background TLD (Section 2.2.1), was used to compare on-site exposure and off-site background exposure. In accordance with 40 *CFR* 192.02(b)(2), control of residual radioactive materials from a uranium mill tailings pile must be designed to provide reasonable assurance that releases of radon to the atmosphere will not increase the annual average concentration of radon outside the disposal site by more than 0.5 pCi/L. Although a uranium mill tailings pile is not associated with any of the SLS, these standards are used for comparative purposes. Outdoor airborne radon data were used as an input for calculation of the

TEDE to the critical receptor (Section 6) and compared to the 0.5 pCi/L average annual concentration above background value as listed in 40 *CFR* 192.02(b)(2). The average annual radon concentration above background at the SLDS monitoring stations was 0 pCi/L, meeting the 40 *CFR* 192.02(b)(2) limit of 0.5 pCi/L. A summary of outdoor airborne radon data is shown in Table 2-3. Outdoor ATD data are located in Appendix B, Table B-3, of this EMDAR.

Table 2-3. Summary of SLDS Outdoor Airborne Radon (Rn-222) Data for CY 2014

Monitoring Location	Monitoring Station	Average Annual Concentration (pCi/L)		
		01/10/14 to 07/01/14[a] (uncorrected)	07/01/14 to 01/08/15[a] (uncorrected)	Average Annual Concentration[b]
SLDS	DA-1	0.2	0.2	0.0
	DA-1[c]	0.2	0.2	0.0
	DA-2	0.2	0.2	0.0
	DA-3	0.2	0.2	0.0
	DA-6	0.2	0.2	0.0
Background	BA-1	0.2	0.2	---

[a] Detectors were installed and removed on the dates listed. Data are as reported from the vendor (gross data including background).
[b] Results reported from vendor for two periods are time-weighted and averaged to estimate an annual average radon concentration (pCi/L) above background.
[c] A QC duplicate is collected at the same time and location, and is analyzed by the same method for evaluating precision in sampling and analysis.
--- Result calculation not required.

2.2.4 Evaluation of Indoor Airborne Radon Data

Indoor radon monitoring was performed at two SLDS buildings (Building 26 at Plant 1 and the South Storage Building at DT-4 North) using one ATD placed in each building at a height of 4 ft (1.2 m) (to approximate breathing zone conditions) to measure radon concentrations (Figure 2-2). The ATDs were installed in January of CY 2014 at each monitoring location, collected for analysis after approximately 6 months of exposure, and replaced with another set that would represent radon exposure for the remainder of the year. Recorded radon concentrations (listed in pCi/L) were converted to radon WLs, and an indoor radon equilibrium factor of 0.4 (NCRP 1988) was applied.

The results (including background) were evaluated based on the criteria contained in 40 *CFR* 192.12(b). The average annual radon concentration was determined to be less than the 40 *CFR* 192.12(b) criterion of 0.02 WL in each building (Leidos 2015a). Additional details of the data and calculation methodology used to determine indoor radon WLs in SLDS buildings are located in Table 2-4. Indoor ATD data are located in Appendix B, Table B-3, of this EMDAR.

Table 2-4. Summary of SLDS Indoor Airborne Radon (Rn-222) Data for CY 2014

Monitoring Location	Monitoring Station	Average Annual Concentration			
		01/10/14 to 07/01/14[a] (pCi/L)	07/01/14 to 01/08/15[a] (pCi/L)	Annual Average (pCi/L)[b]	WL[c]
Plant 1 Building 26	DI-1	0.2	0.2	0.2	0.001
DT-4 North South Storage Building	DI-2	0.8	0.7	0.75	0.003

[a] Detectors were installed and removed on the dates listed. Data are as reported from the vendor.
[b] Results reported from vendor for two periods are averaged to estimate an annual average radon concentration (pCi/L).
[c] The average annual WL is calculated by dividing the average pCi/L by 100 pCi/L per WL and multiplying by 0.4. The average annual WL must be less than 0.02 (40 *CFR* 192.12(b)).

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3.0 EXCAVATION-WATER MONITORING DATA

This section provides a description of the excavation-water discharge monitoring activities conducted at the SLDS during CY 2014. Excavation water is storm water and ground water that accumulates in excavations present at the SLDS as a result of RAs. Excavation-water effluent from the SLDS is discharged to a combined (sanitary and storm) MSD sewer inlet located at the SLDS. It then flows to the Bissell Point Sewage Treatment Plant under a special discharge authorization. This excavation water was collected, treated, and tested before being discharged to MSD manholes 17D3-014C and 17D4-353C. These MSD manholes are depicted on Figure 3-1.

The purpose of excavation-water discharge sampling at the SLDS is to maintain compliance with specific discharge limits to ensure protection of human health and the environment. The MSD is the regulatory authority for water discharges and has issued authorization letters for the SLDS allowing discharges of excavation water that meets discharge-limit-based criteria (MSD 1998, 2001, 2004, 2006, 2008, 2010, 2012, 2014). On October 30, 1998, the USACE received an MSD conditional authorization letter to discharge the excavation water collected at the SLDS resulting from USACE RAs (MSD 1998). On July 23, 2001, the MSD issued a separate conditional discharge authorization letter for discharges of excavation water resulting from USACE RAs (MSD 2001). The MSD issued a change to the self-monitoring and special discharge authorization for the SLDS on October 13, 2004, and issued a 2-year extension to that authorization dated June 19, 2006 (MSD 2004, 2006). On May 22, 2008; May 10, 2010; and May 24, 2012, the MSD issued extensions to the special discharge authorization for the SLDS that remained in effect until July 23, 2010; July 23, 2012; and July 23, 2014, respectively (MSD 2008, 2010, 2012). On June 23, 2014, the MSD issued an extension to the special discharge authorization for the SLDS that remains in effect until July 23, 2016 (MSD 2014). The results obtained from these monitoring activities are presented and evaluated with respect to the discharge limits as described in the EMICY14 (USACE 2013).

Section 2.2.2 of the EMICY14 outlines the parameters and annual average discharge limits for the excavation-water discharges at the site (USACE 2013). For cases in which the local regulatory authorities have not provided discharge limits for the SLDS radiological contaminants of concern (COCs), parameters from 10 *CFR* 20, Appendix B, water effluent values are used to calculate the sum of ratios (SOR) value for each discharge. Additionally, the SOR aids in the establishment of water management protocols.

3.1 EVALUATION OF EXCAVATION-WATER DISCHARGE MONITORING RESULTS AT THE ST. LOUIS DOWNTOWN SITE

During CY 2014, 2,188,720 gallons of excavation water from 14 batches were discharged to MSD manholes 17D3-014C and 17D4-353C. The analytical results for all measured parameters by batch, along with the total activity discharged for each parameter, are included in Appendix C, Table C-1. A summary of the number of discharges, gallons of water discharged, and total radiological activity for the CY 2014 excavation-water discharges is provided in Table 3-1. All excavation-water monitoring required through implementation of the EMICY14 was conducted as planned during CY 2014. The evaluation of monitoring data demonstrated compliance with all MSD criteria.

Table 3-1. Excavation Water Discharged at the SLDS During CY 2014

Quarter	Number of Discharges	Number of Gallons Discharged[a]	Total Activity (Curies [Ci])		
			Thorium[b]	Uranium (KPA)[c]	Radium[d]
1	5	115,430	1.8E-06	3.1E-05	5.5E-07
2	4	1,317,200	1.8E-05	1.9E-04	8.7E-06
3	2	312,700	5.5E-06	1.1E-04	2.2E-06
4	3	443,390	1.9E-06	3.1E-04	1.7E-06
Annual Totals	14	2,188,720	2.8E-05	6.3E-04	1.3E-05

[a] Quantities based on actual quarterly discharges from the SLDS.
[b] Calculated value based on the addition of isotopic analyses: thorium (Th)-228, Th-230, and Th-232.
[c] Activity based on total U results (kinetic phosphorescence analysis [KPA]).
[d] Calculated value based on the addition of isotopic analyses: Ra-226 and Ra-228.

4.0 GROUND-WATER MONITORING DATA

Eleven (11) ground-water monitoring wells were sampled at the SLDS during CY 2014. Ground water was sampled following a protocol for individual wells and analytes, and was analyzed for various radiological constituents and inorganic analytes. With the exception of DW22R, static water levels were measured quarterly at the SLDS. In addition, field parameters were measured continuously during purging of the wells prior to sampling. The ground-water field parameter results for CY 2014 sampling at the SLDS are presented in Appendix D, Table D-1. Summary tables providing the SLDS ground-water analytical sampling results for CY 2014 are found in Appendix D, Table D-2.

Stratigraphy at the St. Louis Downtown Site

Ground water at the SLDS is found within three hydrostratigraphic units (HUs). These units are, in order of increasing depth, the Upper HU (HU-A), which consists of fill overlying clay and silt; the Lower HU (HU-B), also referred to as the Mississippi Alluvial Aquifer, consisting of sandy silts and silty sands; and the Limestone Bedrock Unit, referred to as HU-C (Figures 4-1 and 4-2). The upper unit, HU-A, is not an aquifer and is not considered a potential source of drinking water, because it has insufficient yield and poor natural water quality. HU-B is one of the principal aquifers in the St. Louis area, but expected future use as drinking water at the SLDS is minimal, because the Mississippi and Missouri Rivers provide a readily available source and the water from the aquifer is of poor quality due to elevated concentrations of iron and manganese. HU-C would be an unlikely water supply source, as it is a deeper and less productive HU. There are no known drinking-water wells in the vicinity of the SLDS. St. Louis City Ordinance 66777 explicitly forbids the installation of wells into the subsurface for the purposes of using ground water as a potable water supply (City of St. Louis 2005). The expected future use of SLDS ground water is not anticipated to change from its current use.

As shown in the geologic cross-section of the SLDS (Figure 4-2), the erosional surface of the bedrock dips eastward toward the river. HU-A overlies HU-B on the eastern side of the SLDS and overlies bedrock on the western side of the SLDS. HU-B thins westerly along the bedrock surface until it becomes absent beneath the SLDS. HU-C underlies the unconsolidated sediments at depths ranging from 6 m (19 ft) on the western side of the SLDS to 24 m (80 ft) near the Mississippi River.

Ground-Water Criteria

The CY 2014 monitoring data for HU-B ground water at the SLDS are compared to the following ground-water criteria established in the ROD: 50 micrograms per liter (µg/L) arsenic, 5 µg/L cadmium, 20 µg/L total U, and 5 pCi/L combined Ra-226 and Ra-228. The ROD did not establish ground-water criteria for HU-A ground water. An evaluation of concentration trends is conducted for COCs detected in HU-A.

Summary of Calendar Year 2014 Ground-Water Monitoring Results for the St. Louis Downtown Site

Trend analysis of the COCs detected in HU-A ground water indicates continued improvement in HU-A ground-water quality, as reflected in the decreasing trend in arsenic concentrations observed in HU-A well B16W06S. A decreasing arsenic concentration trend was observed in one HU-A well (B16W06S) and one HU-B well (DW14) at the SLDS during CY 2014. An increasing arsenic concentration trend was observed in one HU-B well (DW18) during CY 2014. No other significant changes in the concentrations of the COCs occurred in shallow or deep ground water during CY 2014.

Three COCs (arsenic, cadmium, and total U) were detected at concentrations above the ROD ground-water criteria in HU-B ground water during CY 2014. The arsenic concentration exceeded the investigative limit (IL) (50 µg/L) in HU-B wells DW14 (100 µg/L) and DW18 (60 µg/L). The Mann-Kendall Trend Test results indicate a statistically significant upward trend in arsenic concentrations in DW18 and a statistically significant downward trend in arsenic concentrations in DW14. The cadmium concentration exceeded the IL (5 µg/L) in the third quarter samples from HU-B wells DW17 (73 µg/L) and DW19 (13 µg/L). The elevated cadmium result in DW17 may be related to high particulates (i.e., silting) caused by problems with the flush mounted casing. To address this problem, DW17 will be retrofitted with a riser in CY 2015. The elevated cadmium results for DW19 may also be due to high particulates, based on the high turbidity value reported for DW19 in September 2014. The total U concentration exceeded the IL (20 µg/L) in the third quarter sample from DW19 (43.3 µg/L). No statistically significant trend was observed in total U concentrations in DW19.

4.1 GROUND-WATER MONITORING AT THE ST. LOUIS DOWNTOWN SITE

The selected remedy presented in the ROD involves excavation and disposal of radiologically contaminated accessible soil and ground-water monitoring. The goal of the ground-water portion of the SLDS remedy is to maintain protection of the HU-B and to establish the effectiveness of the source removal action. This goal is achieved by monitoring perimeter wells on a routine basis to ensure there are no significant impacts from COCs on HU-B. The HU-B ground-water results for the SLDS COCs are compared to the following ROD ground-water criteria (USACE 1998a):

1) the ILs: 50 µg/L arsenic, 5 µg/L cadmium, and 20 µg/L total U; and
2) the concentration limits from the Uranium Mill Tailings Radiation Control Act regulations listed in 40 *CFR* 192.02, Table 1 to Subpart A: 5 pCi/L combined Ra-226 and Ra-228.

The concentration limits for other SLDS COCs listed in 40 *CFR* 192.02, Table 1 to Subpart A (50 µg/L arsenic, 10 µg/L cadmium, and 30 pCi/L combined U-234 and U-238), are not relevant or appropriate because these limits are equal to or less stringent than the ILs.

If monitoring of HU-B indicates that the concentrations of SLDS COCs significantly exceed the above criteria, the ROD requires that a ground-water remedial action alternative assessment (GRAAA) be initiated to further assess the fate and transport of the COCs in HU-B and to determine if additional RAs are necessary. Total U concentrations were above the IL in HU-B well DW19 over an extended period, initiating Phase 1 of the GRAAA. The first phase of the GRAAA was completed in CY 2003 (USACE 2003). Phase 1 summarized the sampling data available for each of the monitoring wells completed in HU-B and provided recommendations for further investigation of HU-B. This EMDAR carefully reviews the HU-B data to provide additional information for future phases of the GRAAA. The ROD also specifies that a ground-water monitoring plan will be developed to assess the fate and transport of MED/AEC residual contaminants through and following the RA.

Because HU-A is not considered a potential source of drinking water, the ROD did not establish ground-water criteria for HU-A ground water. An evaluation of concentration trends is conducted for select COCs detected in HU-A ground water to support assessment of the effectiveness of the RA in the CERCLA 5-year reviews. The results of the trend analysis are presented in Section 4.2.3.

4.2 EVALUATION OF GROUND-WATER MONITORING DATA

St. Louis Downtown Site Monitoring Well Network

The EMP monitoring well network for the SLDS is shown on Figure 4-3. The screened HUs for the SLDS ground-water monitoring wells are identified in Table 4-1. Prior to initiating long-term monitoring of HU-B, as specified by the ROD (USACE 1998a), there was no EMP sampling performed at the SLDS. In CY 2014, 11 monitoring wells (three HU-A and eight HU-B) were sampled for radionuclides and inorganic COCs at the SLDS. No new ground-water monitoring wells were installed or transferred at the SLDS in CY 2014. Ground-water sampling at the SLDS was conducted on May 20 (second quarter); September 3 (third quarter); and December 8 (fourth quarter) of CY 2014. No ground-water sampling was conducted at the SLDS during the first quarter of CY 2014. The CY 2014 analytical results for the SLDS are presented in Appendix D, Table D-2. For discussion purposes, the ground-water analytical data acquired from the CY 2014 sampling events at the SLDS are presented separately for HU-A and HU-B.

Table 4-1. Screened HUs for SLDS Ground-Water Monitoring Wells During CY 2014

Well ID	Screened HU
B16W06D[a]	HU-B
B16W06S[a]	HU-A
B16W07D[a]	HU-B
B16W08D[a]	HU-B
B16W08S[a]	HU-A
B16W09D[a]	HU-B
B16W12S	HU-A
DW14[a]	HU-B
DW15	HU-B
DW16	HU-B
DW17[a]	HU-B
DW18[a]	HU-B
DW19[a]	HU-B
DW21[a]	HU-A
DW22R[b]	HU-B

[a] Wells sampled in CY 2014
[b] DW22R was damaged in CY 2014. Decommissioning is planned for CY 2015.

4.2.1 Evaluation of HU-A Ground-Water Monitoring Data

The results of the CY 2014 ground-water sampling of HU-A ground water at the SLDS are summarized in Table 4-2. During CY 2014, three HU-A monitoring wells (B16W06S, B16W08S, and DW21) were sampled. B16W06S was sampled in the second quarter and B16W08S was sampled in the fourth quarter for the following analytes: arsenic, cadmium, Ra-226, Ra-228, thorium (Th)-228, Th-230, Th-232, U-234, U-235, and U-238. DW21 was sampled for Ra-226, Ra-228, Th-228, Th-230, Th-232, U-234, U-235, and U-238 during the second quarter.

Table 4-2. Analytes Detected in HU-A Ground Water at the SLDS During CY 2014

Analyte	Units	Station	Minimum Detected	Maximum Detected	Mean Detected	Frequency of Detection
Arsenic	µg/L	B16W06S	110	110	110	1/1
Th-230	pCi/L	B16W08S	0.34 J	0.34 J	0.34 J	1/1
		DW21	0.48 J	0.48 J	0.48 J	1/1
U-234	pCi/L	B16W08S	4.19	4.19	4.19	1/1
U-235	pCi/L	B16W08S	0.20 J	0.20 J	0.20 J	1/1

Table 4-2. Analytes Detected in HU-A Ground Water at the SLDS During CY 2014 (Continued)

Analyte	Units	Station[a]	Minimum Detected	Maximum Detected	Mean Detected	Frequency of Detection
U-238	pCi/L	B16W08S	2.67	2.67	2.67	1/1
Total U[b]	µg/L	B16W08S	8.1	8.1	8.1	1/1

[a] Table lists only those stations at which the analyte was detected in HU-A ground water.
[b] Total U values were calculated from isotopic concentrations in pCi/L and converted to µg/L using radionuclide-specific activities and assuming secular equilibrium.
J Validation qualifier (VQ) indicating the analyte was identified as estimated quantity.

The analytes detected in HU-A ground water in CY 2014 are listed in Table 4-2. The remaining SLDS COCs (cadmium, Th-228, and Th-232) were not detected in the three HU-A ground-water wells monitored during CY 2014. Because the majority of their historical results were near or below their detection limits (DLs), a trend analysis was not performed for Th-230 in B16W08S or DW21. Because total U values are calculated using the U-234 and U-238 values, the trends in their values should be the same as the total U trend results. Therefore, it was unnecessary to perform a separate trend analysis for each of these isotopes. Trend analysis was conducted for arsenic in B16W06S and total U in B16W08S. Based on the graphs and quantitative evaluation of trends using the Mann-Kendall Trend Test (Section 4.2.3), there is a statistically significant downward trend in arsenic concentrations in B16W06S. No trend for total U in B16W08S was identified. Figures 4-4 and 4-5 show the concentrations trends for arsenic and total U, respectively, at the SLDS. Figure 4-6 provides an expanded version of the time-versus-concentration plots for arsenic in B16W06S and total U in B16W08S.

4.2.2 Evaluation of HU-B Ground-Water Monitoring Data

During CY 2014, eight SLDS wells completed in the HU-B were monitored for various parameters, including the COCs arsenic, cadmium, Ra-226, Ra-228, Th-228, Th-230, Th-232, U-234, U-235, and U-238. Detected concentrations were compared to the respective ROD ground-water criteria. Table 4-3 lists the analytes detected in HU-B ground water during CY 2014 and compares the results with the ROD ground-water criteria.

Table 4-3. Analytes Detected in HU-B Ground Water at the SLDS During CY 2014

Analyte	ROD Ground-Water Criteria		Units	Station[b]	Minimum Detected	Maximum Detected	Mean Detected	Number of Detects > ROD Ground-Water Criteria	Frequency of Detection
	IL[a]	40 *CFR* 192.02 Table 1, Subpart A							
Arsenic	50	NA	µg/L	B16W06D	2.0	2.0	2.0	0	1/1
				B16W07D	36	36	36	0	1/1
				B16W08D	20	20	20	0	1/1
				B16W09D	9.1	9.1	9.1	0	1/1
				DW14	100	100	100	1	1/1
				DW17	11	11	11	0	1/1
				DW18	60	60	60	1	1/1
				DW19	9.0	9.0	9.0	0	1/1
Cadmium	5	NA	µg/L	B16W07D	0.29	0.79	0.79	0	1/1
				B16W08D	0.66	0.66	0.66	0	1/1
				B16W09D	0.53	0.53	0.53	0	1/1
				DW14	3.1	3.1	3.1	0	1/1
				DW17	73	73	73	1	1/1
				DW19	13	13	13	1	1/1

Table 4-3. Analytes Detected in HU-B Ground Water at the SLDS During CY 2014 (Continued)

Analyte	ROD Ground-Water Criteria		Units	Station[b]	Minimum Detected	Maximum Detected	Mean Detected	Number of Detects > ROD Ground-Water Criteria	Frequency of Detection
	IL[a]	40 *CFR* 192.02 Table 1, Subpart A							
Ra-226	NA[c]	5[d]	pCi/L	B16W06D	2.35	2.35	2.35	0	1/1
				B16W09D	1.76 J	1.76 J	1.76 J	0	1/1
				DW17	3.77 J	3.77 J	3.77 J	0	1/1
				DW18	0.93 J	0.93 J	0.93 J	0	1/1
Th-228	NA	NA	pCi/L	B16W08D	0.62 J	0.62 J	0.62 J	NA	1/1
				B16W09D	0.40 J	0.40 J	0.40 J	NA	1/1
				DW17	1.95	1.95	1.95	NA	1/1
				DW18	0.15 J	0.15 J	0.15 J	NA	1/1
				DW19	0.55 J	0.55 J	0.55 J	NA	1/1
Th-230	NA	NA	pCi/L	B16W08D	0.37 J	0.37 J	0.37 J	NA	1/1
				B16W09D	0.62 J	0.62 J	0.62 J	NA	1/1
				DW14	0.47 J	0.47 J	0.47 J	NA	1/1
				DW17	3.9	3.9	3.9	NA	1/1
				DW18	0.25 J	0.25 J	0.25 J	NA	1/1
Th-232	NA	NA	pCi/L	DW17	0.82 J	0.82 J	0.82 J	NA	1/1
U-234	NA	NA	pCi/L	B16W06D	0.45 J	0.45 J	0.45 J	NA	1/1
				DW17	4.8	4.8	4.8	NA	1/1
				DW18	0.40 J	0.40 J	0.40 J	NA	1/1
				DW19	15.3	15.3	15.3	NA	1/1
U-235	NA	NA	pCi/L	DW19	0.60 J	0.60 J	0.60 J	NA	1/1
U-238	NA	NA	pCi/L	B16W06D	0.63 J	0.63 J	0.63 J	NA	1/1
				B16W08D	0.65 J	0.65 J	0.65 J	NA	1/1
				DW17	4.65	4.65	4.65	NA	1/1
				DW18	0.33 J	0.33 J	0.33 J	NA	1/1
				DW19	14.4	14.4	14.4	NA	1/1
Total U[e]	20	NA	µg/L	B16W06D	1.9	1.9	1.9	0	1/1
				B16W08D	2.0	2.0	2.0	0	1/1
				DW17	14.0	14.0	14.0	0	1/1
				DW18	1.0	1.0	1.0	0	1/1
				DW19	43.3	43.3	43.3	1	1/1

[a] USACE 1998a.
[b] Table lists only those stations at which the analyte was detected in HU-B ground water.
[c] Although the ROD does not reference an IL for Ra-226, it does reference the maximum constituent concentration listed in 40 *CFR* 192.02, Table 1, Subpart A.
[d] Concentration limit for combined Ra-226 and Ra-228.
[e] Total U values were calculated from isotopic concentrations in pCi/L and converted to µg/L using radionuclide-specific activities and assuming secular equilibrium.
J VQ indicating the analyte was identified as an estimated quantity.
NA Not appropriate. No IL is specified or the concentration limits specified in Table 1 are the same or less stringent than the IL and thus not relevant or appropriate.

Two inorganic SLDS COCs (arsenic and cadmium) were detected at concentrations above their ROD ground-water criteria in HU-B ground water during CY 2014. The concentration of arsenic exceeded the IL (50 µg/L) in the May 2014 sample from DW14 (100 µg/L). The concentration of arsenic also exceeded the IL in the December 2014 sample from DW18 (60 µg/L). Figure 4-6 provides the time-versus-concentration plots for arsenic in DW14 and DW18. The concentration of cadmium in the September 2014 samples from DW17 (73 µg/L) and DW19 (13 µg/L) exceeded the IL (5 µg/L). The high cadmium result in DW17 may be related to a high particulate content in the sample. It is suspected that DW17 has a silting problem associated with surrounding muddy conditions and the flush mount casing. To address this problem, DW17 will

be retrofitted with a riser in CY 2015. A high turbidity value (470 nephelometric turbidity units [NTUs]) was reported for DW19 during the September 2014 sampling event. This suggests the elevated cadmium result in DW19 may also be due, at least in part, to particulates being inadvertently entrained in the ground-water sample.

One radiological COC, total U, was above the ROD ground-water criteria in HU-B ground water during CY 2014. The concentration of total U exceeded the IL (20 µg/L) in the September 2014 sample from DW19 (43.3 µg/L). Figure 4-5 shows the total U concentrations trends in unfiltered ground water at the SLDS. It includes the time-versus-concentration plot for total U in DW19 at the SLDS.

4.2.3 Comparison of Historical Ground-Water Data at the St. Louis Downtown Site

A quantitative evaluation of COC concentration trends in SLDS ground water was conducted based on available sampling data for the period from January 1999 through December 2014. Mann-Kendall Trend Testing was used to evaluate possible trends for those COCs detected in HU-A and for those COCs that exceeded ROD ground-water criteria in HU-B during CY 2014. Mann-Kendall Trend Testing was not conducted for those COCs with insufficient sampling data (fewer than six sampling results for the period January 1999 to December 2014), a detection frequency less than 50 percent, or historical results generally within the range of measurement error of their DLs. For HU-A, a trend analysis was conducted for arsenic in B16W06S and for total U in B16W08S. A trend analysis was not conducted for Th-230 in B16W08S or DW21, because their historical results were generally below or only slightly above their DLs. Mann-Kendall Trend Testing was also conducted for two COCs that exceeded the ILs in HU-B wells during CY 2014: arsenic in DW14 and DW18, and total U in DW19. A trend analysis was not conducted for cadmium in DW17 or DW19, because historical results were generally below or only slightly above their DLs.

Statistical Method and Trend Analysis

Several statistical methods are available to evaluate contaminant trends in ground water. These include the Mann-Kendall Trend Test, the Wilcoxon Rank Sum (WRS) Test, and the Seasonal Kendall Test (USEPA 2000). The latter two tests are applicable to data that may or may not exhibit seasonal behavior, but generally require larger sample sizes than the Mann-Kendall Trend Test. The Mann-Kendall Trend Test was selected for this project because this test can be used with small sample sizes (as few as four data points with detect values) and because a seasonal variation in concentrations was not indicated by the time-versus-concentration plots at the SLDS. The Mann-Kendall Trend Test is a non-parametric test and, as such, is not dependent upon assumptions of distribution, missing data, or irregularly-spaced monitoring periods. In addition, data reported as being less than the DL can be used (Gibbons 1994). The test can assess whether a time-ordered dataset exhibits an increasing or decreasing trend, within a predetermined level of significance. While the Mann-Kendall Trend Test can use as few as four data points, often this is not enough data to detect a trend. Therefore, the test was performed only at those monitoring stations where data have been collected for at least six sampling events.

A customized Microsoft Excel spreadsheet was used to perform the Mann-Kendall Trend Test. The test involves listing the sampling results in chronological order and computing all differences that may be formed between current measurements and earlier measurements. The value of the test statistic (S) is the difference between the number of strictly positive differences and the number of strictly negative differences. If S is a large positive value, then there is evidence of an increasing trend in the data. If S is a large negative value, then there is evidence of a decreasing trend in the data. If there is no trend and all observations are independent, then all

rank orderings of the annual statistics are equally likely (USEPA 2000). The results of the Mann-Kendall Trend Test are reported in terms of a p value or Z-score, depending on sample size, N. If the sample size is less than or equal to 10, then the p value is computed. If the p value is less than or equal to 0.05, the test concludes that the trend is statistically significant. If the p value is greater than 0.05, the test concludes there is no evidence of a significant trend. For dataset sizes larger than 10, the Z-score is compared to ±1.64, which is the comparison level at a 95 percent confidence level. If the Z-score is greater than +1.64, the test concludes that a significant upward trend exists. If the Z-score is less than –1.64, the test concludes that a significant downward trend exists. For Z-scores between –1.64 and +1.64, there is no evidence of a significant trend.

The results of the Mann-Kendall Trend Test are less reliable for datasets containing high numbers of non-detects, particularly if the DL changes over time. For that reason, for datasets where more than 50 percent of the time-series data are non-detect, the Mann-Kendall Trend Test was not conducted. There is no general consensus regarding the percentage of non-detects that can be handled by the Mann-Kendall Trend Test. However, because the Mann-Kendall Trend Test is a nonparametric test that uses relative magnitudes, not actual values, it is generally valid even in cases where there are large numbers of non-detects.

Only unfiltered data were used, and split sample and QC sample results were not included in the database for the Mann-Kendall Trend Test. The Mann-Kendall Trend Test is used to evaluate the data and determine trends without regard to isotopic analysis. In addition, for monitoring wells where the Mann-Kendall Trend Test has indicated a trend (either upward or downward), another analysis is performed to determine if the trend is due to inherent error associated with the analytical test method for each sample analysis. For this analysis, graphs are generated to depict the trends, if present, and the associated error bars.

Results of Trend Analysis for Ground Water at the St. Louis Downtown Site

The Mann-Kendall Trend Test results are provided in Table 4-4. Time-versus-concentration plots for those wells and analytes exhibiting a statistically significant trend based on the Mann-Kendall Trend Test results (i.e., arsenic in B16W06S, DW14, and DW18) are provided on Figure 4-6.

Table 4-4. Results of Mann-Kendall Trend Test[a] for SLDS Ground Water During CY 2014

Analyte	Station	HU	N[b]	Test Statistics[c]		Trend[d]
				S	Z	
Arsenic	B16W06S	HU-A	18	-84	-3.15	Downward Trend
	DW14	HU-B	20	-91	-2.92	Downward Trend
	DW18	HU-B	25	147	3.41	Upward Trend
Total U	B16W08S	HU-A	11	21	1.56	No Trend
	DW19	HU-B	27	-75	-1.54	No Trend

[a] One-tailed Mann-Kendall Trend Tests were performed at a 95 percent level of confidence. For non-radiological data, non-detected results were replaced with one half of the lowest DL.

[b] N is the number of unfiltered ground-water sample results for a particular analyte at the well for the period between January 1999 and December 2014.

[c] Test Statistics: S = the S-Statistic; Z = Z- score, or normalized test statistic (used if N>10).

[d] Trend: The Z-score is compared to ±1.64 to determine trend significance.

Inorganics

Based on the results of the Mann-Kendall Trend Test, two wells exhibit downward trends for arsenic (one HU-A well, B16W06S, and one HU-B well, DW14), and one well exhibits an upward trend for arsenic (HU-B well DW18). Because the Mann-Kendall Trend Test does not consider the effects of measurement error and does not provide any information concerning the

magnitude of the trend, time-versus-concentration plots of arsenic in B16W06S, DW14, and DW18 were used to evaluate these factors (Figure 4-6). The plots also show the best-fit trend lines based on the data scatter. No other significant changes in the concentrations of the inorganic COCs occurred in shallow or deep ground water during CY 2014.

Radionuclides

The Mann-Kendall Trend Test results indicate there is no trend for total U in HU-A well B16W08S or HU-B well DW19. As shown in the time-versus-concentration plot for DW19 on Figure 4-5, concentrations of total U have decreased since reaching the maximum concentration of 201 µg/L in CY 2007; however, concentrations have remained above the IL (20 µg/L) since 1999.

4.2.4 Evaluation of Potentiometric Surface at the St. Louis Downtown Site

Ground-water elevations were measured in monitoring wells at the SLDS in February, May, September, and December of CY 2014. Potentiometric surface maps were created from the May and December measurements to illustrate ground-water flow conditions in wet and dry seasons, respectively. The potentiometric maps for both HU-A and HU-B are presented on Figures 4-7 through 4-10.

The ground-water surface in HU-A under the eastern portion of the Mallinckrodt plant is generally sloping northeastward toward the Mississippi River (Figures 4-7 and 4-9). The ground water may be present in separate lenses or subunits of the heterogeneous HU-A. Comparison of Figure 4-7 (May) with Figure 4-9 (December) indicates ground-water flow direction patterns in HU-A are similar for the wet and dry season conditions, but the hydraulic gradient is much higher (steeper) during the dry season. During CY 2014, the HU-A potentiometric surface elevations showed some seasonal fluctuation in ground-water elevations, with elevations averaging approximately 31.2 m (3.9 ft) higher during the wet season (May) than during the dry season (December). A larger difference between the dry and wet season elevations is observed in the two wells located near the river (B16W06S and B16W08S), with the December elevations averaging 2.3 m (7.7 ft) lower than the May elevations. The effects of seasonal fluctuations in river stage on the HU-A ground-water levels are generally limited to the area nearest to the river.

As shown on Figures 4-8 and 4-10, the ground-water flow direction and gradient in HU-B are strongly influenced by river stage. This indicates that ground water in HU-B is hydraulically connected to the Mississippi River. The water levels measured at the SLDS indicate that HU-B ground-water elevations averaged approximately 3.3 m (10.7 ft) higher on May 20 than on December 8; this generally corresponds to the difference in the daily river stage, which was approximately 3.4 m (11.2 ft) higher on May 20 (122.2 m [400.9 ft] above mean sea level [amsl]) than on December 8 (118.8 m [389.7 ft] amsl). Both the May and December 2014 potentiometric surface maps indicate the presence of relatively low hydraulic gradients in the vicinity of DW19 and the former location of Building 101. The December 2014 potentiometric surface map for HU-B (Figure 4-10) indicates a potentiometric high located in the vicinity of DW16. The flow direction at the site is generally northeast toward the Mississippi River.

5.0 ENVIRONMENTAL QUALITY ASSURANCE PROGRAM

5.1 PROGRAM OVERVIEW

The environmental quality assurance (QA) program includes management of the QA and QC programs, plans, and procedures governing environmental monitoring activities at all SLS and at subcontracted vendor laboratories. This section describes the environmental monitoring standards of the FUSRAP and the goals for these programs, plans, and procedures.

The environmental QA program provides the FUSRAP with reliable, accurate, and precise monitoring data. The program furnishes guidance and directives to detect and prevent problems from the time a sample is collected until the associated data are evaluated. The Missouri Department of Natural Resources (MDNR) conducted site visits to observe and participate in the environmental monitoring activities. USEPA and MDNR regulatory oversight of sampling activities provided an additional level of QA/QC.

Key elements in achieving the goals of this program are maintaining compliance with the QA program, personnel training, compliance assessments, use of QC samples, documentation of field activities and laboratory analyses, and a review of data documents for precision, accuracy, and completeness.

General objectives are as follows:

- To provide data of sufficient quality and quantity to support ongoing remedial efforts, to aid in defining potential COCs, to meet the requirements of the EMG (USACE 1999a) and the *Sampling and Analysis Guide for the St. Louis Sites* (SAG) (USACE 2000), and to support the ROD (USACE 1998a).
- To provide data of sufficient quality to meet applicable State of Missouri and federal concerns (e.g., reporting requirements).
- To ensure samples were collected using approved techniques and are representative of existing site conditions.

5.2 QUALITY ASSURANCE PROGRAM PLAN

The Quality Assurance Program Plan (QAPP) for activities performed at the SLS is described within Section 3.0 of the SAG. The QAPP provides the organization, objectives, functional activities, and specific QA/QC activities associated with investigations and sampling activities at the SLS.

QA/QC procedures are performed in accordance with applicable professional technical standards, USEPA requirements, government regulations and guidelines, and specific project goals and requirements. The QAPP was prepared in accordance with USEPA and USACE guidance documents, including *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans* (USEPA 1991), *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations* (USEPA 1994), and *Requirements for the Preparation of Sampling and Analysis Plans* (USACE 2001).

5.3 SAMPLING AND ANALYSIS GUIDE

The SAG summarizes standard operating procedures (SOPs) and data quality requirements for collecting and analyzing environmental data. The SAG integrates protocols and methodologies identified under various USACE and regulatory guidance. It describes administrative procedures

for managing environmental data and governs sampling plan preparation, data review, evaluation and validation, database administration, and data archiving. The identified sampling and monitoring structure are delineated in programmatic documents such as the EMG (USACE 1999a), which is an upper tier companion document to the SAG (USACE 2000). The EMICY14 document outlines the analyses to be performed at each site for various media (USACE 2013).

Flexibility to address non-periodic environmental sampling, such as specific studies regarding environmental impacts, well installations, and/or in-situ waste characterizations, was accomplished by the issuance of work descriptions. Environmental monitoring data obtained during these sampling activities were reported to USEPA Region 7 on a quarterly basis.

5.4 FIELD SAMPLE COLLECTION AND MEASUREMENT

Prior to beginning field sampling, field personnel were trained, as necessary, and participated in a project-specific readiness review. These activities ensured that standard procedures were followed in sample collection and in completing field logbooks, chain-of-custody forms, labels, and custody seals. Documentation of training and readiness was submitted to the project file.

The master field investigation documents are the site field logbooks. The primary purpose of these documents is to record each day's field activities; personnel on each sampling team; and any administrative occurrences, conditions, or activities that may have affected the fieldwork or data quality of any environmental samples for any given day. Guidance for documenting specific types of field sampling activities in field logbooks or log sheets is provided in Appendix C of Engineer Manual (EM)-200-1-3 (USACE 2001).

At any point in the process of sample collection or data and document review, a non-conformance report may be initiated if non-conformances are identified (Leidos 2015b). Data entered into the database may be flagged accordingly.

5.5 PERFORMANCE AND SYSTEM AUDITS

Performance and system audits of both field and laboratory activities are conducted to verify that sampling and analysis activities were performed in accordance with the procedures established in the SAG and activity-specific work description or Environmental Monitoring Implementation for Calendar Year (EMICY) documents.

5.5.1 Field Assessments

Internal assessments (audit or surveillance) of field activities (sampling and measurements) are conducted by the QA/QC Officer (or designee). Assessments include an examination of field sampling records, field instrument operating records, sample collection, handling and packaging procedures, maintenance of QA procedures, and chain-of-custody forms. These assessments occurred at the onset of the project to verify that all established procedures were followed (systems audit).

Performance assessments followed the systems audit to ensure that deficiencies had been corrected and to verify that QA practices/procedures were being maintained throughout the duration of the project. These assessments involved reviewing field measurement records, instrumentation calibration records, and sample documentation.

External assessments may be conducted at the discretion of the USACE, USEPA Region 7, or the State of Missouri.

5.5.2 Laboratory Audits

The on-site laboratories are subject to USACE periodic review(s) by the local USACE Chemist to demonstrate compliance with the *Department of Defense Quality Systems Manual for Environmental Laboratories (DOD QSM)* Version 5.0 (DOD 2013). In conjunction, the on-site laboratories participate in blind, third-party performance evaluation studies (performance audits) at least twice per year, with results reported to the local USACE point(s) of contact. In addition, contract laboratories are required to be accredited under the U.S. Department of Defense (DOD) Environmental Laboratory Accreditation Program (ELAP). The DOD ELAP requires an annual audit and re-accreditation every 3 years.

These system audits include examining laboratory documentation of sample receipt, sample log-in, sample storage, chain-of-custody procedures, sample preparation and analysis, and instrument operating records. Performance audits consist of USACE laboratories receiving performance evaluation samples from an outside vendor for an ongoing assessment of laboratory precision and accuracy. The analytical results of the analysis of performance evaluation samples are evaluated by USACE Hazardous, Toxic and Radioactive Waste – Center of Expertise and/or the local oversight chemist to ensure that laboratories maintain acceptable performance.

Internal performance and system audits of laboratories were conducted by the Laboratory QA Manager as directed in the *Laboratory Quality Assurance Plan for the FUSRAP St. Louis Radiological Laboratory* (USACE 2013). These system audits included an examination of laboratory documentation of sample receipt, sample log-in, sample storage, chain-of-custody procedures, sample preparation and analysis, and instrument operating records against the requirements of the laboratory's SOPs. Internal performance audits were also conducted on a regular basis. Single-blind performance samples were prepared and submitted along with project samples to the laboratory for analysis. The Laboratory QA Manager evaluated the analytical results of these single-blind performance samples to ensure that the laboratory maintained acceptable performance. Quarterly QA/QC reports are generated and provided to the local USACE authority – the reports document the ongoing QC elements and provide for further monitoring of quality processes/status. Also, QA plans and methodology are to follow the guidance as presented in the *DOD QSM* (DOD 2013).

5.6 SUBCONTRACTED LABORATORY PROGRAMS

All samples collected during environmental monitoring activities were analyzed by USACE-approved laboratories. QA samples were collected for ground water and soil, and samples were analyzed by the designated USACE QA laboratory. Each laboratory supporting this work maintained statements of qualifications, including organizational structure, QA Manual, and SOPs. Additionally, subcontracted laboratories are also required to be an accredited laboratory under the DOD ELAP.

Samples collected during these investigations were analyzed by the USEPA methods contained in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846*, Third Edition (USEPA 1993) and by other documented USEPA or nationally recognized methods. Laboratory SOPs are based on USEPA SW-846 methods.

5.7 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

QA/QC samples were collected and analyzed for the purpose of assessing the quality of the sampling effort and the reported analytical data. QA/QC samples include duplicate samples (–1) and split samples (–2). The equation utilized for accuracy and precision can be found in Section 5.9.

5.7.1 Duplicate Samples

Duplicate samples measure precision and were collected by the sampling teams. Samples were submitted for analysis to the on-site laboratory or contract laboratories. The identity of duplicate samples is held blind to the analysts, and the purpose of these samples is to provide activity-specific, field-originated information regarding the homogeneity of the sampled matrix and the consistency of the sampling effort. These samples were collected concurrently with the primary environmental samples and equally represent the medium at a given time and location. Duplicate samples were collected from each medium addressed by this project and were submitted to the contracted laboratories for analysis. Approximately one duplicate sample was collected for every 20 field samples of each matrix and analyte across the SLS. Precision is measured by the relative percent difference (RPD) for radiological and non-radiological analyses or by the normalized absolute difference (NAD) for radiological analyses.

The RPDs for non-radiological analyses are presented in Table 5-1. The RPDs and NADs for radiological analyses are presented in Table 5-2. The overall precision for the CY 2014 environmental monitoring sampling activities was acceptable. See Section 5.9 for the evaluation process.

Table 5-1. Non-radiological Duplicate Sample Analysis for CY 2014

Ground-Water Sample Name	Arsenic	Cadmium
	RPD	RPD
SLD177505 / SLD177505-1	NC	NC

-1 Sample Duplicate
NC Not calculated due to one or both concentrations being below DLs.

Table 5-2. Radiological Duplicate Sample Analysis for CY 2014

Ground-Water Sample Name	Arsenic	Cadmium
	RPD	RPD
SLD177505 / SLD177505-1	NC	NC

-1 Sample Duplicate
NC Not calculated due to one or both concentrations being below minimum detectable concentrations (MDCs).

5.7.2 Split Samples

Split samples measure accuracy and were collected by the sampling team and sent to a USACE QA laboratory for analysis to provide an independent assessment of contractor and subcontractor laboratory performance. Approximately one split sample was collected for every 20 field samples of each matrix for non-radiological and radiological analytes across the SLS. The RPDs and NADs for non-radiological analyses are presented in Table 5-3. The RPDs and NADs for radiological analyses are presented in Table 5-4. The overall accuracy for CY 2014 environmental monitoring sampling activities was acceptable. See Section 5.9 for the evaluation process.

Table 5-3. Non-radiological Split Sample Analysis for CY 2014

Ground-Water Sample Name	Arsenic	Cadmium
	RPD	RPD
SLD177505 / SLD177505-2	NC	NC

-2 Sample Split
NC Not calculated due to one or both concentrations being below DLs.

Table 5-4. Radiological Split Sample Analysis for CY 2014

Sample Name	Ra-226		Ra-228		Th-228		Th-230	
	RPD	NAD	RPD	NAD	RPD	NAD	RPD	NAD
SLD177505 / SLD177505-2	NC	NA	*	*	NC	NA	89.27	0.92
	Th-232		U-234		U-235		U-238	
	RPD	NAD	RPD	NAD	RPD	NAD	RPD	NAD
	NC	NA	7.36	NA	21.97	NA	19.90	NA

* Not calculated, because either the parent or duplicate sample was not analyzed.
-2 Sample Split
NA Not applicable; see RPD.
NC Not calculated due to one or both concentrations being below MDCs.

5.7.3 Equipment Rinsate Blanks

Equipment rinsate blanks are typically taken from the water rinsate collected from equipment decontamination activities and comprise samples of analyte-free water that has been rinsed over sampling equipment for the purposes of decontamination, collected, and submitted for analysis of the parameters of interest. All of the monitoring wells have dedicated sampling equipment, rendering decontamination unnecessary. Because decontamination does not apply, equipment rinsate blanks were not employed.

5.8 DATA REVIEW, EVALUATION, AND VALIDATION

All data packages received from the analytical laboratory were reviewed and either evaluated or validated by data management personnel. Data validation is the systematic process of ensuring that the precision and accuracy of the analytical data are adequate for their intended use. Validation was performed in accordance with USEPA regional or National Functional Guidelines, or with project-specific guidelines. General chemical data quality management guidance found in Engineer Regulation (ER)-1110-1-263 (USACE 1998b) was also used when planning for chemical data management and evaluation. Additional details of data review, evaluation, and validation are provided in the *FUSRAP Laboratory Data Management Process for the St. Louis Site* (USACE 1999b). Data assessment guidance, to determine the usability of data from hazardous, toxic and radioactive waste projects, is provided in EM-200-1-6 (USACE 1997).

One hundred (100) percent of the data generated from all analytical laboratories was independently reviewed and either evaluated or validated. The data review process documents the possible effects on the data that result from various QC failures; it does not determine data usability, nor does it include assignment of data validation qualifier (VQ) flags. The data evaluation process uses the results of the data review to determine the usability of the data. The process of data evaluation summarizes the potential effects of QA/QC failures on the data, and the USACE District Chemist or District Health Physicist assesses their impact on the attainment of the project-specific data quality objectives (DQOs). Consistent with the data quality requirements, as defined in the DQOs, approximately 10 percent of all project data were validated.

5.9 PRECISION, ACCURACY, REPRESENTATIVENESS, COMPARABILITY, COMPLETENESS, AND SENSITIVITY

The data evaluation process considers precision, accuracy, representativeness, completeness, comparability, and sensitivity. The following subsections will provide detail to the particular parameters and to how the data were evaluated for each, with discussion and tables to present the associated data.

Accuracy and precision can be measured by the RPD or the NAD using the following equations:

$$RPD = \left(\frac{\frac{|S - D|}{\frac{S + D}{2}}} \right) \times 100$$

$$NAD = \frac{|S - D|}{\sqrt{U_S^2 + U_D^2}}$$

where:

S = Parent Sample Result
D = Duplicate/Split Sample Result
U_S = Parent Sample Uncertainty
U_D = Duplicate/Split Sample Uncertainty

The RPD is calculated for all samples if a detectable result is reported for both the parent and the QA field split or field duplicate. For radiological samples, when the RPD is greater than 30 percent, the NAD is used to determine the accuracy or precision of the method. NAD accounts for uncertainty in the results, RPD does not. The NAD should be less than or equal to 1.96. Neither equation is used when the analyte in one or both of the samples is not detected. In cases in which neither equation can be used, the comparison is counted as acceptable in the overall number of comparisons.

Precision is a measure of mutual agreement among individual measurements performed under the same laboratory controls. To evaluate for precision, a field duplicate is submitted to the same laboratory as the original sample to be analyzed under the same laboratory conditions. The RPD and NAD between the two results was calculated and used as an indication of the precision of the analyses performed (Tables 5-1 and 5-2). Sample collection precision was measured in the laboratory by the analyses of duplicates. The overall precision for the CY 2014 environmental monitoring sampling activities was acceptable.

Accuracy provides a gauge or measure of the agreement between an observed result and the true value for an analysis. The RPD and NAD between the two results was calculated and used as an indication of the accuracy of the analyses performed (Tables 5-3 and 5-4). For this report, accuracy is measured through the use of the field split samples through a comparison of the prime laboratory results versus the results of an independent laboratory. The overall accuracy for CY 2014 environmental monitoring sampling activities was acceptable.

Representativeness expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Representativeness is a qualitative parameter that depends upon the proper design of the sampling program and proper laboratory protocols. Representativeness is satisfied through proper design of the sampling network, use of proper sampling techniques, following proper analytical procedures, and not exceeding holding times of the samples. Representativeness was determined by assessing the combined aspects of the QA program, QC measures, and data evaluations. The network design was developed from the EMICY14; the sampling protocols from the SAG have been followed; and, analytical procedures were conducted

within the bounds of the QAPP. The overall representativeness of the CY 2014 environmental monitoring sampling activities was acceptable for the media and sampling previously listed in this document.

Comparability expresses the confidence with which one dataset can be compared to another. The extent to which analytical data will be comparable depends upon the similarity of sampling and analytical methods, as well as sample-to-sample and historical comparability. Standardized and consistent procedures used to obtain analytical data are expected to provide comparable results. These most recent (post CY 1997) analytical data, however, may not be directly comparable to data collected before CY 1997, because of differences in DQOs. Some sample media, such as storm-water and radiological monitoring, have values that are primarily useful in the present, thus the comparison to historic data is not as relevant. The overall comparability of the applicable environmental monitoring sampling data met the project DQOs.

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under normal conditions. It is expected that laboratories will provide data meeting QC acceptance criteria for all samples tested. For the CY 2014 environmental monitoring sampling activities, the data completeness was 100 percent (FUSRAP DQO for completeness is 90 percent).

Sensitivity is the determination of minimum detectable concentration (MDC) values that allows the investigation to assess the relative confidence that can be placed in an analytical result in comparison to the magnitude or level of analyte concentration observed. For this report, MDC is a term generically used to represent both the method detection limit (MDL) for non-radiological analytes and the minimum detectable activity (MDA) for radiological analytes. The closer a measured value to the MDC, the less confidence and more variation the measurement will have. Project sensitivity goals were expressed as quantitation level goals in the SAG. These levels were achieved or exceeded throughout the analytical process.

The MDC is reported for each result obtained by laboratory analysis. These very low MDCs are achieved through the use of gamma spectroscopy for all radionuclides of concern, with additional analyses from alpha spectroscopy for thorium, and inductively coupled plasma (ICP) for metals. Variations in MDCs for the same radiological analyte reflects variability in the detection efficiencies and conversion factors due to factors such as individual sample aliquot, sample density, and variations in analyte background radioactivity for gamma and alpha spectroscopy, at the laboratory. Variations in MDLs for the same non-radiological analyte reflect variability in calibrations between laboratories, dilutions, and analytical methods. In order to complete the data evaluation (i.e., precision, accuracy, representativeness, and comparability), analytical results that exceed the MDC of the analyte are desired.

5.10 DATA QUALITY ASSESSMENT SUMMARY

The overall quality of the data meets the established project objectives. Through proper implementation of the project data review, evaluation, validation, and assessment process, project information has been determined to be acceptable for use.

Data, as presented, have been qualified as usable, but estimated when necessary. Data that have been estimated have concentrations/activities that are below the quantitation limit or are indicative of accuracy, precision, or sensitivity less than desired but adequate for interpretation.

These data can withstand scientific scrutiny, are appropriate for their intended purpose, are technically defensible, and are of known and acceptable precision and accuracy. Data integrity

has been documented through proper implementation of QA/QC measures. The environmental information presented has an established confidence, which allows utilization for the project objectives and provides data for future needs.

5.11 RESULTS FOR PARENT SAMPLES AND THE ASSOCIATED DUPLICATE AND SPLIT SAMPLES

Summaries of the QA parent sample results and associated duplicate and/or split sample results are presented in Tables 5-5 and 5-6.

Table 5-5. Non-Radiological Parent Samples and Associated Duplicate and Split Samples for CY 2014

Ground-Water Sample Name[b]	Arsenic[a]			Cadmium[a]		
	Result	MDC	VQ	Result	MDC	VQ
SLD177505	1.00	1.00	U	0.50	0.50	U
SLD177505-1	1.00	1.00	U	0.76	0.50	=
SLD177505-2	9.60	5.00	=	2.00	2.00	U

[a] Results are expressed in ug/L.
[b] Samples ending in "-1" are duplicate samples. Samples ending in "-2" are split samples.
VQ symbols indicate: "=" for positively identified results, "U" for not detected.

Table 5-6. Radiological Parent Samples and Associated Duplicate and Split Samples for CY 2014

Ground-Water Sample Name[b]	Ra-226[a]				Ra-228[a]				Th-228[a]			
	Result	Error	MDC	VQ	Result	Error	MDC	VQ	Result	Error	MDC	VQ
SLD177505	0.19	0.44	0.92	UJ	*	*	*	*	0.17	0.18	0.25	UJ
SLD177505-1	0.41	0.54	0.90	UJ	*	*	*	*	0.06	0.09	0.08	UJ
SLD177505-2	-0.01	0.11	0.22	UJ	*	*	*	*	0.07	0.05	0.06	J
	Th-230[a]				Th-232[a]				U-234[a]			
	Result	Error	MDC	VQ	Result	Error	MDC	VQ	Result	Error	MDC	VQ
SLD177505	0.34	0.22	0.09	J	-0.03	0.07	0.25	UJ	4.19	1.14	0.24	=
SLD177505-1	0.33	0.21	0.08	J	0.03	0.06	0.08	UJ	5.86	1.67	0.12	=
SLD177505-2	0.13	0.05	0.05	J	0.00	0.02	0.04	UJ	4.51	0.48	0.06	=
	U-235[a]				U-238[a]							
	Result	Error	MDC	VQ	Result	Error	MDC	VQ				
SLD177505	0.20	0.18	0.11	J	2.67	0.80	0.09	=				
SLD177505-1	0.16	0.19	0.15	UJ	3.50	1.12	0.32	=				
SLD177505-2	0.16	0.06	0.02	=	3.26	0.37	0.06	=				

* Data for analyte not available from laboratory analysis. Ra-228 assumed to be in equilibrium with Th-228.
[a] Results are expressed in pCi/L. Negative results are less than the laboratory system's background level.
[b] Samples ending in "-1" are duplicate samples. Samples ending in "-2" are split samples.
VQ symbols indicate: "=" for positively identified results, "J" analyte was identified as estimated quantity, and "UJ" analyte was not detected and had QC deficiencies.

6.0 RADIOLOGICAL DOSE ASSESSMENT

This section evaluates the cumulative dose to a hypothetically impacted individual from exposure to radiological contaminants at the SLDS and documents dose trends. The regulatory dose limit for members of the public is 100 mrem/yr, as stated in 10 *CFR* 20.1301. Although 10 *CFR* 20.1301 is not an ARAR for the SLDS, the USACE has provided this evaluation to evaluate public exposures from FUSRAP cleanup operations. Compliance with the dose limit in §20.1301 can be demonstrated in one of the two following methods [§20.1302(b)(1) and (2)]:

1) Demonstrating by measurement or calculation that the TEDE to the individual likely to receive the highest dose from SLDS operations does not exceed the annual dose limit (i.e., 100 mrem/yr); or

2) Demonstrating that: (*i*) the annual average concentration of radioactive material released in gaseous and liquid effluents at the boundary of the unrestricted area does not exceed the values specified in Table 2 of Appendix B to Part 20; and (*ii*) if an individual were continuously present in an unrestricted area, the dose from external sources would not exceed 2 millirem (mrem) per hour.

The USACE has elected to demonstrate compliance by calculation of the TEDE to a hypothetical individual likely to receive the highest dose from the SLDS operations (method 1). This section describes the methodology employed for this evaluation.

Dose calculations are presented for a hypothetical maximally exposed individual at the SLDS. The monitoring data used in the dose calculations are reported in the respective environmental monitoring sections of this report.

Dose calculations related to airborne emissions, as required by 40 *CFR* 61, Subpart I (*National Emission Standards for Emissions of Radionuclides Other Than Radon From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered By Subpart H)*, are presented in Appendix A, the SLDS FUSRAP CY 2014 Radionuclide Emissions NESHAP Report.

6.1 SUMMARY OF ASSESSMENT RESULTS

The TEDE from the SLDS to the receptor from all complete/applicable pathways combined was less than 0.1 mrem/yr, estimated for an individual who works full-time at Thomas & Proetz Lumber Company (DT-10).

Figure 6-1 documents annual dose trends from CY 2000 to CY 2014 at the SLDS. Figure 6-2 provides a comparison of the maximum annual dose from CY 2000 to CY 2014 at the SLDS to the annual average natural background dose of approximately 300 mrem/yr.

6.2 PATHWAY ANALYSIS

Table 6-1 lists the four complete pathways for exposure from radiological contaminants evaluated by the St. Louis FUSRAP EMP. These pathways are used to identify data gaps in the EMP and to estimate potential radiological exposures from the site. Of the four complete pathways, three were applicable in CY 2014 and were thus incorporated into radiological dose estimates.

Table 6-1. Complete Radiological Exposure Pathways for the SLDS

Exposure Pathway	Pathway Description	Applicable to CY 2014 Dose Estimate
Liquid A	Ingestion of ground water from local wells downgradient from the site.	N
Airborne A	Inhalation of particulates dispersed through wind erosion and RAs.	Y
Airborne B	Inhalation of Rn-222 and decay products emitted from contaminated soils/wastes.	Y
External	Direct gamma radiation from contaminated soils/wastes.	Y

Data from the SLDS storm-water discharges and MSD discharges are not applicable to the hypothesized recreational receptor; therefore, those data are not evaluated in this section.
N Not applicable for the site.
Y Applicable for the site.

In developing specific elements of the St. Louis FUSRAP EMP, potential exposure pathways of the radioactive materials present on-site are reviewed to determine which pathways are complete. Evaluation of each exposure pathway is based on hypothesized sources, release mechanisms, types, probable environmental fates of contaminants, and the locations and activities of potential receptors. Pathways are then reviewed to determine whether a link exists between one or more radiological contaminant sources, or between one or more environmental transport processes, to an exposure point where human receptors are present. If it is determined that a link exists, the pathway is termed complete. Each complete pathway is reviewed to determine whether a potential for exposure was present during CY 2014. If this is the case, the pathway is termed applicable. Only applicable pathways are considered in estimates of dose.

Table 6-1 shows the pathways applicable to the CY 2014 dose estimates for the SLDS. The Liquid A exposure pathway was not applicable in CY 2014, because the aquifer is of naturally low quality and it is not known to be used for any domestic purpose in the vicinity of the SLDS (DOE 1994).

6.3 EXPOSURE SCENARIOS

Dose calculations were performed for a maximally exposed individual at a critical receptor location for applicable exposure pathways (Table 6-1) to assess dose due to radiological releases from the SLDS. A second set of dose equivalent calculations were performed to meet NESHAP requirements (Appendix A), which were also used for purposes of TEDE calculation.

The scenarios and models used to evaluate these radiological exposures are conservative, but appropriate. Although radiation doses can be calculated or measured for individuals, it is not appropriate to predict the health risk to a single individual using the methods prescribed herein. Dose equivalents to a single individual are estimated by hypothesizing a maximally exposed individual and placing this individual in a reasonable, but conservative scenario. This method is acceptable when the magnitude of the dose to a hypothetical maximally exposed individual is small, as is the case for the SLDS. This methodology provides for reasonable estimates of potential exposure to the public and maintains a conservative approach. The scenarios and resulting estimated doses are outlined in Section 6.4.

6.4 DETERMINATION OF TOTAL EFFECTIVE DOSE EQUIVALENT FOR EXPOSURE SCENARIOS

The TEDE for the exposure scenario was calculated using CY 2014 monitoring data. Calculations for dose scenarios are provided in Appendix E. Dose equivalent estimates are well below the

standards set by the U.S. Nuclear Regulatory Commission (NRC) for annual public exposure and USEPA NESHAP limits.

The CY 2014 TEDE for a hypothetical maximally exposed individual near the SLDS is less than 0.1 mrem/yr.

This section discusses the estimated TEDE to a hypothetical maximally exposed individual assumed to frequent the perimeter of the SLDS and receive a radiation dose by the exposure pathways identified in Section 6.2. No private residences are adjacent to the site areas where uranium processing activities occurred. Therefore, all calculations of dose equivalent due to the applicable pathway assume a realistic residence time that is less than 100 percent. A full-time employee business receptor was considered to be the maximally exposed individual from the SLDS.

The exposure scenario assumptions are as follows:

- Exposure to radiation from all SLDS sources occurs to the maximally exposed individual while working full-time outside at the receptor location facility located approximately 50 m (164 ft) from the assumed line source. Exposure time is 2,000 hours per year (Leidos 2015a).
- Exposure from external gamma radiation was calculated using environmental TLD monitoring data at the site locations representative of areas accessible to the public between the source and the receptor. The site is assumed to represent a line-source to the receptor.
- Exposure from airborne radioactive particulates was estimated using soil concentration data and air particulate monitoring data to determine a source term, and then running the CAP-88 PC modeling code to estimate dose to the receptor (Leidos 2015a).
- Exposure from Rn-222 (and progeny) was calculated using a dispersion factor and Rn-222 (alpha track) monitoring data at the site locations representative of areas accessible to the public between the source and receptor (Leidos 2015a).

Based on the exposure scenario and assumptions described above, a maximally exposed individual working outside at the receptor location facility received 0 mrem/yr from external gamma, less than 0.1 mrem/yr from airborne radioactive particulates, and 0 mrem/yr from Rn-222, for a TEDE of less than 0.1 mrem/yr (Leidos 2015a). In comparison, the average exposure to natural background radiation in the United States results in a TEDE of approximately 300 mrem/yr (NCRP 2009).

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7.0 REFERENCES

Cember, H., 1996. *Introduction to Health Physics,* Mcgraw-Hill, New York, NY.

City of St. Louis 2005. City Ordinance 66777, effective August 2005.

DOD 2000. U.S. Department of Defense, U.S. Department of Energy, U.S. Environmental Protection Agency, and U. S. Nuclear Regulatory Commission. *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).* NUREG 1575. EPA 402-R-97-016. August.

DOD 2013. U.S. Department of Defense. *Department of Defense Quality Systems Manual for Environmental Laboratories,* DOD Version 5.0, July.

DOE 1994. U.S. Department of Energy. *Remedial Investigation Report for the St. Louis Site,* St. Louis, Missouri, DOE/OR/21949-280, January.

DOE 1995. U.S. Department of Energy. *Remedial Investigation Addendum for the St. Louis Site,* St. Louis, Missouri, DOE/OR/ 21950-132, September.

DOE 1998. U.S. Department of Energy. *Internal Dosimetry Program Technical Basis Manual,* DOE/OR/21548-241, Oak Ridge Operations Office, Rev. 5, November.

Gibbons, Robert D. 1994. *Statistical Methods for Groundwater Monitoring,* John Wiley and Sons, Inc., New York, January.

Leidos 2015a. Leidos Incorporated. *Total Effective Dose Equivalent (TEDE) to the Hypothetically Maximally Exposed Individual at SLDS,* March.

Leidos 2015b. Leidos Incorporated. Environmental Science & Engineering Operation, Standard Operating Procedure. "Control of Nonconforming Items," ESE A15.1, Rev. 0, January 31.

MSD 1998. Metropolitan St. Louis Sewer District. Letter dated October 30, 1998. From Bruce H. Litzsinger, Civil Engineer, to Ken Axetel, International Technology Corporation.

MSD 2001. Metropolitan St. Louis Sewer District. Letter dated July 23, 2001. From Bruce H. Litzsinger, Civil Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: St. Louis Downtown Site. File: IU – Mallinckrodt 21120596-00.

MSD 2004. Metropolitan St. Louis Sewer District. Letter dated October 13, 2004. From Roland A. Biehl, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. File: IU – Mallinckrodt 21120596-00.

MSD 2006. Metropolitan St. Louis Sewer District. Letter dated June 19, 2006. From Roland A. Biehl, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: FUSRAP St. Louis Downtown Site, File: IU-Mallinckrodt 2112059600, SP809.

MSD 2008. Metropolitan St. Louis Sewer District. Letter dated May 22, 2008. From Steven M. Grace, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: FUSRAP St. Louis Downtown Site, File: IU-Mallinckrodt 2112059600, SP809.

MSD 2010. Metropolitan St. Louis Sewer District. Letter dated May 10, 2010. From Steven M. Grace, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: FUSRAP St. Louis Downtown Site, File: IU-Mallinckrodt 2112059600, SP809.

MSD 2012. Metropolitan St. Louis Sewer District. Letter dated May 24, 2012. From Steven M. Grace, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: FUSRAP St. Louis Downtown Site, File: IU-Mallinckrodt 2112059600, SP809.

MSD 2014. Metropolitan St. Louis Sewer District. Letter dated June 23, 2014. From Steven M. Grace, Environmental Assistant Engineer, to Sharon Cotner, USACE FUSRAP Project Manager. Subject: FUSRAP St. Louis Downtown Site, File: IU-Mallinckrodt 1011728100, SP809.

NCRP 1988. National Council on Radiation Protection and Measurements. *Measurement of Radon and Radon Daughters in Air,* NCRP Report No. 97. November.

NCRP 2009. National Council on Radiation Protection and Measurements. *Ionizing Radiation Exposure of the Population of the United States,* NCRP Report No. 160. 3 March.

UNSCEAR 1982. *United Nations Scientific Committee on the Effects of Atomic Radiation, 37th Session, Supplement No. 45 (A/37/45).* United Nations, New York, NY.

USACE 1997. U.S. Army Corps of Engineers. *Engineering and Design – Chemical Data Quality Management for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects,* Engineer Manual, EM-200-1-6, October.

USACE 1998a. U.S. Army Corps of Engineers. *Record of Decision for the St. Louis Downtown Site,* St. Louis, Missouri, Final, July.

USACE 1998b. U.S. Army Corps of Engineers. *Engineering and Design – Chemical Data Quality Management for Hazardous, Toxic, and Radioactive Waste Activities,* Engineer Regulation, ER-1110-1-263, April.

USACE 1999a. U.S. Army Corps of Engineers. *Environmental Monitoring Guide for the St. Louis Sites,* Final, December.

USACE 1999b. U.S. Army Corps of Engineers. *FUSRAP Laboratory Data Management Process for the St. Louis Site,* St. Louis, Missouri, June.

USACE 2000. U.S. Army Corps of Engineers. *Sampling and Analysis Guide for the St. Louis Site,* Final, October.

USACE 2001. U.S. Army Corps of Engineers. *Requirements for the Preparation of Sampling and Analysis Plans,* Engineer Manual, EM 200-1-3, February.

USACE 2003. U.S. Army Corps of Engineers. *Phase 1 Ground-Water Remedial Action Alternative Assessment (GRAAA) at SLDS,* St. Louis Missouri, Final, June.

USACE 2013. U.S. Army Corps of Engineers. *Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for Calendar Year 2014,* St. Louis, Missouri, Revision 0, December.

USACE 2013. U.S. Army Corps of Engineers. *Laboratory Quality Assurance Plan for the FUSRAP St. Louis Radiological Laboratory*, Berkeley, Missouri. Revision 8. April 2013.

USEPA 1987. U.S. Environmental Protection Agency. *Environmental Radon; Volume 35,* New York.

USEPA 1989. U.S. Environmental Protection Agency. *Exposure Factor Handbook EPA/600/8-89/043*, Office of Health and Environmental Assessment, Washington D.C., July.

USEPA 1991. U.S. Environmental Protection Agency. *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* QAMS-005/80.

USEPA 1993. U.S. Environmental Protection Agency. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846,* Third Edition, Revision 1, Updates 1, 2, and 3.

USEPA 1994. U.S. Environmental Protection Agency. *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations,* EPA QA/R-5, January.

USEPA 2000. U.S. Environmental Protection Agency. *Guidance for Data Quality Assessment - Practical Methods for Data Analysis,* EPA QA/G-9, QA00 Update, July.

USEPA 2014. U.S. Environmental Protection Agency. CAP88-PC Version 4.0 Modeling Code, September.

10 *CFR* 20, *Standards for Protection Against Radiation.*

10 *CFR* 20.1301, *Dose Limits for Individual Members of the Public.*

40 *CFR* 61, Subpart I, *National Emission Standards for Radionuclide Emissions from Federal Facilities Other than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H.*

40 *CFR* 192, *Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.*

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FIGURES

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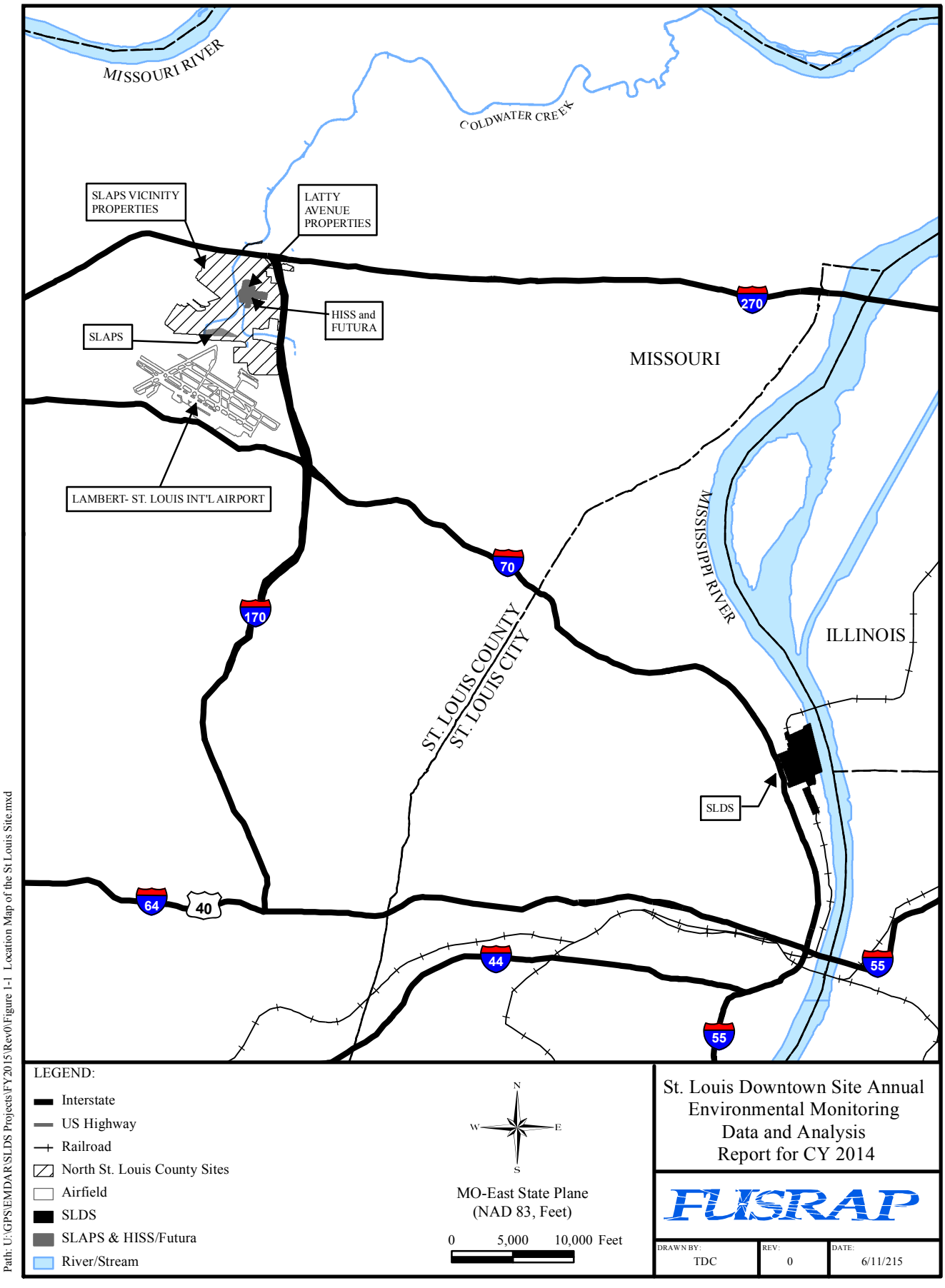

Figure 1-1. Location Map of the St. Louis Sites

Path: U:\GPS\EMDAR\SLDS Projects\FY2015\Rev0\Figure 1-2 Plan View of the SLDS.mxd

LEGEND

- Railroad
- Fence
- ROD Boundary
- Property Boundary
- Mallinckrodt Property
- River/Stream
- Road
- Building
- Tank

MO-East State Plane
(NAD 83, Feet)

0 325 650 Feet

St. Louis Downtown Site Annual Environmental Monitoring Data and Analysis Report for CY 2014

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Figure 1-2. Plan View of the SLDS

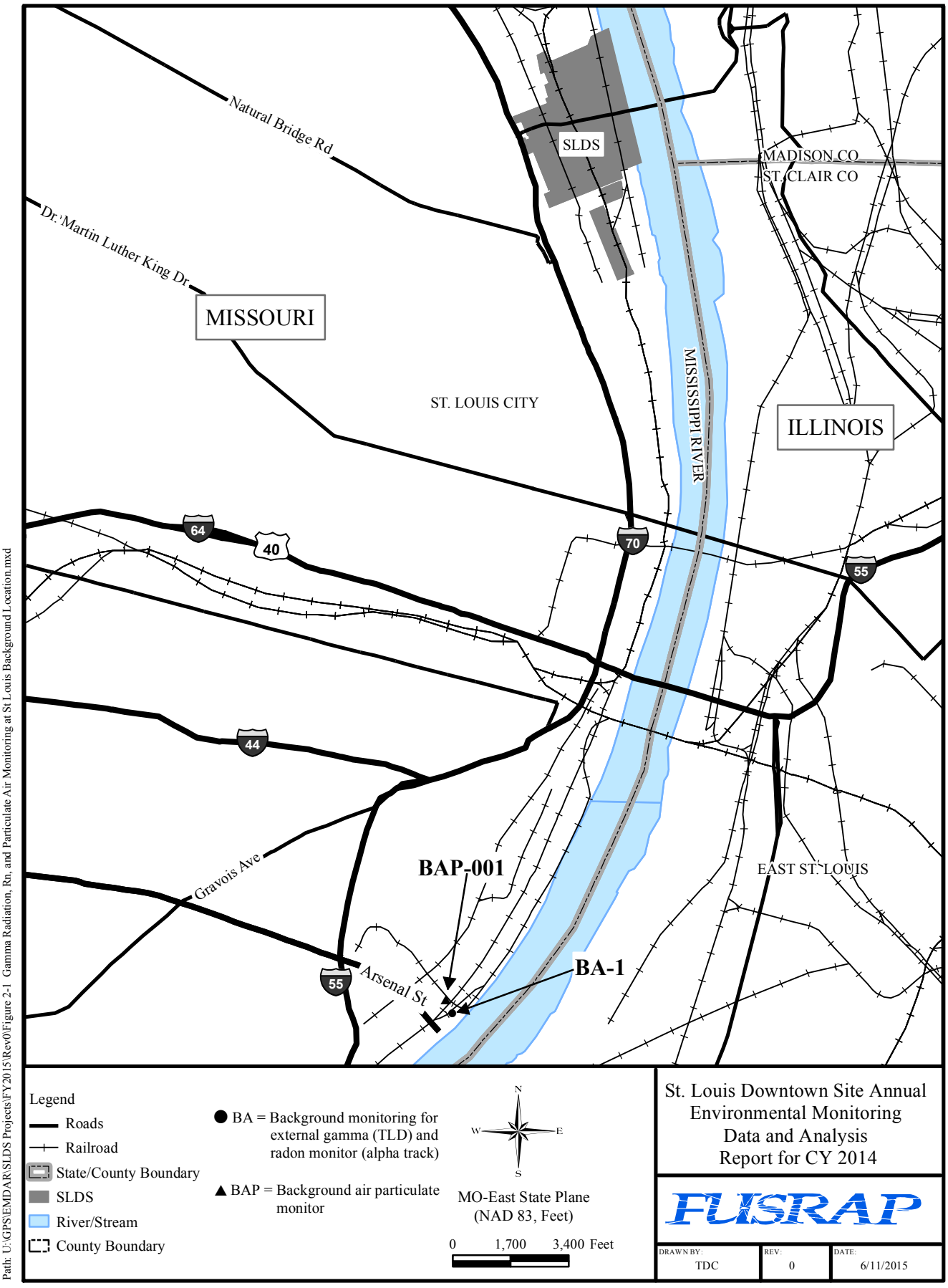

Figure 2-1. Gamma Radiation, Rn, and Particulate Air Monitoring at St. Louis Background Location - USACE Service Base

Figure 2-2. Gamma Radiation and Radon Monitoring Locations at the SLDS

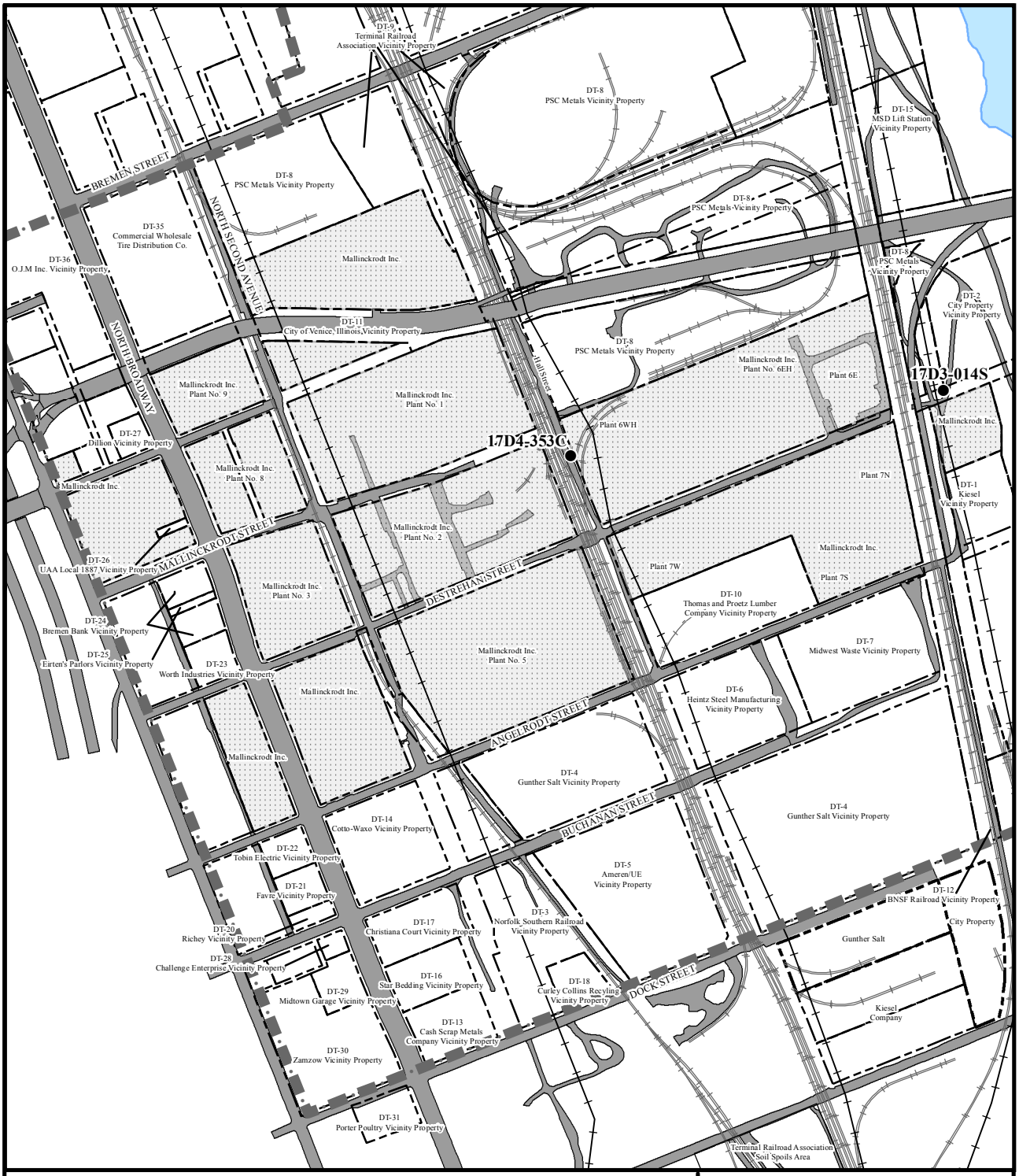

Figure 3-1. Excavation-Water Discharge MSD Manholes at the SLDS

Unit Designation	Approximate Thickness (ft)	Description
Upper Hydrostratigraphic Unit (HU-A)	0-25	**RUBBLE and FILL** Grayish black (N2) to brownish black (5YR2/1). Dry to slightly moist, generally becoming moist at 5 to 6 ft and saturated at 10 to 12 ft. Slight cohesion, variable with depth, moisture content, and percentage of fines present. Consistency of relative density is unrepresentative due to large rubble fragments. Rubble is concrete, brick, glass, and coal slag. Percentage of fines as silt or clay increases with depth from 5 to 30 percent. Some weakly cemented aggregations of soil particles. Adhesion of fines to rubble increases with depth and higher moisture content. Degree of compaction is slight to moderate with frequent large voids.
	0-10	**Silty CLAY (CH)** Layers are mostly olive gray (5Y2/1), with some olive black (5Y2/1). Predominantly occurs at contact of undisturbed material, or at boundary of material with elevated activity. Abundant dark, decomposed organics. Variable percentages of silt and clay composition.
	0-5	**CLAY (CL)** Layers are light olive gray (5Y5/2), or dark greenish gray (5GY4/1). Slightly moist to moist, moderate cohesion, medium stiff consistency. Tends to have lowest moisture content. Slight to moderate plasticity.
	0-2.5	**Interbedded CLAY, silty CLAY, SILT and Sandy SILT (CL, ML, SM)** Dark greenish gray (5GY4/1) to light olive gray (5Y6/1). Moist to saturated, dependent on percentage of particle size. Contacts are sharp, with structure normal to sampler axis to less than 15 degrees downdip. Layer thicknesses are variable, random in alternation with no predictable vertical gradation or lateral continuity. Some very fine-grained, rounded silica sand as stringers. Silt in dark mafic/biotite flakes. Some decomposed organics.
Lower Hydrostratigraphic Unit (HU-B)	0-10	**Sandy SILT (ML)** Olive gray (5Y4/1). Moist with zones of higher sand content saturated. Slight to moderate cohesion, moderate compaction. Stiff to very stiff consistency, rapid dilatancy, nonplastic. Sand is well sorted, very fine and fine-grained rounded quartz particles.
	0-50	**Silty SAND and SAND (SM, SP, SW)** Olive gray (5Y4/1). Saturated, slight cohesion, becoming noncohesive with decrease of silt particles with depth. Dense, moderate compaction. Moderate to well-graded, mostly fine- and medium-grained, with some fine- and coarse-grained particles. Mostly rounded with coarse grains slightly subrounded. Gradual gradation from upper unit, silty sand has abundant dark mafic/biotite flakes. Sand is well-graded, fine gravel to fine sand. Mostly medium-grained, with some fine-grained and few coarse-grained and fine gravel.
Limestone Bedrock Unit (HU-C)	Total thickness not penetrated during drilling	**LIMESTONE** Light olive gray (5Y4/1) with interbedded chert nodules. Generally hard to very hard; difficult to scratch with knife. Slightly weathered, moderately fresh with little to no discoloration or staining. Top 5 ft is moderately fractured, with 99 percent of joints normal to the core axis. Joints are open, planar, and smooth. Some are slightly discolored with trace of hematite staining.

SOURCE: MODIFIED FROM DOE 1994.
NOTE: THE CODES IN PARENTHESES FOLLOWING THE LITHOLOGIES ARE THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) CODES.

THE CODES IN PARENTHESES FOLLOWING THE COLORS REPRESENT CHROMA, HUE, AND VALUE FROM THE MUNSELL SOIL COLOR CHARTS.

NOT TO SCALE

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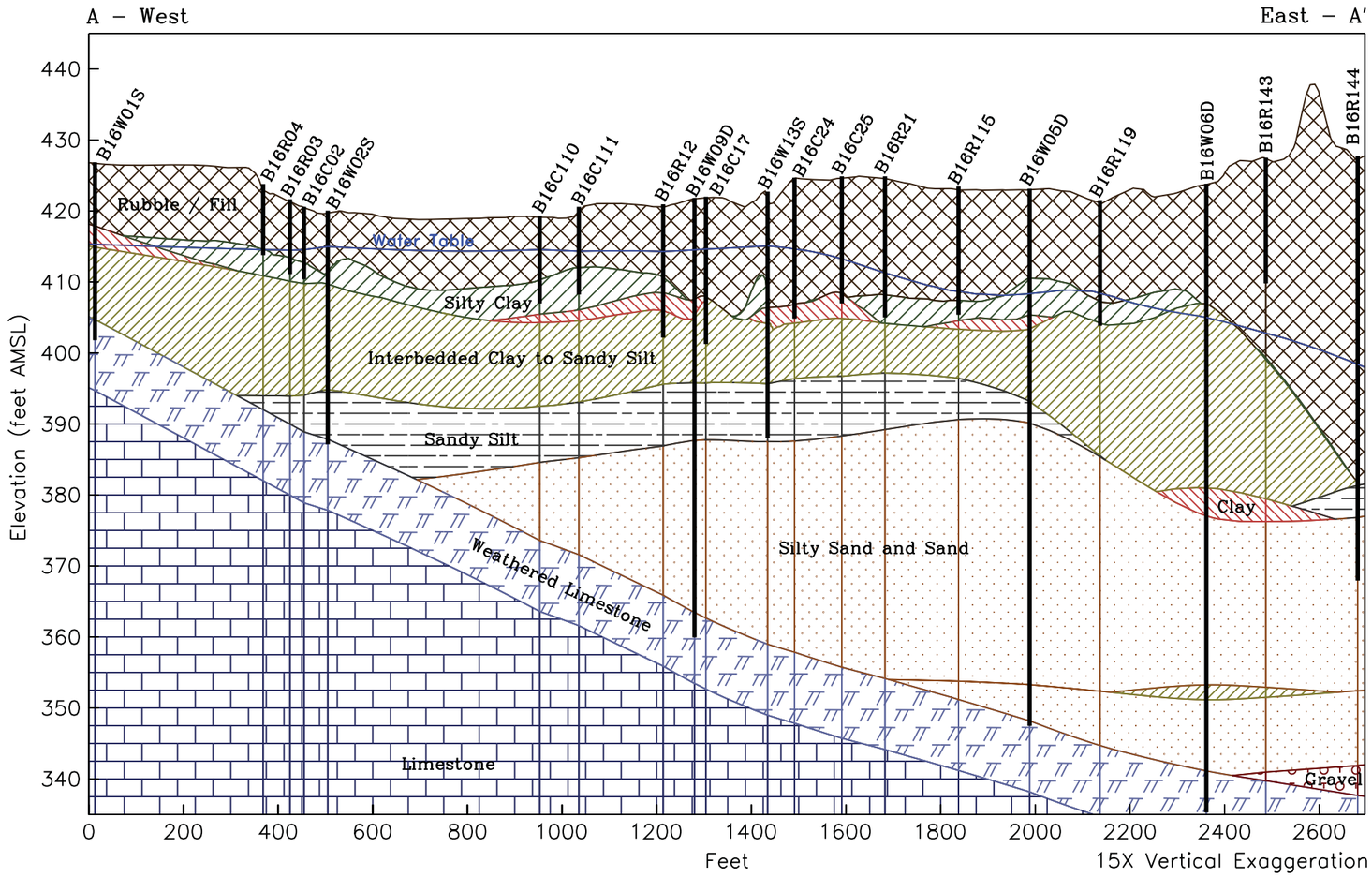
Figure 4-1. Generalized Stratigraphic Column for the SLDS



Geologic data used in the cross section collected prior to 1998.

Cross Section Location Map

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St. Louis Downtown Site
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Figure 4-2. SLDS Geologic Cross-Section A-A'

Figure 4-3. Ground-Water Monitoring Well Locations at the SLDS

Path: U:\GPS\EMDAR\SLDS Projects\FY2015\Rev0\Figure 4-4 Arsenic Concentration Trends in Unfiltered Ground Water at the SLDS.mxd

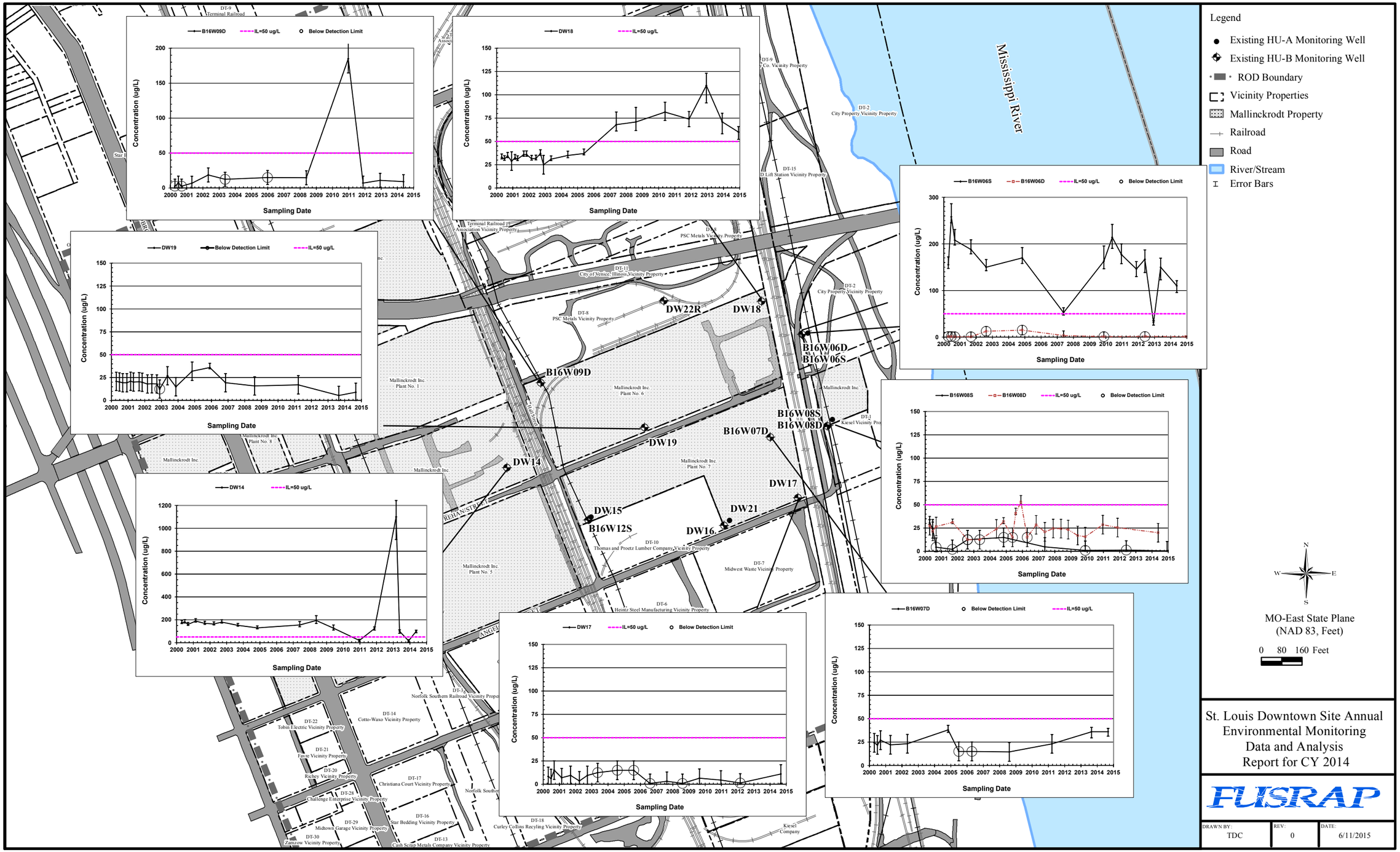
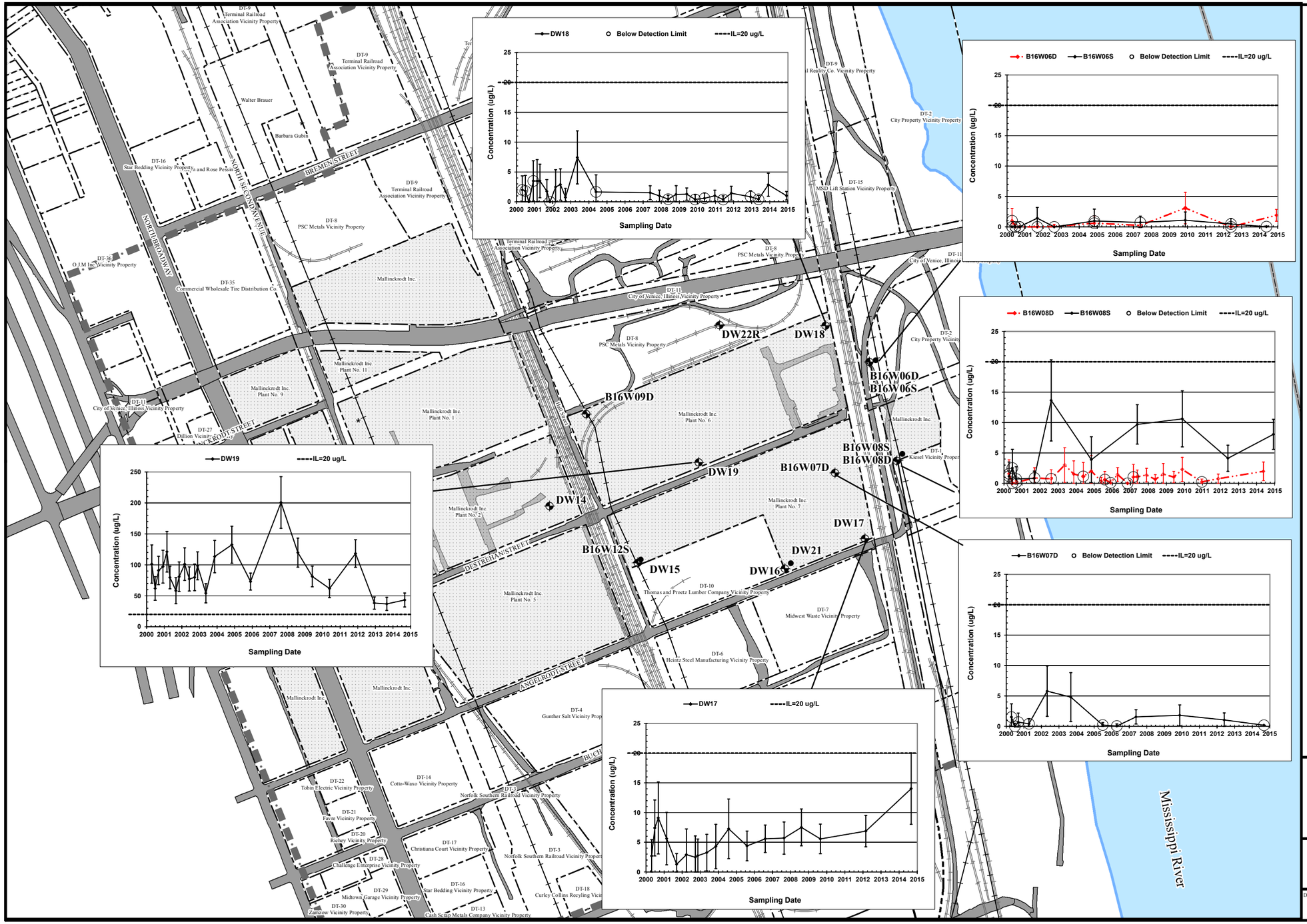


Figure 4-4. Arsenic Concentration Trends in Unfiltered Ground Water at the SLDS

Path: U:\GPS\EMDAR\SLDS Projects\FY2015\Rev0\Figure 4-5 Total Uranium Concentrations in Unfiltered HZ-A Ground Water at the Latty Avenue Properties.mxd



Legend

- Existing HU-A Monitoring Well
- Existing HU-B Monitoring Well
- ROD Boundary
- Vicinity Properties
- Railroad
- Mallinckrodt Property
- Road
- River/Stream
- Error Bars

N
W E
S

MO-East State Plane
(NAD 83, Feet)

0 80 160 Feet

St. Louis Downtown Site Annual Environmental Monitoring Data and Analysis Report for CY 2014

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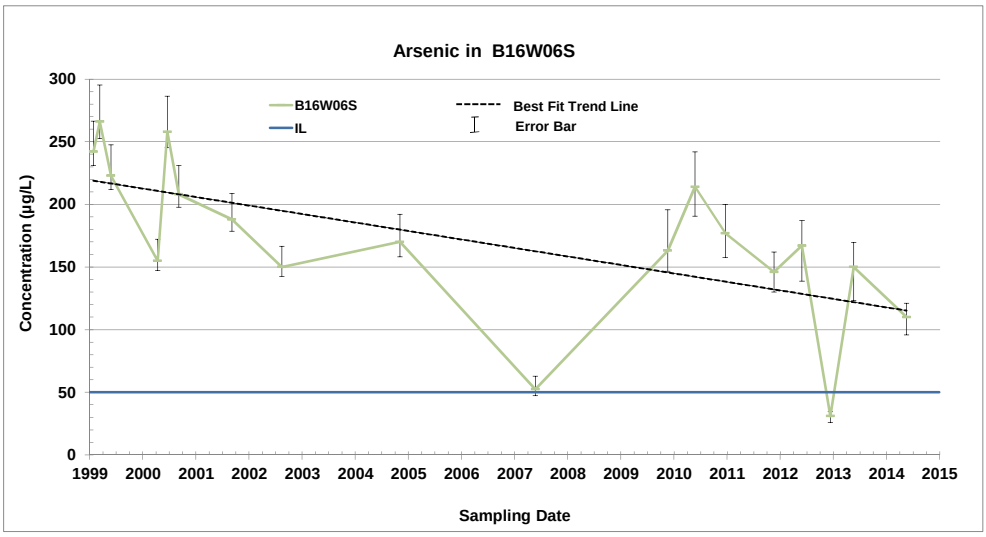
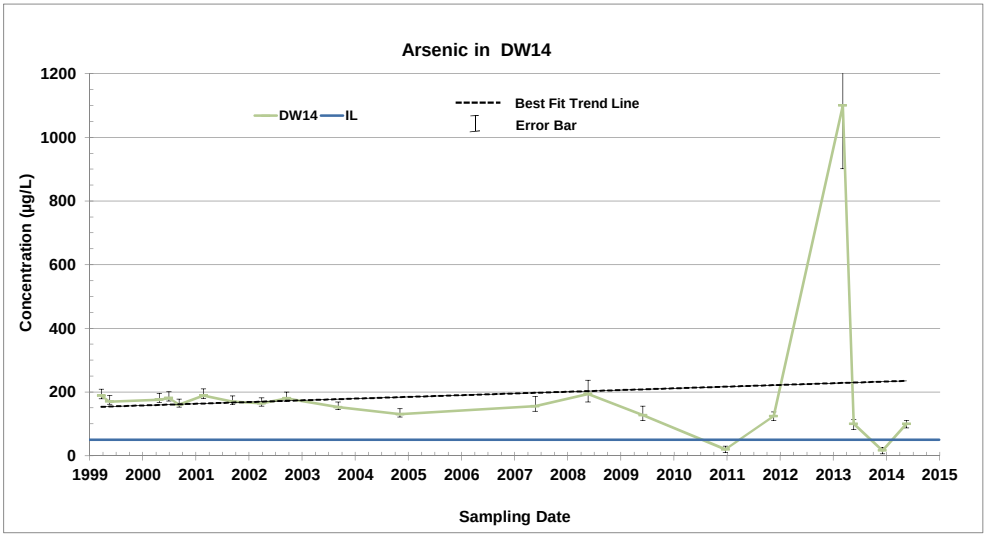
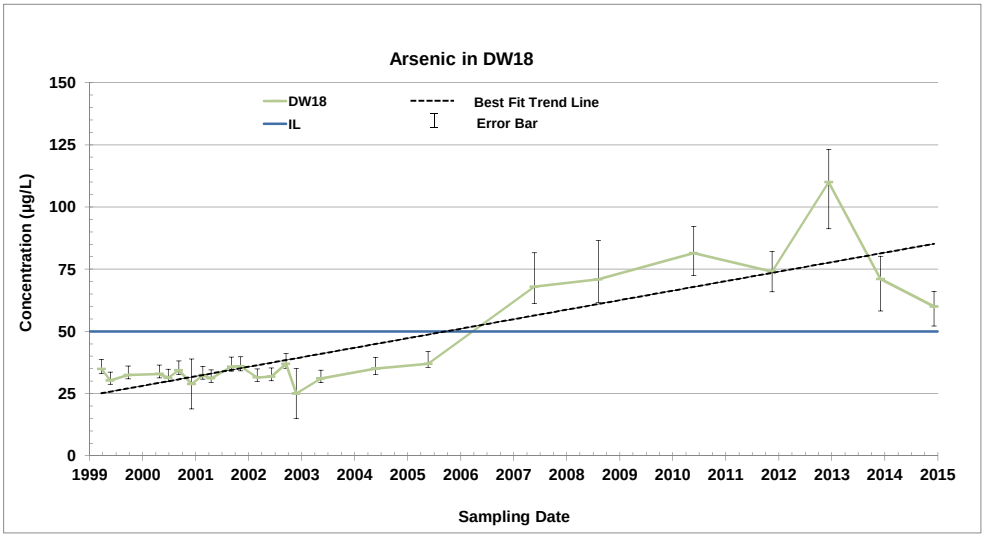
Figure 4-5. Total Uranium Concentration Trends in Unfiltered Ground Water at the SLDS







Notes:

For arsenic results less than 3 times the reporting limit (RL), the error bar represents ± RL.
For arsenic results exceeding 3 times the RL, the error bar represents the upper and lower control limits on the control spike samples.
Arsenic error bars for 2003 and earlier are based on laboratory control limits for 2003. Error bars for 2004 and later are based on laboratory control limits reported for the respective years.

Figure 4-6. Time-Versus-Concentration Plots for Arsenic in Ground-Water Monitoring Wells at the SLDS

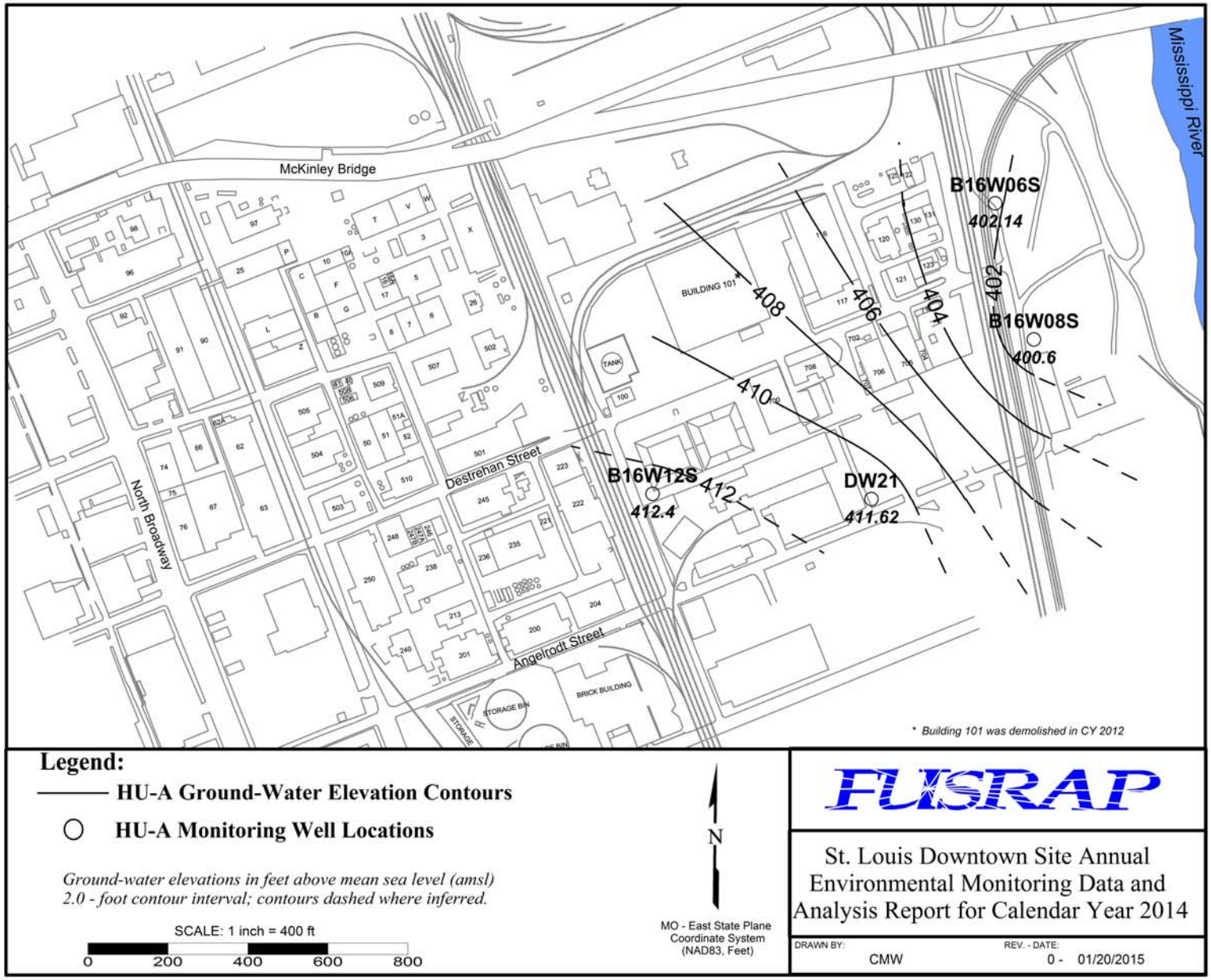


Figure 4-7. HU-A Potentiometric Surface at the SLDS (May 20, 2014)

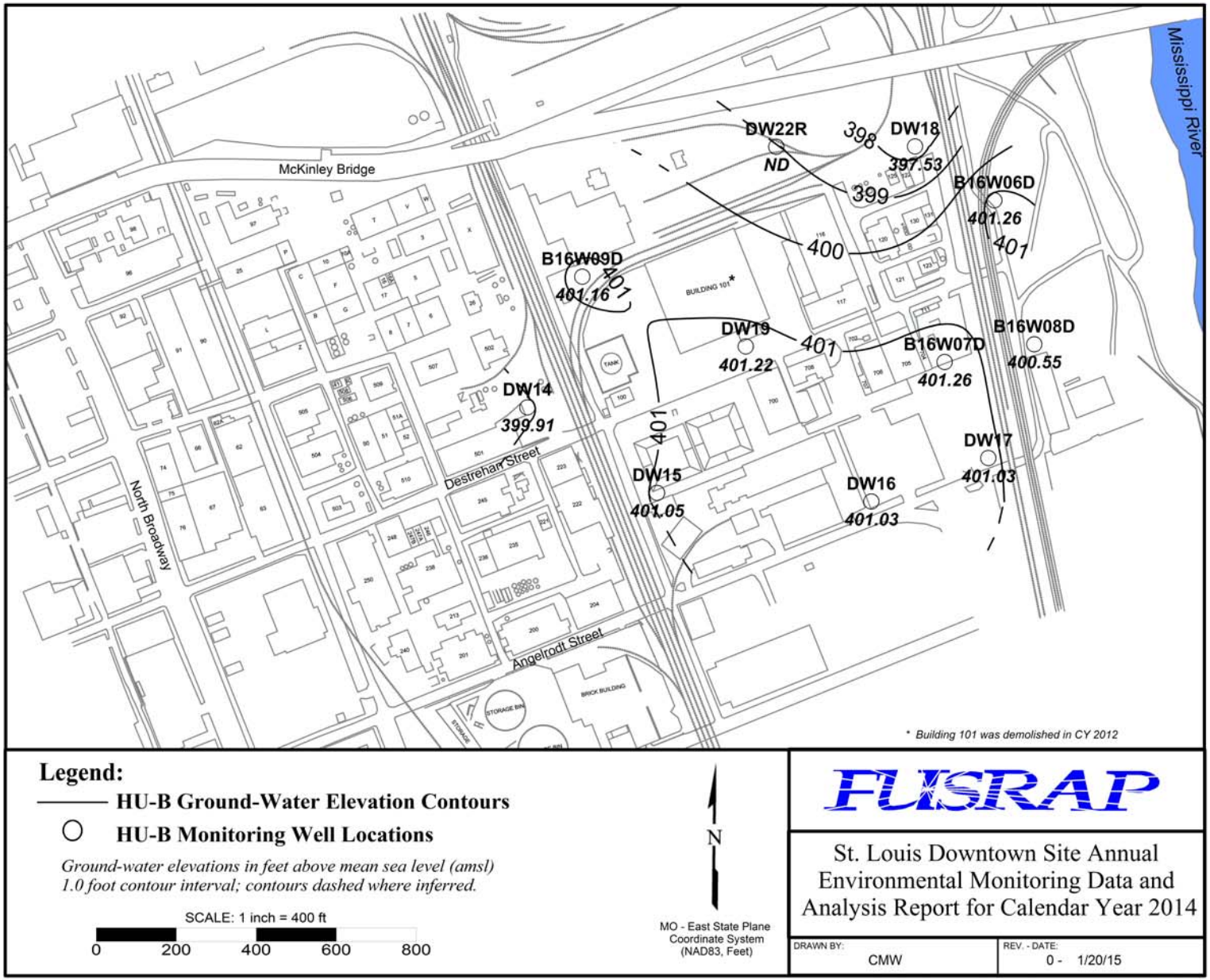


Figure 4-8. HU-B Potentiometric Surface at the SLDS (May 20, 2014)

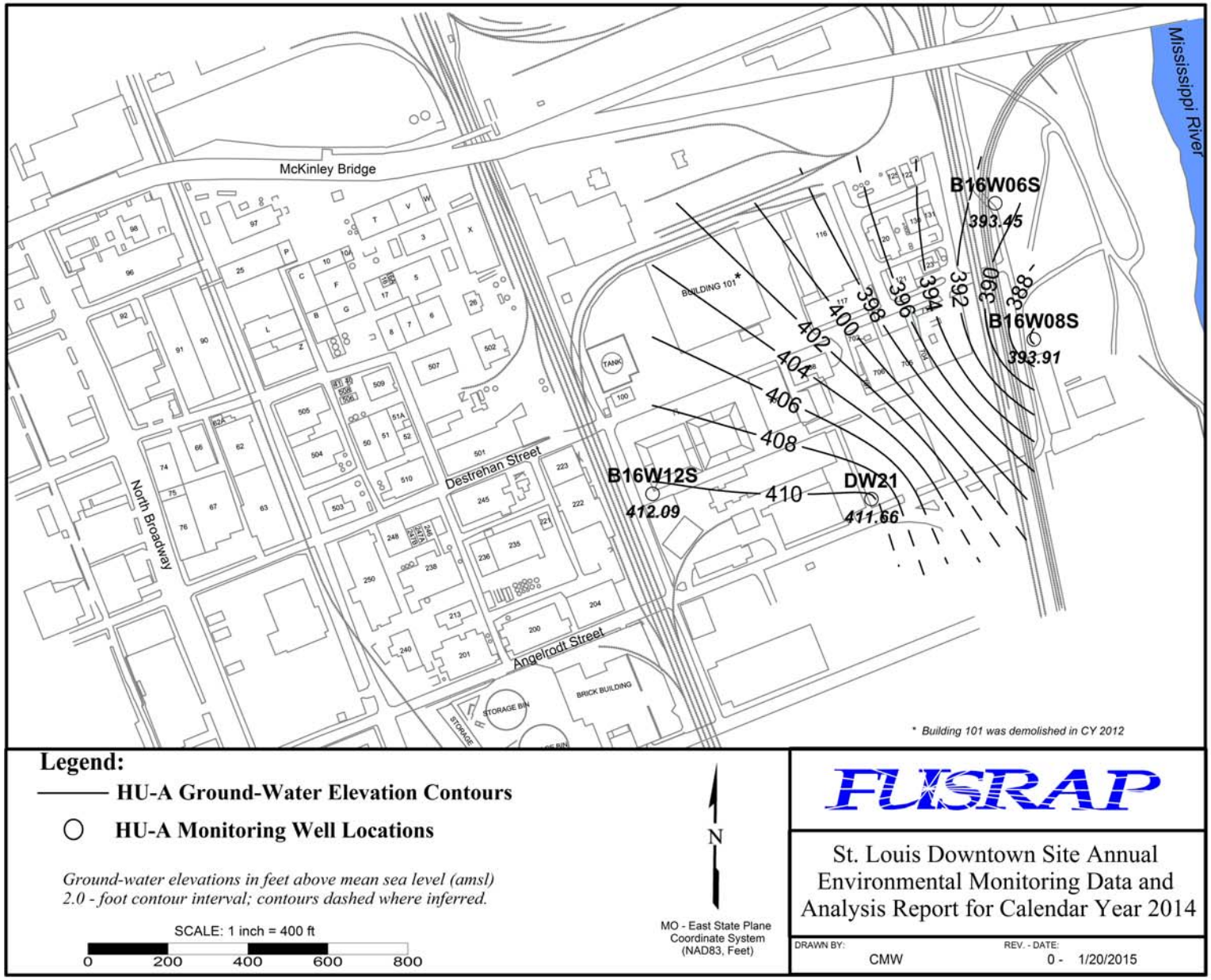


Figure 4-9. HU-A Potentiometric Surface at the SLDS (December 8, 2014)

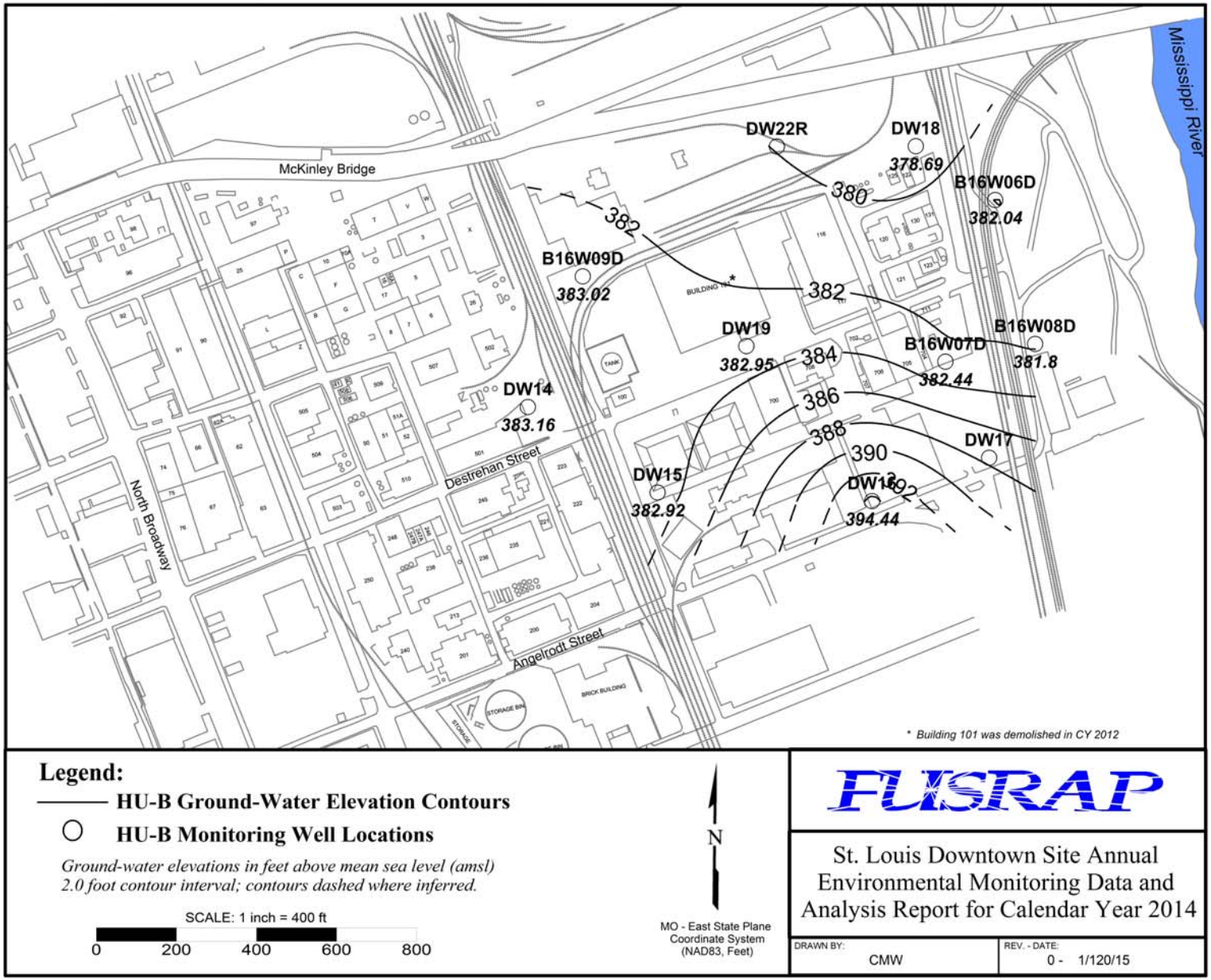


Figure 4-10. HU-B Potentiometric Surface at the SLDS (December 8, 2014)

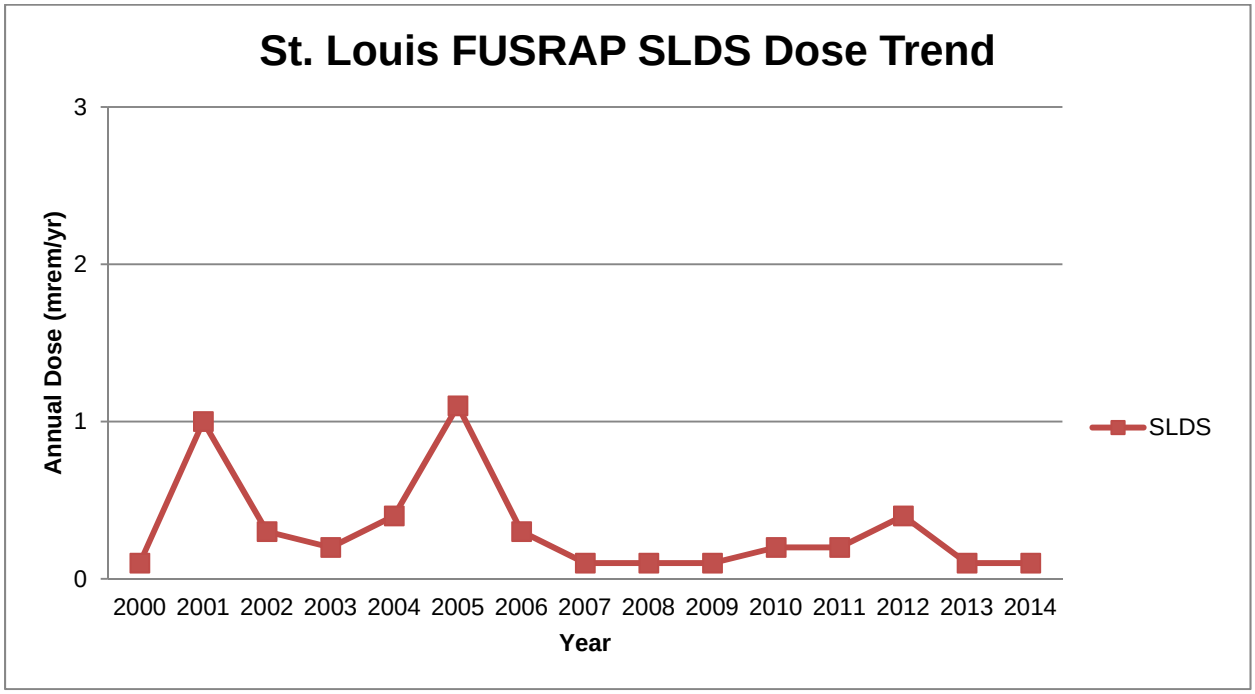


Figure 6-1. St. Louis FUSRAP SLDS Dose Trends

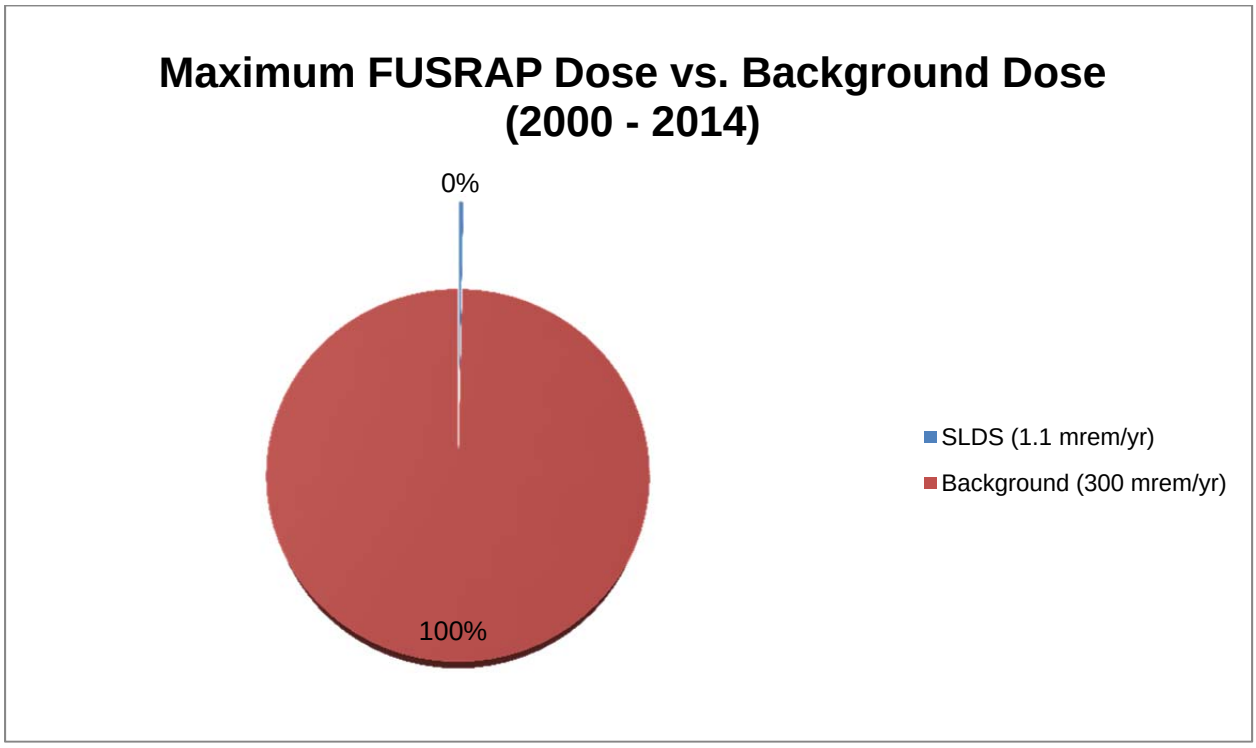


Figure 6-2. St. Louis FUSRAP SLDS Maximum Dose vs. Background Dose

APPENDIX A

ST. LOUIS DOWNTOWN SITE 2014 RADIONUCLIDE EMISSIONS NESHAP REPORT SUBMITTED IN ACCORDANCE WITH REQUIREMENTS OF 40 *CFR* 61, SUBPART I

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ACRONYMS AND ABBREVIATIONS

Both English and metric units are used in this report. The units used in a specific situation are based on common unit usage or regulatory language (e.g., depths are given in feet and meters, and areas are given in square feet and square meters). Acres are given for areas when applicable.

µCi/cm^3	microcurie(s) per cubic centimeter
µCi/mL	microcurie(s) per milliliter
Ac	actinium
AEC	U.S. Atomic Energy Commission
°C	degree(s) Celsius (centigrade)
CFR	*Code of Federal Regulations*
Ci/yr	curie(s) per year
cm^3	cubic centimeter(s)
cm/yr	centimeter(s) per year
CY	calendar year
EDE	effective dose equivalent
ft	foot/feet
FUSRAP	Formerly Utilized Sites Remedial Action Program
GIS	geographic information system
m	meter(s)
m^2	square meter(s)
Mallinckrodt	Mallinckrodt LLC
MED	Manhattan Engineer District
m/min	meter(s) per minute
m^3/min	cubic meter(s) per minute
mL	milliliter(s)
mrem/yr	millirem per year
mSv/yr	millisievert per year
NESHAP	National Emission Standard for Hazardous Air Pollutants
Pa	protactinium
pCi/g	picocurie(s) per gram
Ra	radium
RA	remedial action
SLDS	St. Louis Downtown Site
SU	survey unit
Th	thorium
U	uranium
USEPA	U.S. Environmental Protection Agency
VP	vicinity property

EXECUTIVE SUMMARY AND DECLARATION STATEMENT

This report presents the results of National Emission Standard for Hazardous Air Pollutants (NESHAP) calculations for the St. Louis Formerly Utilized Sites Remedial Action Program (FUSRAP) St. Louis Downtown Site (SLDS) for calendar year (CY) 2014. NESHAP requires the calculation of the effective dose equivalent (EDE) from radionuclide emissions to critical receptors. The report follows the requirements and procedures contained in 40 *Code of Federal Regulations* (*CFR*) 61, Subpart I, *National Emission Standards for Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H* (USEPA 1989).

This report evaluates SLDS properties where there was a reasonable potential for radionuclide emissions due to St. Louis FUSRAP activities. These sites include: City Property (DT-2), Kiesel Hall Street Property, Plant 6, and Plant 6 Loadout.

Emissions from the SLDS were evaluated for the entire CY 2014 to provide a conservative estimate of total emissions.

The NESHAP standard of EDE to a critical receptor from radionuclide emissions is 10 millirem per year (mrem/yr) (0.1 millisievert per year [mSv/yr]). The SLDS did not exceed this standard. The EDE from radionuclide emissions at the SLDS was calculated using soil characterization data, air particulate monitoring data, and the U.S. Environmental Protection Agency (USEPA) CAP88-PC modeling code, which resulted in an EDE at the SLDS of less than 0.1 mrem/yr (0.001 mSv/yr).

The evaluation for the SLDS resulted in less than 10 percent of the dose standard in 40 *CFR* 61.102. This site is exempt from the reporting requirements of 40 *CFR* 61.104(a).

DECLARATION STATEMENT – 40 *CFR* 61.104(a)(xvi)

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

_____ _____

Signature Date

Office: U.S. Army Corps of Engineers, St. Louis District Office
Address: 8945 Latty Ave.
Berkeley, MO 63134
Contact: Jon Rankins

1.0 PURPOSE

This report calculates the EDE from radionuclide emissions (exclusive of radon) to critical receptors from the SLDS properties where there was a reasonable potential for radionuclide emissions due to St. Louis FUSRAP activities. These sites include: DT-2, Keisel Hall Street, Plant 6, and Plant 6 Loadout. The air emissions from the SLDS are ground releases of particulate radionuclides in soil as a result of windblown action and remedial activity in the form of excavation and off-site disposal of soil.

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2.0 METHOD

Emission rates for the SLDS were modeled using guidance documents referenced in 40 *CFR* 61, Appendix E, *Compliance Procedures Methods for Determining Compliance with Subpart I* (USEPA 1989), and were measured by collection of environmental air samples. Emission rates were input into the USEPA computer code CAP88-PC, along with appropriate meteorological data and distances to critical receptors[1], to obtain the EDE from the air emissions.

Although 40 *CFR* 61.103 requires the use of the USEPA computer code COMPLY, USEPA no longer supplies technical support for COMPLY. However, the USEPA lists both COMPLY and CAP88-PC as atmospheric models for assessing dose and risk from radioactive air emissions (USEPA 2014). The USEPA continues to maintain and update the CAP88-PC modeling program, and has updated it as recently as September, 2014. In previous FUSRAP NESHAP reports, both COMPLY and CAP88-PC results have been compared. This comparison indicated that CAP88-PC is a comparable and conservative method of demonstrating compliance with 40 *CFR* 61, Subpart I. For these reasons, CAP88-PC was used in this report to demonstrate compliance with the NESHAP standard.

2.1 EMISSION RATE

The method used to determine particulate radionuclide emission rates from the SLDS was 40 *CFR* 61, Appendix D, *Methods for Estimating Radionuclide Emissions*. Emissions during excavations were evaluated using air sampling data at the excavation and loadout perimeters.

2.2 EFFECTIVE DOSE EQUIVALENT

The EDE to critical receptors[1] is obtained using USEPA computer code CAP88-PC, Version 4.0 (USEPA 2014). CAP88-PC uses a Gaussian plume equation to estimate the dispersion of radionuclides and is referenced by the USEPA to demonstrate compliance with the NESHAP emissions criterion in 40 *CFR* 61. An area ground release at a height of 3 feet (ft) (1 meter [m]) is modeled for the SLDS.

The EDE is calculated by combining doses from ingestion, inhalation, air immersion, and external ground surface. CAP88-PC contains historical weather data libraries for major airports across the country, and the results can be modeled for receptors at multiple distances from the emissions source.

[1] "Critical receptors," as used in this report, are the locations for the nearest residence, school, business, and farm.

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3.0 METEOROLOGICAL DATA

Meteorological data were obtained from the CAP88-PC code for the Lambert – St. Louis International Airport (wind file 13994.WND). Data in the file were accumulated from 1988 through 1992.

- Average Annual Wind Velocity: 4.446 m/second
- Average Annual Precipitation Rate: 111 centimeters per year (cm/yr)
- Average Annual Air Temperature: 14.18 degrees Celsius (ºC)

Wind speed frequency data were obtained from Lambert – St. Louis International Airport (Table A-1).

Table A-1. St. Louis Wind Speed Frequency

Wind Speed Group, Knots[a]	Frequency
0 – 3	0.10
4 – 7	0.29
8 – 12	0.36
13 – 18	0.21
19 – 24	0.03
25 – 31	0.01

[a] knot = 1.151 miles per hour

Wind direction frequency data were obtained from the CAP88-PC wind file, 13994.WND (Table A-2).

Table A-2. St. Louis Wind Rose Frequency

Wind Direction		Wind Frequency	Wind Direction		Wind Frequency
Wind Toward	Wind From		Wind Toward	Wind From	
N	S	0.131	S	N	0.056
NNW	SSE	0.074	SSE	NNW	0.043
NW	SE	0.068	SE	NW	0.061
WNW	ESE	0.069	ESE	WNW	0.087
W	E	0.055	E	W	0.090
WSW	ENE	0.028	ENE	WSW	0.068
SW	NE	0.031	NE	SW	0.054
SSW	NNE	0.037	NNE	SSW	0.050

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4.0 ST. LOUIS DOWNTOWN SITE PROPERTIES UNDER ACTIVE REMEDIATION

4.1 SITE HISTORY

From 1942 until 1957, Mallinckrodt LLC (Mallinckrodt) was contracted by the Manhattan Engineer District (MED) and the U.S. Atomic Energy Commission (AEC) to process uranium ore for the production of uranium metal. Residuals of the process, including spent pitchblende ore, and radium, thorium, uranium, and their radioactive decay products, were inadvertently released from the Mallinckrodt property into the environment. Residuals from the uranium process had elevated levels of radioactive radium, thorium, and uranium. From 1942 to 1945, Plants 1, 2, 6, 7, and 4 (now Plant 10) were involved in the development of uranium-processing techniques, uranium compounds and metal production, and uranium metal recovery from residues and scrap. Mallinckrodt decontaminated Plants 1 and 2 from 1948 through 1950 to meet the AEC criteria then in effect, and the AEC released these plants for use without radiological restrictions in 1951.

4.2 MATERIAL HANDLING AND PROCESSING FOR CALENDAR YEAR 2014

Excavation activities were performed at the SLDS areas of DT-2, Plant 6, and Kiesel Hall Street (and adjacent City Property and Gunther Salt Property). For the purposes of this evaluation, the excavations at the City and Gunther Salt Properties are included with the Kiesel Hall Street excavation. Additionally, loadout activities were performed at Plant 6. Excavated soils placed in the loadout area remained covered for most of the year, except during normal working hours. The excavated soils were removed from the site by rail. General area air samples were collected around excavation perimeters during CY 2014, with the results used to determine the excavation emissions. In situ emissions from inactive areas of the SLDS were not calculated, because the ground surface soil at the SLDS is generally covered with asphalt or concrete that limits the potential for material to become airborne.

4.3 SOURCE DESCRIPTION – RADIONUCLIDE SOIL CONCENTRATIONS

For the SLDS excavation areas, the activity fraction for each radionuclide was determined from radionuclide concentrations listed in the *St. Louis FUSRAP Internal Dosimetry Technical Basis Manual* (USACE 1999) or in property-specific Pre-Design Investigation Reports. Attachment A-1 contains summary tables of the radionuclide concentrations for each area or plant and vicinity properties (VPs). The averaged total alpha and total beta air particulate concentrations at each SLDS property and the activity fraction for each corresponding property were used to calculate the emission rate for each area.

4.4 LIST OF ASSUMED AIR RELEASES FOR CALENDAR YEAR 2014

Wind erosion during periods of remedial action (RA) excavations and periods in which the loadout pile was uncovered is assumed for the particulate radionuclide emission determinations from the SLDS. Unexcavated plants and VPs do not contribute to the emission determinations for periods of inactivity due to the low activity and cover.

4.5 DISTANCES TO CRITICAL RECEPTORS

The distances to critical receptors are shown on Figure A-1 and are listed in Table A-3. Distances and directions to critical receptors are determined by using tools in a geographic information system (GIS).

Table A-3. SLDS Critical Receptors for CY 2014

Sources	Resident		Farm		Business		School	
	Distance (m)	Direction	Distance (m)	Direction	Distance (m)	Direction	Distance (m)	Direction
DT-2	875	SW	2,515	ENE	325	SW	1,165	WSW
Kiesel Hall Street	650	WNW	3,130	NW	380	NNW	1,145	NW
Plant 6	495	SW	2,915	NE	160	SSE	750	W
Plant 6 Loadout	495	SW	2,915	NE	160	SSE	750	W

4.6 EMISSIONS DETERMINATION

4.6.1 Measured Airborne Radioactive Particulate Emissions

Particulate air samples were collected from several locations around the perimeter of the SLDS excavations and loadout areas to measure the radionuclide emissions from remedial activities. The samples were established at the start of each remedial activity and provide the basis for determining the radionuclide emission rates during CY 2014. The average gross alpha and beta concentrations (in microcuries per milliliter [μCi/mL]) are determined for each area or plant location for CY 2014. The area or plant average concentrations are presented in Table A-4.

Table A-4. SLDS Average Gross Alpha and Beta Airborne Particulate Emissions for CY 2014

Sampler Location	Average Concentration (μCi/mL)	
	Gross Alpha	Gross Beta
DT-2	5.11E-15	1.98E-14
Kiesel Hall Street	4.12E-15	1.82E-14
Plant 6	4.21E-15	2.31E-14
Plant 6 Loadout	3.91E-15	2.80E-14
Background Concentration[a]	3.63E-15	1.92E-14

[a] These concentrations are only provided for informational purposes. However, as a conservative approach, they were not subtracted from the gross average concentration during the determination of the EDE.

The activity fractions for all radionuclides at each SLDS property were determined as discussed in Section 4.3 of this NESHAP Report. The product of the radionuclide activity fraction and the gross concentration for each property provides the radionuclide emission concentration (in microcuries per cubic centimeter [$\mu Ci/cm^3$]) for that area. The gross average concentration ($\mu Ci/cm^3$) is converted to a release (emission) rate as measured in curies per year (Ci/yr) using Equations 1 and 2. The emission rates are summarized in Table A-7.

USEPA 1989 (page 3-21, [2]) provides Equation 1 for determination of the effective diameter of a non-circular stack or vent.

$$D = (1.3\ A)^{1/2} \qquad \textbf{Equation 1}$$

where:

D is the effective diameter of the release in m, and

A is the area of the stack, vent or release point (in square meters [m^2]).

Table A-5 provides the effective surface area available for release of airborne radionuclides normalized to one year and the effective diameter for each area or plant of the SLDS where excavation or loadout was conducted in CY 2014. Calculation of the effective surface area is contained in Attachment A-1.

Table A-5. SLDS Excavation Effective Areas and Effective Diameters for CY 2014

SLDS Location	Effective Area (m^2)	Effective Diameters (m)
DT-2	1,530	45
Kiesel Hall Street	334	21
Plant 6	1,908	50
Plant 6 Loadout	460	24

The average annual wind speed for the Lambert – St. Louis International Airport is provided in CAP88-PC as 4.446 m/second. Conversion of this wind speed to a flow rate through stacks with the listed effective diameters for each area is completed using Equation 2.

$$V = (4)\ F / \pi\ (D)^2 \qquad \textbf{Equation 2}$$

where:

V is the wind velocity (in meters per minute [m/min]) = 266.76 m/min,
F is the flow rate (in cubic meters per minute [m^3/min]),
π is a mathematical constant, and
D is the effective diameter of the release determined using Equation 1 (in m).

Converting the velocity of emissions from the sites to an effective flow rate results in the following site release flow rates for the SLDS areas, as listed in Table A-6. The product of the flow rate, the activity fraction associated with each radionuclide, and the appropriate conversion factors provide the site emission rate for each radionuclide, as listed in Table A-7. Flow rate and average radionuclide concentration data are contained in Attachment A-1.

Table A-6. SLDS Site Release Flow Rates for CY 2014

SLDS Location	Site Release Flow Rate (m^3/min)
DT-2	4.2E+05
Kiesel Hall Street	9.1E+04
Plant 6	5.2E+05
Plant 6 Loadout	1.3E+05

4.6.2 St. Louis Downtown Site Total Airborne Radioactive Particulate Emission Rates

The CY 2014 emission rates for each excavated SLDS area are presented in Table A-7 and are based on the air samples collected from the perimeter of the excavated areas.

Table A-7. SLDS Area Airborne Radioactive Particulate Emission Rates Based on Excavation Perimeter Air Samples for CY 2014

Radionuclide	Emission (Ci/yr)[a]			
	DT-2	Kiesel Hall Street	Plant 6	Plant 6 Loadout
Uranium (U)-238	4.1E-04	7.2E-05	4.0E-04	9.6E-05
U-235	1.9E-05	3.3E-06	2.0E-05	4.6E-06
U-234	4.1E-04	7.1E-05	4.0E-04	9.5E-05
Radium (Ra)-226	1.1E-04	1.9E-05	7.7E-05	2.2E-05
Thorium (Th)-232	1.2E-05	2.1E-06	2.0E-05	3.8E-06
Th-230	1.0E-04	1.8E-05	1.5E-04	3.0E-05
Th-228	1.2E-05	2.1E-06	2.0E-05	3.8E-06
Ra-224	1.2E-05	2.1E-06	2.0E-05	3.8E-06
Th-234	2.1E-03	4.1E-04	2.9E-03	9.0E-04
Protactinium (Pa)-234m	2.1E-03	4.1E-04	2.9E-03	9.0E-04
Th-231	9.7E-05	1.9E-05	1.5E-04	4.3E-05
Ra-228	6.1E-05	1.2E-05	1.5E-04	3.5E-05
Actinium (Ac)-228	6.1E-05	1.2E-05	1.5E-04	3.5E-05
Pa-231	1.9E-05	3.3E-06	2.0E-05	4.6E-06
Ac-227	1.9E-05	3.3E-06	2.0E-05	4.6E-06

[a] Release rate based on 365-day period at a respective flow rate (as presented in Table A-6) as determined from the average annual wind speed (4.446 m/second) and the effective site area (as presented in Table A-5) for each location.

4.7 CAP88-PC RESULTS

The CAP88-PC report is contained in Attachment A-2. The effective area factor input was taken from Table A-5. This evaluation demonstrates that all SLDS critical receptors receive less than 10 percent of the dose standard prescribed in 40 *CFR* 61.102; therefore, the SLDS is exempt from the reporting requirements of 40 *CFR* 61.104(a). Table A-8 summarizes the results.

Table A-8. SLDS CAP88-PC Results for Critical Receptors for CY 2014

Source	Dose (mrem/yr)			
	Resident[a]	School[b]	Business[b]	Farm[a]
DT-2	<0.1	<0.1	<0.1	<0.1
Kiesel Hall Street	<0.1	<0.1	<0.1	<0.1
Plant 6	<0.1	<0.1	<0.1	<0.1
Plant 6 Loadout	<0.1	<0.1	<0.1	<0.1
SLDS Total Dose[c]	**<0.1**	**<0.1**	**<0.1**	**<0.1**

[a] 100 percent occupancy factor.
[b] Corrected for the 23 percent occupancy factor (40 hours/week for 50 weeks/year).
[c] Combined dose from all sources at the SLDS.

5.0 REFERENCES

USACE 1999. *St. Louis-FUSRAP Internal Dosimetry Technical Basis Manual*, U.S. Army Corps of Engineers, St. Louis District Office, FUSRAP, November.

USEPA 1989. EPA 520/1-89-002, *A Guide for Determining Compliance with the Clean Air Act Standards for Radionuclide Emissions from NRC-Licensed and Non-DOE Federal Facilities*, U.S. Environmental Protection Agency, Office of Radiation Programs, Washington, DC, October.

USEPA 2014. CAP88-PC Version 4.0 Computer Code, U.S. Environmental Protection Agency, September.

40 *CFR* 61, Subpart I. *National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H.*

40 *CFR* 61, Appendix D. *Methods for Estimating Radionuclide Emissions.*

40 *CFR* 61, Appendix E. *Compliance Procedures Methods for Determining Compliance with Subpart I.*

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APPENDIX A

FIGURE

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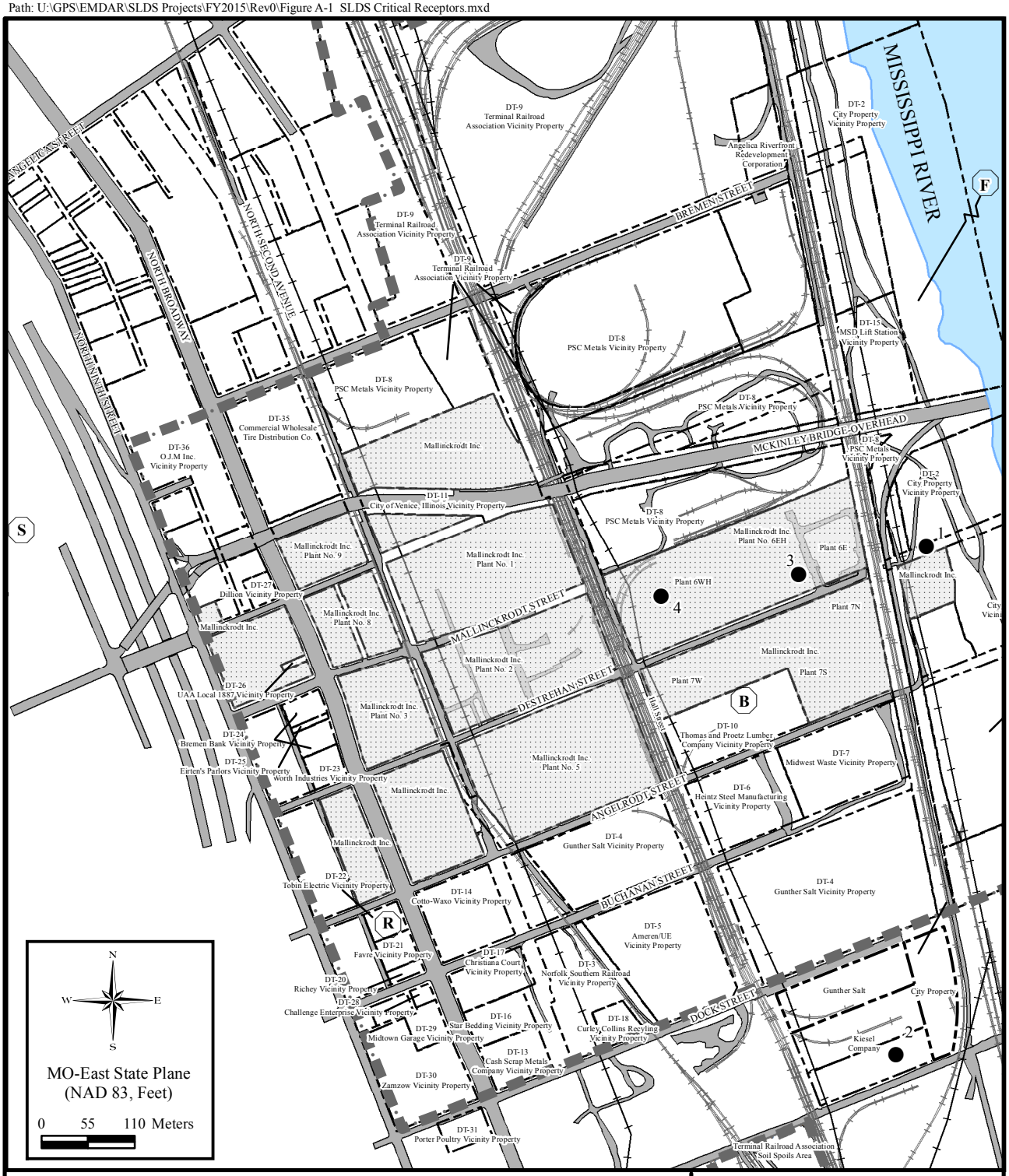
Path: U:\GPS\EMDAR\SLDS Projects\FY2015\Rev0\Figure A-1 SLDS Critical Receptors.mxd



Legend

- ROD Boundary
- Vicinity Properties
- Railroad
- Mallinckrodt Property
- Road
- River/Stream

Location	R Residential	F Farm	B Business	S School
1. DT-2	875 SW	2516 ENE	325 SW	1165 WSW
2. Kiesel Hall	650 WNW	3130 NW	380 NNW	1145 NW
3. Plant 6	495 SW	2915 NE	160 SSE	750 W
4. Plant 6 Loadout	495 SW	2915 NE	160 SSE	750 W

*Distances from property to receptors are in meters

St. Louis Downtown Site Annual Environmental Monitoring Data and Analysis Report for CY 2014

FUSRAP

DRAWN BY:	REV:	DATE:
TDC	0	6/11/2015

Figure A-1. SLDS Critical Receptors

ATTACHMENT A-1

CALCULATED EMISSION RATES FROM ST. LOUIS DOWNTOWN SITE PROPERTIES

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Table A-1-1. SLDS Excavation/Loadout Area Soil Radionuclide Concentrations for CY 2014

Property	DT-2[a]	Kiesel Hall Street[a]	Plant 6[a]	Plant 6 Loadout[b]	Average[b]
Radionuclide	**Average Concentration (pCi/g)**				
U-238	75	75	140	97	97
U-235	3.5	3	7	5	5
U-234	74	74	140	96	96
Ra-226	20	20	27	22	22
Ra-228	2.2	2	7	4	4
Th-232	2.2	2	7	4	4
Th-230	19	19	52	30	30
Th-228	2.2	2	7	4	4

[a] Radionuclides and concentrations from *St. Louis-FUSRAP Internal Dosimetry Technical Basis Manual* (USACE 1999) or in property-specific pre-design investigation reports.
[b] Average concentration from the SLDS CY 2014 excavated property and loadout area.
pCi/g = picocuries per gram

Table A-1-2. SLDS Average Gross Alpha and Beta Airborne Particulate Concentrations for CY 2014

Location	Average Concentration (µCi/mL) for Location[a]	
	Gross Alpha	**Gross Beta**
DT-2	5.11E-15	1.98E-14
Kiesel Hall Street	4.12E-15	1.82E-14
Plant 6	4.21E-15	2.31E-14
Plant 6 Loadout	3.91E-15	2.80E-14
Background Concentration[b]	3.63E-15	1.92E-14

[a] Average concentration values for the sampling period by location.
[b] These concentrations are only provided for informational purposes. However, as a conservative approach, they were not subtracted from the gross average concentration during the determination of EDE.

Table A-1-3. SLDS Excavation Data for CY 2014

Excavation Location Name	Surface Area (m^2)	Start Date	Backfill Date
Kiesel Hall Street Property/Gunther Salt, Survey Unit (SU)-1	165	01/01/14	01/15/14
Kiesel Hall Street Property/Gunther Salt, SU-2	119	01/20/14	03/19/14
Kiesel Hall Street Property/City Property, SU-1A	1,042	01/01/14	04/15/14
Kiesel Hall Street Property/City Property, SU-1B	368	01/01/14	01/08/14
DT-2, Area 7, SU-5	3,368	01/01/14	05/01/14
DT-2, Area 7, SU-5A	165	07/07/14	08/05/14
DT-2, Area 8, SU-4D	400	01/01/14	12/31/14
Plant 6WH, Building 101, SU-13A	360	01/01/14	04/30/14
Plant 6WH, Building 101, SU-13B	622	01/01/14	04/30/14
Plant 6WH, Building 101, SU-14A	431	01/01/14	06/02/14
Plant 6WH, Building 101, SU-14B	335	01/01/14	07/31/14
Plant 6WH, Building 101, SU-15A	66	11/01/14	12/22/14
Plant 6WH, Building 101, SU-15B	770	01/01/14	12/31/14
Plant 6EH, SU-10 (Building 101 SU-14A East Slope)	431	01/01/14	12/31/14
Plant 6 Loadout	2,000	01/01/14	12/31/14

Note: Open/close dates set to start or stop at the CY boundary.

Table A-1-4. SLDS Average Surface Area and Flow Rate Per Location at the SLDS for CY 2014

Location	Total Days	Surface Area *Total Days	Average Surface Area/year[a] (m^2)	Diameter of Stack $D=(1.3*A)^{1/2}$(m)	Flow Rate $F=V*Pi*(D)^2/4$ (m^3/min)
Kiesel Hall Street					
Gunther Salt, SU-1	15	2,475			
Gunther Salt, SU-2	59	7,021			
City Property, SU-1A	105	109,410			
City Property, SU-1B	8	2,944			
	Total	121,850	334	21	**9.1E+04**
DT-2					
Area 7, SU-5	121	407,528			
Area 7, SU-5A	30	4,950			
Area 8, SU-4D	365	146,000			
	Total	558,478	1,530	45	**4.2E+05**
Plant 6					
Building 101, SU-13A	120	43,200			
Building 101, SU-13B	120	74,640			
Building 101, SU-14A	153	65,943			
Building 101, SU-14B	212	71,020			
Building 101, SU-15A	52	3,432			
Building 101, SU-15B	365	281,050			
Building 101, SU-14A East Slope	365	157,315			
	Total	696,600	1,908	50	**5.2E+05**
Plant 6 Loadout					
Plant 6 Loadout	365	167,900			
	Total	167,900	460	24	**1.3E+05[b]**

[a] Average surface area/year = [Σ(surface area x total days)]/365.

[b] This value has been multiplied by a factor of 0.23 to account for the loadout pile being uncovered for only 2,000 hours per year.

Table A-1-5. SLDS Airborne Radioactive Particulate Emissions Based on Excavation Perimeter Air Samples for CY 2014

Property	DT-2			Kiesel Hall Street			Plant 6			Plant 6 Loadout		
Radionuclide	Activity Fraction[a]	Emission Conc. ($\mu Ci/cm^3$)[b]	Release Rate (Ci/yr)[c]	Activity Fraction[a]	Emission Conc. ($\mu Ci/cm^3$)[b]	Release Rate (Ci/yr)[c]	Activity Fraction[a]	Emission Conc. ($\mu Ci/cm^3$)[b]	Release Rate (Ci/yr)[c]	Activity Fraction[a]	Emission Conc. ($\mu Ci/cm^3$)[b]	Release Rate (Ci/yr)[c]
U-238	0.37	1.9E-15	4.1E-04	0.37	1.5E-15	7.2E-05	0.35	1.5E-15	4.0E-04	0.36	1.4E-15	9.6E-05
U-235	0.02	8.7E-17	1.9E-05	0.02	6.8E-17	3.3E-06	0.02	7.3E-17	2.0E-05	0.02	6.7E-17	4.6E-06
U-234[d]	0.36	1.8E-15	4.1E-04	0.36	1.5E-15	7.1E-05	0.35	1.5E-15	4.0E-04	0.36	1.4E-15	9.5E-05
Ra-226	0.10	5.0E-16	1.1E-04	0.10	4.0E-16	1.9E-05	0.07	2.8E-16	7.7E-05	0.08	3.2E-16	2.2E-05
Th-232	0.01	5.5E-17	1.2E-05	0.01	4.4E-17	2.1E-06	0.02	7.3E-17	2.0E-05	0.01	5.5E-17	3.8E-06
Th-230	0.09	4.7E-16	1.0E-04	0.09	3.8E-16	1.8E-05	0.13	5.5E-16	1.5E-04	0.11	4.3E-16	3.0E-05
Th-228[d]	0.01	5.5E-17	1.2E-05	0.01	4.4E-17	2.1E-06	0.02	7.3E-17	2.0E-05	0.01	5.5E-17	3.8E-06
Ra-224[d]	0.01	5.5E-17	1.2E-05	0.01	4.4E-17	2.1E-06	0.02	7.3E-17	2.0E-05	0.01	5.5E-17	3.8E-06
Th-234[d]	0.47	9.4E-15	2.1E-03	0.48	8.7E-15	4.1E-04	0.47	1.1E-14	2.9E-03	0.47	1.3E-14	9.0E-04
Pa-234m[d]	0.47	9.4E-15	2.1E-03	0.48	8.7E-15	4.1E-04	0.47	1.1E-14	2.9E-03	0.47	1.3E-14	9.0E-04
Th-231[d]	0.02	4.4E-16	9.7E-05	0.02	3.9E-16	1.9E-05	0.02	5.4E-16	1.5E-04	0.02	6.3E-16	4.3E-05
Ra-228[d]	0.01	2.8E-16	6.1E-05	0.01	2.5E-16	1.2E-05	0.02	5.4E-16	1.5E-04	0.02	5.2E-16	3.5E-05
Ac-228[d]	0.01	2.8E-16	6.1E-05	0.01	2.5E-16	1.2E-05	0.02	5.4E-16	1.5E-04	0.02	5.2E-16	3.5E-05
Pa-231[d]	0.02	8.7E-17	1.9E-05	0.02	6.8E-17	3.3E-06	0.02	7.3E-17	2.0E-05	0.02	6.7E-17	4.6E-06
Ac-227[d]	0.02	8.7E-17	1.9E-05	0.02	6.8E-17	3.3E-06	0.02	7.3E-17	2.0E-05	0.02	6.7E-17	4.6E-06

[a] Derived from the average soil radionuclide concentrations for the SLDS, as presented in Table A-1-1.

[b] Emission concentration is equal to the activity fraction * the gross alpha or gross beta airborne particulate concentrations listed in Table A-1-2.

[c] Release rate based on 365-day period at measured flow rate (Table A-1-4) for each site, as determined from the average annual wind speed (4.446 m/second) and calculated site area (Table A-1-4). (Note: 1 milliliter [mL] = 1 cubic centimeter [cm^3])

[d] When data were not available, the radionuclide was assumed to be in secular equilibrium with parent.

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ATTACHMENT A-2

CAP88-PC OUTPUT REPORT FOR ST. LOUIS DOWNTOWN SITE PROPERTIES

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CAP88 OUTPUT RESULTS

DT-2

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Version 4.0

Clean Air Act Assessment Package – 1988

D O S E A N D R I S K S U M M A R I E S

Non-Radon Individual Assessment
Thu Mar 12 06:23:42 2015

```
     Facility:  DT-2
      Address:  Destrehan
         City:  St Louis
        State:  MO          Zip:  63147


Source Category:  Area
    Source Type:  Area
  Emission Year:  2014
 DOSE Age Group:  Adult

       Comments:  Air
                  Air


   Dataset Name:  DT-2 2014.
   Dataset Date:  Mar 12, 2015 06:23 AM
      Wind File:  C:\Users\moserpl\Documents\CAP88\Wind Files\13994.WND
```

Thu Mar 12 06:23:42 2015 SUMMARY
Page 1

ORGAN DOSE EQUIVALENT SUMMARY

Organ	Selected Individual (mrem)
Adrenal	3.15E-02
UB_Wall	3.42E-02
Bone_Sur	2.46E+00
Brain	3.30E-02
Breasts	3.58E-02
St_Wall	3.33E-02
SI_Wall	3.31E-02
ULI_Wall	3.51E-02
LLI_Wall	3.93E-02
Kidneys	7.62E-02
Liver	1.77E-01
Muscle	3.66E-02
Ovaries	5.11E-02
Pancreas	3.17E-02
R_Marrow	1.35E-01
Skin	6.25E-01
Spleen	3.36E-02
Testes	5.56E-02
Thymus	3.31E-02
Thyroid	3.43E-02
GB_Wall	3.19E-02
Ht_Wall	3.30E-02
Uterus	3.27E-02
ET_Reg	1.59E-01
Lung_66	4.95E-01
Effectiv	1.44E-01

PATHWAY COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Pathway	Selected Individual (mrem)
INGESTION	4.81E-03
INHALATION	1.06E-01
AIR IMMERSION	5.30E-07
GROUND SURFACE	3.23E-02
INTERNAL	1.11E-01
EXTERNAL	3.23E-02
TOTAL	1.44E-01

Thu Mar 12 06:23:42 2015 SUMMARY
Page 2

NUCLIDE COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Nuclide	Selected Individual (mrem)
U-238	1.32E-02
Th-234	6.33E-04
Pa-234m	5.10E-03
Pa-234	1.01E-04
U-234	1.60E-02
Th-230	1.89E-02
Ra-226	5.91E-03
Rn-222	4.50E-06
Po-218	8.04E-11
Pb-214	2.94E-03
At-218	3.02E-10
Bi-214	1.72E-02
Rn-218	1.75E-12
Po-214	9.51E-07
Tl-210	6.70E-06
Pb-210	1.45E-05
Bi-210	2.34E-04
Hg-206	1.89E-11
Po-210	6.05E-08
Tl-206	5.46E-10
U-235	9.69E-04
Th-231	3.21E-05
Pa-231	2.44E-02
Ac-227	1.85E-02
Th-227	2.37E-04
Fr-223	2.23E-06
Ra-223	2.65E-04
Rn-219	1.15E-04
At-219	0.00E+00
Bi-215	5.16E-10
Po-215	3.50E-07
Pb-211	2.25E-04
Bi-211	9.28E-05
Tl-207	1.17E-04
Po-211	4.47E-08
Th-232	4.16E-03
Ra-228	3.42E-03
Ac-228	1.86E-03
Th-228	5.61E-03
Ra-224	3.79E-04
Rn-220	1.30E-06
Po-216	3.14E-08
Pb-212	2.85E-04
Bi-212	3.33E-04
Po-212	0.00E+00
Tl-208	2.30E-03
TOTAL	1.44E-01

CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk

PATHWAY RISK SUMMARY

Pathway	Selected Individual Total Lifetime Fatal Cancer Risk
INGESTION	2.00E-09
INHALATION	2.24E-08
AIR IMMERSION	2.45E-13
GROUND SURFACE	1.51E-08
INTERNAL	2.44E-08
EXTERNAL	1.51E-08
TOTAL	3.95E-08

Thu Mar 12 06:23:42 2015 SUMMARY
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NUCLIDE RISK SUMMARY

Nuclide	Selected Individual Total Lifetime Fatal Cancer Risk
U-238	4.41E-09
Th-234	2.77E-10
Pa-234m	8.93E-10
Pa-234	5.46E-11
U-234	5.49E-09
Th-230	4.17E-09
Ra-226	3.17E-09
Rn-222	2.45E-12
Po-218	3.59E-17
Pb-214	1.57E-09
At-218	3.72E-17
Bi-214	9.07E-09
Rn-218	9.57E-19
Po-214	5.22E-13
Tl-210	3.58E-12
Pb-210	6.48E-12
Bi-210	2.59E-11
Hg-206	8.37E-18
Po-210	3.32E-14
Tl-206	6.13E-17
U-235	3.88E-10
Th-231	1.46E-11
Pa-231	1.06E-09
Ac-227	2.31E-09
Th-227	1.28E-10
Fr-223	8.32E-13
Ra-223	1.43E-10
Rn-219	6.28E-11
At-219	0.00E+00
Bi-215	2.30E-16
Po-215	1.92E-13
Pb-211	8.05E-11
Bi-211	5.07E-11
Tl-207	1.50E-11
Po-211	2.45E-14
Th-232	9.10E-10
Ra-228	4.86E-10
Ac-228	9.88E-10
Th-228	2.01E-09
Ra-224	1.41E-10
Rn-220	7.11E-13
Po-216	1.72E-14
Pb-212	1.55E-10
Bi-212	1.28E-10
Po-212	0.00E+00
Tl-208	1.25E-09
TOTAL	3.95E-08

Thu Mar 12 06:23:42 2015 SUMMARY
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INDIVIDUAL COMMITTED EFFECTIVE DOSE EQUIVALENT (mrem)
(All Radionuclides and Pathways)

	Distance (m)				
Direction	325	875	1165	2515	
N	1.4E-01	2.6E-02	1.7E-02	7.2E-03	
NNW	7.5E-02	1.5E-02	1.0E-02	5.4E-03	
NW	8.8E-02	1.7E-02	1.1E-02	5.7E-03	
WNW	1.1E-01	1.9E-02	1.3E-02	6.1E-03	
W	8.1E-02	1.6E-02	1.1E-02	5.5E-03	
WSW	4.1E-02	9.3E-03	7.0E-03	4.4E-03	School
SW	5.6E-02	1.2E-02	8.3E-03	4.8E-03	Business, Residence
SSW	6.9E-02	1.4E-02	9.5E-03	5.1E-03	
S	6.1E-02	1.3E-02	8.9E-03	5.0E-03	
SSE	4.3E-02	9.8E-03	7.3E-03	4.6E-03	
SE	6.2E-02	1.3E-02	9.1E-03	5.0E-03	
ESE	1.0E-01	1.9E-02	1.3E-02	6.1E-03	
E	1.4E-01	2.4E-02	1.6E-02	6.8E-03	
ENE	1.1E-01	2.0E-02	1.3E-02	6.2E-03	Farm
NE	7.0E-02	1.4E-02	9.7E-03	5.2E-03	
NNE	5.9E-02	1.2E-02	8.7E-03	4.9E-03	

Thu Mar 12 06:23:42 2015 SUMMARY
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INDIVIDUAL LIFETIME RISK (deaths)
(All Radionuclides and Pathways)

	Distance (m)			
Direction	325	875	1165	2515
N	3.9E-08	7.5E-09	5.2E-09	2.5E-09
NNW	2.1E-08	4.6E-09	3.4E-09	2.0E-09
NW	2.4E-08	5.1E-09	3.7E-09	2.1E-09
WNW	2.9E-08	5.9E-09	4.1E-09	2.2E-09
W	2.3E-08	4.8E-09	3.5E-09	2.0E-09
WSW	1.2E-08	3.1E-09	2.4E-09	1.7E-09
SW	1.6E-08	3.7E-09	2.8E-09	1.8E-09
SSW	1.9E-08	4.2E-09	3.1E-09	1.9E-09
S	1.7E-08	4.0E-09	3.0E-09	1.9E-09
SSE	1.2E-08	3.2E-09	2.5E-09	1.8E-09
SE	1.7E-08	4.0E-09	3.0E-09	1.9E-09
ESE	2.9E-08	5.8E-09	4.1E-09	2.2E-09
E	3.7E-08	7.0E-09	4.8E-09	2.4E-09
ENE	3.1E-08	6.0E-09	4.2E-09	2.2E-09
NE	1.9E-08	4.3E-09	3.2E-09	1.9E-09
NNE	1.7E-08	3.9E-09	2.9E-09	1.9E-09

CAP88 OUTPUT RESULTS

Kiesel Hall Street

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Version 4.0

Clean Air Act Assessment Package – 1988

D O S E A N D R I S K S U M M A R I E S

Non-Radon Individual Assessment
Wed Mar 11 15:26:54 2015

Facility: Kiesel Hall Street Property
Address: Hall
City: St Louis
State: MO Zip: 63147

Source Category: Area
Source Type: Area
Emission Year: 2014
DOSE Age Group: Adult

Comments: Air
Air

Dataset Name: Kiesel Hall 2014
Dataset Date: Mar 11, 2015 03:25 PM
Wind File: C:\Users\moserpl\Documents\CAP88\Wind Files\13994.WND

Wed Mar 11 15:26:54 2015 SUMMARY
Page 1

ORGAN DOSE EQUIVALENT SUMMARY

Organ	Selected Individual (mrem)
Adrenal	4.17E-03
UB_Wall	4.53E-03
Bone_Sur	3.25E-01
Brain	4.36E-03
Breasts	4.74E-03
St_Wall	4.41E-03
SI_Wall	4.38E-03
ULI_Wall	4.66E-03
LLI_Wall	5.26E-03
Kidneys	1.01E-02
Liver	2.31E-02
Muscle	4.85E-03
Ovaries	6.73E-03
Pancreas	4.19E-03
R_Marrow	1.80E-02
Skin	8.26E-02
Spleen	4.44E-03
Testes	7.33E-03
Thymus	4.38E-03
Thyroid	4.54E-03
GB_Wall	4.22E-03
Ht_Wall	4.36E-03
Uterus	4.32E-03
ET_Reg	2.10E-02
Lung_66	6.50E-02
Effectiv	1.89E-02

PATHWAY COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Pathway	Selected Individual (mrem)
INGESTION	7.42E-04
INHALATION	1.39E-02
AIR IMMERSION	7.71E-08
GROUND SURFACE	4.27E-03
INTERNAL	1.47E-02
EXTERNAL	4.27E-03
TOTAL	1.89E-02

Wed Mar 11 15:26:54 2015 SUMMARY
Page 2

NUCLIDE COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Nuclide	Selected Individual (mrem)
U-238	1.74E-03
Th-234	8.85E-05
Pa-234m	6.75E-04
Pa-234	1.33E-05
U-234	2.07E-03
Th-230	2.54E-03
Ra-226	7.95E-04
Rn-222	5.85E-07
Po-218	1.05E-11
Pb-214	3.82E-04
At-218	3.93E-11
Bi-214	2.23E-03
Rn-218	2.28E-13
Po-214	1.24E-07
Tl-210	8.72E-07
Pb-210	1.88E-06
Bi-210	3.04E-05
Hg-206	2.45E-12
Po-210	7.88E-09
Tl-206	7.10E-11
U-235	1.26E-04
Th-231	4.21E-06
Pa-231	3.17E-03
Ac-227	2.40E-03
Th-227	3.10E-05
Fr-223	2.92E-07
Ra-223	3.46E-05
Rn-219	1.50E-05
At-219	0.00E+00
Bi-215	6.74E-11
Po-215	4.58E-08
Pb-211	2.95E-05
Bi-211	1.21E-05
Tl-207	1.53E-05
Po-211	5.84E-09
Th-232	5.43E-04
Ra-228	5.30E-04
Ac-228	2.61E-04
Th-228	7.32E-04
Ra-224	4.96E-05
Rn-220	1.82E-07
Po-216	4.38E-09
Pb-212	3.99E-05
Bi-212	4.65E-05
Po-212	0.00E+00
Tl-208	3.21E-04
TOTAL	1.89E-02

CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk

PATHWAY RISK SUMMARY

Pathway	Selected Individual Total Lifetime Fatal Cancer Risk
INGESTION	2.98E-10
INHALATION	2.93E-09
AIR IMMERSION	3.56E-14
GROUND SURFACE	1.99E-09
INTERNAL	3.23E-09
EXTERNAL	1.99E-09
TOTAL	5.22E-09

Wed Mar 11 15:26:54 2015 SUMMARY
Page 4

NUCLIDE RISK SUMMARY

Nuclide	Selected Individual Total Lifetime Fatal Cancer Risk
U-238	5.78E-10
Th-234	3.81E-11
Pa-234m	1.18E-10
Pa-234	7.24E-12
U-234	7.11E-10
Th-230	5.60E-10
Ra-226	4.41E-10
Rn-222	3.19E-13
Po-218	4.67E-18
Pb-214	2.04E-10
At-218	4.85E-18
Bi-214	1.18E-09
Rn-218	1.25E-19
Po-214	6.79E-14
Tl-210	4.66E-13
Pb-210	8.43E-13
Bi-210	3.37E-12
Hg-206	1.09E-18
Po-210	4.32E-15
Tl-206	7.98E-18
U-235	5.05E-11
Th-231	1.92E-12
Pa-231	1.37E-10
Ac-227	2.99E-10
Th-227	1.68E-11
Fr-223	1.09E-13
Ra-223	1.87E-11
Rn-219	8.21E-12
At-219	0.00E+00
Bi-215	3.01E-17
Po-215	2.51E-14
Pb-211	1.05E-11
Bi-211	6.63E-12
Tl-207	1.96E-12
Po-211	3.20E-15
Th-232	1.19E-10
Ra-228	7.30E-11
Ac-228	1.38E-10
Th-228	2.63E-10
Ra-224	1.85E-11
Rn-220	9.94E-14
Po-216	2.41E-15
Pb-212	2.17E-11
Bi-212	1.79E-11
Po-212	0.00E+00
Tl-208	1.75E-10
TOTAL	5.22E-09

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INDIVIDUAL COMMITTED EFFECTIVE DOSE EQUIVALENT (mrem)
(All Radionuclides and Pathways)

	Distance (m)				
Direction	380	650	1145	3130	
N	1.9E-02	7.3E-03	3.0E-03	1.0E-03	
NNW	1.0E-02	4.0E-03	1.8E-03	8.0E-04	Business
NW	1.2E-02	4.6E-03	2.0E-03	8.3E-04	School, Farm
WNW	1.4E-02	5.5E-03	2.3E-03	8.9E-04	Residence
W	1.1E-02	4.3E-03	1.9E-03	8.1E-04	
WSW	5.4E-03	2.3E-03	1.2E-03	6.8E-04	
SW	7.5E-03	3.1E-03	1.4E-03	7.3E-04	
SSW	9.1E-03	3.7E-03	1.7E-03	7.6E-04	
S	8.1E-03	3.3E-03	1.6E-03	7.5E-04	
SSE	5.8E-03	2.5E-03	1.3E-03	6.9E-04	
SE	8.2E-03	3.4E-03	1.6E-03	7.5E-04	
ESE	1.4E-02	5.4E-03	2.3E-03	8.8E-04	
E	1.8E-02	6.8E-03	2.7E-03	9.7E-04	
ENE	1.5E-02	5.7E-03	2.4E-03	9.0E-04	
NE	9.2E-03	3.7E-03	1.7E-03	7.7E-04	
NNE	7.8E-03	3.2E-03	1.5E-03	7.4E-04	

Wed Mar 11 15:26:54 2015 SUMMARY
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INDIVIDUAL LIFETIME RISK (deaths)
(All Radionuclides and Pathways)

	Distance (m)			
Direction	380	650	1145	3130
N	5.2E-09	2.1E-09	9.0E-10	3.6E-10
NNW	2.8E-09	1.2E-09	5.7E-10	3.0E-10
NW	3.2E-09	1.3E-09	6.2E-10	3.0E-10
WNW	3.9E-09	1.6E-09	7.1E-10	3.2E-10
W	3.0E-09	1.2E-09	5.9E-10	3.0E-10
WSW	1.6E-09	7.2E-10	4.0E-10	2.6E-10
SW	2.1E-09	9.1E-10	4.7E-10	2.7E-10
SSW	2.6E-09	1.1E-09	5.3E-10	2.8E-10
S	2.3E-09	9.9E-10	5.0E-10	2.8E-10
SSE	1.7E-09	7.6E-10	4.2E-10	2.7E-10
SE	2.3E-09	1.0E-09	5.1E-10	2.8E-10
ESE	3.8E-09	1.5E-09	7.0E-10	3.2E-10
E	4.9E-09	1.9E-09	8.3E-10	3.4E-10
ENE	4.1E-09	1.6E-09	7.3E-10	3.2E-10
NE	2.6E-09	1.1E-09	5.4E-10	2.9E-10
NNE	2.2E-09	9.6E-10	4.9E-10	2.8E-10

CAP88 OUTPUT RESULTS

Plant 6

C A P 8 8 - P C

Version 4.0

Clean Air Act Assessment Package – 1988

D O S E A N D R I S K S U M M A R I E S

Non-Radon Individual Assessment
Thu Mar 12 07:00:34 2015

Facility: Plant 6
Address: Destrehan
City: St Louis
State: MO Zip: 63147

Source Category: Area
Source Type: Area
Emission Year: 2014
DOSE Age Group: Adult

Comments: Air
Air

Dataset Name: Plant 6 2014.
Dataset Date: Mar 12, 2015 07:00 AM
Wind File: C:\Users\moserpl\Documents\CAP88\Wind Files\13994.WND

Thu Mar 12 07:00:34 2015 SUMMARY
Page 1

ORGAN DOSE EQUIVALENT SUMMARY

Organ	Selected Individual (mrem)
Adrenal	1.16E-01
UB_Wall	1.26E-01
Bone_Sur	1.07E+01
Brain	1.21E-01
Breasts	1.31E-01
St_Wall	1.22E-01
SI_Wall	1.22E-01
ULI_Wall	1.30E-01
LLI_Wall	1.46E-01
Kidneys	3.03E-01
Liver	7.06E-01
Muscle	1.34E-01
Ovaries	1.99E-01
Pancreas	1.17E-01
R_Marrow	5.76E-01
Skin	2.20E+00
Spleen	1.23E-01
Testes	2.15E-01
Thymus	1.21E-01
Thyroid	1.26E-01
GB_Wall	1.17E-01
Ht_Wall	1.21E-01
Uterus	1.20E-01
ET_Reg	7.18E-01
Lung_66	2.20E+00
Effectiv	6.03E-01

PATHWAY COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Pathway	Selected Individual (mrem)
INGESTION	2.19E-02
INHALATION	4.68E-01
AIR IMMERSION	3.52E-06
GROUND SURFACE	1.13E-01
INTERNAL	4.89E-01
EXTERNAL	1.13E-01
TOTAL	6.03E-01

Thu Mar 12 07:00:34 2015 SUMMARY
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NUCLIDE COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Nuclide	Selected Individual (mrem)
U-238	4.79E-02
Th-234	2.63E-03
Pa-234m	1.80E-02
Pa-234	3.55E-04
U-234	5.77E-02
Th-230	1.05E-01
Ra-226	1.50E-02
Rn-222	1.15E-05
Po-218	2.06E-10
Pb-214	7.51E-03
At-218	7.73E-10
Bi-214	4.39E-02
Rn-218	4.48E-12
Po-214	2.43E-06
Tl-210	1.71E-05
Pb-210	3.69E-05
Bi-210	5.97E-04
Hg-206	4.82E-11
Po-210	1.55E-07
Tl-206	1.39E-09
U-235	3.75E-03
Th-231	1.22E-04
Pa-231	9.55E-02
Ac-227	7.23E-02
Th-227	8.97E-04
Fr-223	8.46E-06
Ra-223	1.00E-03
Rn-219	4.35E-04
At-219	0.00E+00
Bi-215	1.95E-09
Po-215	1.33E-06
Pb-211	8.54E-04
Bi-211	3.52E-04
Tl-207	4.42E-04
Po-211	1.69E-07
Th-232	2.57E-02
Ra-228	3.02E-02
Ac-228	1.38E-02
Th-228	3.47E-02
Ra-224	2.37E-03
Rn-220	9.59E-06
Po-216	2.31E-07
Pb-212	2.11E-03
Bi-212	2.46E-03
Po-212	0.00E+00
Tl-208	1.70E-02
TOTAL	6.03E-01

CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk

PATHWAY RISK SUMMARY

Pathway	Selected Individual Total Lifetime Fatal Cancer Risk
INGESTION	5.56E-09
INHALATION	9.88E-08
AIR IMMERSION	1.69E-12
GROUND SURFACE	5.29E-08
INTERNAL	1.04E-07
EXTERNAL	5.29E-08
TOTAL	1.57E-07

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NUCLIDE RISK SUMMARY

Nuclide	Selected Individual Total Lifetime Fatal Cancer Risk
U-238	1.60E-08
Th-234	1.11E-09
Pa-234m	3.15E-09
Pa-234	1.93E-10
U-234	1.98E-08
Th-230	2.32E-08
Ra-226	7.87E-09
Rn-222	6.28E-12
Po-218	9.18E-17
Pb-214	4.02E-09
At-218	9.52E-17
Bi-214	2.32E-08
Rn-218	2.45E-18
Po-214	1.34E-12
Tl-210	9.16E-12
Pb-210	1.65E-11
Bi-210	6.61E-11
Hg-206	2.14E-17
Po-210	8.49E-14
Tl-206	1.57E-16
U-235	1.50E-09
Th-231	5.57E-11
Pa-231	4.13E-09
Ac-227	9.05E-09
Th-227	4.86E-10
Fr-223	3.15E-12
Ra-223	5.42E-10
Rn-219	2.38E-10
At-219	0.00E+00
Bi-215	8.72E-16
Po-215	7.28E-13
Pb-211	3.05E-10
Bi-211	1.92E-10
Tl-207	5.68E-11
Po-211	9.27E-14
Th-232	5.64E-09
Ra-228	4.38E-09
Ac-228	7.34E-09
Th-228	1.25E-08
Ra-224	8.88E-10
Rn-220	5.25E-12
Po-216	1.27E-13
Pb-212	1.15E-09
Bi-212	9.48E-10
Po-212	0.00E+00
Tl-208	9.24E-09
TOTAL	1.57E-07

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INDIVIDUAL COMMITTED EFFECTIVE DOSE EQUIVALENT (mrem)
(All Radionuclides and Pathways)

	Distance (m)				
Direction	160	495	750	2915	
N	6.0E-01	8.8E-02	4.9E-02	1.9E-02	
NNW	3.2E-01	5.3E-02	3.3E-02	1.7E-02	
NW	3.7E-01	5.9E-02	3.6E-02	1.8E-02	
WNW	4.5E-01	6.9E-02	4.0E-02	1.8E-02	
W	3.4E-01	5.6E-02	3.4E-02	1.7E-02	School
WSW	1.7E-01	3.5E-02	2.4E-02	1.6E-02	
SW	2.4E-01	4.3E-02	2.8E-02	1.7E-02	Residence
SSW	2.9E-01	4.9E-02	3.1E-02	1.7E-02	
S	2.6E-01	4.5E-02	2.9E-02	1.7E-02	
SSE	1.8E-01	3.6E-02	2.5E-02	1.7E-02	Business
SE	2.6E-01	4.6E-02	3.0E-02	1.7E-02	
ESE	4.4E-01	6.7E-02	3.9E-02	1.8E-02	
E	5.7E-01	8.3E-02	4.6E-02	1.8E-02	
ENE	4.8E-01	7.1E-02	4.1E-02	1.8E-02	
NE	2.9E-01	5.0E-02	3.1E-02	1.7E-02	Farm
NNE	2.5E-01	4.4E-02	2.9E-02	1.7E-02	

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INDIVIDUAL LIFETIME RISK (deaths)
(All Radionuclides and Pathways)

	Distance (m)			
Direction	160	495	750	2915
N	1.6E-07	2.3E-08	1.3E-08	4.9E-09
NNW	8.2E-08	1.4E-08	8.5E-09	4.4E-09
NW	9.7E-08	1.5E-08	9.3E-09	4.5E-09
WNW	1.2E-07	1.8E-08	1.0E-08	4.6E-09
W	9.0E-08	1.5E-08	8.8E-09	4.5E-09
WSW	4.5E-08	9.0E-09	6.3E-09	4.2E-09
SW	6.2E-08	1.1E-08	7.2E-09	4.3E-09
SSW	7.6E-08	1.3E-08	8.0E-09	4.4E-09
S	6.7E-08	1.2E-08	7.6E-09	4.3E-09
SSE	4.8E-08	9.5E-09	6.5E-09	4.2E-09
SE	6.8E-08	1.2E-08	7.7E-09	4.4E-09
ESE	1.1E-07	1.8E-08	1.0E-08	4.6E-09
E	1.5E-07	2.2E-08	1.2E-08	4.8E-09
ENE	1.2E-07	1.9E-08	1.1E-08	4.6E-09
NE	7.7E-08	1.3E-08	8.1E-09	4.4E-09
NNE	6.5E-08	1.2E-08	7.5E-09	4.3E-09

CAP88 OUTPUT RESULTS

Plant 6 Loadout

C A P 8 8 - P C

Version 4.0

Clean Air Act Assessment Package – 1988

D O S E A N D R I S K S U M M A R I E S

Non-Radon Individual Assessment
Thu Mar 12 07:16:53 2015

Facility: Plant 6 Loadout
Address: Destrehan
City: St Louis
State: MO Zip: 63147

Source Category: Area
Source Type: Area
Emission Year: 2014
DOSE Age Group: Adult

Comments: Air
Air

Dataset Name: Plant 6 Loadout
Dataset Date: Mar 12, 2015 07:15 AM
Wind File: C:\Users\moserpl\Documents\CAP88\Wind Files\13994.WND

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ORGAN DOSE EQUIVALENT SUMMARY

Organ	Selected Individual (mrem)
Adrenal	2.86E-02
UB_Wall	3.10E-02
Bone_Sur	2.39E+00
Brain	2.99E-02
Breasts	3.24E-02
St_Wall	3.02E-02
SI_Wall	3.00E-02
ULI_Wall	3.20E-02
LLI_Wall	3.62E-02
Kidneys	7.11E-02
Liver	1.64E-01
Muscle	3.31E-02
Ovaries	4.73E-02
Pancreas	2.88E-02
R_Marrow	1.33E-01
Skin	5.38E-01
Spleen	3.04E-02
Testes	5.13E-02
Thymus	3.00E-02
Thyroid	3.11E-02
GB_Wall	2.89E-02
Ht_Wall	2.99E-02
Uterus	2.96E-02
ET_Reg	1.58E-01
Lung_66	4.85E-01
Effectiv	1.37E-01

PATHWAY COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Pathway	Selected Individual (mrem)
INGESTION	5.27E-03
INHALATION	1.04E-01
AIR IMMERSION	9.42E-07
GROUND SURFACE	2.85E-02
INTERNAL	1.09E-01
EXTERNAL	2.85E-02
TOTAL	1.37E-01

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NUCLIDE COMMITTED EFFECTIVE DOSE EQUIVALENT SUMMARY

Nuclide	Selected Individual (mrem)
U-238	1.15E-02
Th-234	7.24E-04
Pa-234m	4.34E-03
Pa-234	8.55E-05
U-234	1.37E-02
Th-230	2.10E-02
Ra-226	4.28E-03
Rn-222	3.26E-06
Po-218	5.83E-11
Pb-214	2.13E-03
At-218	2.19E-10
Bi-214	1.24E-02
Rn-218	1.27E-12
Po-214	6.89E-07
Tl-210	4.86E-06
Pb-210	1.05E-05
Bi-210	1.69E-04
Hg-206	1.37E-11
Po-210	4.38E-08
Tl-206	3.95E-10
U-235	8.62E-04
Th-231	2.83E-05
Pa-231	2.20E-02
Ac-227	1.66E-02
Th-227	2.06E-04
Fr-223	1.95E-06
Ra-223	2.31E-04
Rn-219	1.00E-04
At-219	0.00E+00
Bi-215	4.49E-10
Po-215	3.05E-07
Pb-211	1.96E-04
Bi-211	8.09E-05
Tl-207	1.02E-04
Po-211	3.89E-08
Th-232	4.89E-03
Ra-228	7.05E-03
Ac-228	2.99E-03
Th-228	6.60E-03
Ra-224	4.54E-04
Rn-220	2.06E-06
Po-216	4.98E-08
Pb-212	4.53E-04
Bi-212	5.29E-04
Po-212	0.00E+00
Tl-208	3.65E-03
TOTAL	1.37E-01

CANCER RISK SUMMARY

Cancer	Selected Individual Total Lifetime Fatal Cancer Risk

PATHWAY RISK SUMMARY

Pathway	Selected Individual Total Lifetime Fatal Cancer Risk
INGESTION	1.51E-09
INHALATION	2.18E-08
AIR IMMERSION	4.43E-13
GROUND SURFACE	1.34E-08
INTERNAL	2.33E-08
EXTERNAL	1.34E-08
TOTAL	3.67E-08

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NUCLIDE RISK SUMMARY

Nuclide	Selected Individual Total Lifetime Fatal Cancer Risk
U-238	3.84E-09
Th-234	2.96E-10
Pa-234m	7.59E-10
Pa-234	4.65E-11
U-234	4.71E-09
Th-230	4.64E-09
Ra-226	2.25E-09
Rn-222	1.78E-12
Po-218	2.60E-17
Pb-214	1.14E-09
At-218	2.70E-17
Bi-214	6.57E-09
Rn-218	6.94E-19
Po-214	3.78E-13
Tl-210	2.59E-12
Pb-210	4.69E-12
Bi-210	1.88E-11
Hg-206	6.06E-18
Po-210	2.41E-14
Tl-206	4.44E-17
U-235	3.45E-10
Th-231	1.28E-11
Pa-231	9.51E-10
Ac-227	2.08E-09
Th-227	1.12E-10
Fr-223	7.25E-13
Ra-223	1.25E-10
Rn-219	5.47E-11
At-219	0.00E+00
Bi-215	2.01E-16
Po-215	1.67E-13
Pb-211	7.02E-11
Bi-211	4.42E-11
Tl-207	1.31E-11
Po-211	2.13E-14
Th-232	1.07E-09
Ra-228	1.02E-09
Ac-228	1.58E-09
Th-228	2.37E-09
Ra-224	1.71E-10
Rn-220	1.13E-12
Po-216	2.74E-14
Pb-212	2.47E-10
Bi-212	2.04E-10
Po-212	0.00E+00
Tl-208	1.99E-09
TOTAL	3.67E-08

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INDIVIDUAL COMMITTED EFFECTIVE DOSE EQUIVALENT (mrem)
(All Radionuclides and Pathways)

	Distance (m)				
Direction	160	495	750	2915	
N	1.4E-01	2.0E-02	1.1E-02	4.5E-03	
NNW	7.2E-02	1.2E-02	7.7E-03	4.1E-03	
NW	8.5E-02	1.4E-02	8.3E-03	4.2E-03	
WNW	1.0E-01	1.6E-02	9.3E-03	4.3E-03	
W	7.8E-02	1.3E-02	7.9E-03	4.2E-03	School
WSW	4.0E-02	8.1E-03	5.8E-03	4.0E-03	
SW	5.5E-02	9.9E-03	6.6E-03	4.0E-03	Residence
SSW	6.7E-02	1.1E-02	7.2E-03	4.1E-03	
S	5.8E-02	1.1E-02	6.9E-03	4.1E-03	
SSE	4.2E-02	8.5E-03	5.9E-03	4.0E-03	Business
SE	5.9E-02	1.1E-02	6.9E-03	4.1E-03	
ESE	1.0E-01	1.6E-02	9.2E-03	4.3E-03	
E	1.3E-01	1.9E-02	1.1E-02	4.4E-03	
ENE	1.1E-01	1.6E-02	9.5E-03	4.3E-03	
NE	6.7E-02	1.2E-02	7.3E-03	4.1E-03	Farm
NNE	5.7E-02	1.0E-02	6.8E-03	4.1E-03	

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INDIVIDUAL LIFETIME RISK (deaths)
(All Radionuclides and Pathways)

	Distance (m)			
Direction	160	495	750	2915
N	3.7E-08	5.5E-09	3.1E-09	1.3E-09
NNW	1.9E-08	3.4E-09	2.1E-09	1.2E-09
NW	2.3E-08	3.8E-09	2.3E-09	1.2E-09
WNW	2.8E-08	4.3E-09	2.6E-09	1.2E-09
W	2.1E-08	3.5E-09	2.2E-09	1.2E-09
WSW	1.1E-08	2.3E-09	1.6E-09	1.1E-09
SW	1.5E-08	2.7E-09	1.8E-09	1.2E-09
SSW	1.8E-08	3.1E-09	2.0E-09	1.2E-09
S	1.6E-08	2.9E-09	1.9E-09	1.2E-09
SSE	1.1E-08	2.4E-09	1.7E-09	1.1E-09
SE	1.6E-08	2.9E-09	1.9E-09	1.2E-09
ESE	2.7E-08	4.3E-09	2.5E-09	1.2E-09
E	3.5E-08	5.2E-09	3.0E-09	1.3E-09
ENE	2.9E-08	4.5E-09	2.6E-09	1.2E-09
NE	1.8E-08	3.2E-09	2.0E-09	1.2E-09
NNE	1.5E-08	2.8E-09	1.9E-09	1.2E-09

APPENDIX B

ENVIRONMENTAL THERMOLUMINESCENT DOSIMETER, ALPHA TRACK, AND PERIMETER AIR DATA

(On CD-ROM on the Back Cover of this Report)

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Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167488	Plant 6WH	01/09/14	Gross Alpha/Beta	Gross Alpha	1E-14	2.046E-14	3.031E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.486E-14	4.013E-14	4.775E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167489	Plant 6WH	01/13/14	Gross Alpha/Beta	Gross Alpha	4.626E-15	7.587E-15	1.079E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.864E-14	1.548E-14	1.699E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167490	Plant 6WH	01/14/14	Gross Alpha/Beta	Gross Alpha	4.635E-15	7.603E-15	1.081E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.065E-14	1.48E-14	1.702E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167491	Plant 6WH	01/15/14	Gross Alpha/Beta	Gross Alpha	2.496E-15	6.975E-15	1.081E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.742E-14	1.707E-14	1.702E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167492	Plant 6WH	01/16/14	Gross Alpha/Beta	Gross Alpha	8.196E-15	8.837E-15	1.129E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.393E-14	1.572E-14	1.779E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167493	Plant 6WH	01/16/14	Gross Alpha/Beta	Gross Alpha	-5.49E-15	9.769E-15	2.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-6.546E-15	2.593E-14	3.276E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167494	City Property	01/13/14	Gross Alpha/Beta	Gross Alpha	5.72E-16	4.804E-15	1.043E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	1.929E-14	1.757E-14	2.529E-14	µCi/mL	U	T04, T05	City Property (General Area) Perimeter Air
SLD167495	City Property	01/16/14	Gross Alpha/Beta	Gross Alpha	1.168E-15	9.808E-15	2.129E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	-1.115E-14	3.141E-14	5.164E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
SLD167496	6WH LOADOUT	01/07/14	Gross Alpha/Beta	Gross Alpha	2.684E-15	7.502E-15	1.162E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.865E-14	1.656E-14	1.831E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167497	6WH LOADOUT	01/07/14	Gross Alpha/Beta	Gross Alpha	3.966E-15	8.114E-15	1.202E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.854E-14	1.706E-14	1.893E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167498	6WH LOADOUT	01/07/14	Gross Alpha/Beta	Gross Alpha	5.222E-15	8.565E-15	1.218E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.838E-14	1.893E-14	1.918E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167499	6WH LOADOUT	01/08/14	Gross Alpha/Beta	Gross Alpha	8.236E-15	8.881E-15	1.135E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.296E-14	1.742E-14	1.788E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167500	6WH LOADOUT	01/08/14	Gross Alpha/Beta	Gross Alpha	2.581E-15	7.214E-15	1.118E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.731E-14	1.755E-14	1.761E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167501	6WH LOADOUT	01/08/14	Gross Alpha/Beta	Gross Alpha	9.882E-15	9.672E-15	1.198E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.997E-14	1.714E-14	1.887E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167502	6WH LOADOUT	01/09/14	Gross Alpha/Beta	Gross Alpha	2.694E-15	7.527E-15	1.166E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.554E-14	1.96E-14	1.837E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167503	6WH LOADOUT	01/09/14	Gross Alpha/Beta	Gross Alpha	-7.52E-16	6.235E-15	1.14E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.042E-14	1.643E-14	1.796E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167504	6WH LOADOUT	01/09/14	Gross Alpha/Beta	Gross Alpha	-2.436E-15	7.526E-15	1.477E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.101E-14	2.167E-14	2.326E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167505	6WH LOADOUT	01/10/14	Gross Alpha/Beta	Gross Alpha	2.975E-15	8.315E-15	1.288E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.27E-14	1.765E-14	2.029E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167506	6WH LOADOUT	01/10/14	Gross Alpha/Beta	Gross Alpha	1.367E-14	1.652E-14	2.181E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4.164E-15	2.746E-14	3.436E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167507	6WH LOADOUT	01/10/14	Gross Alpha/Beta	Gross Alpha	2.804E-15	1.305E-14	2.125E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.857E-14	3.152E-14	3.348E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167508	6WH LOADOUT	01/13/14	Gross Alpha/Beta	Gross Alpha	-2.75E-15	2.617E-15	1.003E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.435E-14	1.654E-14	2.432E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167509	6WH LOADOUT	01/13/14	Gross Alpha/Beta	Gross Alpha	-5.79E-16	4.275E-15	1.055E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.689E-14	1.839E-14	2.559E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167510	6WH LOADOUT	01/13/14	Gross Alpha/Beta	Gross Alpha	1.595E-15	4.948E-15	9.692E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	-5.076E-15	1.43E-14	2.351E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167511	6WH LOADOUT	01/14/14	Gross Alpha/Beta	Gross Alpha	6.567E-15	6.534E-15	9.206E-15	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.536E-15	1.435E-14	2.233E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167512	6WH LOADOUT	01/14/14	Gross Alpha/Beta	Gross Alpha	-5.74E-16	4.238E-15	1.046E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	4.748E-15	1.637E-14	2.538E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167513	6WH LOADOUT	01/14/14	Gross Alpha/Beta	Gross Alpha	5.34E-16	4.483E-15	9.728E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	8.492E-15	1.559E-14	2.36E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167514	6WH LOADOUT	01/15/14	Gross Alpha/Beta	Gross Alpha	5.74E-16	4.82E-15	1.046E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	5.004E-14	2.003E-14	2.538E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167515	6WH LOADOUT	01/15/14	Gross Alpha/Beta	Gross Alpha	7.903E-15	7.139E-15	9.602E-15	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.453E-14	1.753E-14	2.329E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167516	6WH LOADOUT	01/16/14	Gross Alpha/Beta	Gross Alpha	4.937E-15	6.372E-15	9.998E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.99E-14	1.697E-14	2.425E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167517	6WH LOADOUT	01/16/14	Gross Alpha/Beta	Gross Alpha	-5.41E-16	3.994E-15	9.859E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.756E-14	1.656E-14	2.392E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167518	6WH LOADOUT	01/16/14	Gross Alpha/Beta	Gross Alpha	-5.78E-16	4.27E-15	1.054E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.245E-14	1.801E-14	2.557E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167519	6WH LOADOUT	01/20/14	Gross Alpha/Beta	Gross Alpha	-1.179E-15	3.956E-15	1.018E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.82E-14	1.964E-14	2.573E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167520	6WH LOADOUT	01/20/14	Gross Alpha/Beta	Gross Alpha	2.287E-15	5.518E-15	9.878E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.469E-14	1.808E-14	2.496E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167521	6WH LOADOUT	01/20/14	Gross Alpha/Beta	Gross Alpha	8.173E-15	7.7E-15	1.008E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
				Gross Beta	4.675E-14	2.012E-14	2.548E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167522	6WH LOADOUT	01/21/14	Gross Alpha/Beta	Gross Alpha	1.115E-15	4.895E-15	9.633E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.052E-14	1.734E-14	2.434E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167523	6WH LOADOUT	01/21/14	Gross Alpha/Beta	Gross Alpha	3.392E-15	5.908E-15	9.766E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.225E-14	1.77E-14	2.467E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167524	6WH LOADOUT	01/21/14	Gross Alpha/Beta	Gross Alpha	3.337E-15	5.812E-15	9.607E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.197E-14	1.658E-14	2.427E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167525	6WH LOADOUT	01/22/14	Gross Alpha/Beta	Gross Alpha	7.214E-15	6.796E-15	8.901E-15	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.175E-14	1.542E-14	2.249E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167526	6WH LOADOUT	01/22/14	Gross Alpha/Beta	Gross Alpha	1.123E-15	4.928E-15	9.697E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.352E-14	1.769E-14	2.45E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167527	6WH LOADOUT	01/22/14	Gross Alpha/Beta	Gross Alpha	2.095E-14	1.033E-14	9.049E-15	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.261E-14	1.735E-14	2.286E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167528	6WH LOADOUT	01/23/14	Gross Alpha/Beta	Gross Alpha	2.227E-15	5.371E-15	9.616E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.678E-14	1.86E-14	2.43E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167529	6WH LOADOUT	01/23/14	Gross Alpha/Beta	Gross Alpha	-1.139E-15	3.824E-15	9.84E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.009E-14	1.68E-14	2.486E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167530	6WH LOADOUT	01/23/14	Gross Alpha/Beta	Gross Alpha	3.1E-14	9.535E-15	5.935E-15	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
				Gross Beta	4.818E-14	1.516E-14	1.774E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167531	6WH LOADOUT	01/27/14	Gross Alpha/Beta	Gross Alpha	4.8E-14	1.137E-14	5.62E-15	µCi/mL	=		SLDS (General Area)-Perimeter Air
				Gross Beta	5.295E-14	1.472E-14	1.68E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167532	6WH LOADOUT	01/27/14	Gross Alpha/Beta	Gross Alpha	1.985E-15	7.697E-15	1.108E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.904E-14	1.23E-14	1.751E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167533	6WH LOADOUT	01/27/14	Gross Alpha/Beta	Gross Alpha	4.221E-15	8.274E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.734E-14	1.315E-14	1.737E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167534	6WH LOADOUT	01/28/14	Gross Alpha/Beta	Gross Alpha	-2.67E-16	6.583E-15	1.042E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.792E-14	1.157E-14	1.648E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167535	6WH LOADOUT	01/28/14	Gross Alpha/Beta	Gross Alpha	6.184E-15	8.47E-15	1.05E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.536E-14	1.134E-14	1.66E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167536	6WH LOADOUT	01/28/14	Gross Alpha/Beta	Gross Alpha	1.022E-14	9.258E-15	1.023E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.021E-14	1.166E-14	1.618E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167537	6WH LOADOUT	01/29/14	Gross Alpha/Beta	Gross Alpha	8.722E-15	9.418E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.875E-14	1.33E-14	1.737E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167538	6WH LOADOUT	01/29/14	Gross Alpha/Beta	Gross Alpha	-2.86E-16	7.048E-15	1.116E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.96E-16	1.001E-14	1.764E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167539	6WH LOADOUT	01/29/14	Gross Alpha/Beta	Gross Alpha	9.672E-15	9.511E-15	1.079E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.685E-14	1.291E-14	1.706E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167540	6WH LOADOUT	01/30/14	Gross Alpha/Beta	Gross Alpha	6.714E-15	9.197E-15	1.14E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.129E-14	1.396E-14	1.803E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167541	6WH LOADOUT	01/30/14	Gross Alpha/Beta	Gross Alpha	3.296E-15	8.478E-15	1.17E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.387E-14	1.342E-14	1.85E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167542	6WH LOADOUT	01/30/14	Gross Alpha/Beta	Gross Alpha	4.176E-15	8.186E-15	1.087E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.611E-14	1.396E-14	1.719E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167543	6WH LOADOUT	02/03/14	Gross Alpha/Beta	Gross Alpha	5.167E-15	7.23E-15	1.116E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	5.254E-14	2.232E-14	2.819E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167544	6WH LOADOUT	02/04/14	Gross Alpha/Beta	Gross Alpha	2.595E-15	6.259E-15	1.121E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	9.838E-15	1.898E-14	2.831E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167545	6WH LOADOUT	02/04/14	Gross Alpha/Beta	Gross Alpha	4.962E-15	6.944E-15	1.072E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.862E-14	2.054E-14	2.707E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167546	6WH LOADOUT	02/04/14	Gross Alpha/Beta	Gross Alpha	3.742E-15	6.517E-15	1.077E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.851E-14	1.984E-14	2.722E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167547	6WH LOADOUT	02/03/14	Gross Alpha/Beta	Gross Alpha	3.799E-15	6.617E-15	1.094E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.539E-14	2.066E-14	2.764E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167548	6WH LOADOUT	02/03/14	Gross Alpha/Beta	Gross Alpha	2.398E-15	5.786E-15	1.036E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.58E-14	1.974E-14	2.617E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167549	6WH LOADOUT	02/05/14	Gross Alpha/Beta	Gross Alpha	1.068E-14	8.531E-15	1.025E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
				Gross Beta	4.677E-14	2.04E-14	2.59E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167550	6WH LOADOUT	02/05/14	Gross Alpha/Beta	Gross Alpha	3.526E-15	6.142E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.734E-14	1.952E-14	2.565E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167551	6WH LOADOUT	02/05/14	Gross Alpha/Beta	Gross Alpha	-2.087E-15	2.815E-15	9.011E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.049E-14	1.712E-14	2.277E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167552	Plant 6WH	01/20/14	Gross Alpha/Beta	Gross Alpha	4.169E-15	6.307E-15	1.055E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.99E-14	1.168E-14	1.577E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167553	Plant 6WH	01/20/14	Gross Alpha/Beta	Gross Alpha	1.046E-14	9.473E-15	1.047E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.94E-14	1.289E-14	1.655E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167554	Plant 6WH	01/21/14	Gross Alpha/Beta	Gross Alpha	2.082E-15	8.072E-15	1.162E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	-1.612E-15	1.01E-14	1.837E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167555	Plant 6WH	01/22/14	Gross Alpha/Beta	Gross Alpha	-2.48E-16	6.111E-15	9.676E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.353E-14	1.038E-14	1.53E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167556	Plant 6WH	01/23/14	Gross Alpha/Beta	Gross Alpha	5.75E-15	7.876E-15	9.766E-15	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.242E-14	1.148E-14	1.544E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167557	Plant 6WH	01/27/14	Gross Alpha/Beta	Gross Alpha	-1.34E-15	6.255E-15	1.047E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	9.277E-15	1.056E-14	1.655E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
SLD167558	Plant 6WH	01/28/14	Gross Alpha/Beta	Gross Alpha	-2.7E-16	6.658E-15	1.054E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.947E-14	1.186E-14	1.666E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167559	Plant 6WH	01/29/14	Gross Alpha/Beta	Gross Alpha	4.125E-15	8.086E-15	1.074E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.502E-14	1.152E-14	1.698E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167560	Plant 6WH	01/30/14	Gross Alpha/Beta	Gross Alpha	2.997E-15	7.708E-15	1.064E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	1.556E-14	1.149E-14	1.682E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167561	Plant 6WH	02/03/14	Gross Alpha/Beta	Gross Alpha	1.8E-15	6.979E-15	1.005E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.335E-14	1.289E-14	1.588E-14	µCi/mL	=		Plant 6WH (General Area) Perimeter Air
SLD167562	Plant 6WH	02/04/14	Gross Alpha/Beta	Gross Alpha	9.435E-15	1.019E-14	1.189E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	2.653E-14	1.389E-14	1.879E-14	µCi/mL	J	T04	Plant 6WH (General Area) Perimeter Air
SLD167563	Plant 6WH	02/05/14	Gross Alpha/Beta	Gross Alpha	7.751E-15	1.994E-14	2.753E-14	µCi/mL	UJ	T06	Plant 6WH (General Area) Perimeter Air
				Gross Beta	3.321E-14	2.888E-14	4.351E-14	µCi/mL	U	T04, T05	Plant 6WH (General Area) Perimeter Air
SLD167564	City Property	01/31/14	Gross Alpha/Beta	Gross Alpha	1.689E-14	2.047E-14	2.628E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	4.606E-14	3.123E-14	4.704E-14	µCi/mL	U	T04, T05	City Property (General Area) Perimeter Air
SLD167565	City Property	02/03/14	Gross Alpha/Beta	Gross Alpha	1.81E-15	6.891E-15	1.126E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	2.398E-14	1.392E-14	2.016E-14	µCi/mL	J	T04	City Property (General Area) Perimeter Air
SLD167566	City Property	02/04/14	Gross Alpha/Beta	Gross Alpha	1.583E-15	6.029E-15	9.854E-15	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	3.881E-14	1.421E-14	1.764E-14	µCi/mL	=		City Property (General Area) Perimeter Air
SLD167763	City Property	02/05/14	Gross Alpha/Beta	Gross Alpha	8.445E-15	1.023E-14	1.314E-14	µCi/mL	UJ	T06	City Property (General Area) Perimeter Air
				Gross Beta	3.59E-14	1.718E-14	2.352E-14	µCi/mL	=		City Property (General Area) Perimeter Air
SLD167764	Gunther Salt South	01/22/14	Gross Alpha/Beta	Gross Alpha	3.023E-15	7.069E-15	1.075E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.641E-14	1.246E-14	1.924E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167765	Gunther Salt South	01/23/14	Gross Alpha/Beta	Gross Alpha	3.023E-15	7.069E-15	1.075E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.451E-14	1.348E-14	1.924E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167766	Gunther Salt South	01/27/14	Gross Alpha/Beta	Gross Alpha	5.961E-15	7.224E-15	9.274E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.185E-14	1.172E-14	1.66E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167767	Gunther Salt South	01/28/14	Gross Alpha/Beta	Gross Alpha	3.73E-16	5.216E-15	9.274E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.416E-14	1.075E-14	1.66E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167768	Gunther Salt South	01/29/14	Gross Alpha/Beta	Gross Alpha	4.843E-15	6.87E-15	9.274E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.346E-14	1.066E-14	1.66E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167769	Gunther Salt South	01/30/14	Gross Alpha/Beta	Gross Alpha	5.449E-15	7.728E-15	1.043E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.829E-14	1.24E-14	1.868E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167770	Gunther Salt South	02/03/14	Gross Alpha/Beta	Gross Alpha	6.909E-15	1.205E-14	1.72E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.755E-14	2.011E-14	3.079E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167771	6WH LOADOUT	02/06/14	Gross Alpha/Beta	Gross Alpha	2.406E-15	7.517E-15	1.451E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.376E-14	1.553E-14	2.09E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167772	6WH LOADOUT	02/06/14	Gross Alpha/Beta	Gross Alpha	-3.228E-15	5.347E-15	1.514E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.907E-14	1.429E-14	2.18E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167773	6WH LOADOUT	02/06/14	Gross Alpha/Beta	Gross Alpha	-2.562E-15	4.244E-15	1.202E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.799E-14	1.17E-14	1.731E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167774	6WH LOADOUT	02/10/14	Gross Alpha/Beta	Gross Alpha	2.031E-15	6.346E-15	1.225E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.923E-14	1.319E-14	1.764E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167775	6WH LOADOUT	02/10/14	Gross Alpha/Beta	Gross Alpha	1.908E-15	5.962E-15	1.151E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.654E-14	1.112E-14	1.657E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167776	6WH LOADOUT	02/10/14	Gross Alpha/Beta	Gross Alpha	3.161E-15	6.692E-15	1.213E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.757E-14	1.399E-14	1.747E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167777	6WH LOADOUT	02/11/14	Gross Alpha/Beta	Gross Alpha	1.885E-15	5.89E-15	1.137E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	4.398E-14	1.4E-14	1.637E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167778	6WH LOADOUT	02/11/14	Gross Alpha/Beta	Gross Alpha	2.079E-15	6.496E-15	1.254E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.62E-14	1.309E-14	1.806E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167779	6WH LOADOUT	02/11/14	Gross Alpha/Beta	Gross Alpha	9.889E-15	8.599E-15	1.193E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	4.543E-14	1.462E-14	1.718E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167780	6WH LOADOUT	02/12/14	Gross Alpha/Beta	Gross Alpha	3.178E-15	6.728E-15	1.22E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.271E-14	1.353E-14	1.757E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167781	6WH LOADOUT	02/12/14	Gross Alpha/Beta	Gross Alpha	1.472E-14	9.922E-15	1.218E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.989E-14	1.428E-14	1.754E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167782	6WH LOADOUT	02/12/14	Gross Alpha/Beta	Gross Alpha	1.972E-15	6.16E-15	1.189E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.401E-14	1.342E-14	1.713E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167783	6WH LOADOUT	02/13/14	Gross Alpha/Beta	Gross Alpha	6.533E-15	7.697E-15	1.199E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	4.638E-14	1.477E-14	1.727E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167784	6WH LOADOUT	02/13/14	Gross Alpha/Beta	Gross Alpha	3.313E-15	7.012E-15	1.271E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.656E-14	1.327E-14	1.831E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167785	6WH LOADOUT	02/13/14	Gross Alpha/Beta	Gross Alpha	1.409E-14	9.519E-15	9.407E-15	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	7.124E-14	2.199E-14	2.569E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167786	6WH LOADOUT	02/14/14	Gross Alpha/Beta	Gross Alpha	-1.479E-15	3.805E-15	9.28E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.338E-14	1.893E-14	2.534E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167787	6WH LOADOUT	02/14/14	Gross Alpha/Beta	Gross Alpha	4.051E-15	5.956E-15	8.471E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	7.309E-14	2.042E-14	2.313E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167788	6WH LOADOUT	02/14/14	Gross Alpha/Beta	Gross Alpha	8.847E-15	7.794E-15	8.952E-15	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	6.271E-14	2.057E-14	2.445E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167789	6WH LOADOUT	02/15/14	Gross Alpha/Beta	Gross Alpha	5.32E-15	6.573E-15	8.783E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.732E-14	1.758E-14	2.398E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167790	6WH LOADOUT	02/15/14	Gross Alpha/Beta	Gross Alpha	4.374E-15	6.431E-15	9.147E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	4.998E-14	1.998E-14	2.498E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167791	6WH LOADOUT	02/17/14	Gross Alpha/Beta	Gross Alpha	-2.725E-15	3.053E-15	9.497E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.028E-14	1.737E-14	2.593E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167792	6WH LOADOUT	02/18/14	Gross Alpha/Beta	Gross Alpha	8.75E-16	4.994E-15	9.147E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.138E-14	1.686E-14	2.498E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167793	6WH LOADOUT	02/18/14	Gross Alpha/Beta	Gross Alpha	6.655E-15	7.18E-15	9.076E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.486E-14	1.869E-14	2.478E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167794	6WH LOADOUT	02/18/14	Gross Alpha/Beta	Gross Alpha	-3.05E-16	4.619E-15	9.567E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.277E-14	1.857E-14	2.612E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167795	6WH LOADOUT	02/19/14	Gross Alpha/Beta	Gross Alpha	2.923E-15	5.458E-15	8.335E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.134E-14	1.711E-14	2.276E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167796	6WH LOADOUT	02/19/14	Gross Alpha/Beta	Gross Alpha	2.914E-15	5.441E-15	8.31E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.315E-14	1.641E-14	2.269E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167797	6WH LOADOUT	02/19/14	Gross Alpha/Beta	Gross Alpha	3.062E-15	5.717E-15	8.732E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.441E-14	1.64E-14	2.384E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167798	6WH LOADOUT	02/20/14	Gross Alpha/Beta	Gross Alpha	-2.74E-16	4.144E-15	8.584E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.809E-14	1.729E-14	2.344E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167799	6WH LOADOUT	02/20/14	Gross Alpha/Beta	Gross Alpha	1.181E-15	6.745E-15	1.235E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.737E-14	2.294E-14	3.373E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167800	6WH LOADOUT	02/20/14	Gross Alpha/Beta	Gross Alpha	1.229E-15	7.015E-15	1.285E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.267E-14	2.511E-14	3.508E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167801	6WH LOADOUT	02/21/14	Gross Alpha/Beta	Gross Alpha	-2.64E-16	3.992E-15	8.27E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.029E-14	1.524E-14	2.258E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167802	6WH LOADOUT	02/21/14	Gross Alpha/Beta	Gross Alpha	4.004E-15	5.887E-15	8.373E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.585E-15	1.463E-14	2.286E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167803	6WH LOADOUT	02/21/14	Gross Alpha/Beta	Gross Alpha	-2.54E-16	3.852E-15	7.978E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.834E-14	1.543E-14	2.179E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167804	6WH LOADOUT	02/22/14	Gross Alpha/Beta	Gross Alpha	5.25E-15	6.487E-15	8.669E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.485E-14	1.717E-14	2.367E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167805	6WH LOADOUT	02/22/14	Gross Alpha/Beta	Gross Alpha	-2.7E-16	4.093E-15	8.479E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.537E-14	1.605E-14	2.315E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167806	6WH LOADOUT	02/22/14	Gross Alpha/Beta	Gross Alpha	3.99E-15	5.867E-15	8.345E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.189E-14	1.636E-14	2.279E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167807	6WH LOADOUT	02/24/14	Gross Alpha/Beta	Gross Alpha	-1.391E-15	4.707E-15	1.174E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.22E-14	1.311E-14	1.691E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167808	6WH LOADOUT	02/24/14	Gross Alpha/Beta	Gross Alpha	7.355E-15	7.696E-15	1.15E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.653E-14	1.111E-14	1.656E-14	µCi/mL	U	T04, T05	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167809	6WH LOADOUT	02/24/14	Gross Alpha/Beta	Gross Alpha	8.27E-16	5.608E-15	1.163E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.775E-14	1.253E-14	1.675E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167810	6WH LOADOUT	02/25/14	Gross Alpha/Beta	Gross Alpha	-2.67E-16	5.004E-15	1.129E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.626E-14	1.208E-14	1.626E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167811	6WH LOADOUT	02/25/14	Gross Alpha/Beta	Gross Alpha	5.443E-15	7.416E-15	1.209E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.025E-14	1.203E-14	1.741E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167812	6WH LOADOUT	02/25/14	Gross Alpha/Beta	Gross Alpha	-2.7E-16	5.059E-15	1.141E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.332E-14	1.295E-14	1.644E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167813	6WH LOADOUT	02/26/14	Gross Alpha/Beta	Gross Alpha	4.336E-15	7.117E-15	1.22E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.26E-14	1.24E-14	1.757E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167814	6WH LOADOUT	02/26/14	Gross Alpha/Beta	Gross Alpha	1.897E-15	5.927E-15	1.144E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.883E-14	1.355E-14	1.648E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167815	6WH LOADOUT	02/26/14	Gross Alpha/Beta	Gross Alpha	4.353E-15	7.145E-15	1.225E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	6.335E-14	1.658E-14	1.764E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167816	6WH LOADOUT	02/27/14	Gross Alpha/Beta	Gross Alpha	1.506E-14	9.667E-15	1.156E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.991E-14	1.376E-14	1.665E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167817	6WH LOADOUT	02/27/14	Gross Alpha/Beta	Gross Alpha	-2.83E-16	5.296E-15	1.194E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.7E-14	1.378E-14	1.72E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167818	6WH LOADOUT	02/27/14	Gross Alpha/Beta	Gross Alpha	3.187E-15	6.746E-15	1.223E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.918E-14	1.317E-14	1.761E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167819	6WH LOADOUT	02/28/14	Gross Alpha/Beta	Gross Alpha	4.464E-15	7.327E-15	1.256E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.997E-14	1.353E-14	1.809E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167820	6WH LOADOUT	02/28/14	Gross Alpha/Beta	Gross Alpha	5.072E-15	6.91E-15	1.127E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.69E-14	1.321E-14	1.623E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167821	6WH LOADOUT	02/28/14	Gross Alpha/Beta	Gross Alpha	1.281E-14	8.869E-15	9.159E-15	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	7.343E-14	2.321E-14	2.626E-14	µCi/mL	=		Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167822	6WH LOADOUT	03/01/14	Gross Alpha/Beta	Gross Alpha	3.242E-15	5.575E-15	8.863E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.736E-14	1.939E-14	2.541E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167823	6WH LOADOUT	03/01/14	Gross Alpha/Beta	Gross Alpha	6.545E-15	6.72E-15	8.692E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	3.326E-14	1.95E-14	2.492E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167824	6WH LOADOUT	03/01/14	Gross Alpha/Beta	Gross Alpha	3.229E-15	5.554E-15	8.829E-15	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.653E-14	1.927E-14	2.532E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167825	6WH LOADOUT	03/03/14	Gross Alpha/Beta	Gross Alpha	1.383E-14	1.613E-14	2.216E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	6.477E-14	4.821E-14	6.353E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167826	6WH LOADOUT	03/03/14	Gross Alpha/Beta	Gross Alpha	-4.94E-16	1.015E-14	2.298E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	1.809E-14	4.613E-14	6.589E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
SLD167827	6WH LOADOUT	03/03/14	Gross Alpha/Beta	Gross Alpha	2.216E-14	1.876E-14	2.191E-14	µCi/mL	J	T04	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air
				Gross Beta	2.445E-14	4.458E-14	6.283E-14	µCi/mL	UJ	T06	Plant 6WH/6WH LOADOUT (General Area) Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167828	Building 101	02/10/14	Gross Alpha/Beta	Gross Alpha	9.092E-15	7.692E-15	9.057E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	1.567E-14	1.06E-14	1.597E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167829	Building 101	02/11/14	Gross Alpha/Beta	Gross Alpha	5.979E-15	6.788E-15	9.019E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.33E-14	1.146E-14	1.591E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167830	Building 101	02/12/14	Gross Alpha/Beta	Gross Alpha	3.053E-15	6.08E-15	9.481E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.786E-14	1.242E-14	1.672E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167831	Building 101	02/13/14	Gross Alpha/Beta	Gross Alpha	1.393E-14	9.203E-15	9.554E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.69E-14	1.345E-14	1.685E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167832	Building 101	02/18/14	Gross Alpha/Beta	Gross Alpha	2.049E-15	5.898E-15	9.835E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.924E-15	1.034E-14	1.735E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167833	Building 101	02/20/14	Gross Alpha/Beta	Gross Alpha	1.605E-15	9.405E-15	1.695E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.654E-14	2.07E-14	2.989E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167834	Building 101	02/24/14	Gross Alpha/Beta	Gross Alpha	-1.84E-16	4.92E-15	9.716E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.543E-14	1.12E-14	1.714E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167835	Building 101	02/25/14	Gross Alpha/Beta	Gross Alpha	1.066E-14	8.387E-15	9.54E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.871E-14	1.257E-14	1.683E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167836	Building 101	02/26/14	Gross Alpha/Beta	Gross Alpha	1.036E-14	8.152E-15	9.272E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.779E-14	1.326E-14	1.635E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167837	Building 101	02/27/14	Gross Alpha/Beta	Gross Alpha	3.22E-15	6.413E-15	1E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.056E-15	1.052E-14	1.764E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167838	Kiesel/Gunther Salt	02/10/14	Gross Alpha/Beta	Gross Alpha	2.824E-15	8.13E-15	1.356E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.634E-14	1.622E-14	2.391E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167839	City Property	02/11/14	Gross Alpha/Beta	Gross Alpha	9.344E-15	7.334E-15	8.194E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.347E-14	1.925E-14	2.35E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167840	City Property	02/12/14	Gross Alpha/Beta	Gross Alpha	6.17E-15	6.335E-15	8.194E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.203E-14	1.843E-14	2.35E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167841	City Property	02/13/14	Gross Alpha/Beta	Gross Alpha	1.018E-14	7.991E-15	8.928E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	5.104E-14	2.124E-14	2.56E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167842	City Property	02/14/14	Gross Alpha/Beta	Gross Alpha	6.229E-15	6.395E-15	8.272E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.03E-14	1.846E-14	2.372E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167843	City Property	02/15/14	Gross Alpha/Beta	Gross Alpha	6.412E-15	6.583E-15	8.515E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.259E-14	1.91E-14	2.442E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167844	City Property	02/18/14	Gross Alpha/Beta	Gross Alpha	-1.533E-15	3.648E-15	1.018E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.341E-15	2.03E-14	2.919E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167845	City Property	02/19/14	Gross Alpha/Beta	Gross Alpha	3.358E-15	5.775E-15	9.181E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.533E-14	1.986E-14	2.633E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167846	City Property	02/20/14	Gross Alpha/Beta	Gross Alpha	5.373E-15	7.386E-15	1.086E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.439E-15	2.187E-14	3.113E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167847	City Property	02/21/14	Gross Alpha/Beta	Gross Alpha	8.6E-16	4.092E-15	7.998E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.549E-14	1.679E-14	2.293E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167848	City Property	02/22/14	Gross Alpha/Beta	Gross Alpha	3.98E-15	5.471E-15	8.042E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.349E-15	1.598E-14	2.306E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167849	City Property	02/24/14	Gross Alpha/Beta	Gross Alpha	3.167E-15	5.446E-15	8.659E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.318E-14	1.868E-14	2.483E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167850	City Property	02/25/14	Gross Alpha/Beta	Gross Alpha	9.256E-15	7.265E-15	8.117E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.306E-14	1.761E-14	2.328E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD167851	City Property	02/26/14	Gross Alpha/Beta	Gross Alpha	-2.03E-16	4.169E-15	9.441E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.147E-14	2.083E-14	2.707E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD167852	City Property	02/27/14	Gross Alpha/Beta	Gross Alpha	-6.27E-16	1.287E-14	2.915E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-3.392E-15	5.631E-14	8.357E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167853	City Property	02/28/14	Gross Alpha/Beta	Gross Alpha	7.665E-15	7.088E-15	8.69E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.397E-14	1.955E-14	2.492E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167854	City Property	03/01/14	Gross Alpha/Beta	Gross Alpha	6.371E-15	6.54E-15	8.46E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.376E-14	1.908E-14	2.426E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167855	City Property	03/04/14	Gross Alpha/Beta	Gross Alpha	9.105E-15	7.703E-15	9.07E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.665E-14	1.188E-14	1.6E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167856	City Property	03/05/14	Gross Alpha/Beta	Gross Alpha	9.37E-16	5.491E-15	9.893E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.907E-14	1.296E-14	1.745E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD167857	City Property	03/06/14	Gross Alpha/Beta	Gross Alpha	3.365E-15	6.702E-15	1.045E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.402E-14	1.294E-14	1.843E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167858	City Property	03/07/14	Gross Alpha/Beta	Gross Alpha	2.122E-15	6.109E-15	1.019E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.979E-14	1.219E-14	1.797E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167859	City Property	03/08/14	Gross Alpha/Beta	Gross Alpha	-1.301E-15	4.441E-15	9.816E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.186E-14	1.207E-14	1.731E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167860	6WH LOADOUT	03/04/14	Gross Alpha/Beta	Gross Alpha	1.022E-15	5.987E-15	1.079E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.479E-14	1.336E-14	1.902E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD167861	6WH LOADOUT	03/05/14	Gross Alpha/Beta	Gross Alpha	2.027E-15	5.834E-15	9.727E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.911E-15	1.051E-14	1.716E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD167862	6WH LOADOUT	03/06/14	Gross Alpha/Beta	Gross Alpha	1.338E-15	7.842E-15	1.413E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.042E-14	1.604E-14	2.492E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169152	Plant 6WH	03/04/14	Gross Alpha/Beta	Gross Alpha	-6.17E-16	5.592E-15	1.061E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.042E-14	1.206E-14	1.651E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169153	Plant 6WH	03/04/14	Gross Alpha/Beta	Gross Alpha	8.609E-15	8.988E-15	1.165E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.249E-14	1.539E-14	1.813E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169154	Plant 6WH	03/04/14	Gross Alpha/Beta	Gross Alpha	2.721E-15	7.117E-15	1.13E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.081E-14	1.486E-14	1.758E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169155	Plant 6WH	03/05/14	Gross Alpha/Beta	Gross Alpha	8.052E-15	8.407E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.971E-14	1.433E-14	1.696E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169156	Plant 6WH	03/05/14	Gross Alpha/Beta	Gross Alpha	7.347E-15	8.565E-15	1.149E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.563E-14	1.552E-14	1.788E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169157	Plant 6WH	03/05/14	Gross Alpha/Beta	Gross Alpha	3.824E-15	7.421E-15	1.123E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.903E-14	1.556E-14	1.748E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169158	Plant 6WH	03/06/14	Gross Alpha/Beta	Gross Alpha	6.837E-15	7.97E-15	1.069E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.649E-14	1.38E-14	1.664E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169159	Plant 6WH	03/06/14	Gross Alpha/Beta	Gross Alpha	1.576E-15	6.673E-15	1.117E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.045E-14	1.468E-14	1.738E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169160	Plant 6WH	03/06/14	Gross Alpha/Beta	Gross Alpha	3.773E-15	7.322E-15	1.108E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.917E-14	1.347E-14	1.724E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169161	Plant 6WH	03/07/14	Gross Alpha/Beta	Gross Alpha	2.675E-15	6.997E-15	1.111E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.96E-14	1.454E-14	1.728E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169162	Plant 6WH	03/07/14	Gross Alpha/Beta	Gross Alpha	5.331E-15	8.36E-15	1.212E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.077E-14	1.571E-14	1.885E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169163	Plant 6WH	03/07/14	Gross Alpha/Beta	Gross Alpha	-6.8E-16	6.165E-15	1.17E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.483E-14	1.566E-14	1.821E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169164	Plant 6WH	03/08/14	Gross Alpha/Beta	Gross Alpha	1.494E-14	9.72E-15	1.04E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	6.791E-14	1.708E-14	1.618E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169165	Plant 6WH	03/08/14	Gross Alpha/Beta	Gross Alpha	2.548E-15	6.664E-15	1.058E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.644E-14	1.716E-14	1.646E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169166	Plant 6WH	03/08/14	Gross Alpha/Beta	Gross Alpha	4.577E-15	7.177E-15	1.04E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.819E-14	1.63E-14	1.618E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169167	Plant 6WH	03/10/14	Gross Alpha/Beta	Gross Alpha	4.249E-15	8.98E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.157E-14	1.796E-14	2.409E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169168	Plant 6WH	03/10/14	Gross Alpha/Beta	Gross Alpha	5.471E-15	9.51E-15	1.046E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.611E-14	1.719E-14	2.482E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169169	Plant 6WH	03/10/14	Gross Alpha/Beta	Gross Alpha	3.245E-15	8.885E-15	1.034E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.785E-14	1.871E-14	2.454E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169170	Plant 6WH	03/11/14	Gross Alpha/Beta	Gross Alpha	8.687E-15	8.506E-15	8.3E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.736E-14	1.418E-14	1.97E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169171	Plant 6WH	03/11/14	Gross Alpha/Beta	Gross Alpha	1.732E-15	6.898E-15	8.275E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.949E-14	1.431E-14	1.964E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169172	Plant 6WH	03/11/14	Gross Alpha/Beta	Gross Alpha	5.158E-15	7.668E-15	8.213E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.021E-14	1.503E-14	1.95E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169173	Plant 6WH	03/12/14	Gross Alpha/Beta	Gross Alpha	1.159E-14	8.771E-15	7.907E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.397E-14	1.411E-14	1.877E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169174	Plant 6WH	03/12/14	Gross Alpha/Beta	Gross Alpha	2.644E-15	7.239E-15	8.421E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.215E-14	1.394E-14	1.999E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169175	Plant 6WH	03/12/14	Gross Alpha/Beta	Gross Alpha	1.056E-15	8.137E-15	1.009E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.444E-14	1.569E-14	2.394E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169176	Plant 6WH	03/13/14	Gross Alpha/Beta	Gross Alpha	3.367E-15	7.118E-15	8.044E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.813E-14	1.386E-14	1.909E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169177	Plant 6WH	03/13/14	Gross Alpha/Beta	Gross Alpha	1.01E-15	7.785E-15	9.65E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.603E-14	1.602E-14	2.291E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169178	Plant 6WH	03/13/14	Gross Alpha/Beta	Gross Alpha	1.017E-15	7.841E-15	9.72E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.298E-14	1.588E-14	2.307E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169179	Plant 6WH	03/14/14	Gross Alpha/Beta	Gross Alpha	0	6.624E-15	8.502E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.067E-14	1.393E-14	2.018E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169180	Plant 6WH	03/14/14	Gross Alpha/Beta	Gross Alpha	-2.18E-15	7.508E-15	1.042E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.949E-14	1.741E-14	2.473E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169181	Plant 6WH	03/14/14	Gross Alpha/Beta	Gross Alpha	2.189E-15	8.716E-15	1.046E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.751E-14	1.731E-14	2.482E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169182	Plant 6WH	03/15/14	Gross Alpha/Beta	Gross Alpha	-4.513E-15	7.089E-15	1.078E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.544E-14	1.676E-14	2.559E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169183	Plant 6WH	03/15/14	Gross Alpha/Beta	Gross Alpha	-2.131E-15	7.339E-15	1.018E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.475E-14	1.669E-14	2.417E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169184	Plant 6WH	03/15/14	Gross Alpha/Beta	Gross Alpha	1.099E-15	8.473E-15	1.05E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.364E-14	1.621E-14	2.493E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169185	Plant 6WH	03/10/14	Gross Alpha/Beta	Gross Alpha	-3.324E-15	2.383E-14	3.176E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.058E-15	4.542E-14	7.538E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169186	Plant 6WH	03/11/14	Gross Alpha/Beta	Gross Alpha	-3.023E-15	1.041E-14	1.444E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.165E-14	2.254E-14	3.429E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169187	City Property	03/15/14	Gross Alpha/Beta	Gross Alpha	-1.256E-15	9.004E-15	1.2E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4E-16	1.708E-14	2.848E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169188	City Property	03/10/14	Gross Alpha/Beta	Gross Alpha	1.139E-15	8.781E-15	1.089E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.437E-15	1.603E-14	2.584E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169189	City Property	03/11/14	Gross Alpha/Beta	Gross Alpha	5.606E-15	8.335E-15	8.927E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.705E-14	1.506E-14	2.119E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169190	City Property	03/12/14	Gross Alpha/Beta	Gross Alpha	6.003E-15	8.925E-15	9.559E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.043E-14	1.701E-14	2.269E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169191	City Property	03/12/14	Gross Alpha/Beta	Gross Alpha	8.384E-14	4.488E-14	3.926E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	6.158E-14	6.917E-14	1.147E-13	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169192	City Property	03/13/14	Gross Alpha/Beta	Gross Alpha	1.106E-15	8.529E-15	1.057E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.464E-15	1.531E-14	2.51E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169193	City Property	03/14/14	Gross Alpha/Beta	Gross Alpha	-1.026E-15	7.353E-15	9.798E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.631E-15	1.413E-14	2.326E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169194	City Property	03/17/14	Gross Alpha/Beta	Gross Alpha	-1.068E-15	2.215E-15	8.061E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.946E-15	1.344E-14	2.332E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169195	City Property	03/18/14	Gross Alpha/Beta	Gross Alpha	0	3.166E-15	8.298E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.452E-14	1.466E-14	2.401E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169196	City Property	03/19/14	Gross Alpha/Beta	Gross Alpha	-1.058E-15	2.194E-15	7.985E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-6.899E-15	1.195E-14	2.31E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169197	City Property	03/20/14	Gross Alpha/Beta	Gross Alpha	2.076E-15	4.193E-15	7.837E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.635E-14	1.41E-14	2.268E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169198	City Property	03/21/14	Gross Alpha/Beta	Gross Alpha	3.115E-15	6.29E-15	1.176E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.698E-15	1.93E-14	3.401E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169199	City Property/Kiesel	03/17/14	Gross Alpha/Beta	Gross Alpha	4.752E-15	7.143E-15	1.196E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.89E-14	2.093E-14	3.459E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169200	City Property/Kiesel	03/18/14	Gross Alpha/Beta	Gross Alpha	6.692E-15	6.355E-15	8.419E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.395E-14	1.574E-14	2.436E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169201	City Property/Kiesel	03/19/14	Gross Alpha/Beta	Gross Alpha	2.218E-15	4.479E-15	8.371E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.664E-14	1.59E-14	2.422E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169202	City Property/Kiesel	03/20/14	Gross Alpha/Beta	Gross Alpha	7.432E-15	7.923E-15	1.122E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.719E-14	2.054E-14	3.246E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169203	Plant 6WH	03/18/14	Gross Alpha/Beta	Gross Alpha	3.917E-15	5.889E-15	9.857E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.87E-15	1.548E-14	2.852E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169204	Plant 6WH	03/19/14	Gross Alpha/Beta	Gross Alpha	0	3.717E-15	9.741E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.032E-14	1.752E-14	2.819E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169205	Plant 6WH	03/19/14	Gross Alpha/Beta	Gross Alpha	2.061E-14	4.163E-14	7.779E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.639E-15	1.236E-13	2.251E-13	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169206	Plant 6WH	03/20/14	Gross Alpha/Beta	Gross Alpha	2.492E-14	3.075E-14	4.702E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.243E-14	8.117E-14	1.361E-13	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169207	Plant 6WH Loadout	03/17/14	Gross Alpha/Beta	Gross Alpha	1.056E-15	3.703E-15	7.971E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.007E-14	1.555E-14	2.306E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169208	Plant 6WH Loadout	03/17/14	Gross Alpha/Beta	Gross Alpha	2.966E-15	4.458E-15	7.462E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.279E-15	1.282E-14	2.159E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169209	Plant 6WH Loadout	03/17/14	Gross Alpha/Beta	Gross Alpha	5.28E-15	5.629E-15	7.971E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.402E-14	1.502E-14	2.306E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169210	Plant 6WH Loadout	03/18/14	Gross Alpha/Beta	Gross Alpha	4.562E-15	5.63E-15	8.609E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.076E-15	1.443E-14	2.491E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169211	Plant 6WH Loadout	03/18/14	Gross Alpha/Beta	Gross Alpha	3.221E-15	4.842E-15	8.105E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.853E-14	1.564E-14	2.345E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169212	Plant 6WH Loadout	03/18/14	Gross Alpha/Beta	Gross Alpha	1.088E-15	3.816E-15	8.213E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.406E-14	1.541E-14	2.376E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169213	Plant 6WH Loadout	03/19/14	Gross Alpha/Beta	Gross Alpha	6.674E-15	6.338E-15	8.397E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.54E-14	1.49E-14	2.43E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169214	Plant 6WH Loadout	03/19/14	Gross Alpha/Beta	Gross Alpha	2.169E-15	4.38E-15	8.186E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.915E-14	1.492E-14	2.368E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169215	Plant 6WH Loadout	03/19/14	Gross Alpha/Beta	Gross Alpha	3.321E-15	4.992E-15	8.355E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.716E-14	1.679E-14	2.418E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169216	Plant 6WH Loadout	03/20/14	Gross Alpha/Beta	Gross Alpha	2.126E-15	4.293E-15	8.023E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.23E-14	1.583E-14	2.321E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169217	Plant 6WH Loadout	03/20/14	Gross Alpha/Beta	Gross Alpha	-1.027E-15	2.13E-15	7.753E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.402E-14	1.467E-14	2.243E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169218	Plant 6WH Loadout	03/20/14	Gross Alpha/Beta	Gross Alpha	6.299E-15	5.982E-15	7.925E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.656E-14	1.517E-14	2.293E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169219	Plant 6WH Loadout	03/21/14	Gross Alpha/Beta	Gross Alpha	4.179E-15	5.157E-15	7.886E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.512E-14	1.406E-14	2.282E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169220	Plant 6WH Loadout	03/21/14	Gross Alpha/Beta	Gross Alpha	2.486E-15	5.021E-15	9.384E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.986E-14	1.782E-14	2.715E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169221	Plant 6WH Loadout	03/21/14	Gross Alpha/Beta	Gross Alpha	3.884E-15	5.838E-15	9.772E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.945E-14	1.841E-14	2.828E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169222	City Property	03/24/14	Gross Alpha/Beta	Gross Alpha	6.229E-15	5.915E-15	7.837E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.437E-14	1.391E-14	2.268E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169223	City Property	03/25/14	Gross Alpha/Beta	Gross Alpha	1.246E-15	4.369E-15	9.404E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.993E-14	1.786E-14	2.721E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169224	City Property	03/26/14	Gross Alpha/Beta	Gross Alpha	4.485E-15	5.535E-15	8.464E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.552E-14	1.502E-14	2.449E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169225	City Property	03/27/14	Gross Alpha/Beta	Gross Alpha	4.296E-15	5.302E-15	8.107E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.555E-14	1.446E-14	2.346E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169226	City Property	03/28/14	Gross Alpha/Beta	Gross Alpha	-2.116E-15	5.94E-16	7.985E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.563E-15	1.338E-14	2.31E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169227	City Property	03/29/14	Gross Alpha/Beta	Gross Alpha	3.35E-15	5.036E-15	8.43E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.327E-14	1.569E-14	2.439E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169228	Plant 6WH Loadout	03/24/14	Gross Alpha/Beta	Gross Alpha	1.039E-14	8.615E-15	1.141E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.594E-14	1.315E-14	1.706E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169229	Plant 6WH Loadout	03/24/14	Gross Alpha/Beta	Gross Alpha	3.074E-15	5.905E-15	1.052E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.207E-14	1.301E-14	1.573E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169230	Plant 6WH Loadout	03/24/14	Gross Alpha/Beta	Gross Alpha	2.083E-15	5.752E-15	1.102E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.643E-14	1.393E-14	1.648E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169231	Plant 6WH Loadout	03/25/14	Gross Alpha/Beta	Gross Alpha	7.764E-15	7.675E-15	1.102E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.714E-14	1.4E-14	1.648E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169232	Plant 6WH Loadout	03/25/14	Gross Alpha/Beta	Gross Alpha	-1.8E-16	4.543E-15	1.049E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.063E-14	1.283E-14	1.569E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169233	Plant 6WH Loadout	03/25/14	Gross Alpha/Beta	Gross Alpha	9.41E-16	5.254E-15	1.095E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.41E-14	1.362E-14	1.638E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169234	Plant 6WH Loadout	03/26/14	Gross Alpha/Beta	Gross Alpha	8.91E-16	4.975E-15	1.037E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.359E-14	1.195E-14	1.551E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169235	Plant 6WH Loadout	03/26/14	Gross Alpha/Beta	Gross Alpha	1.999E-14	1.027E-14	1.029E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.404E-14	1.301E-14	1.539E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169236	Plant 6WH Loadout	03/26/14	Gross Alpha/Beta	Gross Alpha	-1.81E-16	4.558E-15	1.053E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.647E-14	1.126E-14	1.574E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169237	Plant 6WH Loadout	03/27/14	Gross Alpha/Beta	Gross Alpha	3.073E-15	5.904E-15	1.052E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.527E-14	1.227E-14	1.573E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169238	Plant 6WH Loadout	03/27/14	Gross Alpha/Beta	Gross Alpha	1.189E-14	8.619E-15	1.065E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.108E-14	1.302E-14	1.592E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169239	Plant 6WH Loadout	03/27/14	Gross Alpha/Beta	Gross Alpha	4.169E-15	6.307E-15	1.055E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.691E-14	1.354E-14	1.577E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169240	Plant 6WH Loadout	03/28/14	Gross Alpha/Beta	Gross Alpha	-1.69E-16	4.253E-15	9.822E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.487E-14	1.16E-14	1.469E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169241	Plant 6WH Loadout	03/28/14	Gross Alpha/Beta	Gross Alpha	-1.73E-16	4.353E-15	1.005E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.832E-14	1.106E-14	1.503E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169242	Plant 6WH Loadout	03/28/14	Gross Alpha/Beta	Gross Alpha	-3.307E-15	2.478E-15	1.013E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.308E-15	1.001E-14	1.514E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169243	Plant 6WH Loadout	03/29/14	Gross Alpha/Beta	Gross Alpha	8.56E-16	4.777E-15	9.958E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.843E-14	1.211E-14	1.489E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169244	Plant 6WH Loadout	03/29/14	Gross Alpha/Beta	Gross Alpha	8.56E-16	4.777E-15	9.958E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.843E-14	1.211E-14	1.489E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169245	Plant 6WH Loadout	03/29/14	Gross Alpha/Beta	Gross Alpha	3.923E-15	5.935E-15	9.922E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.385E-14	1.158E-14	1.484E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169246	Plant 6WH	03/24/14	Gross Alpha/Beta	Gross Alpha	4.719E-15	5.824E-15	8.905E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.834E-14	1.691E-14	2.577E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169247	Plant 6WH	03/25/14	Gross Alpha/Beta	Gross Alpha	1.144E-15	4.013E-15	8.637E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.821E-14	1.647E-14	2.499E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169248	Plant 6WH	03/26/14	Gross Alpha/Beta	Gross Alpha	1.736E-15	6.09E-15	1.311E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.061E-14	2.48E-14	3.793E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169249	Plant 6WH	03/27/14	Gross Alpha/Beta	Gross Alpha	7.052E-15	6.697E-15	8.873E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	5.591E-14	1.917E-14	2.567E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169250	City Property	04/04/14	Gross Alpha/Beta	Gross Alpha	2.92E-16	5.39E-15	8.86E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.28E-15	7.616E-15	1.375E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169251	City Property	04/01/14	Gross Alpha/Beta	Gross Alpha	6.4E-15	9.122E-15	1.212E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.507E-15	1.136E-14	1.882E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169252	City Property	03/31/14	Gross Alpha/Beta	Gross Alpha	2.687E-15	7.791E-15	1.163E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.681E-14	1.199E-14	1.806E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169253	Plant 6WH	04/01/14	Gross Alpha/Beta	Gross Alpha	4.985E-15	8.437E-15	1.162E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.876E-15	1.098E-14	1.805E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169254	Plant 6WH	04/04/14	Gross Alpha/Beta	Gross Alpha	1.852E-15	5.674E-15	1.093E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.371E-15	1.042E-14	1.746E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169255	Plant 6WH	04/04/14	Gross Alpha/Beta	Gross Alpha	-2.42E-15	3.291E-15	1.02E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.946E-15	9.726E-15	1.629E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169256	Plant 6WH	04/04/14	Gross Alpha/Beta	Gross Alpha	-2.649E-15	3.604E-15	1.117E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.932E-15	1.084E-14	1.784E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169257	Plant 6WH	04/03/14	Gross Alpha/Beta	Gross Alpha	-4.92E-16	6.274E-15	1.451E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.693E-15	1.347E-14	2.319E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169258	Plant 6WH	04/03/14	Gross Alpha/Beta	Gross Alpha	-5.12E-16	6.535E-15	1.512E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.554E-14	1.529E-14	2.415E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169259	Plant 6WH	04/02/14	Gross Alpha/Beta	Gross Alpha	-1.511E-15	4.251E-15	1.114E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.625E-15	1.091E-14	1.781E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169260	Plant 6WH	04/02/14	Gross Alpha/Beta	Gross Alpha	2.969E-15	6.105E-15	1.095E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4.062E-15	8.939E-15	1.749E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169261	Plant 6WH	04/02/14	Gross Alpha/Beta	Gross Alpha	-1.479E-15	4.16E-15	1.091E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.468E-14	1.146E-14	1.742E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169262	Plant 6WH	04/01/14	Gross Alpha/Beta	Gross Alpha	5.92E-15	6.777E-15	1.027E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.514E-14	1.096E-14	1.642E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169263	Plant 6WH	04/01/14	Gross Alpha/Beta	Gross Alpha	2.928E-15	6.021E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.347E-14	1.239E-14	1.725E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169264	Plant 6WH	04/01/14	Gross Alpha/Beta	Gross Alpha	8.401E-15	7.754E-15	1.078E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.685E-14	1.274E-14	1.722E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169265	Plant 6WH	03/31/14	Gross Alpha/Beta	Gross Alpha	4.949E-15	6.544E-15	1.043E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.404E-14	1.096E-14	1.666E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169266	Plant 6WH	03/31/14	Gross Alpha/Beta	Gross Alpha	5.351E-15	7.076E-15	1.128E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.877E-14	1.228E-14	1.802E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169267	Plant 6WH	03/31/14	Gross Alpha/Beta	Gross Alpha	7.2E-16	5.072E-15	1.062E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.172E-14	1.203E-14	1.696E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169268	Plant 6WH	04/07/14	Gross Alpha/Beta	Gross Alpha	5.191E-15	6.849E-15	9.619E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.704E-14	1.177E-14	1.563E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169269	Plant 6WH	04/08/14	Gross Alpha/Beta	Gross Alpha	7.664E-15	8.864E-15	1.199E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.974E-14	1.452E-14	1.948E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169270	Plant 6WH	04/09/14	Gross Alpha/Beta	Gross Alpha	-3.085E-15	5.216E-15	1.199E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.53E-15	1.331E-14	1.948E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169271	Plant 6WH	04/10/14	Gross Alpha/Beta	Gross Alpha	6.7E-15	7.749E-15	1.048E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.791E-14	1.276E-14	1.703E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169272	Plant 6WH	04/07/14	Gross Alpha/Beta	Gross Alpha	1.495E-15	6.251E-15	1.06E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.075E-14	1.317E-14	1.722E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169273	Plant 6WH	04/07/14	Gross Alpha/Beta	Gross Alpha	1.516E-15	6.338E-15	1.074E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.107E-14	1.433E-14	1.746E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169274	Plant 6WH	04/08/14	Gross Alpha/Beta	Gross Alpha	2.683E-15	6.941E-15	1.115E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.738E-14	1.44E-14	1.811E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169275	Plant 6WH	04/08/14	Gross Alpha/Beta	Gross Alpha	7.991E-15	8.281E-15	1.081E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.346E-15	1.185E-14	1.758E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169276	Plant 6WH	04/09/14	Gross Alpha/Beta	Gross Alpha	2.821E-15	1.179E-14	1.999E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.17E-14	2.302E-14	3.249E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169277	Plant 6WH	04/09/14	Gross Alpha/Beta	Gross Alpha	1.483E-15	6.198E-15	1.051E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.515E-14	1.351E-14	1.707E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169278	Plant 6WH	04/09/14	Gross Alpha/Beta	Gross Alpha	-1.656E-15	5.025E-15	1.05E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.434E-15	1.187E-14	1.707E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169279	Plant 6WH	04/10/14	Gross Alpha/Beta	Gross Alpha	5.882E-15	7.761E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.591E-14	1.299E-14	1.771E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169280	Plant 6WH	04/10/14	Gross Alpha/Beta	Gross Alpha	4.52E-16	6.042E-15	1.088E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.673E-14	1.406E-14	1.768E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169281	Plant 6WH	04/10/14	Gross Alpha/Beta	Gross Alpha	-1.687E-15	5.118E-15	1.069E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.627E-14	1.281E-14	1.738E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169282	Plant 6WH	04/14/14	Gross Alpha/Beta	Gross Alpha	6.126E-15	7.134E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.471E-14	1.578E-14	2.523E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169283	Plant 6WH	04/15/14	Gross Alpha/Beta	Gross Alpha	5.41E-16	4.942E-15	9.852E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.322E-14	1.61E-14	2.449E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169284	Plant 6WH	04/16/14	Gross Alpha/Beta	Gross Alpha	-3.737E-15	2.375E-15	9.73E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.905E-14	1.642E-14	2.419E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169285	Plant 6WH	04/17/14	Gross Alpha/Beta	Gross Alpha	1.751E-15	5.824E-15	1.064E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.987E-14	1.693E-14	2.644E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169286	Plant 6WH	04/14/14	Gross Alpha/Beta	Gross Alpha	2.731E-15	5.875E-15	9.956E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.998E-15	1.451E-14	2.475E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169287	Plant 6WH	04/14/14	Gross Alpha/Beta	Gross Alpha	-5.22E-16	4.291E-15	9.513E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4.152E-15	1.308E-14	2.365E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169288	Plant 6WH	04/14/14	Gross Alpha/Beta	Gross Alpha	-1.529E-15	3.661E-15	9.288E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-5.351E-15	1.263E-14	2.309E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169289	Plant 6WH	04/15/14	Gross Alpha/Beta	Gross Alpha	4.889E-15	6.607E-15	9.9E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.546E-14	1.798E-14	2.461E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169290	Plant 6WH	04/15/14	Gross Alpha/Beta	Gross Alpha	5.37E-16	4.907E-15	9.784E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.306E-14	1.599E-14	2.432E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169291	Plant 6WH	04/15/14	Gross Alpha/Beta	Gross Alpha	3.661E-15	6.005E-15	9.533E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.846E-14	1.609E-14	2.37E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169292	Plant 6WH	04/16/14	Gross Alpha/Beta	Gross Alpha	-5.14E-16	4.228E-15	9.373E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.911E-14	1.672E-14	2.33E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169293	Plant 6WH	04/16/14	Gross Alpha/Beta	Gross Alpha	5.26E-16	4.809E-15	9.587E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.59E-14	1.508E-14	2.383E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169294	Plant 6WH	04/16/14	Gross Alpha/Beta	Gross Alpha	5.22E-16	4.772E-15	9.513E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.91E-14	1.526E-14	2.365E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169295	Plant 6WH	04/17/14	Gross Alpha/Beta	Gross Alpha	-5.19E-16	4.267E-15	9.46E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.542E-14	1.734E-14	2.352E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169296	Plant 6WH	04/17/14	Gross Alpha/Beta	Gross Alpha	-5.44E-16	4.474E-15	9.919E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.269E-14	1.615E-14	2.466E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169297	Plant 6WH	04/17/14	Gross Alpha/Beta	Gross Alpha	2.767E-15	5.952E-15	1.009E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.42E-14	1.816E-14	2.507E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169298	Plant 6WH	04/21/14	Gross Alpha/Beta	Gross Alpha	7.07E-16	4.356E-15	9.495E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.052E-14	1.782E-14	2.488E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169299	Plant 6WH	04/22/14	Gross Alpha/Beta	Gross Alpha	4.026E-15	5.908E-15	9.835E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.055E-14	1.84E-14	2.577E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169300	Plant 6WH	04/23/14	Gross Alpha/Beta	Gross Alpha	-1.424E-15	3.185E-15	9.566E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.727E-14	1.769E-14	2.506E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169301	Plant 6WH	04/24/14	Gross Alpha/Beta	Gross Alpha	7.44E-16	4.584E-15	9.991E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.591E-14	1.831E-14	2.617E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169302	Plant 6WH	04/28/14	Gross Alpha/Beta	Gross Alpha	7.35E-16	4.532E-15	9.877E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.152E-14	1.777E-14	2.588E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169303	Plant 6WH	04/21/14	Gross Alpha/Beta	Gross Alpha	1.149E-15	9.432E-15	1.496E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.235E-14	1.955E-14	2.342E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169304	Plant 6WH	04/21/14	Gross Alpha/Beta	Gross Alpha	8.1E-16	6.645E-15	1.054E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.752E-14	1.423E-14	1.65E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169305	Plant 6WH	04/21/14	Gross Alpha/Beta	Gross Alpha	1.962E-15	7.257E-15	1.095E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.91E-14	1.576E-14	1.714E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169306	Plant 6WH	04/22/14	Gross Alpha/Beta	Gross Alpha	8.484E-15	8.106E-15	9.468E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.38E-14	1.169E-14	1.482E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169307	Plant 6WH	04/22/14	Gross Alpha/Beta	Gross Alpha	-3.338E-15	4.806E-15	1.003E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.847E-14	1.278E-14	1.57E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169308	Plant 6WH	04/22/14	Gross Alpha/Beta	Gross Alpha	2.997E-15	7.381E-15	1.064E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.414E-14	1.3E-14	1.665E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169309	Plant 6WH	04/23/14	Gross Alpha/Beta	Gross Alpha	-1.388E-15	6.071E-15	1.084E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.372E-14	1.317E-14	1.697E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169310	Plant 6WH	04/23/14	Gross Alpha/Beta	Gross Alpha	1.859E-15	6.874E-15	1.037E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.176E-14	1.348E-14	1.623E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169311	Plant 6WH	04/23/14	Gross Alpha/Beta	Gross Alpha	5.147E-15	7.954E-15	1.058E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.626E-14	1.415E-14	1.656E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169312	Plant 6WH	04/24/14	Gross Alpha/Beta	Gross Alpha	2.743E-15	6.757E-15	9.741E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.607E-14	1.222E-14	1.524E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169313	Plant 6WH	04/24/14	Gross Alpha/Beta	Gross Alpha	5.432E-15	8.396E-15	1.117E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.844E-14	1.501E-14	1.748E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169314	Plant 6WH	04/24/14	Gross Alpha/Beta	Gross Alpha	3.107E-15	7.653E-15	1.103E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.88E-14	1.489E-14	1.727E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169315	Plant 6WH	04/28/14	Gross Alpha/Beta	Gross Alpha	-3.82E-16	8.895E-15	1.492E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.079E-14	1.832E-14	2.335E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169316	Plant 6WH	04/28/14	Gross Alpha/Beta	Gross Alpha	2.772E-15	1.025E-14	1.547E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.155E-14	1.9E-14	2.421E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169317	Plant 6WH	04/28/14	Gross Alpha/Beta	Gross Alpha	1.288E-15	1.057E-14	1.677E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.477E-14	1.967E-14	2.624E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169318	6WH LOADOUT	04/29/14	Gross Alpha/Beta	Gross Alpha	1.582E-15	6.493E-15	1.181E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.355E-14	1.384E-14	1.934E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169319	6WH LOADOUT	04/29/14	Gross Alpha/Beta	Gross Alpha	2.69E-16	5.094E-15	1.006E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.062E-14	1.065E-14	1.647E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169320	6WH LOADOUT	04/29/14	Gross Alpha/Beta	Gross Alpha	2.48E-15	6.07E-15	1.029E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.411E-15	1.044E-14	1.684E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169321	6WH LOADOUT	04/30/14	Gross Alpha/Beta	Gross Alpha	-8.15E-16	4.652E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.627E-15	1.02E-14	1.661E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169322	6WH LOADOUT	04/30/14	Gross Alpha/Beta	Gross Alpha	2.381E-15	5.828E-15	9.88E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.82E-15	9.297E-15	1.617E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169323	6WH LOADOUT	04/30/14	Gross Alpha/Beta	Gross Alpha	2.72E-16	5.149E-15	1.017E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.7E-16	9.278E-15	1.665E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169324	6WH LOADOUT	05/01/14	Gross Alpha/Beta	Gross Alpha	4.91E-15	7.153E-15	1.079E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.572E-14	1.195E-14	1.766E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169325	6WH LOADOUT	05/01/14	Gross Alpha/Beta	Gross Alpha	1.372E-15	5.633E-15	1.025E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.699E-14	1.16E-14	1.678E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169326	6WH LOADOUT	05/01/14	Gross Alpha/Beta	Gross Alpha	-1.984E-15	4.293E-15	1.059E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.916E-15	1.065E-14	1.733E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169327	6WH LOADOUT	05/05/14	Gross Alpha/Beta	Gross Alpha	2.72E-16	5.149E-15	1.017E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.641E-14	1.261E-14	1.665E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169328	6WH LOADOUT	05/05/14	Gross Alpha/Beta	Gross Alpha	2.271E-15	5.559E-15	9.424E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.184E-14	1.021E-14	1.543E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169329	6WH LOADOUT	05/05/14	Gross Alpha/Beta	Gross Alpha	6.927E-15	7.545E-15	1.035E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.727E-14	1.392E-14	1.694E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169330	Plant 6WH	04/29/14	Gross Alpha/Beta	Gross Alpha	2.74E-16	5.188E-15	1.025E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.013E-14	1.076E-14	1.678E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169331	Plant 6WH	05/01/14	Gross Alpha/Beta	Gross Alpha	2.721E-14	3.372E-14	4.838E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.485E-14	4.909E-14	7.919E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169332	City Property/Kiesel	04/30/14	Gross Alpha/Beta	Gross Alpha	1.413E-15	5.8E-15	1.055E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.772E-15	1.033E-14	1.727E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169333	City Property/Kiesel	05/05/14	Gross Alpha/Beta	Gross Alpha	2.565E-15	6.279E-15	1.064E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.765E-14	1.205E-14	1.742E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169334	6WH LOADOUT	05/06/14	Gross Alpha/Beta	Gross Alpha	-1.042E-15	5.106E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.543E-14	1.211E-14	1.553E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169335	6WH LOADOUT	05/06/14	Gross Alpha/Beta	Gross Alpha	4.302E-15	7.133E-15	1.114E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.171E-14	1.408E-14	1.602E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169336	6WH LOADOUT	05/06/14	Gross Alpha/Beta	Gross Alpha	5.037E-15	6.98E-15	1.044E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.269E-14	1.15E-14	1.501E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169337	6WH LOADOUT	05/07/14	Gross Alpha/Beta	Gross Alpha	-1.217E-15	5.964E-15	1.262E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.138E-15	1.17E-14	1.814E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169338	6WH LOADOUT	05/07/14	Gross Alpha/Beta	Gross Alpha	1.076E-14	8.869E-15	1.115E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.441E-14	1.434E-14	1.602E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169339	6WH LOADOUT	05/07/14	Gross Alpha/Beta	Gross Alpha	3.132E-15	6.603E-15	1.082E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.2E-14	1.282E-14	1.555E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169340	6WH LOADOUT	05/08/14	Gross Alpha/Beta	Gross Alpha	1.114E-15	6.3E-15	1.154E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.508E-14	1.271E-14	1.659E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169341	6WH LOADOUT	05/08/14	Gross Alpha/Beta	Gross Alpha	1.52E-14	9.504E-15	1.05E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.662E-14	1.198E-14	1.509E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169342	6WH LOADOUT	05/08/14	Gross Alpha/Beta	Gross Alpha	5.737E-15	7.949E-15	1.189E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.943E-14	1.349E-14	1.709E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169343	6WH LOADOUT	05/12/14	Gross Alpha/Beta	Gross Alpha	2.326E-15	6.977E-15	1.205E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.002E-15	1.109E-14	1.732E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169344	6WH LOADOUT	05/12/14	Gross Alpha/Beta	Gross Alpha	5.212E-15	7.223E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.674E-14	1.225E-14	1.553E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169345	6WH LOADOUT	05/12/14	Gross Alpha/Beta	Gross Alpha	4.571E-15	7.58E-15	1.184E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.859E-14	1.223E-14	1.702E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169346	6WH LOADOUT	05/13/14	Gross Alpha/Beta	Gross Alpha	-2.353E-15	5.261E-15	1.219E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.251E-14	1.178E-14	1.753E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169347	6WH LOADOUT	05/13/14	Gross Alpha/Beta	Gross Alpha	0	5.741E-15	1.124E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.823E-15	1.052E-14	1.616E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169348	6WH LOADOUT	05/13/14	Gross Alpha/Beta	Gross Alpha	4.627E-15	7.672E-15	1.199E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.24E-16	1.003E-14	1.723E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169349	6WH LOADOUT	05/14/14	Gross Alpha/Beta	Gross Alpha	-2.238E-15	5.005E-15	1.16E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.301E-15	1.048E-14	1.667E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169350	6WH LOADOUT	05/14/14	Gross Alpha/Beta	Gross Alpha	-1.042E-15	5.107E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.174E-14	1.052E-14	1.553E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169351	6WH LOADOUT	05/14/14	Gross Alpha/Beta	Gross Alpha	2.344E-15	7.033E-15	1.215E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.347E-14	1.305E-14	1.746E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169352	6WH LOADOUT	05/15/14	Gross Alpha/Beta	Gross Alpha	-2.099E-15	4.694E-15	1.088E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.849E-15	1.035E-14	1.564E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169353	6WH LOADOUT	05/15/14	Gross Alpha/Beta	Gross Alpha	1.891E-15	5.674E-15	9.8E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.656E-14	1.026E-14	1.409E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169354	6WH LOADOUT	05/15/14	Gross Alpha/Beta	Gross Alpha	3.224E-15	6.798E-15	1.114E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.757E-14	1.263E-14	1.601E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169355	Plant 6WH	05/07/14	Gross Alpha/Beta	Gross Alpha	3.049E-15	5.443E-15	9.114E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.988E-14	1.617E-14	2.389E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169356	Plant 6WH	05/08/14	Gross Alpha/Beta	Gross Alpha	3.978E-15	5.668E-15	8.855E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.352E-14	1.437E-14	2.322E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169357	Plant 6WH	05/12/14	Gross Alpha/Beta	Gross Alpha	9.547E-15	9.083E-15	1.204E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	9.589E-15	1.872E-14	3.155E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169358	Plant 6WH	05/13/14	Gross Alpha/Beta	Gross Alpha	5.176E-15	6.244E-15	9.178E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.313E-15	1.428E-14	2.406E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169359	Plant 6WH	05/14/14	Gross Alpha/Beta	Gross Alpha	8.94E-15	7.772E-15	9.845E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	6.59E-16	1.462E-14	2.581E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169360	Plant 6WH	05/15/14	Gross Alpha/Beta	Gross Alpha	3.222E-15	5.752E-15	9.631E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.72E-14	1.754E-14	2.525E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169361	City Property/Kiesel	05/12/14	Gross Alpha/Beta	Gross Alpha	2.819E-14	2.451E-14	3.105E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.832E-14	4.407E-14	8.14E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169362	City Property/Kiesel	05/13/14	Gross Alpha/Beta	Gross Alpha	9.57E-16	4.56E-15	9.102E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.259E-15	1.397E-14	2.386E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169363	City Property/Kiesel	05/14/14	Gross Alpha/Beta	Gross Alpha	-9.3E-17	4.345E-15	9.756E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-5.9E-17	1.442E-14	2.558E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169364	City Property/Kiesel	05/15/14	Gross Alpha/Beta	Gross Alpha	2.306E-15	5.781E-15	1.049E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.123E-15	1.639E-14	2.75E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169365	City Property/Kiesel	05/19/14	Gross Alpha/Beta	Gross Alpha	1.181E-15	4.688E-15	9.326E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.862E-14	1.796E-14	2.426E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169366	City Property/Kiesel	05/20/14	Gross Alpha/Beta	Gross Alpha	9.2E-17	4.196E-15	9.432E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.403E-14	1.778E-14	2.453E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169367	City Property/Kiesel	05/21/14	Gross Alpha/Beta	Gross Alpha	-1.106E-15	3.906E-15	1.032E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.629E-14	1.945E-14	2.684E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169368	SU-None	05/27/14	Gross Alpha/Beta	Gross Alpha	1.281E-15	5.083E-15	1.011E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.674E-14	1.834E-14	2.63E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169369	Plant 6WH	05/20/14	Gross Alpha/Beta	Gross Alpha	5.456E-15	9.114E-15	1.514E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.744E-14	2.845E-14	3.938E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169370	Plant 6WH	05/21/14	Gross Alpha/Beta	Gross Alpha	2.496E-14	3.378E-14	5.228E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.042E-14	8.92E-14	1.36E-13	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169371	Plant 6WH	05/22/14	Gross Alpha/Beta	Gross Alpha	1.119E-15	4.442E-15	8.837E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.12E-14	1.656E-14	2.299E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169372	Plant 6WH	05/27/14	Gross Alpha/Beta	Gross Alpha	5E-15	5.786E-15	8.413E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.582E-14	1.621E-14	2.188E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169373	6WH LOADOUT	05/19/14	Gross Alpha/Beta	Gross Alpha	1.777E-15	5.687E-15	1.049E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.879E-14	1.336E-14	1.622E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169374	6WH LOADOUT	05/19/14	Gross Alpha/Beta	Gross Alpha	-1.38E-15	4.197E-15	1.018E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.953E-14	1.209E-14	1.574E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169375	6WH LOADOUT	05/19/14	Gross Alpha/Beta	Gross Alpha	8.384E-15	7.919E-15	1.075E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.363E-14	1.411E-14	1.664E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169376	6WH LOADOUT	05/20/14	Gross Alpha/Beta	Gross Alpha	5.141E-15	7.007E-15	1.084E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.699E-14	1.352E-14	1.676E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169377	6WH LOADOUT	05/20/14	Gross Alpha/Beta	Gross Alpha	2.805E-15	5.991E-15	1.034E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.301E-14	1.364E-14	1.6E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169378	6WH LOADOUT	05/20/14	Gross Alpha/Beta	Gross Alpha	4.096E-15	6.744E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.877E-14	1.386E-14	1.699E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169379	6WH LOADOUT	05/21/14	Gross Alpha/Beta	Gross Alpha	5.632E-15	7.676E-15	1.187E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.278E-14	1.41E-14	1.836E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169380	6WH LOADOUT	05/21/14	Gross Alpha/Beta	Gross Alpha	1.83E-15	5.856E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.828E-14	1.362E-14	1.67E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD169381	6WH LOADOUT	05/21/14	Gross Alpha/Beta	Gross Alpha	-3.97E-16	5.384E-15	1.171E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.098E-14	1.375E-14	1.811E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169382	6WH LOADOUT	05/22/14	Gross Alpha/Beta	Gross Alpha	6.176E-15	7.266E-15	1.072E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.057E-14	1.273E-14	1.658E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169383	6WH LOADOUT	05/22/14	Gross Alpha/Beta	Gross Alpha	3.894E-15	6.412E-15	1.045E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.137E-14	1.255E-14	1.616E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169384	6WH LOADOUT	05/22/14	Gross Alpha/Beta	Gross Alpha	1.83E-15	5.855E-15	1.08E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.454E-14	1.214E-14	1.67E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169385	6WH LOADOUT	05/27/14	Gross Alpha/Beta	Gross Alpha	1.852E-15	5.928E-15	1.093E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.889E-14	1.276E-14	1.691E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169386	6WH LOADOUT	05/27/14	Gross Alpha/Beta	Gross Alpha	4.851E-15	6.611E-15	1.022E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.352E-14	1.256E-14	1.581E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169387	6WH LOADOUT	05/27/14	Gross Alpha/Beta	Gross Alpha	5.261E-15	7.17E-15	1.109E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.538E-14	1.462E-14	1.715E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169388	6WH LOADOUT	05/28/14	Gross Alpha/Beta	Gross Alpha	2.247E-15	5.116E-15	9.225E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.321E-14	1.656E-14	2.4E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169389	6WH LOADOUT	05/28/14	Gross Alpha/Beta	Gross Alpha	8.4E-17	3.813E-15	8.572E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.483E-14	1.56E-14	2.23E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169390	6WH LOADOUT	05/28/14	Gross Alpha/Beta	Gross Alpha	8.845E-15	7.485E-15	9.36E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.683E-14	1.939E-14	2.435E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169391	6WH LOADOUT	05/29/14	Gross Alpha/Beta	Gross Alpha	8.242E-15	6.975E-15	8.722E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.574E-14	1.592E-14	2.269E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169392	6WH LOADOUT	05/29/14	Gross Alpha/Beta	Gross Alpha	-1.878E-15	2.497E-15	8.379E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.447E-14	1.604E-14	2.18E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169393	6WH LOADOUT	05/29/14	Gross Alpha/Beta	Gross Alpha	1.146E-15	4.548E-15	9.048E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.238E-14	1.701E-14	2.354E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169394	Plant 6WH	05/28/14	Gross Alpha/Beta	Gross Alpha	5.207E-15	6.026E-15	8.762E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.95E-14	1.708E-14	2.279E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD169395	Plant 6WH	05/29/14	Gross Alpha/Beta	Gross Alpha	2.994E-15	5.001E-15	8.305E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.807E-14	1.541E-14	2.16E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169396	SU-None	05/22/14	Gross Alpha/Beta	Gross Alpha	9.6E-17	4.399E-15	9.888E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.746E-15	1.738E-14	2.572E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169397	SU-None	05/28/14	Gross Alpha/Beta	Gross Alpha	1.216E-15	4.827E-15	9.603E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.376E-14	1.958E-14	2.498E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169398	SU-None	05/29/14	Gross Alpha/Beta	Gross Alpha	1.604E-14	1.639E-14	2.255E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.411E-14	4.226E-14	5.867E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD169399	6WH LOADOUT	06/02/14	Gross Alpha/Beta	Gross Alpha	1.355E-14	8.912E-15	8.523E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.934E-14	1.837E-14	2.621E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD169400	6WH LOADOUT	06/02/14	Gross Alpha/Beta	Gross Alpha	1.017E-15	4.273E-15	7.68E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.085E-14	1.449E-14	2.362E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD169401	6WH LOADOUT	06/02/14	Gross Alpha/Beta	Gross Alpha	0	4.055E-15	8.291E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.311E-14	1.577E-14	2.55E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173726	6WH LOADOUT	06/03/14	Gross Alpha/Beta	Gross Alpha	1.157E-15	4.857E-15	8.731E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.648E-15	1.614E-14	2.685E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173727	6WH LOADOUT	06/03/14	Gross Alpha/Beta	Gross Alpha	1.025E-15	4.306E-15	7.74E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.267E-14	1.562E-14	2.38E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173728	6WH LOADOUT	06/03/14	Gross Alpha/Beta	Gross Alpha	5.798E-15	6.736E-15	8.753E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.417E-14	1.754E-14	2.692E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173729	6WH LOADOUT	06/04/14	Gross Alpha/Beta	Gross Alpha	1.069E-14	9.056E-15	1.009E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.805E-14	2.106E-14	3.102E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173730	6WH LOADOUT	06/04/14	Gross Alpha/Beta	Gross Alpha	3.549E-15	5.993E-15	8.929E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.11E-14	1.671E-14	2.746E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173732	6WH LOADOUT	06/05/14	Gross Alpha/Beta	Gross Alpha	-1.084E-15	3.365E-15	8.183E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.638E-14	1.587E-14	2.516E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173733	6WH LOADOUT	06/05/14	Gross Alpha/Beta	Gross Alpha	4.066E-15	5.541E-15	7.674E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.132E-15	1.358E-14	2.36E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173734	6WH LOADOUT	06/05/14	Gross Alpha/Beta	Gross Alpha	4.369E-15	5.953E-15	8.244E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.79E-14	1.611E-14	2.535E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173735	Building 101	06/02/14	Gross Alpha/Beta	Gross Alpha	1.133E-14	8.33E-15	8.549E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.288E-14	1.707E-14	2.629E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173736	Building 101	06/03/14	Gross Alpha/Beta	Gross Alpha	3.048E-15	5.148E-15	7.669E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.718E-15	1.382E-14	2.358E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173737	6WH LOADOUT	06/09/14	Gross Alpha/Beta	Gross Alpha	2.708E-15	7.964E-15	1.279E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.945E-14	1.469E-14	1.891E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173738	6WH LOADOUT	06/09/14	Gross Alpha/Beta	Gross Alpha	6.586E-15	8.034E-15	1.093E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.116E-14	1.212E-14	1.616E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173739	6WH LOADOUT	06/09/14	Gross Alpha/Beta	Gross Alpha	1.9E-16	6.511E-15	1.167E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.546E-14	1.212E-14	1.725E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173740	6WH LOADOUT	06/10/14	Gross Alpha/Beta	Gross Alpha	1.4E-15	7.26E-15	1.228E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.401E-14	1.249E-14	1.815E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173741	6WH LOADOUT	06/10/14	Gross Alpha/Beta	Gross Alpha	1.77E-16	6.069E-15	1.088E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.773E-15	9.692E-15	1.608E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173742	6WH LOADOUT	06/11/14	Gross Alpha/Beta	Gross Alpha	1.339E-15	6.944E-15	1.175E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.484E-14	1.212E-14	1.736E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173743	6WH LOADOUT	06/11/14	Gross Alpha/Beta	Gross Alpha	1.189E-15	6.163E-15	1.043E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.508E-14	1.098E-14	1.541E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173744	6WH LOADOUT	06/11/14	Gross Alpha/Beta	Gross Alpha	1.79E-16	6.128E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.119E-14	1.101E-14	1.624E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173745	6WH LOADOUT	06/12/14	Gross Alpha/Beta	Gross Alpha	3.731E-15	7.868E-15	1.206E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.007E-14	1.181E-14	1.782E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173746	6WH LOADOUT	06/12/14	Gross Alpha/Beta	Gross Alpha	2.19E-15	6.439E-15	1.034E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.623E-14	1.104E-14	1.529E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173747	6WH LOADOUT	06/12/14	Gross Alpha/Beta	Gross Alpha	1.81E-16	6.186E-15	1.109E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.333E-14	1.135E-14	1.639E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173748	Building 101	06/10/14	Gross Alpha/Beta	Gross Alpha	3.714E-15	6.273E-15	9.345E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.742E-15	1.677E-14	2.874E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173749	Building 101	06/11/14	Gross Alpha/Beta	Gross Alpha	0	3.912E-15	8E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-2.866E-15	1.377E-14	2.46E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173750	Building 101	06/12/14	Gross Alpha/Beta	Gross Alpha	6.062E-15	6.211E-15	7.626E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.197E-15	1.416E-14	2.345E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173751	City Property	06/12/14	Gross Alpha/Beta	Gross Alpha	1.855E-15	7.79E-15	1.4E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.968E-15	2.534E-14	4.306E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173752	Building 101	06/16/14	Gross Alpha/Beta	Gross Alpha	3.387E-15	5.148E-15	7.854E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.676E-14	1.722E-14	2.358E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173753	Building 101	06/17/14	Gross Alpha/Beta	Gross Alpha	8.248E-15	6.656E-15	7.416E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	1.992E-14	1.504E-14	2.227E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173754	Building 101	06/18/14	Gross Alpha/Beta	Gross Alpha	7.049E-15	6.17E-15	7.222E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.378E-14	1.502E-14	2.168E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173755	Building 101	06/19/14	Gross Alpha/Beta	Gross Alpha	7.2E-15	6.303E-15	7.377E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.279E-14	1.435E-14	2.215E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173756	6WH LOADOUT	06/16/14	Gross Alpha/Beta	Gross Alpha	1.348E-15	4.491E-15	8.482E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.94E-14	1.776E-14	2.547E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173757	6WH LOADOUT	06/16/14	Gross Alpha/Beta	Gross Alpha	5.279E-15	5.71E-15	7.502E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.276E-14	1.544E-14	2.253E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173758	6WH LOADOUT	06/16/14	Gross Alpha/Beta	Gross Alpha	5.558E-15	6.012E-15	7.899E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.97E-14	1.754E-14	2.372E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173759	6WH LOADOUT	06/17/14	Gross Alpha/Beta	Gross Alpha	7.022E-15	6.765E-15	8.361E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.42E-14	1.874E-14	2.511E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173760	6WH LOADOUT	06/17/14	Gross Alpha/Beta	Gross Alpha	1.527E-14	8.557E-15	7.394E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.717E-14	1.642E-14	2.22E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173761	6WH LOADOUT	06/17/14	Gross Alpha/Beta	Gross Alpha	8.703E-15	7.022E-15	7.824E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.662E-14	1.716E-14	2.349E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173762	6WH LOADOUT	06/18/14	Gross Alpha/Beta	Gross Alpha	4.661E-15	5.834E-15	8.214E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.488E-14	1.773E-14	2.467E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173763	6WH LOADOUT	06/18/14	Gross Alpha/Beta	Gross Alpha	1.041E-14	7.358E-15	7.521E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.194E-14	1.623E-14	2.258E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173764	6WH LOADOUT	06/18/14	Gross Alpha/Beta	Gross Alpha	9.955E-15	7.486E-15	7.974E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.764E-14	1.67E-14	2.394E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173765	6WH LOADOUT	06/19/14	Gross Alpha/Beta	Gross Alpha	9.499E-15	7.665E-15	8.541E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.663E-14	1.925E-14	2.564E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173766	6WH LOADOUT	06/19/14	Gross Alpha/Beta	Gross Alpha	3.317E-15	5.041E-15	7.692E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.267E-14	1.49E-14	2.31E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173767	6WH LOADOUT	06/19/14	Gross Alpha/Beta	Gross Alpha	6.765E-15	6.517E-15	8.055E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.583E-14	1.67E-14	2.419E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173768	Building 101	06/26/14	Gross Alpha/Beta	Gross Alpha	7.475E-15	7.896E-15	9.404E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.616E-14	2.313E-14	2.835E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173769	Building 101	06/25/14	Gross Alpha/Beta	Gross Alpha	3.059E-15	5.4E-15	7.698E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.028E-14	1.629E-14	2.321E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173770	Building 101	06/24/14	Gross Alpha/Beta	Gross Alpha	1.112E-15	4.972E-15	8.391E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.04E-14	1.848E-14	2.53E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173771	Building 101	06/23/14	Gross Alpha/Beta	Gross Alpha	4.983E-15	7.056E-15	9.404E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.127E-14	2.058E-14	2.835E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173772	6WH LOADOUT	06/23/14	Gross Alpha/Beta	Gross Alpha	5.263E-15	6.325E-15	7.945E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.467E-14	1.79E-14	2.395E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173773	6WH LOADOUT	06/23/14	Gross Alpha/Beta	Gross Alpha	5.174E-15	6.219E-15	7.811E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.635E-14	1.7E-14	2.355E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173774	6WH LOADOUT	06/23/14	Gross Alpha/Beta	Gross Alpha	2.073E-15	5.079E-15	7.823E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.891E-14	1.797E-14	2.358E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173775	6WH LOADOUT	06/24/14	Gross Alpha/Beta	Gross Alpha	2.069E-15	5.069E-15	7.808E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.754E-14	1.784E-14	2.354E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173776	6WH LOADOUT	06/24/14	Gross Alpha/Beta	Gross Alpha	1.009E-15	4.513E-15	7.616E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.745E-15	1.559E-14	2.296E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173777	6WH LOADOUT	06/24/14	Gross Alpha/Beta	Gross Alpha	1.02E-15	4.561E-15	7.698E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.157E-14	1.639E-14	2.321E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173778	6WH LOADOUT	06/25/14	Gross Alpha/Beta	Gross Alpha	0	4.547E-15	8.581E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.29E-14	1.827E-14	2.587E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173779	6WH LOADOUT	06/25/14	Gross Alpha/Beta	Gross Alpha	3.088E-15	5.451E-15	7.771E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.758E-14	1.701E-14	2.343E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173780	6WH LOADOUT	06/25/14	Gross Alpha/Beta	Gross Alpha	5.213E-15	6.266E-15	7.871E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.913E-14	1.733E-14	2.373E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173781	6WH LOADOUT	06/26/14	Gross Alpha/Beta	Gross Alpha	2.124E-15	5.204E-15	8.015E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.57E-14	1.885E-14	2.416E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173782	6WH LOADOUT	06/26/14	Gross Alpha/Beta	Gross Alpha	5.097E-15	6.126E-15	7.695E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.011E-14	1.852E-14	2.32E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173783	6WH LOADOUT	06/26/14	Gross Alpha/Beta	Gross Alpha	9.287E-15	7.468E-15	7.789E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.075E-14	1.804E-14	2.348E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173784	6WH LOADOUT	06/30/14	Gross Alpha/Beta	Gross Alpha	7.153E-15	8.208E-15	1.187E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.15E-14	1.772E-14	1.753E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173785	6WH LOADOUT	06/30/14	Gross Alpha/Beta	Gross Alpha	3.249E-15	6.33E-15	1.05E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.898E-14	1.433E-14	1.55E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173786	6WH LOADOUT	06/30/14	Gross Alpha/Beta	Gross Alpha	1.75E-16	5.36E-15	1.074E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.595E-14	1.43E-14	1.587E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173787	6WH LOADOUT	07/01/14	Gross Alpha/Beta	Gross Alpha	2.767E-15	7.455E-15	1.307E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.137E-14	1.518E-14	1.93E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173788	6WH LOADOUT	07/01/14	Gross Alpha/Beta	Gross Alpha	3.383E-15	6.593E-15	1.093E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.991E-14	1.392E-14	1.615E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173789	6WH LOADOUT	07/01/14	Gross Alpha/Beta	Gross Alpha	-3.182E-15	4.213E-15	1.149E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.511E-14	1.4E-14	1.697E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173790	6WH LOADOUT	07/02/14	Gross Alpha/Beta	Gross Alpha	2.03E-16	6.216E-15	1.246E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.71E-16	1.22E-14	1.84E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173791	6WH LOADOUT	07/02/14	Gross Alpha/Beta	Gross Alpha	5.136E-15	6.748E-15	1.017E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.66E-16	9.964E-15	1.502E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173792	6WH LOADOUT	07/02/14	Gross Alpha/Beta	Gross Alpha	5.436E-15	7.141E-15	1.077E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.102E-14	1.179E-14	1.59E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173793	6WH LOADOUT	07/03/14	Gross Alpha/Beta	Gross Alpha	7.014E-15	8.049E-15	1.164E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.514E-15	1.201E-14	1.719E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173794	6WH LOADOUT	07/03/14	Gross Alpha/Beta	Gross Alpha	3.148E-15	6.134E-15	1.017E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.539E-14	1.168E-14	1.502E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173795	6WH LOADOUT	07/03/14	Gross Alpha/Beta	Gross Alpha	5.415E-15	7.115E-15	1.073E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.164E-14	1.182E-14	1.584E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173796	6WH LOADOUT	07/07/14	Gross Alpha/Beta	Gross Alpha	1.078E-14	1.006E-14	1.35E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.703E-14	1.62E-14	1.994E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173797	6WH LOADOUT	07/07/14	Gross Alpha/Beta	Gross Alpha	7.584E-15	7.781E-15	1.083E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.631E-14	1.346E-14	1.599E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173798	6WH LOADOUT	07/07/14	Gross Alpha/Beta	Gross Alpha	5.515E-15	7.245E-15	1.092E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.521E-14	1.345E-14	1.613E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173799	6WH LOADOUT	07/08/14	Gross Alpha/Beta	Gross Alpha	1.217E-14	1.136E-14	1.525E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.655E-14	1.68E-14	2.252E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173800	6WH LOADOUT	07/08/14	Gross Alpha/Beta	Gross Alpha	1.179E-15	5.54E-15	1.034E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.943E-14	1.227E-14	1.527E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173801	6WH LOADOUT	07/08/14	Gross Alpha/Beta	Gross Alpha	-8.78E-16	4.951E-15	1.078E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.236E-14	1.195E-14	1.592E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173802	6WH LOADOUT	07/09/14	Gross Alpha/Beta	Gross Alpha	3.902E-15	7.603E-15	1.261E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.985E-14	1.457E-14	1.862E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173803	6WH LOADOUT	07/09/14	Gross Alpha/Beta	Gross Alpha	-8.53E-16	4.81E-15	1.048E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.649E-14	1.21E-14	1.547E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173804	6WH LOADOUT	07/09/14	Gross Alpha/Beta	Gross Alpha	5.58E-15	7.331E-15	1.105E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.01E-14	1.305E-14	1.632E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173805	6WH LOADOUT	07/10/14	Gross Alpha/Beta	Gross Alpha	1.95E-16	5.974E-15	1.197E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.543E-14	1.452E-14	1.768E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173806	6WH LOADOUT	07/10/14	Gross Alpha/Beta	Gross Alpha	1.65E-16	5.053E-15	1.013E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.646E-14	1.277E-14	1.496E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173807	6WH LOADOUT	07/10/14	Gross Alpha/Beta	Gross Alpha	5.414E-15	7.113E-15	1.072E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.032E-14	1.167E-14	1.584E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173808	6WH LOADOUT	07/14/14	Gross Alpha/Beta	Gross Alpha	2.44E-16	7.463E-15	1.496E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.086E-15	1.543E-14	2.209E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173809	6WH LOADOUT	07/14/14	Gross Alpha/Beta	Gross Alpha	6.333E-15	7.267E-15	1.051E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.132E-14	1.363E-14	1.552E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173810	6WH LOADOUT	07/15/14	Gross Alpha/Beta	Gross Alpha	1.331E-15	6.258E-15	1.168E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.35E-16	1.144E-14	1.725E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173811	6WH LOADOUT	07/15/14	Gross Alpha/Beta	Gross Alpha	1.02E-14	8.157E-15	1.027E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.181E-14	1.245E-14	1.517E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173812	6WH LOADOUT	07/15/14	Gross Alpha/Beta	Gross Alpha	1.79E-16	5.483E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.192E-14	1.211E-14	1.623E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173813	6WH LOADOUT	07/16/14	Gross Alpha/Beta	Gross Alpha	-9.46E-16	5.333E-15	1.162E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.828E-14	1.342E-14	1.715E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173814	6WH LOADOUT	07/16/14	Gross Alpha/Beta	Gross Alpha	4.185E-15	6.515E-15	1.028E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.241E-14	1.147E-14	1.518E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173815	6WH LOADOUT	07/16/14	Gross Alpha/Beta	Gross Alpha	2.326E-15	6.266E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.132E-14	1.311E-14	1.622E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173816	Building 101	06/30/14	Gross Alpha/Beta	Gross Alpha	8.322E-15	8.173E-15	1.136E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.454E-14	1.43E-14	1.871E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173817	Building 101	07/01/14	Gross Alpha/Beta	Gross Alpha	3.408E-15	8.898E-15	1.628E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.878E-14	1.982E-14	2.682E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173818	Building 101	07/02/14	Gross Alpha/Beta	Gross Alpha	7.678E-15	9.622E-15	1.467E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.921E-15	1.504E-14	2.417E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173819	Building 101	07/03/14	Gross Alpha/Beta	Gross Alpha	0	5.517E-15	1.201E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.438E-15	1.328E-14	1.979E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173820	SU-None	06/30/14	Gross Alpha/Beta	Gross Alpha	-1.952E-15	7.625E-15	1.865E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.221E-14	2.033E-14	3.072E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173821	SU-None	07/01/14	Gross Alpha/Beta	Gross Alpha	9.913E-15	1.087E-14	1.579E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.55E-14	1.782E-14	2.6E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173822	SU-None	07/02/14	Gross Alpha/Beta	Gross Alpha	0	4.905E-15	1.068E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.788E-15	1.197E-14	1.759E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173823	SU-None	07/07/14	Gross Alpha/Beta	Gross Alpha	8.459E-15	1.06E-14	1.616E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.799E-14	1.849E-14	2.663E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173824	SU-None	07/08/14	Gross Alpha/Beta	Gross Alpha	-4.227E-15	7.091E-15	2.019E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.254E-15	2.153E-14	3.326E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173825	SU-None	07/09/14	Gross Alpha/Beta	Gross Alpha	2.336E-15	1.127E-14	2.232E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4.384E-15	2.193E-14	3.677E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173826	SU-None	07/10/14	Gross Alpha/Beta	Gross Alpha	0	1.004E-14	2.186E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.431E-14	2.382E-14	3.6E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173827	SU-None	07/14/14	Gross Alpha/Beta	Gross Alpha	1.241E-14	1.361E-14	1.977E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.553E-14	2.186E-14	3.256E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173828	SU-None	07/15/14	Gross Alpha/Beta	Gross Alpha	6.781E-15	1.264E-14	2.16E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-8.484E-15	2.065E-14	3.558E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173829	SU-None	07/16/14	Gross Alpha/Beta	Gross Alpha	0	1.021E-14	2.223E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.455E-14	2.423E-14	3.662E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173830	City Property	07/07/14	Gross Alpha/Beta	Gross Alpha	5.382E-15	1.003E-14	1.714E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.796E-14	1.948E-14	2.824E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173831	City Property	07/08/14	Gross Alpha/Beta	Gross Alpha	2.621E-15	6.841E-15	1.252E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	9.836E-15	1.384E-14	2.062E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173832	City Property	07/09/14	Gross Alpha/Beta	Gross Alpha	1.082E-14	1.062E-14	1.476E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.706E-14	1.807E-14	2.432E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173833	City Property	07/10/14	Gross Alpha/Beta	Gross Alpha	4.312E-15	8.036E-15	1.373E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.439E-14	1.561E-14	2.262E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173834	6WH LOADOUT	07/17/14	Gross Alpha/Beta	Gross Alpha	1.468E-15	4.967E-15	9.844E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.743E-14	1.712E-14	2.731E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173835	6WH LOADOUT	07/17/14	Gross Alpha/Beta	Gross Alpha	2.54E-16	3.785E-15	8.514E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.093E-15	1.382E-14	2.362E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173836	6WH LOADOUT	07/17/14	Gross Alpha/Beta	Gross Alpha	3.464E-15	5.428E-15	8.936E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.365E-15	1.488E-14	2.479E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173837	6WH LOADOUT	07/21/14	Gross Alpha/Beta	Gross Alpha	1.47E-15	4.975E-15	9.861E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.243E-14	1.842E-14	2.735E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173838	6WH LOADOUT	07/21/14	Gross Alpha/Beta	Gross Alpha	4.24E-15	5.462E-15	8.365E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.196E-14	1.598E-14	2.32E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173839	6WH LOADOUT	07/21/14	Gross Alpha/Beta	Gross Alpha	8.44E-15	6.954E-15	8.577E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.472E-14	1.655E-14	2.379E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173840	6WH LOADOUT	07/22/14	Gross Alpha/Beta	Gross Alpha	1.452E-15	4.912E-15	9.736E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.163E-14	1.896E-14	2.701E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173841	6WH LOADOUT	07/22/14	Gross Alpha/Beta	Gross Alpha	3.47E-15	5.438E-15	8.952E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.39E-14	1.862E-14	2.483E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173842	6WH LOADOUT	07/22/14	Gross Alpha/Beta	Gross Alpha	6.405E-15	6.324E-15	8.593E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.326E-14	1.723E-14	2.384E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173843	6WH LOADOUT	07/23/14	Gross Alpha/Beta	Gross Alpha	9.494E-15	7.823E-15	9.649E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	5.59E-14	1.99E-14	2.676E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173844	6WH LOADOUT	07/23/14	Gross Alpha/Beta	Gross Alpha	5.543E-15	6.158E-15	8.852E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.247E-14	1.681E-14	2.455E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173845	6WH LOADOUT	07/23/14	Gross Alpha/Beta	Gross Alpha	2.349E-15	4.888E-15	8.755E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.009E-14	1.725E-14	2.428E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173846	6WH LOADOUT	07/24/14	Gross Alpha/Beta	Gross Alpha	3.71E-15	5.814E-15	9.571E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.058E-14	1.696E-14	2.655E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173847	6WH LOADOUT	07/24/14	Gross Alpha/Beta	Gross Alpha	6.737E-15	6.651E-15	9.038E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.532E-14	1.566E-14	2.507E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173848	6WH LOADOUT	07/24/14	Gross Alpha/Beta	Gross Alpha	6.636E-15	6.552E-15	8.903E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.793E-14	1.652E-14	2.469E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173849	6WH LOADOUT	07/28/14	Gross Alpha/Beta	Gross Alpha	6.398E-15	6.316E-15	8.583E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	7.383E-15	1.423E-14	2.381E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173850	6WH LOADOUT	07/28/14	Gross Alpha/Beta	Gross Alpha	2.37E-15	4.931E-15	8.832E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.938E-15	1.477E-14	2.45E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173851	SU-None	07/17/14	Gross Alpha/Beta	Gross Alpha	2.65E-15	1.421E-14	2.746E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.379E-14	2.974E-14	4.109E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173852	SU-None	07/21/14	Gross Alpha/Beta	Gross Alpha	2.235E-15	1.198E-14	2.317E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.016E-14	2.313E-14	3.466E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173853	SU-None	07/22/14	Gross Alpha/Beta	Gross Alpha	5.13E-15	1.468E-14	2.658E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.078E-14	2.861E-14	3.977E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173854	SU-None	07/23/14	Gross Alpha/Beta	Gross Alpha	2.672E-15	1.432E-14	2.769E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.582E-14	3.018E-14	4.143E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173855	SU-None	07/24/14	Gross Alpha/Beta	Gross Alpha	5.029E-15	1.439E-14	2.606E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.229E-15	2.342E-14	3.899E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173856	SU-None	07/28/14	Gross Alpha/Beta	Gross Alpha	0	1.207E-14	2.515E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.222E-15	2.34E-14	3.762E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173857	SU-None	07/29/14	Gross Alpha/Beta	Gross Alpha	7.89E-15	1.594E-14	2.726E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.266E-15	2.515E-14	4.078E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173858	6WH LOADOUT	07/29/14	Gross Alpha/Beta	Gross Alpha	2.96E-16	5.255E-15	1.106E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.415E-14	1.333E-14	1.784E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173859	6WH LOADOUT	07/29/14	Gross Alpha/Beta	Gross Alpha	4.622E-15	6.495E-15	1.016E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.455E-14	1.347E-14	1.637E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173860	6WH LOADOUT	07/29/14	Gross Alpha/Beta	Gross Alpha	1.344E-15	5.232E-15	1.004E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.495E-14	1.339E-14	1.619E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173861	6WH LOADOUT	07/30/14	Gross Alpha/Beta	Gross Alpha	9.777E-15	8.518E-15	1.107E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.415E-14	1.333E-14	1.784E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173862	6WH LOADOUT	07/30/14	Gross Alpha/Beta	Gross Alpha	-1.911E-15	3.73E-15	1.02E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.601E-14	1.366E-14	1.644E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173863	6WH LOADOUT	07/30/14	Gross Alpha/Beta	Gross Alpha	2.61E-16	4.638E-15	9.766E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.903E-14	1.248E-14	1.575E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173864	6WH LOADOUT	07/31/14	Gross Alpha/Beta	Gross Alpha	2.596E-15	6.068E-15	1.077E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.82E-14	1.451E-14	1.737E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173865	6WH LOADOUT	07/31/14	Gross Alpha/Beta	Gross Alpha	6.395E-15	6.761E-15	9.553E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.397E-14	1.374E-14	1.54E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173866	6WH LOADOUT	07/31/14	Gross Alpha/Beta	Gross Alpha	2.64E-16	4.69E-15	9.875E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.586E-14	1.33E-14	1.592E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173867	6WH LOADOUT	08/04/14	Gross Alpha/Beta	Gross Alpha	8.8E-15	8.38E-15	1.133E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.803E-14	1.608E-14	1.827E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173868	6WH LOADOUT	08/04/14	Gross Alpha/Beta	Gross Alpha	1.456E-14	8.886E-15	9.538E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.648E-14	1.396E-14	1.538E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173869	6WH LOADOUT	08/04/14	Gross Alpha/Beta	Gross Alpha	4.389E-15	6.167E-15	9.642E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.817E-14	1.423E-14	1.555E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173870	6WH LOADOUT	08/05/14	Gross Alpha/Beta	Gross Alpha	5.292E-15	7.436E-15	1.163E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.29E-14	1.687E-14	1.875E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173871	6WH LOADOUT	08/05/14	Gross Alpha/Beta	Gross Alpha	9.665E-15	8.421E-15	1.094E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.571E-14	1.444E-14	1.764E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173872	6WH LOADOUT	08/05/14	Gross Alpha/Beta	Gross Alpha	2.547E-15	5.954E-15	1.057E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.971E-14	1.54E-14	1.704E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173873	6WH LOADOUT	08/06/14	Gross Alpha/Beta	Gross Alpha	2.616E-15	6.117E-15	1.086E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.516E-14	1.622E-14	1.751E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173874	6WH LOADOUT	08/06/14	Gross Alpha/Beta	Gross Alpha	1.314E-14	9.317E-15	1.09E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	6.068E-14	1.764E-14	1.758E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173875	6WH LOADOUT	08/06/14	Gross Alpha/Beta	Gross Alpha	6.958E-15	7.357E-15	1.04E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.438E-14	1.652E-14	1.676E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173876	SU-None	07/30/14	Gross Alpha/Beta	Gross Alpha	7.582E-15	1.065E-14	1.666E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.576E-14	2.057E-14	2.686E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173877	SU-None	07/31/14	Gross Alpha/Beta	Gross Alpha	7.83E-16	1.389E-14	2.924E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.563E-14	3.39E-14	4.715E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173878	6WH LOADOUT	08/11/14	Gross Alpha/Beta	Gross Alpha	5.848E-15	7.629E-15	1.145E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.803E-14	1.636E-14	1.772E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173879	6WH LOADOUT	08/11/14	Gross Alpha/Beta	Gross Alpha	4.399E-15	6.845E-15	1.081E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.934E-14	1.395E-14	1.673E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173880	6WH LOADOUT	08/11/14	Gross Alpha/Beta	Gross Alpha	5.22E-15	6.81E-15	1.022E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.653E-14	1.311E-14	1.582E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173881	6WH LOADOUT	08/12/14	Gross Alpha/Beta	Gross Alpha	-9.9E-17	5.444E-15	1.14E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.259E-14	1.139E-14	1.764E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173882	6WH LOADOUT	08/12/14	Gross Alpha/Beta	Gross Alpha	1.016E-15	5.558E-15	1.067E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.733E-14	1.136E-14	1.651E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173883	6WH LOADOUT	08/12/14	Gross Alpha/Beta	Gross Alpha	9.73E-16	5.324E-15	1.022E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.789E-14	1.22E-14	1.582E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173884	6WH LOADOUT	08/13/14	Gross Alpha/Beta	Gross Alpha	1.365E-15	7.469E-15	1.434E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.422E-14	1.538E-14	2.219E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173885	6WH LOADOUT	08/13/14	Gross Alpha/Beta	Gross Alpha	4.425E-15	6.886E-15	1.088E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.262E-14	1.218E-14	1.683E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173886	6WH LOADOUT	08/13/14	Gross Alpha/Beta	Gross Alpha	-2.199E-15	3.828E-15	1.016E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.981E-14	1.122E-14	1.573E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173887	6WH LOADOUT	08/14/14	Gross Alpha/Beta	Gross Alpha	4.432E-15	6.896E-15	1.089E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.397E-14	1.346E-14	1.686E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173888	6WH LOADOUT	08/14/14	Gross Alpha/Beta	Gross Alpha	1.039E-15	5.687E-15	1.092E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.093E-15	1.024E-14	1.689E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173889	6WH LOADOUT	08/14/14	Gross Alpha/Beta	Gross Alpha	-1.172E-15	4.479E-15	1.041E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.503E-14	1.205E-14	1.611E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173890	P6WH Loadout	08/18/14	Gross Alpha/Beta	Gross Alpha	4.306E-15	7.175E-15	1.155E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.146E-14	1.376E-14	1.732E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173891	P6WH Loadout	08/18/14	Gross Alpha/Beta	Gross Alpha	-3.53E-16	4.894E-15	1.042E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.971E-14	1.256E-14	1.563E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173892	P6WH Loadout	08/18/14	Gross Alpha/Beta	Gross Alpha	3.8E-15	6.332E-15	1.019E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.619E-14	1.303E-14	1.529E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173893	P6WH Loadout	08/19/14	Gross Alpha/Beta	Gross Alpha	-3.82E-16	5.29E-15	1.126E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.857E-14	1.425E-14	1.689E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173894	P6WH Loadout	08/19/14	Gross Alpha/Beta	Gross Alpha	1.342E-14	9.576E-15	1.131E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.089E-14	1.453E-14	1.697E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173895	P6WH Loadout	08/19/14	Gross Alpha/Beta	Gross Alpha	6.8E-16	5.131E-15	1.003E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.966E-14	1.109E-14	1.504E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173896	P6WH Loadout	08/20/14	Gross Alpha/Beta	Gross Alpha	3.021E-15	6.541E-15	1.114E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.177E-14	1.343E-14	1.671E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173897	P6WH Loadout	08/20/14	Gross Alpha/Beta	Gross Alpha	6.97E-16	5.266E-15	1.029E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.916E-14	1.341E-14	1.543E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173898	P6WH Loadout	08/20/14	Gross Alpha/Beta	Gross Alpha	-3.49E-16	4.832E-15	1.029E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.29E-14	1.471E-14	1.543E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173899	P6WH Loadout	08/21/14	Gross Alpha/Beta	Gross Alpha	6.522E-15	7.749E-15	1.132E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.156E-14	1.357E-14	1.698E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173900	P6WH Loadout	08/21/14	Gross Alpha/Beta	Gross Alpha	1.727E-15	5.613E-15	1.019E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.49E-14	1.29E-14	1.529E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173901	P6WH Loadout	08/21/14	Gross Alpha/Beta	Gross Alpha	3.829E-15	6.38E-15	1.027E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.582E-14	1.306E-14	1.54E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173902	SLD173902	08/25/14	Gross Alpha/Beta	Gross Alpha	2.483E-15	6.537E-15	1.072E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.45E-14	1.802E-14	2.669E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173903	SLD173903	09/08/14	Gross Alpha/Beta	Gross Alpha	4.177E-15	6.246E-15	9.02E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.364E-14	1.639E-14	2.245E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173904	SLD173904	09/08/14	Gross Alpha/Beta	Gross Alpha	1.051E-15	5.119E-15	9.081E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.855E-14	1.52E-14	2.26E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173905	SLD173905	09/08/14	Gross Alpha/Beta	Gross Alpha	1.478E-14	1.019E-14	1.064E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.893E-14	1.828E-14	2.648E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173906	SLD173906	09/08/14	Gross Alpha/Beta	Gross Alpha	6.373E-15	7.036E-15	9.174E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.952E-14	1.541E-14	2.283E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173907	SLD173907	09/08/14	Gross Alpha/Beta	Gross Alpha	9.735E-15	8.101E-15	9.343E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	5.484E-14	1.775E-14	2.325E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173908	SLD173908	08/27/14	Gross Alpha/Beta	Gross Alpha	5.364E-15	5.921E-15	7.721E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.745E-14	1.23E-14	1.922E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173909	SLD173909	08/27/14	Gross Alpha/Beta	Gross Alpha	6.874E-15	5.72E-15	6.597E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.852E-14	1.171E-14	1.642E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173910	SLD173910	08/27/14	Gross Alpha/Beta	Gross Alpha	2.411E-15	4.529E-15	6.942E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.177E-14	1.327E-14	1.728E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173911	SLD173911	08/28/14	Gross Alpha/Beta	Gross Alpha	8.324E-15	9.189E-15	1.198E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.914E-14	2.104E-14	2.982E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173912	SLD173912	08/28/14	Gross Alpha/Beta	Gross Alpha	1.482E-15	3.9E-15	6.398E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.227E-14	1.252E-14	1.592E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173913	SLD173913	08/28/14	Gross Alpha/Beta	Gross Alpha	7.005E-15	5.829E-15	6.723E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.698E-14	1.258E-14	1.673E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173914	SLD173914	09/02/14	Gross Alpha/Beta	Gross Alpha	2.17E-15	6.328E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.348E-15	1.158E-14	1.692E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD173915	SLD173915	09/02/14	Gross Alpha/Beta	Gross Alpha	-1.174E-15	4.753E-15	1.043E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.649E-14	1.232E-14	1.62E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173916	SLD173916	09/02/14	Gross Alpha/Beta	Gross Alpha	-1.187E-15	4.805E-15	1.055E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.316E-14	1.206E-14	1.638E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD173917	SLD173917	09/03/14	Gross Alpha/Beta	Gross Alpha	1.931E-15	5.631E-15	9.699E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.114E-14	1.21E-14	1.506E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173918	SLD173918	09/03/14	Gross Alpha/Beta	Gross Alpha	4.948E-15	6.616E-15	9.687E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.789E-14	1.173E-14	1.504E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173919	SLD173919	09/04/14	Gross Alpha/Beta	Gross Alpha	1.96E-15	5.715E-15	9.845E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.211E-14	1.235E-14	1.528E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173920	SLD173920	09/04/14	Gross Alpha/Beta	Gross Alpha	4.375E-15	6.996E-15	1.075E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.558E-14	1.364E-14	1.669E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173921	SLD173921	09/04/14	Gross Alpha/Beta	Gross Alpha	9.84E-16	5.603E-15	1.034E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.322E-14	1.296E-14	1.604E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD173922	SLD173922	09/04/14	Gross Alpha/Beta	Gross Alpha	3.163E-15	6.437E-15	1.044E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.206E-14	1.294E-14	1.621E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173923	SLD173923	08/25/14	Gross Alpha/Beta	Gross Alpha	1.421E-15	8.086E-15	1.492E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.557E-14	1.784E-14	2.316E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD173924	SLD173924	08/26/14	Gross Alpha/Beta	Gross Alpha	7.728E-15	7.997E-15	1.076E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.418E-14	1.452E-14	1.669E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD173925	SLD173925	08/27/14	Gross Alpha/Beta	Gross Alpha	1.25E-14	9.389E-15	1.102E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.429E-14	1.48E-14	1.711E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175938	SLD175938	08/28/14	Gross Alpha/Beta	Gross Alpha	4.723E-15	7.552E-15	1.161E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.071E-14	1.504E-14	1.802E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175939	SLD175939	09/02/14	Gross Alpha/Beta	Gross Alpha	6.316E-15	7.337E-15	1.028E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.556E-14	1.206E-14	1.595E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175940	SLD175940	09/03/14	Gross Alpha/Beta	Gross Alpha	9.79E-16	5.57E-15	1.028E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.513E-14	1.31E-14	1.595E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175941	SLD175941	09/04/14	Gross Alpha/Beta	Gross Alpha	3.264E-15	6.642E-15	1.077E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.993E-14	1.411E-14	1.672E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175942	P6WH Loadout	09/08/14	Gross Alpha/Beta	Gross Alpha	8.41E-16	4.482E-15	8.798E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.654E-14	1.665E-14	2.599E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175943	P6WH Loadout	09/08/14	Gross Alpha/Beta	Gross Alpha	3.747E-15	5.29E-15	7.836E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.727E-14	1.504E-14	2.315E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175944	P6WH Loadout	09/08/14	Gross Alpha/Beta	Gross Alpha	3.822E-15	5.396E-15	7.993E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.957E-14	1.551E-14	2.361E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175945	P6WH Loadout	09/09/14	Gross Alpha/Beta	Gross Alpha	4.773E-15	5.691E-15	7.881E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.888E-14	1.608E-14	2.328E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175946	P6WH Loadout	09/09/14	Gross Alpha/Beta	Gross Alpha	2.91E-15	5.184E-15	8.298E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.378E-14	1.72E-14	2.451E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175947	P6WH Loadout	09/10/14	Gross Alpha/Beta	Gross Alpha	3.023E-15	5.385E-15	8.621E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.978E-14	1.899E-14	2.546E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175948	P6WH Loadout	09/10/14	Gross Alpha/Beta	Gross Alpha	4.711E-15	5.617E-15	7.778E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.797E-14	1.661E-14	2.298E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175949	P6WH Loadout	09/10/14	Gross Alpha/Beta	Gross Alpha	4.832E-15	5.761E-15	7.978E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.248E-14	1.653E-14	2.357E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175950	P6WH Loadout	09/11/14	Gross Alpha/Beta	Gross Alpha	7.266E-15	6.823E-15	8.442E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.909E-15	1.5E-14	2.494E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175951	P6WH Loadout	09/11/14	Gross Alpha/Beta	Gross Alpha	6.884E-15	6.464E-15	7.998E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.347E-14	1.584E-14	2.362E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175952	P6WH Loadout	09/11/14	Gross Alpha/Beta	Gross Alpha	1.83E-15	4.675E-15	8.203E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.01E-14	1.506E-14	2.423E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175953	P6WH Building 101	09/08/14	Gross Alpha/Beta	Gross Alpha	4.392E-15	6.201E-15	9.186E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.218E-14	1.862E-14	2.713E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175954	P6WH Building 101	09/09/14	Gross Alpha/Beta	Gross Alpha	7.557E-15	7.097E-15	8.78E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.574E-14	1.82E-14	2.594E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175955	P6WH Building 101	09/10/14	Gross Alpha/Beta	Gross Alpha	-4.54E-16	6.285E-15	1.425E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.91E-14	2.716E-14	4.209E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175956	P6WH Building 101	09/15/14	Gross Alpha/Beta	Gross Alpha	-1.312E-15	2.964E-15	8.233E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.447E-15	1.432E-14	2.432E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175957	P6WH Loadout	09/15/14	Gross Alpha/Beta	Gross Alpha	3.142E-15	5.423E-15	9.393E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.045E-14	1.812E-14	2.427E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175958	P6WH Loadout	09/15/14	Gross Alpha/Beta	Gross Alpha	9.25E-16	4.196E-15	8.796E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.199E-14	1.791E-14	2.273E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD175959	P6WH Loadout	09/15/14	Gross Alpha/Beta	Gross Alpha	4.078E-15	5.643E-15	9.079E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.507E-14	1.791E-14	2.346E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175960	P6WH Loadout	09/16/14	Gross Alpha/Beta	Gross Alpha	-1.152E-15	3.244E-15	9.275E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.697E-14	1.84E-14	2.397E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175961	P6WH Loadout	09/16/14	Gross Alpha/Beta	Gross Alpha	3.845E-15	5.32E-15	8.559E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.676E-14	1.712E-14	2.212E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175962	P6WH Loadout	09/16/14	Gross Alpha/Beta	Gross Alpha	-8.4E-17	3.677E-15	8.792E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.685E-14	1.753E-14	2.272E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175963	P6WH Loadout	09/17/14	Gross Alpha/Beta	Gross Alpha	3.086E-15	5.326E-15	9.225E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.076E-14	1.784E-14	2.384E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175964	P6WH Loadout	09/17/14	Gross Alpha/Beta	Gross Alpha	2.888E-15	4.985E-15	8.635E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.212E-14	1.834E-14	2.231E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175965	P6WH Loadout	09/17/14	Gross Alpha/Beta	Gross Alpha	-8.5E-17	3.716E-15	8.886E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.648E-14	1.767E-14	2.296E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175966	P6WH Loadout	09/18/14	Gross Alpha/Beta	Gross Alpha	3.142E-15	5.423E-15	9.393E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.908E-14	1.801E-14	2.427E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175967	P6WH Loadout	09/18/14	Gross Alpha/Beta	Gross Alpha	-8.1E-17	3.553E-15	8.497E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.276E-14	1.744E-14	2.195E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175968	P6WH Loadout	09/18/14	Gross Alpha/Beta	Gross Alpha	5.002E-15	5.88E-15	8.87E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.902E-14	1.783E-14	2.292E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175969	P6WH Building 101	09/18/14	Gross Alpha/Beta	Gross Alpha	2.118E-15	5.102E-15	9.635E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.786E-14	1.983E-14	2.49E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175970	P6WH Building 101	09/17/14	Gross Alpha/Beta	Gross Alpha	1.068E-15	4.847E-15	1.016E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.954E-14	2.015E-14	2.625E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175971	P6WH Building 101	09/16/14	Gross Alpha/Beta	Gross Alpha	4.437E-15	6.139E-15	9.877E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.006E-14	1.894E-14	2.552E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175972	P6WH Building 101	09/15/14	Gross Alpha/Beta	Gross Alpha	6.918E-15	7.156E-15	1.02E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.401E-14	1.903E-14	2.634E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175973	P6WH Loadout	09/22/14	Gross Alpha/Beta	Gross Alpha	2.126E-15	8.275E-15	1.157E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.783E-14	1.323E-14	1.785E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175974	P6WH Loadout	09/22/14	Gross Alpha/Beta	Gross Alpha	-1.094E-15	6.67E-15	1.053E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.533E-14	1.204E-14	1.624E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175975	P6WH Loadout	09/22/14	Gross Alpha/Beta	Gross Alpha	2.001E-15	7.789E-15	1.088E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.136E-15	1.032E-14	1.68E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175976	P6WH Loadout	09/23/14	Gross Alpha/Beta	Gross Alpha	-1.179E-15	7.19E-15	1.134E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.266E-14	1.129E-14	1.751E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175977	P6WH Loadout	09/23/14	Gross Alpha/Beta	Gross Alpha	-1.107E-15	6.754E-15	1.066E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.966E-15	1.011E-14	1.645E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175978	P6WH Loadout	09/23/14	Gross Alpha/Beta	Gross Alpha	9.77E-16	7.658E-15	1.111E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.513E-14	1.139E-14	1.714E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175979	P6WH Loadout	09/24/14	Gross Alpha/Beta	Gross Alpha	2.042E-15	7.95E-15	1.111E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.196E-14	1.218E-14	1.715E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD175980	P6WH Loadout	09/24/14	Gross Alpha/Beta	Gross Alpha	1.878E-15	7.31E-15	1.022E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.651E-14	1.291E-14	1.576E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175981	P6WH Loadout	09/24/14	Gross Alpha/Beta	Gross Alpha	9.26E-16	7.259E-15	1.053E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.822E-14	1.125E-14	1.625E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD175982	P6WH Loadout	09/25/14	Gross Alpha/Beta	Gross Alpha	-1.142E-15	6.967E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.929E-14	1.389E-14	1.696E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175983	P6WH Loadout	09/25/14	Gross Alpha/Beta	Gross Alpha	9.29E-16	7.287E-15	1.057E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.804E-14	1.237E-14	1.631E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175984	P6WH Loadout	09/25/14	Gross Alpha/Beta	Gross Alpha	-8.7E-17	7.18E-15	1.084E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.341E-14	1.415E-14	1.673E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175985	P6WH Building 101	09/22/14	Gross Alpha/Beta	Gross Alpha	-9E-17	7.42E-15	1.121E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.32E-14	1.124E-14	1.729E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD175986	P6WH Building 101	09/23/14	Gross Alpha/Beta	Gross Alpha	4.129E-15	8.413E-15	1.099E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.51E-14	1.243E-14	1.696E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175987	P6WH Building 101	09/24/14	Gross Alpha/Beta	Gross Alpha	9.45E-16	7.408E-15	1.075E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.312E-14	1.305E-14	1.658E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175988	P6WH Building 101	09/25/14	Gross Alpha/Beta	Gross Alpha	-2.271E-15	6.864E-15	1.136E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.735E-14	1.3E-14	1.754E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175989	P6WH Loadout	09/29/14	Gross Alpha/Beta	Gross Alpha	1.178E-14	8.689E-15	9.896E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.833E-14	1.822E-14	2.452E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175990	P6WH Loadout	09/29/14	Gross Alpha/Beta	Gross Alpha	5.801E-15	6.593E-15	9.17E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.544E-14	1.694E-14	2.272E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175991	P6WH Loadout	09/29/14	Gross Alpha/Beta	Gross Alpha	3.8E-15	5.989E-15	9.283E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.204E-14	1.684E-14	2.3E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175992	P6WH Loadout	09/30/14	Gross Alpha/Beta	Gross Alpha	2.789E-15	5.667E-15	9.368E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.842E-14	1.746E-14	2.321E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175993	P6WH Loadout	09/30/14	Gross Alpha/Beta	Gross Alpha	4.783E-15	6.271E-15	9.181E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.723E-14	1.785E-14	2.274E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175994	P6WH Loadout	09/30/14	Gross Alpha/Beta	Gross Alpha	8.019E-15	7.367E-15	9.37E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	5.375E-14	1.787E-14	2.321E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175995	P6WH Loadout	10/01/14	Gross Alpha/Beta	Gross Alpha	-3.87E-16	4.834E-15	1.04E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.897E-14	1.821E-14	2.577E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175996	P6WH Loadout	10/01/14	Gross Alpha/Beta	Gross Alpha	3.672E-15	5.787E-15	8.971E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.675E-14	1.822E-14	2.222E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175997	P6WH Loadout	10/01/14	Gross Alpha/Beta	Gross Alpha	-3.36E-16	4.198E-15	9.033E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.155E-14	1.643E-14	2.238E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD175998	P6WH Loadout	10/02/14	Gross Alpha/Beta	Gross Alpha	7.55E-16	5.232E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	8.47E-15	1.517E-14	2.514E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD175999	P6WH Loadout	10/02/14	Gross Alpha/Beta	Gross Alpha	-1.414E-15	3.875E-15	9.502E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.131E-14	1.452E-14	2.354E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176000	P6WH Loadout	10/02/14	Gross Alpha/Beta	Gross Alpha	7.19E-16	4.98E-15	9.658E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.384E-14	1.587E-14	2.393E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176001	P6WH Building 101	09/29/14	Gross Alpha/Beta	Gross Alpha	7.745E-15	7.188E-15	9.595E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.668E-14	1.318E-14	1.596E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176002	P6WH Building 101	09/30/14	Gross Alpha/Beta	Gross Alpha	8.659E-15	7.375E-15	9.452E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	5.195E-14	1.452E-14	1.573E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176003	P6WH Building 101	10/01/14	Gross Alpha/Beta	Gross Alpha	4.38E-16	4.628E-15	9.662E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.559E-14	1.314E-14	1.607E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176004	P6WH Building 101	10/02/14	Gross Alpha/Beta	Gross Alpha	-3.349E-15	7.132E-15	1.943E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.332E-14	1.952E-14	3.233E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176005	P6WH Loadout	10/06/14	Gross Alpha/Beta	Gross Alpha	2.551E-15	6.254E-15	9.699E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.59E-14	1.622E-14	2.368E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176006	P6WH Loadout	10/06/14	Gross Alpha/Beta	Gross Alpha	-3.767E-15	3.508E-15	9.658E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.797E-15	1.53E-14	2.358E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176007	P6WH Loadout	10/06/14	Gross Alpha/Beta	Gross Alpha	3.668E-15	6.715E-15	9.864E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.549E-14	1.644E-14	2.408E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176008	P6WH Loadout	10/07/14	Gross Alpha/Beta	Gross Alpha	1.483E-15	5.836E-15	9.618E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.91E-14	1.636E-14	2.348E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176009	P6WH Loadout	10/07/14	Gross Alpha/Beta	Gross Alpha	1.447E-15	5.694E-15	9.384E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.033E-14	1.689E-14	2.291E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176010	P6WH Loadout	10/07/14	Gross Alpha/Beta	Gross Alpha	4.44E-16	5.539E-15	9.78E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.416E-14	1.702E-14	2.388E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176011	P6WH Loadout	10/08/14	Gross Alpha/Beta	Gross Alpha	-1.617E-15	4.462E-15	9.384E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.578E-14	1.654E-14	2.291E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176012	P6WH Loadout	10/08/14	Gross Alpha/Beta	Gross Alpha	-6.08E-16	5.008E-15	9.578E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.504E-14	1.596E-14	2.339E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176013	P6WH Loadout	10/08/14	Gross Alpha/Beta	Gross Alpha	-6.26E-16	5.157E-15	9.864E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.12E-14	1.77E-14	2.408E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176014	P6WH Loadout	10/09/14	Gross Alpha/Beta	Gross Alpha	-5.874E-15	1.621E-14	3.409E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.463E-14	5.521E-14	8.323E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176015	P6WH Building 101	10/06/14	Gross Alpha/Beta	Gross Alpha	-1.651E-15	4.554E-15	9.578E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.238E-14	1.574E-14	2.339E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176016	P6WH Building 101	10/07/14	Gross Alpha/Beta	Gross Alpha	1.588E-15	6.251E-15	1.03E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.188E-14	1.764E-14	2.515E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176017	P6WH Building 101	10/08/14	Gross Alpha/Beta	Gross Alpha	1.453E-15	5.718E-15	9.423E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.85E-14	1.681E-14	2.301E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176018	P6WH Loadout	10/20/14	Gross Alpha/Beta	Gross Alpha	1.158E-14	7.933E-15	8.281E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.767E-14	2.04E-14	2.343E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176019	P6WH Loadout	10/20/14	Gross Alpha/Beta	Gross Alpha	3.068E-15	5.142E-15	8.387E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.624E-14	1.913E-14	2.373E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176020	P6WH Loadout	10/20/14	Gross Alpha/Beta	Gross Alpha	8.303E-15	6.935E-15	8.211E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.513E-14	1.94E-14	2.324E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176021	P6WH Loadout	10/16/14	Gross Alpha/Beta	Gross Alpha	-1.89E-16	3.669E-15	8.763E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.382E-14	1.972E-14	2.48E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176022	P6WH Loadout	10/16/14	Gross Alpha/Beta	Gross Alpha	2.929E-15	4.91E-15	8.009E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.321E-14	1.739E-14	2.266E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176023	P6WH Loadout	10/16/14	Gross Alpha/Beta	Gross Alpha	6.081E-15	6.139E-15	8.075E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.128E-14	1.812E-14	2.285E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176024	P6WH Loadout	10/15/14	Gross Alpha/Beta	Gross Alpha	-1.77E-16	3.438E-15	8.211E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.692E-14	1.808E-14	2.324E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176025	P6WH Loadout	10/15/14	Gross Alpha/Beta	Gross Alpha	1.873E-15	4.397E-15	7.912E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.76E-14	1.752E-14	2.239E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176026	P6WH Loadout	10/15/14	Gross Alpha/Beta	Gross Alpha	2.882E-15	4.831E-15	7.88E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.88E-15	1.656E-14	2.23E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176027	P6WH Loadout	10/14/14	Gross Alpha/Beta	Gross Alpha	2.056E-15	4.827E-15	8.686E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.481E-15	1.825E-14	2.458E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176028	P6WH Loadout	10/14/14	Gross Alpha/Beta	Gross Alpha	2.954E-15	4.951E-15	8.075E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.372E-15	1.676E-14	2.285E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176029	P6WH Loadout	10/14/14	Gross Alpha/Beta	Gross Alpha	5.348E-15	6.124E-15	8.571E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-6.45E-16	1.745E-14	2.425E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176030	P6WH Loadout	10/13/14	Gross Alpha/Beta	Gross Alpha	5.977E-15	6.844E-15	9.58E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.659E-14	2.086E-14	2.711E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176031	P6WH Loadout	10/13/14	Gross Alpha/Beta	Gross Alpha	9.1E-16	4.162E-15	8.46E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.743E-14	1.863E-14	2.394E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176032	P6WH Loadout	10/13/14	Gross Alpha/Beta	Gross Alpha	8.8E-16	4.022E-15	8.177E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.287E-15	1.659E-14	2.314E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176033	Building 101	10/20/14	Gross Alpha/Beta	Gross Alpha	8.303E-15	6.935E-15	8.211E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.727E-14	2.023E-14	2.324E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176034	Building 101	10/16/14	Gross Alpha/Beta	Gross Alpha	1.952E-15	4.583E-15	8.246E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.241E-14	1.856E-14	2.333E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176035	Building 101	10/15/14	Gross Alpha/Beta	Gross Alpha	8.95E-16	4.091E-15	8.316E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.304E-14	1.8E-14	2.353E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176036	Building 101	10/14/14	Gross Alpha/Beta	Gross Alpha	9.39E-16	4.292E-15	8.724E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.76E-16	1.788E-14	2.469E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176037	Building 101	10/13/14	Gross Alpha/Beta	Gross Alpha	3.22E-15	5.397E-15	8.803E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-2.832E-15	1.775E-14	2.491E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176038	P6WH Loadout	10/21/14	Gross Alpha/Beta	Gross Alpha	8.338E-15	6.965E-15	8.246E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.612E-14	2.022E-14	2.333E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176039	P6WH Loadout	10/21/14	Gross Alpha/Beta	Gross Alpha	-1.192E-15	2.609E-15	7.912E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.825E-14	1.757E-14	2.239E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176040	P6WH Loadout	10/21/14	Gross Alpha/Beta	Gross Alpha	1.896E-15	4.451E-15	8.009E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.545E-14	1.969E-14	2.266E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176041	P6WH Loadout	10/22/14	Gross Alpha/Beta	Gross Alpha	2.002E-15	4.702E-15	8.46E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.618E-15	1.772E-14	2.394E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176042	P6WH Loadout	10/22/14	Gross Alpha/Beta	Gross Alpha	8.83E-16	4.039E-15	8.211E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.802E-15	1.731E-14	2.324E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176043	P6WH Loadout	10/22/14	Gross Alpha/Beta	Gross Alpha	1.828E-15	4.293E-15	7.724E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	7.033E-15	1.633E-14	2.186E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176044	P6WH Loadout	10/23/14	Gross Alpha/Beta	Gross Alpha	3.029E-15	5.077E-15	8.281E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.114E-14	1.854E-14	2.343E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176045	P6WH Loadout	10/23/14	Gross Alpha/Beta	Gross Alpha	5.958E-15	6.015E-15	7.912E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.41E-14	1.8E-14	2.239E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176046	P6WH Loadout	10/23/14	Gross Alpha/Beta	Gross Alpha	4.82E-15	5.519E-15	7.724E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.988E-14	1.802E-14	2.186E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176047	Building 101	10/21/14	Gross Alpha/Beta	Gross Alpha	3.98E-15	5.353E-15	8.042E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.186E-14	1.81E-14	2.276E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176048	Building 101	10/22/14	Gross Alpha/Beta	Gross Alpha	2.906E-15	4.871E-15	7.944E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.665E-15	1.643E-14	2.248E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176049	Building 101	10/23/14	Gross Alpha/Beta	Gross Alpha	2.906E-15	4.871E-15	7.944E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.441E-14	1.734E-14	2.248E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176050	SLDS Loadout	10/27/14	Gross Alpha/Beta	Gross Alpha	3.989E-15	6.324E-15	8.612E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.367E-14	2.08E-14	2.096E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176051	SLDS Loadout	10/27/14	Gross Alpha/Beta	Gross Alpha	3.089E-15	6.195E-15	8.894E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.608E-14	2.152E-14	2.164E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176052	SLDS Loadout	10/27/14	Gross Alpha/Beta	Gross Alpha	1.069E-15	5.672E-15	9.233E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.733E-14	2.166E-14	2.247E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176053	SLDS Loadout	10/28/14	Gross Alpha/Beta	Gross Alpha	4.069E-15	6.452E-15	8.786E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.08E-14	1.969E-14	2.138E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176054	SLDS Loadout	10/28/14	Gross Alpha/Beta	Gross Alpha	1.979E-15	5.611E-15	8.545E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.933E-14	1.911E-14	2.079E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176055	SLDS Loadout	10/28/14	Gross Alpha/Beta	Gross Alpha	-1.047E-15	4.699E-15	9.041E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.837E-14	1.936E-14	2.2E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176056	SLDS Loadout	10/29/14	Gross Alpha/Beta	Gross Alpha	0	5.102E-15	8.967E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.417E-14	1.961E-14	2.182E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176057	SLDS Loadout	10/29/14	Gross Alpha/Beta	Gross Alpha	-9.82E-16	4.407E-15	8.478E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.286E-14	1.785E-14	2.063E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176058	SLDS Loadout	10/29/14	Gross Alpha/Beta	Gross Alpha	3.248E-15	6.514E-15	9.352E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.107E-14	2.017E-14	2.276E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176059	SLDS Loadout	10/30/14	Gross Alpha/Beta	Gross Alpha	0	5.275E-15	9.272E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.772E-14	2.046E-14	2.256E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176060	SLDS Loadout	10/30/14	Gross Alpha/Beta	Gross Alpha	-1.064E-15	4.779E-15	9.194E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.291E-14	2.065E-14	2.237E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176061	SLDS Loadout	10/30/14	Gross Alpha/Beta	Gross Alpha	5.107E-15	6.795E-15	8.822E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.378E-14	1.929E-14	2.147E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176062	Building 101	10/27/14	Gross Alpha/Beta	Gross Alpha	4.036E-15	6.4E-15	8.716E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.303E-14	2.097E-14	2.121E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176063	Building 101	10/28/14	Gross Alpha/Beta	Gross Alpha	0	5.298E-15	9.312E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.824E-14	1.99E-14	2.266E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176064	Building 101	10/29/14	Gross Alpha/Beta	Gross Alpha	0	4.959E-15	8.716E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.799E-14	1.936E-14	2.121E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176065	Building 101	10/30/14	Gross Alpha/Beta	Gross Alpha	2.252E-15	6.388E-15	9.727E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.837E-14	2.142E-14	2.367E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176066	SLDS Loadout	11/03/14	Gross Alpha/Beta	Gross Alpha	1.999E-14	1.217E-14	1.194E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.508E-14	1.521E-14	1.914E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176067	SLDS Loadout	11/03/14	Gross Alpha/Beta	Gross Alpha	1.623E-15	6.634E-15	1.015E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.785E-14	1.273E-14	1.628E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176068	SLDS Loadout	11/03/14	Gross Alpha/Beta	Gross Alpha	4.855E-15	7.776E-15	1.049E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.557E-14	1.384E-14	1.682E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176069	SLDS Loadout	11/04/14	Gross Alpha/Beta	Gross Alpha	8.929E-15	9.559E-15	1.166E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.256E-14	1.568E-14	1.87E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176070	SLDS Loadout	11/04/14	Gross Alpha/Beta	Gross Alpha	6.42E-16	6.775E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.819E-15	1.064E-14	1.748E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176071	SLDS Loadout	11/04/14	Gross Alpha/Beta	Gross Alpha	2.748E-15	7.206E-15	1.053E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.935E-14	1.519E-14	1.689E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176072	SLDS Loadout	11/05/14	Gross Alpha/Beta	Gross Alpha	8.347E-15	8.936E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.824E-14	1.546E-14	1.748E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176073	SLDS Loadout	11/05/14	Gross Alpha/Beta	Gross Alpha	2.659E-15	6.972E-15	1.019E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.071E-14	1.201E-14	1.634E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176074	SLDS Loadout	11/05/14	Gross Alpha/Beta	Gross Alpha	4.835E-15	7.744E-15	1.045E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.393E-14	1.26E-14	1.675E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176075	SLDS Loadout	11/06/14	Gross Alpha/Beta	Gross Alpha	2.525E-15	6.622E-15	9.679E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.654E-14	1.106E-14	1.552E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176076	SLDS Loadout	11/06/14	Gross Alpha/Beta	Gross Alpha	-4.09E-16	5.712E-15	9.717E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.346E-14	1.074E-14	1.558E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176077	SLDS Loadout	11/06/14	Gross Alpha/Beta	Gross Alpha	3.718E-15	7.329E-15	1.027E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.288E-14	1.233E-14	1.648E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176078	Building 101	11/03/14	Gross Alpha/Beta	Gross Alpha	6.21E-16	6.548E-15	1.053E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.345E-14	1.264E-14	1.689E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176079	Building 101	11/04/14	Gross Alpha/Beta	Gross Alpha	3.944E-15	7.775E-15	1.09E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.401E-14	1.507E-14	1.748E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176080	Building 101	11/05/14	Gross Alpha/Beta	Gross Alpha	6.51E-16	6.865E-15	1.104E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.53E-14	1.333E-14	1.771E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176081	Building 101	11/06/14	Gross Alpha/Beta	Gross Alpha	4.835E-15	7.744E-15	1.045E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.515E-14	1.162E-14	1.675E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176082	SLDS Loadout	11/10/14	Gross Alpha/Beta	Gross Alpha	6.031E-15	6.928E-15	9.098E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.876E-14	1.614E-14	2.232E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176083	SLDS Loadout	11/10/14	Gross Alpha/Beta	Gross Alpha	-1.66E-16	4.523E-15	8.74E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.345E-14	1.519E-14	2.144E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176084	SLDS Loadout	11/10/14	Gross Alpha/Beta	Gross Alpha	4.029E-15	6.377E-15	9.25E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.406E-14	1.597E-14	2.269E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176085	SLDS Loadout	11/11/14	Gross Alpha/Beta	Gross Alpha	-2.278E-15	3.755E-15	9.25E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.964E-15	1.34E-14	2.269E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176086	SLDS Loadout	11/11/14	Gross Alpha/Beta	Gross Alpha	3.899E-15	6.172E-15	8.951E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	6.419E-15	1.303E-14	2.196E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176087	SLDS Loadout	11/11/14	Gross Alpha/Beta	Gross Alpha	-1.74E-16	4.748E-15	9.173E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.454E-14	1.412E-14	2.25E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176088	SLDS Loadout	11/12/14	Gross Alpha/Beta	Gross Alpha	8.55E-16	5.101E-15	9.024E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.018E-14	1.444E-14	2.214E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176089	SLDS Loadout	11/12/14	Gross Alpha/Beta	Gross Alpha	8.51E-16	5.081E-15	8.988E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.464E-14	1.478E-14	2.205E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176090	SLDS Loadout	11/12/14	Gross Alpha/Beta	Gross Alpha	-2.268E-15	3.74E-15	9.211E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.277E-15	1.287E-14	2.259E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176091	SLDS Loadout	11/13/14	Gross Alpha/Beta	Gross Alpha	3.108E-15	6.28E-15	9.652E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.088E-14	1.538E-14	2.368E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176092	SLDS Loadout	11/13/14	Gross Alpha/Beta	Gross Alpha	8.38E-16	5E-15	8.844E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.937E-14	1.499E-14	2.169E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176093	SLDS Loadout	11/13/14	Gross Alpha/Beta	Gross Alpha	1.952E-15	5.708E-15	9.367E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.907E-14	1.57E-14	2.298E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176094	Building 101	11/10/14	Gross Alpha/Beta	Gross Alpha	-1.201E-15	4.214E-15	9.061E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.222E-14	1.467E-14	2.223E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176095	Building 101	11/11/14	Gross Alpha/Beta	Gross Alpha	3.996E-15	6.325E-15	9.173E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.985E-14	1.461E-14	2.25E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176096	Building 101	11/12/14	Gross Alpha/Beta	Gross Alpha	2.859E-15	5.777E-15	8.88E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.628E-14	1.478E-14	2.178E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176097	Building 101	11/13/14	Gross Alpha/Beta	Gross Alpha	4.672E-15	7.394E-15	1.072E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.639E-14	1.825E-14	2.631E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176098	Plant 6WH Loadout	11/17/14	Gross Alpha/Beta	Gross Alpha	1.279E-14	8.614E-15	9.668E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.761E-14	2.396E-14	2.433E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176099	Plant 6WH Loadout	11/17/14	Gross Alpha/Beta	Gross Alpha	1.314E-14	8.413E-15	9.153E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.495E-14	2.265E-14	2.303E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176100	Plant 6WH Loadout	11/17/14	Gross Alpha/Beta	Gross Alpha	4.649E-15	5.748E-15	8.69E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.331E-14	2.093E-14	2.187E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176101	Plant 6WH Loadout	11/18/14	Gross Alpha/Beta	Gross Alpha	3.728E-15	5.49E-15	8.827E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.552E-14	2.077E-14	2.221E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176102	Plant 6WH Loadout	11/18/14	Gross Alpha/Beta	Gross Alpha	-1.361E-15	3.525E-15	9.668E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-1.72E-16	2.168E-14	2.433E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176103	Plant 6WH Loadout	11/18/14	Gross Alpha/Beta	Gross Alpha	3.85E-15	5.669E-15	9.116E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.344E-14	2.129E-14	2.294E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD176104	Plant 6WH Loadout	11/19/14	Gross Alpha/Beta	Gross Alpha	2.906E-15	5.439E-15	9.384E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.717E-14	2.387E-14	2.361E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176105	Plant 6WH Loadout	11/19/14	Gross Alpha/Beta	Gross Alpha	6.207E-15	6.699E-15	9.585E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.635E-14	2.483E-14	2.412E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176106	Plant 6WH Loadout	11/19/14	Gross Alpha/Beta	Gross Alpha	1.395E-14	8.523E-15	9.005E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.015E-14	2.261E-14	2.266E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176107	Plant 6WH Loadout	11/20/14	Gross Alpha/Beta	Gross Alpha	1.186E-14	8.443E-15	9.795E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.488E-14	2.35E-14	2.465E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176108	Plant 6WH Loadout	11/20/14	Gross Alpha/Beta	Gross Alpha	1.351E-14	8.257E-15	8.724E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.27E-14	2.155E-14	2.195E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176109	Plant 6WH Loadout	11/20/14	Gross Alpha/Beta	Gross Alpha	8.022E-15	7.06E-15	9.191E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.293E-14	2.319E-14	2.313E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176110	Plant 6WH Loadout	11/24/14	Gross Alpha/Beta	Gross Alpha	3.997E-15	5.885E-15	9.463E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.605E-14	2.283E-14	2.381E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176111	Plant 6WH Loadout	11/24/14	Gross Alpha/Beta	Gross Alpha	9.849E-15	7.461E-15	8.969E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.68E-14	2.234E-14	2.257E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176112	Plant 6WH Loadout	11/24/14	Gross Alpha/Beta	Gross Alpha	1.14E-15	5.034E-15	1E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.456E-14	1.374E-14	1.488E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176113	Building 101	11/17/14	Gross Alpha/Beta	Gross Alpha	4.817E-15	7.175E-15	1.183E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.159E-14	1.52E-14	1.76E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176114	Building 101	11/18/14	Gross Alpha/Beta	Gross Alpha	8.687E-15	7.855E-15	1.089E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.35E-14	1.351E-14	1.62E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176115	Building 101	11/19/14	Gross Alpha/Beta	Gross Alpha	4.306E-15	6.413E-15	1.058E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.042E-14	1.483E-14	1.573E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176116	Building 101	11/20/14	Gross Alpha/Beta	Gross Alpha	4.795E-15	7.142E-15	1.178E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.519E-14	1.344E-14	1.752E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176117	Building 101	11/24/14	Gross Alpha/Beta	Gross Alpha	1.74E-16	4.964E-15	1.071E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.496E-14	1.349E-14	1.593E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176118	SLDS Loadout	11/25/14	Gross Alpha/Beta	Gross Alpha	9.247E-15	7.513E-15	9.384E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.384E-14	2.252E-14	2.361E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176119	SLDS Loadout	11/25/14	Gross Alpha/Beta	Gross Alpha	7.526E-15	6.624E-15	8.623E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.252E-14	2.073E-14	2.17E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176120	SLDS Loadout	11/25/14	Gross Alpha/Beta	Gross Alpha	2.894E-15	5.416E-15	9.345E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.432E-14	2.362E-14	2.351E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176121	SLDS Loadout	11/26/14	Gross Alpha/Beta	Gross Alpha	9.247E-15	7.513E-15	9.384E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.45E-14	2.314E-14	2.361E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176122	SLDS Loadout	11/26/14	Gross Alpha/Beta	Gross Alpha	2.019E-14	9.954E-15	9.079E-15	µCi/mL	=		SLDS (General Area)-Perimeter Air
				Gross Beta	4.37E-14	2.298E-14	2.285E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176123	SLDS Loadout	11/26/14	Gross Alpha/Beta	Gross Alpha	9.809E-15	7.431E-15	8.933E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	7.41E-14	2.431E-14	2.248E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176124	Building 101	11/25/14	Gross Alpha/Beta	Gross Alpha	1.252E-14	8.431E-15	9.463E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.336E-14	2.267E-14	2.381E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD176125	Building 101	11/26/14	Gross Alpha/Beta	Gross Alpha	4.014E-15	5.91E-15	9.504E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.819E-14	2.304E-14	2.391E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD176126	SLDS Loadout	12/01/14	Gross Alpha/Beta	Gross Alpha	5.515E-15	7.139E-15	1.147E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.378E-14	1.31E-14	1.687E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176127	SLDS Loadout	12/01/14	Gross Alpha/Beta	Gross Alpha	1.281E-15	5.631E-15	1.119E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.057E-14	1.251E-14	1.646E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176128	SLDS Loadout	12/01/14	Gross Alpha/Beta	Gross Alpha	6.304E-15	7.146E-15	1.101E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.8E-14	1.31E-14	1.62E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176129	SLDS Loadout	12/02/14	Gross Alpha/Beta	Gross Alpha	3.165E-15	6.017E-15	1.063E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.202E-14	1.313E-14	1.564E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176130	SLDS Loadout	12/02/14	Gross Alpha/Beta	Gross Alpha	3.177E-15	6.04E-15	1.067E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.025E-14	1.2E-14	1.57E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176131	SLDS Loadout	12/02/14	Gross Alpha/Beta	Gross Alpha	2.335E-15	6.067E-15	1.133E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.684E-14	1.224E-14	1.667E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD176132	SLDS Loadout	12/03/14	Gross Alpha/Beta	Gross Alpha	1.343E-14	9.442E-15	1.197E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	5.289E-14	1.632E-14	1.76E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176133	SLDS Loadout	12/03/14	Gross Alpha/Beta	Gross Alpha	1.542E-14	9.811E-15	1.181E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	6.192E-14	1.693E-14	1.738E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176134	SLDS Loadout	12/03/14	Gross Alpha/Beta	Gross Alpha	1.7E-14	9.938E-15	1.142E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	6.255E-14	1.659E-14	1.68E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176135	SLDS Loadout	12/04/14	Gross Alpha/Beta	Gross Alpha	1.184E-14	8.325E-15	1.055E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.973E-14	1.465E-14	1.552E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176136	SLDS Loadout	12/04/14	Gross Alpha/Beta	Gross Alpha	7.492E-15	7.607E-15	1.128E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.59E-14	1.504E-14	1.66E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD176137	SLDS Loadout	12/04/14	Gross Alpha/Beta	Gross Alpha	6.705E-15	7.6E-15	1.171E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.971E-14	1.579E-14	1.723E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177866	SLDS Loadout	12/08/14	Gross Alpha/Beta	Gross Alpha	9.942E-15	7.893E-15	1.059E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.246E-14	1.406E-14	1.558E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177867	SLDS Loadout	12/08/14	Gross Alpha/Beta	Gross Alpha	2.158E-15	5.607E-15	1.047E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.181E-14	1.475E-14	1.54E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177868	SLDS Loadout	12/08/14	Gross Alpha/Beta	Gross Alpha	1.335E-15	5.869E-15	1.166E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.292E-14	1.602E-14	1.716E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177869	Building 101	12/01/14	Gross Alpha/Beta	Gross Alpha	1.587E-14	9.54E-15	1.011E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.332E-14	1.497E-14	1.788E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177870	Building 101	12/02/14	Gross Alpha/Beta	Gross Alpha	4.34E-16	4.55E-15	9.572E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.486E-14	1.353E-14	1.692E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177871	Building 101	12/03/14	Gross Alpha/Beta	Gross Alpha	1.05E-14	8.278E-15	1.025E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	5.305E-14	1.69E-14	1.812E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177872	Building 101	12/04/14	Gross Alpha/Beta	Gross Alpha	7.99E-15	7.392E-15	9.898E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.709E-14	1.412E-14	1.75E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177873	Building 101	12/08/14	Gross Alpha/Beta	Gross Alpha	7.791E-15	7.208E-15	9.652E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.247E-14	1.435E-14	1.706E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177874	P6WH Loadout	12/09/14	Gross Alpha/Beta	Gross Alpha	1.468E-14	5.21E-15	3.91E-15	µCi/mL	=		SLDS (General Area)-Perimeter Air
				Gross Beta	7.077E-14	1.448E-14	1.333E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177875	P6WH Loadout	12/09/14	Gross Alpha/Beta	Gross Alpha	1.056E-14	7.635E-15	7.968E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	8.133E-14	2.218E-14	2.351E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177876	P6WH Loadout	12/09/14	Gross Alpha/Beta	Gross Alpha	1.385E-14	8.205E-15	7.468E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	7.56E-14	2.075E-14	2.203E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177877	P6WH Loadout	12/10/14	Gross Alpha/Beta	Gross Alpha	7.612E-15	6.884E-15	8.208E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.296E-14	2.019E-14	2.422E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD177878	P6WH Loadout	12/10/14	Gross Alpha/Beta	Gross Alpha	1.257E-14	7.772E-15	7.296E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.188E-14	1.82E-14	2.153E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177879	P6WH Loadout	12/10/14	Gross Alpha/Beta	Gross Alpha	8.073E-15	6.705E-15	7.617E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	4.308E-14	1.896E-14	2.247E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177880	P6WH Loadout	12/11/14	Gross Alpha/Beta	Gross Alpha	7.483E-15	6.768E-15	8.069E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.183E-14	1.839E-14	2.381E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD177881	P6WH Loadout	12/11/14	Gross Alpha/Beta	Gross Alpha	6.925E-15	6.264E-15	7.468E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.349E-14	1.867E-14	2.203E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177882	P6WH Loadout	12/11/14	Gross Alpha/Beta	Gross Alpha	3.911E-15	5.167E-15	7.381E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.05E-14	1.829E-14	2.178E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177883	P6WH Loadout	12/15/14	Gross Alpha/Beta	Gross Alpha	3.926E-15	5.188E-15	7.41E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.817E-14	1.675E-14	2.186E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD177884	P6WH Loadout	12/15/14	Gross Alpha/Beta	Gross Alpha	1.228E-14	8.385E-15	8.426E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.989E-14	1.973E-14	2.486E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177885	P6WH Loadout	12/15/14	Gross Alpha/Beta	Gross Alpha	9.082E-15	7.008E-15	7.617E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	2.895E-14	1.797E-14	2.247E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177886	P6WH Loadout	12/16/14	Gross Alpha/Beta	Gross Alpha	4.76E-15	5.383E-15	7.186E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.095E-14	1.721E-14	2.12E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177887	P6WH Loadout	12/16/14	Gross Alpha/Beta	Gross Alpha	2.051E-15	4.571E-15	7.741E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.877E-14	1.822E-14	2.284E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177888	P6WH Loadout	12/16/14	Gross Alpha/Beta	Gross Alpha	6.496E-15	6.498E-15	8.173E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.864E-14	1.982E-14	2.411E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177889	P6WH Loadout	12/17/14	Gross Alpha/Beta	Gross Alpha	2.283E-15	5.089E-15	8.617E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.694E-14	1.991E-14	2.542E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177890	P6WH Loadout	12/17/14	Gross Alpha/Beta	Gross Alpha	7.579E-15	6.855E-15	8.173E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.175E-14	1.933E-14	2.411E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177891	P6WH Loadout	12/17/14	Gross Alpha/Beta	Gross Alpha	6.925E-15	6.264E-15	7.468E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	1.831E-14	1.688E-14	2.203E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
SLD177892	Building 101	12/09/14	Gross Alpha/Beta	Gross Alpha	1.113E-14	8.088E-15	9.815E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	8.109E-14	1.74E-14	1.639E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177893	Building 101	12/10/14	Gross Alpha/Beta	Gross Alpha	7.125E-15	7.136E-15	1.02E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.161E-14	1.429E-14	1.704E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177894	Building 101	12/11/14	Gross Alpha/Beta	Gross Alpha	2.756E-15	5.736E-15	1.048E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.032E-14	1.338E-14	1.75E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177895	Building 101	12/15/14	Gross Alpha/Beta	Gross Alpha	1.608E-15	5.239E-15	1.043E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.855E-14	1.198E-14	1.742E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177896	Building 101	12/16/14	Gross Alpha/Beta	Gross Alpha	2.66E-15	5.536E-15	1.011E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.362E-14	1.228E-14	1.689E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177897	Building 101	12/17/14	Gross Alpha/Beta	Gross Alpha	8.345E-15	7.574E-15	1.034E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.64E-14	1.39E-14	1.727E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177898	P6WH Loadout	12/18/14	Gross Alpha/Beta	Gross Alpha	3.486E-15	5.923E-15	1.002E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.863E-14	1.284E-14	1.585E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177899	P6WH Loadout	12/18/14	Gross Alpha/Beta	Gross Alpha	1.462E-14	8.498E-15	8.954E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.727E-14	1.268E-14	1.417E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177900	P6WH Loadout	12/18/14	Gross Alpha/Beta	Gross Alpha	8.422E-15	7.254E-15	9.532E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	4.817E-14	1.43E-14	1.508E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177901	P6WH Loadout	12/22/14	Gross Alpha/Beta	Gross Alpha	3.201E-15	5.439E-15	9.198E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-8.41E-16	8.393E-15	1.455E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air

Table B-1. SLDS Perimeter Air Data Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
SLD177902	P6WH Loadout	12/22/14	Gross Alpha/Beta	Gross Alpha	9.829E-15	7.335E-15	8.954E-15	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	3.85E-14	1.28E-14	1.417E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177903	P6WH Loadout	12/22/14	Gross Alpha/Beta	Gross Alpha	2.335E-15	5.339E-15	9.688E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.304E-14	1.191E-14	1.533E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177904	P6WH Loadout	12/23/14	Gross Alpha/Beta	Gross Alpha	3.386E-15	5.752E-15	9.728E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.114E-14	1.174E-14	1.539E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177905	P6WH Loadout	12/23/14	Gross Alpha/Beta	Gross Alpha	1.208E-15	4.582E-15	9.022E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.146E-14	1.109E-14	1.428E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177906	P6WH Loadout	12/23/14	Gross Alpha/Beta	Gross Alpha	-7.53E-16	3.823E-15	9.38E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.038E-14	1.132E-14	1.484E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177907	P6WH Loadout	12/24/14	Gross Alpha/Beta	Gross Alpha	5.754E-15	7.95E-15	1.264E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	5.088E-14	1.773E-14	2E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177908	P6WH Loadout	12/24/14	Gross Alpha/Beta	Gross Alpha	1.574E-14	1.048E-14	1.2E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
				Gross Beta	5.982E-14	1.793E-14	1.899E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177909	P6WH Loadout	12/24/14	Gross Alpha/Beta	Gross Alpha	5.693E-15	7.866E-15	1.251E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.747E-14	1.622E-14	1.979E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177910	P6WH Loadout	12/29/14	Gross Alpha/Beta	Gross Alpha	6.38E-15	6.654E-15	9.532E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.613E-14	1.096E-14	1.508E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177911	P6WH Loadout	12/29/14	Gross Alpha/Beta	Gross Alpha	7.81E-15	7.346E-15	1.006E-14	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	2.531E-14	1.252E-14	1.592E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177912	P6WH Loadout	12/29/14	Gross Alpha/Beta	Gross Alpha	5.359E-15	6.333E-15	9.532E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.51E-14	1.304E-14	1.508E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177913	P6WH Loadout	12/30/14	Gross Alpha/Beta	Gross Alpha	6.952E-15	6.539E-15	8.954E-15	µCi/mL	U	T04, T05	SLDS (General Area)-Perimeter Air
				Gross Beta	3.297E-14	1.225E-14	1.417E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177914	P6WH Loadout	12/30/14	Gross Alpha/Beta	Gross Alpha	6.039E-15	6.299E-15	9.022E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.436E-14	1.342E-14	1.428E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177915	P6WH Loadout	12/30/14	Gross Alpha/Beta	Gross Alpha	4.374E-15	6.043E-15	9.609E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.802E-14	1.341E-14	1.52E-14	µCi/mL	=		SLDS (General Area)-Perimeter Air
SLD177918	Building 101	12/18/14	Gross Alpha/Beta	Gross Alpha	6.673E-15	8.074E-15	9.834E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	3.018E-14	1.861E-14	2.55E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air
SLD177919	Building 101	12/22/14	Gross Alpha/Beta	Gross Alpha	3.26E-15	7.002E-15	9.747E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	-4.11E-16	1.596E-14	2.527E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD177920	Building 101	12/23/14	Gross Alpha/Beta	Gross Alpha	3.095E-15	6.647E-15	9.253E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	1.3E-14	1.629E-14	2.399E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD177921	Building 101	12/29/14	Gross Alpha/Beta	Gross Alpha	1.039E-15	6.331E-15	9.878E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	4.586E-15	1.661E-14	2.561E-14	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
SLD177922	Building 101	12/30/14	Gross Alpha/Beta	Gross Alpha	3.204E-15	6.879E-15	9.576E-15	µCi/mL	UJ	T06	SLDS (General Area)-Perimeter Air
				Gross Beta	2.939E-14	1.813E-14	2.483E-14	µCi/mL	J	T04	SLDS (General Area)-Perimeter Air

Notes:

µCi/mL microcurie(s) per milliliter

Validation Qualifiers:

= Indicates that the data met all QA/QC requirements, and that the parameter has been positively identified and the associated concentration value is accurate.

J Indicates that the parameter was positively identified; the associated numerical value is the approximate concentration of the parameter in the sample.

U Indicates that the data met all QA/QC requirements, and that the parameter was analyzed for but was not detected above the reported sample quantitation limit.

UJ Indicates that the parameter was not detected above the reported sample quantitation limit and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. However, the reported quantitation limit is approximate.

Validation Reason Codes:

F01 Blanks: Sample data were qualified as a result of the method blank.

T04 Radionuclide Quantitation: Professional judgment was used to qualify the data.

T05 Radionuclide Quantitation: Analytical result is less than the associated MDA, but greater than the counting uncertainty.

T06 Radionuclide Quantitation: Analytical result is less than both the associated counting uncertainty and MDA.

Table B-2. SLDS TLD (External Gamma Radiation) Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
HIS167398	BA-1	04/09/14	Radiological	External gamma radiation	19.5	0	0.1	mrem	J	Y01	HISS Air (TLDs)-Environmental Monitoring
HIS167399	BA-1	07/01/14	Radiological	External gamma radiation	18.7	0	0.1	mrem	J	Y01	HISS Air (TLDs)-Environmental Monitoring
HIS167400	BA-1	10/07/14	Radiological	External gamma radiation	20.3	0	0.1	mrem	J	Y01	HISS Air (TLDs)-Environmental Monitoring
HIS178371	BA-1	01/08/15	Radiological	External gamma radiation	21.8	0	0.1	mrem	J	Y01	HISS Air (TLDs)-Environmental Monitoring
SLD167429	DA-1	04/09/14	Radiological	External gamma radiation	17	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167433	DA-1	07/01/14	Radiological	External gamma radiation	16.3	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167437	DA-1	10/07/14	Radiological	External gamma radiation	18.4	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD178413	DA-1	01/08/15	Radiological	External gamma radiation	19.5	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167429-1	DA-1dup	04/09/14	Radiological	External gamma radiation	16.4	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167433-1	DA-1dup	07/01/14	Radiological	External gamma radiation	17.1	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167437-1	DA-1dup	10/07/14	Radiological	External gamma radiation	17.7	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD178413-1	DA-1dup	01/08/15	Radiological	External gamma radiation	18.9	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167430	DA-2	04/09/14	Radiological	External gamma radiation	18.6	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167434	DA-2	07/01/14	Radiological	External gamma radiation	18.9	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167438	DA-2	10/07/14	Radiological	External gamma radiation	19.3	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD178414	DA-2	01/08/15	Radiological	External gamma radiation	21.1	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167431	DA-3	04/09/14	Radiological	External gamma radiation	17.9	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167435	DA-3	07/01/14	Radiological	External gamma radiation	18.3	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167439	DA-3	10/07/14	Radiological	External gamma radiation	18.9	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD178415	DA-3	01/08/15	Radiological	External gamma radiation	21	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167432	DA-6	04/09/14	Radiological	External gamma radiation	18.2	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167436	DA-6	07/01/14	Radiological	External gamma radiation	19	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD167440	DA-6	10/07/14	Radiological	External gamma radiation	21.3	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring
SLD178416	DA-6	01/08/15	Radiological	External gamma radiation	22	0	0.1	mrem	J	Y01	SLDS Air (TLDs)-Environmental Monitoring

VQ:

J Indicates that the parameter was positively identified; the associated numerical value is the approximate concentration of the parameter in the sample.

Validation Reason Code:

Y01 Not enough supporting documentation to perform validation.

Table B-3. SLDS Radon-222 Results for CY 2014

Sample Name	Station Name	Sample Collection Date	Method Type	Analyte Name	Analytical Result	Measurement Error	DL	Units	VQ	Validation Reason Code	Sampling Event Name
HIS167336	BA-1	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	HISS/Futura (Alpha Tracks)-Environmental Monitoring
HIS178375	BA-1	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	HISS Air (Alpha Tracks)-Environmental Monitoring
SLD167387	DA-1	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178401	DA-1	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167387-1	DA-1dup	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178401-1	DA-1dup	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167388	DA-2	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178402	DA-2	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167389	DA-3	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178403	DA-3	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167390	DA-6	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178404	DA-6	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167391	DI-1	07/01/14	Radiological	Radon-222	0.2	0	0.2	pCi/L	UJ	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178405	DI-1	01/08/15	Radiological	Radon-222	0.2	0	0.2	pCi/L	J	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD167392	DI-2	07/01/14	Radiological	Radon-222	0.8	0	0.2	pCi/L	J	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring
SLD178406	DI-2	01/08/15	Radiological	Radon-222	0.7	0	0.2	pCi/L	J	Y01	SLDS Air (Alpha Tracks)-Environmental Monitoring

VQ:

J Indicates that the parameter was positively identified; the associated numerical value is the approximate concentration of the parameter in the sample.

UJ Indicates that the parameter was not detected above the reported sample quantitation limit and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. However, the reported quantitation limit is approximate.

Validation Reason Code:

Y01 Not enough supporting documentation to perform validation.

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APPENDIX C

STORM-WATER, WASTE-WATER, AND EXCAVATION-WATER DATA

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Table C-1. First Quarter Self-Monitoring Report for Excavation-Water Discharge at the SLDS During CY 2014

Parameter	Batch Number	Date of Discharge	Batch Results[a]		Amount Discharged (Gallons)	Total Activity per Discharge[b] (Ci)	MSD Discharge Limit		SOR
Gross Alpha (raw water)	SLDS-BK518	01/13/14 - 01/14/14 (6WH)	129	pCi/L	35,060	1.7E-05	3,000	pCi/L	0.06
Gross Beta			36	pCi/L		4.8E-06	N/A		
Th-228			<1	pCi/L		6.5E-08	2,000	pCi/L	
Th-230			<1	pCi/L		8.4E-08	1,000	pCi/L	
Th-232			<0.7	pCi/L		4.6E-08	300	pCi/L	
Uranium (KPA)			160	pCi/L		2.1E-05	3,000	pCi/L	
Ra-226[c]			<2	pCi/L		1.4E-07	10	pCi/L	
Ra-228[d,e]			<1	pCi/L		6.5E-08	30	pCi/L	
TSS			22	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK519	02/14/14 (City Property)	<12	pCi/L	1,000	2.2E-08	3,000	pCi/L	0.01
Gross Beta			<12	pCi/L		2.3E-08	N/A		
Th-228			<0.7	pCi/L		1.2E-09	2,000	pCi/L	
Th-230			2	pCi/L		7.6E-09	1,000	pCi/L	
Th-232			<0.4	pCi/L		7.9E-10	300	pCi/L	
Uranium (KPA)			<2.5	pCi/L		4.6E-09	3,000	pCi/L	
Ra-226[c]			<2	pCi/L		3.1E-09	10	pCi/L	
Ra-228[d,e]			<0.7	pCi/L		1.2E-09	30	pCi/L	
TSS			44	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK520	02/19/14 (6WH)	80	pCi/L	12,690	3.8E-06	3,000	pCi/L	0.02
Gross Beta			60	pCi/L		2.9E-06	N/A		
Th-228			<0.4	pCi/L		1.0E-08	2,000	pCi/L	
Th-230			1	pCi/L		5.8E-08	1,000	pCi/L	
Th-232			<0.2	pCi/L		4.8E-09	300	pCi/L	
Uranium (KPA)			51	pCi/L		2.4E-06	3,000	pCi/L	
Ra-226[c]			<2	pCi/L		5.3E-08	10	pCi/L	
Ra-228[d,e]			<0.4	pCi/L		1.0E-08	30	pCi/L	
TSS			37	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK521	03/13/14 - 03/31/14 (City Property)	<11.6	pCi/L	37,750	8.3E-07	3,000	pCi/L	0.01
Gross Beta			<12	pCi/L		8.5E-07	N/A		
Th-228			<0.6	pCi/L		4.5E-08	2,000	pCi/L	
Th-230			8	pCi/L		1.1E-06	1,000	pCi/L	
Th-232			<0.5	pCi/L		3.2E-08	300	pCi/L	
Uranium (KPA)			<2.5	pCi/L		1.8E-07	3,000	pCi/L	
Ra-226[c]			<1.8	pCi/L		1.3E-07	10	pCi/L	
Ra-228[d,e]			<0.6	pCi/L		4.5E-08	30	pCi/L	
TSS			194	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK522	03/17/2014 (Plant 6WH)	114	pCi/L	28,930	1.2E-05	3,000	pCi/L	0.03
Gross Beta			40	pCi/L		4.4E-06	N/A		
Th-228			<0.5	pCi/L		2.6E-08	2,000	pCi/L	
Th-230			2	pCi/L		2.7E-07	1,000	pCi/L	
Th-232			<0.5	pCi/L		2.6E-08	300	pCi/L	
Uranium (KPA)			63	pCi/L		6.9E-06	3,000	pCi/L	
Ra-226[c]			<1.5	pCi/L		7.9E-08	10	pCi/L	
Ra-228[d,e]			<0.5	pCi/L		2.6E-08	30	pCi/L	
TSS			10	mg/L		-	-		

Total Activity Discharged in First Quarter of CY 2014 (Ci)

Th-228	1.5E-07
Th-230	1.5E-06
Th-232	1.1E-07
Uranium (KPA)	3.1E-05
Ra-226	4.0E-07
Ra-228[d]	1.5E-07

Total Activity Discharged through 03/31/14 (Ci)

Th-228	1.5E-07
Th-230	1.5E-06
Th-232	1.1E-07
Uranium (KPA)	3.1E-05
Ra-226	4.0E-07
Ra-228[d]	1.5E-07

Total Volume Discharged in First Quarter of CY 2014 (gallons)

Gallons	115,430

Total Volume Discharged through 03/31/14 (gallons)

Gallons	115,430

- No data/No limit

[a] Non-detect sample results are converted to half the detection limit.

[b] The weighted average was used to calculate the total activity.

[c] 10 *CFR* 20 limit is 600 pCi/L for Ra-226.

[d] Ra-228 assumed to be in equilibrium with Th-228.

[e] 10 *CFR* 20 limit is 600 pCi/L for Ra-228.

Notes:

Ci - curie(s)

mg/L - milligram(s) per liter

N/A - Not applicable

pCi/L - picocurie(s) per liter

SOR - sum of ratios

TSS - total suspended solid(s)

Table C-1. Second Quarter Self-Monitoring Report for Excavation-Water Discharge at the SLDS During CY 2014

Parameter	Batch Number	Date of Discharge	Batch Results[a]		Amount Discharged (Gallons)	Total Activity per Discharge[b] (Ci)	MSD Discharge Limit		SOR
Gross Alpha (raw water)	SLDS-BK523[f]	04/01/14 - 04/16/14 (City Property)	<11	pCi/L	879,332	1.8E-05	3,000	pCi/L	0.01
Gross Beta			<12.2	pCi/L		2.0E-05	N/A		
Th-228			<0.6	pCi/L		1.0E-06	2,000	pCi/L	
Th-230			1.6	pCi/L		5.2E-06	1,000	pCi/L	
Th-232			<0.4	pCi/L		7.0E-07	300	pCi/L	
Uranium (KPA)			5	pCi/L		1.6E-05	3,000	pCi/L	
Ra-226[c]			<2.6	pCi/L		4.4E-06	10	pCi/L	
Ra-228[d,e]			<0.6	pCi/L		1.0E-06	30	pCi/L	
TSS			259	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK524	04/03/14 - 04/29/14 (Plant 6WH)	95	pCi/L	179,330	6.4E-05	3,000	pCi/L	0.04
Gross Beta			35	pCi/L		2.4E-05	N/A		
Th-228			<0.8	pCi/L		2.7E-07	2,000	pCi/L	
Th-230			3	pCi/L		2.2E-06	1,000	pCi/L	
Th-232			<0.5	pCi/L		1.6E-07	300	pCi/L	
Uranium (KPA)			107	pCi/L		7.3E-05	3,000	pCi/L	
Ra-226[c]			<3.8	pCi/L		1.3E-06	10	pCi/L	
Ra-228[d,e]			<0.8	pCi/L		2.7E-07	30	pCi/L	
TSS			35	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK525	05/12/14 - 05/15/14 (Plant 6WH)	87	pCi/L	53,750	1.8E-05	3,000	pCi/L	0.04
Gross Beta			19	pCi/L		3.9E-06	N/A		
Th-228			<0.5	pCi/L		5.5E-08	2,000	pCi/L	
Th-230			3	pCi/L		6.7E-07	1,000	pCi/L	
Th-232			<0.5	pCi/L		5.0E-08	300	pCi/L	
Uranium (KPA)			94	pCi/L		1.9E-05	3,000	pCi/L	
Ra-226[c]			<2.2	pCi/L		2.2E-07	10	pCi/L	
Ra-228[d,e]			<0.5	pCi/L		5.5E-08	30	pCi/L	
TSS			32	mg/L		-	-		
Gross Alpha (raw water)	SLDS-BK526	06/02/14 - 06/30/14 (Plant 6WH)	85	pCi/L	204,788	6.6E-05	3,000	pCi/L	0.05
Gross Beta			48	pCi/L		3.7E-05	N/A		
Th-228			<0.9	pCi/L		3.4E-07	2,000	pCi/L	
Th-230			10	pCi/L		7.4E-06	1,000	pCi/L	
Th-232			<0.8	pCi/L		3.1E-07	300	pCi/L	
Uranium (KPA)			101	pCi/L		7.8E-05	3,000	pCi/L	
Ra-226[c]			<2.9	pCi/L		1.1E-06	10	pCi/L	
Ra-228[d,e]			<0.9	pCi/L		3.4E-07	30	pCi/L	
TSS			95	mg/L		-	-		

Total Activity Discharged in Second Quarter of CY 2014 (Ci)	
Th-228	1.7E-06
Th-230	1.6E-05
Th-232	1.2E-06
Uranium (KPA)	1.9E-04
Ra-226	7.0E-06
Ra-228[d]	1.7E-06

Total Activity Discharged through 06/30/14 (Ci)	
Th-228	1.9E-06
Th-230	1.7E-05
Th-232	1.3E-06
Uranium (KPA)	2.2E-04
Ra-226	7.4E-06
Ra-228[d]	1.9E-06

Total Volume Discharged in Second Quarter of CY 2014 (gallons)	
Gallons	1,317,200

Total Volume Discharged through 06/30/14 (gallons)	
Gallons	1,432,630

- No data/No limit

[a] Non-detect sample results are converted to half the detection limit.

[b] The weighted average was used to calculate the total activity.

[c] 10 *CFR* 20 limit is 600 pCi/L for Ra-226.

[d] Ra-228 assumed to be in equilibrium with Th-228.

[e] 10 *CFR* 20 limit is 600 pCi/L for Ra-228.

[f] On April 10, 2014, the USACE received MSD approval to temporarily increase the daily discharge to 350,000 gallons per day using the 150 micron filter.

Notes:

Ci - curie(s)

mg/L - milligram(s) per liter

N/A - Not applicable

pCi/L - picocurie(s) per liter

SOR - sum of ratios

TSS - total suspended solid(s)

Table C-1. Third Quarter Self-Monitoring Report for Excavation-Water Discharge at the SLDS During CY 2014

Parameter	Batch Number	Date of Discharge	Batch Results[a]		Amount Discharged (Gallons)	Total Activity per Discharge[b] (Ci)	MSD Discharge Limit		SOR
Gross Alpha (raw water)	SLDS-BK527	08/05/14 - 08/26/14 (Plant 6WH)	100	pCi/L	108,780	4.1E-05	3,000	pCi/L	0.05
Gross Beta			69	pCi/L		2.8E-05	N/A		
Th-228			<0.8	pCi/L		1.5E-07	2,000	pCi/L	
Th-230			4	pCi/L		1.8E-06	1,000	pCi/L	
Th-232			<0.4	pCi/L		7.4E-08	300	pCi/L	
Uranium (KPA)			128	pCi/L		5.3E-05	3,000	pCi/L	
Ra-226[c]			<2.8	pCi/L		5.7E-07	10	pCi/L	
Ra-228[d,e]			<0.8	pCi/L		1.5E-07	30	pCi/L	
TSS			87	mg/L			-		
Gross Alpha (raw water)	SLDS-BK528	09/02/14 - 09/17/14 (Plant 6WH)	65	pCi/L	203,920	5.0E-05	3,000	pCi/L	0.03
Gross Beta			37	pCi/L		2.9E-05	N/A		
Th-228			<0.7	pCi/L		2.8E-07	2,000	pCi/L	
Th-230			3.8	pCi/L		2.9E-06	1,000	pCi/L	
Th-232			<0.6	pCi/L		2.4E-07	300	pCi/L	
Uranium (KPA)			71	pCi/L		5.5E-05	3,000	pCi/L	
Ra-226[c]			<3.2	pCi/L		1.2E-06	10	pCi/L	
Ra-228[d,e]			<0.7	pCi/L		2.8E-07	30	pCi/L	
TSS			82	mg/L			-		

Total Activity Discharged in Third Quarter of CY 2014 (Ci)

Th-228	4.3E-07
Th-230	4.7E-06
Th-232	3.2E-07
Uranium (KPA)	1.1E-04
Ra-226	1.8E-06
Ra-228[d]	4.3E-07

Total Activity Discharged through 09/30/14 (Ci)

Th-228	2.3E-06
Th-230	2.2E-05
Th-232	1.7E-06
Uranium (KPA)	3.2E-04
Ra-226	9.2E-06
Ra-228[d]	2.3E-06

Total Volume Discharged in Third Quarter of CY 2014 (gallons)

Gallons	312,700

Total Volume Discharged through 09/30/14 (gallons)

Gallons	1,745,330

- No data/No limit

[a] Non-detect sample results are converted to half the detection limit.

[b] The weighted average was used to calculate the total activity.

[c] 10 *CFR* 20 limit is 600 pCi/L for Ra-226.

[d] Ra-228 assumed to be in equilibrium with Th-228.

[e] 10 *CFR* 20 limit is 600 pCi/L for Ra-228.

Notes:

Ci - curie(s)
mg/L - milligram(s) per liter
N/A - Not applicable
pCi/L - picocurie(s) per liter
SOR - sum of ratios
TSS - total suspended solid(s)

Table C-1. Fourth Quarter Self-Monitoring Report for Excavation-Water Discharge at the SLDS During CY 2014

Parameter	Batch Number	Date of Discharge	Batch Results[a]		Amount Discharged (Gallons)	Total Activity per Discharge[b] (Ci)	MSD Discharge Limit		SOR
Gross Alpha (raw water)	SLDS-BK529	10/02/14 - 10/29/14 (Plant 6WH)	150	pCi/L	223,230	1.3E-04	3,000	pCi/L	0.07
Gross Beta			88	pCi/L		7.4E-05	N/A		
Th-228			<0.5	pCi/L		2.0E-07	2,000	pCi/L	
Th-230			1	pCi/L		6.8E-07	1,000	pCi/L	
Th-232			<0.4	pCi/L		1.7E-07	300	pCi/L	
Uranium (KPA)			189	pCi/L		1.6E-04	3,000	pCi/L	
Ra-226[c]			<1.6	pCi/L		7.0E-07	10	pCi/L	
Ra-228[d,e]			<0.5	pCi/L		2.0E-07	30	pCi/L	
TSS			33	mg/L			-		
Gross Alpha (raw water)	SLDS-BK530	11/05/14 - 11/24/14 (Plant 6WH)	106	pCi/L	62,300	2.5E-05	3,000	pCi/L	0.04
Gross Beta			72	pCi/L		1.7E-05	N/A		
Th-228			<0.7	pCi/L		8.0E-08	2,000	pCi/L	
Th-230			1	pCi/L		2.1E-07	1,000	pCi/L	
Th-232			<0.2	pCi/L		2.9E-08	300	pCi/L	
Uranium (KPA)			113	pCi/L		2.7E-05	3,000	pCi/L	
Ra-226[c]			<1.5	pCi/L		1.8E-07	10	pCi/L	
Ra-228[d,e]			<0.7	pCi/L		8.0E-08	30	pCi/L	
TSS			21	mg/L			-		
Gross Alpha (raw water)	SLDS-BK531	12/02/14 - 12/23/14 (Plant 6WH)	161	pCi/L	157,860	9.6E-05	3,000	pCi/L	0.07
Gross Beta			101	pCi/L		6.0E-05	N/A		
Th-228			<0.4	pCi/L		1.3E-07	2,000	pCi/L	
Th-230			1	pCi/L		3.6E-07	1,000	pCi/L	
Th-232			<0.1	pCi/L		4.2E-08	300	pCi/L	
Uranium (KPA)			202	pCi/L		1.2E-04	3,000	pCi/L	
Ra-226[c]			<1.2	pCi/L		3.6E-07	10	pCi/L	
Ra-228[d,e]			<0.4	pCi/L		1.3E-07	30	pCi/L	
TSS			28	mg/L			-		

Total Activity Discharged in Fourth Quarter of CY 2014 (Ci)		**Total Activity Discharged through 12/31/14 (Ci)**	
Th-228	4.1E-07	**Th-228**	2.7E-06
Th-230	1.2E-06	**Th-230**	2.3E-05
Th-232	2.4E-07	**Th-232**	1.9E-06
Uranium (KPA)	3.1E-04	**Uranium (KPA)**	6.3E-04
Ra-226	1.2E-06	**Ra-226**	1.0E-05
Ra-228[d]	4.1E-07	**Ra-228[d]**	2.7E-06

Total Volume Discharged in Fourth Quarter of CY 2014 (gallons)		**Total Volume Discharged through 12/31/14 (gallons)**	
Gallons	443,390	**Gallons**	2,188,720

- No data/No limit

[a] Non-detect sample results are converted to half the detection limit.

[b] The weighted average was used to calculate the total activity.

[c] 10 *CFR* 20 limit is 600 pCi/L for Ra-226.

[d] Ra-228 assumed to be in equilibrium with Th-228.

[e] 10 *CFR* 20 limit is 600 pCi/L for Ra-228.

Notes:

Ci - curie(s)

mg/L - milligram(s) per liter

N/A - Not applicable

pCi/L - picocurie(s) per liter

SOR - sum of ratios

TSS - total suspended solid(s)

APPENDIX D

GROUND-WATER FIELD PARAMETER DATA FOR CY 2014 AND ANALYTICAL DATA RESULTS FOR CY 2014

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Table D-1. Ground-Water Monitoring First Quarter 2014 - Field Parameters for the SLDS

Station ID	Date Sampled	Purge Rate (mL/min)	Volume Removed (mL)	pH	Conductivity (µS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft) at Sampling Time	Depth to Water (ft) (BTOC) 02/21/14
B16W06D	---	---	---	---	---	---	---	---	---	---	41.40
B16W06S	---	---	---	---	---	---	---	---	---	---	39.63
B16W07D	---	---	---	---	---	---	---	---	---	---	44.33
B16W08D	---	---	---	---	---	---	---	---	---	---	43.92
B16W08S	---	---	---	---	---	---	---	---	---	---	36.85
B16W09D	---	---	---	---	---	---	---	---	---	---	40.41
B16W12S	---	---	---	---	---	---	---	---	---	---	17.29
DW14	---	---	---	---	---	---	---	---	---	---	36.76
DW15	---	---	---	---	---	---	---	---	---	---	45.97
DW16	---	---	---	---	---	---	---	---	---	---	40.00
DW17	---	---	---	---	---	---	---	---	---	---	*
DW18	---	---	---	---	---	---	---	---	---	---	45.87
DW19	---	---	---	---	---	---	---	---	---	---	42.35
DW21	---	---	---	---	---	---	---	---	---	---	12.78
DW22R	---	---	---	---	---	---	---	---	---	---	**

No ground-water samples were collected at the SLDS during the first quarter of 2014.

Table D-1. Ground-Water Monitoring Second Quarter 2014 - Field Parameters for the SLDS

Station ID	Date Sampled	Purge Rate (mL/min)	Volume Removed (mL)	pH	Conductivity (µS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft) at Sampling Time	Depth to Water (ft) (BTOC) 05/20/14
B16W06D	---	---	---	---	---	---	---	---	---	---	21.75
B16W06S	05/20/14	100	1,500	6.5	0.216	17	7.13	12.4	160	24.64	24.64
B16W07D	---	---	---	---	---	---	---	---	---	---	24.14
B16W08D	05/20/14	280	4,200	6.6	0.192	18	2.51	12.2	174	24.68	24.68
B16W08S	---	---	---	---	---	---	---	---	---	---	24.10
B16W09D	05/20/14	290	4,350	6.48	0.192	11	2.7	12.2	105	20.22	20.22
B16W12S	---	---	---	---	---	---	---	---	---	---	14.60
DW14	05/20/14	150	1,800	6.69	0.133	47	4.07	12.7	124	17.90	17.90
DW15	---	---	---	---	---	---	---	---	---	---	25.80
DW16	---	---	---	---	---	---	---	---	---	---	21.21
DW17	---	---	---	---	---	---	---	---	---	---	19.79
DW18	---	---	---	---	---	---	---	---	---	---	25.61
DW19	---	---	---	---	---	---	---	---	---	---	22.11
DW21	05/20/14	53	477	6.26	0.109	14	7.59	11.4	129	10.88	10.85
DW22R	---	---	---	---	---	---	---	---	---	---	**

Table D-1. Ground-Water Monitoring Third Quarter 2014 - Field Parameters for the SLDS

Station ID	Date Sampled	Purge Rate (mL/min)	Volume Removed (mL)	pH	Conductivity (µS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft) at Sampling Time	Depth to Water (ft) (BTOC) 09/03/14
B16W06D	---	---	---	---	---	---	---	---	---	---	27.00
B16W06S	---	---	---	---	---	---	---	---	---	---	30.06
B16W07D	09/03/14	270	1,620	7.03	0.216	135	5.79	22.2	-108	30.12	30.12
B16W08D	---	---	---	---	---	---	---	---	---	---	29.97
B16W08S	---	---	---	---	---	---	---	---	---	---	29.15
B16W09D	---	---	---	---	---	---	---	---	---	---	27.13
B16W12S	---	---	---	---	---	---	---	---	---	---	14.60
DW14	---	---	---	---	---	---	---	---	---	---	23.64
DW15	---	---	---	---	---	---	---	---	---	---	32.98
DW16	---	---	---	---	---	---	---	---	---	---	28.1
DW17	09/03/14	---	3,770	*	*	*	*	*	*	*	25.78
DW18	---	---	---	---	---	---	---	---	---	---	31.43
DW19	09/03/14	---	3,000	6.95	0.132	470	1.31	22.9	248	28.48	28.48
DW21	---	---	---	---	---	---	---	---	---	---	10.82
DW22R	---	---	---	---	---	---	---	---	---	---	**

Table D-1. Ground-Water Monitoring Fourth Quarter 2014 - Field Parameters for the SLDS

Station ID	Date Sampled	Purge Rate (mL/min)	Volume Removed (mL)	pH	Conductivity (µS/cm)	Turbidity (NTU)	DO (mg/L)	Temp (°C)	ORP (mV)	Depth to Water (ft) at Sampling Time	Depth to Water (ft) (BTOC) 12/08/14
B16W06D	12/08/14	200	3,000	6.61	0.755	29.2	0.83	16.3	-123	32.98	32.98
B16W06S	---	---	---	---	---	---	---	---	---	---	33.33
B16W07D	---	---	---	---	---	---	---	---	---	---	35.41
B16W08D	---	---	---	---	---	---	---	---	---	---	35.50
B16W08S	12/08/14	70	1,050	6.68	0.189	13.6	1.86	15	107	31.4	30.79
B16W09D	---	---	---	---	---	---	---	---	---	---	31.29
B16W12S	---	---	---	---	---	---	---	---	---	---	14.91
DW14	---	---	---	---	---	---	---	---	---	---	26.94
DW15	---	---	---	---	---	---	---	---	---	---	36.97
DW16	---	---	---	---	---	---	---	---	---	---	29.51
DW17	---	---	---	---	---	---	---	---	---	---	31.01
DW18	12/08/14	300	5,400	6.88	0.174	49.3	1.08	16.1	-157	36.75	36.75
DW19	---	---	---	---	---	---	---	---	---	---	33.31
DW21	---	---	---	---	---	---	---	---	---	---	10.81
DW22R	---	---	---	---	---	---	---	---	---	---	**

* Measurement could not be taken due to well problem (silting) in DW17.

** Well was not accessible

--- monitoring well was not sampled during this event.

µS/cm - microSiemen(s) per centimeter

BTOC - below top of casing

°C - degrees Celsius

DO - dissolved oxygen

mL - milliliter(s)

mL/min - milliliter(s) per minute

mV - millivolt(s)

NTU - nephelometric turbidity unit

ORP - oxidation reduction potential

Table D-2. CY 2014 Ground-Water Sampling Data for the SLDS

Site: SLDS											
Sample Name	**Station Name**	**Sample Collect Date**	**Analytical Method**	**Analyte**	**Analytical Result**	**Measurement Error**	**DL**	**Units**	**VQ**	**Validation Reason Codes**	**Filtered**
SLD177501	B16W06D	12/08/14	SW846 6020	Arsenic	2		1	µg/L	=		No
SLD177501	B16W06D	12/08/14	SW846 6020	Cadmium	0.5		0.5	µg/L	U		No
SLD177501	B16W06D	12/08/14	ML-006	Radium-226	2.35	1.1	0.918	pCi/L	=		No
SLD177501	B16W06D	12/08/14	ML-005	Thorium-228	0.239	0.229	0.293	pCi/L	U	T04, T05	No
SLD177501	B16W06D	12/08/14	ML-005	Thorium-230	0.199	0.214	0.293	pCi/L	UJ	T06	No
SLD177501	B16W06D	12/08/14	ML-005	Thorium-232	-0.000005528	0.159	0.369	pCi/L	UJ	T06	No
SLD177501	B16W06D	12/08/14	ML-015	Uranium-234	0.454	0.266	0.223	pCi/L	J	T04	No
SLD177501	B16W06D	12/08/14	ML-015	Uranium-235	0.0373	0.075	0.101	pCi/L	UJ	T06	No
SLD177501	B16W06D	12/08/14	ML-015	Uranium-238	0.633	0.317	0.222	pCi/L	J	F01, T04	No
SLD173564	B16W06S	05/20/14	SW846 6020	Arsenic	110		1.2	µg/L	=		No
SLD173564	B16W06S	05/20/14	SW846 6020	Cadmium	0.1		0.1	µg/L	U		No
SLD173564	B16W06S	05/20/14	ML-006	Radium-226	0.338	0.872	1.89	pCi/L	UJ	T06	No
SLD173564	B16W06S	05/20/14	ML-005	Thorium-228	0.179	0.313	0.601	pCi/L	UJ	T06	No
SLD173564	B16W06S	05/20/14	ML-005	Thorium-230	0	0.363	0.429	pCi/L	U	T04, T05	No
SLD173564	B16W06S	05/20/14	ML-005	Thorium-232	0	0	0.194	pCi/L	U		No
SLD173564	B16W06S	05/20/14	ML-015	Uranium-234	0.112	0.225	0.447	pCi/L	UJ	T06	No
SLD173564	B16W06S	05/20/14	ML-015	Uranium-235	0.092	0.185	0.249	pCi/L	UJ	T06	No
SLD173564	B16W06S	05/20/14	ML-015	Uranium-238	0	0	0.201	pCi/L	U		No
SLD175882	B16W07D	09/03/14	SW846 6020	Arsenic	36		1.2	µg/L	=		No
SLD175882	B16W07D	09/03/14	SW846 6020	Cadmium	0.29		0.1	µg/L	=		No
SLD175882	B16W07D	09/03/14	ML-006	Radium-226	1.66	1.51	2.14	pCi/L	U	T04, T05	No
SLD175882	B16W07D	09/03/14	ML-005	Thorium-228	0.202	0.242	0.347	pCi/L	UJ	T06	No
SLD175882	B16W07D	09/03/14	ML-005	Thorium-230	0.116	0.218	0.426	pCi/L	UJ	T06	No
SLD175882	B16W07D	09/03/14	ML-005	Thorium-232	-0.0289	0.058	0.347	pCi/L	UJ	T06	No
SLD175882	B16W07D	09/03/14	ML-015	Uranium-234	-0.0302	0.0606	0.362	pCi/L	UJ	T06	No
SLD175882	B16W07D	09/03/14	ML-015	Uranium-235	0	0	0.202	pCi/L	U		No
SLD175882	B16W07D	09/03/14	ML-015	Uranium-238	0.0601	0.121	0.163	pCi/L	UJ	T06	No
SLD173565	B16W08D	05/20/14	SW846 6020	Arsenic	20		1.2	µg/L	=		No
SLD173565	B16W08D	05/20/14	SW846 6020	Cadmium	0.66		0.1	µg/L	=		No
SLD173565	B16W08D	05/20/14	ML-006	Radium-226	0.239	0.756	1.76	pCi/L	UJ	T06	No
SLD173565	B16W08D	05/20/14	ML-005	Thorium-228	0.619	0.454	0.437	pCi/L	J	T04	No
SLD173565	B16W08D	05/20/14	ML-005	Thorium-230	0.365	0.331	0.198	pCi/L	J	F01, T04	No
SLD173565	B16W08D	05/20/14	ML-005	Thorium-232	0	0	0.197	pCi/L	U		No
SLD173565	B16W08D	05/20/14	ML-015	Uranium-234	0.205	0.298	0.491	pCi/L	UJ	T06	No
SLD173565	B16W08D	05/20/14	ML-015	Uranium-235	0.0505	0.226	0.605	pCi/L	UJ	T06	No
SLD173565	B16W08D	05/20/14	ML-015	Uranium-238	6.52E-01	0.48	0.221	pCi/L	J	T04	No

Table D-2. CY 2014 Ground-Water Sampling Data for the SLDS

Site: SLDS											
Sample Name	**Station Name**	**Sample Collect Date**	**Analytical Method**	**Analyte**	**Analytical Result**	**Measurement Error**	**DL**	**Units**	**VQ**	**Validation Reason Codes**	**Filtered**
SLD177505	B16W08S	12/08/14	SW846 6020	Arsenic	1		1	µg/L	U		No
SLD177505	B16W08S	12/08/14	SW846 6020	Cadmium	0.5		0.5	µg/L	U		No
SLD177505	B16W08S	12/08/14	ML-006	Radium-226	0.188	0.44	0.915	pCi/L	UJ	T06	No
SLD177505	B16W08S	12/08/14	ML-005	Thorium-228	0.169	0.18	0.248	pCi/L	UJ	T06	No
SLD177505	B16W08S	12/08/14	ML-005	Thorium-230	0.337	0.22	0.0914	pCi/L	J	F01, T04	No
SLD177505	B16W08S	12/08/14	ML-005	Thorium-232	-0.0337	0.0676	0.248	pCi/L	UJ	T06	No
SLD177505	B16W08S	12/08/14	ML-015	Uranium-234	4.19	1.14	0.235	pCi/L	=		No
SLD177505	B16W08S	12/08/14	ML-015	Uranium-235	0.197	0.181	0.107	pCi/L	J	T04	No
SLD177505	B16W08S	12/08/14	ML-015	Uranium-238	2.67	0.803	0.0862	pCi/L	=		No
SLD173566	B16W09D	05/20/14	SW846 6020	Arsenic	9.1		1.2	µg/L	=		No
SLD173566	B16W09D	05/20/14	SW846 6020	Cadmium	0.53		0.1	µg/L	=		No
SLD173566	B16W09D	05/20/14	ML-006	Radium-226	1.76	1.36	1.62	pCi/L	J	T04	No
SLD173566	B16W09D	05/20/14	ML-005	Thorium-228	0.403	0.34	0.372	pCi/L	J	T04	No
SLD173566	B16W09D	05/20/14	ML-005	Thorium-230	0.621	0.404	0.168	pCi/L	J	F01, T04	No
SLD173566	B16W09D	05/20/14	ML-005	Thorium-232	0	0	0.168	pCi/L	U		No
SLD173566	B16W09D	05/20/14	ML-015	Uranium-234	0.0376	0.168	0.451	pCi/L	UJ	T06	No
SLD173566	B16W09D	05/20/14	ML-015	Uranium-235	0	0	0.251	pCi/L	U		No
SLD173566	B16W09D	05/20/14	ML-015	Uranium-238	0	0	0.203	pCi/L	U		No
SLD173567	DW14	05/20/14	SW846 6020	Arsenic	100		1.2	µg/L	=		No
SLD173567	DW14	05/20/14	SW846 6020	Cadmium	3.1		0.1	µg/L	=		No
SLD173567	DW14	05/20/14	ML-006	Radium-226	0.253	0.801	1.86	pCi/L	UJ	T06	No
SLD173567	DW14	05/20/14	ML-005	Thorium-228	0.234	0.339	0.56	pCi/L	UJ	T06	No
SLD173567	DW14	05/20/14	ML-005	Thorium-230	0.468	0.426	0.253	pCi/L	J	F01, T04	No
SLD173567	DW14	05/20/14	ML-005	Thorium-232	0	0	0.253	pCi/L	U		No
SLD173567	DW14	05/20/14	ML-015	Uranium-234	0.24	0.287	0.412	pCi/L	UJ	T06	No
SLD173567	DW14	05/20/14	ML-015	Uranium-235	0	0	0.23	pCi/L	U		No
SLD173567	DW14	05/20/14	ML-015	Uranium-238	0.171	0.249	0.41	pCi/L	UJ	T06	No
SLD175883	DW17	09/03/14	SW846 6020	Arsenic	11		1.2	µg/L	=		No
SLD175883	DW17	09/03/14	SW846 6020	Cadmium	73		0.1	µg/L	=		No
SLD175883	DW17	09/03/14	ML-006	Radium-226	3.77	2.04	1.56	pCi/L	J	F01, T04	No
SLD175883	DW17	09/03/14	ML-005	Thorium-228	1.95	0.91	0.574	pCi/L	=		No
SLD175883	DW17	09/03/14	ML-005	Thorium-230	3.9	1.41	0.575	pCi/L	=		No
SLD175883	DW17	09/03/14	ML-005	Thorium-232	0.818	0.553	0.467	pCi/L	J	T04	No
SLD175883	DW17	09/03/14	ML-015	Uranium-234	4.8	1.99	0.361	pCi/L	=		No
SLD175883	DW17	09/03/14	ML-015	Uranium-235	0.329	0.472	0.446	pCi/L	UJ	T06	No
SLD175883	DW17	09/03/14	ML-015	Uranium-238	4.65	1.94	0.36	pCi/L	=		No

Table D-2. CY 2014 Ground-Water Sampling Data for the SLDS

Site: SLDS											
Sample Name	**Station Name**	**Sample Collect Date**	**Analytical Method**	**Analyte**	**Analytical Result**	**Measurement Error**	**DL**	**Units**	**VQ**	**Validation Reason Codes**	**Filtered**
SLD177503	DW18	12/08/14	SW846 6020	Arsenic	60		1	µg/L	=		No
SLD177503	DW18	12/08/14	SW846 6020	Cadmium	0.5		0.5	µg/L	U		No
SLD177503	DW18	12/08/14	ML-006	Radium-226	0.927	0.62	0.279	pCi/L	J	T04	No
SLD177503	DW18	12/08/14	ML-005	Thorium-228	0.154	0.14	0.0834	pCi/L	J	T04	No
SLD177503	DW18	12/08/14	ML-005	Thorium-230	0.247	0.179	0.0835	pCi/L	J	F01, T04	No
SLD177503	DW18	12/08/14	ML-005	Thorium-232	-0.0308	0.0617	0.226	pCi/L	UJ	T06	No
SLD177503	DW18	12/08/14	ML-015	Uranium-234	0.396	0.261	0.243	pCi/L	J	T04	No
SLD177503	DW18	12/08/14	ML-015	Uranium-235	0.0815	0.117	0.11	pCi/L	UJ	T06	No
SLD177503	DW18	12/08/14	ML-015	Uranium-238	0.329	0.219	0.0891	pCi/L	J	F01, T04	No
SLD175884	DW19	09/03/14	SW846 6020	Arsenic	9		1.2	µg/L	=		No
SLD175884	DW19	09/03/14	SW846 6020	Cadmium	13		0.1	µg/L	=		No
SLD175884	DW19	09/03/14	ML-006	Radium-226	0.109	0.486	1.3	pCi/L	UJ	T06	No
SLD175884	DW19	09/03/14	ML-005	Thorium-228	0.548	0.437	0.542	pCi/L	J	T04	No
SLD175884	DW19	09/03/14	ML-005	Thorium-230	0.226	0.27	0.387	pCi/L	UJ	T06	No
SLD175884	DW19	09/03/14	ML-005	Thorium-232	0.129	0.184	0.175	pCi/L	UJ	T06	No
SLD175884	DW19	09/03/14	ML-015	Uranium-234	15.3	3.89	0.488	pCi/L	=		No
SLD175884	DW19	09/03/14	ML-015	Uranium-235	0.603	0.508	0.272	pCi/L	J	T04	No
SLD175884	DW19	09/03/14	ML-015	Uranium-238	14.4	3.69	0.22	pCi/L	=		No
SLD173568	DW21	05/20/14	ML-006	Radium-226	-0.58	0.82	2.53	pCi/L	UJ	T06	No
SLD173568	DW21	05/20/14	ML-005	Thorium-228	0.121	0.243	0.484	pCi/L	UJ	T06	No
SLD173568	DW21	05/20/14	ML-005	Thorium-230	0.484	0.403	0.219	pCi/L	J	F01, T04	No
SLD173568	DW21	05/20/14	ML-005	Thorium-232	0	0	0.218	pCi/L	U		No
SLD173568	DW21	05/20/14	ML-015	Uranium-234	0.0948	0.191	0.257	pCi/L	UJ	T06	No
SLD173568	DW21	05/20/14	ML-015	Uranium-235	0.234	0.335	0.317	pCi/L	UJ	T06	No
SLD173568	DW21	05/20/14	ML-015	Uranium-238	-0.0472	0.095	0.566	pCi/L	UJ	T06	No

VQs:

= Indicates that the data met all QA/QC requirements, and that the parameter has been positively identified and the associated concentration value is accurate.

J Indicates that the parameter was positively identified; the associated numerical value is the approximate concentration of the parameter in the sample.

U Indicates that the data met all QA/QC requirements, and that the parameter was analyzed for but was not detected above the reported sample quantitation limit.

UJ Indicates that the parameter was not detected above the reported sample quantitation limit and may or may not represent the actual limit of quantitation necessary to accurately precisely measure the analyte in the sample. However, the reported quantitation limit is approximate.

Validation Reason Codes:

F01 Blanks: Sample data were qualified as a result of the method blank.

T04 Radionuclide Quantitation: Professional judgment was used to qualify the data.

T05 Radionuclide Quantitation: Analytical result is less than the associated MDA, but greater than the counting uncertainty.

T06 Radionuclide Quantitation: Analytical result is less than both the associated counting uncertainty and MDA.

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APPENDIX E

DOSE ASSESSMENT ASSUMPTIONS

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DOSE FROM THE ST. LOUIS DOWNTOWN SITE TO A MAXIMALLY EXPOSED INDIVIDUAL

An off-site, worker-based receptor is the most realistic choice to represent the hypothetical maximally exposed individual, because of the proximity of the receptor, approximately 164 ft (50 m) southeast of the Mallinckrodt fenceline (DT-10), and because of the time the individual will spend at this location. Thus, a realistic assessment of dose can be performed using conservative assumptions of occupancy rate and distance from the source.

The following dose assessment is for a maximally exposed individual who works full-time (2,000 hours per year) at a location approximately 164 ft (50 m) southeast of the external gamma and radon monitoring location and 525 to 1,247 ft (160 to 380 m) from the SLDS excavation areas.

Airborne Radioactive Particulates

An EDE of less than 0.1 mrem/yr to the receptor was calculated by using activity fractions to determine a source term, and then combining the dose results for DT-2, Kiesel Hall Street, Plant 6, and Plant 6 Loadout. The USEPA CAP88-PC modeling code was used to calculate dose to the receptor at 525 to 1,247 ft (160 to 380 m) from the SLDS excavation areas and loadout (Leidos 2015a). Figure A-1 of Appendix A presents the distances and directions of the maximally exposed receptor from the excavated areas. Details related to calculation of EDE for the maximally exposed receptor are presented in Appendix A.

External Gamma Pathway

Because station DA-2 was the closest TLD to the receptor, the TLD results from this location were used for the dose calculations. The station DA-2 TLD measured an annual exposure, above background, of 0 mrem/yr, based on 8,760 hours of continuous detector exposure. The EDE due to gamma exposure for the maximally exposed individual is estimated by assuming that the site approximates a line source with a source strength (H_1) that is the average of the TLD measurements between the source and the receptor (Cember 1996).

$$H_1 = \frac{(0)\,\text{mrem/yr}}{1} = 0 \text{ mrem/yr}$$

Based on 100 percent occupancy rate, the exposure rate (H_2) to the receptor was calculated as follows:

$$H_2 = H_1 \times \frac{h_1}{h_2} \times \frac{\tan^{-1}(L/h_2)}{\tan^{-1}(L/h_1)}$$

$$H_2 = 0 \text{ mrem/yr}$$

where:

- H_2 = exposure rate to the receptor
- H_1 = exposure rate to the TLDs
- h_2 = distance from the source to the receptor = 164 ft (50 m)
- h_1 = distance from the source to the TLDs = 5.2 ft (1.6 m)
- L = average distance from centerline of the line source (H_1) to the end of the line source = 492 ft (150 m)

The actual dose to the maximally exposed individual who is only present during a normal work year is calculated as follows:

$$H_{MEI} = H_2 \times \frac{2{,}000 \text{ hours/work year}}{8{,}760 \text{ hours/total year}}$$

$$H_{MEI} = 0 \text{ mrem/yr}$$

Airborne Radon Pathway

Like external gamma calculations, only the radon data from station DA-2 were used to determine dose due to radon and progeny. Appendix B presents the radon results at all stations. Station DA-2 ATDs measured annual exposures above background of 0 pCi/L based on 8,760 hours of continuous exposure. Exposure to the receptor from radon (and progeny) was estimated using a dispersion factor (C_2) and the average ATD monitoring data at the site perimeter between the source and the receptor.

In order to calculate the dispersion factor, the EDEs were determined to a receptor located at 3 ft and 164 ft (1 m and 50 m) respectively, southeast of the SLDS by inputting a radon release rate of 1 Ci/yr, the St. Louis – Lambert International Airport wind file, and a surface area of 45,553 square feet (ft^2) (4,232 square meters [m^2]) into the CAP-88 model. Effective surface area was determined by summing the time-weighted average annual open surface areas for all SLDS excavation areas and loadout. The CAP88 input data and the result of the CAP88 run are highlighted and presented in Appendix A. The radon dispersion factor (C_2) for the site was calculated as follows.

$$C_2 = \left[\frac{0.00953 \, pCi/L}{0.0337 \; pCi/L} \right] = 0.28$$

The average of ATD monitoring data (S_1) at the site perimeter (Plant 7/DT-10 fenceline) was calculated as follows:

$$S_1 = \left[\frac{(0) \; \text{pCi/L}}{1} \right] = 0 \text{ pCi/L}$$

The actual radon exposure dose to the hypothetical maximally exposed individual was calculated as follows:

$$S_{MEI} = S_1 \times F \times DCF \times T \times C_1 \times C_2$$

$$S_{MEI} = 0 \text{ pCi/L} \times 0.0005 \frac{\text{WL}}{\text{pCi/L}} \times 1{,}250 \frac{\text{mrem}}{\text{WLM}} \times \frac{2{,}000 hrs}{yr} \; x \; \frac{1 \text{month}}{170 \text{ hrs}} \times 0.28 = 0 \text{ mrem/yr}$$

where:

S_1 = Fenceline average of ATD measurements between source and receptor
S_{MEI} = Radon exposure to the hypothetical maximally exposed individual.
F = Equilibrium fraction of 0.05 WL per 100 pCi/L (DOE 1998)
DCF = Dose Conversion Factor (USEPA 1989) = 1,250 mrem/WLM

T = Exposure time for the hypothetical maximally exposed receptor = 2,000 hours/year
C_1 = Occupancy factor constant = 1 month per 170 hours
C_2 = Dispersion Factor
WL = working level (concentration unit)
WLM = working level month (exposure unit)

Total Effective Dose Equivalent

TEDE = CEDE (airborne particulates) + H_{MEI} (external gamma) + S_{MEI} (airborne radon)

TEDE = <0.1 mrem/yr + 0 mrem/yr + 0 mrem/yr = <0.1 mrem/yr

where:

CEDE = committed effective dose equivalent

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