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Rocky Flats Site, Colorado, Quarterly Report of Site Surveillance and Maintenance Activities Third Quarter Calendar Year 2017

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U.S. DEPARTMENT OF ENERGY | Legacy Management

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Abbreviations

Am	americium
AMP	Adaptive Management Plan
AOC	Area of Concern
CAD/ROD	Corrective Action Decision/Record of Decision
CDPHE	Colorado Department of Public Health and Environment
COU	Central Operable Unit
CY	calendar year
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
ESSD	East Subsurface Drain
ETPTS	East Trenches Plume Treatment System
ICs	institutional controls
LM	Office of Legacy Management
µg/L	micrograms per liter (sometimes expressed as ug/L)
mg/L	milligrams per liter
MSPCS	Mound Site Plume Collection System
MSPTS	Mound Site Plume Treatment System
N	nitrogen
NREL	National Renewable Energy Laboratory
OLF	Original Landfill
pCi/L	picocuries per liter
PLF	Present Landfill
PLFTS	Present Landfill Treatment System
POC	point of compliance
POE	point of evaluation
Pu	plutonium
RCRA	Resource Conservation and Recovery Act
RFLMA	*Rocky Flats Legacy Management Agreement*
RFSOG	*Rocky Flats, Colorado, Site, Site Operations Guide*
Site	Rocky Flats Site
SPPTS	Solar Ponds Plume Treatment System
VOCs	volatile organic compounds
ZVI	zero-valent iron

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Executive Summary

This quarterly report for the third quarter (July 1–September 30) of calendar year (CY) 2017 includes information on the remedy-related surveillance, monitoring, and maintenance activities conducted at the Rocky Flats Site, Colorado. This report summarizes the maintenance and inspection of the two site landfills and four groundwater collection or treatment systems, inspection of the perimeter signs of the Central Operable Unit, erosion control and revegetation activities, and water monitoring.

The Present Landfill routine quarterly inspection was conducted on August 8, 2017, and coincided with a weather-related inspection. An additional weather-related inspection was conducted on September 25, 2017, due to precipitation of nearly 1 inch. No issues were identified during either inspection.

The Original Landfill (OLF) routine monthly inspections were conducted on July 20, August 21, and September 21, 2017. Weather-related inspections were conducted on August 8 and September 25, 2017, following summer rainstorms. No significant issues were identified during the inspections, with the exception of minor cracking on August 8, 2017.

In response to slumping observed at the OLF over the past 3 years, construction of a temporary groundwater intercept was initiated in March 2017. The purpose of the project was to intercept groundwater upgradient of the OLF and pump it to the East Subsurface Drain. The system was operational during the third quarter.

Routine maintenance was performed at the East Trenches Plume Treatment System, the associated Mound Site Plume Collection System, and at the Solar Ponds Plume Treatment System (SPPTS) in the third quarter of CY 2017. Testing of uranium treatment using microcells continued at the SPPTS. At the Present Landfill Treatment System, routine maintenance generally consists of inspecting the system for potential problems. No problems were observed during the third quarter of CY 2017.

During the third quarter of CY 2017, the water monitoring results met the targeted monitoring objectives established for the site. A total of 8 flow-paced composite samples, 3 surface water grab samples, and 10 groundwater samples were collected in accordance with the protocols in the *Rocky Flats Legacy Management Agreement* (RFLMA) and submitted for analysis. In addition, 15 treatment system samples were collected and analyzed to support other objectives.

All analyte concentrations at the RFLMA point of evaluation locations GS10, SW027, and SW093 remained below the reportable condition levels throughout the third quarter of CY 2017.

All analyte concentrations at RFLMA point of compliance locations WALPOC and WOMPOC remained below reportable condition levels throughout the third quarter of CY 2017.

Data from groundwater monitoring will be evaluated as part of the annual report for CY 2017.

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1.0 Introduction

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is responsible for implementing the final response action selected in the *Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit* (CAD/ROD) (DOE, EPA, and CDPHE 2006), issued on September 29, 2006, and amended on September 21, 2011 (DOE, EPA, and CDPHE 2011), for the Rocky Flats Site, Colorado (the Site). DOE, the U.S. Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE) are implementing the monitoring and maintenance requirements of the CAD/ROD as described in the *Rocky Flats Legacy Management Agreement* (RFLMA) (DOE, EPA, and CDPHE 2012). Attachment 2 of the RFLMA (DOE 2012) defines the surveillance and maintenance requirements of the Central Operable Unit (COU) remedy, the frequency for each required activity, and the monitoring and maintenance locations. The requirements include: environmental monitoring; maintenance of erosion controls, access controls (signs), landfill covers, and groundwater treatment systems; and operation of the groundwater treatment systems. The RFLMA also requires that the institutional controls (ICs), in the form of use restrictions as established in the CAD/ROD, be maintained.

This report is required in accordance with Section 7.0, "Periodic Reporting Requirements," of RFLMA Attachment 2 (DOE 2012). The purpose of this report is to inform the regulatory agencies and stakeholders of the remedy-related surveillance, monitoring, and maintenance activities conducted at the Site during the third quarter (July 1–September 30) of calendar year (CY) 2017. LM provides periodic communications through several means, including this report, web-based tools, and public meetings.

LM maintains the *Rocky Flats, Colorado, Site, Site Operations Guide* (RFSOG) (DOE 2013) as the primary document to guide the work performed to satisfy the requirements of the RFLMA and to implement best management practices at the Site. Several other site-specific documents provide additional details regarding the requirements described in RFLMA Attachment 2 (DOE 2012), including all aspects of the surveillance, monitoring, and maintenance activities, as well as the data evaluation protocols.

The monitoring data and summaries of the surveillance and maintenance activities for past quarters are available in the quarterly reports. Extensive discussion and evaluation of the surveillance, monitoring, and maintenance activities are presented each calendar year in the annual report of Site surveillance and maintenance activities.

This report addresses the remedy-related surveillance, monitoring, operations, and maintenance activities conducted at the Site during the third quarter of CY 2017. This report summarizes the following activities:

- Maintenance and inspection of the Original Landfill (OLF) and the Present Landfill (PLF)
- Maintenance and inspection of the groundwater treatment systems
- Inspection of signs posted at the perimeter of the COU
- Erosion control and revegetation activities
- Routine water monitoring (in accordance with RFLMA and RFSOG)

2.0 Site Operations and Maintenance

2.1 Landfills

2.1.1 Present Landfill

The PLF is inspected quarterly in accordance with the requirements of the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2014) and Attachment 2 of the RFLMA (DOE 2012).

2.1.1.1 Inspection Results

The routine PLF inspection for the third quarter of CY 2017 was performed on August 8, 2017, and was coincident with a weather-related inspection. A second weather-related inspection was conducted on September 25, 2017. Copies of the landfill inspection forms are presented in Appendix A. No issues were identified.

2.1.1.2 Settlement Monuments

The settlement monuments at the PLF are surveyed annually in accordance with RFLMA. The 2016 annual survey of the PLF settlement monuments indicated that vertical settling is within the calculated settlements specified in Figure 3 of the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (DOE 2014). The 2017 annual survey will be conducted in December.

2.1.2 Original Landfill

The OLF is inspected monthly in accordance with requirements in the *Rocky Flats Site Original Landfill Monitoring and Maintenance Plan* (DOE 2009) and Attachment 2 of the RFLMA (DOE 2012). Because localized slumping and seep areas have been observed and because of the ongoing slope stability maintenance, investigation, and analysis activities, no change to the frequency of inspections was recommended in the *Fourth Five-Year Review Report for the Rocky Flats Site, Jefferson County, Colorado* (DOE 2017b) and previous five-year reviews.

As discussed in the CY 2017 second quarter report, the toe of the supporting hillside southeast of the landfill slumped and the boundaries of the slump were nearly identical to the boundaries of the spring 2016 slump.

2.1.2.1 Inspection Results

Routine OLF inspections during the third quarter of CY 2017 were performed on July 20, August 21, and September 21, 2017. Weather-related inspections following summer rain storms were conducted on August 8 and September 25, 2017. These inspections revealed minor movement of the slump on the eastern supporting hillside of the OLF and associated cracks. The completed inspection forms are presented in Appendix A.

The meteorological tower at the site recorded a total of 3.77 inches of precipitation during the third quarter of CY 2017. For comparison, the National Renewable Energy Laboratory (NREL)

tower, near the northwest corner of the site, reported a total of 5.17 inches of precipitation during the same period using a heated rain gauge (i.e., can measure snowfall).

On August 7, 2017, the meteorological tower at the site recorded 0.97 inch of precipitation (the NREL tower measured 1.55 inches). The August 8 weather-related inspection identified branching of a previously identified crack on the western boundary of the slump; however there was no observable movement of the slump.

On September 24, 2017, the meteorological tower at the site recorded 0.95 inch of precipitation (the NREL tower measured 1.20 inches). The September 25 weather-related inspection identified no new cracking or slumping due to the rain event.

Seeps at the OLF are inspected during monthly and weather-related inspections. Seep flow during third quarter of CY 2017 was consistent with previous quarters. Estimates for individual seep flow rates are given in the monthly OLF inspection reports (Appendix A).

2.1.2.2 Settlement Monuments

The settlement monuments at the OLF are surveyed quarterly in accordance with RFLMA. The OLF settlement monuments were surveyed in the third quarter of CY 2017 on September 5, 2017. Survey data indicate that vertical settling at each monument is within the calculated settlements specified in Figure 3-1 of the *Rocky Flats Site Original Landfill Monitoring and Maintenance Plan* (DOE 2009). The survey results are presented in Appendix A.

2.1.2.3 Stabilization Activities

As described in previous quarterly reports, maintenance actions have been taken to improve surface water and groundwater management at the OLF. These actions included the repair and upgrade of the East Subsurface Drain (ESSD) in the northeast corner of the OLF, so that it functions as intended and is less likely to clog. Additionally, construction of a temporary groundwater intercept system was completed to divert groundwater from the eastern hillside supporting the landfill. The ESSD and the temporary groundwater intercept system were operational during the third quarter of 2017.

2.2 Subsidence Observed Near Former Buildings

Former building areas, including those for Buildings 371, 771, 881, and 991, are inspected quarterly (and following significant weather events) for evidence of subsidence. The third quarter CY 2017 inspection was performed on September 25, coincident with a weather-related inspection. The former building areas were also inspected on August 8 after significant precipitation. There were no indications of new subsidence.

2.3 North Walnut Creek Slump

The hillside east of the Solar Ponds Plume Treatment System (SPPTS) has a history of slumping dating back many years, and it has been monitored on a routine basis since closure.

Additional slumping was noted on the hillside east of the SPPTS after the heavy precipitation events of 2015. During the spring precipitation of 2016, the slumping became more pronounced. Site staff determined that if additional movement occurred in the future, a groundwater monitoring well, the SPPTS Interceptor Trench System Sump, or the SPPTS trench could potentially be impacted. A geotechnical engineering firm was hired to evaluate the North Walnut Creek Slump and the potential effect on SPPTS components.

The final report from the geotechnical engineers was completed in December 2016. This report indicates that continued movement is likely and that further movement would likely impact SPPTS components. The final report includes preliminary recommendations; however, additional investigation (e.g., borings to more clearly define soil properties and groundwater levels) is required to support the design of the stabilization effort. A statement of work for this additional investigation, evaluation, and final recommendations was developed during the third quarter.

An interim maintenance project to regrade the North Walnut Creek Slump was implemented in the second quarter of CY 2017 to promote positive drainage and regrade material encroaching on a groundwater monitoring well and the SPPTS Interceptor Trench System Sump. During the third quarter, a crack appeared along the original slump scarp, with a maximum horizontal opening of approximately 3 inches and an estimated maximum depth of 2 feet. About 1 foot of vertical displacement was also noted near the center of the original scarp. Fill soil was added in the crack and the material was tamped down to prevent water intrusion and limit additional movement.

2.4 Site Road Maintenance

Maintenance performed on site roads during the third quarter of CY 2017 consisted of applying dust suppressant in July.

2.5 Groundwater Treatment Systems

Four groundwater collection systems and three treatment systems are monitored, operated, and maintained in accordance with requirements defined in the RFLMA and the RFSOG.
Three of these systems (the Mound Site Plume Collection System [MSPCS], the East Trenches Plume Treatment System [ETPTS], and the SPPTS) include a groundwater intercept trench (collection trench), which is similar to a French drain with an impermeable membrane on the downgradient side. The fourth system, the PLF Treatment System (PLFTS), passively treats water from the northern and southern components of the Groundwater Intercept System and water that flows from the PLF seep.

2.5.1 Mound Site Plume Collection System

The MSPCS resulted from the reconfiguration of the Mound Site Plume Treatment System (MSPTS) in 2016. The MSPTS was installed in 1998 to collect and treat groundwater contaminated with low concentrations of volatile organic compounds (VOCs). Treatment was achieved by routing this groundwater through treatment cells filled with zero-valent iron (ZVI), with the treated water discharged to the subsurface. Collected water is now routed to the ETPTS

for treatment. The Reconfiguration Project is discussed in the annual report for 2016 (DOE 2017a).

Routine maintenance performed at the MSPCS during the third quarter of CY 2017 included checking the batteries and other solar power components; checking water levels in, and flow rates to and from, the collection trench and lift station; and checking operation of the transfer pump in the lift station.

Additional routine maintenance included a solar array inspection by a qualified subcontractor and adjustments to electrical components as warranted.

Refer to Section 3.1.9.1 for information on water quality monitoring.

2.5.2 East Trenches Plume Treatment System

The ETPTS was installed in 1999 to collect and treat groundwater contaminated with low concentrations of VOCs and was based on the design of the MSPTS. Groundwater that was intercepted by the ETPTS collection trench was routed to treatment cells filled with ZVI. Dissolved VOCs were treated by the ZVI in these cells, and treated water was discharged to the subsurface.

A reconfiguration project in 2014–2015 converted the treatment method at the ETPTS from ZVI to a full-scale, commercial air stripper that uses only solar and battery power to treat the VOCs in collected groundwater. Refer to the annual reports for 2014 (DOE 2015a) and 2015 (DOE 2016) for more information on the reconfiguration project. This air stripper also now treats water from the MSPCS.

Routine maintenance at the ETPTS in the third quarter of CY 2017 included checking the batteries and other solar power components, adjusting valves and settings to modify flow rates and maintain air-stripper operation, exercising valves, greasing the blower motor, cleaning and replacing the air stripper trays, and adjusting the timer late in the quarter to accommodate the seasonal decrease in sunlight.

Additional routine maintenance included completing the activity begun in the second quarter to replace the bird spikes on the solar panels (thereby preventing birds from landing on top of them). Also, a qualified subcontractor inspected the solar power components and updated the software on the charge controllers.

Refer to Section 3.1.9.2 for information on water quality monitoring.

2.5.3 Solar Ponds Plume Treatment System

The SPPTS was installed in 1999 to treat groundwater contaminated with nitrate and uranium and is based on the design of the MSPTS and ETPTS. In its original configuration, groundwater that was intercepted by the SPPTS collection trench was routed to a larger treatment cell filled with sawdust and a small percentage of ZVI, and then to a smaller treatment cell filled with gravel and ZVI. Nitrate was treated in the first cell and uranium in the second. Effluent from the treatment cells is routed to an effluent manhole, from which it is piped to a subsurface discharge

gallery. Several upgrades to the SPPTS have been installed and modified over the years, and numerous treatability studies have been conducted to improve its effectiveness.

The SPPTS Interim Reconfiguration Project, completed in mid-2016, converted the original treatment cells and associated concrete structure into a full-scale, test lagoon for nitrate treatment via denitrifying bacteria, and installed a new vault for uranium treatment testing. This project is discussed in the associated annual report (DOE 2017a).

Routine maintenance during the third quarter of CY 2017 at the SPPTS included checking the batteries and other solar power components; adjusting valves and settings to maintain water levels, modify flow rates, and maintain nutrient dose rates; cleaning flow meters, air release valves, and other plumbing components; and flushing lines to clear clogs and maintain flows. The stock of liquid nutrient used to nourish the treatment system microorganisms was replenished as needed. This nutrient goes by the trade name MicroC 4125 and is manufactured and sold by Environmental Operating Solutions Inc.

Additional routine maintenance included completing the activity begun in the second quarter to replace the bird spikes on the solar panels (thereby preventing birds from landing on top of them).

As part of ongoing technology testing of uranium treatment, microcell tests continued in the sidecar vault. Extensive operational sampling was also conducted throughout the quarter so evaluation of the effectiveness of the new nitrate treatment lagoon could continue.

Refer to Section 3.1.9.3 for information on water quality monitoring.

2.5.4 Present Landfill Treatment System

Routine maintenance activities continued at the PLFTS through the third quarter of CY 2017. These activities consisted of inspecting the system for potential problems. No deficiencies were noted.

Refer to Section 3.1.9.4 for information on water quality monitoring.

2.6 Sign Inspection

RFLMA requires that warning signs ("U.S. Department of Energy – No Trespassing") be posted at intervals around the perimeter of the COU sufficient to notify persons that they are at the boundary of the COU. In addition, signs listing the ICs and providing contact information must be posted at access points to the COU. The signs are required by the remedy as physical controls, are inspected quarterly, and are maintained through repair or replacement as needed. Physical controls protect the engineered components of the remedy, including landfill covers, groundwater treatment systems, and monitoring equipment, which are also inspected routinely during monitoring and maintenance activities.

The signs were inspected on September 5, 2017. One sign that had fallen off the fence was reattached.

2.7 Erosion Control and Revegetation

Monitoring and maintenance of the site erosion control features was performed throughout the third quarter of CY 2017, especially following high-wind or precipitation events. Stakes loosened or displaced by high winds or rain on the erosion wattles and matting were routinely fixed. As required by the RFLMA ICs, erosion controls were installed and maintained for the various projects that were ongoing during the third quarter of CY 2017.

3.0 Environmental Monitoring

This section summarizes the environmental monitoring conducted in accordance with the RFLMA Attachment 2 (DOE 2012). RFLMA Attachment 2, Table 1, "Surface Water Standards," establishes the concentrations that determine reportable conditions in accordance with RFLMA Attachment 2, Section 6.0, "Action Determinations." Reportable conditions require consultation between the RFLMA parties (DOE, CDHPE, and EPA) to determine appropriate actions.

3.1 Water Monitoring

This section includes:

- A discussion of the routine analytical results for the point of compliance (POC), point of evaluation (POE), PLF, and OLF surface water monitoring objectives and identification of any reportable conditions.
- Summaries of the routine groundwater monitoring at the Area of Concern (AOC) wells, the Sentinel wells, the Evaluation wells, and the Resource Conservation and Recovery Act (RCRA) wells; treatment-system monitoring; and Surface Water Support monitoring at the Site.

RFLMA Attachment 2 and the RFSOG offer details about the monitoring locations, sampling criteria, and evaluation protocols for the water monitoring objectives mentioned in the following sections. Appendix B provides analytical water quality data for the third quarter of CY 2017. The annual report for CY 2017 will provide a more detailed interpretation and discussion of the water quality data.

3.1.1 Water Monitoring Highlights

During the third quarter of CY 2017, water monitoring met the targeted monitoring objectives required by the RFLMA and was in conformance with RFSOG implementation guidance. The routine RFLMA network consists of 8 automated gaging stations, 11 surface water grab sampling locations, 8 groundwater treatment system locations, and 88 groundwater monitoring well locations (DOE 2015a). Additional locations are occasionally sampled in support of investigations in response to reportable conditions. During the third quarter, 8 flow-paced composite samples, 3 surface water grab samples, 15 treatment system samples, and

10 groundwater samples were collected (in accordance with RFLMA protocols) and submitted for analysis.[1] Figure 1 shows monitoring locations that were sampled during the quarter.

RFLMA-required groundwater monitoring during the third quarter was conducted at the 10 RCRA wells supporting the PLF and OLF. Results were generally consistent with previous data and will be evaluated as part of the annual report for CY 2017.

All analyte concentrations at RFLMA POE locations GS10, SW027, and SW093 remained below reportable condition levels throughout the third quarter of CY 2017.

All analyte concentrations at RFLMA POC locations WALPOC and WOMPOC remained below reportable condition levels throughout the third quarter of CY 2017.

[1] Composite samples consist of multiple aliquots ("grabs") of identical volume. Each grab is delivered by the automatic sampler to the composite container at each predetermined flow volume or time interval. During the third quarter of CY 2017, the 8 flow-paced composites comprised 298 individual grabs.

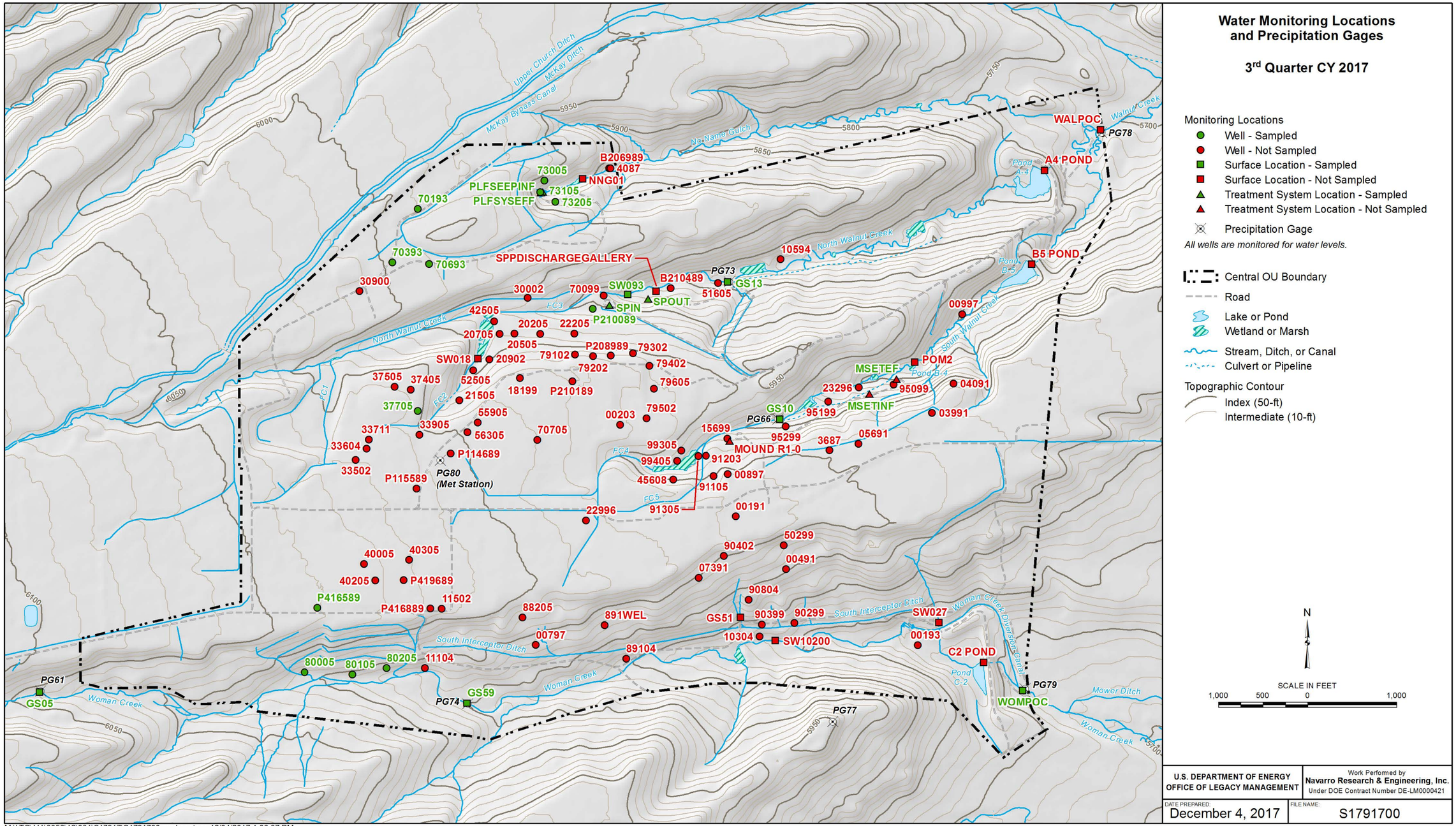

Figure 1. Rocky Flats Site Water Monitoring Locations and Precipitation Gages

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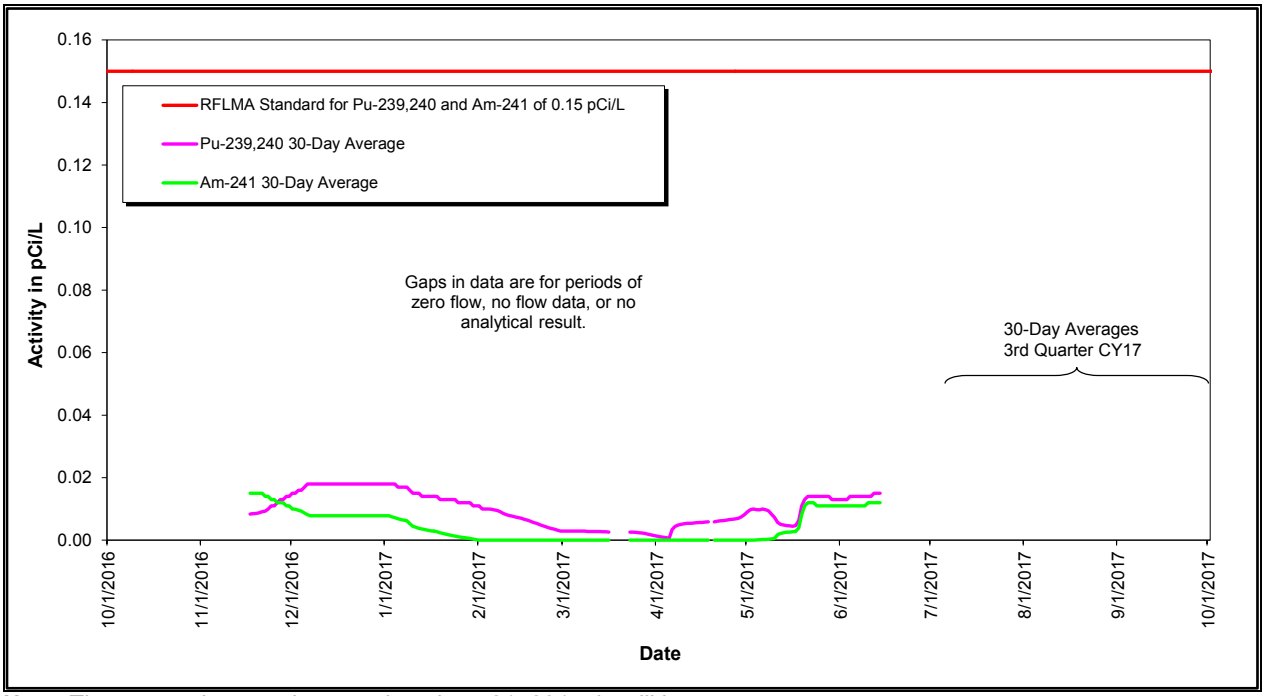
3.1.2 POC Monitoring

The following sections include summary tables and plots showing the applicable 30-day and 12-month rolling averages for the POC analytes.

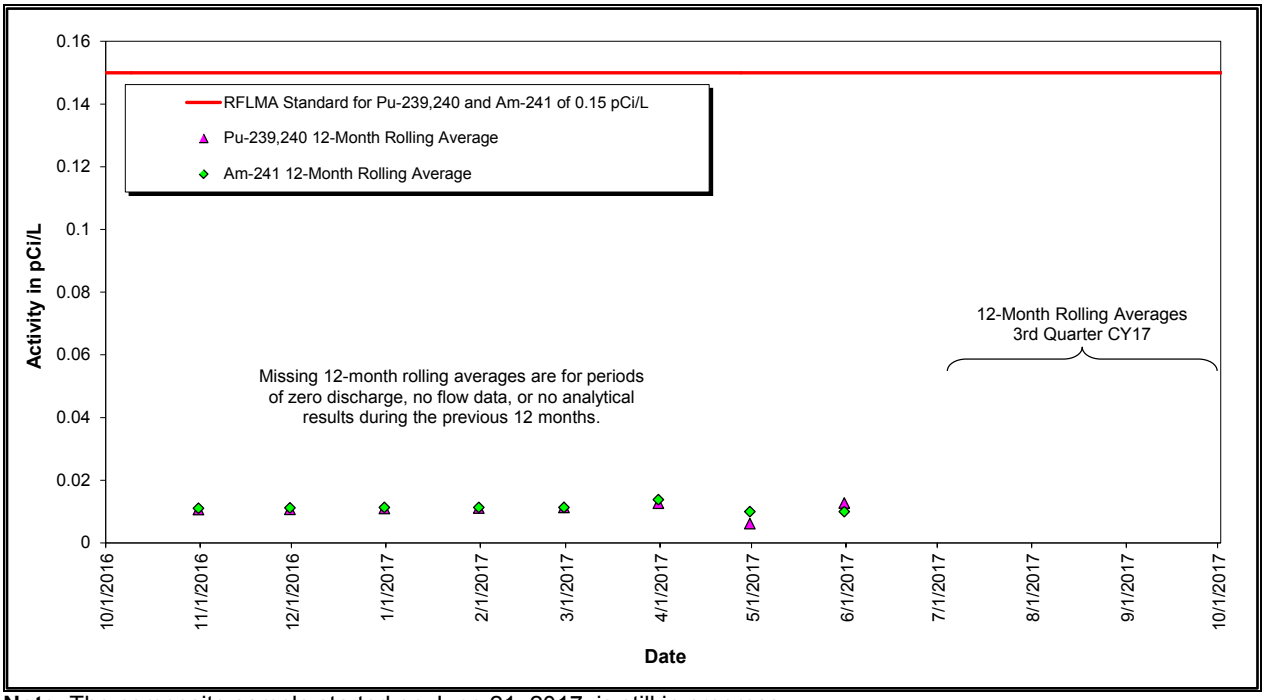
3.1.2.1 Monitoring Location WALPOC

Monitoring location WALPOC is on Walnut Creek at the eastern COU boundary. Figure 2 through Figure 5 show no occurrences of reportable conditions for 12-month rolling or 30-day averages during the quarter for americium (Am), plutonium (Pu) (in picocuries per liter [pCi/L]), or nitrate + nitrite as nitrogen (N) (in milligrams per liter [mg/L]). Since there has been very little flow at WALPOC since mid-June, the composite sample started on June 21, 2017, is still in progress. The methods for calculating the 30-day and 12-month rolling averages are detailed in the annual report.



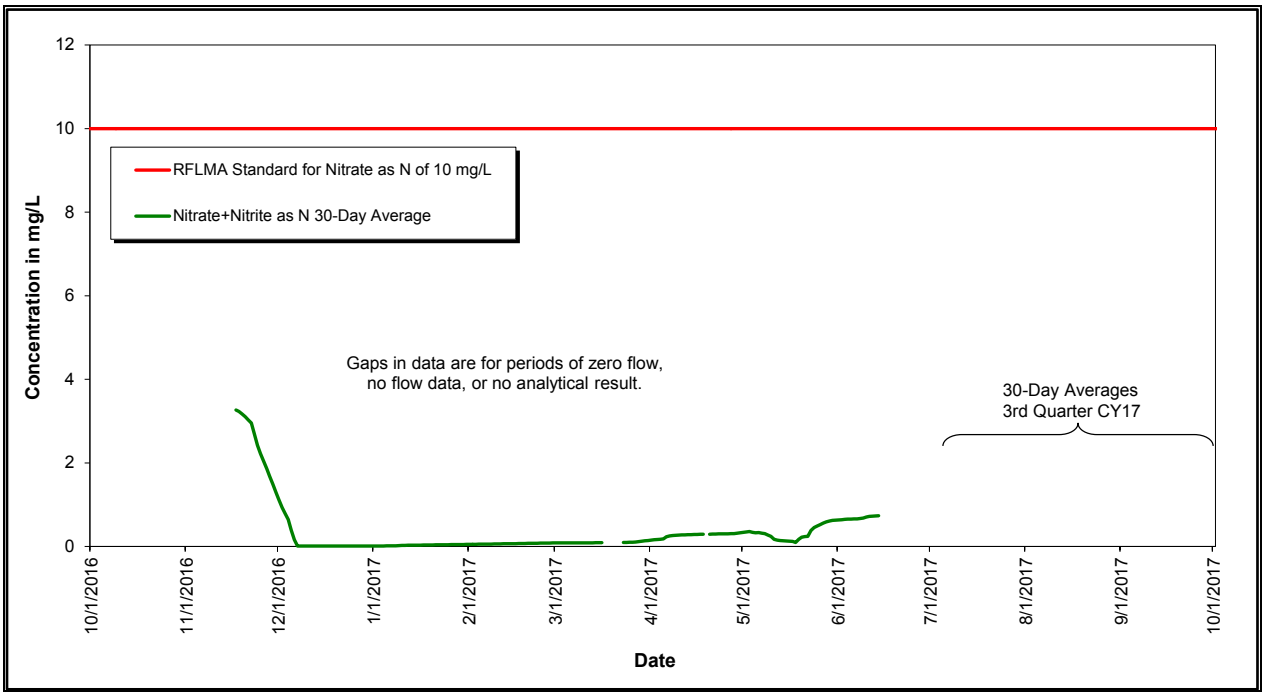
Note: The composite sample started on June 21, 2017, is still in progress.

Figure 2. Volume-Weighted 30-Day Average Plutonium and Americium Activities at WALPOC: Year Ending Third Quarter CY 2017



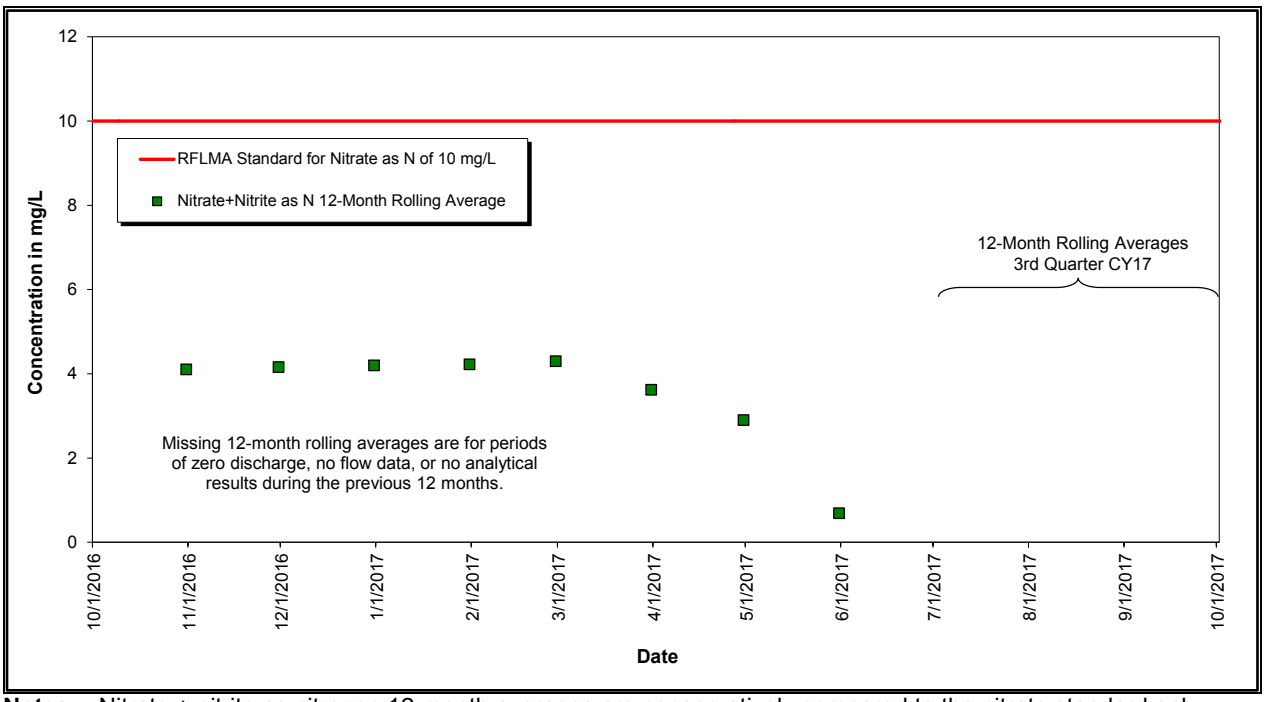
Note: The composite sample started on June 21, 2017, is still in progress.

Figure 3. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at WALPOC: Year Ending Third Quarter CY 2017



Note: Flow at WALPOC stopped on June 15, 2017.

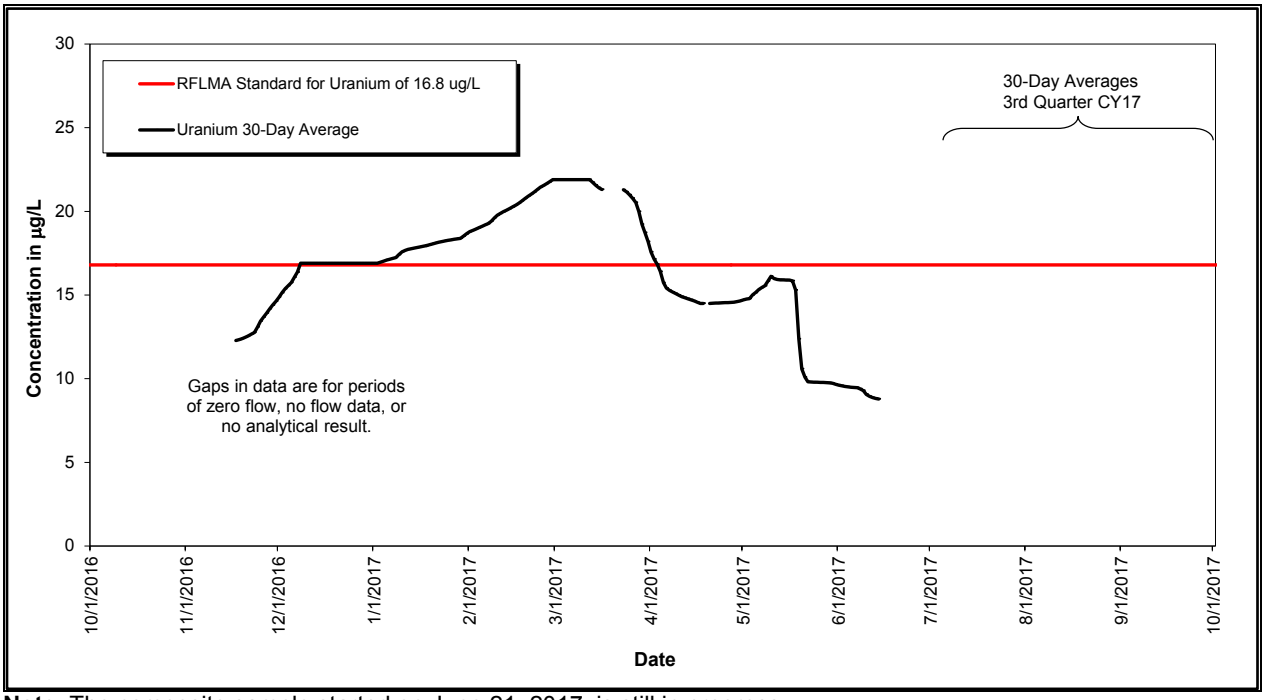
Figure 4. Volume-Weighted 30-Day Average Nitrate + Nitrite as Nitrogen Concentrations at WALPOC: Year Ending Third Quarter CY 2017



Notes: Nitrate + nitrite as nitrogen 12-month averages are conservatively compared to the nitrate standard only. Flow at WALPOC stopped on June 15, 2017.

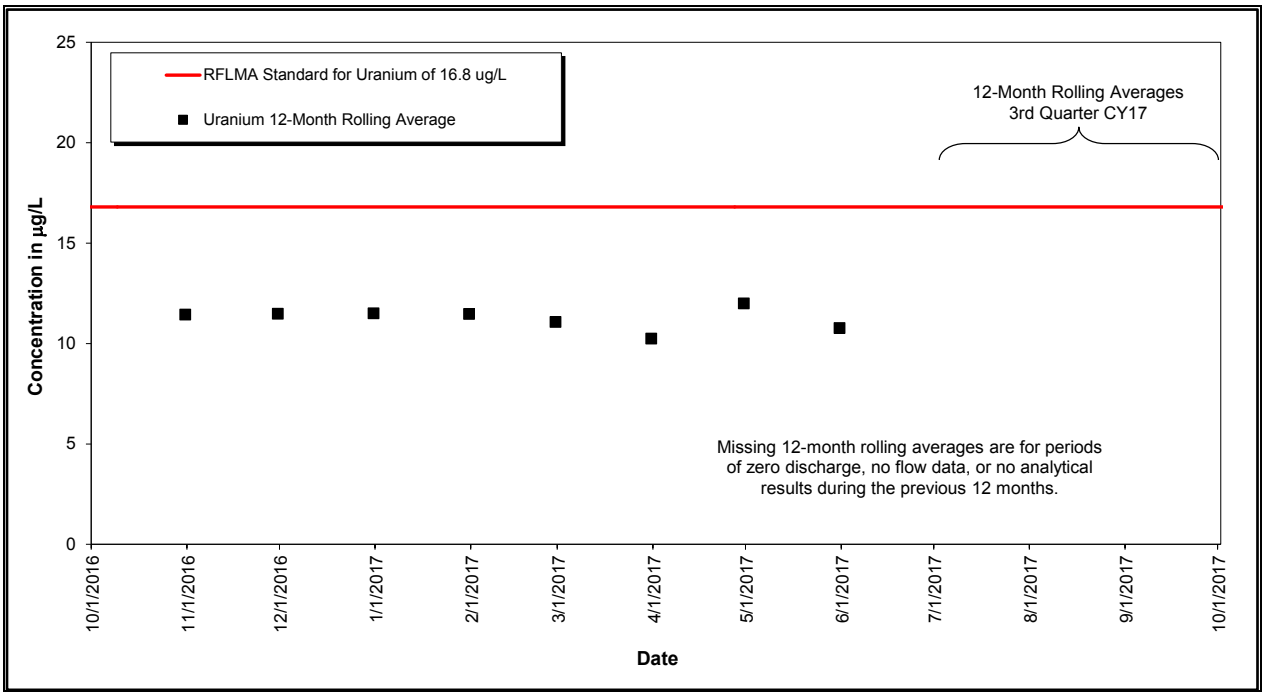
Figure 5. Volume-Weighted 12-Month Rolling Average Nitrate + Nitrite as Nitrogen Concentrations at WALPOC: Year Ending Third Quarter CY 2017

Figure 6 shows that the 30-day average for uranium exceeded the RFLMA standard of 16.8 micrograms per liter (µg/L) during the first quarter CY 2017, triggering a reportable condition and consultation with the regulatory agencies under the RFLMA. A discussion of this reportable condition can be found in the first quarter report (DOE 2017c). As of April 4, 2017, the 30-day average for uranium at WALPOC was no longer a reportable condition. The 12-month rolling average remains below the RFLMA water quality standard for uranium (in µg/L, sometimes expressed as ug/L) (Figure 7) using all available data.



Note: The composite sample started on June 21, 2017, is still in progress.

Figure 6. Volume-Weighted 30-Day Average Uranium Concentrations at WALPOC: Year Ending Third Quarter CY 2017



Note: The composite sample started on June 21, 2017, is still in progress.

Figure 7. Volume-Weighted 12-Month Rolling Average Uranium Concentrations at WALPOC: Year Ending Third Quarter CY 2017

3.1.2.2 Monitoring Location WOMPOC

Monitoring location WOMPOC is on Woman Creek at the eastern COU boundary. Figure 8 through Figure 11 show no occurrences of a reportable condition for 12-month rolling or 30-day averages for the quarter. The methods for calculating the 30-day and 12-month rolling averages are detailed in the annual report.

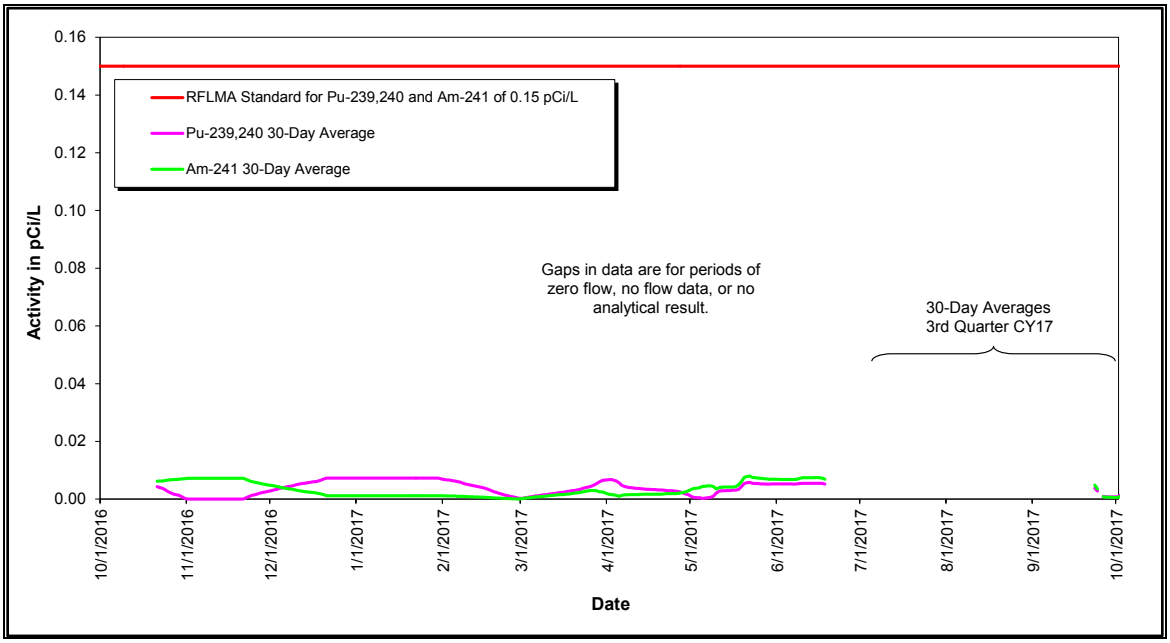


Figure 8. Volume-Weighted 30-Day Average Plutonium and Americium Activities at WOMPOC: Year Ending Third Quarter CY 2017

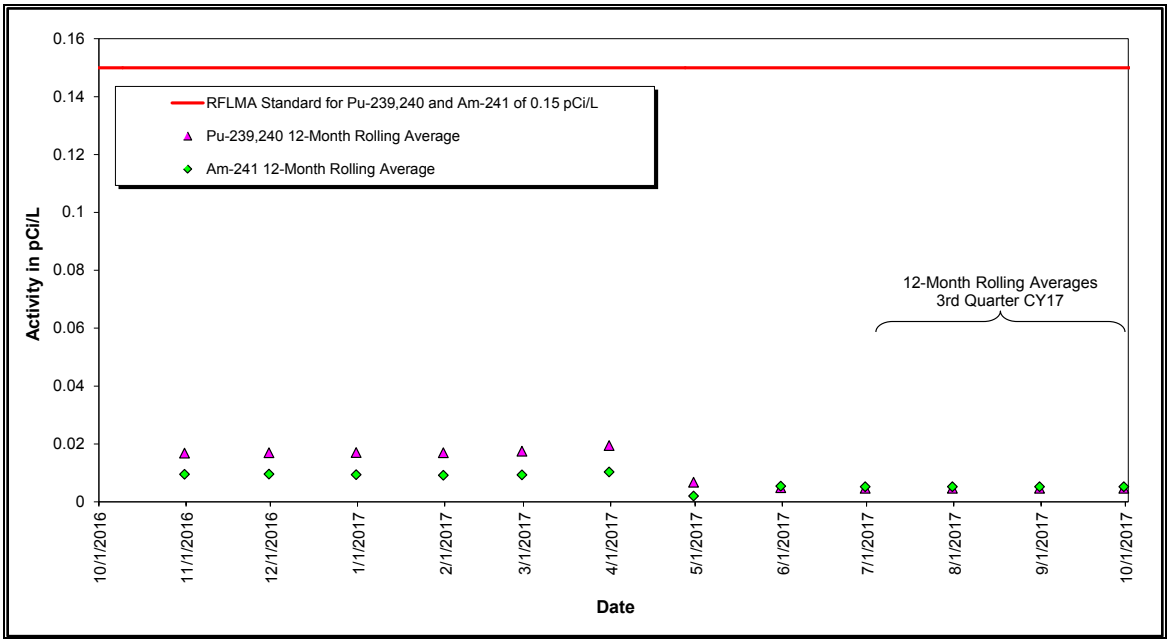


Figure 9. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at WOMPOC: Year Ending Third Quarter CY 2017

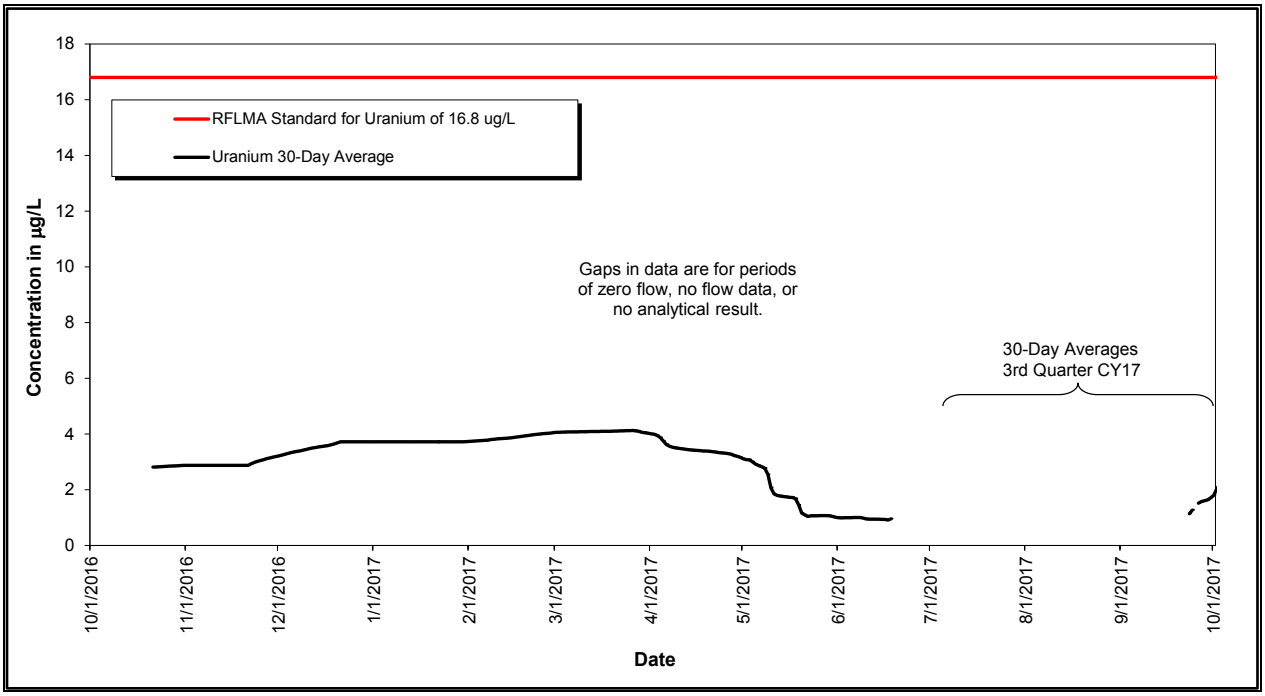


Figure 10. Volume-Weighted 30-Day Average Uranium Concentrations at WOMPOC: Year Ending Third Quarter CY 2017

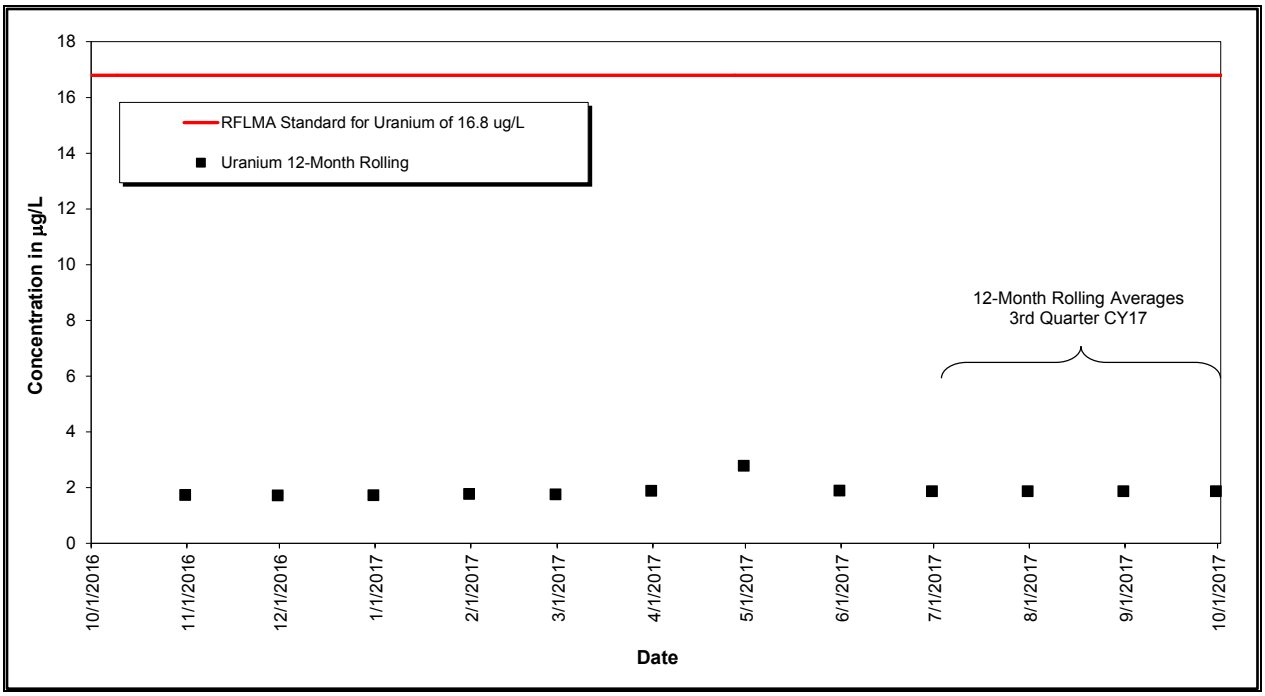


Figure 11. Volume-Weighted 12-Month Rolling Average Uranium Concentrations at WOMPOC: Year Ending Third Quarter CY 2017

3.1.3 POE Monitoring

The following sections include summary plots showing the applicable 12-month rolling averages for the POE analytes.

3.1.3.1 Monitoring Location GS10

Monitoring location GS10 is on South Walnut Creek just upstream of the B-Series ponds. Figure 12 and Figure 13 show no occurrences of a reportable condition for 12-month rolling averages for plutonium, americium, or uranium values during the quarter. The method for calculating the 12-month rolling averages is detailed in the annual report.

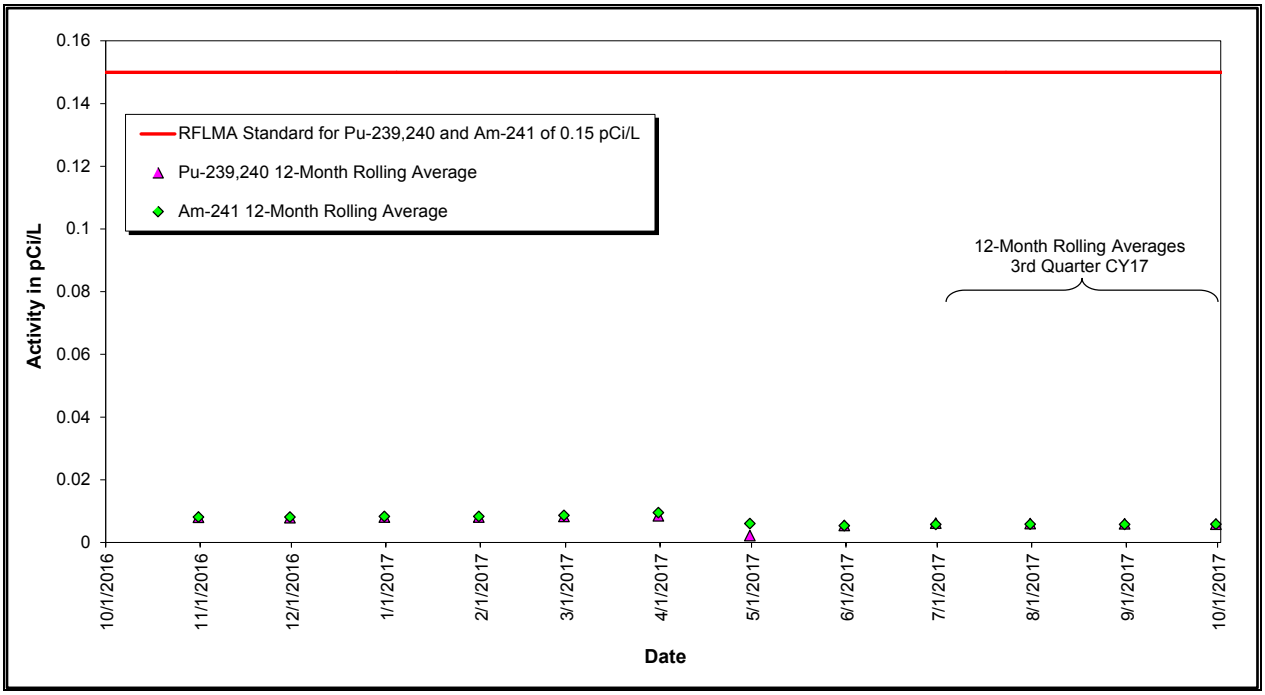


Figure 12. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at GS10: Year Ending Third Quarter CY 2017

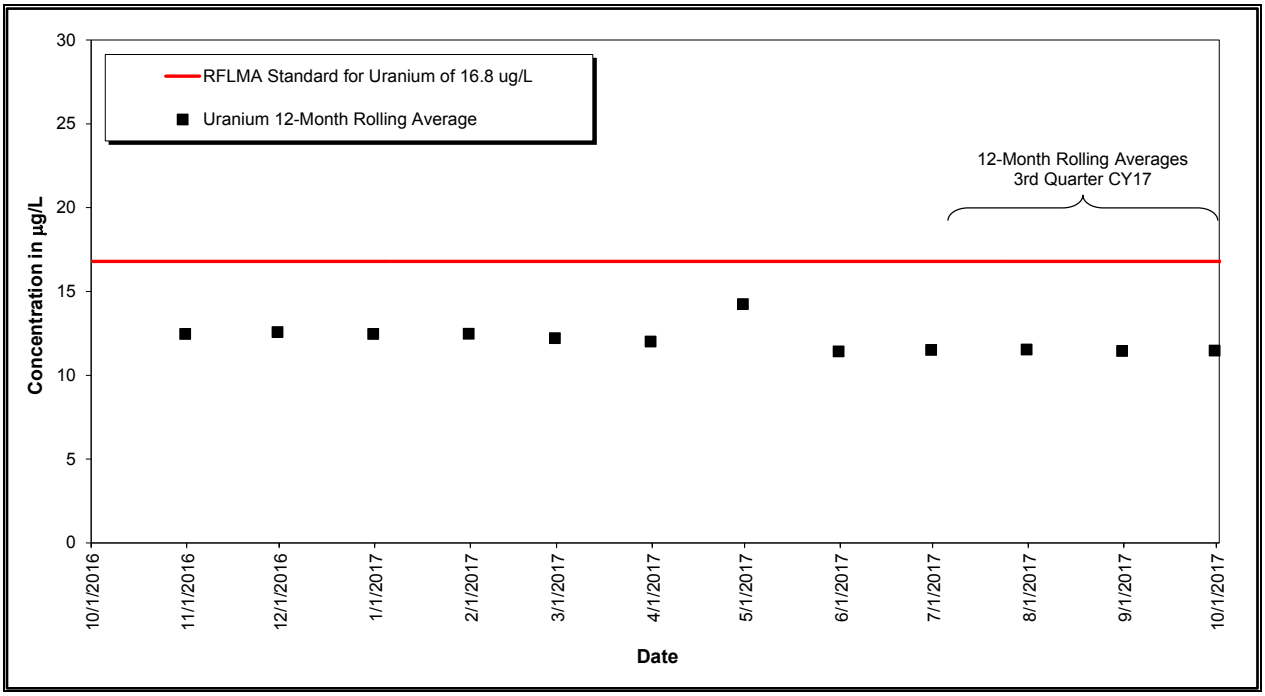


Figure 13. Volume-Weighted 12-Month Rolling Average Uranium Concentrations at GS10: Year Ending Third Quarter CY 2017

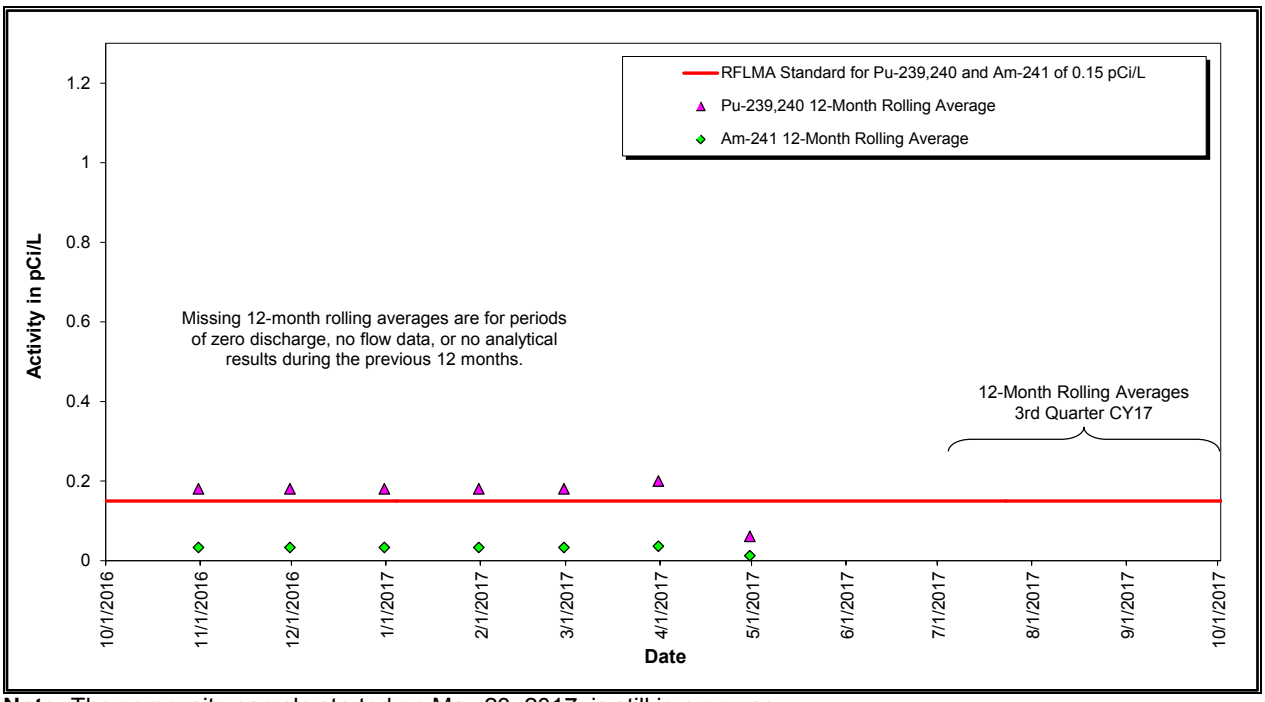
3.1.3.2 Monitoring Location SW027

Monitoring location SW027 is at the end of the South Interceptor Ditch at the inlet to Pond C-2. Figure 14 and Figure 15 show the 12-month rolling averages for plutonium, americium, and uranium values during the quarter. The method for calculating the 12-month rolling averages is detailed in the annual report.

Figure 14 shows that the 12-month rolling average for plutonium exceeded the RFLMA standard of 0.15 pCi/L through March 31, 2017. These 12-month rolling average values for 2017 include water samples back 12 months into 2016. Due to the fact that there was no flow, and therefore no samples collected, at SW027 from June 2, 2016, through April 4, 2017, the 12-month rolling averages in the early part of CY 2017 reflect conditions in 2016.

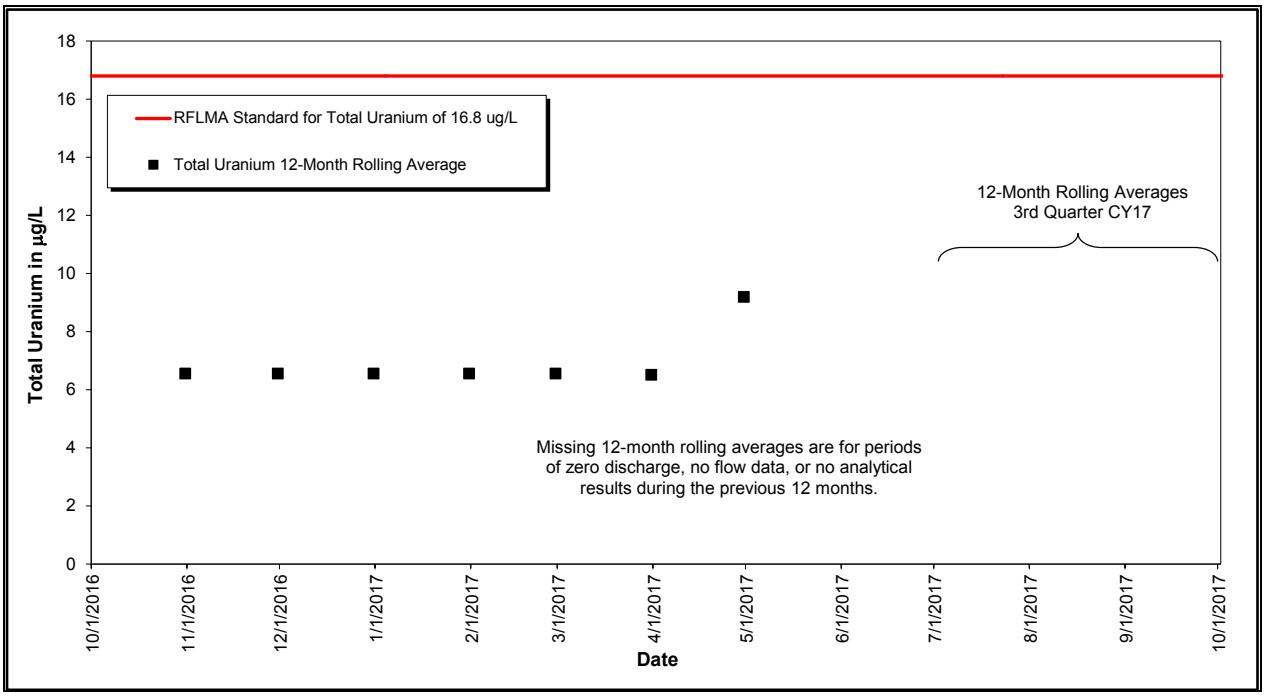
As of April 30, 2017, the 12-month rolling average for plutonium was no longer a reportable condition. As of the end of the third quarter of CY 2017, the composite sample started on May 23, 2017, was still on progress with only three grabs collected (approximately 0.6 liter, an insufficient volume for analysis). No other analytes were reportable throughout the third quarter of CY 2017.

Additional details regarding the 2015–2017 reportable conditions for plutonium and americium at SW027 can be found in RFLMA Contact Record 2015-05, quarterly reports, and annual reports.



Note: The composite sample started on May 23, 2017, is still in progress.

Figure 14. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at SW027: Year Ending Third Quarter CY 2017



Note: The composite sample started on May 23, 2017, is still in progress.

Figure 15. Volume-Weighted 12-Month Rolling Average Uranium Concentrations at SW027: Year Ending Third Quarter CY 2017

3.1.3.3 Monitoring Location SW093

Monitoring location SW093 is on North Walnut Creek, 1300 feet upstream of former Pond A-1. Figure 16 and Figure 17 show no occurrences of a reportable condition for 12-month rolling averages for plutonium, americium, or uranium values during the quarter. The method for calculating the 12-month rolling averages is detailed in the annual report.

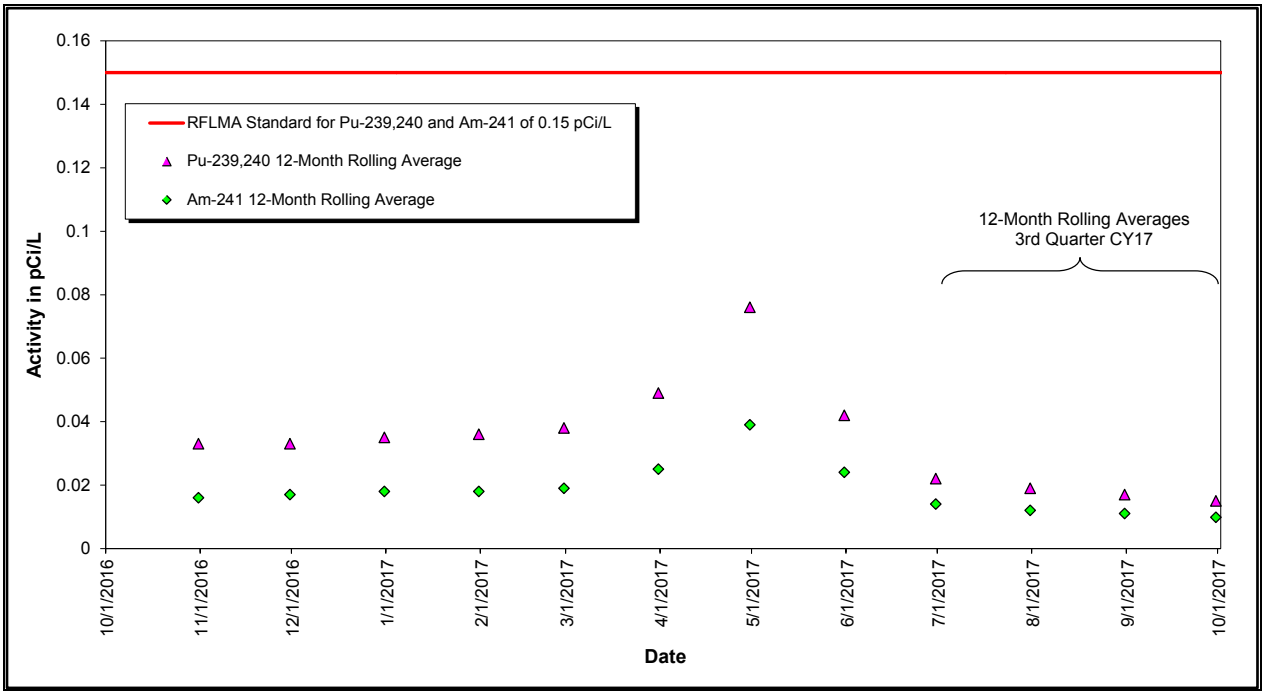


Figure 16. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at SW093: Year Ending Third Quarter CY 2017

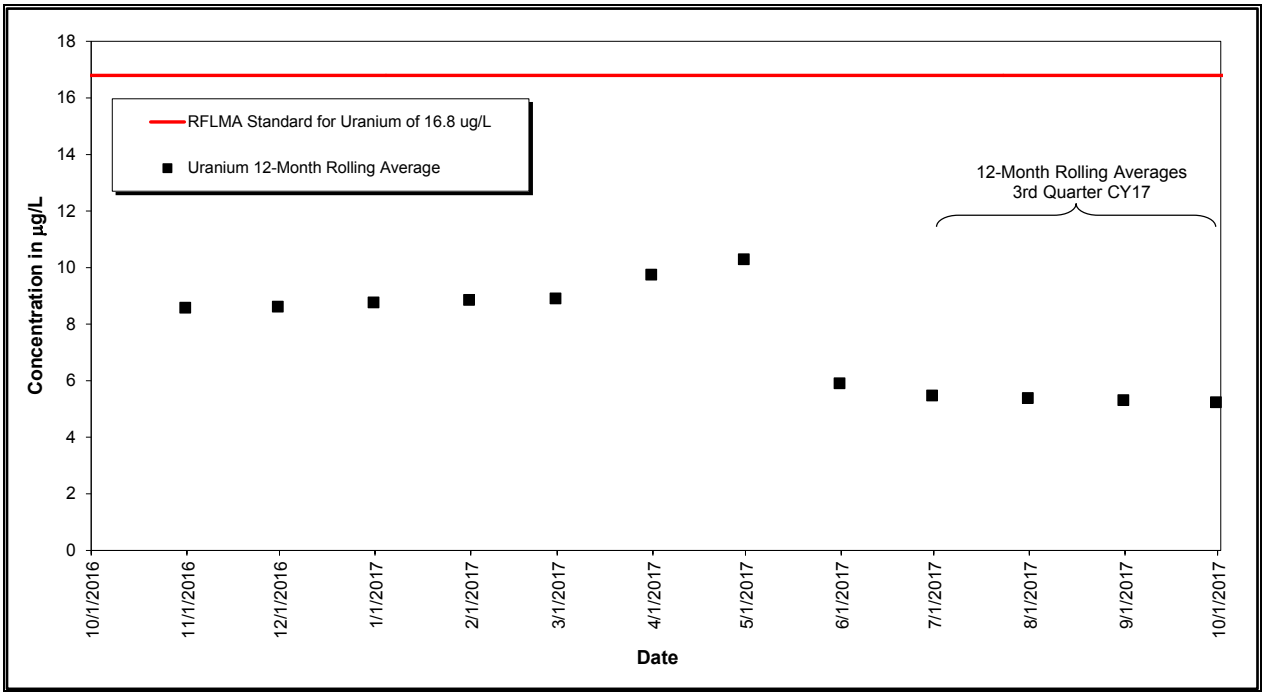


Figure 17. Volume-Weighted 12-Month Rolling Average Uranium Concentrations at SW093: Year Ending Third Quarter CY 2017

3.1.4 AOC Wells and Surface Water Support Location SW018

Neither the AOC wells nor the Surface Water Support location SW018 were scheduled for RFLMA monitoring in the third quarter of CY 2017.

3.1.5 Sentinel Wells

None of the Sentinel wells were scheduled for RFLMA monitoring in the third quarter of CY 2017.

3.1.6 Evaluation Wells

None of the Evaluation wells were scheduled for RFLMA monitoring in the third quarter of CY 2017.

3.1.7 PLF Monitoring

The six RCRA groundwater monitoring wells at the PLF were sampled during the third quarter of CY 2017. Analytical results (Appendix B) were generally consistent with those of past samples and will be discussed and statistically evaluated as part of the annual report for CY 2017. Section 3.1.9.4 discusses monitoring at the PLFTS.

3.1.8 OLF Monitoring

The four RCRA groundwater monitoring wells at the OLF were sampled during the third quarter of CY 2017. Analytical results (Appendix B) were generally consistent with those of past samples and will be discussed and statistically evaluated as part of the annual report for CY 2017.

During the third quarter of CY 2017, when routine surface water sampling was performed in Woman Creek downstream of the OLF (GS59), the mean concentrations for all analytes were below the applicable surface water standards.

3.1.9 Groundwater Treatment System Monitoring

As described in Section 2.5, contaminated groundwater is intercepted and treated in the onsite groundwater treatment systems. The MSPCS (which is discussed in this section for consistency and convenience, even though treatment is no longer performed here), ETPTS, and SPPTS all include a groundwater intercept trench. The PLFTS treats water from the northern and southern components of the Groundwater Intercept System and water that flows from the PLF seep.

3.1.9.1 Mound Site Plume Collection System

The MSPCS monitoring locations were not scheduled for routine RFLMA sampling in the third quarter of CY 2017.

3.1.9.2 East Trenches Plume Treatment System

The ETPTS monitoring locations were not scheduled for routine RFLMA sampling in the third quarter of CY 2017.

3.1.9.3 Solar Ponds Plume Treatment System

The SPPTS monitoring locations were not scheduled for routine RFLMA sampling in the third quarter of CY 2017. However, non-routine samples were collected during this quarter to support the SPPTS Interim Reconfiguration Project, uranium treatment testing, and the Adaptive Management Plan (AMP) (DOE 2015b). Further discussion will be provided in the RFLMA and AMP annual reports for 2017.

3.1.9.4 PLF Treatment System

During collection of the July 10, 2017, quarterly sample at the PLFTS influent (monitoring location PLFSEEPINF), the flow rate was 1.39 gallons per minute. The routine quarterly effluent sample (monitoring location PLFSYSEFF) collected on July 10, 2017, showed a vinyl chloride concentration above the applicable surface water standard. The individual result was as follows:

- The vinyl chloride concentration was 0.28 µg/L, exceeding the practical quantitation limit of 0.2 µg/L.

In accordance with RFLMA evaluation protocols, the vinyl chloride result triggered an increase in sampling frequency from quarterly to monthly. Vinyl chloride was not detected in the

subsequent sample collected on August 7, 2017, and in accordance with the RFLMA data evaluation protocols, sampling frequency returned to monthly.

All other analyte concentrations were below the RFLMA standards for the quarter.

3.1.10 Predischarge Monitoring

Predischarge samples are collected prior to opening the valves to initiate a discharge period at Ponds A-4, B-5, and C-2 on North Walnut Creek, South Walnut Creek, and Woman Creek, respectively. No predischarge samples were collected at Ponds A-4, B-5, or C-2 during the third quarter of CY 2017. All three ponds have been operated in a flow-through configuration since September 2011.

4.0 Adverse Biological Conditions

No evidence of adverse biological conditions (e.g., unexpected mortality or morbidity) was observed during monitoring and maintenance activities in the third quarter of CY 2017.

5.0 Ecological Monitoring

During the third quarter of CY 2017, ecological monitoring consisted of conducting routine revegetation, Preble's mouse, photopoint, and wetland mitigation monitoring; mapping project disturbance areas; counting shrub and tree survival at former habitat enhancement areas; and conducting prairie dog surveys.

6.0 References

DOE (U.S. Department of Energy), 2009. *Rocky Flats Site Original Landfill Monitoring and Maintenance Plan,* LMS/RFS/S05516, Office of Legacy Management, September.

DOE (U.S. Department of Energy), 2012. Attachment 2, "Legacy Management Requirements," in *Rocky Flats Legacy Management Agreement*, Rocky Flats Environmental Technology Site, Golden, Colorado.

DOE (U.S. Department of Energy), 2013. *Rocky Flats Colorado, Site, Site Operations Guide*, LMS/RFS/S03037, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2014. *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan, U.S. Department of Energy Rocky Flats, Colorado, Site*, LMS/RFS/S03965, Office of Legacy Management, December.

DOE (U.S. Department of Energy), 2015a. *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site, Calendar Year 2014*, LMS/RFS/S12421, Office of Legacy Management, April.

DOE (U.S. Department of Energy), 2015b. *Surface Water Configuration Adaptive Management Plan for the Rocky Flats, Colorado, Site,* LMS/RFS/S07698, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2016. *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site, Calendar Year 2015*, LMS/RFS/S13696, Office of Legacy Management, April.

DOE (U.S. Department of Energy), 2017a. *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site, Calendar Year 2016*, LMS/RFS/S15402, Office of Legacy Management, April.

DOE (U.S. Department of Energy), 2017b. *Fourth Five-Year Review Report for the Rocky Flats Site, Jefferson County, Colorado*, LMS/RFS/S15528, Office of Legacy Management, June.

DOE (U.S. Department of Energy), 2017c. *Rocky Flats Site, Colorado, Quarterly Report of Site Surveillance and Maintenance Activities, First Quarter Calendar Year 2017*, LMS/RFS/S16527, Office of Legacy Management, July.

DOE, EPA, and CDPHE (U.S. Department of Energy, U.S. Environmental Protection Agency, and Colorado Department of Public Health and Environment), 2006. *Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit*, EPA/541/R-06/197, September 29.

DOE, EPA, and CDPHE (U.S. Department of Energy, U.S. Environmental Protection Agency, and Colorado Department of Public Health and Environment), 2011. *Corrective Action Decision/Record of Decision Amendment for Rocky Flats Plant (USDOE) Central Operable Unit,* September 21.

DOE, EPA, and CDPHE (DOE (U.S. Department of Energy, U.S. Environmental Protection Agency, and Colorado Department of Public Health and Environment), 2012. *Rocky Flats Legacy Management Agreement*, as revised, including Attachment 2 modifications, December. Available at https://www.lm.doe.gov/Rocky_Flats/RFLMA.pdf.

Appendix A

Landfill Inspection Forms and Survey Data

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ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSPECTOR: Nathan Krohn DATE: 7/20/17 TIME: 10:00 AM REVIEWED BY: Jeremy Wehner

TEMPERATURE: 81° F WEATHER CONDITIONS: Sunny REVIEW DATE: 7/25/2017

SUBSIDENCE / CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 3	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 4	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	Crack above Berm 4 possible propagation from slump
DIVERSION BERM 5	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	Backfill eroded away from previous crack
DIVERSION BERM 6	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	Cracking through berm from slump
DIVERSION BERM 7	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	Cracking through berm from slump

Settlement Plates – Inspect integrity. Intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

A new crack was discovered approx. 8 feet ~~from~~ west of previous western edge of 2017 slump and is approx. 38 feet in length. [Rocky Flats Met tower recorded 0.20 inches of rain since last monthly report. NREL M2 tower recorded 0.24 inches during same period] – NK 8/14/17

NK 7/25/17

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW
COVER – WEST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
WEST PERIMETER CHANNEL SIDESLOPES	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	Visible scarp unchanged
EAST PERIMETER CHANNEL SIDESLOPES	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No	Slumping from Berm 6 to EPC
COVER SEEPS (IF PRESENT)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

EPC has a flow of ≈1-2 gpm. EPC outfall blocked by slump toe, has pockets of water. Seeps 9 and 10 have a flow of ≈ less than 1 gpm. Seeps 7, 8, 8C, and a new seep discovered just southwest of Seep 10 have visible water with no flow. Seep 8B was damp. All others dry. New seep will be given an official identifier if visible water persists

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

VEGETATION

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST	See Comments	☐ Yes ☐ No		
COVER - EAST		☐ Yes ☐ No		
DIVERSION BERM 1		☐ Yes ☐ No		
DIVERSION BERM 2		☐ Yes ☐ No		
DIVERSION BERM 3		☐ Yes ☐ No		
DIVERSION BERM 4		☐ Yes ☐ No		
DIVERSION BERM 5		☐ Yes ☐ No		
DIVERSION BERM 6		☐ Yes ☐ No		
DIVERSION BERM 7		☐ Yes ☐ No		
WEST PERIMETER CHANNEL		☐ Yes ☐ No		
EAST PERIMETER CHANNEL		☐ Yes ☐ No		
UPPER BUTTERESS FILL SIDESLOPE		☐ Yes ☐ No		
LOWER BUTTRESS FILL SIDESLOPE		☐ Yes ☐ No		

* Unwanted vegetation includes weeds and "woody vegetation." Woody vegetation within the OLF waste footprint shall be removed. Other locations shall be evaluated per Section 3.5.

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Veg. inspection no longer required by RFLMA.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES

CHANNELS

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 3	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 4	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 5	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 6	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 7	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
TEMPORARY CHECK DAMS*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
WEST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

* Check dams may be removed after vegetation is established.

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

EPC breached due to bank failure caused by slump's toe blocking the EPC. Flow through the breached area is approx. 3-4 gpm and travels down toward Woman Creek

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL 1	No Issues
DIVERSION BERM OUTFALL 2	↓
DIVERSION BERM OUTFALL 3	↓
DIVERSION BERM OUTFALL 4	↓
DIVERSION BERM OUTFALL 5	↓
DIVERSION BERM OUTFALL 6	Disrupted by Slumping Event
DIVERSION BERM OUTFALL 7	↓
WEST PERIMETER CHANNEL OUTFALL	No issues, No flow
EAST PERIMETER CHANNEL OUTFALL	Blocked by recent slump
FRENCH DRAIN OUTFALL (SID)	No flow (* ESSD outfall damp, no flow) NK 8/14/17

OTHER DEFICIENCIES?

~~ESSD~~ NK

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

"RUN-ON" CONTROL

AREA	ADVERSELY AFFECTING OLF?		
NORTH OF THE ORIGINAL LANDFILL	☐ Yes	☒ No	COMMENT:
WEST OF THE WEST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
EAST OF THE EAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NORTH OF WOMAN CREEK	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS, OR BUILDINGS ON COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
Erosion of backfill above Berm 5	7/20/2017	backfilled with hand tools	7/21/17	
Crack west of Slump's west edge	7/20/2017	backfilled with hand tools	8/10/17	

INSPECTOR SIGNATURE: [signature] DATE: 7/21/17

REVIEWER SIGNATURE: [signature] DATE: 7/25/2017

Attachment 1: July 2017
Monthly Report of the Original Landfill Inspection at the Rocky Flats Site, Colorado

The monthly inspection of the Original Landfill (OLF) at the Rocky Flats Site, Colorado, was completed on July 20, 2017. The weather was 81°F and sunny during the inspection. The Rocky Flats Site meteorological tower recorded 0.20 inches of precipitation between this inspection and the prior inspection on June 20, 2017. For comparison, the National Renewable Energy Laboratory M2 tower, near the northwest corner of the site, recorded 0.24 inches during the same period.

Figure 1 provides the approximate locations from which each of the inspection photographs were taken on the OLF (as shown in Figures 2–8).

The slump begins above berm 6, runs through berm 7, and terminates at the East Perimeter Channel (EPC) outfall (Figure 2). It is approximately 130 feet (ft) wide (east–west) and 200 ft long (north–south) and has approximately the same boundary as the 2016 slump area. Minor propagation of the slump was observed this month when a new crack was discovered outside the OLF waste footprint. The crack is approximately 38 ft long and located approximately 8 ft west of the previously reported western edge of the slump (Figure 3). The crack has been photographed and included in Figure 1 as "New crack adjacent to slump found 7/19/17." No further movement of the crack through berms 6 or 7 or through the center of the slump (Figure 4) has been observed. A crack above berm 4 was reported last month and has been backfilled. It is possible that this crack is also a sign of propagation upgradient of the slump, and it will be monitored as such. Slump movement will continue to be monitored and recorded.

The toe of the slump continues to fully block the lower half of the EPC drainage channel leading to the EPC outfall (Figure 5). Because of this, flow is being diverted just downgradient of the EPC, on the south-facing slope (Figure 6). The water in this area was flowing approximately 1–2 gallons per minute (gpm) and continues to run downgradient, creating pockets of damp soil leading to Woman Creek. There was no observable movement of sediment. This area will continue to be monitored to determine the effects of the recent movement and diverted flow.

At the time of inspection, the gravity drain line from the groundwater intercept wells was in place and connected to the flow-through line installed in the East Subsurface Drain (ESSD) (Figure 8). Approximately 1 inch of water was observed flowing at approximately 2–3 gpm in the ESSD flow-through line. The ESSD outfall was also flowing at approximately 2–3 gpm.

The revegetation of recently disturbed areas on the OLF is managed and monitored under the *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (DOE 2007)[1] and under sitewide vegetation and revegetation plans.

Seeps 9 and 10 had an approximate flow of less than 1–2 gpm. Seeps 7, 8, 8C and a new seep discovered just southwest of seep 10 (Figure 8) have visible water with no flow. Seep 8B was damp. All other historical seep locations were dry at the time of inspection. The new seep will be given an official identifier if visible water persists and the source of water can be confirmed to be from the subsurface. Along the berm 5 channel approximately 150–200 ft west of seep 10, the backfill from a previous crack was eroded. There is no hillside movement associated with this erosion, and maintenance is planned to backfill the crack with hand tools to minimize surface water infiltration.

Summary

The slump reported in the June 2017 OLF inspection report has expanded on the supporting slope east of the OLF, as evidenced by a new crack 8 ft west of the previously identified slump area. The slump is similar to the spring 2016 slump area and direction. The slump starts above berm 6 and terminates at the EPC, blocking the EPC outfall and diverting water to the hillside downgradient of the channel. The slump will continue to be monitored for signs of further movement.

Minor maintenance actions have been taken to address the issues mentioned above. Hand tools were used to backfill cracks. The short-term maintenance activities are consistent with the *Rocky Flats Legacy Management Agreement*, including Attachment 2 modifications (CDPHE et al. 2012)[2] and the *U.S. Department of Energy Rocky Flats Site*, *Original Landfill Monitoring and Maintenance Plan* (DOE 2009)[3]. The inspection forms are filled out to represent current conditions at the OLF. Repaired items are not check marked as evidence of deficiency unless further action is warranted.

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[1] DOE (U.S. Department of Energy), 2007. *Erosion Control Plan for the Rocky Flats Property Central Operable Unit*, DOE-LM/1497-2007, U.S. Department of Energy, July 2007.

[2] *Rocky Flats Legacy Management Agreement*, including Attachment 2 modifications, Colorado Department of Public Health and Environment, DOE, and U.S. Environmental Protection Agency, December 2012. Available at http://www.lm.doe.gov/Rocky_Flats/RFLMA.pdf.

[3] *U.S. Department of Energy Rocky Flats Site*, *Original Landfill Monitoring and Maintenance Plan*, LMS/RFS/S05516, U.S. Department of Energy Office of Legacy Management, September 2009.

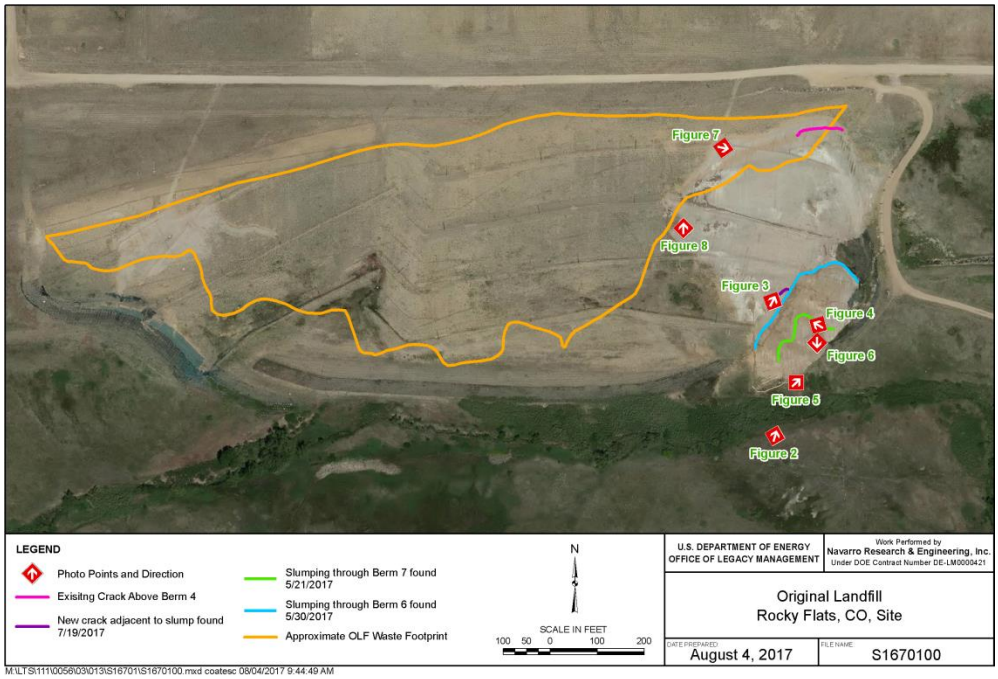

Figure 1: Location and Direction of Each Photograph Cited in This Report (Figures 2–9), Original Landfill, Rocky Flats Site, Colorado

Figure 2: Looking North Toward Slump on June 13, 2017

Figure 3: Looking Northeast at New Crack, Approximately 38 Feet Long, Discovered Approximately 8 Feet West of Previous Western Edge of Slump (See Figure 1)

Figure 4: Looking West at the Central Crack and the Crack That Runs Through Berms 6 and 7

Figure 5: Looking North at the Area of the EPC Outfall that Is Blocked by the Recent Slump

Figure 6: Looking Southwest at the Wet Area Created by Movement of the Toe of the Slump into the EPC

Figure 7: Looking East, the Gravity Drain Line from the Groundwater Intercept Wells Connects to the Flow-Through Line Installed in the ESSD

Figure 8: Looking South at a New Wet Area Just Southwest of Seep 10

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

*Monthly Inspection

INSPECTOR: Nathan Krohn DATE: 8/21/2017 TIME: 1100 REVIEWED BY: Jeremy Wehner

TEMPERATURE: 87°F WEATHER CONDITIONS: Sunny, Partly Cloudy REVIEW DATE: 8/22/2017

*Precipitation: NREL = 2.62 inches RFMET = 1.71 inches

SUBSIDENCE / CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
COVER – WEST	NK 8/21/17 ☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	NK 8/21/17 ☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 3	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 4	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 5	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	No drainage for seep below berm 5
DIVERSION BERM 6	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 7	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

Settlement Plates – Inspect integrity. Intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

There are no cracks on the cover. Cracks that have been backfilled are not checked as deficiencies. There has been no further movement of the cracks running through berms 6 and 7. A weather-related inspection conducted on 8/8/17 is attached.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW
COVER – WEST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
WEST PERIMETER CHANNEL SIDESLOPES	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST PERIMETER CHANNEL SIDESLOPES	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No NK 8/21/17	EPC blocked by toe of slump toe continued to sag since last inspection
COVER SEEPS (IF PRESENT)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	See Comments

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Seep 7 is damp, Seep 10A has visible water w/ no flow
Seep 10 is dry at source and visible water downgradient
Seep 8A damp, Seep 8C (east) visible ~~flow~~ water w/ no flow NK 8/21/17
Seep 9 has visible water w/ no flow. The EPC is both blocked and breached by slump.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

VEGETATION

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST	See Comments	☐ Yes ☐ No		
COVER - EAST		☐ Yes ☐ No		
DIVERSION BERM 1		☐ Yes ☐ No		
DIVERSION BERM 2		☐ Yes ☐ No		
DIVERSION BERM 3		☐ Yes ☐ No		
DIVERSION BERM 4		☐ Yes ☐ No		
DIVERSION BERM 5		☐ Yes ☐ No		
DIVERSION BERM 6		☐ Yes ☐ No		
DIVERSION BERM 7		☐ Yes ☐ No		
WEST PERIMETER CHANNEL		☐ Yes ☐ No		
EAST PERIMETER CHANNEL		☐ Yes ☐ No		
UPPER BUTTERESS FILL SIDESLOPE		☐ Yes ☐ No		
LOWER BUTTRESS FILL SIDESLOPE		☐ Yes ☐ No		

* Unwanted vegetation includes weeds and "woody vegetation." Woody vegetation within the OLF waste footprint shall be removed. Other locations shall be evaluated per Section 3.5.

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Vegetation inspection is no longer required by RFLMA. New areas of disturbance are addressed under the site wide revegetation plan "Erosion Control Plan for Rocky Flats Property Central Operable Unit."

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES

CHANNELS

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 3	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 4	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 5	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 6	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 7	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
TEMPORARY CHECK DAMS*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
WEST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

* Check dams ~~may be removed after vegetation is established.~~ installed per contact record (CR) 2015-06
NK 8/16/17

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

perpendicular cracks through berms 6 + 7 within slump area have not changed
Toe of slump has experienced some movement at the lower end of EPC.

PAGE 5 OF 9

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL 1	No issues
DIVERSION BERM OUTFALL 2	↓
DIVERSION BERM OUTFALL 3	
DIVERSION BERM OUTFALL 4	
DIVERSION BERM OUTFALL 5	
DIVERSION BERM OUTFALL 6	Disrupted by slump since late May 2017
DIVERSION BERM OUTFALL 7	Disrupted by slump since late May 2017
WEST PERIMETER CHANNEL OUTFALL	No issues, no flow
EAST PERIMETER CHANNEL OUTFALL	Blocked and breached by toe of slump
FRENCH DRAIN OUTFALL (SID)	No flow East Subsurface Drain (ESSD) outfall: visible flow of 1-2 GPM

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Toe of slump has had some movement. Visible water at ESSD from operation of the 440 and 460 GWI wells

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

"RUN-ON" CONTROL

AREA	ADVERSELY AFFECTING OLF?		
NORTH OF THE ORIGINAL LANDFILL	☐ Yes	☒ No	COMMENT:
WEST OF THE WEST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
EAST OF THE EAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NORTH OF WOMAN CREEK	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS, OR BUILDINGS ON COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
Crack above berm 4	8/8/17	staked, photographed, & backfilled	8/9/17	
Crack west of western slumpedge	8/8/17	staked, photographed, & backfilled	8/16/17	

INSPECTOR SIGNATURE: [signature] DATE: 8/21/17

REVIEWER SIGNATURE: [signature] DATE: 8/22/17

Attachment 1: August 2017

Monthly Report of the Original Landfill Inspection at the Rocky Flats Site, Colorado

The monthly inspection of the Original Landfill (OLF) at the Rocky Flats Site, Colorado, was completed on August 21, 2017. The weather was 87 °F and partly cloudy during the inspection. The Rocky Flats Site meteorological tower recorded 2.13 inches of precipitation between this inspection and the prior inspection on July 20, 2017. For comparison, the National Renewable Energy Laboratory M2 tower, near the northwest corner of the site, recorded 3.27 inches during the same period.

A weather-related inspection was conducted on August 8, 2017 in accordance with the *U.S. Department of Energy Rocky Flats Site, Original Landfill Monitoring and Maintenance Plan* (DOE 2009)[1] (referred to herein as the OLF M&M Plan), which requires an inspection to be completed following a precipitation event of 1 inch or greater. The Rocky Flats Site meteorological tower recorded 0.97 inches and the National Renewable Energy Laboratory M2 tower recorded 1.55 inches for August 7. There was no immediate movement after this event.

Figure 1 provides the locations of OLF key features and the approximate locations and directions from which each of the inspection photographs (Figures 2–7) was taken.

The May 18 slump on the supporting slope east of the OLF begins above berm 6, runs through berm 7, and terminates at the East Perimeter Channel (EPC) outfall (Figure 2). It is approximately 130 feet (ft) wide (from east to west) and 200 ft long (from north to south) and has approximately the same boundary as the 2016 slump area. There has been further movement at the EPC outfall. The toe of the slump continues to migrate towards Woman Creek, partially encompassing the boulders that line the outfall (Figure 3). Minor propagation of the slump occurred in late July, as evidenced by a new crack that branches out about 8 ft southwest from the western edge of the current boundary of the slump. It was staked, photographed, mapped with GPS, and backfilled on August 16, 2017. There has been no further movement of the cracks through berms 6 and 7, or the cracking through the center of the slump (Figure 4). Slump movement will continue to be monitored and recorded.

A surface crack located approximately 30 ft upgradient of the east end of berm 4 was discovered June 19, 2017, and was staked, photographed, mapped with gps, and backfilled the following day. The crack reopened this month and appeared to have gotten longer, so it was measured to get an updated length. With a current approximate length of 75 ft, this crack now extends into the

[1] DOE (U.S. Department of Energy), 2009. *U.S. Department of Energy Rocky Flats Site, Original Landfill Monitoring and Maintenance Plan*, LMS/RFS/S05516, Office of Legacy Management, September.

OLF waste footprint (Figure 1). The crack is denoted on Figure 1 as "Existing Crack" because of its original June sighting. It was staked, photographed, and backfilled again on August 9, 2017.

The toe of the slump continues to fully block the lower segment of the EPC drainage channel leading to the EPC outfall (Figure 5), forcing a breach of the EPC side slope and diverting flow downgradient of the EPC to the south-facing hill slope (Figure 6). The water in this area was flowing approximately 1–2 gallons per minute (gpm) and continues to run downgradient, creating pockets of wet soil leading to Woman Creek. There was no observable erosion or movement of sediment in this area, and it will continue to be monitored.

At the time of inspection, the gravity drain line from the groundwater intercept wells was in place and connected to the flow-through line installed in the East Subsurface Drain (ESSD) (Figure 7). Approximately 1 inch of water was observed flowing at approximately 2–3 gpm in the ESSD flow-through line. The ESSD outfall was also flowing at approximately 2–3 gpm.

The revegetation of recently disturbed areas on the OLF is managed and monitored under the *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (DOE 2007)[2] and under sitewide vegetation and revegetation plans.

Seeps 8C, 9, and 10A had visible water but no flow. Seeps 7 and 8A had damp soil. Seep 10 was dry at the source, but had visible water downgradient. All other historical seep locations were dry at the time of inspection.

Summary

The May 18 slump expanded in late July on the supporting slope east of the OLF, as evidenced by a new crack that branches out about 8 ft southwest from the western edge of the current boundary of the slump. The slump is similar to the spring 2016 slump area and direction. The slump starts above berm 6 and terminates at the EPC, blocking the EPC outfall and forcing a breach of the EPC side slope, and diverting water to the hillside downgradient of the channel. The toe of the slump has begun to encompass the boulders that line the top edge of the outboard bank of the EPC. The slump will continue to be monitored for signs of movement. Seeps 7, 8A, 8C, 9, and 10A had visible moisture after a relatively dry week.

Minor maintenance actions have been taken to address the issues mentioned above. Hand tools were used to backfill cracks to minimize surface water infiltration. The short-term maintenance activities are consistent with the *Rocky Flats Legacy Management Agreement* (CDPHE et al.

[2] DOE (U.S. Department of Energy), 2007. *Erosion Control Plan for the Rocky Flats Property Central Operable Unit*, DOE-LM/1497-2007, U.S. Department of Energy, July.

2012),[3] including Attachment 2 modifications and the OLF M&M Plan. The inspection forms are filled out to represent current conditions at the OLF. Repaired items are not check marked as evidence of deficiency unless further action is warranted.

[3] CDPHE (Colorado Department of Public Health and Environment), DOE (U.S. Department of Energy), and EPA (U.S. Environmental Protection Agency), 2012. *Rocky Flats Legacy Management Agreement*, including Attachment 2 modifications, December. Available at http://www.lm.doe.gov/Rocky_Flats/RFLMA.pdf.

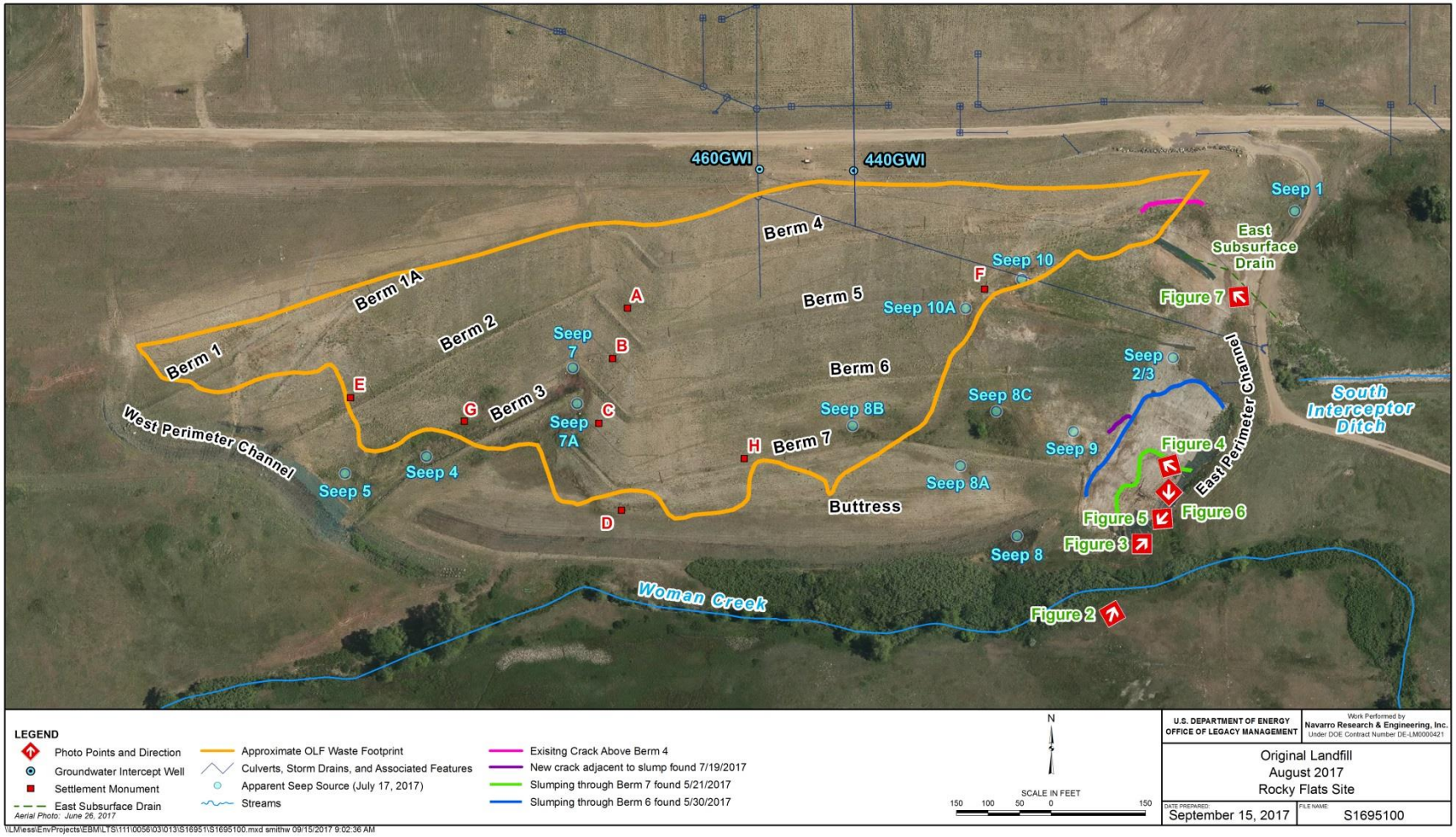

Figure 1: Map of OLF Key Features and the Location and Direction for All Report Photographs, Rocky Flats Site, Colorado

Figure 2: Looking North Toward Slump on Supporting Hillside of the OLF

Figure 3: Looking Toward Toe of Slump at Edge of EPC Outfall

Figure 4: Looking West at the Central Crack and the Crack That Runs Through Berms 6 and 7

Figure 5: Looking Southwest at the Area of the EPC Outfall that Is Blocked by the Slump

Figure 6: Looking South at the Wet Area Created by Movement of the Toe of the Slump into the EPC

Figure 7: Looking Northwest, the Gravity Drain Line from the Groundwater Intercept Wells Connects to the Flow-Through Line Installed in the ESSD

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

*Weather-related Inspection *~~Monthly~~ Weekly Inspection NK 8/17/17 *Precipitation: NREL = 1.55 inches RFMET = 0.97 inches (for 8/17/17)

INSPECTOR: Nathan Krohn DATE: 8/8/2017 TIME: 9:15 AM REVIEWED BY: Jeremy Wehner

TEMPERATURE: 66°F WEATHER CONDITIONS: Partly Cloudy REVIEW DATE: 8/17/2017

SUBSIDENCE / CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 3	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 4	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	~~Small pond from Seep below berm 5~~ NK 8/8/17
DIVERSION BERM 5	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	Small pond from Seep below berm 5
DIVERSION BERM 6	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 7	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	small pond in berm 7 channel of slump area

Settlement Plates – Inspect integrity. Intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

New fractures branching off from crack located 8 feet west of western border of the slump. No further movement of cracks through berms 6 and 7, or crack above berm 4. Position of slump in the EPC/outfall has not changed. Total monthly precipitation is as follows: NREL = 1.86 inches RFMET = 1.08 inches

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW
COVER – WEST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
COVER – EAST	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	Crack above berm 4
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
WEST PERIMETER CHANNEL SIDESLOPES	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST PERIMETER CHANNEL SIDESLOPES	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ~~☒~~ No NK 8/8/17	EPC blocked No change since last inspection
COVER SEEPS (IF PRESENT)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Crack above berm 4 extends into Historic Waste Footprint, no movement observed since last inspection
Position of slump in EPC/outfall has not changed since last inspection

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

VEGETATION

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST	See Comments	☐ Yes ☐ No		
COVER - EAST		☐ Yes ☐ No		
DIVERSION BERM 1		☐ Yes ☐ No		
DIVERSION BERM 2		☐ Yes ☐ No		
DIVERSION BERM 3		☐ Yes ☐ No		
DIVERSION BERM 4		☐ Yes ☐ No		
DIVERSION BERM 5		☐ Yes ☐ No		
DIVERSION BERM 6		☐ Yes ☐ No		
DIVERSION BERM 7		☐ Yes ☐ No		
WEST PERIMETER CHANNEL		☐ Yes ☐ No		
EAST PERIMETER CHANNEL		☐ Yes ☐ No		
UPPER BUTTERESS FILL SIDESLOPE		☐ Yes ☐ No		
LOWER BUTTRESS FILL SIDESLOPE		☐ Yes ☐ No		

* Unwanted vegetation includes weeds and "woody vegetation." Woody vegetation within the OLF waste footprint shall be removed. Other locations shall be evaluated per Section 3.5.

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Vegetation inspection is no longer required by RFLMA. New areas of disturbance are addressed under the site wide revegetation plan "Erosion Control Plan for Rocky Flats Property Central Operable Unit."

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES

CHANNELS

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 3	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 4	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 5	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 6	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 7	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
TEMPORARY CHECK DAMS*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
WEST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

* Check dams ~~may be removed after vegetation is established~~ installed per contact record (CR) 2015-06
NK 8/16/17

OTHER DEFICIENCIES?

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

berms 6 and 7 have perpendicular cracks from slump; no change since last inspection

toe of slump blocking EPC/outfall, no further movement since last inspection. ~~Toe of slump has also~~ NK 8/17/17

NK 8/17/17 > The EPC Blockage is forcing a breach, water bypassing EPC outfall to Woman Creek

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL 1	No issues
DIVERSION BERM OUTFALL 2	↓
DIVERSION BERM OUTFALL 3	
DIVERSION BERM OUTFALL 4	
DIVERSION BERM OUTFALL 5	
DIVERSION BERM OUTFALL 6	Disrupted by slump
DIVERSION BERM OUTFALL 7	Disrupted by slump
WEST PERIMETER CHANNEL OUTFALL	No issues, no flow
EAST PERIMETER CHANNEL OUTFALL	Blocked by the toe of slump, causing breach
FRENCH DRAIN OUTFALL (SID)	No flow East Subsurface Drain (ESSD) outfall: visible ponding

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No further disruption since last inspection. Ponding at ESSD outfall is due to heavy precipitation and the concurrent operation of the 440 and 460 Groundwater Intercept (GWI) wells.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

"RUN-ON" CONTROL

AREA	ADVERSELY AFFECTING OLF?		
NORTH OF THE ORIGINAL LANDFILL	☐ Yes	☒ No	COMMENT:
WEST OF THE WEST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
EAST OF THE EAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NORTH OF WOMAN CREEK	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS, OR BUILDINGS ON COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
Crack above berm 4	8/8/17	Staked, photographed, + backfilled	8/9/17	
Crack west of western slump edge	8/8/17	Staked, photographed, + backfilled	8/16/17	

INSPECTOR SIGNATURE: [signature] DATE: 8/16/17

REVIEWER SIGNATURE: [signature] DATE: 8/17/2017

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

*Monthly Inspection

INSPECTOR: Nathan Krohn DATE: 9/21/2017 TIME: 1300 REVIEWED BY: Jeremy Wehner

TEMPERATURE: 86°F WEATHER CONDITIONS: Sunny, Clear skies REVIEW DATE: 9/21/2017

Precip: NREL = .06 inches METRF = .09 inches

SUBSIDENCE / CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 3	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 4	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 5	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 6	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 7	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

Settlement Plates – Inspect integrity. Intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No cracks on the cover. Cracks that have been backfilled are not checked as deficient.
No further movement on the east supporting hillside in September

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW
COVER – WEST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
WEST PERIMETER CHANNEL SIDESLOPES	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST PERIMETER CHANNEL SIDESLOPES	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No	Breached by slump, path to outfall bypassed toward Woman Creek.
COVER SEEPS (IF PRESENT)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	See comments

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Seep 7 has damp soil; Seep 4 is damp; new seep 30 ft downgradient of seep 10A (damp); Seep 8C has damp soil w/ a few pockets of visible water; Seep 8B damp; Seep 9 has visible water w/ no flow; Seep 8 has damp soil with several pockets of visible water.
The EPC is blocked by the toe of the slump ~~forcing~~ and a breach of the eastern sideslope is sending a steady flow of water directly to Woman Creek. MK 9/21/17

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

VEGETATION

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST	See Comments	☐ Yes ☐ No		
COVER - EAST		☐ Yes ☐ No		
DIVERSION BERM 1		☐ Yes ☐ No		
DIVERSION BERM 2		☐ Yes ☐ No		
DIVERSION BERM 3		☐ Yes ☐ No		
DIVERSION BERM 4		☐ Yes ☐ No		
DIVERSION BERM 5		☐ Yes ☐ No		
DIVERSION BERM 6		☐ Yes ☐ No		
DIVERSION BERM 7		☐ Yes ☐ No		
WEST PERIMETER CHANNEL		☐ Yes ☐ No		
EAST PERIMETER CHANNEL		☐ Yes ☐ No		
UPPER BUTTERESS FILL SIDESLOPE		☐ Yes ☐ No		
LOWER BUTTRESS FILL SIDESLOPE		☐ Yes ☐ No		

* Unwanted vegetation includes weeds and "woody vegetation." Woody vegetation within the OLF waste footprint shall be removed. Other locations shall be evaluated per Section 3.5.

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Vegetation inspection is no longer required by RFLMA. New areas of disturbance are addressed under the site wide revegetation plan "Erosion Control Plan for Rocky Flats Property Central Operable Unit."

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES

CHANNELS

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 3	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 4	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 5	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 6	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 7	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
TEMPORARY CHECK DAMS*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
WEST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

* Check dams ~~may be removed after vegetation is established.~~ installed per contact record (CR) 2015-06
NK 8/16/17

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Cracking through Berms 6 and 7 from the May 18, 2017 slump remain unchanged
The toe of the slump has not progressed toward Woman Creek in September

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM
STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL 1	No Issues
DIVERSION BERM OUTFALL 2	↓
DIVERSION BERM OUTFALL 3	
DIVERSION BERM OUTFALL 4	
DIVERSION BERM OUTFALL 5	
DIVERSION BERM OUTFALL 6	Disrupted by slumping in late May 2017
DIVERSION BERM OUTFALL 7	Disrupted by slumping in late May 2017
WEST PERIMETER CHANNEL OUTFALL	No issues, no flow
EAST PERIMETER CHANNEL OUTFALL	Blocked and breached by toe of May Slump
FRENCH DRAIN OUTFALL (SID)	No Flow | East Subsurface Drain (ESSD) outfall: visible flow of 1-2 gpm

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No movement of slump in September. Visible flow at ESSD Outfall from operation of the 440 and 460 GroundWater Intercept (GWI) wells.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

"RUN-ON" CONTROL

AREA	ADVERSELY AFFECTING OLF?		
NORTH OF THE ORIGINAL LANDFILL	☐ Yes	☒ No	COMMENT:
WEST OF THE WEST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
EAST OF THE EAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NORTH OF WOMAN CREEK	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS, OR BUILDINGS ON COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
N/A	9/21/2017			

INSPECTOR SIGNATURE: Nathan Knoll DATE: 9/21/2017

REVIEWER SIGNATURE: [illegible] DATE: 9/21/2017

Attachment 1: September 2017

Monthly Report of the Original Landfill Inspection at the Rocky Flats Site, Colorado

The monthly inspection of the Original Landfill (OLF) at the Rocky Flats Site, Colorado, was completed on September 21, 2017. The weather was sunny and 86 °F during the inspection. The Rocky Flats Site meteorological tower recorded 0.09 inches of precipitation between this inspection and the prior inspection on August 21, 2017. For comparison, the National Renewable Energy Laboratory M2 tower, near the northwest corner of the site, recorded 0.06 inches during the same period.

Figure 1 provides the locations of OLF key features and the approximate locations and directions from which each of the inspection photographs (Figures 2–7) were taken.

The May 18, 2017 slump on the supporting slope southeast of the OLF waste footprint begins above berm 6, runs through berm 7, and terminates at the East Perimeter Channel (EPC) outfall (Figure 2). It is approximately 130 feet (ft) wide (from east to west) and 200 ft long (from north to south) and has approximately the same boundary as the 2016 slump area. A weather-related inspection on August 8, 2017 revealed that the toe of the slump had migrated towards Woman Creek for the first time since May 18, partially encompassing the boulders that line the EPC outfall (Figure 3). There has been no further observable movement of the toe of the slump since August 8, and no further observable movement of the cracks through berms 6 and 7 since the monthly inspection on June 20 (Figure 4). Slump movement will continue to be monitored and recorded.

Since the monthly inspection on June 20, the toe of the slump has fully blocked the lower segment of the EPC drainage channel leading to the EPC outfall (Figure 5), forcing surface flow in the EPC to breach the EPC side slope, and subsequently flow downgradient of the EPC to the south-facing hill slope. Currently the water in this area is flowing approximately 1–2 gallons per minute (gpm) and as it proceeds downgradient, pockets of wet soil are located along the flow path leading to Woman Creek. The surface flow originates from a corrugated pipe in the EPC that collects water from seep 2/3, and is frequently subject to damage from wildlife. There was no observable erosion or movement of sediment in this area, and it will continue to be monitored.

At the time of inspection, the gravity drain line that connects the groundwater intercept (GWI) wells to the flow-through line installed in the East Subsurface Drain (ESSD) (Figure 6) was in place and in excellent condition. Approximately 1 inch of water was observed flowing at approximately 1–2 gpm in both the ESSD flow-through line and at the ESSD outfall. This indicates that the GWI wells were operating at the time and that there were no obstructions along the path to the ESSD outfall.

The revegetation of recently disturbed areas on the OLF is managed and monitored under the *Erosion Control Plan for Rocky Flats Property Central Operable Unit* (DOE 2007)[1] and under sitewide vegetation and revegetation plans.

Seeps 8, 8C, and 9 had pockets of visible water with no observable flow. Seeps 7 and 8B had damp soil without visible pockets or flows of water. Although Seep 10A was dry at the time of inspection, damp soil was discovered approximately 30 ft downgradient (Figure 7). All other historical seep locations were dry at the time of inspection.

Summary

The May 18 slump on the supporting slope southeast of the OLF waste footprint starts above berm 6 and terminates at the EPC, blocking the EPC outfall and forcing surface flow to breach the EPC side slope, which diverts water to the hillside downgradient of the breach. The slump is similar to the spring 2016 slump area and direction. The slump has remained stable with the exception of the toe, which migrated toward Woman Creek in early August, and now partially encompasses the boulders that line the top edge of the outboard bank of the EPC. The slump will continue to be monitored for signs of movement. Seeps 7, 8, 8B, 8C, and 9 had visible moisture after a relatively dry month. Damp soil was discovered approximately 30 ft downgradient of Seep 10A.

No minor maintenance actions were required at this time. When needed, hand tools are used to backfill cracks to minimize surface water infiltration. The short-term maintenance activities are consistent with the *Rocky Flats Legacy Management Agreement* (CDPHE et al. 2012),[2] including Attachment 2 modifications and the OLF Monitoring and Maintenance Plan. The inspection forms are filled out to represent current conditions at the OLF. Repaired items are not check-marked as evidence of deficiency unless further action is warranted. Slump maintenance is beyond the scope of repair using hand tools. A maintenance activity is scheduled for October 2017 to regrade the slump surface for positive drainage, fill cracks, and compact the surface to minimize direct infiltration.

[1] DOE (U.S. Department of Energy), 2007. *Erosion Control Plan for the Rocky Flats Property Central Operable Unit*, DOE-LM/1497-2007, Office of Legacy Management, July.

[2] CDPHE (Colorado Department of Public Health and Environment), DOE (U.S. Department of Energy), and EPA (U.S. Environmental Protection Agency), 2012. *Rocky Flats Legacy Management Agreement*, including Attachment 2 modifications, December. Available at http://www.lm.doe.gov/Rocky_Flats/RFLMA.pdf.

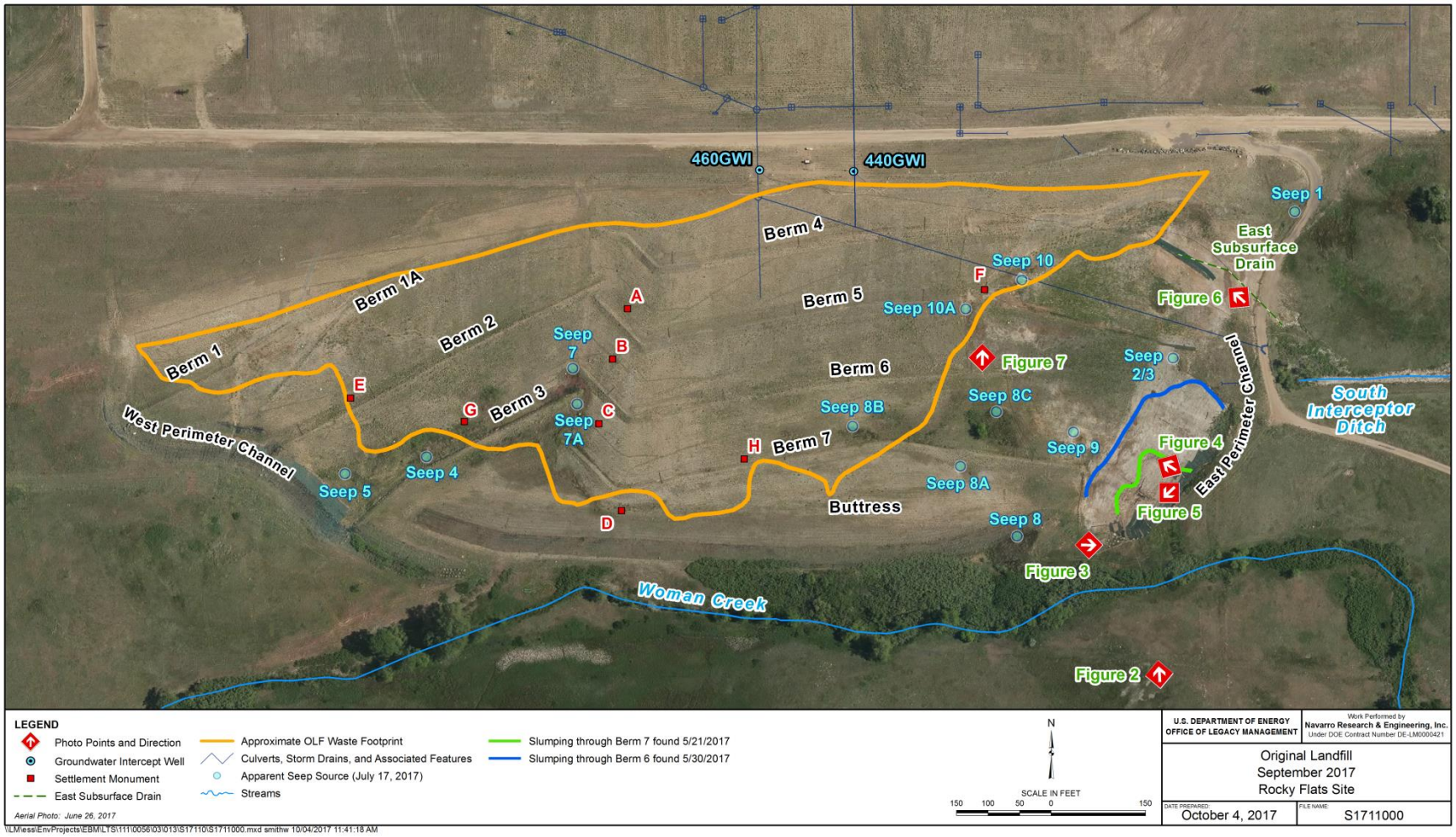

Figure 1: Map of OLF Key Features and the Location and Direction for All Report Photographs, Rocky Flats Site, Colorado

Figure 2: Looking North Toward Slump on Supporting Hillside of the OLF

Figure 3: Looking East Toward Toe of Slump at Edge of EPC Outfall

Figure 4: Looking West at the Central Crack and the Crack That Runs Through Berms 6 and 7

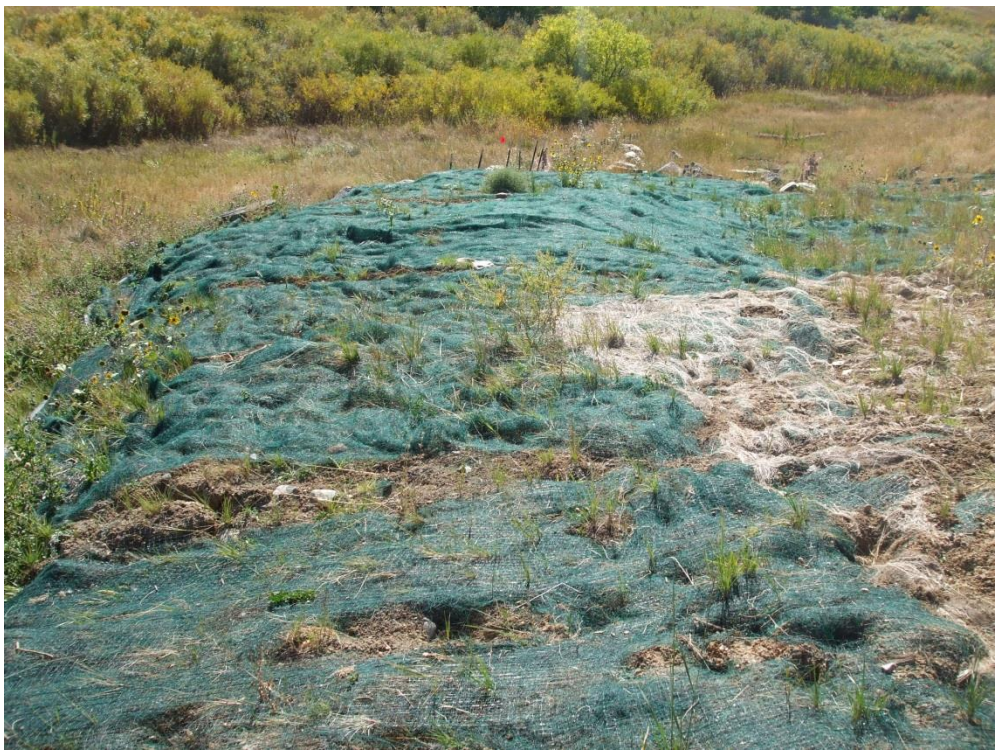

Figure 5: Looking Southwest at the Area of the EPC Outfall That Is Blocked by the Slump

Figure 6: Looking Northwest, the Gravity Drain Line from the Groundwater Intercept Wells Connects to the Flow-Through Line Installed in the ESSD

Figure 7: Looking North to the Damp Soil, Middle, Which Is Approximately 30 ft Downgradient of Seep 10A/Berm 5

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

* Weather-related Inspection

INSPECTOR: Nathan Krohn DATE: 9/25/2017 TIME: 9:45 REVIEWED BY: Jeremy Wehner

TEMPERATURE: 43°F WEATHER CONDITIONS: Cloudy, foggy REVIEW DATE: 9/26/2017

Precip: NREL = 1.2 inches RFMET = .95 inches

SUBSIDENCE / CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 3	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 4	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 5	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 6	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
DIVERSION BERM 7	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

Settlement Plates – Inspect integrity. Intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No cracking or slumping on landfill cover from weekend rain event

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF SEEPS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	OTHER (DESCRIBE BELOW
COVER – WEST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
WEST PERIMETER CHANNEL SIDESLOPES	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST PERIMETER CHANNEL SIDESLOPES	☒ Yes ☒ No NK 9/25/17	☐ Yes ☒ No	☒ Yes ☐ No	See comments
COVER SEEPS (IF PRESENT)	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No change to blockage and breach of EPC/sideslopes by the toe of the May 18 slump.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
BUTTRESS FILL SIDESLOPE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

VEGETATION

REGION	CONDITION OF GRASS	UNWANTED VEGETATION PRESENT*?	PERCENTAGE OF GRASS VERSUS BARE GROUND?	PERCENTAGE OF UNWANTED VEGETATION?
COVER- WEST	See Comments	☐ Yes ☐ No		
COVER - EAST		☐ Yes ☐ No		
DIVERSION BERM 1		☐ Yes ☐ No		
DIVERSION BERM 2		☐ Yes ☐ No		
DIVERSION BERM 3		☐ Yes ☐ No		
DIVERSION BERM 4		☐ Yes ☐ No		
DIVERSION BERM 5		☐ Yes ☐ No		
DIVERSION BERM 6		☐ Yes ☐ No		
DIVERSION BERM 7		☐ Yes ☐ No		
WEST PERIMETER CHANNEL		☐ Yes ☐ No		
EAST PERIMETER CHANNEL		☐ Yes ☐ No		
UPPER BUTTERESS FILL SIDESLOPE		☐ Yes ☐ No		
LOWER BUTTRESS FILL SIDESLOPE		☐ Yes ☐ No		

* Unwanted vegetation includes weeds and "woody vegetation." Woody vegetation within the OLF waste footprint shall be removed. Other locations shall be evaluated per Section 3.5.

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

Vegetation inspection is no longer required by RFLMA. New areas of disturbance are addressed under the site wide revegetation plan "Erosion Control Plan for Rocky Flats Property Central Operable Unit."

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

STORMWATER MANAGEMENT STRUCTURES

CHANNELS

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?
DIVERSION BERM 1	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 2	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 3	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 4	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 5	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 6	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
DIVERSION BERM 7	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No
TEMPORARY CHECK DAMS*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
WEST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No	☒ Yes ☐ No

* Check dams may be removed after vegetation is established.

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No change to cracking through berms 6 and 7; No change to position of the toe of the slump within the EPC or EPC outfall.

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM
STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION / SEDIMENT DEPTH
DIVERSION BERM OUTFALL 1	No Issues
DIVERSION BERM OUTFALL 2	↓
DIVERSION BERM OUTFALL 3	↓
DIVERSION BERM OUTFALL 4	↓
DIVERSION BERM OUTFALL 5	↓
DIVERSION BERM OUTFALL 6	Disrupted by May 18 slump, no change
DIVERSION BERM OUTFALL 7	↓ ↓ ↓
WEST PERIMETER CHANNEL OUTFALL	No issues, no flow, no change
EAST PERIMETER CHANNEL OUTFALL	Blocked and breached by toe of May 18 slump, no change
FRENCH DRAIN OUTFALL (SID)	No flow | ESSD outfall: flow of 1-2 GPM, no change

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED / COMMENTS / PHOTO LOG

No change to stormwater management structures from weekend rain event

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

"RUN-ON" CONTROL

AREA	ADVERSELY AFFECTING OLF?		
NORTH OF THE ORIGINAL LANDFILL	☐ Yes	☒ No	COMMENT:
WEST OF THE WEST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
EAST OF THE EAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NORTH OF WOMAN CREEK	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED

No maintenance required

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS, TRAILS, OR BUILDINGS ON COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES / PHOTO LOG

N/A

ORIGINAL LANDFILL – MONITORING AND MAINTENANCE PLAN INSPECTION FORM

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
N/A	9/25/2017			

INSPECTOR SIGNATURE: Matthew Kuhn DATE: 9/25/2017

REVIEWER SIGNATURE: P.W. DATE: 9/25/2017

Rocky Flats Site
Original Landfill - Settlement Plates Monitoring
Quarterly Survey September 05, 2017 Comparison to Previous June 13, 2017

09-05-17 OBSERVATIONS					DELTA	DELTA	DELTA	06-13-17 OBSERVATIONS				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION	NORTHING	EASTING	ELEVATION	POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
65062	747913.42	2082234.06	6005.01	N RIM PIPE AA	-0.03	0.01	0.01	65013	747913.39	2082234.07	6005.02	N RIM PIPE AA
65063	747644.85	2081851.22	5975.33	N RIM PIPE BB	-0.03	-0.01	0.02	65014	747644.82	2081851.21	5975.35	N RIM PIPE BB
65065	747883.19	2081665.99	6019.57	N RIM PIPE CC	0.00	0.00	-0.01	65016	747883.19	2081665.98	6019.56	N RIM PIPE CC
65066	747803.30	2081642.35	6006.08	N RIM PIPE DD	0.00	-0.01	0.00	65017	747803.31	2081642.35	6006.08	N RIM PIPE DD
65067	747700.68	2081620.53	5988.53	N RIM PIPE EE	0.00	0.00	-0.01	65018	747700.67	2081620.53	5988.52	N RIM PIPE EE
65069	747703.28	2081407.64	5997.13	N RIM PIPE FF	0.02	-0.03	-0.01	65020	747703.29	2081407.61	5997.12	N RIM PIPE FF
65068	747563.07	2081656.30	5974.12	N RIM PIPE GG	0.00	0.01	0.00	65019	747563.07	2081656.31	5974.12	N RIM PIPE GG
65070	747738.28	2081227.54	6012.57	N RIM PIPE HH	0.02	0.00	0.01	65021	747738.30	2081227.54	6012.58	N RIM PIPE HH

DELTAS ARE CALCULATED AS THE DIFFERENCE BETWEEN THE 09-05-17 OBSERVATION AND THE 06-13-17 OBSERVATION

POINTS ARE GRID BASED COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 27, NGVD 29

PRESENT LANDFILL – MONITORING AND MAINTENANCE PROGRAM

INSPECTION FORM

*Weather-related and 3rd Quarterly Inspection

INSPECTOR: Nathan Krohn DATE: 8/8/17 TIME: 1430 REVIEWED BY: Jeremy Wehner

TEMPERATURE: 64°F WEATHER CONDITIONS: Overcast, rain REVIEW DATE: 8/9/17

METEOROLOGICAL STATION LOCATION: Rocky Flats

SUBSIDENCE/CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
TOP OF COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH SEEP*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

Settlement Plates and side-slope monitoring points to be inspected for integrity.
During Year 1, they will be surveyed quarterly, and annually thereafter

Integrity intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

Weather-related required, Precipitation: NREL = 1.55 inches / RFMET = 0.97 inches

* AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	EVIDENCE OF SEEPS?	OTHER (DESCRIBE BELOW)
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
PERIMETER CHANNEL OUTER SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
PERIMETER CHANNEL OUTER SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH SEEP*	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	No visible water

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

* AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
TOP OF COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
AREA WHERE EAST SLOPE CENTRAL MEETS EAST SLOPE NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
AREA WHERE EAST SLOPE CENTRAL MEETS EAST SLOPE SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
	VENT CAPS IN PLACE & SECURE?	**STANDPIPES IN GOOD CONDITION?**	**BIRDS OR INSECTS IN VENT CAPS?**	
COVER – BAROMETRIC VENTS	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

SEEP TREATMENT SYSTEM

REGION	EVIDENCE OF PLUGGING, OBSTRUCTIONS, OR EXCESS DEBRIS?	EVIDENCE OF CRACKS OR DETERIORATION?	OTHER (DESCRIBE BELOW)
GWIS INLET PIPES	☐ Yes ☒ No	☐ Yes ☒ No	
STRIP DRAIN INLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
NORTH MANHOLE OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
SOUTH MANHOLE OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
NORTH MANHOLE	☐ Yes ☒ No	☐ Yes ☒ No	
SOUTH MANHOLE	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT GRATING	NA	☐ Yes ☒ No	

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

STORMWATER MANAGEMENT STRUCTURES

CHANNELS/LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
VEGETATION-LINED PERIMETER CHANNEL – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
VEGETATION-LINED PERIMETER CHANNEL – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
RIPRAP-LINED PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
C350-LINED EAST FACE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST FACE RIPRAP CHANNEL – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST FACE RIPRAP CHANNEL – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION/SEDIMENT DEPTH
DIVERSION BERM OUTFALL – NORTH	No issues
DIVERSION BERM OUTFALL – SOUTH	↓
CULVERT 1 OUTFALL	
CULVERT 2 OUTFALL	
SOUTHWEST CULVERT OUTFALL	

CULVERTS

CHECK EACH STRUCTURE FOR BLOCKAGE, SURROUNDING CONDITIONS, BREACHING, SEDIMENT BUILD-UP, AND INLET/OUTLET CONDITIONS.

STRUCTURE	CONDITION
CULVERT 1	No issues
CULVERT 2	↓
SOUTHWEST CULVERT	

MAINTENANCE REQUIRED/PHOTO LOG

No maintenance required

"RUN-ON" EROSION CONTROL

AREA	ADVERSELY AFFECTING PLF?		
RUN-ON INTO PERIMETER CHANNEL – NORTH	☐ Yes	☒ No	COMMENT:
RUN-ON INTO PERIMETER CHANNEL – SOUTH	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY CULVERT 1	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY NORTHEAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY RIPRAP	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED/PHOTO LOG

No maintenance required

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS OR TRAILS ON COVER OR BUILDINGS?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF UNAUTHORIZED ENTRY?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DISRUPTION OR DAMAGE OF SEEP TREATMENT SYSTEM?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES/PHOTO LOG

N/A

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
No deficiencies	8/8/17			

INSPECTOR SIGNATURE: Nathan Kuhn DATE: 8/8/2017

REVIEWER SIGNATURE: P. Wt DATE: 8/9/2017

PRESENT LANDFILL – MONITORING AND MAINTENANCE PROGRAM

INSPECTION FORM

*Weather-related Inspection

INSPECTOR: Nathan Krohn DATE: 9/25/17 TIME: 1400 REVIEWED BY: Jeremy Wehner

TEMPERATURE: 51°F WEATHER CONDITIONS: Mostly Cloudy REVIEW DATE: 9/26/2017

METEOROLOGICAL STATION LOCATION: Rocky Flats and NREL

SUBSIDENCE/CONSOLIDATION

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF DEPRESSIONS?	EVIDENCE OF SINK HOLES?	EVIDENCE OF PONDING?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
TOP OF COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH SEEP*	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

Settlement Plates and side-slope monitoring points to be inspected for integrity.
During Year 1, they will be surveyed quarterly, and annually thereafter

Integrity intact? ☒ Yes ☐ No

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

Weather-related required; Precipitation: NREL = 1.2 inches / RFMET = 0.95 inches

* AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SLOPE STABILITY

REGION	EVIDENCE OF CRACKS?	EVIDENCE OF BLOCK OR CIRCULAR FAILURE?	EVIDENCE OF SEEPS?	OTHER (DESCRIBE BELOW)
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
PERIMETER CHANNEL OUTER SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
PERIMETER CHANNEL OUTER SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH SEEP*	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	* No visible water

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

* The "East Face Slope - North Seep" is a historical seep that has damp soil after heavy precipitation events, such as this event, but does not have a visible pocket or flow of water.

* AREA OF SEEP IS OUTSIDE OF LANDFILL COVER AND EAST OF THE COVER ANCHOR TRENCH

SOIL COVER

REGION	EVIDENCE OF SOIL DEPOSITION OR EROSION?	EVIDENCE OF EROSION RILLS/GULLIES?	EVIDENCE OF BURROWING ANIMALS?	OTHER (DESCRIBE BELOW)
TOP OF COVER – WEST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
TOP OF COVER – EAST	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
COVER SIDESLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
EAST FACE SLOPE — CENTRAL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
AREA WHERE EAST SLOPE CENTRAL MEETS EAST SLOPE NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
AREA WHERE EAST SLOPE CENTRAL MEETS EAST SLOPE SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	
	VENT CAPS IN PLACE & SECURE?	**STANDPIPES IN GOOD CONDITION?**	**BIRDS OR INSECTS IN VENT CAPS?**	
COVER – BAROMETRIC VENTS	☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No	

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

SEEP TREATMENT SYSTEM

REGION	EVIDENCE OF PLUGGING, OBSTRUCTIONS, OR EXCESS DEBRIS?	EVIDENCE OF CRACKS OR DETERIORATION?	OTHER (DESCRIBE BELOW)
GWIS INLET PIPES	☐ Yes ☒ No	☐ Yes ☒ No	
STRIP DRAIN INLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
NORTH MANHOLE OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
SOUTH MANHOLE OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT OUTLET PIPE	☐ Yes ☒ No	☐ Yes ☒ No	
NORTH MANHOLE	☐ Yes ☒ No	☐ Yes ☒ No	
SOUTH MANHOLE	☐ Yes ☒ No	☐ Yes ☒ No	
TREATMENT UNIT GRATING	NA	☐ Yes ☒ No	

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

STORMWATER MANAGEMENT STRUCTURES

CHANNELS/LINING

STRUCTURE	EVIDENCE OF EXCESSIVE EROSION, GULLYING, SCOUR, OR UNDERMINING?	EVIDENCE OF SETTLEMENT/ SUBSIDENCE OR DEPRESSIONS?	EVIDENCE OF BREACHING OR BANK FAILURE?	EVIDENCE OF BURROWING ANIMALS?	EVIDENCE OF SEDIMENT BUILD-UP OR OTHER BLOCKAGE?	EVIDENCE OF LINING DETERIORATION, HOLES, RIPS, OR SEPARATION?	EVIDENCE OF LINING DISPLACEMENT?
DIVERSION BERM	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
VEGETATION-LINED PERIMETER CHANNEL – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
VEGETATION-LINED PERIMETER CHANNEL – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
RIPRAP-LINED PERIMETER CHANNEL	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
C350-LINED EAST FACE	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST FACE RIPRAP CHANNEL – NORTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
EAST FACE RIPRAP CHANNEL – SOUTH	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	

OTHER DEFICIENCIES?

N/A

MAINTENANCE REQUIRED/COMMENTS/PHOTO LOG

No maintenance required

STORMWATER MANAGEMENT STRUCTURES (CONTINUED)

OUTFALLS

CHECK EACH STRUCTURE FOR EXCESSIVE EROSION AND SEDIMENT DEPTH. IF SEDIMENT DEPTH IS COMPROMISING THE DESIGN CHARACTERISTICS, REMOVE SEDIMENT.

STRUCTURE	CONDITION/SEDIMENT DEPTH
DIVERSION BERM OUTFALL – NORTH	No issues
DIVERSION BERM OUTFALL – SOUTH	↓
CULVERT 1 OUTFALL	
CULVERT 2 OUTFALL	
SOUTHWEST CULVERT OUTFALL	

CULVERTS

CHECK EACH STRUCTURE FOR BLOCKAGE, SURROUNDING CONDITIONS, BREACHING, SEDIMENT BUILD-UP, AND INLET/OUTLET CONDITIONS.

STRUCTURE	CONDITION
CULVERT 1	No issues
CULVERT 2	↓
SOUTHWEST CULVERT	

MAINTENANCE REQUIRED/PHOTO LOG

No maintenance required

"RUN-ON" EROSION CONTROL

AREA	ADVERSELY AFFECTING PLF?		
RUN-ON INTO PERIMETER CHANNEL – NORTH	☐ Yes	☒ No	COMMENT:
RUN-ON INTO PERIMETER CHANNEL – SOUTH	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY CULVERT 1	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY NORTHEAST PERIMETER CHANNEL	☐ Yes	☒ No	COMMENT:
NATURAL DRAINAGE FED BY RIPRAP	☐ Yes	☒ No	COMMENT:

MAINTENANCE REQUIRED/PHOTO LOG

No maintenance required

INSTITUTIONAL CONTROLS

ITEM			
EVIDENCE OF EXCAVATION(S) OF COVER AND IMMEDIATE VICINITY OF COVER?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF CONSTRUCTION OF ROADS OR TRAILS ON COVER OR BUILDINGS?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF UNAUTHORIZED ENTRY?	☐ Yes	☒ No	COMMENT:
EVIDENCE OF DRILLING OF WELLS OR USE OF GROUNDWATER?	☐ Yes	☒ No	COMMENT:
DISRUPTION OR DAMAGE OF SEEP TREATMENT SYSTEM?	☐ Yes	☒ No	COMMENT:
DAMAGE OR REMOVAL OF ANY SIGNAGE OR GROUNDWATER MONITORING WELLS?	☐ Yes	☒ No	COMMENT:

OTHER DEFICIENCIES/PHOTO LOG

N/A

ACTION ITEMS

DEFICIENCY	DATE NOTED	ACTION	DATE COMPLETED	COMMENTS
No deficiencies	9/25/17			

INSPECTOR SIGNATURE: [illegible] DATE: 9/25/17

REVIEWER SIGNATURE: [illegible] DATE: 9/26/2017

Appendix B

Analytical Results for Water Samples—Third Quarter CY 2016

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LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
GS05	SL	7/10/2017	17078628	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS05	SL	7/10/2017	17078628	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		valid	G	STD
GS05	SL	7/10/2017	17078628	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		valid	G	STD
GS05	SL	7/10/2017	17078628	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS05	SL	7/10/2017	17078628	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		valid	G	STD
GS05	SL	7/10/2017	17078628	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
GS05	SL	7/10/2017	17078628	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS05	SL	7/10/2017	17078628	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid	G	STD
GS05	SL	7/10/2017	17078628	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
GS05	SL	7/10/2017	17078628	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid	G	STD
GS05	SL	7/10/2017	17078628	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS05	SL	7/10/2017	17078628	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS05	SL	7/10/2017	17078628	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS05	SL	7/10/2017	17078628	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS05	SL	7/10/2017	17078628	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS05	SL	7/10/2017	17078628	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS05	SL	7/10/2017	17078628	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid	G	STD
GS05	SL	7/10/2017	17078628	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS05	SL	7/10/2017	17078628	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		valid	G	STD
GS05	SL	7/10/2017	17078628	7439-97-6	Mercury	N001	0.027	ug/L	U	F	0.027		valid	G	STD
GS05	SL	7/10/2017	17078628	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid	G	STD
GS05	SL	7/10/2017	17078628	91-20-3	Naphthalene	N001	0.68	ug/L	J	F	0.22		J	G	STD
GS05	SL	7/10/2017	17078628	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS05	SL	7/10/2017	17078628	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid	G	STD
GS05	SL	7/10/2017	17078628	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS05	SL	7/10/2017	17078628	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS05	SL	7/10/2017	17078628	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS05	SL	7/10/2017	17078628	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS05	SL	7/10/2017	17078628	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS05	SL	7/10/2017	17078628	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		valid	G	STD
GS59	SL	7/10/2017	17078628	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS59	SL	7/10/2017	17078628	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		valid	G	STD
GS59	SL	7/10/2017	17078628	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		valid	G	STD
GS59	SL	7/10/2017	17078628	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS59	SL	7/10/2017	17078628	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		valid	G	STD
GS59	SL	7/10/2017	17078628	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
GS59	SL	7/10/2017	17078628	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS59	SL	7/10/2017	17078628	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid	G	STD
GS59	SL	7/10/2017	17078628	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
GS59	SL	7/10/2017	17078628	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid	G	STD
GS59	SL	7/10/2017	17078628	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS59	SL	7/10/2017	17078628	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS59	SL	7/10/2017	17078628	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
GS59	SL	7/10/2017	17078628	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS59	SL	7/10/2017	17078628	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS59	SL	7/10/2017	17078628	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS59	SL	7/10/2017	17078628	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid	G	STD
GS59	SL	7/10/2017	17078628	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS59	SL	7/10/2017	17078628	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		valid	G	STD
GS59	SL	7/10/2017	17078628	7439-97-6	Mercury	N001	0.027	ug/L	U	F	0.027		valid	G	STD
GS59	SL	7/10/2017	17078628	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid	G	STD
GS59	SL	7/10/2017	17078628	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		valid	G	STD
GS59	SL	7/10/2017	17078628	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS59	SL	7/10/2017	17078628	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid	G	STD
GS59	SL	7/10/2017	17078628	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
GS59	SL	7/10/2017	17078628	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS59	SL	7/10/2017	17078628	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
GS59	SL	7/10/2017	17078628	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		valid	G	STD
GS59	SL	7/10/2017	17078628	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
GS59	SL	7/10/2017	17078628	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	71-55-6	1,1,1-Trichloroethane	N003	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	71-55-6	1,1,1-Trichloroethane	N004	0.16	ug/L	U	D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-34-5	1,1,2,2-Tetrachloroethane	N003	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-34-5	1,1,2,2-Tetrachloroethane	N004	0.21	ug/L	U	D	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-00-5	1,1,2-Trichloroethane	N003	0.27	ug/L	U	F	0.27		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-00-5	1,1,2-Trichloroethane	N004	0.27	ug/L	U	D	0.27		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-35-4	1,1-Dichloroethene	N003	0.23	ug/L	U	F	0.23		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-35-4	1,1-Dichloroethene	N004	0.23	ug/L	U	D	0.23		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	120-82-1	1,2,4-Trichlorobenzene	N003	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	120-82-1	1,2,4-Trichlorobenzene	N004	0.21	ug/L	U	D	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	96-12-8	1,2-Dibromo-3-chloropropane	N003	0.47	ug/L	U	F	0.47		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	96-12-8	1,2-Dibromo-3-chloropropane	N004	0.47	ug/L	U	D	0.47		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	106-93-4	1,2-Dibromoethane	N003	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	106-93-4	1,2-Dibromoethane	N004	0.18	ug/L	U	D	0.18		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	95-50-1	1,2-Dichlorobenzene	N003	0.27	ug/L	J	F	0.15		valid	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
PLFSEEPINF	TS	7/10/2017	17078628	95-50-1	1,2-Dichlorobenzene	N004	0.27	ug/L	J	D	0.15		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	107-06-2	1,2-Dichloroethane	N003	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	107-06-2	1,2-Dichloroethane	N004	0.13	ug/L	U	D	0.13		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	78-87-5	1,2-Dichloropropane	N003	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	78-87-5	1,2-Dichloropropane	N004	0.18	ug/L	U	D	0.18		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	541-73-1	1,3-Dichlorobenzene	N003	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	541-73-1	1,3-Dichlorobenzene	N004	0.13	ug/L	U	D	0.13		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	106-46-7	1,4-Dichlorobenzene	N003	0.35	ug/L	J	F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	106-46-7	1,4-Dichlorobenzene	N004	0.37	ug/L	J	D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-38-2	Arsenic	N001	7.6	ug/L	J	F	4.4		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-38-2	Arsenic	N002	4.4	ug/L	U	D	4.4		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	71-43-2	Benzene	N003	2	ug/L		F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	71-43-2	Benzene	N004	2.1	ug/L		D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-41-7	Beryllium	N001	0.47	ug/L	U	F	0.47		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-41-7	Beryllium	N002	0.47	ug/L	U	D	0.47		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-42-8	Boron	N001	1300	ug/L		F	4.4		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-42-8	Boron	N002	1200	ug/L		D	4.4		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-27-4	Bromodichloromethane	N003	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-27-4	Bromodichloromethane	N004	0.17	ug/L	U	D	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-25-2	Bromoform	N003	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-25-2	Bromoform	N004	0.19	ug/L	U	D	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	74-83-9	Bromomethane	N003	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	74-83-9	Bromomethane	N004	0.21	ug/L	U	D	0.21		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-43-9	Cadmium	0002	0.45	ug/L	U	D	0.45		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	56-23-5	Carbon tetrachloride	N003	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	56-23-5	Carbon tetrachloride	N004	0.19	ug/L	U	D	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	108-90-7	Chlorobenzene	N003	0.68	ug/L	J	F	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	108-90-7	Chlorobenzene	N004	0.73	ug/L	J	D	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	124-48-1	Chlorodibromomethane	N003	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	124-48-1	Chlorodibromomethane	N004	0.17	ug/L	U	D	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	67-66-3	Chloroform	N003	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	67-66-3	Chloroform	N004	0.16	ug/L	U	D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	74-87-3	Chloromethane	N003	0.3	ug/L	U	F	0.3		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	74-87-3	Chloromethane	N004	0.3	ug/L	UJ	D	0.3		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-47-3	Chromium	N001	0.66	ug/L	U	F	0.66		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-47-3	Chromium	N002	0.66	ug/L	U	D	0.66		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	156-59-2	cis-1,2-Dichloroethene	N003	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	156-59-2	cis-1,2-Dichloroethene	N004	0.15	ug/L	U	D	0.15		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-50-8	Copper	0002	4.2	ug/L	U	D	4.2		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	100-41-4	Ethylbenzene	N003	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	100-41-4	Ethylbenzene	N004	0.16	ug/L	U	D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	87-68-3	Hexachlorobutadiene	N003	0.36	ug/L	U	F	0.36		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	87-68-3	Hexachlorobutadiene	N004	0.36	ug/L	U	D	0.36		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7439-92-1	Lead	0001	6.1	ug/L	J	F	2.7		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7439-92-1	Lead	0002	3.8	ug/L	J	D	2.7		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7439-97-6	Mercury	N001	0.027	ug/L	U	F	0.027		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7439-97-6	Mercury	N002	0.027	ug/L	U	D	0.027		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-09-2	Methylene chloride	N003	0.32	ug/L	U	F	0.32		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-09-2	Methylene chloride	N004	0.32	ug/L	U	D	0.32		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	91-20-3	Naphthalene	N003	25	ug/L		F	0.22		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	91-20-3	Naphthalene	N004	24	ug/L		D	0.22		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-02-0	Nickel	0001	4.7	ug/L	J	F	2.6		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-02-0	Nickel	0002	4.6	ug/L	J	D	2.6		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7782-49-2	Selenium	N001	6.3	ug/L	U	F	6.3		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7782-49-2	Selenium	N002	6.3	ug/L	U	D	6.3		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-22-4	Silver	0002	0.93	ug/L	U	D	0.93		J	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	100-42-5	Styrene	N003	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	100-42-5	Styrene	N004	0.17	ug/L	U	D	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	127-18-4	Tetrachloroethene	N003	0.2	ug/L	U	F	0.2		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	127-18-4	Tetrachloroethene	N004	0.2	ug/L	U	D	0.2		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	108-88-3	Toluene	N003	0.19	ug/L	J	F	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	108-88-3	Toluene	N004	0.2	ug/L	J	D	0.17		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	1330-20-7	Total Xylenes	N003	1.2	ug/L	J	F	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	1330-20-7	Total Xylenes	N004	1.2	ug/L	J	D	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	156-60-5	trans-1,2-Dichloroethene	N003	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	156-60-5	trans-1,2-Dichloroethene	N004	0.15	ug/L	U	D	0.15		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	10061-02-6	trans-1,3-dichloropropene	N003	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	10061-02-6	trans-1,3-dichloropropene	N004	0.19	ug/L	U	D	0.19		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-01-6	Trichloroethene	N003	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	79-01-6	Trichloroethene	N004	0.16	ug/L	U	D	0.16		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-61-1	Uranium	N001	0.14	ug/L	JB	F	0.05		U	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-61-1	Uranium	N002	0.16	ug/L	JB	D	0.05		U	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-61-1	Uranium	N003	0.13	ug/L	B	F	0.05		U	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-61-1	Uranium	N004	0.17	ug/L	B	D	0.05		U	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-01-4	Vinyl chloride	N003	0.33	ug/L	J	F	0.1		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	75-01-4	Vinyl chloride	N004	0.33	ug/L	J	D	0.1		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-66-6	Zinc	0001	71	ug/L		F	4.5		valid	G	STD
PLFSEEPINF	TS	7/10/2017	17078628	7440-66-6	Zinc	0002	69	ug/L		D	4.5		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		valid	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
PLFSYSEFF	TS	7/10/2017	17078628	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	105-67-9	2, 4-Dimethylphenol	N001	0.56	ug/L	U	F	0.56		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	95-95-4	2,4,5-Trichlorophenol	N001	0.43	ug/L	U	F	0.43		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	88-06-2	2,4,6-Trichlorophenol	N001	0.28	ug/L	U	F	0.28		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	120-83-2	2,4-Dichlorophenol	N001	0.61	ug/L	U	F	0.61		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	51-28-5	2,4-Dinitrophenol	N001	9.6	ug/L	U	F	9.6		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	121-14-2	2,4-Dinitrotoluene	N001	1.6	ug/L	U	F	1.6		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	606-20-2	2,6-Dinitrotoluene	N001	1.8	ug/L	U	F	1.8		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	91-58-7	2-Chloronaphthalene	N001	0.25	ug/L	U	F	0.25		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	95-57-8	2-Chlorophenol	N001	1.9	ug/L	U	F	1.9		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	91-94-1	3,3'-Dichlorobenzidine	N001	1.9	ug/L	U	F	1.9		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	534-52-1	4,6-Dinitro-2-methyl phenol	N001	3.8	ug/L	U	F	3.8		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	59-50-7	4-Chloro-3-methylphenol	N001	2.3	ug/L	U	F	2.3		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	100-02-7	4-Nitrophenol	N001	1.2	ug/L	U	F	1.2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	83-32-9	Acenaphthene	N001	2	ug/L	J	F	0.27		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	120-12-7	Anthracene	N001	0.42	ug/L	J	F	0.4		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-38-2	Arsenic	N001	9.2	ug/L	J	F	4.4		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	56-55-3	Benz(a)anthracene	N001	0.34	ug/L	U	F	0.34		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	71-43-2	Benzene	N001	0.83	ug/L	J	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	50-32-8	Benzo(a)pyrene	N001	0.3	ug/L	U	F	0.3		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	205-99-2	Benzo(b)fluoranthene	N001	0.51	ug/L	U	F	0.51		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	191-24-2	Benzo(g,h,i)Perylene	N001	0.48	ug/L	U	F	0.48		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	207-08-9	Benzo(k)fluoranthene	N001	0.44	ug/L	U	F	0.44		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-41-7	Beryllium	N001	0.47	ug/L	U	F	0.47		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	111-44-4	Bis(2-chloroethyl) ether	N001	0.39	ug/L	U	F	0.39		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.27	ug/L	U	F	0.27		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	117-81-7	Bis(2-ethylhexyl) phthalate	N001	0.54	ug/L	U	F	0.54		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-42-8	Boron	N001	940	ug/L		F	4.4		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	85-68-7	Butyl benzyl phthalate	N001	0.96	ug/L	U	F	0.96		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	108-90-7	Chlorobenzene	N001	0.26	ug/L	J	F	0.17		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-47-3	Chromium	N001	0.69	ug/L	J	F	0.66		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	218-01-9	Chrysene	N001	0.52	ug/L	U	F	0.52		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	53-70-3	Dibenz(a,h)anthracene	N001	0.49	ug/L	U	F	0.49		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	84-66-2	Diethyl phthalate	N001	0.36	ug/L	U	F	0.36		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	131-11-3	Dimethyl phthalate	N001	0.2	ug/L	U	F	0.2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	84-74-2	Di-n-butyl phthalate	N001	1.1	ug/L	U	F	1.1		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	206-44-0	Fluoranthene	N001	0.47	ug/L	J	F	0.19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	86-73-7	Fluorene	N001	1.6	ug/L	J	F	0.3		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	118-74-1	Hexachlorobenzene	N001	0.63	ug/L	U	F	0.63		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	77-47-4	Hexachlorocyclopentadiene	N001	9.6	ug/L	U	F	9.6		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	67-72-1	Hexachloroethane	N001	2	ug/L	U	F	2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	193-39-5	Indeno(1,2,3-cd)pyrene	N001	0.62	ug/L	U	F	0.62		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	78-59-1	Isophorone	N001	0.2	ug/L	U	F	0.2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7439-97-6	Mercury	N001	0.027	ug/L	U	F	0.027		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	91-20-3	Naphthalene	N001	3.9	ug/L		F	0.22		J	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-02-0	Nickel	0001	4.1	ug/L	J	F	2.6		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	98-95-3	Nitrobenzene	N001	0.78	ug/L	U	F	0.78		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	621-64-7	N-Nitrosodi-n-propylamine	N001	0.34	ug/L	U	F	0.34		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	86-30-6	N-Nitrosodiphenylamine	N001	0.42	ug/L	U	F	0.42		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	87-86-5	Pentachlorophenol	N001	19	ug/L	U	F	19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	108-95-2	Phenol	N001	1.9	ug/L	U	F	1.9		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	129-00-0	Pyrene	N001	0.35	ug/L	J	F	0.35		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7782-49-2	Selenium	N001	6.3	ug/L	U	F	6.3		J	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		J	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-61-1	Uranium	N001	0.64	ug/L	JB	F	0.05		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	7440-61-1	Uranium	N002	0.7	ug/L	B	F	0.05		valid	G	STD
PLFSYSEFF	TS	7/10/2017	17078628	75-01-4	Vinyl chloride	N001	0.28	ug/L	J	F	0.1		valid	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
PLFSYSEFF	TS	7/10/2017	17078628	7440-66-6	Zinc	0001	22	ug/L		F	4.5		valid	G	STD
GS13	SL	7/10/2017	17078631	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPIN	TS	7/10/2017	17078631	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	570	mg/L		F	1.9		valid	G	STD
SPIN	TS	7/10/2017	17078631	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N002	570	mg/L		D	1.9		valid	G	STD
SPIN	TS	7/10/2017	17078631	7440-61-1	Uranium	N001	75	ug/L		F	0.05		valid	G	STD
SPIN	TS	7/10/2017	17078631	7440-61-1	Uranium	N002	80	ug/L		D	0.05		valid	G	STD
SPOUT	TS	7/10/2017	17078631	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.15	mg/L		F	0.019		valid	G	STD
SPOUT	TS	7/10/2017	17078631	7440-61-1	Uranium	N001	52	ug/L		F	0.05		valid	G	STD
SPIN	TS	7/24/2017	17078651	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N002	560	mg/L		D	1.9		valid	G	STD
SPIN	TS	7/24/2017	17078651	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N003	570	mg/L		F	1.9		valid	G	STD
SPIN	TS	7/24/2017	17078651	7440-61-1	Uranium	N002	77	ug/L		D	0.05		valid	G	STD
SPIN	TS	7/24/2017	17078651	7440-61-1	Uranium	N003	80	ug/L		F	0.05		valid	G	STD
SPOUT	TS	7/24/2017	17078651	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	7/24/2017	17078651	7440-61-1	Uranium	N001	52	ug/L		F	0.05		valid	G	STD
GS10	SL	7/10/2017	17088656	AM-241	Americium-241	N002	0.00614	pCi/L	U	F	0.0202	0.00852	valid	C	GEN
GS10	SL	7/10/2017	17088656	7440-41-7	Beryllium	N002	1	ug/L	U	F	1		valid	C	GEN
GS10	SL	7/10/2017	17088656	7440-43-9	Cadmium	0002	0.3	ug/L	U	F	0.3		valid	C	GEN
GS10	SL	7/10/2017	17088656	7440-47-3	Chromium	N002	1.14	ug/L	B	F	1		valid	C	GEN
GS10	SL	7/10/2017	17088656	HARDNESS	Hardness	N002	435	mg/L		F	1		valid	C	GEN
GS10	SL	7/10/2017	17088656	PU-239,240	Plutonium-239, 240	N002	-0.00319	pCi/L	U	F	0.0314	0.0159	valid	C	GEN
GS10	SL	7/10/2017	17088656	7440-22-4	Silver	0002	0.3	ug/L	U	F	0.3		valid	C	GEN
GS10	SL	7/10/2017	17088656	7440-61-1	Uranium	N002	7.14	ug/L		F	0.067		valid	C	GEN
80005	WL	8/8/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80005	WL	8/8/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80005	WL	8/8/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
80005	WL	8/8/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80005	WL	8/8/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80005	WL	8/8/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80005	WL	8/8/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80005	WL	8/8/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80005	WL	8/8/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80005	WL	8/8/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80005	WL	8/8/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	105-67-9	2, 4-Dimethylphenol	N001	0.55	ug/L	U	F	0.55		FQ	G	STD
80005	WL	8/8/2017	17088657	95-95-4	2,4,5-Trichlorophenol	N001	0.43	ug/L	U	F	0.43		FQ	G	STD
80005	WL	8/8/2017	17088657	88-06-2	2,4,6-Trichlorophenol	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80005	WL	8/8/2017	17088657	120-83-2	2,4-Dichlorophenol	N001	0.61	ug/L	U	F	0.61		FQ	G	STD
80005	WL	8/8/2017	17088657	51-28-5	2,4-Dinitrophenol	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
80005	WL	8/8/2017	17088657	121-14-2	2,4-Dinitrotoluene	N001	1.6	ug/L	U	F	1.6		FQ	G	STD
80005	WL	8/8/2017	17088657	606-20-2	2,6-Dinitrotoluene	N001	1.8	ug/L	U	F	1.8		FQ	G	STD
80005	WL	8/8/2017	17088657	91-58-7	2-Chloronaphthalene	N001	0.25	ug/L	U	F	0.25		FQ	G	STD
80005	WL	8/8/2017	17088657	95-57-8	2-Chlorophenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80005	WL	8/8/2017	17088657	91-94-1	3,3'-Dichlorobenzidine	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80005	WL	8/8/2017	17088657	534-52-1	4,6-Dinitro-2-methyl phenol	N001	3.8	ug/L	U	F	3.8		FQ	G	STD
80005	WL	8/8/2017	17088657	59-50-7	4-Chloro-3-methylphenol	N001	2.3	ug/L	U	F	2.3		FQ	G	STD
80005	WL	8/8/2017	17088657	100-02-7	4-Nitrophenol	N001	1.2	ug/L	U	F	1.2		FQ	G	STD
80005	WL	8/8/2017	17088657	83-32-9	Acenaphthene	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80005	WL	8/8/2017	17088657	120-12-7	Anthracene	N001	0.4	ug/L	U	F	0.4		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
80005	WL	8/8/2017	17088657	56-55-3	Benz(a)anthracene	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80005	WL	8/8/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	50-32-8	Benzo(a)pyrene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80005	WL	8/8/2017	17088657	205-99-2	Benzo(b)fluoranthene	N001	0.5	ug/L	U	F	0.5		FQ	G	STD
80005	WL	8/8/2017	17088657	191-24-2	Benzo(g,h,i)Perylene	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80005	WL	8/8/2017	17088657	207-08-9	Benzo(k)fluoranthene	N001	0.44	ug/L	U	F	0.44		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
80005	WL	8/8/2017	17088657	111-44-4	Bis(2-chloroethyl) ether	N001	0.39	ug/L	U	F	0.39		FQ	G	STD
80005	WL	8/8/2017	17088657	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80005	WL	8/8/2017	17088657	117-81-7	Bis(2-ethylhexyl) phthalate	N001	0.53	ug/L	U	F	0.53		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-42-8	Boron	0001	46	ug/L		F	4.4		FQ	G	STD
80005	WL	8/8/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80005	WL	8/8/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80005	WL	8/8/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80005	WL	8/8/2017	17088657	85-68-7	Butyl benzyl phthalate	N001	0.95	ug/L	U	F	0.95		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
80005	WL	8/8/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80005	WL	8/8/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80005	WL	8/8/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80005	WL	8/8/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
80005	WL	8/8/2017	17088657	218-01-9	Chrysene	N001	0.51	ug/L	U	F	0.51		FQ	G	STD
80005	WL	8/8/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
80005	WL	8/8/2017	17088657	53-70-3	Dibenz(a,h)anthracene	N001	0.48	ug/L	U	F	0.48		FQ	G	STD
80005	WL	8/8/2017	17088657	84-66-2	Diethyl phthalate	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80005	WL	8/8/2017	17088657	131-11-3	Dimethyl phthalate	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80005	WL	8/8/2017	17088657	84-74-2	Di-n-butyl phthalate	N001	1.1	ug/L	U	F	1.1		FQ	G	STD
80005	WL	8/8/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	206-44-0	Fluoranthene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80005	WL	8/8/2017	17088657	86-73-7	Fluorene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80005	WL	8/8/2017	17088657	118-74-1	Hexachlorobenzene	N001	0.63	ug/L	U	F	0.63		FQ	G	STD
80005	WL	8/8/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80005	WL	8/8/2017	17088657	77-47-4	Hexachlorocyclopentadiene	N001	9.5	ug/L	U	F	9.5		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
80005	WL	8/8/2017	17088657	67-72-1	Hexachloroethane	N001	2	ug/L	U	F	2		FQ	G	STD
80005	WL	8/8/2017	17088657	193-39-5	Indeno(1,2,3-cd)pyrene	N001	0.62	ug/L	U	F	0.62		FQ	G	STD
80005	WL	8/8/2017	17088657	78-59-1	Isophorone	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80005	WL	8/8/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
80005	WL	8/8/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
80005	WL	8/8/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
80005	WL	8/8/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
80005	WL	8/8/2017	17088657	98-95-3	Nitrobenzene	N001	0.77	ug/L	U	F	0.77		FQ	G	STD
80005	WL	8/8/2017	17088657	621-64-7	N-Nitrosodi-n-propylamine	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80005	WL	8/8/2017	17088657	86-30-6	N-Nitrosodiphenylamine	N001	0.42	ug/L	U	F	0.42		FQ	G	STD
80005	WL	8/8/2017	17088657	87-86-5	Pentachlorophenol	N001	19	ug/L	U	F	19		FQ	G	STD
80005	WL	8/8/2017	17088657	108-95-2	Phenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80005	WL	8/8/2017	17088657	129-00-0	Pyrene	N001	0.35	ug/L	U	F	0.35		FQ	G	STD
80005	WL	8/8/2017	17088657	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
80005	WL	8/8/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80005	WL	8/8/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80005	WL	8/8/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80005	WL	8/8/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80005	WL	8/8/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80005	WL	8/8/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80005	WL	8/8/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-61-1	Uranium	0001	7.5	ug/L		F	0.05		FQ	G	STD
80005	WL	8/8/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
80005	WL	8/8/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
80105	WL	8/8/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	71-55-6	1,1,1-Trichloroethane	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N002	0.21	ug/L	U	D	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	79-00-5	1,1,2-Trichloroethane	N002	0.27	ug/L	U	D	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
80105	WL	8/8/2017	17088657	75-35-4	1,1-Dichloroethene	N002	0.23	ug/L	U	D	0.23		FQ	G	STD
80105	WL	8/8/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N002	0.21	ug/L	U	D	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N002	0.47	ug/L	U	D	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80105	WL	8/8/2017	17088657	106-93-4	1,2-Dibromoethane	N002	0.18	ug/L	U	D	0.18		FQ	G	STD
80105	WL	8/8/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	95-50-1	1,2-Dichlorobenzene	N002	0.15	ug/L	U	D	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80105	WL	8/8/2017	17088657	107-06-2	1,2-Dichloroethane	N002	0.13	ug/L	U	D	0.13		FQ	G	STD
80105	WL	8/8/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80105	WL	8/8/2017	17088657	78-87-5	1,2-Dichloropropane	N002	0.18	ug/L	U	D	0.18		FQ	G	STD
80105	WL	8/8/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80105	WL	8/8/2017	17088657	541-73-1	1,3-Dichlorobenzene	N002	0.13	ug/L	U	D	0.13		FQ	G	STD
80105	WL	8/8/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	106-46-7	1,4-Dichlorobenzene	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	105-67-9	2, 4-Dimethylphenol	N001	0.55	ug/L	U	F	0.55		FQ	G	STD
80105	WL	8/8/2017	17088657	105-67-9	2, 4-Dimethylphenol	N002	0.55	ug/L	U	D	0.55		FQ	G	STD
80105	WL	8/8/2017	17088657	95-95-4	2,4,5-Trichlorophenol	N001	0.43	ug/L	U	F	0.43		FQ	G	STD
80105	WL	8/8/2017	17088657	95-95-4	2,4,5-Trichlorophenol	N002	0.43	ug/L	U	D	0.43		FQ	G	STD
80105	WL	8/8/2017	17088657	88-06-2	2,4,6-Trichlorophenol	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	88-06-2	2,4,6-Trichlorophenol	N002	0.27	ug/L	U	D	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	120-83-2	2,4-Dichlorophenol	N001	0.61	ug/L	U	F	0.61		FQ	G	STD
80105	WL	8/8/2017	17088657	120-83-2	2,4-Dichlorophenol	N002	0.61	ug/L	U	D	0.61		FQ	G	STD
80105	WL	8/8/2017	17088657	51-28-5	2,4-Dinitrophenol	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
80105	WL	8/8/2017	17088657	51-28-5	2,4-Dinitrophenol	N002	9.5	ug/L	U	D	9.5		FQ	G	STD
80105	WL	8/8/2017	17088657	121-14-2	2,4-Dinitrotoluene	N001	1.6	ug/L	U	F	1.6		FQ	G	STD
80105	WL	8/8/2017	17088657	121-14-2	2,4-Dinitrotoluene	N002	1.6	ug/L	U	D	1.6		FQ	G	STD
80105	WL	8/8/2017	17088657	606-20-2	2,6-Dinitrotoluene	N001	1.8	ug/L	U	F	1.8		FQ	G	STD
80105	WL	8/8/2017	17088657	606-20-2	2,6-Dinitrotoluene	N002	1.8	ug/L	U	D	1.8		FQ	G	STD
80105	WL	8/8/2017	17088657	91-58-7	2-Chloronaphthalene	N001	0.25	ug/L	U	F	0.25		FQ	G	STD
80105	WL	8/8/2017	17088657	91-58-7	2-Chloronaphthalene	N002	0.25	ug/L	U	D	0.25		FQ	G	STD
80105	WL	8/8/2017	17088657	95-57-8	2-Chlorophenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	95-57-8	2-Chlorophenol	N002	1.9	ug/L	U	D	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	91-94-1	3,3'-Dichlorobenzidine	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	91-94-1	3,3'-Dichlorobenzidine	N002	1.9	ug/L	U	D	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	534-52-1	4,6-Dinitro-2-methyl phenol	N001	3.8	ug/L	U	F	3.8		FQ	G	STD
80105	WL	8/8/2017	17088657	534-52-1	4,6-Dinitro-2-methyl phenol	N002	3.8	ug/L	U	D	3.8		FQ	G	STD
80105	WL	8/8/2017	17088657	59-50-7	4-Chloro-3-methylphenol	N001	2.3	ug/L	U	F	2.3		FQ	G	STD
80105	WL	8/8/2017	17088657	59-50-7	4-Chloro-3-methylphenol	N002	2.3	ug/L	U	D	2.3		FQ	G	STD
80105	WL	8/8/2017	17088657	100-02-7	4-Nitrophenol	N001	1.2	ug/L	U	F	1.2		FQ	G	STD
80105	WL	8/8/2017	17088657	100-02-7	4-Nitrophenol	N002	1.2	ug/L	U	D	1.2		FQ	G	STD
80105	WL	8/8/2017	17088657	83-32-9	Acenaphthene	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	83-32-9	Acenaphthene	N002	0.27	ug/L	U	D	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	120-12-7	Anthracene	N001	0.4	ug/L	U	F	0.4		FQ	G	STD
80105	WL	8/8/2017	17088657	120-12-7	Anthracene	N002	0.4	ug/L	U	D	0.4		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-38-2	Arsenic	0001	4.5	ug/L	J	F	4.4		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-38-2	Arsenic	0002	4.4	ug/L	U	D	4.4		FQ	G	STD
80105	WL	8/8/2017	17088657	56-55-3	Benz(a)anthracene	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80105	WL	8/8/2017	17088657	56-55-3	Benz(a)anthracene	N002	0.33	ug/L	U	D	0.33		FQ	G	STD
80105	WL	8/8/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
80105	WL	8/8/2017	17088657	71-43-2	Benzene	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	50-32-8	Benzo(a)pyrene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80105	WL	8/8/2017	17088657	50-32-8	Benzo(a)pyrene	N002	0.29	ug/L	U	D	0.29		FQ	G	STD
80105	WL	8/8/2017	17088657	205-99-2	Benzo(b)fluoranthene	N001	0.5	ug/L	U	F	0.5		FQ	G	STD
80105	WL	8/8/2017	17088657	205-99-2	Benzo(b)fluoranthene	N002	0.5	ug/L	U	D	0.5		FQ	G	STD
80105	WL	8/8/2017	17088657	191-24-2	Benzo(g,h,i)Perylene	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	191-24-2	Benzo(g,h,i)Perylene	N002	0.47	ug/L	U	D	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	207-08-9	Benzo(k)fluoranthene	N001	0.44	ug/L	U	F	0.44		FQ	G	STD
80105	WL	8/8/2017	17088657	207-08-9	Benzo(k)fluoranthene	N002	0.44	ug/L	U	D	0.44		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-41-7	Beryllium	0002	0.47	ug/L	U	D	0.47		FQ	G	STD
80105	WL	8/8/2017	17088657	111-44-4	Bis(2-chloroethyl) ether	N001	0.39	ug/L	U	F	0.39		FQ	G	STD
80105	WL	8/8/2017	17088657	111-44-4	Bis(2-chloroethyl) ether	N002	0.39	ug/L	U	D	0.39		FQ	G	STD
80105	WL	8/8/2017	17088657	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	108-60-1	Bis(2-chloroisopropyl) ether	N002	0.27	ug/L	U	D	0.27		FQ	G	STD
80105	WL	8/8/2017	17088657	117-81-7	Bis(2-ethylhexyl) phthalate	N001	0.53	ug/L	U	F	0.53		FQ	G	STD
80105	WL	8/8/2017	17088657	117-81-7	Bis(2-ethylhexyl) phthalate	N002	0.53	ug/L	U	D	0.53		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-42-8	Boron	0001	140	ug/L		F	4.4		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-42-8	Boron	0002	140	ug/L		D	4.4		FQ	G	STD
80105	WL	8/8/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	75-27-4	Bromodichloromethane	N002	0.17	ug/L	U	D	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	75-25-2	Bromoform	N002	0.19	ug/L	U	D	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	74-83-9	Bromomethane	N002	0.21	ug/L	U	D	0.21		FQ	G	STD
80105	WL	8/8/2017	17088657	85-68-7	Butyl benzyl phthalate	N001	0.95	ug/L	U	F	0.95		FQ	G	STD
80105	WL	8/8/2017	17088657	85-68-7	Butyl benzyl phthalate	N002	0.95	ug/L	U	D	0.95		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-43-9	Cadmium	0002	0.45	ug/L	U	D	0.45		FQ	G	STD
80105	WL	8/8/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	56-23-5	Carbon tetrachloride	N002	0.19	ug/L	U	D	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	108-90-7	Chlorobenzene	N002	0.17	ug/L	U	D	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	124-48-1	Chlorodibromomethane	N002	0.17	ug/L	U	D	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	67-66-3	Chloroform	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
80105	WL	8/8/2017	17088657	74-87-3	Chloromethane	N002	0.3	ug/L	U	D	0.3		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-47-3	Chromium	0002	0.66	ug/L	U	D	0.66		FQ	G	STD
80105	WL	8/8/2017	17088657	218-01-9	Chrysene	N001	0.51	ug/L	U	F	0.51		FQ	G	STD
80105	WL	8/8/2017	17088657	218-01-9	Chrysene	N002	0.51	ug/L	U	D	0.51		FQ	G	STD
80105	WL	8/8/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N002	0.15	ug/L	U	D	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-50-8	Copper	0002	4.2	ug/L	U	D	4.2		FQ	G	STD
80105	WL	8/8/2017	17088657	53-70-3	Dibenz(a,h)anthracene	N001	0.48	ug/L	U	F	0.48		FQ	G	STD
80105	WL	8/8/2017	17088657	53-70-3	Dibenz(a,h)anthracene	N002	0.48	ug/L	U	D	0.48		FQ	G	STD
80105	WL	8/8/2017	17088657	84-66-2	Diethyl phthalate	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80105	WL	8/8/2017	17088657	84-66-2	Diethyl phthalate	N002	0.36	ug/L	U	D	0.36		FQ	G	STD
80105	WL	8/8/2017	17088657	131-11-3	Dimethyl phthalate	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	131-11-3	Dimethyl phthalate	N002	0.2	ug/L	U	D	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	84-74-2	Di-n-butyl phthalate	N001	1.1	ug/L	U	F	1.1		FQ	G	STD
80105	WL	8/8/2017	17088657	84-74-2	Di-n-butyl phthalate	N002	1.1	ug/L	U	D	1.1		FQ	G	STD
80105	WL	8/8/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	100-41-4	Ethylbenzene	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	206-44-0	Fluoranthene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	206-44-0	Fluoranthene	N002	0.19	ug/L	U	D	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	86-73-7	Fluorene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80105	WL	8/8/2017	17088657	86-73-7	Fluorene	N002	0.29	ug/L	U	D	0.29		FQ	G	STD
80105	WL	8/8/2017	17088657	118-74-1	Hexachlorobenzene	N001	0.62	ug/L	U	F	0.62		FQ	G	STD
80105	WL	8/8/2017	17088657	118-74-1	Hexachlorobenzene	N002	0.62	ug/L	U	D	0.62		FQ	G	STD
80105	WL	8/8/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80105	WL	8/8/2017	17088657	87-68-3	Hexachlorobutadiene	N002	0.36	ug/L	U	D	0.36		FQ	G	STD
80105	WL	8/8/2017	17088657	77-47-4	Hexachlorocyclopentadiene	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
80105	WL	8/8/2017	17088657	77-47-4	Hexachlorocyclopentadiene	N002	9.5	ug/L	U	D	9.5		FQ	G	STD
80105	WL	8/8/2017	17088657	67-72-1	Hexachloroethane	N001	2	ug/L	U	F	2		FQ	G	STD
80105	WL	8/8/2017	17088657	67-72-1	Hexachloroethane	N002	2	ug/L	U	D	2		FQ	G	STD
80105	WL	8/8/2017	17088657	193-39-5	Indeno(1,2,3-cd)pyrene	N001	0.62	ug/L	U	F	0.62		FQ	G	STD
80105	WL	8/8/2017	17088657	193-39-5	Indeno(1,2,3-cd)pyrene	N002	0.62	ug/L	U	D	0.62		FQ	G	STD
80105	WL	8/8/2017	17088657	78-59-1	Isophorone	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	78-59-1	Isophorone	N002	0.2	ug/L	U	D	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
80105	WL	8/8/2017	17088657	7439-92-1	Lead	0002	2.7	ug/L	U	D	2.7		FQ	G	STD
80105	WL	8/8/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
80105	WL	8/8/2017	17088657	7439-97-6	Mercury	0002	0.027	ug/L	U	D	0.027		FQ	G	STD
80105	WL	8/8/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
80105	WL	8/8/2017	17088657	75-09-2	Methylene chloride	N002	0.32	ug/L	U	D	0.32		FQ	G	STD
80105	WL	8/8/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
80105	WL	8/8/2017	17088657	91-20-3	Naphthalene	N002	0.22	ug/L	U	D	0.22		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-02-0	Nickel	0002	2.6	ug/L	U	D	2.6		FQ	G	STD
80105	WL	8/8/2017	17088657	98-95-3	Nitrobenzene	N001	0.77	ug/L	U	F	0.77		FQ	G	STD
80105	WL	8/8/2017	17088657	98-95-3	Nitrobenzene	N002	0.77	ug/L	U	D	0.77		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
80105	WL	8/8/2017	17088657	621-64-7	N-Nitrosodi-n-propylamine	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80105	WL	8/8/2017	17088657	621-64-7	N-Nitrosodi-n-propylamine	N002	0.33	ug/L	U	D	0.33		FQ	G	STD
80105	WL	8/8/2017	17088657	86-30-6	N-Nitrosodiphenylamine	N001	0.42	ug/L	U	F	0.42		FQ	G	STD
80105	WL	8/8/2017	17088657	86-30-6	N-Nitrosodiphenylamine	N002	0.42	ug/L	U	D	0.42		FQ	G	STD
80105	WL	8/8/2017	17088657	87-86-5	Pentachlorophenol	N001	19	ug/L	U	F	19		FQ	G	STD
80105	WL	8/8/2017	17088657	87-86-5	Pentachlorophenol	N002	19	ug/L	U	D	19		FQ	G	STD
80105	WL	8/8/2017	17088657	108-95-2	Phenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	108-95-2	Phenol	N002	1.9	ug/L	U	D	1.9		FQ	G	STD
80105	WL	8/8/2017	17088657	129-00-0	Pyrene	N001	0.35	ug/L	U	F	0.35		FQ	G	STD
80105	WL	8/8/2017	17088657	129-00-0	Pyrene	N002	0.35	ug/L	U	D	0.35		FQ	G	STD
80105	WL	8/8/2017	17088657	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		FQ	G	STD
80105	WL	8/8/2017	17088657	7782-49-2	Selenium	0002	6.3	ug/L	U	D	6.3		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-22-4	Silver	0002	0.93	ug/L	U	D	0.93		FQ	G	STD
80105	WL	8/8/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	100-42-5	Styrene	N002	0.17	ug/L	U	D	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	127-18-4	Tetrachloroethene	N002	0.2	ug/L	U	D	0.2		FQ	G	STD
80105	WL	8/8/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	108-88-3	Toluene	N002	0.17	ug/L	U	D	0.17		FQ	G	STD
80105	WL	8/8/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	1330-20-7	Total Xylenes	N002	0.19	ug/L	U	D	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N002	0.15	ug/L	U	D	0.15		FQ	G	STD
80105	WL	8/8/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N002	0.19	ug/L	U	D	0.19		FQ	G	STD
80105	WL	8/8/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	79-01-6	Trichloroethene	N002	0.16	ug/L	U	D	0.16		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-61-1	Uranium	0001	6.9	ug/L		F	0.05		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-61-1	Uranium	0002	7.5	ug/L		D	0.05		FQ	G	STD
80105	WL	8/8/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
80105	WL	8/8/2017	17088657	75-01-4	Vinyl chloride	N002	0.1	ug/L	U	D	0.1		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
80105	WL	8/8/2017	17088657	7440-66-6	Zinc	0002	4.5	ug/L	U	D	4.5		FQ	G	STD
80205	WL	8/8/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80205	WL	8/8/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80205	WL	8/8/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
80205	WL	8/8/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80205	WL	8/8/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80205	WL	8/8/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80205	WL	8/8/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80205	WL	8/8/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80205	WL	8/8/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
80205	WL	8/8/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
80205	WL	8/8/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	105-67-9	2, 4-Dimethylphenol	N001	0.55	ug/L	U	F	0.55		FQ	G	STD
80205	WL	8/8/2017	17088657	95-95-4	2,4,5-Trichlorophenol	N001	0.43	ug/L	U	F	0.43		FQ	G	STD
80205	WL	8/8/2017	17088657	88-06-2	2,4,6-Trichlorophenol	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
80205	WL	8/8/2017	17088657	120-83-2	2,4-Dichlorophenol	N001	0.61	ug/L	U	F	0.61		FQ	G	STD
80205	WL	8/8/2017	17088657	51-28-5	2,4-Dinitrophenol	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
80205	WL	8/8/2017	17088657	121-14-2	2,4-Dinitrotoluene	N001	1.6	ug/L	U	F	1.6		FQ	G	STD
80205	WL	8/8/2017	17088657	606-20-2	2,6-Dinitrotoluene	N001	1.8	ug/L	U	F	1.8		FQ	G	STD
80205	WL	8/8/2017	17088657	91-58-7	2-Chloronaphthalene	N001	0.25	ug/L	U	F	0.25		FQ	G	STD
80205	WL	8/8/2017	17088657	95-57-8	2-Chlorophenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80205	WL	8/8/2017	17088657	91-94-1	3,3'-Dichlorobenzidine	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80205	WL	8/8/2017	17088657	534-52-1	4,6-Dinitro-2-methyl phenol	N001	3.8	ug/L	U	F	3.8		FQ	G	STD
80205	WL	8/8/2017	17088657	59-50-7	4-Chloro-3-methylphenol	N001	2.3	ug/L	U	F	2.3		FQ	G	STD
80205	WL	8/8/2017	17088657	100-02-7	4-Nitrophenol	N001	1.2	ug/L	U	F	1.2		FQ	G	STD
80205	WL	8/8/2017	17088657	83-32-9	Acenaphthene	N001	0.26	ug/L	U	F	0.26		FQ	G	STD
80205	WL	8/8/2017	17088657	120-12-7	Anthracene	N001	0.4	ug/L	U	F	0.4		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
80205	WL	8/8/2017	17088657	56-55-3	Benz(a)anthracene	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80205	WL	8/8/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	50-32-8	Benzo(a)pyrene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80205	WL	8/8/2017	17088657	205-99-2	Benzo(b)fluoranthene	N001	0.5	ug/L	U	F	0.5		FQ	G	STD
80205	WL	8/8/2017	17088657	191-24-2	Benzo(g,h,i)Perylene	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
80205	WL	8/8/2017	17088657	207-08-9	Benzo(k)fluoranthene	N001	0.44	ug/L	U	F	0.44		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
80205	WL	8/8/2017	17088657	111-44-4	Bis(2-chloroethyl) ether	N001	0.39	ug/L	U	F	0.39		FQ	G	STD
80205	WL	8/8/2017	17088657	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.26	ug/L	U	F	0.26		FQ	G	STD
80205	WL	8/8/2017	17088657	117-81-7	Bis(2-ethylhexyl) phthalate	N001	0.53	ug/L	U	F	0.53		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-42-8	Boron	0001	95	ug/L		F	4.4		FQ	G	STD
80205	WL	8/8/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80205	WL	8/8/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80205	WL	8/8/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
80205	WL	8/8/2017	17088657	85-68-7	Butyl benzyl phthalate	N001	0.95	ug/L	U	F	0.95		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
80205	WL	8/8/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80205	WL	8/8/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80205	WL	8/8/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80205	WL	8/8/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
80205	WL	8/8/2017	17088657	218-01-9	Chrysene	N001	0.51	ug/L	U	F	0.51		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
80205	WL	8/8/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
80205	WL	8/8/2017	17088657	53-70-3	Dibenz(a,h)anthracene	N001	0.48	ug/L	U	F	0.48		FQ	G	STD
80205	WL	8/8/2017	17088657	84-66-2	Diethyl phthalate	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80205	WL	8/8/2017	17088657	131-11-3	Dimethyl phthalate	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80205	WL	8/8/2017	17088657	84-74-2	Di-n-butyl phthalate	N001	1.1	ug/L	U	F	1.1		FQ	G	STD
80205	WL	8/8/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	206-44-0	Fluoranthene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80205	WL	8/8/2017	17088657	86-73-7	Fluorene	N001	0.29	ug/L	U	F	0.29		FQ	G	STD
80205	WL	8/8/2017	17088657	118-74-1	Hexachlorobenzene	N001	0.62	ug/L	U	F	0.62		FQ	G	STD
80205	WL	8/8/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
80205	WL	8/8/2017	17088657	77-47-4	Hexachlorocyclopentadiene	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
80205	WL	8/8/2017	17088657	67-72-1	Hexachloroethane	N001	2	ug/L	U	F	2		FQ	G	STD
80205	WL	8/8/2017	17088657	193-39-5	Indeno(1,2,3-cd)pyrene	N001	0.62	ug/L	U	F	0.62		FQ	G	STD
80205	WL	8/8/2017	17088657	78-59-1	Isophorone	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80205	WL	8/8/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
80205	WL	8/8/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
80205	WL	8/8/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
80205	WL	8/8/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-02-0	Nickel	0001	5.8	ug/L	J	F	2.6		FQ	G	STD
80205	WL	8/8/2017	17088657	98-95-3	Nitrobenzene	N001	0.77	ug/L	U	F	0.77		FQ	G	STD
80205	WL	8/8/2017	17088657	621-64-7	N-Nitrosodi-n-propylamine	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
80205	WL	8/8/2017	17088657	86-30-6	N-Nitrosodiphenylamine	N001	0.42	ug/L	U	F	0.42		FQ	G	STD
80205	WL	8/8/2017	17088657	87-86-5	Pentachlorophenol	N001	19	ug/L	U	F	19		FQ	G	STD
80205	WL	8/8/2017	17088657	108-95-2	Phenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
80205	WL	8/8/2017	17088657	129-00-0	Pyrene	N001	0.35	ug/L	U	F	0.35		FQ	G	STD
80205	WL	8/8/2017	17088657	7782-49-2	Selenium	0001	7.5	ug/L	JB	F	6.3		UFQ	G	STD
80205	WL	8/8/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
80205	WL	8/8/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80205	WL	8/8/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
80205	WL	8/8/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
80205	WL	8/8/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80205	WL	8/8/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
80205	WL	8/8/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
80205	WL	8/8/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-61-1	Uranium	0001	64	ug/L		F	0.05		FQ	G	STD
80205	WL	8/8/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
80205	WL	8/8/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
70193	WL	8/9/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70193	WL	8/9/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
70193	WL	8/9/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
70193	WL	8/9/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70193	WL	8/9/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
70193	WL	8/9/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
70193	WL	8/9/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
70193	WL	8/9/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
70193	WL	8/9/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
70193	WL	8/9/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
70193	WL	8/9/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
70193	WL	8/9/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-42-8	Boron	0001	16	ug/L	J	F	4.4		FQ	G	STD
70193	WL	8/9/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70193	WL	8/9/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70193	WL	8/9/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
70193	WL	8/9/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70193	WL	8/9/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70193	WL	8/9/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70193	WL	8/9/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
70193	WL	8/9/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
70193	WL	8/9/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
70193	WL	8/9/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
70193	WL	8/9/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
70193	WL	8/9/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
70193	WL	8/9/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
70193	WL	8/9/2017	17088657	7782-49-2	Selenium	0001	15	ug/L	JB	F	6.3		UFQ	G	STD
70193	WL	8/9/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
70193	WL	8/9/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70193	WL	8/9/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
70193	WL	8/9/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70193	WL	8/9/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70193	WL	8/9/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
70193	WL	8/9/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70193	WL	8/9/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-61-1	Uranium	0001	0.058	ug/L	J	F	0.05		UFQ	G	STD
70193	WL	8/9/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
70193	WL	8/9/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
70393	WL	8/9/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.23	ug/L	J	F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70393	WL	8/9/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
70393	WL	8/9/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.79	ug/L	J	F	0.23		FQ	G	STD
70393	WL	8/9/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70393	WL	8/9/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
70393	WL	8/9/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
70393	WL	8/9/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
70393	WL	8/9/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
70393	WL	8/9/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
70393	WL	8/9/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
70393	WL	8/9/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
70393	WL	8/9/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-42-8	Boron	0001	8.3	ug/L	J	F	4.4		FQ	G	STD
70393	WL	8/9/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70393	WL	8/9/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70393	WL	8/9/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
70393	WL	8/9/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
70393	WL	8/9/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70393	WL	8/9/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70393	WL	8/9/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
70393	WL	8/9/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
70393	WL	8/9/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
70393	WL	8/9/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
70393	WL	8/9/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
70393	WL	8/9/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
70393	WL	8/9/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
70393	WL	8/9/2017	17088657	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
70393	WL	8/9/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
70393	WL	8/9/2017	17088657	79-01-6	Trichloroethene	N001	3.4	ug/L		F	0.16		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-61-1	Uranium	0001	0.05	ug/L	U	F	0.05		FQ	G	STD
70393	WL	8/9/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
70393	WL	8/9/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
70693	WL	8/9/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.39	ug/L	J	F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		F	G	STD
70693	WL	8/9/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		F	G	STD
70693	WL	8/9/2017	17088657	75-35-4	1,1-Dichloroethene	N001	1.1	ug/L		F	0.23		F	G	STD
70693	WL	8/9/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		F	G	STD
70693	WL	8/9/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		F	G	STD
70693	WL	8/9/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		F	G	STD
70693	WL	8/9/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		F	G	STD
70693	WL	8/9/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		F	G	STD
70693	WL	8/9/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		F	G	STD
70693	WL	8/9/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		F	G	STD
70693	WL	8/9/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		F	G	STD
70693	WL	8/9/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		F	G	STD
70693	WL	8/9/2017	17088657	7440-42-8	Boron	0001	27	ug/L	J	F	4.4		F	G	STD
70693	WL	8/9/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		F	G	STD
70693	WL	8/9/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		F	G	STD
70693	WL	8/9/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		F	G	STD
70693	WL	8/9/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		F	G	STD
70693	WL	8/9/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		F	G	STD
70693	WL	8/9/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		F	G	STD
70693	WL	8/9/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		F	G	STD
70693	WL	8/9/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		F	G	STD
70693	WL	8/9/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		F	G	STD
70693	WL	8/9/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		F	G	STD
70693	WL	8/9/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		F	G	STD
70693	WL	8/9/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		F	G	STD
70693	WL	8/9/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		F	G	STD
70693	WL	8/9/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		F	G	STD
70693	WL	8/9/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		F	G	STD
70693	WL	8/9/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		F	G	STD
70693	WL	8/9/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		F	G	STD
70693	WL	8/9/2017	17088657	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		F	G	STD
70693	WL	8/9/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		F	G	STD
70693	WL	8/9/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		F	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
70693	WL	8/9/2017	17088657	127-18-4	Tetrachloroethene	N001	0.5	ug/L	J	F	0.2		F	G	STD
70693	WL	8/9/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		F	G	STD
70693	WL	8/9/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		F	G	STD
70693	WL	8/9/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		F	G	STD
70693	WL	8/9/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		F	G	STD
70693	WL	8/9/2017	17088657	79-01-6	Trichloroethene	N001	2	ug/L		F	0.16		F	G	STD
70693	WL	8/9/2017	17088657	7440-61-1	Uranium	0001	0.05	ug/L	U	F	0.05		F	G	STD
70693	WL	8/9/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		F	G	STD
70693	WL	8/9/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		F	G	STD
73205	WL	8/9/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73205	WL	8/9/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
73205	WL	8/9/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
73205	WL	8/9/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73205	WL	8/9/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
73205	WL	8/9/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73205	WL	8/9/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73205	WL	8/9/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73205	WL	8/9/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73205	WL	8/9/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73205	WL	8/9/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-38-2	Arsenic	0001	4.8	ug/L	J	F	4.4		FQ	G	STD
73205	WL	8/9/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-42-8	Boron	0001	56	ug/L		F	4.4		FQ	G	STD
73205	WL	8/9/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73205	WL	8/9/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73205	WL	8/9/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
73205	WL	8/9/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73205	WL	8/9/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73205	WL	8/9/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73205	WL	8/9/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
73205	WL	8/9/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
73205	WL	8/9/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
73205	WL	8/9/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
73205	WL	8/9/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
73205	WL	8/9/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
73205	WL	8/9/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
73205	WL	8/9/2017	17088657	7782-49-2	Selenium	0001	370	ug/L	B	F	6.3		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
73205	WL	8/9/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73205	WL	8/9/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
73205	WL	8/9/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73205	WL	8/9/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73205	WL	8/9/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73205	WL	8/9/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73205	WL	8/9/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-61-1	Uranium	0001	110	ug/L		F	0.05		FQ	G	STD
73205	WL	8/9/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
73205	WL	8/9/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
73005	WL	8/10/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73005	WL	8/10/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73005	WL	8/10/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
73005	WL	8/10/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
73005	WL	8/10/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73005	WL	8/10/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
73005	WL	8/10/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73005	WL	8/10/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73005	WL	8/10/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73005	WL	8/10/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73005	WL	8/10/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73005	WL	8/10/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
73005	WL	8/10/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-42-8	Boron	0001	28	ug/L	J	F	4.4		FQ	G	STD
73005	WL	8/10/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73005	WL	8/10/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73005	WL	8/10/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
73005	WL	8/10/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73005	WL	8/10/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73005	WL	8/10/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73005	WL	8/10/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73005	WL	8/10/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-47-3	Chromium	0001	2.5	ug/L	J	F	0.66		FQ	G	STD
73005	WL	8/10/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
73005	WL	8/10/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
73005	WL	8/10/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
73005	WL	8/10/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
73005	WL	8/10/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
73005	WL	8/10/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
73005	WL	8/10/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
73005	WL	8/10/2017	17088657	7782-49-2	Selenium	0001	8.3	ug/L	JB	F	6.3		UFQ	G	STD
73005	WL	8/10/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
73005	WL	8/10/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73005	WL	8/10/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
73005	WL	8/10/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73005	WL	8/10/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73005	WL	8/10/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73005	WL	8/10/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73005	WL	8/10/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-61-1	Uranium	0001	47	ug/L		F	0.05		FQ	G	STD
73005	WL	8/10/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
73005	WL	8/10/2017	17088657	7440-66-6	Zinc	0001	6.5	ug/L	J	F	4.5		FQ	G	STD
73105	WL	8/10/2017	17088657	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73105	WL	8/10/2017	17088657	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
73105	WL	8/10/2017	17088657	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
73105	WL	8/10/2017	17088657	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73105	WL	8/10/2017	17088657	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
73105	WL	8/10/2017	17088657	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73105	WL	8/10/2017	17088657	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73105	WL	8/10/2017	17088657	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73105	WL	8/10/2017	17088657	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
73105	WL	8/10/2017	17088657	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
73105	WL	8/10/2017	17088657	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
73105	WL	8/10/2017	17088657	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-42-8	Boron	0001	120	ug/L		F	4.4		FQ	G	STD
73105	WL	8/10/2017	17088657	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73105	WL	8/10/2017	17088657	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73105	WL	8/10/2017	17088657	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
73105	WL	8/10/2017	17088657	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73105	WL	8/10/2017	17088657	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73105	WL	8/10/2017	17088657	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73105	WL	8/10/2017	17088657	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-47-3	Chromium	0001	0.66	ug/L	U	F	0.66		FQ	G	STD
73105	WL	8/10/2017	17088657	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD
73105	WL	8/10/2017	17088657	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
73105	WL	8/10/2017	17088657	7439-92-1	Lead	0001	2.7	ug/L	U	F	2.7		FQ	G	STD
73105	WL	8/10/2017	17088657	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
73105	WL	8/10/2017	17088657	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
73105	WL	8/10/2017	17088657	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
73105	WL	8/10/2017	17088657	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
73105	WL	8/10/2017	17088657	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73105	WL	8/10/2017	17088657	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
73105	WL	8/10/2017	17088657	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
73105	WL	8/10/2017	17088657	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73105	WL	8/10/2017	17088657	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
73105	WL	8/10/2017	17088657	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
73105	WL	8/10/2017	17088657	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-61-1	Uranium	0001	21	ug/L		F	0.05		FQ	G	STD
73105	WL	8/10/2017	17088657	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
73105	WL	8/10/2017	17088657	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	71-43-2	Benzene	N001	0.62	ug/L	J	F	0.16		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	108-90-7	Chlorobenzene	N001	0.18	ug/L	J	F	0.17		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		valid	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
PLFSYSEFF	TS	8/7/2017	17088661	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	91-20-3	Naphthalene	N001	6.8	ug/L		F	0.22		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		valid	G	STD
PLFSYSEFF	TS	8/7/2017	17088661	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		valid	G	STD
SPIN	TS	8/9/2017	17088662	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	540	mg/L		F	1.9		valid	G	STD
SPIN	TS	8/9/2017	17088662	7440-61-1	Uranium	N001	73	ug/L		F	0.05		valid	G	STD
SPOUT	TS	8/9/2017	17088662	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.086	mg/L		F	0.019		valid	G	STD
SPOUT	TS	8/9/2017	17088662	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N002	0.087	mg/L		D	0.019		valid	G	STD
SPOUT	TS	8/9/2017	17088662	7440-61-1	Uranium	N001	65	ug/L		F	0.05		valid	G	STD
SPOUT	TS	8/9/2017	17088662	7440-61-1	Uranium	N002	65	ug/L		D	0.05		valid	G	STD
SPIN	TS	8/21/2017	17088676	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	610	mg/L		F	1.9		valid	G	STD
SPIN	TS	8/21/2017	17088676	7440-61-1	Uranium	N001	76	ug/L		F	0.05		valid	G	STD
SPOUT	TS	8/21/2017	17088676	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	8/21/2017	17088676	7440-61-1	Uranium	N001	62	ug/L		F	0.05		valid	G	STD
GS10	SL	8/1/2017	17088678	AM-241	Americium-241	N001	-0.00127	pCi/L	U	F	0.0147	0.00895	valid	C	GEN
GS10	SL	8/1/2017	17088678	7440-41-7	Beryllium	N001	1	ug/L	U	F	1		valid	C	GEN
GS10	SL	8/1/2017	17088678	7440-43-9	Cadmium	0001	0.3	ug/L	U	F	0.3		valid	C	GEN
GS10	SL	8/1/2017	17088678	7440-47-3	Chromium	N001	1	ug/L	U	F	1		J	C	GEN
GS10	SL	8/1/2017	17088678	HARDNESS	Hardness	N001	376	mg/L		F	1		valid	C	GEN
GS10	SL	8/1/2017	17088678	PU-239,240	Plutonium-239, 240	N001	0.00588	pCi/L	U	F	0.0202	0.00817	valid	C	GEN
GS10	SL	8/1/2017	17088678	7440-22-4	Silver	0001	0.3	ug/L	U	F	0.3		valid	C	GEN
GS10	SL	8/1/2017	17088678	7440-61-1	Uranium	N001	6.87	ug/L	E	F	0.067		J	C	GEN
P416589	WL	8/29/2017	17088685	71-55-6	1,1,1-Trichloroethane	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	79-34-5	1,1,2,2-Tetrachloroethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
P416589	WL	8/29/2017	17088685	79-00-5	1,1,2-Trichloroethane	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
P416589	WL	8/29/2017	17088685	75-35-4	1,1-Dichloroethene	N001	0.23	ug/L	U	F	0.23		FQ	G	STD
P416589	WL	8/29/2017	17088685	120-82-1	1,2,4-Trichlorobenzene	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
P416589	WL	8/29/2017	17088685	96-12-8	1,2-Dibromo-3-chloropropane	N001	0.47	ug/L	U	F	0.47		FQ	G	STD
P416589	WL	8/29/2017	17088685	106-93-4	1,2-Dibromoethane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
P416589	WL	8/29/2017	17088685	95-50-1	1,2-Dichlorobenzene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
P416589	WL	8/29/2017	17088685	107-06-2	1,2-Dichloroethane	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
P416589	WL	8/29/2017	17088685	78-87-5	1,2-Dichloropropane	N001	0.18	ug/L	U	F	0.18		FQ	G	STD
P416589	WL	8/29/2017	17088685	541-73-1	1,3-Dichlorobenzene	N001	0.13	ug/L	U	F	0.13		FQ	G	STD
P416589	WL	8/29/2017	17088685	106-46-7	1,4-Dichlorobenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	105-67-9	2, 4-Dimethylphenol	N001	0.55	ug/L	U	F	0.55		FQ	G	STD
P416589	WL	8/29/2017	17088685	95-95-4	2,4,5-Trichlorophenol	N001	0.43	ug/L	U	F	0.43		FQ	G	STD
P416589	WL	8/29/2017	17088685	88-06-2	2,4,6-Trichlorophenol	N001	0.28	ug/L	U	F	0.28		FQ	G	STD
P416589	WL	8/29/2017	17088685	120-83-2	2,4-Dichlorophenol	N001	0.61	ug/L	U	F	0.61		FQ	G	STD
P416589	WL	8/29/2017	17088685	51-28-5	2,4-Dinitrophenol	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
P416589	WL	8/29/2017	17088685	121-14-2	2,4-Dinitrotoluene	N001	1.6	ug/L	U	F	1.6		FQ	G	STD
P416589	WL	8/29/2017	17088685	606-20-2	2,6-Dinitrotoluene	N001	1.8	ug/L	U	F	1.8		FQ	G	STD
P416589	WL	8/29/2017	17088685	91-58-7	2-Chloronaphthalene	N001	0.25	ug/L	U	F	0.25		FQ	G	STD
P416589	WL	8/29/2017	17088685	95-57-8	2-Chlorophenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
P416589	WL	8/29/2017	17088685	91-94-1	3,3'-Dichlorobenzidine	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
P416589	WL	8/29/2017	17088685	534-52-1	4,6-Dinitro-2-methyl phenol	N001	3.8	ug/L	U	F	3.8		FQ	G	STD
P416589	WL	8/29/2017	17088685	59-50-7	4-Chloro-3-methylphenol	N001	2.3	ug/L	U	F	2.3		FQ	G	STD
P416589	WL	8/29/2017	17088685	100-02-7	4-Nitrophenol	N001	1.2	ug/L	U	F	1.2		FQ	G	STD
P416589	WL	8/29/2017	17088685	83-32-9	Acenaphthene	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
P416589	WL	8/29/2017	17088685	120-12-7	Anthracene	N001	0.4	ug/L	U	F	0.4		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-38-2	Arsenic	0001	4.4	ug/L	U	F	4.4		FQ	G	STD
P416589	WL	8/29/2017	17088685	56-55-3	Benz(a)anthracene	N001	0.33	ug/L	U	F	0.33		FQ	G	STD
P416589	WL	8/29/2017	17088685	71-43-2	Benzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	50-32-8	Benzo(a)pyrene	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
P416589	WL	8/29/2017	17088685	205-99-2	Benzo(b)fluoranthene	N001	0.51	ug/L	U	F	0.51		FQ	G	STD
P416589	WL	8/29/2017	17088685	191-24-2	Benzo(g,h,i)Perylene	N001	0.48	ug/L	U	F	0.48		FQ	G	STD
P416589	WL	8/29/2017	17088685	207-08-9	Benzo(k)fluoranthene	N001	0.44	ug/L	U	F	0.44		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-41-7	Beryllium	0001	0.47	ug/L	U	F	0.47		FQ	G	STD
P416589	WL	8/29/2017	17088685	111-44-4	Bis(2-chloroethyl) ether	N001	0.39	ug/L	U	F	0.39		FQ	G	STD
P416589	WL	8/29/2017	17088685	108-60-1	Bis(2-chloroisopropyl) ether	N001	0.27	ug/L	U	F	0.27		FQ	G	STD
P416589	WL	8/29/2017	17088685	117-81-7	Bis(2-ethylhexyl) phthalate	N001	0.53	ug/L	U	F	0.53		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-42-8	Boron	0001	9.5	ug/L	J	F	4.4		FQ	G	STD
P416589	WL	8/29/2017	17088685	75-27-4	Bromodichloromethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
P416589	WL	8/29/2017	17088685	75-25-2	Bromoform	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
P416589	WL	8/29/2017	17088685	74-83-9	Bromomethane	N001	0.21	ug/L	U	F	0.21		FQ	G	STD
P416589	WL	8/29/2017	17088685	85-68-7	Butyl benzyl phthalate	N001	0.95	ug/L	U	F	0.95		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-43-9	Cadmium	0001	0.45	ug/L	U	F	0.45		FQ	G	STD
P416589	WL	8/29/2017	17088685	56-23-5	Carbon tetrachloride	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
P416589	WL	8/29/2017	17088685	108-90-7	Chlorobenzene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
P416589	WL	8/29/2017	17088685	124-48-1	Chlorodibromomethane	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
P416589	WL	8/29/2017	17088685	67-66-3	Chloroform	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	74-87-3	Chloromethane	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-47-3	Chromium	0001	0.8	ug/L	J	F	0.66		FQ	G	STD
P416589	WL	8/29/2017	17088685	218-01-9	Chrysene	N001	0.51	ug/L	U	F	0.51		FQ	G	STD
P416589	WL	8/29/2017	17088685	156-59-2	cis-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-50-8	Copper	0001	4.2	ug/L	U	F	4.2		FQ	G	STD

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
P416589	WL	8/29/2017	17088685	53-70-3	Dibenz(a,h)anthracene	N001	0.49	ug/L	U	F	0.49		FQ	G	STD
P416589	WL	8/29/2017	17088685	84-66-2	Diethyl phthalate	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
P416589	WL	8/29/2017	17088685	131-11-3	Dimethyl phthalate	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
P416589	WL	8/29/2017	17088685	84-74-2	Di-n-butyl phthalate	N001	1.1	ug/L	U	F	1.1		FQ	G	STD
P416589	WL	8/29/2017	17088685	100-41-4	Ethylbenzene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	206-44-0	Fluoranthene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
P416589	WL	8/29/2017	17088685	86-73-7	Fluorene	N001	0.3	ug/L	U	F	0.3		FQ	G	STD
P416589	WL	8/29/2017	17088685	118-74-1	Hexachlorobenzene	N001	0.63	ug/L	U	F	0.63		FQ	G	STD
P416589	WL	8/29/2017	17088685	87-68-3	Hexachlorobutadiene	N001	0.36	ug/L	U	F	0.36		FQ	G	STD
P416589	WL	8/29/2017	17088685	77-47-4	Hexachlorocyclopentadiene	N001	9.5	ug/L	U	F	9.5		FQ	G	STD
P416589	WL	8/29/2017	17088685	67-72-1	Hexachloroethane	N001	2	ug/L	U	F	2		FQ	G	STD
P416589	WL	8/29/2017	17088685	193-39-5	Indeno(1,2,3-cd)pyrene	N001	0.62	ug/L	U*	F	0.62		FQ	G	STD
P416589	WL	8/29/2017	17088685	78-59-1	Isophorone	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
P416589	WL	8/29/2017	17088685	7439-92-1	Lead	0001	4.9	ug/L	JB	F	2.7		UFQ	G	STD
P416589	WL	8/29/2017	17088685	7439-97-6	Mercury	0001	0.027	ug/L	U	F	0.027		FQ	G	STD
P416589	WL	8/29/2017	17088685	75-09-2	Methylene chloride	N001	0.32	ug/L	U	F	0.32		FQ	G	STD
P416589	WL	8/29/2017	17088685	91-20-3	Naphthalene	N001	0.22	ug/L	U	F	0.22		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-02-0	Nickel	0001	2.6	ug/L	U	F	2.6		FQ	G	STD
P416589	WL	8/29/2017	17088685	98-95-3	Nitrobenzene	N001	0.77	ug/L	U	F	0.77		FQ	G	STD
P416589	WL	8/29/2017	17088685	621-64-7	N-Nitrosodi-n-propylamine	N001	0.33	ug/L	U*	F	0.33		FQ	G	STD
P416589	WL	8/29/2017	17088685	86-30-6	N-Nitrosodiphenylamine	N001	0.42	ug/L	U	F	0.42		FQ	G	STD
P416589	WL	8/29/2017	17088685	87-86-5	Pentachlorophenol	N001	19	ug/L	U	F	19		FQ	G	STD
P416589	WL	8/29/2017	17088685	108-95-2	Phenol	N001	1.9	ug/L	U	F	1.9		FQ	G	STD
P416589	WL	8/29/2017	17088685	129-00-0	Pyrene	N001	0.35	ug/L	U	F	0.35		FQ	G	STD
P416589	WL	8/29/2017	17088685	7782-49-2	Selenium	0001	6.3	ug/L	U	F	6.3		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-22-4	Silver	0001	0.93	ug/L	U	F	0.93		FQ	G	STD
P416589	WL	8/29/2017	17088685	100-42-5	Styrene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
P416589	WL	8/29/2017	17088685	127-18-4	Tetrachloroethene	N001	0.2	ug/L	U	F	0.2		FQ	G	STD
P416589	WL	8/29/2017	17088685	108-88-3	Toluene	N001	0.17	ug/L	U	F	0.17		FQ	G	STD
P416589	WL	8/29/2017	17088685	1330-20-7	Total Xylenes	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
P416589	WL	8/29/2017	17088685	156-60-5	trans-1,2-Dichloroethene	N001	0.15	ug/L	U	F	0.15		FQ	G	STD
P416589	WL	8/29/2017	17088685	10061-02-6	trans-1,3-dichloropropene	N001	0.19	ug/L	U	F	0.19		FQ	G	STD
P416589	WL	8/29/2017	17088685	79-01-6	Trichloroethene	N001	0.16	ug/L	U	F	0.16		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-61-1	Uranium	0001	2.1	ug/L		F	0.05		FQ	G	STD
P416589	WL	8/29/2017	17088685	75-01-4	Vinyl chloride	N001	0.1	ug/L	U	F	0.1		FQ	G	STD
P416589	WL	8/29/2017	17088685	7440-66-6	Zinc	0001	4.5	ug/L	U	F	4.5		FQ	G	STD
SPIN	TS	9/7/2017	17098699	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	630	mg/L		F	1.9		valid	G	STD
SPIN	TS	9/7/2017	17098699	7440-61-1	Uranium	N001	62	ug/L		F	0.05		J	G	STD
SPOUT	TS	9/7/2017	17098699	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.025	mg/L	J	F	0.019		valid	G	STD
SPOUT	TS	9/7/2017	17098699	7440-61-1	Uranium	N001	71	ug/L		F	0.05		valid	G	STD
SPIN	TS	9/20/2017	17098712	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	550	mg/L		F	1.9		valid	G	STD
SPIN	TS	9/20/2017	17098712	7440-61-1	Uranium	N001	73	ug/L		F	0.05		valid	G	STD
SPOUT	TS	9/20/2017	17098712	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N001	0.019	mg/L	U	F	0.019		valid	G	STD
SPOUT	TS	9/20/2017	17098712	7440-61-1	Uranium	N001	58	ug/L		F	0.05		valid	G	STD
WOMPOC	SL	6/21/2017	17108729	AM-241	Americium-241	N001	0.00323	pCi/L	U	F	0.0218	0.00776	valid	C	GEN
WOMPOC	SL	6/21/2017	17108729	PU-239,240	Plutonium-239, 240	N001	0.00552	pCi/L	U	F	0.0234	0.00857	valid	C	GEN
WOMPOC	SL	6/21/2017	17108729	7440-61-1	Uranium	N001	3.02	ug/L		F	0.067		valid	C	GEN
GS10	SL	8/22/2017	17108729	AM-241	Americium-241	N001	0.01	pCi/L	U	F	0.0193	0.0101	valid	C	GEN
GS10	SL	8/22/2017	17108729	PU-239,240	Plutonium-239, 240	N001	-0.00581	pCi/L	U	F	0.0246	0.0114	valid	C	GEN
GS10	SL	8/22/2017	17108729	7440-61-1	Uranium	N001	15.5	ug/L		F	0.067		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-38-2	Arsenic	N003	5	ug/L	U	F	5		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-41-7	Beryllium	N003	1	ug/L	U	F	1		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-42-8	Boron	N003	15	ug/L	U	F	15		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-43-9	Cadmium	0001	1	ug/L	U	F	1		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-47-3	Chromium	N003	1	ug/L	U	F	1		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-50-8	Copper	0001	3	ug/L	U	F	3		valid	C	GEN
GS05	SL	7/10/2017	17108730	7439-92-1	Lead	0001	3.3	ug/L	U	F	3.3		valid	C	GEN
GS05	SL	7/10/2017	17108730	7439-97-6	Mercury	N003	0.067	ug/L	U	F	0.067		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-02-0	Nickel	0001	1.5	ug/L	U	F	1.5		valid	C	GEN
GS05	SL	7/10/2017	17108730	7782-49-2	Selenium	N003	6	ug/L	U	F	6		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-22-4	Silver	0001	1	ug/L	U	F	1		valid	C	GEN
GS05	SL	7/10/2017	17108730	7440-61-1	Uranium	N002	0.306	ug/L		F	0.067		U	C	GEN
GS05	SL	7/10/2017	17108730	7440-66-6	Zinc	0001	5.89	ug/L	B	F	3.3		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-38-2	Arsenic	N003	5	ug/L	U	F	5		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-41-7	Beryllium	N003	1	ug/L	U	F	1		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-42-8	Boron	N003	25.7	ug/L	B	F	15		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-43-9	Cadmium	0001	1	ug/L	U	F	1		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-47-3	Chromium	N003	3.95	ug/L	B	F	1		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-50-8	Copper	0001	3	ug/L	U	F	3		valid	C	GEN
GS59	SL	7/10/2017	17108730	7439-92-1	Lead	0001	33	ug/L	U	F	33		valid	C	GEN
GS59	SL	7/10/2017	17108730	7439-97-6	Mercury	N003	0.067	ug/L	U	F	0.067		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-02-0	Nickel	0001	1.5	ug/L	U	F	1.5		valid	C	GEN
GS59	SL	7/10/2017	17108730	7782-49-2	Selenium	N003	6	ug/L	U	F	6		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-22-4	Silver	0001	1	ug/L	U	F	1		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-61-1	Uranium	N002	1.87	ug/L		F	0.067		valid	C	GEN
GS59	SL	7/10/2017	17108730	7440-66-6	Zinc	0001	3.3	ug/L	U	F	3.3		valid	C	GEN

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	LAB REQUISITION NUMBER	CAS	ANALYTE	SAMPLE ID	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCER-TAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
SW093	SL	7/10/2017	17108730	AM-241	Americium-241	N002	0.0202	pCi/L	U	F	0.0247	0.0131	valid	C	GEN
SW093	SL	7/10/2017	17108730	7440-41-7	Beryllium	N002	1	ug/L	U	F	1		valid	C	GEN
SW093	SL	7/10/2017	17108730	7440-43-9	Cadmium	0002	0.3	ug/L	U	F	0.3		valid	C	GEN
SW093	SL	7/10/2017	17108730	7440-47-3	Chromium	N002	2.88	ug/L	B	F	1		valid	C	GEN
SW093	SL	7/10/2017	17108730	HARDNESS	Hardness	N002	433	mg/L	Q	F	1		valid	C	GEN
SW093	SL	7/10/2017	17108730	PU-239,240	Plutonium-239, 240	N002	0.0594	pCi/L		F	0.0235	0.0217	J	C	GEN
SW093	SL	7/10/2017	17108730	7440-22-4	Silver	0002	0.3	ug/L	U	F	0.3		valid	C	GEN
SW093	SL	7/10/2017	17108730	7440-61-1	Uranium	N002	5.57	ug/L		F	0.067		valid	C	GEN

EXPLANATION

SAMPLE ID

N00x = Sample was not filtered
000x = Sample was filtered

WATER UNIT OF MEASURE

mg/L; ppm = milligrams per liter
pCi/L = picocuries per liter
ug/L = micrograms per liter
C = degrees celsius
mS/cm = milliSiemens per centimeter
NTU = normal turbidity units
s.u. = standard pH units
uS/cm = microSiemens per centimeter
umhos/cm = microSiemens per centimeter

SAMPLE TYPE

F = Field Sample
D = Duplicate

DATA VALIDATION QUALIFIERS

valid	Result is valid
F	Low flow sampling method used
G	Possible grout contamination, pH > 9
J	Estimated value
L	Less than 3 bore volumes purged prior to sampling
Q	Qualitative result due to sampling technique
R	Unusable result
U	Parameter analyzed for but was not detected
X	Location is undefined
999	Validation not complete

LAB QUALIFIERS

*	Replicate analysis not within control limits
+	Correlation coefficient for MSA < 0.995
>	Result above upper detection limit
A	TIC is a suspected aldol-condensation product
B	Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.
C	Pesticide result confirmed by GC-MS
D	Analyte determined in diluted sample
E	Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H	Holding time expired, value suspect
I	Increased detection limit due to required dilution
J	Estimated
M	GFAA duplicate injection precision not met
N	Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compund (TIC).
P	> 25% difference in detected pesticide or Arochlor concentrations between 2 columns
S	Result determined by method of standard addition (MSA)
U	Analytical result below detection limit
W	Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance
X	Laboratory defined (USEPA CLP organic) qualifier, see case narrative
Y	Laboratory defined (USEPA CLP organic) qualifier, see case narrative
Z	Laboratory defined (USEPA CLP organic) qualifier, see case narrative

LOCATION TYPE

SL	Surface location
TS	Treatment system
WL	Well

COLLECTION METHOD

G	Grab
C	Composite

LAB CODE

GEN	Gel Laboratories
STD	Test America

Appendix B
Analytical Results for Water Samples–Third Quarter CY 2017
Information for RFLMA Composite Samples with Unavailable Data

Location	Sample Dates*	Status
GS13	6/26/2017 15:55 - 11/2/2017 13:38	Results Pending
SW027	5/23/2017 14:58 -->	In progress
WALPOC	6/21/2017 11:05 -->	In progress

Abbreviations:
* Analytical results are reported with the start date of the composite sampling period
--> Composite sample end date to be determined