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Final

Polychlorinated Biphenyls Cleanup Completion Report

Former Wastewater Treatment Plant
Larkspur, California
USEPA Site ID CATSCA102516

18 November 2021

Prepared for

Ross Valley Sanitary District
2960 Kerner Boulevard
San Rafael, CA 94901

KJ Project No. 1565036.05

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Section 1: Introduction

On 27 February 2018, Kennedy/Jenks Consultants, Inc. (Kennedy Jenks) submitted the *Revised Updated Application for Remediation of Polychlorinated Biphenyls, Former Wastewater Treatment Plant, Larkspur, California*, (Revised Application) (Kennedy Jenks 2018) to the United States Environmental Protection Agency, Region IX (USEPA) on behalf of the Ross Valley Sanitary (District). The Revised Application described the processes and procedures for removing and disposing soil, demolition debris, and concrete containing polychlorinated biphenyls (PCBs) above USEPA's cleanup goal at the Former Larkspur Wastewater Treatment Plant located at 2000 Larkspur Landing Circle, Larkspur, California (Site). A Site location map is included as Figure 1 and a Site map is included as Figure 2.

USEPA conditionally approved the Revised Application on 15 March 2019 (Conditional Approval) (USEPA 2019). Implementation of the remedial action in accordance with the Revised Application and risk-based cleanup requirements defined in 40 CFR Section 761.61(c) began after the grading and encroachment permits were issued by the City of Larkspur (City) on 11 July 2019 (City 2019a,b). Construction activities were initially scheduled to be completed in one construction season but later phased into two seasons to avoid working in wet weather. Construction activities began in July 2019 and proceeded through December 2019. The second season of construction activities began in May 2020 and were completed in September 2020.

1.1 Document Organization

The remainder of this Addendum to the Revised Application is organized as follows:

- **Section 2 – Pre-Construction Activities:** Describes preparation and management actions that were completed prior to the start of construction activities.
- **Section 3 – Construction Overview:** Presents a general overview of construction activities that were performed, including excavation and backfill methods.
- **Section 4 – Unanticipated Field Conditions and Response Actions:** Summarizes unforeseen conditions that were encountered during construction and the actions that were implemented in response.
- **Section 5 – Additional Investigations and Results:** Summarizes characterization efforts and findings.
- **Section 6 – Material and PCB Waste Disposal:** Summarizes the material types, quantities, disposal methods, and locations for materials removed from the Site.
- **Section 7 – Summary, Conclusions, and Certification:** Final project recap and concluding statements.

The information presented herein supports the successful completion of the planned remedial actions. References used in preparing this Polychlorinated Biphenyls Cleanup Completion Report (Report) are identified following Section 7 and supporting tables, figures, and

appendices are provided at the end of this Report. Further information about the Site background, history, setting, and pre-construction characterization efforts can be found in the Revised Application.

Section 2: Pre-Construction Activities

Pre-construction and construction activities were performed in general conformance with the remedial action plans presented in the Revised Application. The remedial action consisted of removing debris and soils where sample data indicate that Total PCB concentrations exceeded the Site cleanup goal of 0.24 milligrams per kilogram (mg/kg). Remedial activities were conducted in accordance with USEPA's 15 March 2019 Conditional Approval (USEPA 2019); and approval amendments dated 22 June 2020 (USEPA 2020a) and 3 August 2020 (USEPA 2020b). Table 1 summarizes how the remedial activities complied with USEPA's Conditional Approval and associated amendments.

Pre-excavation activities included obtaining approvals and permits for performing the work, clearing the excavation area of known and suspected utilities, establishing temporary facilities such as staging areas and access roads, and establishing site controls such as barriers to protect sensitive resources.

2.1 Pre-Construction Meeting

A pre-construction conference Site kickoff meeting was conducted on 17 June 2019 and progress meetings were held weekly during periods of active construction to discuss the progress of the remedial activities and identify actions necessary for continued support of the construction schedule. Pre-construction conference participants included the District, Engineering/Remediation Resources Group, Inc. (ERRG or Contractor), Kennedy Jenks, Integral Consulting, and USEPA. In 2020, another pre-construction conference Site kickoff meeting was conducted on 8 June 2020 and weekly progress meetings were again held with the same participants. In 2020, weekly meetings were conducted virtually via Microsoft Teams to comply with the COVID-19 safety protocol established by the County of Marin.

2.2 Public Outreach

Prior to construction activities onsite, the District distributed flyers with information about the project. The flyers distributed to the neighboring homes and businesses gave a description of the work that would occur and the approximate duration of the project. In addition to the description and timeline, contact information was included on the flyer. Flyers were originally distributed prior to beginning work in 2019 and then again before work began in 2020. Copies of the flyers are included in Appendix I. A large sign was erected with the project description and timeline in front of the jobsite to inform any passersby of the project. The information on the sign at the construction entrance was in accordance with information sent out in the flyers to the neighbors.

2.3 Planning Documents

Project planning documents include the following engineering design documents and environmental reports.

2.3.1 Remedial Design

In 2019, Kennedy Jenks developed the Larkspur Excavation and Remediation Project Documents (Design Documents) (Kennedy Jenks 2019). The documents included detailed design drawings and specifications defining the scope of work and were based on the Revised Application and USEPA's Conditional Approval. The Design Documents conveyed the requirements for the project (based on the Revised Application and Conditional Approval) to the contractor using engineering drawings and specifications. The Design Documents included figures illustrating excavation areas, depths, final grading contours, and details for drainage and slope stabilization; as well as specifications describing the requirements for each element of the work. The Design Documents were submitted to USEPA on behalf of the District and additional information was provided in both the 30-day response letter dated 15 April 2019 and the 180-day response letter dated 19 July 2019.

2.3.2 Protection of Cultural Resources

An Initial Study / Mitigated Negative Declaration (Integral 2017) was developed by Integral Consulting Inc. (Integral) to identify and protect cultural resources. During the remedial planning stage of the project, Integral identified cultural resources pertaining to the Federated Indians of Graton Rancheria (FIGR). The District consulted with the FIGR prior to construction to understand what requirements they would set in place to ensure protection of cultural resource that could potentially be identified during construction. Additionally, in response to a 27 September 2018 letter from EPA, the FIGR provided comments to the project, in compliance with Section 106 of the National Historic Preservation Act and implementing regulations of 36 CFR Part 800. In discussions with FIGR, Integral, and EPA, the FIGR agreed to assign cultural monitors to the project during the construction. FIGR assigned one of their members as the tribal monitor and Integral assigned an experienced archaeologist to conduct monitoring in accordance with the Initial Study / Mitigated Negative Declaration. Protection of Cultural Resources are further discussed in Section 3.2.9.

2.3.3 Contractor Submittals

Contractor submittals, such as a health and safety plan and an excavation plan were provided to Kenney Jenks and the District prior to initiating construction. Submittals were provided to detail how the contractor would complete the required work. Kennedy Jenks reviewed the submittals to ensure the Contractor's means and methods were in conformance with the Design Documents.

2.3.4 Permits

The City of Larkspur issued a Grading and Encroachment permit for the project dated 11 July 2019. A City ordinance prohibited Saturday work and the District sought a variance to the ordinance. The City of Larkspur issued a variance on 2 August 2019 to allow Saturday work based on its benefit for completing of the project (City 2019c). As the work was extended over two seasons to avoid working in wet weather, the grading permit was extended by the City of Larkspur on 7 January 2020 (City 2020d,e).

Section 3: Project Overview

3.1 Overview

ERRG was contracted by the District to perform the remedial work, and Kennedy Jenks was hired to provide construction management and engineering services during construction. The PCB cleanup project was initially scheduled to be completed in one season but later phased into two seasons based on a revised construction schedule. The extended construction schedule was sequenced in a manner so as not to have a negative impact on achieving the remedial objectives for the Site. Approximately half of the work was completed in 2019 and the remaining half was completed in 2020.

ERRG documented excavation and off-haul quantities in Year 2019 and Year 2020 including:

- 68,144 tons of material hauled to local municipal landfills, including 4,096 tons of demolition debris

- 1,417 tons of PCB bulk product waste hauled to US Ecology Landfill in Beatty, NV (referred to in this document as an EPA-permitted hazardous waste landfill). The US Ecology landfill is a hazardous waste landfill permitted by EPA under section 3004 of RCRA to accept this material

Figure 2 illustrates the areas where remedial activities were completed in 2019 and 2020. Analytical results for samples collected from the excavation (confirmation samples), concrete, demolition debris, and construction debris (wipe samples) are summarized in Tables 2 through 5. Table 6 summarizes the waste streams generated by the PCB cleanup activities and the receiving facilities accepting each waste stream. Appendix B presents photographs of excavation activities.

3.2 Excavation Operations

3.2.1 Health and Safety

Health and safety protocols were implemented that conformed to the general requirements of Occupational Safety and Health Administration (OSHA) standards (29 CFR 1910.120) and California Occupational Safety and Health Program (Cal-OSHA) standards (8 CCR GIS0 5192) for protecting workers and the community from construction hazards and the Site Constituents of Concern (COCs).

The Contractor was responsible for the site safety and a Site-Specific Health and Safety Plan (HASP), which addressed identification of hazards, hazard mitigation, safe work practices, and emergency response procedures, was prepared. The HASP contained the following health and safety protocols.

- The name and contact information of individual(s) who had been designated as the Project Manager and Project Health and Safety Representative.

- Requirements for worker training, including current 40-hour OSHA 1920.120 certification.
- Site controls to be implemented during cleanup activities to prevent the public from entering the limits of work.
- Identification of potential physical and chemical hazards.
- Requirements for personal protective equipment (PPE).
- An emergency action plan in the event of an accident, or serious unplanned event (e.g., fire, structure collapse, etc.) that required notifying any response agencies (e.g., fire departments, PG&E, rescue teams, etc.), including emergency telephone numbers and emergency room/hospital routes.

The HASP communicated a commitment to exercise extreme care when handling or disposing of materials or substances that were identified as hazardous. A copy of the HASP was available within the limits of work throughout the duration of the project. The health and safety protocols applied to all personnel working at, or visiting the Site including, but not limited to, Contractor's employees, sub-contractor's suppliers, vendors, and truckers. Persons who did not have the required training and protective equipment were excluded from the excavation area.

Before work began in 2020, the Contractor amended the HASP to conform with the Marin Department of Health and Human Services concerning COVID-19. Extra precautions and safety procedures were required by *County of Marin Public Health Order dated 29 April 2020* (Public Health Order). Kennedy Jenks as third-Party Jobsite Safety Accountability Supervisor (JSAS) conducted periodic Site audits to assess the Contractor's conformance with the *Health and Safety Guidelines, HSB-011, "COVID-19"* that was prepared by the Contractor to comply with requirements of the Public Health Order.

3.2.2 Preparation of Work Areas/Site Preparation

Prior to the start of the PCB cleanup activities, ERRG provided temporary facilities and controls at the Site. A temporary parking area was established at the northern end of the Site, along with two trailers. Sanitary facilities were placed in three locations for workers. An equipment storage unit (i.e., Conex box) was placed in the southern part of the Site for equipment and chemical storage.

A construction entrance/haul road were installed that extended from Larkspur Landing Circle across the Site and looped around the southern stockpile area to facilitate truck loading and on-/off-hauling. The construction entrance was composed of a 6-inch layer of 6-inch minus drain rock and the haul road was composed of a 6-inch layer of ¾-inch drain rock. The rock was placed over a continuous layer of geotextile fabric (Mirafi 140N). A truck loading area was established in front of the southern stockpile for loading off-haul trucks. A decontamination pad was also established alongside the haul road, prior to construction entrance, to prevent track-out of potentially impacted soils as the trucks left the Site.

Signs and placards conforming to 40 CFR 761 were placed at the three Site entrances. The perimeter of the Site was fenced, and the three entrances were controlled by the Contractor. A single interior fence along the southern part of the Site was erected to delineate the District's equipment yard and the Site.

3.2.3 Excavation Methods

The Contractor used several pieces of equipment to remove and stockpile the PCB-impacted material (e.g., soils, demolition debris, concrete, pipe). The Contractor excavated the materials using an excavator; and moved the materials throughout the Site using a wheel loader, skid steer, and/or a 30-ton off-road articulated dump truck. Soil identified as potentially containing PCBs at concentrations greater than 50 mg/kg was directly loaded into transport vehicles for offsite disposal. The Contractors Excavation Competent Person oversaw and inspect all excavation work and safety controls, including shoring and other excavation support.

3.2.4 Shoring System

Where excavation depths exceed 4 feet below ground surface (bgs), the Contractor was required to protect surface features and worker safety by either sloping the excavation sidewalls at a maximum slope of 1 horizontal to 1 vertical (1h:1v) or by installing temporary shoring (mechanical protection systems). Soils excavated to slope the sidewalls back from vertical were consider clean and were approved for reuse as backfill by USEPA (Appendix A, email dated 22 July 2019).

3.2.4.1 Sidewall Shoring

The excavation limits of certain Site areas were adjacent to existing features, such as the concrete retaining wall, the wetlands, and the property boundary (Figure 2) that prevented the Contractor from sloping or benching sidewalls for safety. In these areas, the Contractor installed shoring systems for excavation support and protection. The Contractor's civil and structural engineering subcontractor, D.H. Charles Engineering, Inc., designed the shoring systems for the project.

Shoring was implemented in four locations around the Site (Figure 2). Shoring was installed in clean soils immediately outside the excavation boundaries, in the following configurations:

- Northernmost Wall: solider piles and timber lagging with tieback anchors and walers placed offset from the northern retaining wall. Solider piles were placed in pre-drilled borings, and timber lagging and tiebacks were installed following removal of the impacted soils. Shoring at the very northern limit of the excavation was installed just inside the excavation boundary due to the presence of the retaining wall. Soils in this area were sampled and reported to contain PCBs below the cleanup level (see Section 5.6).

- Eastern Wall: soldier piles and steel plates placed immediately outside the excavation limits to protect the seasonal wetland area, unimproved hillside, and Tubb Lake Dam buttressing fill.

- Southeastern Wall: Soldier piles and steel plates were placed immediately outside the excavation limits to protect the unimproved hillside and paved cul-de-sac.

- Southernmost Wall: Soldier piles and steel plates were placed immediately outside the excavation limits to protect the unimproved hillside, the small retaining wall, a parking lot, and a power pole.

Once excavation was completed and backfill activities began, the timber lagging at the northernmost wall was removed sequentially as fill was added and compacted. Timber lagging was removed in lifts no greater than 2 feet at a time. Once the excavation was backfilled to within 2 feet below the tiebacks, the tiebacks were cut and the walers were removed. The tieback rods were abandoned in place and the rest of the wall material (soldier piles, walers, and any leftover lagging) was removed. For the remaining three (eastern, southeastern, and southern) walls, the steel plates and soldier piles were removed after backfilling and compaction had been completed to the specified finish grade. Wood lagging used in the norther excavation area was cleaned by dry brushing dirt from the wood then pressure washing. Steel shoring was decontaminated following the EPA-approved alternative decontamination procedures.

3.2.4.2 Displacement Monitoring

The Contractor performed vibration and displacement monitoring for the temporary soldier pile wall systems and existing structural features. Geotechnical instrumentation was used to monitor for movement that could occur because of soil excavation or construction activities. Monitoring was conducted to evaluate potential impacts to Site features or adjacent areas from wall movement and provide early indication of potential safety risks to personnel.

Vibration monitoring consisted of four seismographs installed at sensitive structures within 50 feet of the vibration-inducing work. Displacement monitoring consisted of Displacement Monitoring Points installed on top of the existing retaining walls and on the soldier pile walls. Threshold values were established in conformance with the Design Documents and weekly reports indicated no exceedances from the excavation activities for the displacement and vibration limits established by the Design Documents. Weekly vibration and monitoring reports were submitted to Kennedy Jenks for review.

3.2.5 Drainage-culvert Removal

The subsurface drainage-related system on Site included drainage piping and three structures, a stormceptor and two inlets. The District provided USEPA a plan for sampling soil around the culvert which included collecting three discrete samples from beneath the stormceptor and pipe. In an email dated 5 August 2019 (Appendix A), the USEPA required a fourth sample to be collected next to the pipe. During excavation activities, when the location for sampling was exposed, the sample was immediately collected, placed in a laboratory-supplied jar, and sent to the laboratory for analysis under appropriate chain-of-custody protocols. Once the sample results were returned, the piping and structures were removed by the Contractor. The structures were stored on Site for reuse during site restoration and the piping was disposed of as construction debris after confirmation wipe samples indicated PCBs were not present on the pipe sidewalls. Sampling locations, methods, and results are further summarized in Section 3.2.5.

3.2.6 Drainage Swale Excavations

Excavations in the drainage swale occurred during the 2020 construction season. Excavation Pits 2-1, 2-2, 2-4, and 15-5 were located in the footprint of the drainage swale (Figure 4). Excavation and backfilling activities were conducted in conformance with the Design Documents, except for Excavation 15-5, which encountered bedrock prior to excavating to the total planned depth of 15 feet bgs (see Section 4.8). The drainage swale was backfilled to its original grade and stormwater BMPs were installed prior to demobilizing from the site (Section 3.2.11).

3.2.7 Stockpiling

Excavated soils were transported to on-Site stockpiles for re-use or off-haul, depending on characterization of the soil. Soils designated for off-site disposal were stored in the southern stockpile area. Clean soils designated for reuse as backfill (i.e., soils in the upper 2 feet of the excavation areas, lay-back soils outside of the defined excavation areas) were stored in stockpiles located to the west of the excavation area. Stockpiles were placed on high-density polyethylene (HDPE) liners to prevent impacting underlying soils. The bottom liner was bermed to contain groundwater or stormwater that could potentially drain from the soil. Stockpiles were covered with 10-mil plastic sheeting weighted down with sandbags. Stockpiles that were not actively being managed remained covered.

3.2.8 Dust Control

To mitigate the potential emission of fugitive dust during soil disturbing activities, dust control practices were implemented to minimize the occurrence of visual dust throughout the work zone.

Water was applied to areas in preparation for excavation. Water spray was applied during clearing, grubbing, demolition, excavation, grading, and loading. Work areas and haul roads were watered as-needed throughout the day to prevent dust. Water application was increased if visible dust was observed by the Engineer or the Contractor, or if weather conditions were particularly hot or windy. Water application was managed so that it did not result in ponding, runoff, or produce track out.

Drop heights were minimized while loading transport vehicles and truckloads leaving the Site were covered. Truck and equipment tires were cleaned prior to leaving the Site by brushing or washing. On-site vehicle speeds were limited to 5 miles per hour.

To minimize the use of potable water, the District filled the contractor's 2,000-gallon water truck with recycled water at the beginning of each day for use in dust mitigation activities. The District's water truck was staged at an offsite location during transfer operations, so decontamination of the District's vehicle was not necessary. Additionally, the Contractor used filtered groundwater that was pumped from the excavations for dust control, after groundwater was tested and confirmed to not contain PCBs. Ground water analytical results are further described in section 4.7.

A street sweeper was used daily to clean the roadway in front of the construction entrance to ensure any visible soil from truck track-out was removed from the public roadway.

3.2.9 Air Monitoring

Real time air monitoring was performed to monitor the efficacy of dust control measures. Air monitoring was conducted throughout the duration of the cleanup activities. The USEPA stipulated an action level of 50 micrograms per cubic meter ($\mu g/m^3$) for respirable dust (particulate matter (PM) as PM_{10}), measured at the perimeter of the Site. USEPA's conditional approval stated that if the action level was exceeded for 30 minutes, the remedial activities generating the dust are to be stopped and additional dust suppression efforts are to be implemented prior to continuing the cleanup work. To account for short-term variations in dust emissions, an equivalent 5-minute time-weighted average concentration was used to trigger a work-stop event, as allowed by Condition D.15 of the Conditional Approval. When the 50 $\mu g/m^3$ action level was exceeded for more than 5 minutes, or when visible dust was observed, the work was stopped, and additional water was applied to soils where the dust was being generated. No additional dust suppression measures were needed.

Air monitoring data and air monitor calibration certificates are included in Appendix H. Graphs summarizing the air monitoring data for each station are included at the beginning of Appendix H. The graphs illustrate that during both years, minor intermittent action level exceedances occurred, even at the background (south) station. Those exceedances were addressed as discussed above.

3.2.9.1 Air Monitoring Stations

Perimeter air monitoring was accomplished using stationary, real-time, direct-reading air monitors. The air monitoring station locations were initially selected based on Site boundaries, planned work zones, proximity to nearby offsite receptors, directional location of loading and off hauling activities, and predominant wind directions. At the start of the cleanup activities in 2019, four air monitoring stations were located around the perimeter of the Site:

- Station No. 1 was in the southwest (toward the Bay), generally upwind of the excavations and near the truck route. This station served as the background/baseline station based on the predominant wind direction at the Site.
- Station No. 2 was located near the construction entrance, where trucks enter and exit the Site.
- Station No. 3 was placed near the eastern fence, near the wetlands.
- Station No. 4 was placed on top of the northern retaining wall.

On 5 August 2019, USEPA requested that two additional air monitors be placed at the perimeter of the Site.

- Station No. 5 was placed at the northern property boundary south-southwest of the neighborhood day care facility.

- Station No. 6 was placed on top of the northern retaining wall, near the eastern property boundary, across from the residential housing area.

On 27 August 2019, USEPA conducted a Site visit to observe the excavation activities and dust monitor locations. At the request of USEPA, three air monitors located on the northern end of the Site were moved.

- Station No. 4 was moved approximately 15 feet to the west and set immediately next to the top of the retaining wall. The intake was raised to its maximum height of approximately 7 feet above ground surface.

- Station No. 5 was moved approximately 9 feet to the south-southwest from its original location.

- Station No. 6 was moved approximately 15 feet to the east and set immediately next to the top of the retaining wall. The intake was raised to its maximum height of approximately 7 feet above ground surface.

Monitoring Station Nos. 1 through 3 remained in their original locations. The revised dust monitoring locations were used during implementation of the 2020 remedial activities.

3.2.9.2 Other Air Quality Impacts

California fires in 2019 and 2020 directly affected the particulate matter (PM_{10}) concentrations in the air monitors. Sustained concentrations for air monitors were as high as 795 µg/m^3, 15.9 times higher than the action level. In 2019, smoke from the Kincade fire in Sonoma County impacted air quality at the site from approximately 23 October to 6 November. In 2020, smoke from the LNU Lightning Complex fires which were spread across several nearby counties impacted air quality at the site from approximately 21 August to 4 September 2020. Under direction of the USEPA, the air monitors were kept in operation during the California fires.

3.2.9.3 Monitoring Deviations

On 19 August 2020, EPA was notified that local and regional (north Bay Area and Sonoma and Napa counties) air quality was significantly impacted by wildfires occurring throughout the State and that five of the six dust monitors were shut off because they would not be effective at identifying PM_{10} exceedances related to site activities. The PM_{10} concentration prior to starting cleanup activities on that day was measured to be greater than 100 µg/m^3 (twice the action level required by USEPA). Additionally, activities being conducted included backfilling and grading the site with clean import and off-hauling of large blocks of concrete (this activity did not generate visible dust as the blocks were mostly free of residual dirt). Neither activity was expected to produce dust containing PCB's. One monitoring station (background station) was left operating to measure background PM_{10} concentrations at the site. Real-time data collected by the background station is included in Appendix H and shows that the average PM_{10} concentration throughout the day was above the 50 µg/m^3 action level. At the request of EPA, the dust monitoring stations were placed back in operation before cleanup activities resumed on 20 August 2020.

3.2.10 Protection of Sensitive Resources

To protect the environmental and cultural resources present at the Site, the following mitigation measures were implemented:

- Protective fencing was installed to separate environmentally sensitive areas from the Contractor's operations.
- A qualified archaeological monitor was present, as needed, during excavation activities within or near culturally sensitive areas.
- The archaeological monitor trained on-Site staff in the identification and historical significance of nearby culturally sensitive areas.

When previously unidentified archaeological resources were found during excavation, the Contractor immediately stopped all ground-disturbing activities in the vicinity of the discovery and the archaeological monitor was notified. The monitor evaluated the discovery and removed cultural resources by hand for storage and later onsite reburial.

3.2.11 Temporary Controls, Stormwater Management, and Best Practices

Prior to the start of cleanup activities, the Contractor prepared a Risk Level 2 Storm Water Pollution Prevention Plan (SWPPP) to comply with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ, as amended by Orders No. 2010-0014-DWQ and 2012-0006-DWQ; General Permit No. CAS000002 (General Permit). The SWPPP was completed and submitted on 14 June 2019. An amended SWPPP with the extended project end date was completed and submitted on 1 June 2020. The Risk Level 2 Annual Report and other project-related Permit Registration Documents (PRDs) were submitted to the SWRCB via the Storm Water Multi-Application and Report Tracking System (SMARTS) on 18 August 2020. The project Waste Discharger Identification Number (WDID) is 2 21C387609.

Within the SWPPP, potential Site pollutant sources were identified, and Best Management Practices (BMPs) were chosen for implementation to reduce or eliminate stormwater pollution. BMPs implemented prior to cleanup included establishing perimeter sediment controls (silt fence), adding drain inlet protection, stabilizing the Site entrance/exit, creating a truck decontamination and inspection area, and berming and lining stockpile areas. A construction fence was also installed to protect the wetland area, as required by the Initial Study/Mitigated Negative Declaration.

Stormwater BMPs implemented during cleanup included, but were not limited to:

- Maintaining good "house-keeping": keeping the work Site clean, with materials stored in designated areas, trash receptables covered, and sanitary facilities regularly maintained.

- Fueling equipment and machinery in a designated staging area, equipped with spill clean-up materials. Secondary containment was provided for fuel containers and the Contractor minimized the volume of fuel stored on Site. Spill kits were ready and available.

- Properly managing non-storm water generated during cleanup activities, including operating a dewatering system to filter and store groundwater removed from the excavations.

- Implementing erosion controls, perimeter sediment controls, wind erosion controls, and waste management practices for activities including heavy equipment operations, soil and debris stockpile access, loading materials into transport trucks, and importing and placing backfill.

Once cleanup activities were completed, permanent BMPs were installed during Site restoration to achieve final stabilization. These BMPs included hydroseeding disturbed areas to promote vegetation growth, installing fiber rolls on sloped areas to protect against erosion until vegetation is established, and installing straw bale berms in the swale on Site to slow the velocity of drainage and minimize scour potential.

Inspection and maintenance of BMPs were performed according to the General Permit requirements. Within the SWPPP, a Rain Event Action Plan for precipitation events and a Construction Site Monitoring Program were also developed and implemented during the 2019/2020 winterization of the Site. Field documentation of sampling and inspections was kept onsite during cleanup activities.

3.3 Backfilling and Site Restoration

3.3.1 Excavation Backfill

The Contractor backfilled the excavation areas to original grade and in accordance with the grading permit. Backfill was installed in no more than 8-inch lifts and compacted to 90 percent relative compaction. The Contractor used third-party geotechnical laboratories, ISI Geotechnical and Smith-Emery, to establish compaction curves using the modified Proctor testing procedures on the various backfill. The Contractor self-performed compaction testing at a frequency of one test for each lift within 2,500 square feet of the footprint of each lift. To ensure compaction, Kennedy Jenks or our geotechnical subcontractor, Cal Engineering & Geology, Inc. (CE&G), periodically observed compaction testing and reviewed compaction testing documents provided by the Contractor.

Soft subgrade was encountered at the base of deeper excavations and further evaluation and recommendation to bridge the soft subgrade was required. CE&G inspected the areas where soft subgrade was encountered and made recommendations for bridging the subgrade, as necessary. CE&G recommended using ¾-inch crushed stone/rock installed at a minimum thickness of 18 inches to bridge soft subgrade. The crushed rock was covered by a non-woven separation fabric (Mirafi 150N). If the Contractor could not completely dewater the excavation, a stabilization geogrid (Tensar BX1100) was placed at the bottom of the excavation, prior to backfilling.

3.3.1.1 Clean overburden and Sidewall Reuse Material

The investigation conducted by Kennedy Jenks in 2016 identified the top 2 feet of the Site as not impacted by PCBs at concentrations above the site cleanup goal of 0.24 mg/kg. The top 2 feet of material overlaying the excavation footprint was therefore, excavated and stockpiled for use as backfill.

At the start of the excavation project, clean (soils containing PCBs at concentrations below the cleanup goal of 0.24 mg/kg) sidewall soils (Figure 3) were proposed by for reuse. Kennedy Jenks consulted the USEPA about using the excavated clean sidewall soils for reuse during a meeting on 10 June 2019. On 16 July 2019, the District formally requested the use of clean sidewall soils for reuse and on 22 July 2019, the USEPA issued a letter approving the request. The Contractor was notified, and the clean sidewall soils was stockpiled for use as backfill.

3.3.1.2 Backfill Material

The Contractor selected material appropriate for backfill (drain rock, gravel, compactable soils) in accordance with the Design Documents. Compactable soils were acquired from Soils Plus Soils and Aggregates in Sonoma, CA and from Syar Industries's Lake Herman quarry in Napa, CA. Drain rock and gravel were also acquired from Syar Industries's Lake Herman quarry in Napa, CA. Backfill material was sampled by the Contractor and submitted to a laboratory for analysis to ensure they met the physical, chemical, and geotechnical standards stated in the Design Documents (see Section 5.8.1).

3.3.2 Utility Restoration

The drainage-culvert system that was removed during excavation activities was replaced during backfill. Once the appropriate depth was reached, the structures that were stored on Site were replaced in their original location by the Contractor. The structure sections were grouted together where necessary. New piping was obtained that matched the previous pipe's size and material. The piping was placed on top of a layer of drain rock in accordance with the District's standard details for pipe bedding.

An unexpected sanitary sewer line was discovered during excavation activities (see Section 4.5). The unexpected sanitary line was also replaced during backfill. The existing manhole was reused, and new piping was obtained that matched the removed piping's size and material. The piping was placed on top of a layer of drain rock as specified by the District's standard details for pipe bedding.

3.3.3 Topsoil

To prepare the Site for re-vegetation and proper drainage, scarification of non-excavated, disturbed areas was conducted. An approximate 3- to 6-inch layer of imported topsoil was then placed over the excavation areas of the Site (Figures E-1 and E-2, Appendix E). The imported topsoil was selected by the Contractor in accordance with the Design Documents. The topsoil was sampled by the Contractor and sent to a laboratory for analysis to make sure it was free of PCB, as well as other chemicals, metals, salts, and other materials harmful to plant growth in accordance with the Design Documents and the Revised Application (see Section 5.8.1).

3.3.4 Grade Control and Surveying

The Contractor used a Trimble Grade Control System GCS9000 (GCS) to meet the Design Documents requirements. The GCS system worked to lay out work boundaries, monitor grade, verify constructed design parameters, and document work features throughout the project. The GCS had an accuracy tolerance of +/- 0.025 foot and was used to field verify excavation grades. Once the Contractor deemed the excavation complete and Kennedy Jenks verified the Contractor's field measurements, a California-licensed professional land surveyor (PLS) surveyed the extent of the work. Kennedy Jenks reviewed the survey results to verify the excavation extents were in general compliance with the Design Documents and met the vertical and lateral remediation extents (lateral and vertical) in the Revised Application before approving backfilling.

3.3.5 Finish Grade Drainage Improvements and Final Survey

During the 2019/2020 winterization and SWPPP compliance, areas in the original grade surface showed ponding. During the final grading in 2020, the District, Kennedy Jenks, and ERRG made minor revisions to the finish grade to improve drainage and minimize or eliminate ponding. The final grade also promoted a more uniform slope across the Site to promote drainage toward the vegetated swale.

The final survey was performed by the Contractors PLS in accordance with the Design Documents.

3.3.6 Hydroseed

As part of Site restoration activities at the end of each construction year, hydroseeding was completed to establish vegetation over the Site. Hydroseed uses a mixture of tackifier, fiber, seed, and water to stabilize disturbed soil areas. California Native Erosion Control Mix with Regreen was used as the seed mix both construction years. The area to be hydroseeded was watered for 1 week prior to seeding. Hydroseeding equipment was then used to apply the hydroseed slurry.

In 2019, hydroseeding was completed using a three-layer application process. This involved a layer of loose straw distributed using a mechanical blower. There was an unacceptable amount of dust generated at the beginning of this work. The initial process was stopped within a few minutes of starting, the contractor revised the process to include more water to reduce the hay dust, and then the process was re-started. In 2020, the hydroseeding application was modified to a two-layer procedure. The two-layer application incorporated a HydroStraw product into a slurry to mitigate dust during application. The two-layer application process involved layering the HydroStraw over the seed layer, to prevent insufficient seed-soil contact and seed wash off. To ensure the seed did not dry out, irrigation was implemented on a twice-daily schedule following application.

3.4 Equipment Decontamination

The Revised Application proposed a process for decontaminating equipment used to excavate and load impacted soils at the Site. Condition D.14. in the Conditional Approval stated that any

decontamination methods not specifically allowed under 40 CFR 761(c)(2) would be considered an alternative method, subject to approval from the Regional Administrator pursuant to 40 CFR 761.79(h)(2). The Conditional Approval required submittal of a decontamination plan within 30 days.

On 15 April 2019, Kennedy Jenks submitted an alternative decontamination procedure to USEPA for consideration. The alternative decontamination procedure was consistent with and met the intent and requirements of 40 CFR 761.79(h). On 1 August 2019, USEPA approved the alternative decontamination plan with the conditions that a pilot test be conducted, and results submitted to USEPA for review and approval. ERRG conducted the pilot test on 24 August 2019 and submitted wipe samples to Sunstar for PCB analysis using EPA Method 8082. Results were submitted to USEPA for review on 25 September 2019.

Appendix D provides a summary of the alternative decontamination procedures and results. As documented in the email sent to USEPA on 25 September 2019, no PCBs were reported in the wipe samples above the method reporting limit of 0.100 µg/100cm^3, confirming the alternative decontamination procedures were satisfactory. Based upon the findings, USEPA approved the alternative decontamination method in an email dated 2 October 2019. Decontamination activities conducted at the end of the 2019 and 2020 construction seasons followed the alternative decontamination procedure methods. Decontamination activities occurred between 24 October and 8 November in 2019 and between 16 July and 14 August in 2020. For both years, equipment decontamination activities included the following:

- Constructed a temporary decontamination area using hay bales and a 40-mil plastic liner. The plastic liner was sufficiently large, so no seams or joints were present. Hay bales were used to form three sides of the decontamination area and the plastic liner was placed over the top of the hay bales. The temporary decontamination area was placed on slightly sloped ground with the entrance (the side with no hay bales) at the up-slope side.

- Moved the cleanup equipment (vehicles, machinery, and hand tools) into the temporary decontamination area for manual removal of accumulated soils, to the extent practicable.

- Used an environmentally friendly, aqueous-based detergent (Alconox) combined with high temperature/high pressure wash (using tap water) to thoroughly clean the equipment, removing any residual dust/soils to a visually clean standard. Rinse the equipment a second time with a high pressure/steam wash (using tap water) to remove any remaining detergent.

Wash water generated in 2019 from decontamination of the excavator bucket and arm after excavating soils containing Total PCBs greater than 50 mg/kg evaporated from the temporary decontamination area prior to being collected and stored; therefore, sampling and off-site disposal of decontamination liquids, per Condition No. 4 in EPA's 1 August 2019 Alternative Decontamination of Construction Equipment – EPA Conditional Approval, was not possible. Wash water generated from equipment decontamination prior to demobilization in 2019 was stored on-site in a plastic tote and combined with wash water generated from equipment decontamination procedures prior to demobilization in 2020. The contained decontamination

liquids were sampled, and laboratory results reported no PCBs above the method reporting limit of 2.0 µg/L. The water was disposed off-site at US Ecology in Beatty, NV.

Residual soils generated in 2019 during decontamination of the excavator bucket and arm after excavating soils containing Total PCBs greater than 50 mg/kg, as well as residual soils generated in 2020 after decontaminating the loader bucket used to load demolition debris containing Total PCB concentrations greater than 50 mg/kg were combined with the soils disposed at US Ecology in Beatty NV. In 2019 and 2020, Residual soil was collected from the temporary decontamination area following decontamination of equipment used to manage soils containing less than 50 mg/kg Total PCBs and added to the final load of soil transported to Recology. Less than 1 cubic yard of soils was generated during the decontamination procedures in 2019 and 2020. Laboratory results are included in Appendix E.

Section 4: Unanticipated Field Conditions and Response Actions

During implementation of the remedial actions, several unanticipated conditions were encountered. Each unanticipated condition was handled separately and communicated to the USEPA in a timely manner. This section describes actions taken to respond to the unanticipated conditions encountered.

Unanticipated conditions encountered in the field included:

- Drain rock.
- Miscellaneous large concrete pieces (concrete debris).
- Large native boulders.
- Elevated Total PCB concentrations in the Stockpile Boring 312 Area.
- Abandoned piping left over from the wastewater treatment plant (WWTP) and/or from prior partial Site development.
- Culturally sensitive materials.
- Groundwater encountered in excavations greater than 10 feet deep.
- Excavation Encountering Native soils and Bedrock (Altered Excavation Depths).
- Demolition debris encountered outside of the expected area.

4.1 Drain Rock

Drain rock, approximately 3 to 4 inches in diameter, was discovered at the interface between native rock/soils and PCB-impacted soils planned for removal. Drain rock served as a preferential pathway for groundwater conveyance beneath the Site. Kennedy Jenks and the USEPA observed the drain rock on 27 August 2019 and Kennedy Jenks staff routinely inspected drain rock being removed from the excavations to confirm it was not demolition debris. Drain rock was stockpiled with other excavated soils and hauled offsite for disposal. As the rock was comprised of quarried granitic (or basaltic) material, USEPA concurred that the drain rock did not need to be sampled and analyzed for PCBs.

4.2 Concrete Debris

During soil excavation activities at the southern end of the Site during 2019, large (i.e., greater than 9 inches in diameter) pieces of concrete debris were discovered. Concrete debris primarily consisted of concrete slabs, stormwater drainage inlets, and sections of red painted curbs (red-painted concrete). The concrete was not considered “demolition debris” which is defined in the

15 March 2019 Conditional Approval as concrete generated from the demolition of the former wastewater treatment plant building. The concrete encountered was removed from the excavation and segregated for further characterization. The origin of the red-painted concrete is unknown; however, based on the deposition observations, the concrete is likely not associated with the former treatment plant building demolition (i.e., not "demolition debris"). USEPA observed the segregated concrete debris on 27 August 2019. At USEPA's request, the concrete and red paint on the concrete were sampled and submitted to Sunstar for analysis. As mutually agreed with USEPA, Kennedy Jenks collected six concrete samples from three concrete pieces - two unpainted pieces and one red-painted piece were selected at random for sampling and analysis. From each of the three selected pieces, one sample was taken from the top of the concrete and one from the bottom of the concrete. Additionally, for the painted piece, approximately 10 grams of red paint was removed and collected for analysis. The six concrete samples were collected following the guidance document developed by the USEPA, *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls* (EPA 2011). The highest concentration of total PCBs reported in the concrete and paint samples collected in 2019 was 0.108 mg/kg. Laboratory results of the concrete and paint samples are summarized in Table 2. The concrete was hauled offsite for disposal at Recology.

In Year 2020, teal-painted concrete was found among the removed demolition debris. At USEPA's request, the paint on the concrete was sampled and submitted to Sunstar for analysis (sample ID: CONC-1-PAINT-20200708). The laboratory reported that the teal paint contained 3,090 mg/kg of PCBs. After discussion with the USEPA, it was decided that any painted concrete pieces (regardless of color) that were observed during the demolition debris screening process would be removed and consolidated for disposal as a PCB bulk product waste in accordance with 40 CFR 761.62(a)(3). To facilitate segregation of painted concrete pieces, the demolition debris was separated into three categories using static Grizzly screens (Section 5.2.4.4). Teal-painted concrete was hauled offsite for disposal as a PCB bulk product waste at an EPA-permitted hazardous waste landfill. Laboratory results of samples collected from the demolition debris stockpiles are summarized in Table 2 (discrete concrete sample results) and Table 3 [bulk samples collected following incremental sampling methodology (ISM) process].

Additional information regarding demolition debris stockpiling and sampling is provided in Section 5.2.4.

4.3 Large Native Boulders

Large native (basalt or sandstone rock) boulders were discovered in several excavations onsite. The boulders ranged from 2 feet to 6 feet in diameter. The large boulders were segregated and USEPA observed the boulders on 27 August 2019. The boulders were not previously identified during the 2016 investigation but were the reason for refusal at boring 150. Large boulders were disposed of as construction debris, without sampling, per agreement with USEPA.

In 2020, large boulders found within several excavations and were removed from the excavations and stockpiled. On 14 July 2020, the USEPA agreed that the boulders could be used as backfill during the on-Site reburial of the culturally sensitive material to serve as a safeguard from those materials being disturbed in the future (Appendix A). On 25 July 2020, the culturally sensitive materials were placed at the bottom of an excavation, covered with

construction fabric, then covered with a layer of boulders and imported gravel. The remainder of the excavation was backfill as described in Section 3.3.

4.4 Boring 312 Area Soil and Pit 4-1

Samples collected from boring 312 and perimeter borings 151P, 152P, and 153P contained Total PCB concentrations above the cleanup goal of 0.24 mg/kg in the upper 3 feet of soil (Table 4). The area containing elevated PCB concentrations was bounded by borings 065, 075P, 077P, and 150P (Figure 4). Based on analytical results, the area containing elevated PCB concentrations was excavated to 4 feet bgs. A 10-foot by 10-foot grid was placed across the base of the excavated area (Figure 6) and confirmation samples were collected, as described above. A total of 19 confirmation samples were collected from the approximate 1,430 square foot (sf) over-excavation area. The result of the confirmation sample collected from cell A2 (Figure 6) was above the cleanup goal of 0.24 mg/kg (Table 4), and that area was excavated an additional 1 foot, to 5 feet bgs. In accordance with the Revised Application sampling procedures, one sidewall sample was collected from the sidewall that exceeded a vertical height of 4 feet. One confirmation sample was collected from the bottom of the 10-foot by 10-foot area. Laboratory results (Table 4) indicated that the two confirmation samples were below the PCB cleanup goal. Results from Pit 4-1 confirmation samples are further summarized in Section 5.7.3.

4.5 Abandoned Pipe

During implementation of the remedial activities, several abandoned underground pipes were encountered. These pipes were removed to the limits of the excavations and the remainder of the pipes were plugged and abandoned in place. Wipe samples were taken from both the inside and outside of pipes that were encountered within the limits of the excavations. Wipe sampling consisted of cleaning the section of pipe to be sampled (a 10- by 10-centimeter square area) with water and paper towels to remove soil, then using gauze soaked in hexane to collect the sample, according to the *Wipe Sampling and Double Wash/Rinse Cleanup* (USEPA 18 April 1991). The analytical results of the wipe samples are included in Table 5. Samples were reported to be below their method reporting limits, ranging from 0.1 micrograms per 100 square centimeter (µg/100cm^2) to 1 µg/100cm^2. The various types of pipe encountered are described below.

4.5.1 Concrete-Encased Steel Pipe at Boring 144

Excavation activities revealed that the refusal encountered at boring 144 was caused by a concrete-encased steel pipe from the former WWTP. The concrete encasement was approximately 4 feet wide and 4 feet deep; and extended east of boring 144, as well as south of boring 144 into excavation 15-1 area (Figure 4). The pipe and concrete terminated about 10 feet into the 15-1 excavation. The top of the concrete was approximately 10 feet bgs which was the same as the planned excavation depth at location 144 and excavation 10-1. The District conducted a survey of the pipe with a remote-controlled camera and discovered that the concrete-encased pipe was plugged with concrete/grout approximately 24 feet from the open-end in excavation 15-1. The pipe was removed from the excavation 15-1 area, but the remaining portion was left in place.

Based on discussions with USEPA and as confirmed in an email dated 4 October 2019 (Appendix A), six wipe samples were collected from the inside of the pipe that was removed from the 15-1 excavation area, and two samples were collected from the portion of the pipe that remains in-place. Total PCB concentrations were reported below their method reporting limits in the eight wipe samples collected. Results are summarized in Table 5.

Also, as requested by USEPA, Kennedy Jenks collected soil samples at random locations from around the concrete encased pipe in excavation 10-1. A grid system was established, overlaying the concrete encased pipe and the grid cells were assigned number identifiers (Figure 6). The website www.random.org was used to select numbers at random and samples were collected in the corresponding grids. Samples were labelled as "SB144-#-S-CONF(xx)-date" where "#" refers to the random grid cell; "S" refers to the side (either north or south) of the concrete that was sampled; "xx" is the confirmation sample depth; and "date" is the date the sample was collected. For example, the sample collected from the northern side of the concrete in cell 2 at 11 feet bgs on 3 October 2019 was labelled SB144-2-North-Conf(11)-20191003. Table 4 summarizes analytical results for the soil samples collected from the random sample locations. Total PCB concentrations were reported below the cleanup level of 0.24 mg/kg in the nine samples collected.

4.5.2 Sanitary Sewer System Pipe

A sanitary sewer line, believed to be installed during the previous Site development work, was encountered in Test Pit 150 at approximately 6 feet bgs (Figure 4). Further field investigation revealed that the pipe was capped and abandoned in place near boring 150. The pipe was SDR 35 6-inch polyvinyl chloride (PVC) pipe, consistent with specifications from the previous on-Site development efforts. Associated with the sanitary sewer line was an additional manhole and pipe extending to the north of the retaining wall. The pipe and manhole lie in the footprint of Pit 15-2 and were removed during 2020 excavation efforts. Three samples were taken: one underneath the manhole (sample name SS-STRC) and two underneath the pipe segments as shown on Figure 4 (sample names SS-PIPE-N and SS-PIPE-W). The manhole and sanitary pipe were removed to the limits of the 15-2 excavation. The sanitary pipe was disposed of as construction debris after confirmation wipe samples were collected from the inside and outside of the pipe. The concrete manhole was reused during replacement of the utility at the end of the remedial efforts. The replacement pipe consisted of new SDR 35 6-inch PVC pipe.

4.5.3 High-Density Polyethylene (HDPE) Pipe

During excavation of pit 10-1, a black HDPE pipe was discovered at approximately 10 feet bgs (Figure 4). No documentation of the pipe could be found in the District's records. Previous development plans did not specify the HDPE pipe. A grout plug was discovered on the southwestern end of the pipe, indicating the pipe was abandoned. The pipe was removed and disposed of as construction debris. The HDPE pipe was expected to be encountered in excavation 15-2 during excavation activities in 2020, but it was not encountered.

4.5.4 Vitrified Clay Pipe/Cast Iron Pipe and Valve

A red vitrified clay pipe was discovered at the edge of excavation 10-4 at approximately 10 feet bgs (Figure 4). The pipe was conveying water, so grout was applied to the pipe to stop the leak

and allow the Contractor to continue excavating. The pipe alignment was rediscovered in excavation 10-9, connected to an 8-inch butterfly valve. The pipe in Pit 10-9 was removed and the valve was plugged with non-shrink grout, then abandoned in place. The pipe alignment was again rediscovered in excavation 15-2. The pipe appeared to have transitions to cast iron at the valve and was removed to the limits of excavation and then plugged. The pipe and valve were likely part of the WWTP water distribution system that was abandoned in-place. Wipe samples were collected from the inside and outside of the removed pipe. Wipe sample results were reported to be below method reporting limits for Total PCBs of 0.1 µg/100cm^2. Results are summarized in Table 5.

4.5.5 Ductile Iron Pipe

A 12-inch ductile iron pipe was found in the sloped sidewall north of excavations 20-3 and 2-2 (Figure 4). The pipe section was abandoned and appeared to be filled with grout. The pipe was removed, and wipe samples were collected from the pipe. A soil samples was collected beneath the pipe within the excavation boundaries. Samples results were reported to be below their method reporting limits for the wipe sample, which ranged from 0.1 µg/100cm^2 to 1 µg/100cm^2 (Table 5) and in the soil (0.00413 mg/kg) (Table 4) beneath the pipe.

4.6 Culturally Sensitive Materials

Cultural resources (midden) were discovered in several excavations during 2019 and 2020. Cultural resources onsite predate the WWTP and are not expected to be impacted by PCBs. A pocket of midden was discovered in excavation 10-1 on 26 August 2019. The FIGR representative identified the material as redeposited midden. A second discovery of midden was uncovered at the base of excavation 15-1, adjacent to excavation 10-5, and a third was found at the edge of excavation 10-10. These latter two locations are within the environmentally sensitive boundary shown on Figure 2. The FIGR representative proceeded with removing the resources from excavation 10-1 and determined that the midden discovered in the two locations within the environmentally sensitive area did not need to be moved. In 2020, cultural materials were encountered in the western portion of excavation area 2-1 (Figure 2) on 8 June and in the western portion of excavation area 15-2 (Figure 2) on 8 July. The FIGR representative identified the material as redeposited midden. The resources were removed by the Contractor, as directed by the FIGR representative. At the request of the FIGR, cultural resources were stored on Site and reburied at a location selected by FIGR on 25 July 2020.

4.7 Groundwater in Excavations

Previous environmental and geotechnical investigations did not indicate the presence of groundwater in the borings advanced. Groundwater was first encountered in excavation 10-1 during the first phase of excavation in July 2019 at approximately 10 feet bgs. The Contractor sampled the groundwater prior to pumping. Groundwater samples collected by the Contractor, throughout the project duration, were collected from the open excavations and transferred to laboratory-supplied containers, without filtering the samples. The laboratory processed the samples as provided (no filtering) for analysis. Water samples were filtered by the laboratory after extraction/preparation and prior to analysis. Laboratory results are presented in Appendix E and summarized in Table E-1 at the beginning of the appendix. Laboratory results

reported Total PCB concentrations below method reporting limits in the samples collected. Since the laboratory results were less than the 0.5 microgram per liter (µg/L) limit established by USEPA, the water was re-used on-Site for dust control.

Groundwater was pumped out of the excavation and into holding tanks. In 2019, holding tanks were located at the northern end of the site, above the retaining wall. In 2020, the tanks were located just south of excavation 10-8, to the east of the clean overburden stockpile. The holding tanks were used to store the groundwater, which was passed through a sediment filter prior to being used for dust control. Because groundwater samples did not contain detectable concentrations of PCBs, the water was re-used on-Site for dust control without additional analyses. The tanks were also outfitted with underlying secondary containment, per SWPPP requirements. Approximately 265,690 gallons of water were pumped from the excavations, filtered, and reused.

4.8 Excavations Encountering Native Soils and Bedrock (Altered Excavation Depths)

During the remedial excavation, field observations indicated that native soils were encountered before reaching target depths in excavations 15-5, 15-2 West, 20-1, 20-2, and 20-4. Appendix B contains photographs of the excavations where native soils were encountered prior to reaching the target depths; Kennedy Jenks established a 10-foot by 10-foot grid in each area (Figures 6 and 7), then collected one sample from the center of each grid cell for laboratory analysis. Section 5.7 summarizes the laboratory results of the samples collected. Figure 5 shows the extents of the native soils.

Bedrock was encountered during the remedial excavation and installation of shoring walls before reaching target depth in excavations 15-2 (along the northern wall, northeastern wall, and in other pockets throughout the excavation), 10-7, 15-5 (along the southern and southeastern walls), 20-3, and 22-1. The bedrock extents were delineated during subsequent survey events and are illustrated on Figure 5. Appendix B contains photographs of the excavations where bedrock was encountered. No samples were collected from the bedrock.

4.9 Demolition Debris Encountered Outside of Expected Areas

During the remedial excavation, demolition debris was unexpectedly encountered in excavation pit 15-2, and partially in excavation pit 10-1 (Figure 5). The demolition debris was segregated from other demolition debris stockpiles, per Conditional Approval Condition D.9.b. Sampling, results, and off-haul of the unexpected demolition debris is further described in Section 5.2.4.4.

4.10 Summary

Concrete and wipe sample results indicate that the concrete pieces and pipes removed from the excavation, as described above, were not impacted with PCBs at concentrations that required disposal at a EPA-permitted hazardous waste landfill. Soil confirmation sample results indicate that the over excavation activities conducted at pit 4-1 successfully removed the impacted soils,

and remaining soils contain residual concentrations of PCBs that were below the cleanup goal or below analytical method reporting limits. Groundwater samples collected from the open excavations demonstrated that groundwater beneath the Site was not impacted by the presence of the PCB-laden soils removed from the Site.

Section 5: Additional Investigations and Results

The USEPA's Conditional Approval of the Revised Application (USEPA 2019) required the District to collect additional characterization samples to fill "data gaps" and verify that the PCB cleanup goal had been achieved. This section presents the additional characterizations that were performed and their results. Additional characterization activities were performed by Kennedy Jenks at the pre-existing stockpiles, demolition debris stockpiles and concrete, locations where refusal was encountered, soil around the existing stormwater drainage and sanitary systems, and at specific excavations where over-excavation or altered excavation depths occurred. Additional characterization activities were performed by the Contractor at the stockpile and haul road locations and of the groundwater extracted during excavation.

Sampling, handling, laboratory, and quality assurance / quality control (QA/QC) procedures for verification sampling and analysis were performed in general conformance with procedures presented in the Revised Application. Data validation reports are provided in Appendix C.

5.1 Laboratory Analysis

Discrete soil, concrete (concrete not believed to be associated with the demolition of the WWTP buildings), demolition debris, and wipe samples (collected from pipes removed from the subsurface) collected from the Site in 2019 were submitted to Sunstar Laboratories Inc. (Sunstar) in Lake Forest, California, for analysis. Sunstar is certified by the California Environmental Laboratory Accreditation Program (ELAP) for PCB analysis (ELAP 2250). Bulk samples collected from the demolition debris stockpiles (Section 5.2.4) were submitted to Pace Analytical National Center for Testing & Innovation Laboratory in Mt. Juliet, Tennessee (Pace), for processing prior to being transferred to Sunstar for analysis.

Discrete soil and wipe samples collected from the Site in 2020 were also submitted to Sunstar in Lake Forest, California, for analysis. Bulk samples and concrete samples collected from the demolition debris stockpiles (Section 5.2.4) were submitted to Eurofins Environment Testing America (Eurofins) in Pleasanton, California for processing and analysis (ELAP 2496).

Sunstar analyzed the samples for PCBs using USEPA Method 8082 after preparing the samples following USEPA Method 3550C (sonication). USEPA Method 8082 is the method approved for PCB analysis in soil by California ELAP. Eurofins analyzed the bulk demolition debris and concrete samples using USEPA Method 8082 after preparing samples following USEPA Method 3540C (Soxhlet Extraction).

5.2 Stockpile Sampling

5.2.1 Existing Stockpile Characterization

Two existing stockpiles (referred to as the "North Stockpile" and "South Stockpile") were located on-Site (Figure 2) when remedial actions began. Neither the District nor Kennedy Jenks had information about the source of the stockpiled soils, other than to know it was acquired from an offsite source. In 2016, Kennedy Jenks collected samples from these two stockpiles for waste

characterization analysis. Sample collection procedures and characterization results were included in the Revised Application. At the request of Recology, four-point composite samples were collected from the North Stockpile and South Stockpile for disposal characterization. Samples were collected at a frequency of one sample for every 250 cubic yards (cy). The North Stockpile was estimated to be 190 cy (one four-point composite sample collected) and the South Stockpile was estimated to be 360 cy (two four-point composite samples collected). ERRG collected the samples in accordance with requirements for profiling and acceptance at Recology. Total PCB concentrations were reported in the samples at concentrations well below 50 mg/kg. Soils containing total PCBs concentrations at or above 50 mg/kg cannot be accepted by Recology. Analytical results for samples collected from the North Stockpile and South Stockpile are summarized in Appendix E, Table E-2a. A copy of Recology's acceptance criteria is included in Appendix J.

5.2.2 Grid Sampling Beneath Existing Stockpiles

ERRG removed the stockpiled soils down to an elevation matching the surrounding grade. Following removal and offsite disposal of the stockpiled soils, Kennedy Jenks established a 10-foot by 10-foot sampling grid (40 CFR 761.265(a)) covering the footprints of former North Stockpile and South Stockpile (Figure 6). The rows and columns of the grid were assigned letters and numbers to identify grid cells. Samples were collected from the center of each cell formed by the grid lines as presented in 40 CFR 761.283. A total of 56 discrete samples were collected from beneath the two stockpiles.

Kennedy Jenks conducted grid sampling using a clean steel chisel and hammer to remove soil from the upper 3 inches of the surface, then placed the soil into laboratory-supplied 8-ounce or 4-ounce glass jars. Samples were labeled with the sample name (based on sample location and collection date), sample collection date and time. Samples were stored in an iced cooler until transferred to a Sunstar courier. The chisel was decontaminated before and between uses by first removing dry soil; then scrubbing the chisel with non-phosphate Liquinox soap solution for one minute; drying the surface with a clean cloth and then rinsing with distilled water in accordance with 40 CFR 761.375. The chisel was then scrubbed in hexane for one minute, wiped dry with a clean cloth, then rinsed in hexane and wiped clean in accordance with 40 CFR 761.372.

Table 4 summarizes analytical results for grid sampling beneath the two stockpiles. One of the 56 samples (South Stockpile sample SSP-C9-20190823) was reported to contain a detectable concentration of Total PCBs (0.104 mg/kg), which is below the cleanup goal of 0.24 mg/kg. PCB concentrations in the remaining 55 samples were reported to be below their method reporting limits, which ranged from 0.0103 mg/kg to 0.116 mg/kg.

5.2.3 Borings Beneath Existing Stockpiles

As presented in Table 16 of the 15 March 2019 Conditional Approval, one boring was advanced and continuously cored beneath each former stockpile area. Borings were advanced using a direct push drill rig (in accordance with the procedures used during the 2016 investigation) on 22 August 2019. The two borings were conducted under Marin County Environmental Health Services Permit No.TH B19577(2). The borings were staked and marked with white paint and the Underground Services Alert (USA) system was notified on 15 August 2019. Ground

Penetrating Radar Services, Inc. (GPRS) swept each location with non-invasive geophysical equipment to conduct an additional search for underground utilities prior to drilling.

Boring 311 was drilled to a depth of 16 feet bgs at the location where the North Stockpile was removed. Boring 312 was drilled to a depth of 24 feet bgs at the location where the South Stockpile was removed. The boring depths were selected based on the findings during the 2015 and 2016 investigations. Boring 311 encountered native weathered bedrock at approximately 11 feet bgs; boring 312 did not encounter clay or weathered bedrock, but penetrated native fill at approximately 13 feet bgs. Borings 311 and 312 encountered groundwater at approximately 8.5 and 10.5 feet bgs, respectively.

Soil samples were retained from the acetate liners and submitted to Sunstar for PCB analysis (USEPA Methods 3550C/8082) or placed on hold. Samples were kept on ice until retrieved by the Sunstar courier on 22 August 2019. Sample intervals followed the procedures described in the USEPA-approved 2016 Work Plan (Kennedy Jenks 2016).

Table 4 summarizes analytical results for the soil samples collected from the two borings. Total PCBs were reported below the cleanup goal of 0.24 mg/kg in the four samples analyzed from boring 311 (North Stockpile), and five of the seven samples collected from boring 312 (South Stockpile). Total PCBs were reported at concentrations above the cleanup goals of 0.24 mg/kg in two samples collected from boring 312: Sample 312Conf(2.4feet) and Sample 312Conf(3.5-4.0 feet). Based on these results, four additional sample locations (150P, 151P, 152P, and 153P) were advanced around boring 312 within the footprint of the South Stockpile (Figure 4). Soil samples collected from borings 151P, 152P, and 153P were reported to contain Total PCB concentrations ranging from 0.436 to 0.536 mg/kg, indicating that further excavation was warranted in this area. Figures 5 and 6 show the excavation area implemented during the Year 2020 activities; and Section 5.6 summarizes the remedial actions.

5.2.4 Demolition Debris Stockpile Sampling

5.2.4.1 Intermediate Loads

As part of the remedial design process, Kennedy Jenks estimated that demolition debris stockpiles of 400 cy were expected to be generated using haul trucks with a load size of approximately 10 cy. During mobilization activities, and as approved by USEPA, ERRG employed a haul truck with the capacity of 20 cy to carry the intermediate loads. To generate the 3 to 5 kg bulk sample from the 400-cy stockpile, five 40-gram increments were collected from each intermediate 20-cy load (for a total of 200 grams per 20-cy load). The adjustment was in accordance with Condition D.9.1.3.a of the Conditional Approval. This change in condition was discussed with USEPA prior to implementation. USEPA approved the change in an email dated 5 August 2019 (Appendix A). In some cases, a wheeled loader with a bucket capacity of approximately 3-cy was used to move the demolition debris into intermediate piles. Piles made of three buckets of demolition debris were estimated to hold 10 cy and this volume was used to guide the number of subsamples.

5.2.4.2 Laboratory Procedure

The first two bulk samples (DSP-1 and DSP-2) were submitted to Pace on 28 August 2019. Field duplicate (DSP-DUP) and triplicate (DSP-TRI) bulk samples for DSP-1 were also submitted to the laboratory on 28 August 2019. Sample DSP-3 was submitted to the laboratory on 30 September 2019 and DSP-4 was submitted on 21 October 2019. Pace was selected to process the bulk samples following their internal ISM standard operating guideline (SOG), which was provided to USEPA on 29 September 2019. Pace processed the bulk samples in accordance with their SOG, resulting in 30-gram subsamples for analysis. Pace also processed a duplicate and triplicate sample for DSP-3 to evaluate sample processing variability. Pace analyzed the samples for PCB's; however, since Pace does not use Method 3550C (sonication) as their extraction method, the laboratory results were not relied upon for characterization of the demolition debris. PCB concentrations reported by Pace for the eight ISM samples ranged from 0.0205 mg/kg to 1.88 mg/kg (Table 3). Pace collected additional aliquots from the four bulk samples (DSP-1, DSP-DUP, DSP-TRI, and DPS-2) per their SOP and shipped them to Sunstar for extraction and analysis (Sunstar does not have an internal procedure for processing ISM samples) on 15 October 2019. Samples DSP-3 (including the laboratory duplicate and triplicate) and DSP-4 were submitted to Sunstar for extraction and analysis on 3 September and 21 October 2019, respectively. PCB concentrations reported by Sunstar for the eight ISM samples ranged from 0.293 mg/kg to 1.49 mg/kg (Table 3).

Bulk samples collected in 2020 were submitted to Eurofins for analysis. Eurofins used EPA Method 3540C (Soxhlet) for extraction and EPA Method 8082 for analysis of PCBs. The first three bulk samples in 2020 (DSP-5, DSP-6, and DSP-7) were submitted to Eurofins on 18 July 2020. A duplicate and triplicate sample of DSP-5 were prepared by the laboratory and analyzed to evaluate sample processing variability. Bulk samples DSP-8 and DSP-9 were submitted on 8 August 2020. A field duplicate and triplicate sample of DSP-8 were also collected and submitted to Eurofins for analysis. PCB concentrations reported by Sunstar for the nine ISM samples ranged from 0.091 mg/kg to 0.80 NJ mg/kg (Table 3). The flag "NJ" indicates the analyte has been tentatively identified, and the reported concentration has been estimated.

5.2.4.3 2019 Demolition Debris Stockpile Sampling

Kennedy Jenks characterized the demolition debris stockpiles in accordance with Condition D.9 of the Conditional Approval (USEPA 2019). As stockpiles were produced, a field bulk sample was collected from each 400-cy stockpile. The field bulk sample was comprised of 100 increments each weighing approximately 40 grams. The 40-gram increments were weighed in the field with a retail digital kitchen scale. Increment samples were collected by scooping the demolition debris, using a disposable plastic scoop, into a new plastic bag, adding or removing material until the increment sample weighed approximately 40 grams; then combining the increments into a plastic bucket to form the field bulk sample. Individual increment samples were collected from five different places and depths around each intermediate load, per USEPA's request. The bucket with the field bulk sample was kept on-Site until the required number of increments were collected and enough sample was collected to produce a bulk sample weighting between 3 kg and 5 kg, per Condition D.9. The first stockpile was sampled in triplicate to measure the variability of the results and assess if the incremental sampling process was yielding representative samples.

Samples were submitted to Pace for processing, following their SOGs for processing bulk samples produced using the incremental sampling methodology (ISM) (Appendix F). Pace's standard operating guideline was transmitted to USEPA in an email dated 29 August 2019; and a conference call between USEPA, Pace, and Kennedy Jenks was held on 3 October 2019 to discuss the procedures.

Table 3 summarizes analytical results for the bulk demolition debris samples collected following the ISM process during 2019. Reported concentrations of PCBs ranged from 0.0369 mg/kg to 1.88 mg/kg.

5.2.4.4 2020 Demolition Debris Stockpile Sampling

Demolition debris excavated during 2020 activities was stockpiled in three approximate 200 cy stockpiles and one approximate 450 cy stockpile (aka "Subsequent Stockpile"), per USEPA request (USEPA 2020a). As the 200 cy stockpiles were produced, they were sampled according to the incremental sampling procedures in the June 2020 Amendment (USEPA 2020a), and as described above in Section 5.2.4.2. A field bulk sample, comprised of 100 increments each weighing 40 grams, was collected from each 200-cy stockpile (samples DSP-5, DSP-6, and DSP-7). The three field bulk samples were processed by Eurofins for extraction and analysis following EPA Methods 3540C and 8082, consistent with EPA's 3 August 2020 Letter (USEPA 2020b). One of the processed field bulk samples was subsampled in triplicate by the laboratory to assess the variability of the results based on the laboratory's sample preparation process. A bulk sample was not collected from the 450-cy Subsequent Stockpile, per agreement with USEPA. The PCB concentrations reported by the laboratory for the 200-cy stockpiles ranged between 0.091 mg/kg and 0.80 NJ mg/kg. Sample results are summarized in Table 3.

After teal-painted concrete of size less than 6 inches in diameter was found during the 2020 excavation activities (see Section 4.2), revisions were made to the demolition debris sampling procedure. It was agreed to by USEPA that the four demolition debris stockpiles generated during Year 2020 activities would be segregated according to size, using static Grizzly screens, prior to characterization. Kennedy Jenks then characterized the segregated demolition debris stockpiles in accordance with the 22 June 2020 EPA Approval Amendment, 40 CFR 761.61(c) – Modifications to Demolition Debris Sampling, and the 3 August 2020 EPA Approval Amendment, 40 CFR 761.61(c) – Modifications to Demolition Debris Sampling Letter.

The demolition debris stockpile was passed through a 6-inch static Grizzly screen and then through a 3-inch static Grizzly screen, separating the demolition debris into three categories: Size A material, with a diameter less than 3 inches, Size B material, with a diameter greater than 3 inches and less than 6 inches, and Size C material, with a diameter greater than 6 inches. Any painted concrete pieces, regardless of size or color, that were observed during the screening process were removed and consolidated with the teal-painted concrete for disposal as PCB bulk product waste, according to 40 CFR 761.62(a)(3).

The three 200 cy stockpiles were screened first, and the screened demolition debris was separated into individual stockpiles based on size (Size A, Size B, and Size C). As these stockpiles were previously characterized, they did not require additional sampling prior to offsite disposal, per EPA. The 450-cy Subsequent Stockpile was then screened, and the screened demolition debris was placed in separate stockpiles based on size. The screening process resulted in approximately 308 cy of Size A material being generated from the 450-cy

Subsequent Stockpile. The Size A material was sampled following the procedures described above. One-hundred increments were collected from the first 200 cubic yards of Size A material generated (sample DSP-8), and 54 increments were collected from the remaining 108 cubic yards generated (sample DSP-9). The two bulk samples were shipped to Eurofins for extraction and analysis following USEPA Methods 3540C and 8082, consistent with EPA's 3 August 2020 Letter (USEPA 2020b). Sample results (Table 3) showed PCB concentrations between 0.091 mg/kg and 0.69 mg/kg in the bulk samples (note: Eurofins analyzed sample DSP-8 in triplicate to assess laboratory repeatability). Therefore, the 308 cy of Size A material was combined with the Size A material generated from screening the remaining three 200-cy stockpiles and disposed of offsite at Recology.

Size B concrete from the four stockpiles that did not contain visible paint was consolidated into one pile. Ten concrete pieces with flat top and bottom surfaces were selected at random and were sampled following USEPA's standard operating procedure (SOP) for porous surfaces. A sample was collected from the top surface and the bottom surface of each of the 10 pieces, for a total of 20 samples. These discrete samples were individually extracted and analyzed for PCBs following EPA Methods 3540C and 8082, respectively, consistent with Condition B.4 in USEPA's 3 August 2020 Letter (USEPA 2020b). Sample results (Table 3) showed two detectable PCB concentrations (0.13 mg/kg and 0.21 mg/kg) and 18 samples with non-detectable concentrations (with method reporting limits ranging from 0.051 mg/kg to 0.42 mg/kg). Therefore, the Size B material was disposed of offsite at Recology.

Size C concrete from the four stockpiles that did not contain visible paint was consolidated into one pile. Twelve concrete pieces with flat top and bottom surfaces were selected at random and were sampled following USEPA's SOP for porous surfaces. A sample was collected from the top surface and the bottom surface of each of the 12 pieces, for a total of 24 samples. These discrete samples were individually extracted and analyzed for PCBs following USEPA Methods 3540C and 8082, respectively, consistent with Condition B.4 in USEPA's 3 August 2020 Letter (USEPA 2020b). Sample results (Table 3) showed six detectable PCB concentrations between 0.0332 mg/kg and 0.439 mg/kg and 18 samples with non-detectable concentrations (with method reporting limits ranging from 0.051 mg/kg to 0.48 mg/kg). Therefore, the Size C material was disposed of offsite at Recology.

Three different pieces of odd shaped, painted (not teal) concrete debris were selected at random from the stockpile containing painted concrete and the paint was scraped from the surface to allow access to the underlying concrete and to characterize potential PCB penetration into the concrete. One concrete sample was collected from each piece following USEPA's SOP for sampling porous surfaces. These discrete samples were individually extracted and analyzed for PCBs following USEPA Methods 3540C and 8082, respectively, consistent with Condition B.2 in USEPA's 3 August 2020 Letter (USEPA 2020b). Sample results (Table 3) showed PCB concentrations between <1.4 mg/kg and 5.5 mg/kg. Note: the concrete beneath the teal paint contained PCBs at a concentration of 31.6 mg/kg).

5.3 Refusal Location Sampling

Per Condition D.8. of the Conditional Approval, boring locations 101, 144, 150, 101P, and 108P (Kennedy Jenks 2016) were to be investigated during implementation of the remedial actions at the Site. USEPA issued correspondence on 5 August 2019 (Appendix A), indicating the five

refusal locations were to be test pitted to the target depth of refusal and soil samples were to be collected for each area.

On 26 August 2019, the test pits were excavated and USEPA visited the Site on 27 August 2019 to observe the obstructions encountered in each test pit location as follows:

- Test Pit 101 encountered large diameter rock as the obstruction. One soil sample was collected from the last bucket of excavated soil per USEPA's request.

- Boring 144 was previously exposed during the excavation of Pit 10-1A (Figure 4) and a large concrete block was discovered. The block was investigated and found to be part of a 24-inch-diameter concrete-encased pipe. Investigation and sample collection in the vicinity of the concrete-encased pipe is summarized in Section 5.2.2.

- Test Pit 150 encountered large diameter rock as the obstruction. One soil sample was collected from the last bucket of excavated soil per USEPA's request.

- Test Pit 101P encountered large boulders at the point of refusal. One soil sample was collected from the last bucket of excavated soil per USEPA's request.

- Test Pit 108P encountered a 6-inch PVC pipe and a permeable cobble layer (2- to 6-inch diameter drain rock) that released water into the pit, halting excavation One soil sample was collected from the last bucket of soil excavated and one sample was collected from the base of the excavation (15 feet bgs) beneath Pit 108P, per USEPA's request.

Table 4 summarizes analytical results for soil samples collected from locations 101, 144, 150, 101P, and 108P. Total PCB concentrations were reported by the laboratory to be less than the PCB cleanup goal of 0.24 mg/kg with most concentrations reported as being below the analytical method reporting limits ranging from 0.00354 mg/kg to 0.113 mg/kg.

5.4 Drainage-Related Culvert

In accordance with Condition D.6. of the Conditional Approval, the District provided USEPA with a plan for sampling soil around the drainage-related culvert a letter dated 19 July 2019. The District's plan included collecting soil samples from beneath the drainage piping at the base of the retaining wall and at the transition from the 8-inch SDR 35 pipe into the drainage structure 50 feet and 100 feet from the retaining wall. In a 5 August 2019 email, the USEPA required one additional sample be collected approximately 2 feet east of the pipe, approximately 25 feet from the base of the retaining wall.

One sample was collected on 9 August 2019 beneath the pipe-to-inlet transition 100 feet from the retaining wall. Laboratory results of that sample indicated the soil did not contain PCBs at concentrations above method reporting limit of 0.12 mg/kg. Therefore, no further excavation was warranted in that area. The three northernmost samples (Samples 1, 2, and 4) along the drainage culvert were collected as the stormwater structure and piping were removed during the 2020 remedial activities. Figure 4 shows the stormwater structure and sampling locations. Laboratory results of these three samples indicated the soil contained PCBs at concentrations

ranging from <0.0125 mg/kg to 0.401 mg/kg (Table 4). The soils represented by these samples were removed during the excavation of pits 10-1 (2019) and 15-2 (2020).

5.5 Sanitary Sewer

Three samples were taken from near the sanitary sewer pipe and manhole: one underneath the manhole (sample name SS-STRC) and two underneath the pipe segments as shown on Figure 4 (sample names SS-PIPE-N and SS-PIPE-W). Table 4 summarizes the analytical results for the soil samples. Total PCBs were reported below the cleanup goal of 0.24 mg/kg for the three samples. After excavation was completed, the manhole was replaced, and new piping was used to restore the utilities at the District's request. Figure 4 shows the alignment of the sewer system pipe, the associated manhole, and the sampling locations.

5.6 North Retaining Wall Sampling

To stabilize the soils and protect workers and the existing concrete retaining wall at the northern end of the Site, a temporary shoring wall was placed along the northern boundary of excavation 15-2. The installation of the shoring wall prevented the excavation from reaching its design limit at two locations one near former boring location 061P and the second near former boring location 062P. As approved by USEPA in a letter dated 11 June 2020 (Appendix A), one confirmation sample was collected for every 10 horizontal feet of excavation sidewall that did not extend to the design excavation limits. The excavation sidewall was measured to be less than 10 feet in each of the two areas. Samples were collected vertically at 2-2.3 feet bgs, 8 feet bgs, as approved by USEPA. Samples were labelled as "#P+2-CONF(xx)-date" where "#" refers to the boring number (061 or 062); "+2" indicates a 2 foot offset from the boring location; "xx" is the confirmation sample depth; and "date" is the date the sample was collected. EPA also requested that samples be collected from 13 feet bgs at the two locations. However, bedrock was encountered at approximately 10 feet bgs in the two areas (see Figures 5 and 6). One sample was able to be collected from 13 feet at a location in between 061P and 062P. The sample (labelled "BAY-10-CONF(13)-20200709) was collected from the soils sidewall in between two bedrock outcrops. Table 4 summarizes analytical results for the soil samples. Total PCBs were reported below the cleanup goal of 0.24 mg/kg in the five samples collected.

5.7 Excavation Confirmation Sampling

The Revised Application identified demolition debris at various locations throughout the Site. During excavation activities, demolition debris was observed at the limits of the planned excavations 10-1, 10-3, 10-4, and 15-1. As a result, ERRG excavated outside the planned limits at those locations to remove the demolition debris at the direction of Kennedy Jenks.

5.7.1 Over-Excavation

The demolition debris observed outside the planned excavation limits was removed until demolition debris no longer remained in the excavation. The demolition debris was managed in accordance with Condition D.9.a (Condition D.9.b. was not considered applicable as the demolition debris was known to exist in the area). Once the demolition debris was removed, a 10-foot by 10-foot grid was established and samples were collected to confirm that the

underlying and/or adjacent soils were not impacted by PCBs. Figure 5 shows areas where demolition debris was observed and over-excavated. Laboratory results for the confirmation samples collected from these four over-excavation areas (Table 4) demonstrated that Total PCB concentrations in the adjacent soils were below the cleanup goal of 0.24 mg/kg. Figure 6 illustrates the grids, cells, sample locations, and sample identifiers.

5.7.2 Excavations Encountering Native Soils and Bedrock (Altered Excavation Depths)

Excavation activities at 17 locations were stopped prior to reaching their respective target depths, due to encountering native soils or bedrock. Locations are illustrated on Figure 5. Samples were collected to verify that the native soils did not contain Total PCBs above the cleanup goal. Kennedy Jenks established a 10-foot by 10-foot grid in each area; then collected one sample from the center of each grid cell for laboratory analysis. Table 4 summarizes the laboratory results from each sampling event where native soils were encountered prior to reaching the targeted depths. Laboratory results for the confirmation samples collected from these areas demonstrated that Total PCB concentrations in the native soils were below the cleanup goal of 0.24 mg/kg. Grid cells, sample locations, and sample identifiers are shown on Figure 6.

5.7.3 Over-Excavation Pit 4-1

Confirmation samples were collected from the base of pit 4-1 as described in Section 5.4. Once the excavation was completed to 4 feet bgs, Kennedy Jenks established a 10-foot by 10-foot grid over the excavation footprint (Figure 6); then collected one sample from the center of each grid cell for laboratory analysis. Samples were labelled as “Pit 4-1-CONF(XX)-date” where “XX” refers to the grid cell and “date” is the date the sample was collected. Table 4 summarizes analytical results for the soil samples collected from the grid sample locations. Total PCBs were reported below the cleanup goal of 0.24 mg/kg in 18 of the 19 samples. One sample in grid cell A2 was reported to contain a Total PCB concentration of 0.555 mg/kg. Consequently, an additional 2 feet of soil was removed from cell A2 and combined with the excavated soils to be disposed of offsite at Recology. An additional two samples were taken, one from the base of the cell (at 6 feet bgs) and one from the sidewall (at a depth of 3 feet) in accordance with Table 16 from the Revised Application. The results from these two additional samples were below the PCB cleanup goal of 0.24 mg/kg.

5.7.4 Pit 2-2 and Pit 2-4 Confirmation Samples

USEPA identified potential data gaps in the vicinity of pit 2-2 and requested that additional samples be collected for confirmation of total PCB concentrations in the area. Historical samples QTP-CL#3-2 and GTP-08-08 were reported to contain PCB concentrations above the cleanup goal. Two confirmation samples were collected from the base of the 2-foot excavations 2-2 and 2-4 at locations in close proximity to former sample locations QTP-CL#3-2 and GTP-08-08, respectively (Figure 4). Samples were collected from 2.0-2.3 bgs at each location. Table 4 summarizes analytical results for the two soil samples, both of which were below the PCB cleanup goal of 0.24 mg/kg.

5.8 Contractor Sampling

In addition to the samples collected by Kennedy Jenks, samples were also collected by the remediation contractor, ERRG, at the request of the District.

5.8.1 Topsoil and Backfill Sampling

The Contractor selected material appropriate for backfill (drain rock, gravel, compactable soils) and topsoil in accordance with the Design Documents. The materials were sampled by the Contractor and submitted to a laboratory for analysis to ensure they met physical, chemical, and geotechnical standards as stated in the Design Documents and the Revised Application; and to ensure topsoil was free of materials potentially harmful to plant growth. The backfill included virgin quarry rock sourced from Syar Industries, Inc. in 2019 and from Soils Plus Soils & Aggregates in 2020. Topsoil used in 2019 was a sandy loam sourced from American Soil & Stone; in 2020 topsoil was a gravelly sandy clay loam sourced from Soils Plus Soils & Aggregates. Laboratory results of the backfill and topsoil are included in Appendix E, and summarized in Appendix E, Tables E-3a (topsoil) and E-3b (backfill). The laboratory reports show that the topsoil and backfill contained non-detectable concentrations of PCBs, at reporting limits ranging from 0.0038 mg/kg to 0.033 mg/kg. Certifications obtained from Syar of virgin quarry rock material are included as Appendix K.

5.8.2 Stockpile and Haul Road Confirmation Grid Sampling

In Year 2019, ERRG sampled native soils under the liners that were placed beneath the southern stockpile area and the demolition debris stockpiles (Figure E-1 in Appendix E). Prior to sampling, ERRG removed the upper 1 to 3 inches of soil from the areas beneath each stockpile and disposed of that soil along with the soils contained in the stockpiles. The areas were divided into rows and columns spaced on 10-foot centers, that were labelled using letters and numbers to identify grid cells. Samples were collected from the center of each cell formed by the grid lines as presented in 40 CFR 761.283.

ERRG collected the samples using a rotohammer with a chisel bit to remove soil from the upper 3 inches of the surface, then placed the soil into laboratory-supplied 4-ounce glass jars. Samples were labeled with the sample name (based on sample location and collection date), sample collection date, and sample collection time. Samples were stored in an iced cooler until transferred to a Sunstar courier. The chisel was decontaminated before and between uses by first removing dry soil; then scrubbing the chisel with non-phosphate Liquinox soap solution for one minute; drying the surface with a clean cloth and then rinsing with distilled water in accordance with 40 CFR 761.375. The chisel was then scrubbed in hexane for one minute, wiped dry with a clean cloth, then rinsed in hexane in accordance with 40 CFR 761.372. The chisel was allowed to air dry rather than being wiped clean after the second hexane rinse due to the elevated temperatures.

A total of 273 discrete samples were collected from beneath the stockpile areas (southern stockpile and demolition debris stockpiles). Three samples had concentrations of PCBs above the cleanup goal: two beneath the southern stockpile area and one beneath the demolition debris stockpile area (likely associated with the storage of the PCB-impacted soils in that area) and required additional removal action. ERRG removed an additional 3 inches of soil from the

three cells with results exceeding the cleanup goal, then collected additional confirmation samples from the base of the area that was scraped clean. Laboratory results indicated Total PCB concentrations in the three samples were below the cleanup goal. Soils excavated during this process were combined with other soils being disposed of offsite at Recology based on the concentrations reported in the in-place samples. The grid sample locations are illustrated on Figure E-1 in Appendix E. Sample results are summarized in Table E-2e in Appendix E.

In Year 2020, after removal and offsite disposal of the stockpiles and liners, ERRG conducted confirmation sampling beneath the stockpile and decontamination pad footprints (Figure E-2). ERRG also conducted confirmation sampling in the truck loading area and truck haul route, per USEPA's request, after removal of the gravel and underlying geotextile fabric that was installed at the beginning of the field activities. The 2020 confirmation sampling program followed the procedures described above for 2019. A total of 367 discrete samples were collected from beneath the stockpiles and the haul route. Seven samples from beneath the demolition debris stockpile area were reported to contain detectable concentrations of Total PCBs greater than the cleanup goal. In these areas, an additional 3 inches of soil was removed and disposed of offsite at Recology, and a new confirmation sample was collected. Laboratory results indicated Total PCB concentration in six of the seven areas were below the cleanup goal. An additional 3 inches of soil was removed from grid M6, where the confirmation samples showed the Total PCB concentration was above the cleanup goal. The confirmation sample collected from 6 inches below grade in cell M6 showed Total PCB concentrations below the cleanup goal. The grid sample locations are illustrated on Figure E-2 in Appendix E. Sample results are summarized in Table E-2e in Appendix E.

5.8.3 Groundwater Sampling

Each time groundwater was encountered in an excavation, ERRG collected a sample for laboratory analysis. Water samples were collected from each isolated excavation areas that had not previously been sampled. Unfiltered samples were collected and submitted to Sunstar for analysis using EPA Method 8082 to determine the PCB concentration contained in the unfiltered water sample prior to starting dewatering of the excavation. Table E-1 in Appendix E summarizes the laboratory results for groundwater samples collected from the open excavations. Laboratory results reported Total PCB concentrations below method reporting limits in the samples collected. Since the laboratory results were less than the 0.5 µg/L limit established by USEPA, the water was used for on-Site dust control.

Following receipt of the laboratory results, ERRG pumped the groundwater out of the excavation and into holding tanks. The holding tanks were used as storage for the groundwater and a sediment/silt filter was used to remove suspended sediment before using the water for dust control. Sediments removed from the tank and filter were sampled to confirm they contained Total PCB concentrations less than 50 mg/kg, then they were combined, and disposed offsite, with the remaining PCB remediation waste at Recology. Laboratory results are included in Appendix E.

5.9 Summary

Grid sampling conducted beneath the northern and southern stockpiles showed that PCB concentrations in the surface soil beneath the stockpiles was not impacted by Total PCBs above

the cleanup goal and could be reused as on-site as clean fill (Section 5.2). A boring drilled beneath the southern stockpile showed detectable concentrations of Total PCBs at depths between 2.4 and 4 feet bgs. Additional sampling delineated the Total PCBs in the vicinity of the boring and additional soils were excavated down to 6 feet bgs in the area between Pit 10-4 and Pit 15-4 (Figure 5).

During excavation activities, demolition debris was observed at the limits of the planned excavations 10-1, 10-3, 10-4, and 15-1. Those areas were over-excavated and confirmation samples were collected from beneath the demolition debris. Laboratory results demonstrated that Total PCB concentrations in the adjacent soils were below the remedial cleanup goal of 0.24 mg/kg (Section 5.2).

Deep excavations 15-2, 15-5, 20-1, and 20-2 encountered native soils or bedrock prior to reaching their planned depths. Confirmation samples collected from these locations confirmed that the native soils did not contain Total PCBs above the remedial cleanup goal of 0.24 mg/kg (Section 5.7).

Following completion of the cleanup activities each year, confirmation samples (273 samples in 2019 and 376 samples in 2020) were collected from soils under the liners that were placed beneath the southern stockpile area, demolition debris stockpile area, decontamination areas, and the on-site haul road. Initial sample results indicated that a few locations were impacted by the soil management activities. Small discrete excavations were conducted, and additional confirmation samples collected. Final results demonstrated that the soils below the soils management areas did not contain PCBs at concentrations above the cleanup goal (Section 5.8). Additionally, import materials (e.g., quarry materials) used to backfill the excavations were tested to confirm the imported materials did not contain Total PCBs above the cleanup goal.

Soil confirmation sample results indicate that the over excavation activities, where implemented, successfully removed the impacted soils, and remaining soils contain residual concentrations of PCBs below the cleanup goal or below method reporting limits. Soil confirmation samples also indicate that PCB concentrations of native soils, encountered prior to reaching the total designed depth of several excavations, contained residual concentrations of PCBs below the PCB cleanup goal or below laboratory method reporting limits. Groundwater samples collected from the open excavations demonstrated that groundwater beneath the Site was not impacted by the presence of the PCB-laden soils or demolition debris removed from the Site.

Demolition debris (concrete) sample results indicate that unpainted demolition debris contained PCBs at concentrations that did not require disposal at a EPA-permitted hazardous waste landfill. However, the teal paint identified on some of the demolition debris did contain concentrations of PCBs greater than 50 mg/kg and those pieces, where identified, were segregated and disposed of at a EPA-permitted hazardous waste facility. Additionally, all painted concrete pieces, regardless of color, excavated from the site in 2020 were presumed to contain PCB concentrations at or above 50 mg/kg and were, therefore, disposed at an EPA-permitted hazardous waste facility.

Section 6: Waste Disposal

The remedial actions at the Site produced multiple waste streams, including PCB bulk product waste, PCB remediation waste, construction debris, and others as summarized below.

PCB Bulk Product Waste

1. Approximately 10.9 tons of painted concrete pieces known or presumed to contain Total PCBs at concentrations equal to or above 50 mg/kg. This waste was disposed of at US Ecology's EPA-permitted hazardous waste landfill in Beatty, NV.

PCB Remediation Waste

2. Approximately 1,407 tons of excavated soils known or presumed to contain Total PCBs at concentrations equal to or above 50 mg/kg (characterized based on *in situ* samples collected during the remedial investigation). Soils were disposed of at US Ecology's EPA-permitted hazardous waste landfill in Beatty, Nevada.

3. Approximately 64,024 tons of excavated soils containing Total PCBs at concentrations less than 50 mg/kg (characterized based on *in situ* samples collected during the remedial investigation). Soils were disposed of at Recology's Hay Road landfill in Fairfield, California. Hay Road is permitted to accept the waste.

4. Approximately 3,323 tons of unpainted demolition debris containing Total PCBs at concentrations less than 50 mg/kg. This demolition debris was disposed of at Recology's Hay Road landfill in Fairfield, California. Hay Road is permitted to accept the waste.

5. Approximately 47 tons of unpainted large concrete pieces containing Total PCBs at concentrations less than 50 mg/kg. This concrete was disposed of at Potrero Hills Landfill in Suisun, California. Potrero Hills is permitted to accept the waste.

6. Approximately 773 tons of large concrete boulders, drain rock, sandbags containing Total PCBs at concentrations less than 50 mg/kg. This material was disposed of at Recology's Hay Road landfill in Fairfield, California in accordance with 40 CFR 761.61(a)(5)(v)(A)(1). Hay Road is permitted to accept the waste.

7. Large native granitic boulders excavated from the subsurface were either disposed off-site at Potrero Hills Landfill or reused on-site in deep excavations as a protective layer above the midden, with EPA approval. Approximately 243 tons of large granitic boulders were disposed off-site in accordance with 40 CFR 761.61(a)(5)(v)(A)(1). Potrero Hills is permitted to accept the waste.

8. Approximately 60 tons of piping and other debris containing no PCBs based on wipe sample results (see Table 5). This material was disposed of at Recology's Hay Road landfill in Fairfield, California in accordance with 40 CFR 761.61(a)(5)(v)(A)(1). Hay Road is permitted to accept the waste.

9. A small fragment of Transite pipe was placed in a drum and disposed as a non-hazardous waste at US Ecology in Beatty, NV.

10. Approximately 6 tons of soils and 440 gallons of water generated during site investigation activities was disposed as at US Ecology's EPA-permitted hazardous waste landfill in Beatty, Nevada. Soil disposal was based on knowledge of where the soil cuttings were generated, and the concentrations of Total PCBs in the in-place soils from those borings. Based on that information, approximately 2 tons was disposed as soils containing greater than 50 mg/kg Total PCBs, and 4 tons disposed as soils containing less than 50 mg/kg Total PCBs.

11. Approximately 873 tons of soils stockpiled on the site (prior to implementing cleanup activities) containing Total PCBs at concentrations less than 50 mg/kg. Soils were disposed of at Recology's Hay Road landfill in Fairfield, California. Hay Road is permitted to accept the waste.

12. Approximately 550 gallons of decontamination water containing non-detectable concentrations of Total PCBs was disposed off-site at US Ecology in Beatty, NV.

13. Cleanup wastes (PPE, plastic sheeting, rope, and paper towels) containing Total PCBs at concentrations less than 50 mg/kg, based on the materials to which they were exposed. This material was disposed of at Recology's Hay Road landfill in Fairfield, California in accordance with 40 CFR 761.61(a)(5)(v)(A)(1) along with the soils and concrete summarized above. Hay Road is permitted to accept the waste.

In addition to PCB analyses, the local receiving facilities requested the following analyses on selected samples to profile the waste streams:

- California Title 22 Metals.
- Volatile Organic Compounds (VOCs).
- Semi-Volatile Organic Compounds (SVOCs).
- Total Petroleum Hydrocarbons.
- Lead.

The receiving facilities, Hay Road Landfill and Potrero Hills Landfill, profiled the various waste streams and approved the wastes for disposal. Waste streams, quantities, and receiving facilities are summarized in Table 6. Table 6 also summarizes USEPA identification number and additional waste management information. Tables E-2a through E-2e in Appendix E summarizes the additional characterization results for the analyses requested by the landfills. Documentation of offsite disposal is provided in Appendix G.

Section 7: Summary, Conclusions, and Certification

PCB cleanup activities at Larkspur were conducted in accordance with the EPA conditionally-approved Revised Application, construction drawings, and technical specifications (except as noted in this report and approved by USEPA), and USEPAs conditional approvals. In-place site characterization samples collected between 2016 and 2019, along with confirmation samples collected during the remedial action show that residual Total PCB concentrations on-Site are less than the established cleanup goal of 0.24 mg/kg at each location sampled. As such, the remedial actions were effective in removing PCB-impacted soils, demolition debris, and concrete from the Site at concentrations exceeding EPA's generic regional screening level for unrestricted site use, thereby restoring human and ecological risks to acceptable levels. Excavations were backfilled with clean soils from on-site (per EPA's approval) and import soils containing no detectable PCBs at method reporting limits ranging from 0.0177 mg/kg to 0.033 mg/kg, and site grade was restored to pre-remediation conditions. Excavation areas were covered with clean topsoil and hydroseeded to prevent erosion.

Based on the observations made during the remedial work and results of testing as summarized in this report, the remedial actions conducted at Larkspur met the Remedial Action Objectives in the Revised Application and referenced in this report. Current conditions at the Site meet the standards for unrestricted land use and no further actions are warranted.

References

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United States Environmental Protection Agency, Region IX. 2019. *Letter Re: Application Amendment, Ross Valley Sanitation District, Larkspur, California – EPA Conditional Approval Under 40 CFR 761.61(c) – Polychlorinated Biphenyls, Toxic Substances Control Act,* 15 March 2019.

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United States Environmental Protection Agency, Region IX. 2020. *Letter Re: EPA Approval Amendment, 40 CFR 761.61(c) – Modifications to Demolition Debris Sampling, 3 August 2020.*

Tables

Table 1: EPA Conditional Approval Summary

Condition of Approval[a]	Description	Notes/Summary
March 15 2019 EPA Conditional Approval of RVSD Application Amenement		
C	EPA No Unreasonable Risk Determination	Site activities have been conducted in accordance with the 2018 Revised Application and Conditions of Approval.
D.1	Written Certification required in 40 CFR 761.61(c)	RVSD submitted the written certification as part of the 180-day response letter dated 19 July 2019
D.2	PCB Cleanup project schedule	RVSD submitted the proposed project schedule as part of the 180-day response letter dated 19 July 2019. Additional, updated schedules were transmitted to EPA as they were made available by the contractor.
D.2a	Excavation and sampling activities. Advanced notice to EPA	EPA was an active participant in the project kick-off meeting held at the site on 17 June 2019, as well as a site meeting to discuss sampling activities on 22 August 2019. EPA was an active participant in the proejct kick-off meting to continue the The Work on 8 June 2020. EPA attended, as time allowed, weekly project status calls where sampling requirements were discussed. Kennedy Jenks and EPA routinely communicated about project schedule and requirements throughout the duration of the construction activities.
D.3	Concrete generated from the demolition of the former WWTP [b]	The term "demolition debris" is consistently used throughout the report and in communications with EPA during implementation of the remedial activities.
D.4	Cleanup site	Remedial efforts include excavation of soils containing PCBs at concentrations higher than site-specific remedial goal.
D.5	Notification of PCB activity	Transporter submitted the required notification to EPA on 10 July 2019
D.6	Existing concrete drainage-related culvert and access portals	Included in the 180-day plan submitted to EPA on 19 July 2019
D.7	Specific data gaps	Data gap sampling requirements included in revised Table 16 were completed as described in the report
D.8	Investigate borings that encountered refusal during in-situ characterization sampling due to "Unknown material"	Section 6.4 - Refusal Location Sampling summarizes the activities associated with Condition D.8.
D.9	Demolition debris sampling	The demolition debris was managed in accordance to Condition D.9.[c][d][e]
D.9.a	General sampling procedure	
D.9.b	Unexpected demolition debris	
D.9.c	Demolition debris with particle size greater than 9" in diameter	
D.10.	drainage swale excavation. EPA clarification.	Remedial efforts in the drainge swale include excavation of soils containing PCBs at concentrations higher than the site-specific remedial goal.
D.11.a	Modification to the Revised Application	Modifications to procedures, based on field conditions, were provided in writing to EPA and discussed via conference call or in-person meeting, and mutually agreed to prior to field implementation. Written communiations with EPA and processes/procedures related to enexpected or changed field conditions that were approved by EPA during remedial implementation are included in Appendix A
D.11.b	File summary of the implemented changes in the field.	This Report summarizes the changes implemented in the field during the construction activites.
D.11.c	Revised Application Construction Completing Report	This table is a part of the Construction Completion Report.
D.12.a	Stockpiles designed and operated to control dispersal of the waste by wind.	Stockpiles generated during construction were managed in accordance with 40 CFR 761.65(c)(9), as described in the report.
D.12.b	Effective liquid control measures for managing water leaving or entering stockpiles	No liquid was identified in the waste stockpile areas during construction. Stockpile liquid management activities were conducted in accordance with 40 CFR 761.62(c)(9) and was verified by the engineer in the field.
D.12.c	Liner inspection to confirm the integrity of the liner was maintained after removal.	Inspection of the liners during removal concluded that they were compromised as part of the stockpile removal actions. The contractor sampled the soils beneath the liner and confirmed the underlying soils were either (a) not impacted by PCBs, or (b removed and additional samples collected to demonstrate site-specific remedial goals were achieved.
D.12.d	Confirm and justify the disposal method for construction materials for the stockpiles	The 180-day response letter dated 19 July 2019, confirmed the method for disposing of the construction materials. Analyitcal results generated throughout the remedial action supported the disposal methods used.
D.13.a	Soils and demolition debris encountered the first time must be characterized by RVSD using methods that will result in collection of samples that are representative.	Waste characterization for off-site disposal profiling and acceptance was complete during the in-place samples collected in 2016. No additional PCB characterization was required by the landfills prior to waste acceptance. Demolition debris was characterized in accordance with Condition D.9.
D.13.b	Safe transport of wastes containing PCBs	Wastes leaving the site were handled responsibly and in accordance with the appropriate requirements under 40 CFR 761.61
D.14.a	Decontamination of movable equipment, sampling tools, and equipment.	Section 4 - Alternative Decontamination Procedure summarizes the compliance with Condition D.14 for large equipment and construction tools. Sampling equipment was decontamianted in accordance with 40 CFR 761.372.
D.14.b	Specify any and all solvents used in the alternative decontamination procedure.	No solvents were used in the decontamination procedure. Appendix D summarizes the Alternative Decontamination Procedure pilot study and its results.
D.15.a	California PM_{10} standard of 50 µg/m^3 was established as the target for the real-time dust concentration at the perimeter of the site.	Air monitors were installed at the perimeter of the site to protect sensitive receptors located along the contiguous boundary. Continuous air monitoring was conducted throughout the duration of the remedial actions as summarized in Section 3.2.8 - Air Monitoring.
D.15.b	Submit a figure depicting the air monitoring location and windrose for the site.	The 180-day response letter dated 19 July 2019 included the figure and supporting documents. Section 3.2.8 - Air Monitoring summarizes the changes requested by EPA and implemented at the site.
D.15.c	Continuous real-time dust monitoring	See section 3.2.8 - Air Monitoring
D.15.d	Implement actions to lower dust levels exceeding 50 µg/m^3	See section 3.2.8 - Air Monitoring
D.15.e	Visible fugitive dust must not be observed	See section 3.2.8 - Air Monitoring
D.15.f	Use real-time dust monitoring equipment using light-scattering technology	See section 3.2.8 - Air Monitoring
D.16	Approval of soil from 0 to 2 feet bgs as backfill	RVSD used the materials excavated from 0 to 2 feet bgs to backfill the excavations below 4 feet bgs.
D.17	Remedial Action Completion Report	This table is a part of the Construction Completion Report.
E.1.a	Regulatory Approvals and Notifications	Included as Appendix A to the Construction Completion Report.
E.2	Management of Wastes Generated from Remedial Excavations	Information was provided by Kennedy Jenks in the 19 July 2019, 180-day response letter.
E.3	Construction Quality	Information was provided by Kennedy Jenks in the 19 July 2019, 30-day response letter.
H	Amendment to the approval.	RVSD communicated all unanticipated conditions with the EPA prior to amending the condition of approval and the Work Plan. Section 5 - Unanticipated Field Conditions and Response Actions summarizes the changes discussed and approved by the EPA during the construction activites.

Table 1: EPA Conditional Approval Summary

Condition of Approval[(a)]	Description	Notes/Summary
7/22/2019 Email Approval - Reuse of Layback Soils As Backfill Material		
	Reuse of soils that are outside the current excavation boundary for backfill	
08/05/2019 Email Approval - Specific Items From 180-Day Letter		
D.6	Existing concrete drainage-related culvert and access portals	Approved 3 proposed locations and one additional location for sampling.
D.8	Borings that encountered refusal	Notify EPA Prior to investgating Borings 101, 144, 150, 101P, 108P. Excavate borings 063P and 068P to depth (22 feet bgs) sample, then contact EPA.
D12.d	Constructin Waste	Construction materials in contact with stockpiled soil and materials containing PCB >0.24 mg/kg must be disposed per 40 CFR 761.61(a)(5)(v).
D.15	Real-time Dust Monitoirng	Add one additional station southwest of Childrens Cottage Cooperative Day Care.
Table 16	Boring 096P	Collect two soil samples from Pit 2-5 at 2 feet bgs.
	Norther Stockpile	Drill one boring between 012 and 040, following removal of the stockpile.
08/12/2019 - Boring 144 Concrete Sampling		
	Concrete encountered at Boring 144	EPA requires concrete encountered at Boring 144 be sampled following EPA Region 1 SOP for sampling porus surfaced for PCBs.
		EPA requires establishing 10'x10' grids and collecting 5 discrete soils samples from randonm cells above the concrete (9/20/19 email).
10/02/2019 - Alternative Decontamination Procedure Approved		
D.14	Alternative Decontamination Procedure	EPA approves the RVSD April 15, 2019 alternative decontamiation procedure.
10/04/2019 - Documentation of New Findings		
	New Findings Must be Documented	Encounting Native Material above planned excavation depths; red-painted concrete; drain rock; etc. must be documented in the cleanup report.
	Boring 144 Concrete	Submit laboratory results of concrete at Boring 144, and interior pipe wipe samples, to demonstrate it does not need to be removed.
	Waste Disposal	Clarify disposal methods using nomenclautre in 40 CFR 761.61(a)(5).
06/11/2020 - EPA Conditional Approval - Modifications to Excavation Plan		
	Retaining Wall Sidewall Samples	Collect soils samples from 2 feet, 8 feet, and 13 feet bgs at or 2 feet south of northern retaining wall at boring locations 061P and 062P.
	Resubmittal of Table 16	Resubmitted Table 16 to RVSD due to printing errors in prior version
06/11/2020 - Email Request for Additional Informaiton		
	Sanitary Sewer pipe, Pit 15-2	Submit additional information about construction materials and collect soil samples from beneath pipe once removed
	Pit 10-1 HDPE Pipe	If encountered in Pit 15-2, the HDPE pipe found in pit 10-1 will be sampled prior to disposal.
	Dust Montiroing Locations	Revise Dust Monitoring Locations per discussion with EPA.
06/22/2020 - Demolition Debris Conditional Approval		
	Alternative Sampling of Demolition Debris	Collect 100 increments from 200 CY stockpiles Generated from Areas B and C. 10 increments per intermediate load as stockpiles are generated. Stockpile remaining soils (800 CY) in one stockpile - no sampling required.
06/24/2020 - Email Request for Additional Sampling		
	Demolition Debris - Pit 15-2	Excavate and Stockpile "additional" demolition debris from western portion of pit 15-2 separately. Sample demolition debris per 6/22/2020 approval letter.
06/30/2020 - Email Confirmation of Sampling		
	Pit 2-2	Will be excavated to 3.5 feet bgs and sampled.
	Stormdrain Pipe	Collect 2 wipe samples from interior and one sample from exterior prior to disposal.
07/01/2020 - Email Confirming Additional Sampling		
	Refusal Locations 101P, 108P, 150	Collect confirmation samples from the base of the excavation at these locations once completed.
07/24/2020 - Email Requesting Additional Demolition Debris Sampling		
	Sample demolition debris containing green paint	Screen the "Subsequent Stockpile" demolition debris by size (Size A: less than 3-inchs; Size B: 3-6 inches; Size C: larger than 6-inches). Separate out painted concrete.
		Screen "Initial Stockpile" demolition debris by size. Separate out painted concrete.
		Sample concrete beneath paint on two pieces that contain green paint, following EPA SOP. No need to collect additional green paint samples. Reults used to characterize angular concrete.
		Sample Size A demolition debris from "Subsequent Stockpile " following 6/22/2020 approved procedures. After receipt of labortory results, combine Initial and Subsequent Stockpiles for off-site disposal.
		Combine Size B demolition debris from Initial and Subsequent Stockpiles. Sample top and bottom of 10 concrete pieces (20 discrete samples) at randonm following EPA SOP.
		Combine Size C demolition debris from Initial and Subsequent Stockpiles. Sample top and bottom of 7 concrete pieces (14 discrete samples) at randonm following EPA SOP.
		Dispose of paintend concrete as PCB bulk product waste consistent with 40 CFR 761.62(a) .
08/03/2020 - EPA Modifications to Dmolition Debris Sampling		
	Modifications to demolitin Debris Sampling	EPA Approval Amendment formalizing sampling procedures included in 7/24/20 email.

Notes:

(a) Condition A and B describe the introduction and a brief description of the site, respectively.

(b) Qualifier indicates that the condition has been met to date.

(c) Section 6.2.5 summarizes how the construction managed the demolition debris sampling in accordance with the Condition D.9.

(d) Condition D.9.a. - General Sampling Procedure was amended on 22 June 2020, Subjected: Ross Valley Sanitary District, Larkspur, CA - EPA Approval Amendment, 40 CFR 761.61(c) – Modifications to Demolition Debris Sampling – Site ID CATSCA102516.

(e) Condition D.9.a. - General Sampling Procedure was amended on 3 June 2020, Subjected: Ross Valley Sanitary District, Larkspur, CA - EPA Approval Amendment, 40 CFR 761.61(c) – Modifications to Demolition Debris Sampling – Site ID CATSCA102516.

Table 2: Discrete Concrete and Paint Sample Analytical Results

			Metals	Moisture	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs
		Chemical:	Lead	Solids, Percent	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
		CAS Number:	7439-92-1	SOLID	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5
Location	**Date**	**Sample ID**	**mg/kg**	**%**	**mg/kg[(b)]**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Concrete Sample Results											
sb144-conc	10/3/2019	SB144-CONC-20191003	-	95.4	< 0.0105	< 0.0105	< 0.0105	< 0.0105	< 0.0105	< 0.0105	**0.0136**
CONC-1	8/27/2019	CONC-1-TOP-20190827	-	98.6	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	**0.0223**	< 0.0101
CONC-1	8/27/2019	CONC-1-BOTT-20190827	-	96.8	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103
CONC-2	8/27/2019	CONC-2-TOP-20190827	-	98.8	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	**0.0169**	< 0.0101
CONC-2	8/27/2019	CONC-2-BOTT-20190827	-	93.5	< 0.0107	< 0.0107	< 0.0107	< 0.0107	< 0.0107	< 0.0107	< 0.0107
Pit15-1-conc	10/3/2019	15-1-CONC-20191003	-	98.7	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101
CONC-UNDER-1	7/16/2020	CONC-UNDER-1-20200716	-	99	< 3.45	< 3.45	< 3.45	< 3.45	< 3.45	< 3.45	**31.6**
CONC-3	7/22/2020	CONC-3-TOP--20200722	-	97.4	< 0.0341	< 0.0341	< 0.0341	< 0.0341	< 0.0341	< 0.0341	**0.439**
CONC-3	7/22/2020	CONC-3-BOTT--20200722	-	96.3	< 0.00341	< 0.00341	< 0.00341	< 0.00341	< 0.00341	< 0.00341	**0.119**
CONC-4	7/22/2020	CONC-4-BOTT-20200722	-	97	< 0.00339	< 0.00339	< 0.00339	< 0.00339	< 0.00339	< 0.00339	**0.0332**
CONC-5	7/22/2020	CONC-5-TOP-20200722	-	97.7	< 0.00338	< 0.00338	< 0.00338	< 0.00338	< 0.00338	< 0.00338	**0.0343**
CONC-5-BOTT	7/30/2020	CONC-5-BOTT-20200730	-	-	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29	< 0.29
CONC-4-TOP	7/30/2020	CONC-4-TOP-20200730	-	-	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051
MED-CONC-1-TOP	7/30/2020	MED-CONC-1-TOP-20200730	-	-	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051
CONC-6-TOP	7/30/2020	CONC-6-TOP-20200730	-	-	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
CONC-6-BOTT	7/30/2020	CONC-6-BOTT-20200730	-	-	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
MED-CONC-2-BOTT	7/30/2020	MED-CONC-2-BOTT-20200730	-	-	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
MED-CONC-2-TOP	7/30/2020	MED-CONC-2-TOP-20200730	-	-	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
MED-CONC-1-BOTT	7/30/2020	MED-CONC-1-BOTT-20200730	-	-	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
MED-CONC-3-TOP	7/30/2020	MED-CONC-3-TOP-20200730	-	-	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053
MED-CONC-3-BOTT	7/30/2020	MED-CONC-3-BOTT-20200730	-	-	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
CONC-UNDER-2	7/30/2020	CONC-UNDER-2-20200730	-	-	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
MED-CONC-4-TOP	7/30/2020	MED-CONC-4-TOP-20200730	-	-	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057
MED-CONC-4-BOTT	7/30/2020	MED-CONC-4-BOTT-20200730	-	-	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
MED-CONC-5-TOP	7/30/2020	MED-CONC-5-TOP-20200730	-	-	< 0.052	< 0.052	< 0.052	< 0.052	< 0.052	< 0.052	< 0.052
MED-CONC-5-BOTT	7/30/2020	MED-CONC-5-BOTT-20200730	-	-	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051
CONC-UNDER-3	8/6/2020	CONC-UNDER-3-20200806	-	-	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	**0.11**
CONC-UNDER-4	8/6/2020	CONC-UNDER-4-20200806	-	-	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	**5.5**
CONC-7-TOP	8/6/2020	CONC-7-TOP-20200806	-	-	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	**0.13**
CONC-7-BOTT	8/6/2020	CONC-7-BOTT-20200806	-	-	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.095
CONC-8-TOP	8/6/2020	CONC-8-TOP-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
CONC-8-BOTT	8/6/2020	CONC-8-BOTT-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
CONC-9-TOP	8/6/2020	CONC-9-TOP-20200806	-	-	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
CONC-9-BOTT	8/6/2020	CONC-9-BOTT-20200806	-	-	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094	< 0.094
CONC-10-TOP	8/6/2020	CONC-10-TOP-20200806	-	-	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097
CONC-10-BOTT	8/6/2020	CONC-10-BOTT-20200806	-	-	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096	< 0.096
CONC-11-TOP	8/6/2020	CONC-11-TOP-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
CONC-11-BOTT	8/6/2020	CONC-11-BOTT-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-6-TOP	8/6/2020	MED-CONC-6-TOP-20200806	-	-	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
CONC-12-TOP	8/6/2020	CONC-12-TOP-20200806	-	-	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098
CONC-12-BOTT	8/6/2020	CONC-12-BOTT-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Table 2: Discrete Concrete and Paint Sample Analytical Results

			Metals	Moisture	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs	PCBs
		Chemical:	Lead	Solids, Percent	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
		CAS Number:	7439-92-1	SOLID	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5
Location	Date	Sample ID	mg/kg	%	mg/kg[(b)]	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
CONC-13-TOP	8/6/2020	CONC-13-TOP-20200806	-	-	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099
CONC-13-BOTT	8/6/2020	CONC-13-BOTT-20200806	-	-	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.097
MED-CONC-6-BOTT	8/6/2020	MED-CONC-6-BOTT-20200806	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**0.21**
CONC-14-TOP	8/6/2020	CONC-14-TOP-20200806	-	-	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098
CONC-14-TOP	8/7/2020	CONC-14-TOP-20200807	-	-	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.098	**0.28**
MED-CONC-7-TOP	8/7/2020	MED-CONC-7-TOP-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-7-BOTT	8/7/2020	MED-CONC-7-BOTT-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-8-TOP	8/7/2020	MED-CONC-8-TOP-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-8-BOTT	8/7/2020	MED-CONC-8-BOTT-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-9-TOP	8/7/2020	MED-CONC-9-TOP-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MED-CONC-9-BOTT	8/7/2020	MED-CONC-9-BOTT-20200807	-	-	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
MED-CONC-10-TOP	8/7/2020	MED-CONC-10-TOP-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**0.13**
MED-CONC-10-BOT	8/7/2020	MED-CONC-10-BOTT-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
CONC-4-BOTT	8/7/2020	CONC-4-BOTT-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
CONC-5-TOP	8/7/2020	CONC-5-TOP-20200807	-	-	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**0.17**
Paint Sample Results											
CONC-PAINT	8/27/2019	CONC-PAINT-20190827	-	99.4	< 0.101	< 0.101	< 0.101	< 0.101	< 0.101	**0.108**	< 0.101
CONC-PAINT	8/27/2019	CONC-PAINT-TOP-20190827	-	98.9	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101	< 0.0101
CONC-PAINT	8/27/2019	CONC-PAINT-BOTT-20190827	-	98.3	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	**0.0135**	< 0.0102
CONC-PAINT	9/4/2019	CONC-PAINT2-20190904	9.9	99.4	-	-	-	-	-	-	-
CONC-1-PAINT	7/8/2020	CONC-1-PAINT-20200708	5.37 J	96.9	< 344	< 344	< 344	< 344	< 344	< 344	**3090**

Notes:

Concrete sample collection procedures and results are summarized in Sections 4.2 and 4.5 of the report

(a) This table presents laboratory analytical results for discrete concrete and demolition debris samples collected during 2019 and 2020 construction activities. Concentrations reported at or above the reporting limit (limit shown as "< value") for the analytical method employed are shown in bold font.

(b) mg/kg = milligrams per kilogram.

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Table 3: Demolition Debris Sampling Analytical Results

Location	Sample Date	Sample ID	Chemical:	Total Solids	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
			CAS Number:	TSO	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5
				%	mg/kg[b]	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Debris Stockpile 1	8/28/2019	DSP-1-20190828(PACE)		97.5	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	**0.126**
Debris Stockpile 1	8/28/2019	DSP-DUP-20190828(PACE)		97.7	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	**0.0369**
Debris Stockpile 1	8/28/2019	DSP-TRI-20190828(PACE)		97.7	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	< 0.0174	**0.0205**
Debris Stockpile 2	8/29/2019	DSP-2-20190829(PACE)		97.2	< 0.0175	< 0.0175	< 0.0175	< 0.0175	< 0.0175	< 0.0175	**0.0435**
Debris Stockpile 3	9/30/2019	DSP-3-20190930-1(PACE)		98.6	< 0.0172	< 0.0172	< 0.0172	< 0.0172	< 0.0172	< 0.0172	**0.823**
Debris Stockpile 3	9/30/2019	DSP-3-20190930-2(PACE)		98.5	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	**0.603**
Debris Stockpile 3	9/30/2019	DSP-3-20190930-3(PACE)		98.5	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	**1.88**
Debris Stockpile 1	8/28/2019	DSP-1-20190828(SUNSTAR)		98.0	<0.102	<0.102	<0.102	<0.102	<0.102	<0.102	**0.455**
Debris Stockpile 1	8/28/2019	DSP-DUP-20190828(SUNSTAR)		98.1	<0.102	<0.102	<0.102	<0.102	<0.102	<0.102	**0.624**
Debris Stockpile 1	8/28/2019	DSP-TRI-20190828(SUNSTAR)		96.2	<0.104	<0.104	<0.104	<0.104	<0.104	<0.104	**0.595**
Debris Stockpile 2	8/29/2019	DSP-2-20190829(SUNSTAR)		96.7	<0.103	<0.103	<0.103	<0.103	<0.103	<0.103	**0.293**
Debris Stockpile 3	9/30/2019	DSP-3-20190903(SUNSTAR)		-	< 0.201	< 0.201	< 0.201	< 0.201	< 0.201	< 0.201	**1.49**
Debris Stockpile 3	9/30/2019	DSP-3-20190903 (DUPLICATE)(SUNSTAR)		-	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	**0.855**
Debris Stockpile 3	9/30/2019	DSP-3-20190903 (TRIPLICATE)(SUNSTAR)		-	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	**0.795**
Debris Stockpile 4	10/21/2019	DSP-4-20191021(PACE)		98.3	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	< 0.0173	**0.325**
Debris Stockpile 4	10/21/2019	DSP-4-20191021(SUNSTAR)		-	< 0.101	< 0.101	< 0.101	< 0.101	< 0.101	< 0.101	**0.617**
Debris Stockpile 5	6/24/2020	DSP-5-20200624			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.49**
Debris Stockpile 5	6/24/2020	DSP-5-20200624 DUPLICATE			< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	**0.80 NJ[c]**
Debris Stockpile 5	6/24/2020	DSP-5-20200624 TRIPLICATE			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.52 NJ**
Debris Stockpile 6	7/10/2020	DSP-6-20200710			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.34**
Debris Stockpile 7	7/17/2020	DSP-7-20200717			< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	< 0.048	**0.091**
Debris Stockpile 8	8/7/2020	DSP-8-20200807			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.69 NJ**
Debris Stockpile 8	8/7/2020	DSP-8-20200807 DUPLICATE			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.25 NJ**
Debris Stockpile 8	8/7/2020	DSP-8-20200807 TRIPLICATE			< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	< 0.051	**0.34 J[d]**
Debris Stockpile 9	8/7/2020	DSP-9-20200807			< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	**0.28 NJ**

Notes:

(a) This table presents laboratory analytical results for Incremental Samping Method-type samples collected from demolition debris stockpiles.
Reported concentrations at or above the reporting limit (limit shown as "< value") for the analytical method employed are shown in bold font.
Reported concentrations below the reporting limit (limit shown as "< value") for the analytical method employed are shown in gray font.
The laboratory conducting the analysis for samples submitted in 2019 is shown in Parenthese after the Sample ID.
(b) mg/kg = milligrams per kilogram.
(c) NJ = Analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
(d) J = Analysis indicates the associated numerical value represents its approximate concentration.

Table 4: Soil Sample Analytical Results

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Location	Sample Type	Sample Date	Sample Depth	Sample ID	Chemical:	Solids, Percent	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	Comments
					CAS Number:	SOLID	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	
						%	mg/kg[b]	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
RVSD-WC-001*	Composite[c]	7/12/2019		RVSD-WC-001		96.0	< 0.00365	< 0.00559	< 0.00434	< 0.00331	< 0.00328	< 0.00492	< 0.00515	
RVSD-WC-002*	Composite	7/12/2019		RVSD-WC-002		93.3	< 0.00375	< 0.00576	< 0.00447	< 0.00341	< 0.00338	< 0.00506	< 0.0053	
RVSD-WC-003*	Composite	7/12/2019		RVSD-WC-003		94.2	< 0.00371	< 0.0057	< 0.00442	< 0.00337	< 0.00334	< 0.00501	< 0.00524	
North Stockpile	Grid[d]	8/23/2019	0.3 ft	NSP-A3-20190823		94.6	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-A4-20190823		95.1	< 0.105 J	< 0.105 J	< 0.105 J	< 0.105 J	< 0.105 J	< 0.105 J	< 0.105 J	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-B1-20190823		96.6	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-B2-20190823		95.1	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-B3-20190823		95.5	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-B4-20190823		95.9	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-C1-20190823		96.9	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-C2-20190823		94.7	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-C3-20190823		93.4	< 0.107	< 0.107	< 0.107	< 0.107	< 0.107	< 0.107	< 0.107	
North Stockpile	Grid	8/23/2019	0.3 ft	NSP-C4-20190823		94.5	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-A1-20190822		97.3	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A10-20190823		97.1	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A11-20190823		97	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A12-20190823		97.6	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A13-20190823		96.4	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-A2-20190822		95.7	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-A3-20190822		99.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-A4-20190822		96.3	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-A5-20190822		97.1	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A6-20190823		96.9	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A7-20190823		96.9	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A8-20190823		96.3	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-A9-20190823		96.9	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-B1-20190822		97.4	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B10-20190823		95.8	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B11-20190823		95.8	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B12-20190823		95.8	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	< 0.0104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B13-20190823		94.3	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-B2-20190822		96.4	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-B3-20190822		97.3	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-B4-20190822		96.2	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-B5-20190822		94	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B6-20190823		96.9	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B7-20190823		95.9	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B8-20190823		95.9	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-B9-20190823		94.6	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-C1-20190822		97.3	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C10-20190823		85.9	< 0.116	< 0.116	< 0.116	< 0.116	< 0.116	< 0.116	< 0.116	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C11-20190823		95	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C12-20190823		95.6	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C13-20190823		95.6	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C14-20190823		94.9	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-C2-20190822		95.9	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-C3-20190822		96	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-C4-20190822		95.3	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-C5-20190822		92	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C6-20190823		95.4	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C7-20190823		94.1	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C8-20190823		95.3	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-C9-20190823		96.2	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	**0.104**	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-D1-20190822		97.2	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D10-20190823		95.4	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D11-20190823		96.5	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D12-20190823		97	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D13-20190823		96.3	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D14-20190823		95.2	< 0.0105	< 0.0105	< 0.0105	< 0.0105	< 0.0105	< 0.0105	< 0.0105	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-D2-20190822		96.8	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-D3-20190822		97	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-D4-20190822		97	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/22/2019	0.3 ft	SSP-D5-20190822		94.8	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D6-20190823		97.4	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	< 0.103	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D7-20190823		96.3	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D8-20190823		97.6	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	< 0.102	
South Stockpile	Grid	8/23/2019	0.3 ft	SSP-D9-20190823		97.6	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	

Table 4: Soil Sample Analytical Results

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Location	Sample Type	Sample Date	Sample Depth	Sample ID	Chemical: / CAS Number: Solids, Percent SOLID %	PCB-1016 (Aroclor 1016) 12674-11-2 mg/kg[(b)]	PCB-1221 (Aroclor 1221) 11104-28-2 mg/kg	PCB-1232 (Aroclor 1232) 11141-16-5 mg/kg	PCB-1242 (Aroclor 1242) 53469-21-9 mg/kg	PCB-1248 (Aroclor 1248) 12672-29-6 mg/kg	PCB-1254 (Aroclor 1254) 11097-69-1 mg/kg	PCB-1260 (Aroclor 1260) 11096-82-5 mg/kg	Comments
061P+2	Confirmation	6/12/2020	2.0-2.3 ft	061P+2-CONF(2-2.3)-20200612	84.7	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
061P+2	Confirmation	6/29/2020	8.0 ft	061P+2-CONF(8)-20200629	87.5	< 0.0378	< 0.0378	< 0.0378	< 0.0378	< 0.0378	< 0.0378	**0.103**	
062P+2	Confirmation	6/12/2020	2.0-2.3 ft	062P+2-CONF(2-2.3)-20200612	88.7	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	
062P+2	Confirmation	6/30/2020	8.0 ft	062P+2-CONF(8)-20200630	82.3	< 0.00401	< 0.00401	< 0.00401	< 0.00401	< 0.00401	< 0.00401	**0.0316**	
BAY-10	Confirmation	7/9/2020	13.0 ft	BAY-10-CONF(13)-20200709	78.8	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	< 0.0042	**0.00957**	
063P	Boring	7/21/2020	22.0 ft	063P-CONF(22)-07212020	73.2	< 0.00455	< 0.00455	< 0.00455	< 0.00455	< 0.00455	< 0.00455	< 0.00455	
068P	Boring	7/21/2020	20.0 ft	068P-CONF(20)-07212020	91.4	< 0.0355	< 0.0355	< 0.0355	< 0.0355	< 0.0355	< 0.0355	< 0.0355	
096	Confirmation	8/1/2019	2.0 ft	096P-CONF-(2)-20190801	~~88.2~~	~~< 1.1~~	~~< 1.1~~	~~< 1.1~~	~~< 1.1~~	~~< 1.1~~	~~< 1.1~~	~~**1.6**~~	Material excavated as part of remedial action.
098	Confirmation	8/2/2019	5.0 ft	098P-CONF(5)-20190802	85.4	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	
101P	Boring	7/15/2020	15.0 ft	101P-CONF(15)-20200715	91.8	< 0.00354	< 0.00354	< 0.00354	< 0.00354	< 0.00354	< 0.00354	< 0.00354	
108P	Confirmation	7/7/2020	15.0 ft	108P-CONF(15)-20200707	90.8	< 0.00367	< 0.00367	< 0.00367	< 0.00367	< 0.00367	< 0.00367	**0.00759**	
108P	Test Pit	8/26/2019	7.0 ft	TP-108P-CONF(7)-20190826	91.4	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	**0.1**	< 0.011	
150P	Boring	8/29/2019	2.0-2.5 ft	150P-CONF(2.0-2.5)-20190829	85	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
150P	Boring	8/29/2019	3.5-4.0 ft	150P-CONF(3.5-4.0)-20190829	81.9	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	
151P	Boring	8/29/2019	2.0-2.5 ft	151P-CONF(2.0-2.5)-20190829	~~87~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~**0.535**~~	Material excavated as part of remedial action.
151P	Boring	8/29/2019	3.5-4.0 ft	151P-CONF(3.5-4.0)-20190829	84.9	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
152P	Boring	8/29/2019	2.0-2.5 ft	152P-CONF(2.0-2.5)-20190829	89.1	< 0.112	< 0.112	< 0.112	< 0.112	< 0.112	< 0.112	< 0.112	
152P	Boring	8/29/2019	3.5-4.0 ft	152P-CONF(3.5-4.0)-20190829	~~87.5~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~**0.436**~~	Material excavated as part of remedial action.
153P	Boring	8/29/2019	2.0-2.5 ft	153P-CONF(2.0-2.5)-20190829	88.6	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	
153P	Boring	8/29/2019	3.5-4.0 ft	153P-CONF(3.5-4.0)-20190829	~~87.3~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~**0.501**~~	Material excavated as part of remedial action.
311	Boring	8/22/2019	0.5 ft	311CONF(0.5)	95.7	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
311	Boring	8/22/2019	2.5 ft	311CONF(2.5)	84.9	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	
311	Boring	8/22/2019	7.3 ft	311CONF(7.3)	83	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
311	Boring	8/22/2019	11.4 ft	311CONF(11.4)	83.8	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
312	Boring	8/22/2019	0.5 ft	312CONF(0.5)	98.8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
312	Boring	8/22/2019	2.4 ft	312CONF(2.4)	~~88.5~~	~~< 0.11~~	~~< 0.11~~	~~< 0.11~~	~~< 0.11~~	~~< 0.11~~	~~< 0.11~~	~~**0.56**~~	Material excavated as part of remedial action.
312	Boring	8/22/2019	5.5 ft	312CONF(5.5)	90	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	
312	Boring	8/22/2019	14.0 ft	312CONF(14)	82.2	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
312	Boring	8/22/2019	20.5 ft	312CONF(20.5)	84.3	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
312	Boring	8/29/2019	1.5-2.0 ft	312-CONF(1.5-2.0)-20190829	91.8	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	
312	Boring	8/29/2019	3.5-4.0 ft	312-CONF(3.5-4.0)-20190829	~~87.2~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~< 0.115~~	~~**0.447**~~	Material excavated as part of remedial action.
SB101	Confirmation	10/10/2019	10.0 ft	SB101-CONF(10)-20191010	82.3	< 0.0121	< 0.0121	< 0.0121	< 0.0121	< 0.0121	< 0.0121	< 0.0121	
SB144-17	Confirmation	9/27/2019	11.0 ft	144-17-11.0-20190927	88.3	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	< 0.113	
SB144-22	Confirmation	9/27/2019	9.7 ft	144-22-9.7-20190927	94	< 0.0106	< 0.0106	< 0.0106	< 0.0106	< 0.0106	< 0.0106	< 0.0106	
SB144-32	Confirmation	9/27/2019	9.9 ft	144-32-9.9-20190927	92.1	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	< 0.109	
sb144-1-north	Confirmation	10/3/2019	13.0 ft	SB144-1-NORTH-CONF(13)-20191003	87.4	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
sb144-4-south	Confirmation	10/3/2019	11.0 ft	SB144-4-SOUTH-CONF(11)-20191003	86.9	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	
sb144-2-north	Confirmation	10/3/2019	11.0 ft	SB144-2-NORTH-CONF(11)-20191003	86.4	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	
sb144-2-south	Confirmation	10/3/2019	13.0 ft	SB144-2-SOUTH-CONF(13)-20191003	87.3	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	
sb144-2-above	Confirmation	10/3/2019	10.0 ft	SB144-2-ABOVE-CONF(10)-20191003	97.3	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	< 0.0103	**0.0189**	
sb144-6-above	Confirmation	10/3/2019	10.0 ft	SB144-6-ABOVE-CONF(10)-20191003	87.2	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	
Pit2-5-A1	Confirmation	9/6/2019	4.0 ft	2-5-A1-CONF(4)-20190906	86.8	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	
Pit2-5-B1	Confirmation	9/6/2019	4.0 ft	2-5-B1-CONF(4)-20190906	90.7	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
Pit2-5-B2	Confirmation	9/6/2019	4.0 ft	2-5-B2-CONF(4)-20190906	90.6	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	
Pit2-5-A2	Confirmation	9/6/2019	4.0 ft	2-5-A2-CONF(4)-20190906	89.7	< 0.111	< 0.111	< 0.111	< 0.111	< 0.111	< 0.111	< 0.111	
PIT 4-1-A2	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(A2)-20200616	~~88.3~~	~~< 0.113~~	~~< 0.113~~	~~< 0.113~~	~~< 0.113~~	~~< 0.113~~	~~< 0.113~~	~~**0.555**~~	Result exceeded cleanup goal. Sample area excavated, new confirmation samples "PIT 4-1-CONF(A2)-ADDTL-BASE" and "PIT 4-1-CONF(A2)-ADDTL-SIDE" collected.
PIT 4-1-A2	Confirmation	6/24/2020	6.0 ft	PIT-4-1-CONF(A2)-ADDTL-BASE-20200624	79.3	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	
PIT 4-1-A2-SIDEWALL	Confirmation	6/24/2020	3.0 ft	PIT-4-1-CONF(A2)-ADDTL-SIDE-20200624	90.7	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
PIT 4-1-A3	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(A3)-20200616	87.8	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	**0.0343**	
PIT 4-1-A4	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(A4)-20200616	84.6	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
PIT 4-1-B2	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(B2)-20200616	85.2	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	**0.0356**	
PIT 4-1-B3	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(B3)-20200616	88.4	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	
PIT 4-1-B4	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(B4)-20200616	88.7	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	
PIT 4-1-B5	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(B5)-20200616	88	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	**0.02**	
PIT 4-1-C1	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C1)-20200616	88.4	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	< 0.0113	**0.0376**	
PIT 4-1-C2	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C2)-20200616	90.2	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	
PIT 4-1-C3	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C3)-20200616	88.1	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
PIT 4-1-C4	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C4)-20200616	91	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
PIT 4-1-C5	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C5)-20200616	90.5	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	**0.0359**	
PIT 4-1-C6	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(C6)-20200616	89	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	**0.0304**	
PIT 4-1-D1	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D1)-20200616	87.3	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	**0.0667**	
PIT 4-1-D2	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D2)-20200616	90	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	
PIT 4-1-D3	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D3)-20200616	90	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	**0.0957**	
PIT 4-1-D4	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D4)-20200616	87.2	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	**0.0519**	
PIT 4-1-D5	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D5)-20200616	91	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	**0.235**	
PIT 4-1-D6	Confirmation	6/16/2020	4.0 ft	PIT 4-1-CONF(D6)-20200616	89.4	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	**0.109**	

Table 4: Soil Sample Analytical Results

Kennedy Jenks

Location	Sample Type	Sample Date	Sample Depth	Sample ID	Chemical:	Solids, Percent	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	Comments
					CAS Number:	SOLID	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	
						%	mg/kg[(b)]	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Pit10-1-A1	Confirmation	9/4/2019	14.5 ft	10-1-A1-CONF(14.5)-20190904		87.5	< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	< 0.114	
Pit10-1-A2	Confirmation	9/4/2019	14.5 ft	10-1-A2-CONF(14.5)-20190904		86.3	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	
Pit10-1-A3	Confirmation	9/4/2019	14.5 ft	10-1-A3-CONF(14.5)-20190904		89.4	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	< 0.0112	
Pit10-1-A4	Confirmation	9/4/2019	14.5 ft	10-1-A4-CONF(14.5)-20190904		87.7	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
Pit10-1-CONF12(b)	Confirmation	10/11/2019	12.0 ft	10-1-CONF(12)-20191011(B)		77	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
Pit10-1-CONF12(a)	Confirmation	10/11/2019	12.0 ft	10-1-CONF(12)-20191011(A)		80.2	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	
Pit10-4-A1	Confirmation	9/27/2019	11.0 ft	10-4-A1-CONF(11.0)-20190927		90.2	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	**0.0279**	
Pit10-4-A2	Confirmation	9/27/2019	12.0 ft	10-4-A2-CONF(12.0)-20190927		87.8	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
Pit10-4-A3	Confirmation	9/27/2019	12.5 ft	10-4-A3-CONF(12.5)-20190927		86.8	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	
Pit10-4-A4	Confirmation	9/27/2019	13.0 ft	10-4-A4-CONF(13.0)-20190927		85.4	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	
Pit10-4-B1	Confirmation	9/27/2019	11.0 ft	10-4-B1-CONF(11.0)-20190927		80.7	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	
Pit10-4-B2	Confirmation	9/27/2019	12.0 ft	10-4-B2-CONF(12.0)-20190927		87.7	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
Pit10-4-B3	Confirmation	9/27/2019	12.5 ft	10-4-B3-CONF(12.5)-20190927		84.1	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	
Pit10-4-B4	Confirmation	9/27/2019	13.0 ft	10-4-B4-CONF(13.0)-20190927		88.1	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
Pit15-1-7-above	Confirmation	10/3/2019	10.0 ft	15-1-7-ABOVE-CONF(10)-20191003		95.3	< 0.0525	< 0.0525	< 0.0525	< 0.0525	< 0.0525	< 0.0525	**0.166**	
Pit15-1-5-below	Confirmation	10/3/2019	13.5 ft	15-1-5-BELOW-CONF(13.5)-20191003		90.8	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	
Pit15-1-1-below	Confirmation	10/3/2019	13.5 ft	15-1-1-BELOW-CONF(13.5)-20191003		83.1	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	
Pit15-1-1-above	Confirmation	10/3/2019	10.0 ft	15-1-1-ABOVE-CONF(10)-20191003		99	< 0.0202	< 0.0202	< 0.0202	< 0.0202	< 0.0202	< 0.0202	**0.0964**	
Pit15-1-SIDEWALL-A1	Confirmation	10/11/2019	5.8 ft	15-1-SIDEWALL-A1-CONF(5.8)-20191011		90.2	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	< 0.0111	
Pit15-1-SIDEWALL-A2	Confirmation	10/11/2019	6.1 ft	15-1-SIDEWALL-A2-CONF(6.1)-20191011		85.5	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	
Pit15-1-SIDEWALL-A3	Confirmation	10/11/2019	6.8 ft	15-1-SIDEWALL-A3-CONF(6.8)-20191011		87.8	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
PIT-15-2W-A7	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-A7-20200708		86.1	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	
PIT-15-2W-A6	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-A6-20200708		86.4	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	< 0.00384	
PIT-15-2W-A5	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-A5-20200708		90.9	< 0.00367 R < 0.00366	< 0.00367 R < 0.00366	< 0.00367 R < 0.00366	< 0.00367 R < 0.00366	< 0.00367 R < 0.00366	< 0.00367 R < 0.00366	< 0.00367 R 0.00711	
PIT-15-2W-A4	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-A4-20200708		85.6	< 0.00387	< 0.00387	< 0.00387	< 0.00387	< 0.00387	< 0.00387	< 0.00387	
PIT-15-2W-A3	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-A3-20200708		89.1	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	**0.0176**	< 0.00372	
PIT-15-2W-B3	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-B3-20200708		92.1	< 0.00359	< 0.00359	< 0.00359	< 0.00359	< 0.00359	**0.0132**	< 0.00359	
PIT-15-2W-B4	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-B4-20200708		89.4	< 0.00375	< 0.00375	< 0.00375	< 0.00375	< 0.00375	< 0.00375	< 0.00375	
PIT-15-2W-B5	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-B5-20200708		92.9	< 0.0036	< 0.0036	< 0.0036	< 0.0036	< 0.0036	**0.00848**	< 0.0036	
PIT-15-2W-B6	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-B6-20200708		90	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	**0.00468**	
PIT-15-2W-B7	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-B7-20200708		92.5	< 0.00359	< 0.00359	< 0.00359	< 0.00359	< 0.00359	**0.02**	< 0.00359	
PIT-15-2W-C4	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-C4-20200708		88.6	< 0.0375	< 0.0375	< 0.0375	< 0.0375	< 0.0375	< 0.0375	< 0.0375	
PIT-15-2W-C5	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-C5-20200708		76.1	< 0.00441	< 0.00441	< 0.00441	< 0.00441	< 0.00441	< 0.00441	< 0.00441	
PIT-15-2W-C6	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-C6-20200708		91.8	< 0.00362	< 0.00362	< 0.00362	< 0.00362	< 0.00362	**0.0113**	< 0.00362	
PIT-15-2W-C7	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-C7-20200708		90.7	< 0.00365	< 0.00365	< 0.00365	< 0.00365	< 0.00365	< 0.00365	< 0.00365	
PIT-15-2W-D6	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-D6-20200708		89.5	< 0.0374	< 0.0374	< 0.0374	< 0.0374	< 0.0374	**0.113**	< 0.0374	
PIT-15-2W-D7	Confirmation	7/8/2020	13.0 ft	PIT-15-2W-CONF(13)-D7-20200708		90	< 0.037	< 0.037	< 0.037	< 0.037	< 0.037	**0.0489**	< 0.037	
PIT-15-5-A1	Confirmation	7/15/2020	12.5 ft	PIT-15-5-CONF(12.5)-A1-20200715		92.7	< 0.0349	< 0.0349	< 0.0349	< 0.0349	< 0.0349	< 0.0349	< 0.0349	
PIT-15-5-B1	Confirmation	7/15/2020	11.5 ft	PIT-15-5-CONF(11.5)-B1-20200715		83.7	< 0.00398	< 0.00398	< 0.00398	< 0.00398	< 0.00398	< 0.00398	< 0.00398	
PIT-15-5-A2	Confirmation	7/15/2020	13.0 ft	PIT-15-5-CONF(13)-A2-20200715		87.6	< 0.00381	< 0.00381	< 0.00381	< 0.00381	< 0.00381	< 0.00381	< 0.00381	
PIT20-1-A1	Confirmation	9/21/2019	16.6 ft	20-1-A1-CONF(16.6)-20190921		81.5	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	
PIT20-1-A2	Confirmation	9/21/2019	17.9 ft	20-1-A2-CONF(17.9)-20190921		81.8	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	
PIT20-1-A3	Confirmation	9/21/2019	18.6 ft	20-1-A3-CONF(18.6)-20190921		82.1	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	
PIT20-1-A4	Confirmation	9/21/2019	18.7 ft	20-1-A4-CONF(18.7)-20190921		84.8	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
PIT20-1-A5	Confirmation	9/21/2019	19.0 ft	20-1-A5-CONF(19.0)-20190921		77	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-1-A6	Confirmation	9/21/2019	19.4 ft	20-1-A6-CONF(19.4)-20190921		80.7	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	
PIT20-1-B6	Confirmation	9/21/2019	19.8 ft	20-1-B6-CONF(19.8)-20190921		79.8	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	
PIT20-1-B4	Confirmation	9/21/2019	19.7 ft	20-1-B4-CONF(19.7)-20190921		82.4	< 0.0121	< 0.0121	< 0.0121	< 0.0121	< 0.0121	**0.0197**	< 0.0121	
PIT20-1-B3	Confirmation	9/21/2019	19.4 ft	20-1-B3-CONF(19.4)-20190921		83.4	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-1-B2	Confirmation	9/21/2019	18.8 ft	20-1-B2-CONF(18.8)-20190921		81.9	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	
PIT20-1-B1	Confirmation	9/21/2019	18.0 ft	20-1-B1-CONF(18.0)-20190921		83.4	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-1-B5	Confirmation	9/21/2019	19.8 ft	20-1-B5-CONF(19.8)-20190921		80.8	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	< 0.0124	
PIT20-1-C1	Confirmation	9/21/2019	18.8 ft	20-1-C1-CONF(18.8)-20190921		80.3	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	
PIT20-1-C2	Confirmation	9/21/2019	19.4 ft	20-1-C2-CONF(19.4)-20190921		83.6	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-1-C3	Confirmation	9/21/2019	19.9 ft	20-1-C3-CONF(19.9)-20190921		88	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	< 0.0114	
PIT20-1-C4	Confirmation	9/21/2019	19.9 ft	20-1-C4-CONF(19.9)-20190921		86.1	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	< 0.0116	
PIT20-1-C5	Confirmation	9/21/2019	19.8 ft	20-1-C5-CONF(19.8)-20190921		84	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	
PIT20-1-D4	Confirmation	9/21/2019	19.9 ft	20-1-D4-CONF(19.9)-20190921		84.5	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
PIT20-1-D3	Confirmation	9/21/2019	19.9 ft	20-1-D3-CONF(19.9)-20190921		81.6	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	< 0.0123	
PIT20-1-D2	Confirmation	9/21/2019	19.7 ft	20-1-D2-CONF(19.7)-20190921		84.1	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	< 0.0119	
PIT20-1-D1	Confirmation	9/21/2019	19.6 ft	20-1-D1-CONF(19.6)-20190921		82.3	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	< 0.0122	
PIT20-1-E2	Confirmation	9/21/2019	19.9 ft	20-1-E2-CONF(19.9)-20190921		79.6	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	< 0.0126	
PIT20-2-A1	Confirmation	8/30/2019	15.0 ft	20-2-A1-CONF(15)-2019830		81.1	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-A2	Confirmation	8/30/2019	15.0 ft	20-2-A2-CONF(15)-2019830		83.5	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-B1	Confirmation	8/30/2019	15.0 ft	20-2-B1-CONF(15)-2019830		75.6	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-B2	Confirmation	8/30/2019	15.0 ft	20-2-B2-CONF(15)-2019830		85	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-B3	Confirmation	8/30/2019	15.0 ft	20-2-B3-CONF(15)-2019830		71.2	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	< 0.014	

Table 4: Soil Sample Analytical Results

Kennedy Jenks

Location	Sample Type	Sample Date	Sample Depth	Sample ID	Chemical: / CAS Number: Solids, Percent SOLID %	PCB-1016 (Aroclor 1016) 12674-11-2 mg/kg[b]	PCB-1221 (Aroclor 1221) 11104-28-2 mg/kg	PCB-1232 (Aroclor 1232) 11141-16-5 mg/kg	PCB-1242 (Aroclor 1242) 53469-21-9 mg/kg	PCB-1248 (Aroclor 1248) 12672-29-6 mg/kg	PCB-1254 (Aroclor 1254) 11097-69-1 mg/kg	PCB-1260 (Aroclor 1260) 11096-82-5 mg/kg	Comments
PIT20-2-C1	Confirmation	8/30/2019	15.0 ft	20-2-C1-CONF(15)-2019830	77.8	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-C3	Confirmation	8/30/2019	15.0 ft	20-2-C3-CONF(15)-2019830	79.5	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-C5	Confirmation	9/4/2019	15.0 ft	2D-2A-C5-CONF(15)-20190904	86.7	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	< 0.0115	
PIT20-2-D1	Confirmation	8/30/2019	15.0 ft	20-2-D1-CONF(15)-2019830	88.3	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
PIT20-2-C4	Confirmation	8/30/2019	15.0 ft	20-2-C4-CONF(15)-2019830	81.9	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-D5	Confirmation	8/30/2019	15.0 ft	20-2-D5-CONF(15)-2019830	86.8	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-D6	Confirmation	8/30/2019	15.0 ft	20-2-D6-CONF(15)-2019830	81.9	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-E1	Confirmation	8/30/2019	15.0 ft	20-2-E1-CONF(15)-2019830	76.3	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-E2	Confirmation	8/30/2019	15.0 ft	20-2-E2-CONF(15)-2019830	82.6	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-E4	Confirmation	8/30/2019	15.0 ft	20-2-E4-CONF(15)-2019830	88.1	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
PIT20-2-E5	Confirmation	8/30/2019	15.0 ft	20-2-E5-CONF(15)-2019830	81.7	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-E6	Confirmation	8/30/2019	15.0 ft	20-2-E6-CONF(15)-2019830	84.5	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-E7	Confirmation	8/30/2019	15.0 ft	20-2-E7-CONF(15)-2019830	82.7	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-F2	Confirmation	8/30/2019	15.0 ft	20-2-F2-CONF(15)-2019830	88.1	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	
PIT20-2-CONF1	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF1-20190819	86.8	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF2	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF2-20190819	79.8	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-CONF3	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF3-20190819	76.6	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-2-CONF4	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF4-20190819	81.3	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF5	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF5-20190819	80.9	< 0.012	< 0.012	< 0.012	**0.13**	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF6	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF6-20190819	81	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF7	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF7-20190819	83.8	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF8	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF8-20190819	81.8	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	
PIT20-2-CONF9	Confirmation	8/19/2019	16.0 ft	PIT20-2-CONF9-20190819	76.8	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	
PIT20-4-CONF14	Confirmation	10/10/2019	14.0 ft	20-4-CONF(14)-20191010	85.5	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	
PIT20-4-CONF16	Confirmation	10/10/2019	16.0 ft	20-4-CONF(16)-20191010	85	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	< 0.0118	
TP-150	Test Pit	9/23/2019	15.0 ft	TP-150 CONF(15)-20190923	85.3	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	< 0.0117	
QB-08-12	Confirmation	9/4/2019	13.0 ft	QB-08-12-CONF(13)-20190904	92.9	< 0.0108	< 0.0108	< 0.0108	< 0.0108	< 0.0108	< 0.0108	< 0.0108	
QTP-08-08	Confirmation	6/25/2020	2.0 ft	QTP-08-08-20200625	88.4	< 0.00377	< 0.00377	< 0.00377	< 0.00377	< 0.00377	< 0.00377	< 0.00377	
QTP-CL#3-2	Confirmation	6/25/2020	2.0 ft	QTP-CL#3-2-20200625	87.9	< 0.0381	< 0.0381	< 0.0381	< 0.0381	< 0.0381	< 0.0381	< 0.0381	
DRMSOL-A1	Confirmation	9/26/2019	0.5 ft	DRMSOL-A1-CONF(0.5)-20190926	95.9	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
DRMSOL-A2	Confirmation	9/26/2019	0.5 ft	DRMSOL-A2-CONF(0.5)-20190926	92.6	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	
DRMSOL-A3	Confirmation	9/26/2019	0.5 ft	DRMSOL-A3-CONF(0.5)-20190926	86.7	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	< 0.115	
DRMSOL-B1	Confirmation	9/26/2019	0.5 ft	DRMSOL-B1-CONF(0.5)-20190926	96	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	< 0.104	
DRMSOL-B2	Confirmation	9/26/2019	0.5 ft	DRMSOL-B2-CONF(0.5)-20190926	92.6	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	
DRMSOL-B3	Confirmation	9/26/2019	0.5 ft	DRMSOL-B3-CONF(0.5)-20190926	92.7	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	< 0.108	
DRUM1	Confirmation	9/26/2019	0.5 ft	DRUM1-CONF(0.5)-20190926	94.5	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	< 0.106	
DRUM2	Confirmation	9/26/2019	0.5 ft	DRUM2-CONF(0.5)-20190926	95.1	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	< 0.105	
STRM-MID-DI	Confirmation	6/19/2020	4.9 ft	STRM-MID-DI-CONF-20200619	~~79.9~~	~~< 0.0125~~	~~< 0.0125~~	~~< 0.0125~~	~~< 0.0125~~	~~< 0.0125~~	~~< 0.0125~~	~~< 0.0125~~	Material excavated as part of remedial action.
STRM-MID-PIPE	Confirmation	6/19/2020	4.0 ft	STRM-MID-PIPE-CONF-20200619	~~88~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~< 0.114~~	~~**0.401**~~	Material excavated as part of remedial action.
STRM-CEPT	Confirmation	6/22/2020	13.1 ft	STRM-CEPT-BOT-CONF-20200622	~~88.7~~	~~< 0.0113~~	~~< 0.0113~~	~~< 0.0113~~	~~< 0.0113~~	~~< 0.0113~~	~~< 0.0113~~	~~< 0.0113~~	Material excavated as part of remedial action.
SS-PIPE-N	Confirmation	6/24/2020	4.0 ft	SS-PIPE-N-20200624	~~76.1~~	~~< 0.0131~~	~~< 0.0131~~	~~< 0.0131~~	~~< 0.0131~~	~~< 0.0131~~	~~< 0.0131~~	~~**0.0153**~~	Material excavated as part of remedial action.
SS-PIPE-W	Confirmation	6/24/2020	4.2 ft	SS-PIPE-W-20200624	~~91.5~~	~~< 0.0109~~	~~< 0.0109~~	~~< 0.0109~~	~~< 0.0109~~	~~< 0.0109~~	~~< 0.0109~~	~~**0.016**~~	Material excavated as part of remedial action.
SS-STRC	Confirmation	6/24/2020	5.2 ft	SS-STRC-20200624	~~84~~	~~< 0.119~~	~~< 0.119~~	~~< 0.119~~	~~< 0.119~~	~~< 0.119~~	~~< 0.119~~	~~**0.237**~~	Material excavated as part of remedial action.
STRM-NOR	Confirmation	6/25/2020	6.0 ft	STRM-NOR-CONF-20200625	~~86.7~~	~~< 0.0384~~	~~< 0.0384~~	~~< 0.0384~~	~~< 0.0384~~	~~< 0.0384~~	~~< 0.0384~~	~~**0.116**~~	Material excavated as part of remedial action.
12IN-DIP-BELL	Confirmation	7/1/2020	3.5 ft	12IN-DIP-BELL-CONF(3.5)20200701	~~78.4~~	~~< 0.00413~~	~~< 0.00413~~	~~< 0.00413~~	~~< 0.00413~~	~~< 0.00413~~	~~< 0.00413~~	~~< 0.00413~~	Material excavated as part of remedial action.
15-2-EAST-PIPE	Confirmation	7/16/2020	10.0 ft	15-2-EAST-PIPE-CONF(10)-20200716	~~79.1~~	~~< 0.00424~~	~~< 0.00424~~	~~< 0.00424~~	~~< 0.00424~~	~~< 0.00424~~	~~< 0.00424~~	~~< 0.00424~~	Material excavated as part of remedial action.
Storm - Southend	Confirmation	8/9/2019	5.0 ft	STRM-SOU-CONF-20190809	~~82.1~~	~~< 0.12~~	~~< 0.12~~	~~< 0.12~~	~~< 0.12~~	~~< 0.12~~	~~< 0.12~~	~~< 0.12~~	Material excavated as part of remedial action.

Notes:

(a) This table presents laboratory analytical results for soil samples collected during cleanup activities.
Reported concentrations at or above the detection limit (limit shown as "< value") for the analytical method employed and below the cleanup level (0.24 mg/kg) are shown in bold, gray font.
Reported concentrations above the cleanup goal (0.24 mg/kg) are shown in bold, black font.
Results representing samples locations that were over-excavated are shown with strikeout
Reported concentrations below the detection limit are shown as greyed-out, "< value".
(b) mg/kg = milligrams per kilogram.
(c) R = sample re-analyzed by lab. Results of second analysis are included as second value in the cell.

Table 5: Wipe Sampling Analytical Results

		Chemical:	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)
		CAS Number:	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5
Location	**Sample Date**	**Sample ID**	**µg/wipe[(b)]**	**µg/wipe**	**µg/wipe**	**µg/wipe**	**µg/wipe**	**µg/wipe**	**µg/wipe**
PIPE-NE-L	10/17/2019	CONF-PIPE-NE-L-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-NE-L	10/17/2019	CONF-PIPE-NE-L-CP-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-NE-R	10/17/2019	CONF-PIPE-NE-R-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-NE-R	10/17/2019	CONF-PIPE-NE-R-CP-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-SE-L	10/17/2019	CONF-PIPE-SE-L-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-SE-L	10/17/2019	CONF-PIPE-SE-L-CP-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-SE-R	10/17/2019	CONF-PIPE-SE-R-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PIPE-SE-R	10/17/2019	CONF-PIPE-SE-R-CP-20191017	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
12IN-DIP	7/8/2020	12IN-DIP-CONF(EXT)-WIPE-20200708	< 1	< 1	< 1	< 1	< 1	< 1	< 1
12IN-DIP	7/8/2020	12IN-DIP-CONF(INT)-WIPE-20200708	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
15-2-EAST-PIPE	7/15/2020	15-2-EAST-PIPE-WIPE-CONF(EXT)-20200715	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
15-2-EAST-PIPE	7/15/2020	15-2-EAST-PIPE-WIPE-CONF(INT)-20200715	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
20-3-PIPE	7/15/2020	20-3-PIPE-WIPE-CONF(EXT)-20200715	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
20-3-PIPE	7/15/2020	20-3-PIPE-WIPE-CONF(INT)-20200715	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
SS-PIPE	7/7/2020	SS-PIPE-CONF(EXT)-WIPE-20200707	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
SS-PIPE	7/7/2020	SS-PIPE-CONF(INT)-WIPE-20200707	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
STRM-PIPE	7/7/2020	STRM-PIPE-CONF(EXT)-WIPE-20200707	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
STRM-PIPE	7/7/2020	STRM-PIPE-CONF(INT)-WIPE-20200707	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Notes:

(a) This table presents laboratory analytical results for wipe samples collected from pipes discovered during construction activities. Detections of concentrations at or above the detection limit (limit shown as "< value") for the analytical method employed are shown in bold font.

(b) µg/wipe= total micrograms per wipe sample.

Table 6: Offsite Waste Stream Disposal Summary

			PCB Bulk Product Waste[a]	PCB Remediation Waste[b]									Other Waste	
				Soils (<50ppm)										
			Painted Concrete >50 ppm[c]	Excavated Soils	Pre-cleanup IDW	Northern and Southern Stockpiles	Excavated Soils >50 ppm	Demolition Debris <50 ppm	Construction Debris <50 ppm	Concrete <50 ppm	Large Granitic Boulders	Construction Debris	Cleanup Waste (Solids) <50 ppm	Transit Pipe Fragment
Receiving Facility	**Facility Location**	**EPA ID**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**Tons**	**5-Gal Plastic Drum**
2019														
Recology Hay Road Landfill	Vacaville, CA	CAD982042475		43,066		873		1,872	778			60	<2	
U.S. Ecology	Nevada	NVT330010000			6		1,407							0.1
Potrero Hills Landfill	Suisun, CA										243			
2020														
Recology Hay Road Landfill	Vacaville, CA	CAD982042475		20,981				1,451					<2	
U.S. Ecology	Nevada	NVT330010000	11											
Potrero Hills Landfill	Suisun, CA									47				
PCBs Concentration Range			< 344 to 3,090 mg/kg[e]	NS[d]		< 0.0102 to 0.104 mg/kg	NS	< 0.0174 to 1.88 mg/kg	< 0.051 to 0.45 mg/kg	< 0.051 to 0.44 mg/kg	NS	< 0.0001 µg/wipe[f] to <1 µg/wipe	NS	< 0.104 to <0.115 mg/kg

Notes:

(a) PCB Remediation Waste: waste containing PCBs as a result of a spill or release (e.g., PCB-contaminated soil, sediments, and concrete).

(b) PCB Bulk Product Waste: waste derived from products manufactured to contain PCBs in a non-liquid state at 50 ppm or greater (e.g., paint, caulk).

(c) ppm = parts per million. 50 ppm is equivalent to 50 mg/kg.

(d) NS = not sampled. Disposal based on in situ concentrations identified during investigation, or not sampled in agreement with USEPA

(e) mg/kg = milligram per kilogram. "< value" indicates concentration was below the detection limit of "value".

(f) µg/wipe = micrograms per wipe sample.

Figures

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N

0 1,500 3,000

Feet

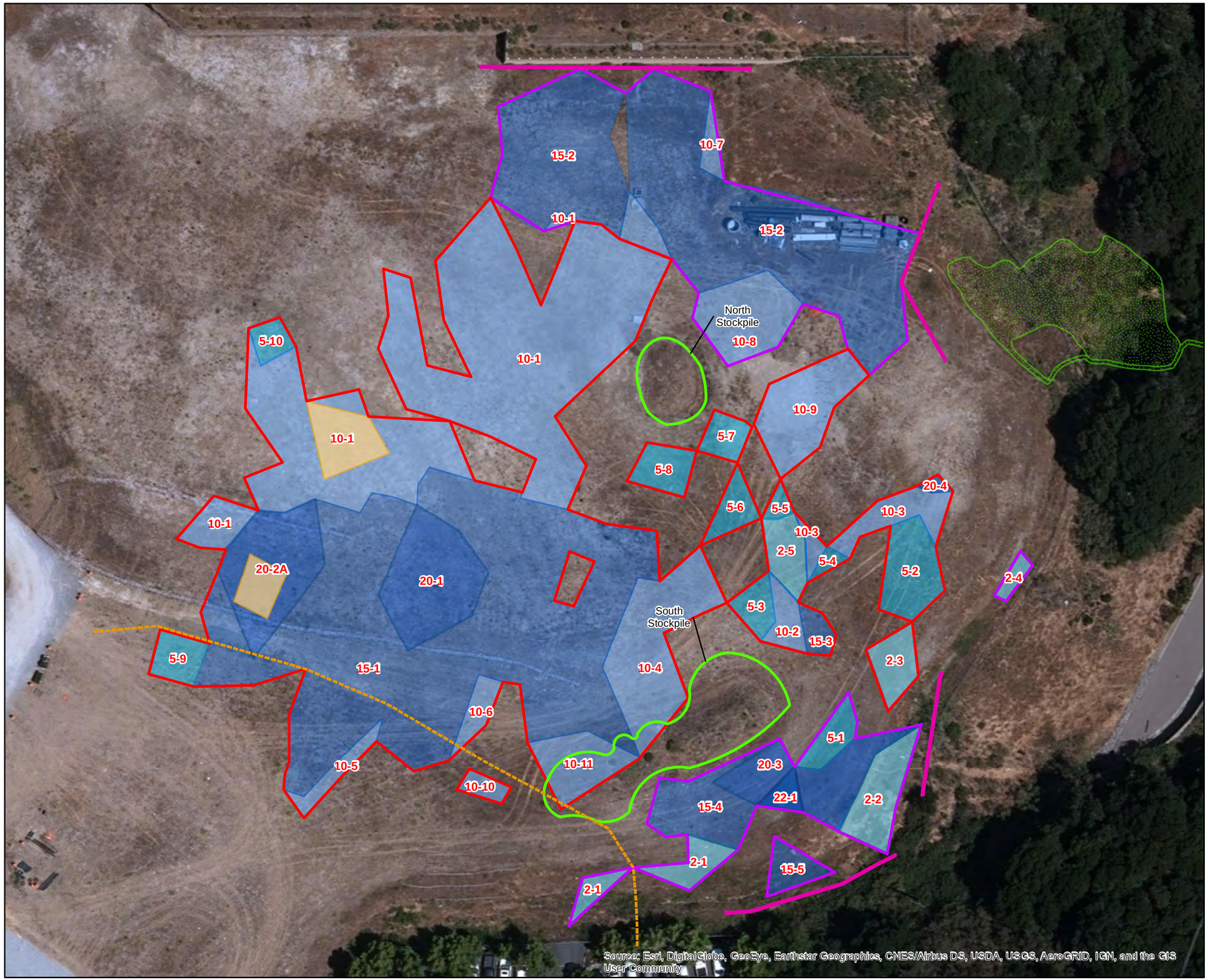
Kennedy/Jenks Consultants

Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Site Location Map

K/J 1565036.01
December 2020

Figure 1



Legend

- Shoring Walls
- Environmentally Sensitive Area Boundary
- Former Stockpiles
- 2019 Excavation Areas
- 2020 Excavation Areas
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Notes:
1. Environmentally Sensitive Area is the area south of the delineated line.
2. bgs = below grade surface

N

0 50 100
Feet

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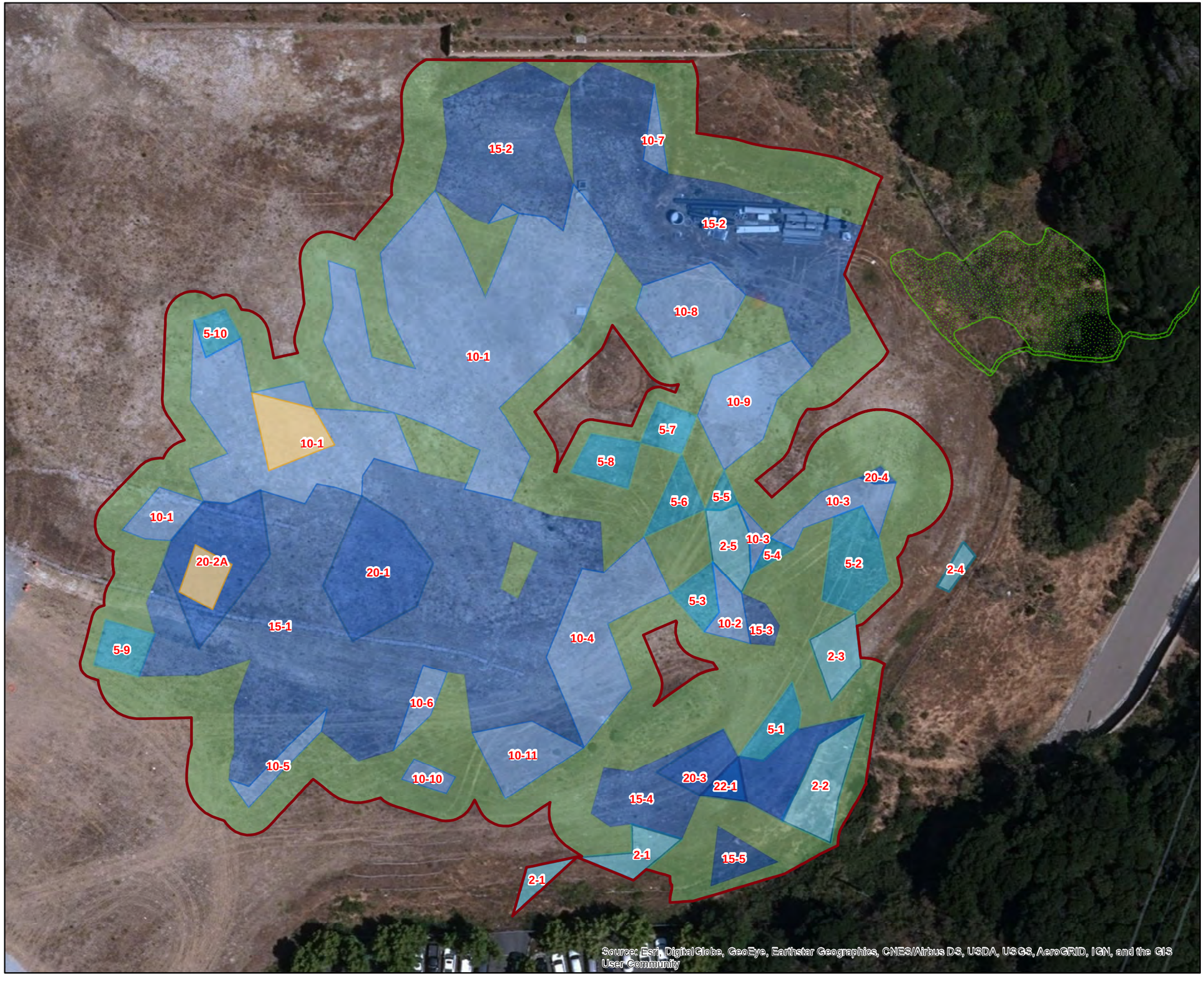
Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Existing Site Plan and Construction Phasing

K/J 1565036.01
December 2020

Figure 2

\\SF02\Z_Drive\Projects\Larkspur\Events\20200908_CCR\Fig02_PhasingSite.mxd



Legend

- Excavation Extents
- Layback Soils and Clean Material
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Note:
1. The top 2 ft. of the original grade surface is clean material and was removed and stockpiled for beneficial reuse.
2. bgs = below grade surface

N

0 50 100

Feet

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Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Layback Soils and Clean Material

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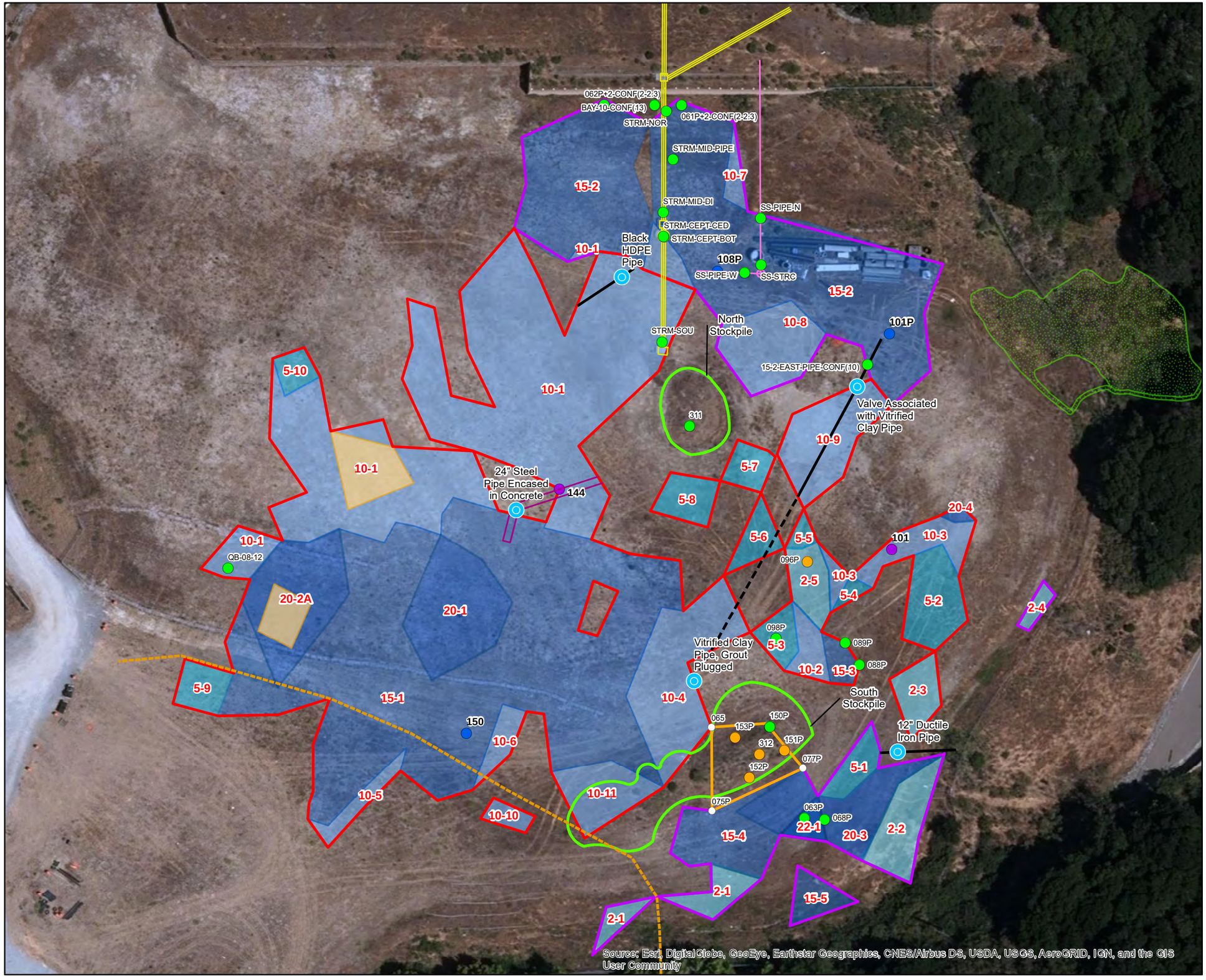
December 2020

Figure 3

\\SFO2Z_Drive\Projects\Larkspur\Events\20200908_CCR\Fig03_LaybackSoilsCleanMatl.mxd



Legend

- Clean Confirmation Sample Location
- Impacted Confirmation Sample Location
- Boring Location
- Unanticipated Features
- Environmentally Sensitive Area Boundary
- Approximate Pipe Alignment
- Pipe Location Field Observed
- Existing Abandoned Sewer System
- Existing Abandoned Concrete Encased Piping
- Existing Stomrdrain

Refusal Sample Locations

- No Test Pit Performed
- Test Pit
- Former Stockpiles
- 2019 Excavation Areas
- 2020 Excavation Areas
- Additional Excavation Area - 4 ft bgs
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Notes:
1. Environmentally Sensitive Area is the area south of the delineated line.
2. bgs = below grade surface
3. The # in Sample IDs with -CONF(#) indicates the depth of the sample in feet.
4. STRM-CEPT-CED and STRM-CEPT-BOT were taken at different depths in the same location.

N

0 50 100
Feet

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Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Planned Soil Confirmation Sampling, Refusal Soil Boring Locations, and Unanticipated Features

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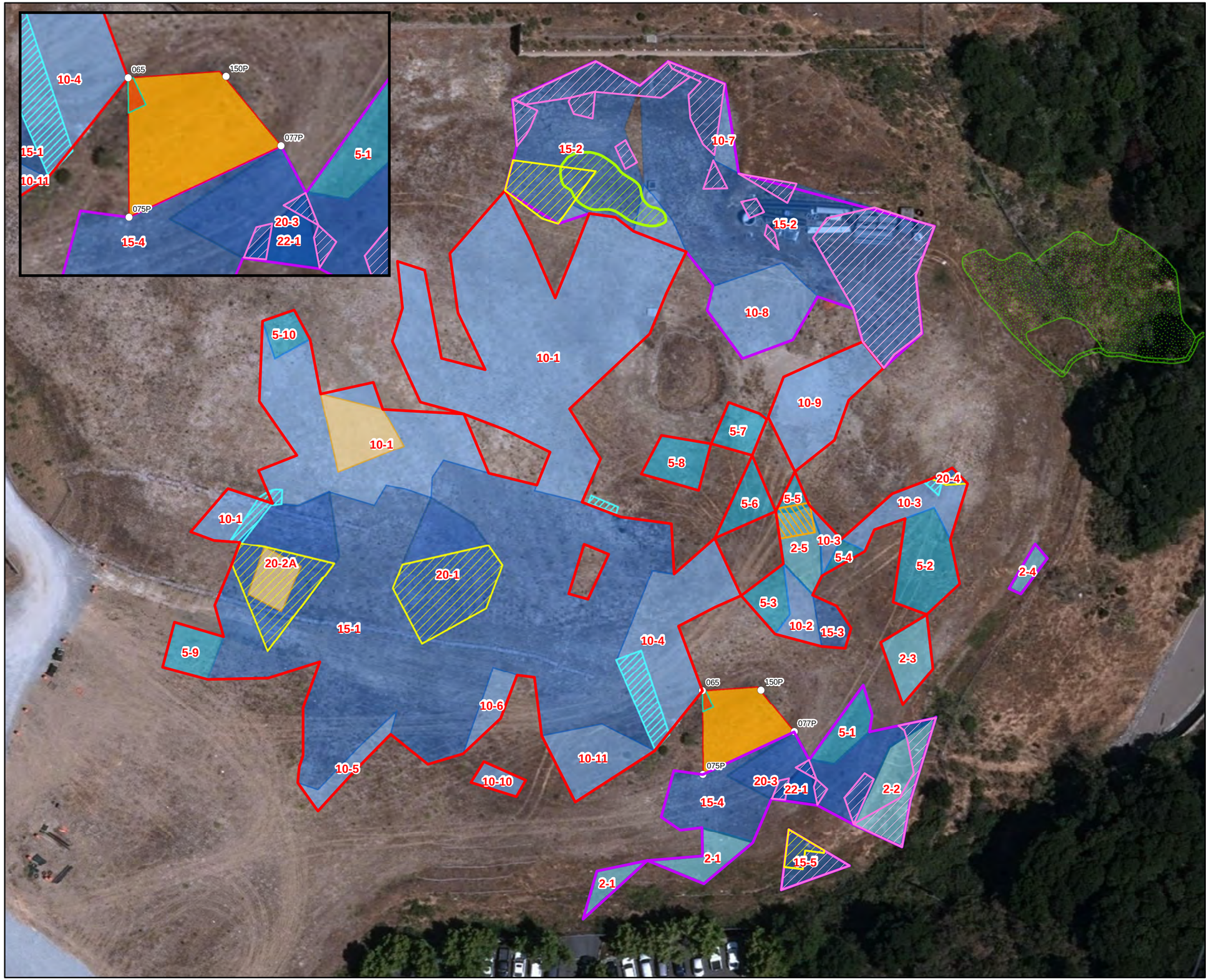
December 2020

Figure 4

\\SFO2\Z_Drive\Projects\LarkspurEvents\20200908_CCR\Fig04_PreexsitingStk_Boring.mxd



Legend

- Bedrock Encountered
- Native Material Encountered
- Unexpected Demolition Debris Encountered
- 2020 Excavation Areas
- 2019 Excavation Areas
- Boring Location
- Additional Excavation Area - 4 ft bgs
- Additional Excavation Area - 6 ft bgs

Over Excavation Area

- Demolition Debris Visually Observed
- Impacted Confirmation Sample
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Notes:
1. Additional Excavation was part of the Phase 2 construction that was completed in 2020.
2. bgs = Below Grade Surface
3. All locations are approximate.

N

0 50 100
Feet

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Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Native Material Encountered and Over Excavation Areas

K/J 1565036.01
August 2021

Figure 5

\\SFO2IZ_Drive\Projects\Larkspur\Events\20200908_CCR\Fig05_NativeMatlOverEx.mxd

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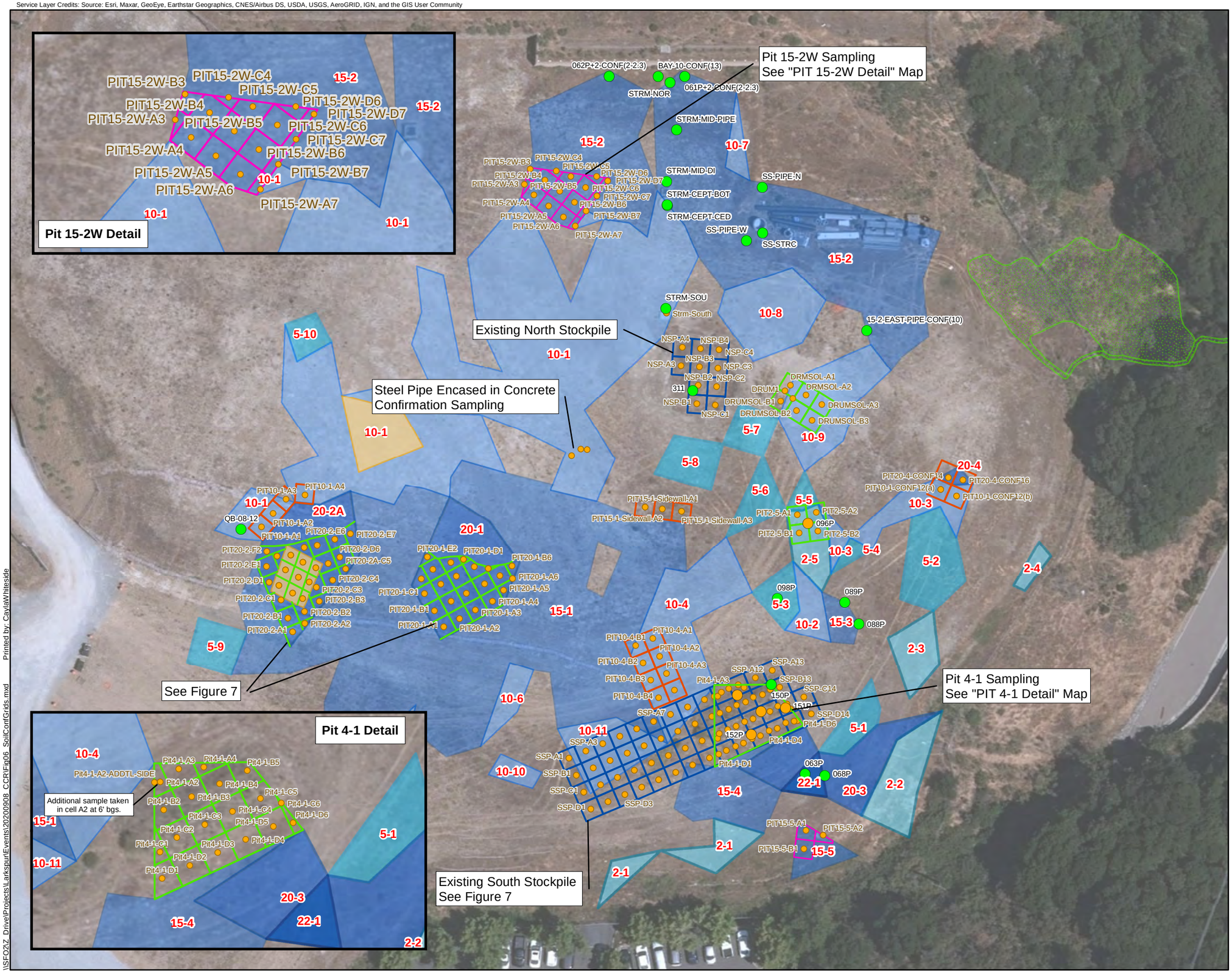

Legend

- Clean Confirmation Sample Location
- Impacted Confirmation Sample Location
- Unplanned Sampling Location
- Confirmation Sample Grid
- Demolition Debris Visually Observed Grid
- Former Stockpile Grid
- Native Material Sample Grid
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Note:
1. bgs = Below Grade Surface
2. Pit 4-1 Cell A2 confirmation sample indicated PCB impacts and additional excavation was performed. Additional samples taken in accordance with USEPA Conditional Approval procedure.
3. The steel pipe encased in concrete found in Pit 10-1 was sampled according to EPA requirements as detailed in Section 15.4.1 of the Construction Completion Report.

N

0 50 100

Feet

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Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Unplanned Soil Confirmation Sampling and Grid Locations

K/J 1565036.01
August 2021

Figure 6

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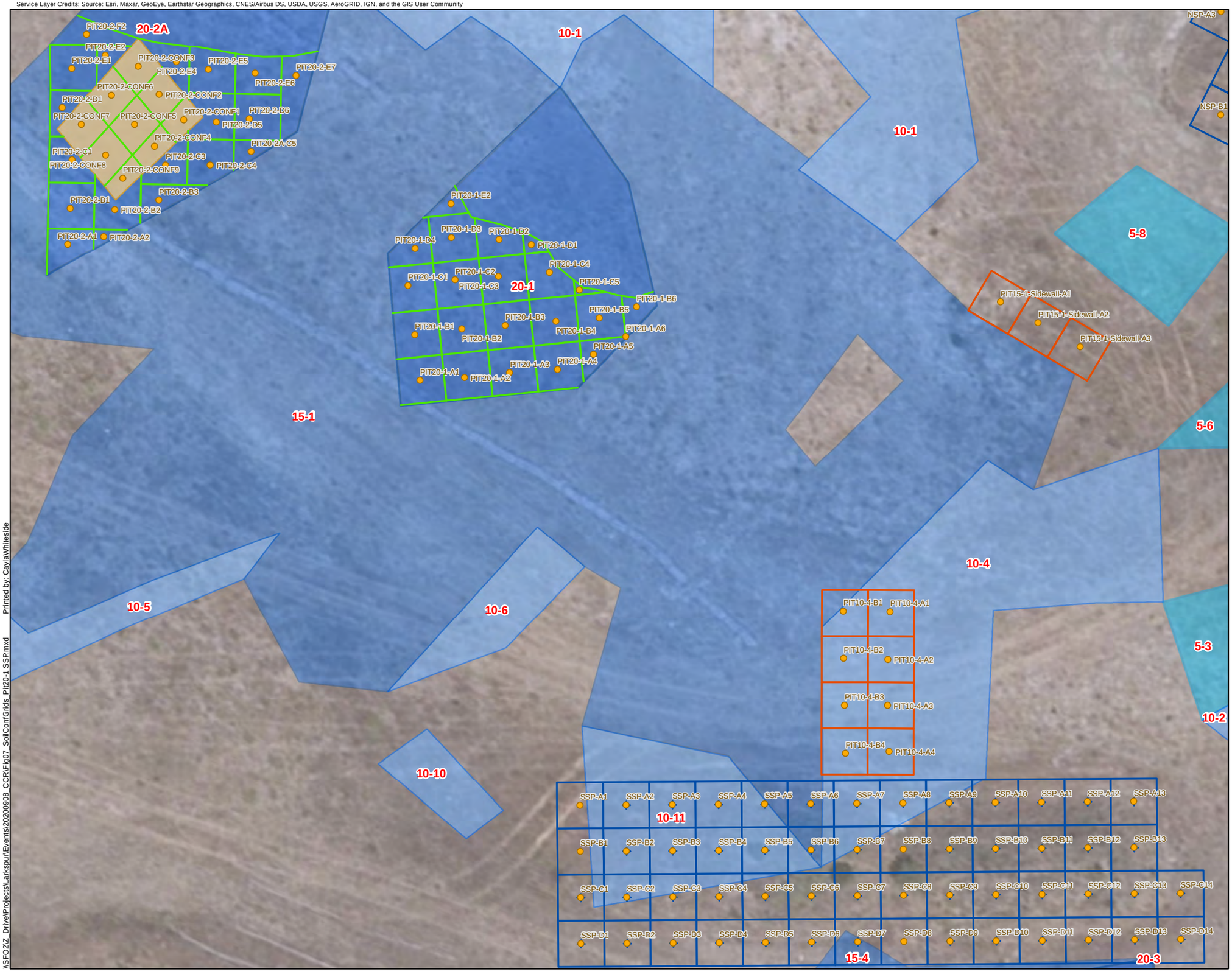

Legend

- Unplanned Sampling Location selection
- Native Material Sampling Grid
- Confirmation Sample Grid
- Demolition Debris Visually Observed Grid
- Former Stockpile Grid
- Seasonal Wetland
- Soils Disposed at Hazardous Waste Landfill
- Excavation Limits to Maximum 22 feet bgs
- Excavation Limits to Maximum 20 feet bgs
- Excavation Limits to Maximum 15 feet bgs
- Excavation Limits to Maximum 10 feet bgs
- Excavation Limits to Maximum 5 feet bgs
- Excavation Limits to Maximum 2 feet bgs

Note:
1. bgs = Below Grade Surface

N

0 20 40
Feet

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Former Larkspur Wastewater Treatment Plant Site
2000 Larkspur Landing Circle, Larkspur, CA

Unplanned Soil Confirmation Sampling and Grid Locations - Pit 20-1, Pit 20-2, and Existing South Stockpile

K/J 1565036.01
September 2020

Figure 7

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\\SFO2Z_DrivelProjects\LarkspurtEvents\20200908_CCRFig07_SoilConfGrids_Pit20-1 SSP.mxd