

Phase III Interim Action Summary Report – Ditch Remediation – Phase I for the Superlon Plastics Site Tacoma, Washington

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1. INTRODUCTION

This summary report presents the approach that was used in 2021 to conduct an Interim Action (IA) necessary to remediate a section of the industrial stormwater drainage ditch that separates the Superlon Plastics Property (Property), located at 2116 Taylor Way, Tacoma, Washington and the property known as the Haub Log Yard, located at 3408 Lincoln Avenue in Tacoma, Washington (Figure 1). The ditch is located on property owned by the Port of Tacoma (POT). The IA area was approximately 412 feet in length and had a maximum width of 75 feet (Figure 2).

This IA summary report has been prepared on behalf of the White Birch Group, LLC (White Birch) and the Chemours Company FC, LLC (Chemours). These companies are hereafter referred to as the Companies. The Companies retained Pacific Environmental and Redevelopment Corporation (PERC) and Pioneer Technologies Corporation (PIONEER) as their authorized agents to complete the work described in this summary report. The work was completed in accordance with the State of Washington Model Toxics Control Act (MTCA), Chapter 173- 340 of the Washington Administrative Code (WAC) under Agreed Order (AO) No. DE 5940.

PERC oversaw this work and PIONEER supplied technical assistance. The Project Laboratory was ARI Laboratories, Inc. of Tukwila, Washington. PERC Construction (PERCCON) of Snohomish, Washington was the general contractor.

Under the AO, the Companies are allowed to implement IAs to improve site conditions. The Phase I IAs consisted of the demolition of Building B and the removal of Occidental Chemical Waste Water sludge, while the Phase II IA focused on removing the soil beneath the former Building B. The purpose of this IA (i.e., Phase III) was to improve the environmental conditions of the ditch in a manner that is protective of human health and the environment.

2. BACKGROUND

Ditch sediment and surface water characterization was previously undertaken and the results were provided to Ecology in the *Technical Memorandum: Phase I and II Remedial Investigation for the Superlon Plastics Site* (PERC/PIONEER 2012a). However, conditions changed as a result of Gardner-Fields Products, a roofing and waterproofing products manufacturing business adjacent to the Property, releasing approximately 70,000 gallons of asphalt tar oil into the ditch on February 8, 2015 (Ecology 2015).

Gardner-Fields retained ERM to remediate the asphalt tar oil in the ditch, which included the removal of sediment. Post-remediation sediment samples were collected by ERM during the remediation of asphalt tar oil within the ditch. Following ERM's remediation efforts, elevated levels of arsenic (up to 330 mg/kg) and lead (up to 350 mg/kg) remained in the ditch (ERM 2015). Further assessment of the drainage ditch was necessary to obtain a better understanding of the current nature of constituent concentrations. PERC and PIONEER conducted further investigations with the findings described in section 3.

Remediation of on-property soils adjacent to the ditch occurred in 2018. During that work, some of the confirmation samples taken along the ditch-side sidewall of the excavations contained arsenic and/or lead concentrations above the Site's remediation Levels (RELs). Additional soil excavation was necessary to complete the remediation. This work was accomplished in the months of July, August and September of 2021 and is the subject of this report.

3. CHARACTERIZATION OF DRAINAGE DITCH SEDIMENT

Ditch sediment and surface water sampling was conducted by PERC/PIONEER on September 7th and 8th, 2016 and the results were documented in the *Remedial Investigation Phase IV Characterization of Drainage Ditch Sediment Report* (PERC/PIONEER 2017a). The sampling event was conducted to characterize the nature and extent of arsenic and lead and the total petroleum hydrocarbons (TPH) in the ditch sediment and in the surface water that remained after remediation of the asphalt tar oil spill.

Dominant freshwater wetland vegetation species (cattails and reed canary grass) were observed throughout the ditch. Since the shallow sediments were considered to be freshwater sediments, the sediment concentrations were compared to statewide sediment background concentrations, Freshwater Sediment Cleanup Objectives (SCOs), and Freshwater Sediment Cleanup Screening Levels (SCSLs). These levels were promulgated by Ecology in the Sediment Cleanup User's Manual II (Ecology 2015b).

Maximum concentrations and SCO/SCSL exceedances for all constituents were primarily located in surface sediment (i.e., 0-0.5 feet below the current ditch surface)]. All six samples contained arsenic concentrations greater than the SCO (14 mg/kg). Four of the six samples contained arsenic concentrations greater than the SCSL (120 mg/kg). No samples contained lead concentrations greater than the SCSL (1,300 mg/kg). The maximum concentrations of 4,000 mg/kg and 170 mg/kg for arsenic and lead, respectively, were present in the 0-0.5-foot sample at sample location SD-13. The maximum concentrations of 4,600 and 660 mg/kg for heavy oils and diesel, respectively, were present in the 0-0.5-foot sample at sample location SD-14. The majority of concentrations collected from 0.5 to 8 feet below ground surface (bgs) were non-detect or were detected below background soil concentrations. Residual contamination of heavy oils and diesel above SCSLs/SCOs, from the asphalt tar oil spill, remains in surface sediment in the ditch.

4. OBJECTIVE AND SUMMARY OF THE PROPOSED INTERIM ACTION

The objectives of the work were to excavate the:

- Top one foot of sediment in the ditch in areas where arsenic concentrations exceed the Freshwater SCOs and Freshwater SCSLs promulgated by Ecology in the Sediment Management Standards (Ecology 2013) (see Table 1);
- Eastern berm of the ditch where arsenic and lead concentrations exceed the MTCA industrial cleanup standards (Figure 2), hereafter referred to as "berm soil"; and
- Remaining berm soil between the Superlon/Port of Tacoma property line and the western limits of the excavations previously conducted on the Superlon Property in order to remediate arsenic and lead concentrations that exceed site-specific RELs (Figure 2).

This IA addressed the arsenic and lead concentrations that are present in the ditch adjacent to the Superlon property that are potentially associated with the Superlon site. The Companies accomplished the objectives of the Work Plan by implementing the scope of work described below.

5. REMEDIATION GOALS

SEDIMENT:

The remediation goals for arsenic occurring within the sediment (i.e., the biologically active zone sediment) were the Freshwater SCOs and Freshwater SCSLs promulgated by Ecology in the Sediment Management Standards (Ecology 2013) (see Table 1). The remediation goal for lead was the sediment cleanup objective of 360 mg/kg.

TABLE 1: SEDIMENT EXCAVATION CLEANUP CRITERIA			
SEDIMENT			
Metal	mg/kg	Basis	Point of Compliance
Arsenic	14	Freshwater Sediment Cleanup Objective	0–2-foot sediment
Lead	360	Sediment Cleanup Objective	0-2 foot sediment

SOILS UNDERLYING THE SEDIMENT:

The cleanup goals for arsenic and lead occurring within the soils underlying the sediment (i.e., non-biologically active soils) were the industrial land use cleanup levels listed on Table 2. The arsenic default industrial land use cleanup level is 88 mg/kg and is within the range of the MTCA freshwater sediment cleanup levels. In addition, the ditch is surrounded by property that is used for industrial purposes and where arsenic and lead are present due to the historical filling activities.

TABLE 2: SEDIMENT EXCAVATION CLEANUP CRITERIA – Soils underlying sediment			
SOIL UNDERLYING THE SEDIMENT			
Metal	mg/kg	Basis	Point of Compliance
Arsenic	88	MTCA Industrial Cleanup Level	2-15 feet bgs
Lead	1,000	MTCA Industrial Cleanup Level	2-15 feet bgs

BERM SOILS:

Table 3 lists the cleanup goals for soil located on the Superlon Property and off-property during this IA. The on-property RELs were established for the Superlon Property (PERC/PIONEER 2014) and agreed to by Ecology. These RELs will be used as the target concentrations for soils on-property. The target concentration for off-property soils are the MTCA default cleanup standards for industrial properties.

TABLE 3: BERM SOIL EXCAVATION CLEANUP CRITERIA – Berm Soils			
BERM SOILS ON-PROPERTY			
Metal	mg/kg	Basis	Point of Compliance
Arsenic	588	Remediation Level	0-15 feet bgs
Lead	750	Remediation Level	0-15 feet bgs
BERM SOILS OFF-PROPERTY			
Arsenic	88	MTCA Industrial Cleanup Level	0-15 feet bgs
Lead	1,000	MTCA Industrial Cleanup Level	0-15 feet bgs

6. DEVIATIONS FROM THE WORK PLAN

The following deviations from the Work Plan occurred during remediation:

- The vegetation in the entire ditch was cleared at the start of the program rather than being removed from three adjacent EUs as stated in the work plan. This was done to help in the dewatering of the ditch and due to the limited availability of the clearing equipment;
- Often the excavation of the top level of the berm soils was completed prior to the excavation of the sediment in the ditch. This was done to help in gaining access to the further reaches of the ditch and to aid in the stability of the excavation equipment;
- EUs were not always excavated perpendicular to the property boundary as described in the work plan. This change was necessary to:
 - Ensure that berm soils did not cave into sediment; and
 - Ensure that excavation equipment did not come into contract with Site buildings.
- Since sidewall caving was controllable by other means, trench boxes were not used in every case;
- The remediation started in the southernmost section of the ditch rather than the northernmost section as described in the work plan. This was due to standing water in the northernmost section of the ditch. Once the ditch was de-watered the remediation moved to the northernmost RAU as designed. The remediation progressed in a southerly direction until the area outlined in the work plan was completed.
- Sediment and the underlying soils were routinely excavated to 3 feet bgs rather than the one-foot target depth. This was due to the higher than expected concentrations of lead and/or arsenic in the sediment; and
- Approximately 2,403 cubic yards (CY) of sediment and soils were excavated and disposed of off-site rather than the 3,564 CY estimated in the work plan.

7. SCOPE OF WORK

7.1. SITE PREPARATION AND PRE-CONSTRUCTION

7.1.1. PRE-REMEDATION PERMITTING AND APPROVALS

The following permits and approvals were obtained prior to the initiation of work:

- Ecology’s approval of the Work Plan;
- US Dept. of Army Nationwide 38 permit. This permit was obtained through the Joint Aquatic Resource Permit Application (JARPA) process. This permit also confirmed the absence of other wetland/habitat constraints/requirements for permits from the City of Tacoma (COT) or Washington State Department of Fish and Wildlife (WDFW);
- A work order from the COT to conduct work within the COT right of way on the north end of the work area; and
- An access agreement from the Port of Tacoma to access the property.

7.1.2. CLEARING AND GRUBBING

The vegetation in the ditch and overlying the berm soils was mowed by Bob’s Property Solutions Company on June 15, 2021. The chips created by the clearing of the brush were left in place and collected as part of the excavation of the

sediment and berm soils. To allow access to the ditch five cottonwood trees were removed. The debris from these trees was disposed of as yard waste at the LRI landfill in Puyallup, Washington.

7.1.3. PRE-CONSTRUCTION SURVEY

The ditch and berm were surveyed by ESM Consulting Engineers prior to the start of work to determine the existing topography of the berm and the sediment within the ditch. Figure 4 is a result of that survey. It should be noted that the topography within the ditch indicates a drainage flow to the south prior to the start of the remediation rather than toward Lincoln Avenue as expected.

7.1.4. STORMWATER CONTROLS

The primary stormwater control consideration was to prevent any sediment or other contaminants from escaping the worksite either up- or downstream. The following, adapted from typical in-water work practices, was implemented:

- Work was completed during the time of lowest flow condition in this region.
- Cofferdams were installed as described in the work plan. A cofferdam was installed at each end of the planned excavation area and a third dam was constructed approximately twenty feet south of the northernmost planned excavation boundary. The third downstream cofferdam was installed to provide extra security so that any leakage from the first cofferdam could be detected and pumped out prior to the second cofferdam.
- The cofferdams were constructed of sand bags stacked two feet higher than the expected high-water level. The edges of the cofferdams were covered with compacted clay to prevent seepage.
- Excess water was pumped into a Baker Tank, tested to determine chemical concentrations. Once analyzed, it was determined that all chemical concentrations were below state standards and the excess water was pumped into the existing infiltration pond on the Superlon site.
- The cofferdams were slowly removed upon the completion of the work to avoid high-velocity flows.
- Exposed soils within the work area were stabilized using erosion control netting and erosion control matting. The matting was hydroseeded with Washington State Department of Transportation seed mix.

8. EXCAVATION AND STOCKPILING OF SEDIMENT AND BERM SOILS

8.1. CONDITIONS PRIOR TO REMEDIATION

The ditch consisted of patches of freshwater wetland vegetation species (cattails and reed canary grass), which overlay sediment/soil that collected within the ditch as a result of either soil backfilling of the surrounding properties between 1969 and 1973 or the runoff from these soils. The sediment consisted of clay- rich silt with varying degrees of organics. Prior to the remediation of asphalt tar oil within the ditch in 2015, a thick mat of organic material sat on top of the sediment. This material was removed during the ERM remediation.

Water occurred within the ditch at the start of the remediation process. This water was controlled with the installation of cofferdams and the pumping of the water into Baker Tanks. The collected water was analyzed, found to be within the disposal limits imposed for the Superlon Plastics and was pumped to the infiltration pond on-Property. Dry weather during the first four weeks of the remediation evaporated the water in the ditch leaving the ditch dry for excavation. Once the ditch was dry water was only encountered at depths greater than 2 feet in a limited number of excavations. This water was primarily from seepage from the sides of the excavations rather than in-place in the excavation.

8.2. GENERAL DESCRIPTION OF SOIL CHARACTERISTICS

The following is a general description of soil characteristics. Any additional observations are listed under the description of work completed in each RAU in section 12.

8.2.1. BERM SOIL:

Berm soils consisted of fine sand and gravel containing various degrees of debris and/or organics overlaying clay-rich silt with a high degree of marine grass (original tide flats). The debris included wood, metal, concrete, large rock and a black sand-sized, spherical, vitreous material called “shot”¹. Waste water treatment sludge, originating from the Occidental Chemical Plant, was encountered in RAU B14. This material, as described in a report to Ecology entitled *Sludge Excavation and Disposal for the Superlon Plastics Site, Tacoma, Washington* (PERC/PIONEER, 2012b), was collected and disposed of at the US Ecology facility in Idaho as hazardous waste. Soil containing petroleum (TPH) above remediation goals were discovered in RAU B1. These soils were excavated to the project limits and disposed of. TPH containing soils remain in the northmost sidewall of RAU B1 (Table 30).

8.2.2. DITCH LITHOLOGY:

Originally the top 6 inches of material in the drainage ditch (i.e., the biologically active zone) are considered to be freshwater sediments. Throughout the remediation of ditch sediment, the biologically active zone was observed to be up to two feet thick. The ditch sediment and underlying soil consisted of up 6-inches of fine sediment overlaying clay-rich silt with a high degree of marine grass (original tide flats) to approximately 2 feet. This was judged to be the biologically action zone (Figure 6). Under the top two feet was clay-rich silt (original tide flats).



Figure 6: Cross section of sediments showing biological active zone to 2 feet

¹ Shot is a black sand-sized, spherical, vitreous material produced as a waste material during the USG facility’s manufacture of mineral fiber insulation from 1959 to 1996.

8.3. REMEDIAL ACTION UNITS

In general, the excavation process was completed by excavating sediment and soil within a series of discrete remedial action units (RAU; see Figure 3). Each RAU included multiple smaller excavation units (EUs) which were roughly equal in size to the size of a 12 foot by 6-foot trench box.

Berm soil EUs were excavated either perpendicular or parallel to the length of the ditch. Sediment EUs were excavated perpendicular to the length of the ditch.

8.4. GENERAL EXCAVATION PROCESS AND FINDINGS

In general, the remediation process occurred in the following manner:

- The RAU boundary was marked;
- The sizes, number and target depth of the EUs were determined;
- The initial target depth of soil, as established by previous characterization data, was excavated, sampled and stockpiled to await analysis and designation for disposal. No excavated soil was used as backfill during this program;
- The base and, if necessary, sidewalls of the EU were sampled;
- The sample was sent to the on-site laboratory for analysis; and
- Depending on the laboratory analysis the excavation was either backfilled or the excavation was deepened until either remediation goals were met or the project's excavation limits were reached.

8.4.1. EXCAVATION PROCESS

The remediation started in the southernmost section of the ditch due to standing water in the northernmost section of the ditch. Once the ditch was de-watered the remediation moved to the northernmost RAU as designed in the Work Plan. The remediation progressed in a southerly direction until the area outlined in the work plan was completed.

To gain access to the further reaches of the ditch and to aid in the stability of the excavation equipment the berm soils were often remediated in lifts. An example would be RAU B6 where the first 4 feet of the berm was excavated and the soils were delivered to the stockpile for disposal. This was followed by the excavation of the sediment in the adjacent RAU (RAU D2). Once the sediment in RAU D2 was excavated RAU B6 was completed.

Trench boxes were used to control caving of the sidewalls and to ensure that the excavator could remove all of the berm soil that remained following the 2018 remediation of on-property soils adjacent to the ditch. Trench boxes were not required for EUs that contained soils not subject to caving and in the excavation of sediment where the depth of excavation was shallow; less than four feet in depth.

8.4.2. EXCAVATION OF SEDIMENT

The objective of this phase of the IA was to remove the biologically active zone of the sediment of approximately 408 linear feet of the sediment in the ditch in widths varying from 9 feet to 22 feet. Once work was underway it became clear that the biologically active zone was, in most cases, two feet thick.

The sediment was excavated in one foot lifts and the top 6-inches of the bottom of the excavation was sampled in each lift. If the bottom sample contained arsenic and/or lead concentration greater than the remediation goals the excavation was deepened an additional one foot and the resulting new bottom of the excavation was sampled. This continued until

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either the remediation goals were met, or the project excavation limits were reached. The approximate volume of sediment excavated and disposed of was 406 cubic yards (CY). The final excavation limits were those described in the work plan. Additional information related to the excavation of sediment in each RAU is presented in section 12.

The eastern excavation boundary was limited by the presence of the Haub Log Yard retaining wall. Excavation in the eastward direction was stopped when the possibility of undermining the wall was present.



Figure 7: Eastern excavation limit

8.4.3. EXCAVATION OF BERM SOILS

The objective of this phase of the IA was to remove the berm soils between the edge of the ditch and the Superlon property. The depth of the contaminated soils was initially estimated by data from sidewall sampling collected during the remediation of on-property soils in 2018. The final excavation depth was established by laboratory data collected from the bottom samples collected during excavation.

The excavation began approximately 30 feet northwest of the northwest Superlon property boundary and continued to the Superlon Property's southeast boundary (approximately 412 feet). The approximate volume of berm soil excavated and disposed of was 1,977 cubic yards (CY).

8.4.4. BERM SOIL EXCAVATION METHODS

The majority of the berm soil was excavated by reaching the excavator bucket from either the Superlon Property or on the eastern berm of the ditch (on POT property). The soil excavated in lifts and loaded into a front end loader for transport to the Superlon Property for treatment and storage until it could be transported off-site (section 8.4.5) .

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The remediation started in the southernmost section of the ditch due to standing water in the northernmost section of the ditch. Once the ditch was de-watered the remediation moved to the northernmost RAU as designed in the Work Plan. The remediation progressed in a southerly direction until the area outlined in the work plan was completed.

To gain access to the further reaches of the ditch and to aid in the stability of the excavation equipment the berm soils were often remediated in lifts. An example would be RAU B6 where the first 4 feet of the berm was excavated and the soils were delivered to the stockpile for disposal. This was followed by the excavation of the sediment in the adjacent RAU (RAU D2). Once the sediment in RAU D2 was excavated RAU B6 was completed.

Trench boxes were used, if necessary, to control caving of the sidewalls and to ensure that the excavator could remove all of the berm soil that remained following the 2018 remediation of on-property soils adjacent to the ditch. Trench boxes were not required for EUs that contained soils not subject to caving and in the excavation of sediment where the depth of excavation was shallow; less than four feet in depth.

Excavation occurred within trench boxes if caving of surrounding soils was anticipated and to allow for the removal of the soil up to the limits of the previously completed remediation of on- Property soil in 2018. As a result, the excavation was successful in removing all soils containing COCs above the remediation goals listed above. This method also ensured that the excavation remained open to collect samples.



Figure 8: Use of a Trench box and steel sheeting to ensure that all impacted soils are removed and prevent caving.

8.4.5. STOCKPILING AND DISPOSAL

Once excavated, the sediment/soil were transported (using a loader) to a stockpile on the Superlon property for storage, treatment, if required, and disposal at the appropriate landfill. Both treated and non-treated stockpiled sediment/soil were disposed of at the LRI Landfill in Puyallup, Washington following analysis for leachability and pH (by TCLP and pH analysis) and written approval from the Tacoma Pierce County Health Department. Two hundred and sixty three tons of

a mixture of waste water treatment sludge and soil found in RAU B14 was determined to be hazardous and was disposed of at the US Ecology Landfill in Grandview, Idaho. This process was in accordance with existing protocols for site soil management under the Ecology approved Remedial Design report (PERC/PIONEER 2017b) for the remediation of on-property soils at the Superlon Plastics Site.

9. CONFIRMATION SAMPLING

9.1. CONFIRMATION SAMPLING OF BERM SOILS AND SEDIMENT

Samples of the soil along the base of the excavation, at the northern and southern edges of the berm excavation and on the eastern edges of the sediment excavation were collected and analyzed (by the on-site XRF laboratory) for arsenic and lead as identified in the Superlon project's SAP/QAPP (PERC/PIONEER, 2019).

If necessary, excavations of berm soil RAU s were deepened until the soil samples collected in the bottoms of the excavations met remediation goals. The lateral excavation limits were defined by the edges of the RAU . Typically, if excavation goals were not reached at the edge of the RAU , the excavation was expanded and resampled. If, however, an extension of the excavation had the potential of undermining buildings on the Superlon Property (extensions to the east) additional excavation was not initiated. A sample representing the soil at the excavation limits was taken and analyzed. The results of the analyses are listed in section 13.

Samples of the soil along the base of the ditch excavation were collected and analyzed (by the on-site XRF laboratory) for arsenic and lead. If excavation goals were not reached, the excavation was deepened and resampled. Laterally the north and south excavation limits were defined by the permitted limits of the Nationwide 38 permit. To the west, if excavation goals were not reached at the edge of the RAU , the excavation was expanded and resampled. If, however, an extension of the excavation had the potential of undermining the retaining wall located on the Haub Log Yard (extensions to the west) no additional excavation was done. A sample representing the sediment at the excavation limits was taken and analyzed. The results of the analyses are listed in section 13.

The sampling process followed the procedures identified in the Superlon project's SAP/QAPP (PERC/PIONEER, 2019) with the following modification. A composite sample was collected from the top six inches of soil within each EU following soil removal. The composite sample consisted of five discrete grab samples randomly selected from the bottom of the excavation using an excavator bucket. The composite sample represented a maximum of approximately 60 square feet of the post excavation bottom of the EU. Typically, a minimum of five EU samples were collected from each RAU unless the size of the RAU was smaller than 500 square feet. In these cases, the RAU was divided into 3 to 5 sections and a sample was collected from each EU. The data received from these EU samples was averaged to develop the average concentrations of lead and arsenic in each RAU . The data and averages for the berm soils RAU s and the sediment RAU s are presented in section 12 below.

9.2. SIDEWALL SAMPLES

Samples of the soil along the northern, southern and northernmost 100 feet of eastern edges of the berm excavation and on the northern and western edges of the sediment excavations were collected and analyzed (by the on-site XRF laboratory) for arsenic and lead. Analysis for total petroleum hydrocarbons (TPH) was also conducted on the northernmost berm sidewall sample (RAU B1) due to the discovery of oil within the bank of the excavation. TPH analysis was done by ARI Laboratories, Inc. of Tukwila, Washington using methods NWTPH-D and NWTPH-HO.

Excavation side wall samples were collected and analyzed for three reasons;

- To guide the expansion of the excavation;
- To assess the concentrations of lead and arsenic that would remain under buildings and the retaining wall on the Haub Log Yard; and

- Determine if the remediation plan was successful in completing the work necessary to remediate the sediment in the ditch.

Sidewall samples were collected from intervals of the sidewalls that held the highest potential for exceedances of the remediation goals. This determination was based upon either data obtained from corresponding soil intervals sampled during excavation) or if visual debris or unnatural soil characteristics (color, staining, etc.) were observed. The sampling process followed the procedures identified in the Superlon project's SAP/QAPP (PERC/PIONEER 2019). A composite sample was collected from the target area within each EU following soil removal. The composite sample consisted of five discrete grab samples randomly selected from either the sidewall by hand or the sidewall using an excavator bucket. The data is presented in section 13 below.

10. RESTORATION

10.1. BACKFILLING - BERM SOIL EXCAVATIONS

Up to seven layers of material were used to backfill the berm soil excavations. In order of application, they were:

- A clay barrier liner;
- Backfill using 2-inch screened gravel borrow soil (a combination of minus 2-inch gravel and sandy soil);
- A utility sand liner to aid in erosion control;
- An erosion control net to aid in erosion control;
- Approximately 6 inches of commercially imported topsoil;
- A straw mat erosion control layer; and
- Hydroseed.

10.1.1. CREATION OF THE CLAY BARRIER

A clay barrier was installed following the excavation of the berm soils immediately adjacent to the Superlon Plastics property boundary. This clay barrier, made of pond liner grade clay, was installed to act as a barrier to the potential migration of pond water resident on the Superlon Property to the ditch. The clay was purchased from the CalPortland Company of Glendora, California from their plant in DuPont, Washington (specifications included in appendix 1).

The barrier was installed by excavating a trench to a depth of one foot within the clay-rich silt layer (approximately 10 feet below bgs) and filling the trench with clay. The clay was compacted using the bucket of the excavator. In the area of the excavation above the trench the clay was placed against the excavation sidewall (located along the Superlon Plastics property boundary), watered to improve cohesion and compacted in-place by the excavator (see photographs below).

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Figure 9: Construction of Clay barrier. Finished product. Note ragged edge of introduced fabric two feet bgs. The fabric was placed below the grade backfill was installed during remediation of the adjacent soils



Figure 10: Trench prior to filling with Clay

Figure 11: Clay -rich Silt layer excavated at the bottom of the trench

10.1.2. BACKFILL

Two-inch screened gravel borrow soil (a combination of minus 2 inch gravel and sandy soil) was used as backfill. The material was obtained from Corliss Resources of Sumner, Washington (specifications included in appendix 1).

10.1.3. UTILITY SAND LINER

Utility sand was used for erosion control in selected RAU s. The material was obtained from Corliss Resources of Sumner, Washington (specifications included in appendix 1).

10.1.4. BIODEGRADABLE EROSION CONTROL NETTING

The installation of the biodegradable erosion control netting was done by PERCCON staff prior the placement of topsoil.



Figure 12: Stock Photograph – Bio-gradable Erosion Control Netting (Product Installed)

10.1.5. COMMERCIALY IMPORTED TOPSOIL

A Bio-Retention Topsoil Mix was used to help facilitate growth of the hydroseed mix. This soil was obtained from Corliss Resources of Sumner, Washington (specifications included in appendix 1).

10.1.6. STRAW EROSION CONTROL BLANKETS

Straw erosion control blankets were installed by the Bag Lady Incorporated of Puyallup, Washington, a commercial landscaper, on September 29 and 30, 2021. This mat was used as erosion control and as a growth medium for the hydroseed mix.



Figure 13: Aerial view of straw mat prior to hydroseeding

10.1.7. HYDROSEED

The application of the hydroseed was done by the Bag Lady Incorporated of Puyallup, Washington, a commercial landscaper, on September 29 and 30, 2021. The hydroseed mix used was the WSDOT (without clover) seed mix (specifications included in appendix 1).



Figure 14: Aerial View 10 days after hydroseeding

10.2. BACKFILLING - SEDIMENT EXCAVATIONS

Restoration of the sediment excavation were done in two layers. If the excavation was deeper than the biological active zone (in this area 2 feet) clay was used to replace the soil excavated at greater than two feet. This was done to replace the clay-rich silt that was removed during the excavation. All sediment removed in the top two feet was replaced by a Steam bed Sediment mix obtained from Corliss Resources of Sumner, Washington (specifications included in appendix 2).



Figure 15: Typical Steam bed backfilling

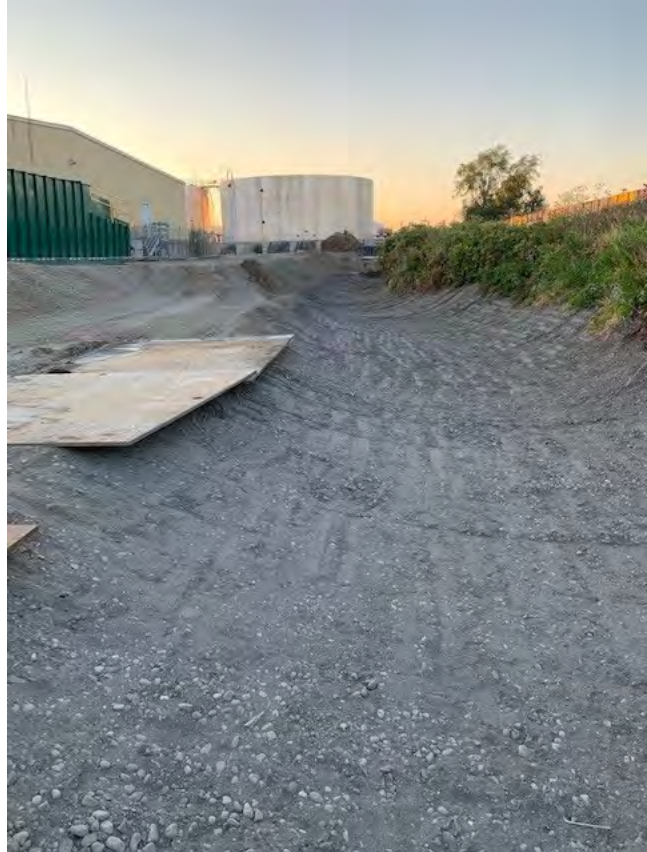


Figure 16: Completed ditch bed restoration prior to re-vegetation

10.3. RE-VEGETATION OF THE DITCH BED

No re-vegetation was necessary following the remediation of sediment and restoration of the sediment in the ditch bottom.

11. ARCHEOLOGICAL MONITORING

Daily monitoring for archeological resources was conducted by Historical Resources Incorporated (HRA) of Seattle, Washington. HRA’s report is attached as Appendix B. HRA did not detect or discover any historically significant objects.

12. RAU SPECIFIC EXCAVATION FINDINGS AND RESULTS

The soil type in each RAU was similar but contained varying debris types and staining. Observations that were atypical are listed below.

12.1. OBSERVATIONS AND ANALYTICAL RESULTS BY RAU

RAU -B1:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Black oil (TPH) was discovered and sampled in the northmost sidewall of the excavation. The TPH analytical data is listed on Table 30 in section 13.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 4: Analytical Data - Bottom Samples RAU B1					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B1	A1	10-10.5	9/1/2021	7	ND
RAU B1	B1	10-10.5	9/1/2021	ND	15
RAU B1	C1	10-10.5	9/1/2021	ND	17
RAU B1	D1	10-10.5	9/1/2021	ND	ND
RAU B1	E1	10-10.5	9/1/2021	7	13
Average Concentration				7	15

PHOTOGRAPHS OF THE EXCAVATION



Figure 17: Bottom of RAU B1. Note oil staining in headwall

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RAU -B2:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 5: Analytical Data - Bottom Samples RAU B2					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B2	A1	8-8.5	9/1/2021	18	18
RAU B2	B1	8-8.5	7/8/2021	8	22
RAU B2	C1	8-8.5	9/1/2021	13	18
Average Concentration				13	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 18: Bottom of RAU B2

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RAU -B3:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Black stained (no visible oil products) construction debris, a small amount of shot and other mixed waste in the eastern sidewall. A white drainage line was present in eastern sidewall. Excavation limit restricted by the presence of building.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 6: Analytical Data – Bottom Samples RAU B3					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B3	A1	8-8.5	7/13/2021	8	23
RAU B3	B1	8-8.5	7/13/2021	11	20
RAU B3	C1	8-8.5	7/13/2021	13	12
RAU B3	D1	8-8.5	7/13/2021	19	20
RAU B3	E1	8-8.5	7/13/2021	8	18
Average Concentration				12	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 19: Bottom of RAU B3 - NOTE physical debris and black stained soil in headwall of excavation



Figure 20: Eastern sidewall of RAU B3 underlying building D on the Superlon property. Note: Drainage line and presence of mixed debris and shot.



Figure 21: Shot collected from excavation headwall

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RAU -B4:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Black stained (no visible oil products) construction debris, a small amount of shot and other mixed waste in the 2 to 4 foot section of the eastern sidewall. A white drainage line was present in eastern sidewall. Excavation limit restricted by the presence of building.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 7: Analytical Data - Bottom Samples RAU B4					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B4	A1	8-8.5	7/14/2021	38	21
RAU B4	B1	8-8.5	7/15/2021	10	24
RAU B4	C1	8-8.5	7/15/2021	ND	18
RAU B4	D1	8-8.5	7/15/2021	15	19
RAU B4	E1	8-8.5	7/15/2021	12	15
Average Concentration				19	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 22: Bottom of RAU B4 – Eastward view

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RAU -B5:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Black stained (no visible oil products) construction debris, a small amount of shot and other mixed waste in the 2 to 4 foot section of the eastern sidewall. White stormwater line present in eastern sidewall. Excavation limit restricted by the presence of building.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 8: Analytical Data – Bottom Samples RAU B5					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B5	A1	8-8.5	7/20/2021	35	25
RAU B5	B1	8-8.5	7/20/2021	ND	16
RAU B5	C1	8-8.5	7/20/2021	36	22
RAU B5	D1	8-8.5	7/21/2021	20	19
RAU B5	E1	8-8.5	7/21/2021	13	17
Average Concentration				26	20

PHOTOGRAPHS OF THE EXCAVATION



Figure 23: RAU B5: Eastern sidewall at 0-5 feet: Note shot intermixed with soil on the right end of the excavation.

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Figure 24: RAU B5: Close up Eastern sidewall at 0-5 feet – NOTE: Presence of “Shot” in center of photograph

RAU -B6:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Black stained (no visible oil products) construction debris, a small amount of shot and other mixed waste in the 2 to 4 foot section of the eastern sidewall. A white drainage line was present in eastern sidewall. Excavation limit restricted by the presence of building. Bottom consisted of light brown clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 9: Analytical Data - Bottom Samples RAU B6					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B6	A1	8-8.5	7/26/2021	ND	21
RAU B6	B1	8-8.5	7/26/2021	65	22
RAU B6	C1	8-8.5	7/26/2021	42	21
RAU B6	D1	8-8.5	7/26/2021	17	18
RAU B6	E1	8-8.5	7/26/2021	45	19
Average Concentration				42	20

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Figure 25: Bottom of RAU B6 – NOTE Steel plates used to prevent sidewall caving



Figure 26: Use of steel plates and trench box to prevent caving

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RAU -B7:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 10: Analytical Data - Bottom Samples RAU B7					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B7	A1	8-8.5	7/28/2021	12	16
RAU B7	B1	8-8.5	7/28/2021	23	86
RAU B7	C1	8-8.5	7/28/2021	42	25
RAU B7	D1	8-8.5	7/28/2021	11	16
RAU B7	E1	8-8.5	7/28/2021	46	20
Average Concentration				27	33

PHOTOGRAPHS OF THE EXCAVATION



Figure 27: Bottom of RAU B7 – NOTE Steel plates used to prevent sidewall caving

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RAU -B8:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 11: Analytical Data - Bottom Samples RAU B8					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B8	A1	8-8.5	8/2/2021	ND	23
RAU B8	B1	8-8.5	8/2/2021	20	16
RAU B8	C1	8-8.5	8/2/2021	12	12
RAU B8	D1	6-6.5	8/2/2021	53	30
RAU B8	E1	6-6.5	8/2/2021	41	30
Average Concentration				32	22

PHOTOGRAPHS OF THE EXCAVATION



Figure 28: Bottom of RAU B8 – Note use of Trench box and steel sheets to prevent caving

RAU -B9:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 12: Analytical Data - Bottom Samples RAU B9					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B9	A1	8-8.5	8/11/2021	14	ND
RAU B9	B1	8-8.5	8/11/2021	ND	15
RAU B9	C1	8-8.5	8/11/2021	11	21
RAU B9	D1	8-8.5	8/10/2021	15	16
RAU B9	E1	8-8.5	8/10/2021	46	14
Average Concentration				22	17

PHOTOGRAPHS OF THE EXCAVATION



Figure 29: Bottom of RAU B9

RAU -B10:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 13: Analytical Data - Bottom Samples RAU B10					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B10	A1	8-8.5	8/18/2021	24	22
RAU B10	B1	6-6.5	8/18/2021	41	22
RAU B10	C1	6-6.5	8/18/2021	67	21
RAU B10	D1	8-8.5	8/17/2021	12	21
RAU B10	E1	8-8.5	8/17/2021	11	17
Average Concentration				31	21

PHOTOGRAPHS OF THE EXCAVATION



Figure 30: Bottom of RAU B10

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RAU -B11:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 14: Analytical Data - Bottom Samples RAU B11					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B11	A1	6-6.5	8/24/2021	16	23
RAU B11	B1	6-6.5	8/24/2021	50	44
RAU B11	C1	6-6.5	8/24/2021	16	21
RAU B11	D1	6-6.5	8/24/2021	17	14
RAU B11	E1	6-6.5	8/24/2021	46	55
Average Concentration				29	31

PHOTOGRAPHS OF THE EXCAVATION



Figure 31: Bottom of RAU B11 - NOTE Narrow width of the RAU

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RAU -B12:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018). Slight oil sheen on surface water due to seepage from eastern sidewall.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 15: Analytical Data - Bottom Samples RAU B12					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B12	A1	8-8.5	8/30/2021	26	18
RAU B12	B1	8-8.5	8/30/2021	19	19
RAU B12	C1	8-8.5	8/30/2021	23	13
RAU B12	D1	8-8.5	8/30/2021	30	18
RAU B12	E1	8-8.5	8/30/2021	24	37
Average Concentration				24	21

PHOTOGRAPHS OF THE EXCAVATION



Figure 32: Bottom of RAU B12 - NOTE Narrow width the RAU and oil sheen on water

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RAU -B13:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 16: Analytical Data - Bottom Samples RAU B13					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B13	A1	10-10.5	9/8/2021	17	22
RAU B13	B1	10-10.5	9/8/2021	15	17
RAU B13	C1	10-10.5	9/8/2021	14	16
RAU B13	D1	8-8.5	9/7/2021	37	15
RAU B13	E1	8-8.5	9/7/2021	18	24
Average Concentration				20	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 33: Bottom of RAU B13

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RAU -B14:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Waste water treatment sludge (see section 8.2.1) was present in this RAU . Excavated to the edge of the previous remediation excavation boundary (2018).

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 17: Analytical Data - Bottom Samples RAU B14					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B14	A1	7.5-8	9/14/2021	45	22
RAU B14	A2	8-8.5	9/20/2021	23	18
RAU B14	B1	6-6.5	9/14/2021	30	42
RAU B14	B2	8-8.5	9/21/2021	22	24
RAU B14	C1	6-6.5	9/14/2021	24	38
RAU B14	C2	8-8.5	9/21/2021	14	22
Average Concentration				28	28

PHOTOGRAPHS OF THE EXCAVATION



Figure 34: : Top 24 inches of RAU B14



Figure 35: Bottom of RAU B14



Figure 36: Excavation of RAU B14 - Note Waste water sludge as white band in sidewall

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RAU -B15:

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant change in soil general soil type. Non-coated concrete blocks, dark grey to black soil was present in east ¼ of A4 (located on the Superlon Property – RAU B15A4). Non-coated concrete blocks were present in the southern boundary indicating the material is fill.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 18: Analytical Data - Bottom Samples RAU B15

RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU B15	A1	6-6.5	6/29/2021	18	36
RAU B15	A2	6-6.5	6/29/2021	16	55
RAU B15	A3	6-6.5	6/30/2021	19	27
RAU B15	A4	6-6.5	6/30/2021	33	40
RAU B15	B2	6-6.5	6/29/2021	48	37
RAU B15	B3	6-6.5	6/30/2021	22	33
RAU B15	B4	6-6.5	6/30/2021	53	47
Average Concentration				30	39

PHOTOGRAPHS OF THE EXCAVATION



Figure 37: South wall of excavation on Port property. Sand and silt fill with rocks and concrete blocks

RAU -D1

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 19: Analytical Data - Bottom Samples RAU D1					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D1	A1	3-3.5	7/19/2021	30	18
RAU D1	B1	3-3.5	7/19/2021	14	22
RAU D1	C1	3-3.5	7/19/2021	32	15
RAU D1	D1	3-3.5	7/19/2021	60	21
RAU D1	E1	3-3.5	7/19/2021	36	18
Average Concentration				34	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 38: Bottom of RAU D1 NOTE: Clay-rich Silt bottom

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RAU -D2

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 20: Analytical Data - Bottom Samples RAU D2					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D2	A1	3-3.5	8/3/2021	40	16
RAU D2	B1	3-3.5	8/3/2021	20	18
RAU D2	C1	3-3.5	8/3/2021	16	20
RAU D2	D1	3-3.5	8/3/2021	19	16
RAU D2	E1	3-3.5	8/3/2021	23	23
Average Concentration				24	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 39: Bottom of RAU D2 NOTE: Three foot thickness of clay-rich silt bottom

RAU -D3

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 21: Analytical Data - Bottom Samples RAU D3					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D3	A1	3-3.5	8/4/2021	36	20
RAU D3	B1	3-3.5	8/4/2021	17	17
RAU D3	C1	3-3.5	8/4/2021	86	23
RAU D3	D1	3-3.5	8/4/2021	27	17
RAU D3	E1	3-3.5	8/4/2021	18	13
Average Concentration				37	18

PHOTOGRAPHS OF THE EXCAVATION



Figure 40: Bottom and western sidewall of RAU D3

**Phase III Interim Action Summary Report –
Ditch Remediation – Phase I
February 14, 2022**

RAU -D4

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 22: Analytical Data - Bottom Samples RAU D4					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D4	A1	3-3.5	8/9/2021	27	18
RAU D4	B1	3-3.5	8/9/2021	25	21
RAU D4	C1	3-3.5	8/9/2021	44	15
RAU D4	D1	3-3.5	8/9/2021	33	19
RAU D4	E1	3-3.5	8/9/2021	39	16
Average Concentration				34	18

PHOTOGRAPHS OF THE EXCAVATION



Figure 41: Bottom and western sidewall of RAU D4

**Phase III Interim Action Summary Report –
Ditch Remediation – Phase I
February 14, 2022**

RAU -D5

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 23: Analytical Data - Bottom Samples RAU D5					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D5	A1	3-3.5	8/16/2021	35	13
RAU D5	B1	3-3.5	8/16/2021	24	21
RAU D5	C1	3-3.5	8/16/2021	18	19
RAU D5	D1	3-3.5	8/16/2021	25	22
RAU D5	E1	3-3.5	8/16/2021	37	13
Average Concentration				28	18

PHOTOGRAPHS OF THE EXCAVATION



Figure 42: Bottom and western sidewall of RAU D3 NOTE Gravel in foreground is RAU B7

RAU -D6

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 24: Analytical Data - Bottom Samples RAU D6					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D6	A1	3-3.5	8/19/2021	81	18
RAU D6	B1	3.5-4	8/23/2021	66	15
RAU D6	C1	3-3.5	8/19/2021	63	13
RAU D6	D1	3-3.5	8/19/2021	71	19
RAU D6	E1	3-3.5	8/19/2021	15	20
Average Concentration				59	17

PHOTOGRAPHS OF THE EXCAVATION



Figure 43: Bottom and western sidewall of RAU D6

RAU -D7

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 25: Analytical Data - Bottom Samples RAU D7					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D7	A1	2-2.5	8/24/2021	30	15
RAU D7	B1	2-2.5	8/25/2021	22	13
RAU D7	C1	2-2.5	8/25/2021	23	20
RAU D7	D1	3-3.5	8/25/2021	58	20
RAU D7	E1	2-2.5	8/25/2021	56	16
Average Concentration				38	17

PHOTOGRAPHS OF THE EXCAVATION



Figure 44: Bottom and western sidewall of RAU D7

RAU -D8

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 26: Analytical Data - Bottom Samples RAU D8					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D8	A1	3-3.5	8/31/2021	20	ND
RAU D8	B1	3-3.5	8/31/2021	15	14
RAU D8	C1	3-3.5	8/31/2021	24	ND
RAU D8	D1	3-3.5	8/31/2021	45	16
RAU D8	E1	3-3.5	8/31/2021	55	26
Average Concentration				32	19

PHOTOGRAPHS OF THE EXCAVATION



Figure 45: Bottom and western sidewall of RAU D8

RAU -D9

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 27: Analytical Data - Bottom Samples RAU D9					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D9	A1	3-3.5	9/13/2021	11	20
RAU D9	B1	4-4.5	9/13/2021	56	12
RAU D9	C1	3-3.5	9/13/2021	67	12
RAU D9	D1	3-3.5	9/13/2021	28	21
RAU D9	E1	3-3.5	9/13/2021	24	12
Average Concentration				37	15

PHOTOGRAPHS OF THE EXCAVATION



Figure 46: Bottom and western sidewall of RAU D9

RAU -D10

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 28: Analytical Data - Bottom Samples RAU D10					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D10	A1	2-2.5	9/15/2021	33	19
RAU D10	B1	3-3.5	9/15/2021	58	20
RAU D10	C1	2-2.5	9/15/2021	45	19
RAU D10	D1	3-3.5	9/15/2021	55	12
RAU D10	E1	2-2.5	9/15/2021	25	29
Average Concentration				43	20

PHOTOGRAPHS OF THE EXCAVATION



Figure 47: Bottom and western sidewall of RAU D10

RAU -D11

OBSERVATIONS SPECIFIC TO THIS RAU :

No significant differences in soil type from general description. Ditch sediment with organics to two feet bgs (cattail and grass roots to one foot, deeper roots to two feet) underlain by clay-rich silt.

CONFIRMATION DATA – BOTTOM OF EXCAVATION

TABLE 29: Analytical Data - Bottom Samples RAU D11					
RAU	EU	DEPTH	DATE SAMPLED	Arsenic (mg/kg)	Lead (mg/kg)
RAU D11	A1	2-2.5	7/7/2021	72	26
RAU D11	B1	2-2.5	7/7/2021	82	20
RAU D11	C1	2-2.5	7/7/2021	61	20
RAU D11	D1	2-2.5	7/7/2021	87	19
RAU D11	E1	3-3.5	7/7/2021	36	22
Average Concentration				68	21

PHOTOGRAPHS OF THE EXCAVATION



Figure 48: Bottom and western sidewall of RAU D11

13. EXCAVATION SIDEWALL SAMPLING

To determine the effectiveness of the remediation at the excavation limits soil samples were collected.

13.1. SIDEWALL SAMPLE ANALYTICAL RESULTS

The data received from the on-site laboratory of the sidewall samples is presented below. Samples listed as “east sidewall” are samples collected from the soils adjacent to Building D on the Superlon Site. Samples listed as “west sidewall” are samples collected from the soils adjacent to the retaining wall on the Haub Log Yard. The sample listed as “north sidewall” are samples collected of the sediment in the ditch at the northernmost excavation boundary. The sample listed as “south sidewall” are samples collected of the berm soils at the southern property boundary.

TABLE 30: Analytical Data Sidewall Samples					RAU B1	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU B1	East Sidewall - Under Building D	0	2	9/8/2021	6,244	6,770
RAU B1	East Sidewall - Under Building D	2	6	9/8/2021	465	267
RAU B1	East Sidewall - Under Building D	6	9	9/8/2021	1,267	2,573
RAU B1	North Sidewall - North Excavation Boundary	2	4	9/8/2021	521	27
RAU B1	North Sidewall - North Excavation Boundary	4	6	9/8/2021	933	27
RAU B1	North Sidewall - North Excavation Boundary	6	8	9/8/2021	555	3,851
RAU B1	North Sidewall - North Excavation Boundary	8	10	9/8/2021	3,124	7,395
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	DIESEL	MOTOR OIL
RAU B1	North Sidewall - North Excavation Boundary	3	4	9/8/2021	1,680	9,120
RAU B1	North Sidewall - North Excavation Boundary	4	5	9/8/2021	3,020	11,400
RAU B1	North Sidewall - North Excavation Boundary	5	6	9/8/2021	3,400	8,970

TABLE 31: Analytical Data Sidewall Samples					RAU B5	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU B5	East Sidewall - Under Building D	3	6	7/21/2021	6,158	3,057
RAU B5	East Sidewall - Under Building D	6	8	7/21/2021	1,204	93

TABLE 32: Analytical Data Sidewall Samples					RAU B6	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU B6	East Sidewall - Under Building D	3	6	7/27/2021	803	3,345
RAU B6	East Sidewall - Under Building D	6	8	7/27/2021	411	179

TABLE 33: Analytical Data Sidewall Samples					RAU B7	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU B7	East Sidewall - Under Building D	3	6	7/28/2021	1,716	2,902

**Phase III Interim Action Summary Report –
Ditch Remediation – Phase I
February 14, 2022**

RAU B7	East Sidewall - Under Building D	6	8	7/28/2021	139	888
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TABLE 34: Analytical Data Sidewall Samples					RAU B15	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU B15	South Sidewall	3	6	6/30/2021	121	67

TABLE 35: Analytical Data Sidewall Samples					RAU D1	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D1	North Sidewall - North Excavation Boundary	0	1	7/20/2021	498	120
RAU D1	North Sidewall - North Excavation Boundary	1	2	7/20/2021	1,549	51
RAU D1	North Sidewall - North Excavation Boundary	2	3	7/20/2021	206	15
RAU D1	West Sidewall - Adjacent to Haub Retaining Wall	0	1	7/20/2021	312	337
RAU D1	West Sidewall - Adjacent to Haub Retaining Wall	1	2	7/20/2021	527	125
RAU D1	West Sidewall - Adjacent to Haub Retaining Wall	2	3	7/20/2021	48	18

TABLE 36: Analytical Data Sidewall Samples					RAU D2	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D2	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/3/2021	83	30
RAU D2	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/3/2021	78	18

TABLE 37: Analytical Data Sidewall Samples					RAU D3	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D3	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/4/2021	203	101
RAU D3	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/4/2021	51	19

TABLE 38: Analytical Data Sidewall Samples					RAU D4	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D4	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/9/2021	146	45
RAU D4	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/9/2021	93	23

TABLE 39: Analytical Data Sidewall Samples					RAU D5	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D5	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/16/2021	353	27
RAU D5	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/16/2021	72	18

**Phase III Interim Action Summary Report –
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February 14, 2022**

TABLE 40: Analytical Data Sidewall Samples					RAU D6	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D6	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/18/2021	281	199
RAU D6	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/18/2021	188	22

TABLE 41: Analytical Data Sidewall Samples					RAU D7	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D7	West Sidewall - Adjacent to Haub Retaining Wall	0	2	8/25/2021	32	43
RAU D7	West Sidewall - Adjacent to Haub Retaining Wall	2	3	8/25/2021	16	19

TABLE 42: Analytical Data Sidewall Samples					RAU D8	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D8	West Sidewall - Adjacent to Haub Retaining Wall	0	2	9/1/2021	86	ND

TABLE 43: Analytical Data Sidewall Samples					RAU D9	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D9	West Sidewall - Adjacent to Haub Retaining Wall	0	2	9/13/2021	274	44
RAU D9	West Sidewall - Adjacent to Haub Retaining Wall	2	3	9/13/2021	158	23
RAU D9	West Sidewall - Adjacent to Haub Retaining Wall	3	4	9/13/2021	37	16

TABLE 44: Analytical Data Sidewall Samples					RAU D10	
RAU	Location	Top of Interval	Bottom of Interval	Date Sampled	Arsenic (mg/kg)	Lead (mg/kg)
RAU D9	West Sidewall - Adjacent to Haub Retaining Wall	0	2	9/20/2021	154	32
RAU D9	West Sidewall - Adjacent to Haub Retaining Wall	2	3	9/20/2021	146	25

14. DECONTAMINATION OF EQUIPMENT AND PERSONNEL

Decontamination of personnel and equipment followed the procedures identified in the Superlon project's HASP (PERC/PIONEER 2020).

15. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER WORK

Whereas the remediation of sediment and berm soils did remove soils above the remediation levels in all of the excavated RAU s soil and sediment with concentrations of lead and/or arsenic remain above remediation goals in selected excavation sidewalls. These data largely occur in areas that will require the removal of overlying structures (building on the Superlon Property and the Haub Log Yard retaining wall. Samples taken in the northernmost sediment sidewalls contain concentrations of lead and/or arsenic remain above remediation goals and are accessible to remediation equipment. A Work Plan entitled *Supplemental Phase III Interim Action Work Plan –Ditch Remediation Ditch Work Area Expansion and Additional Characterization Sampling Plan* (PERC/PIONEER, 2022) has been submitted to Ecology for approval. Remediation of these soils as planned for 2022.

16. REFERENCES

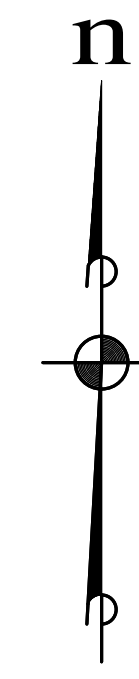
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FIGURES

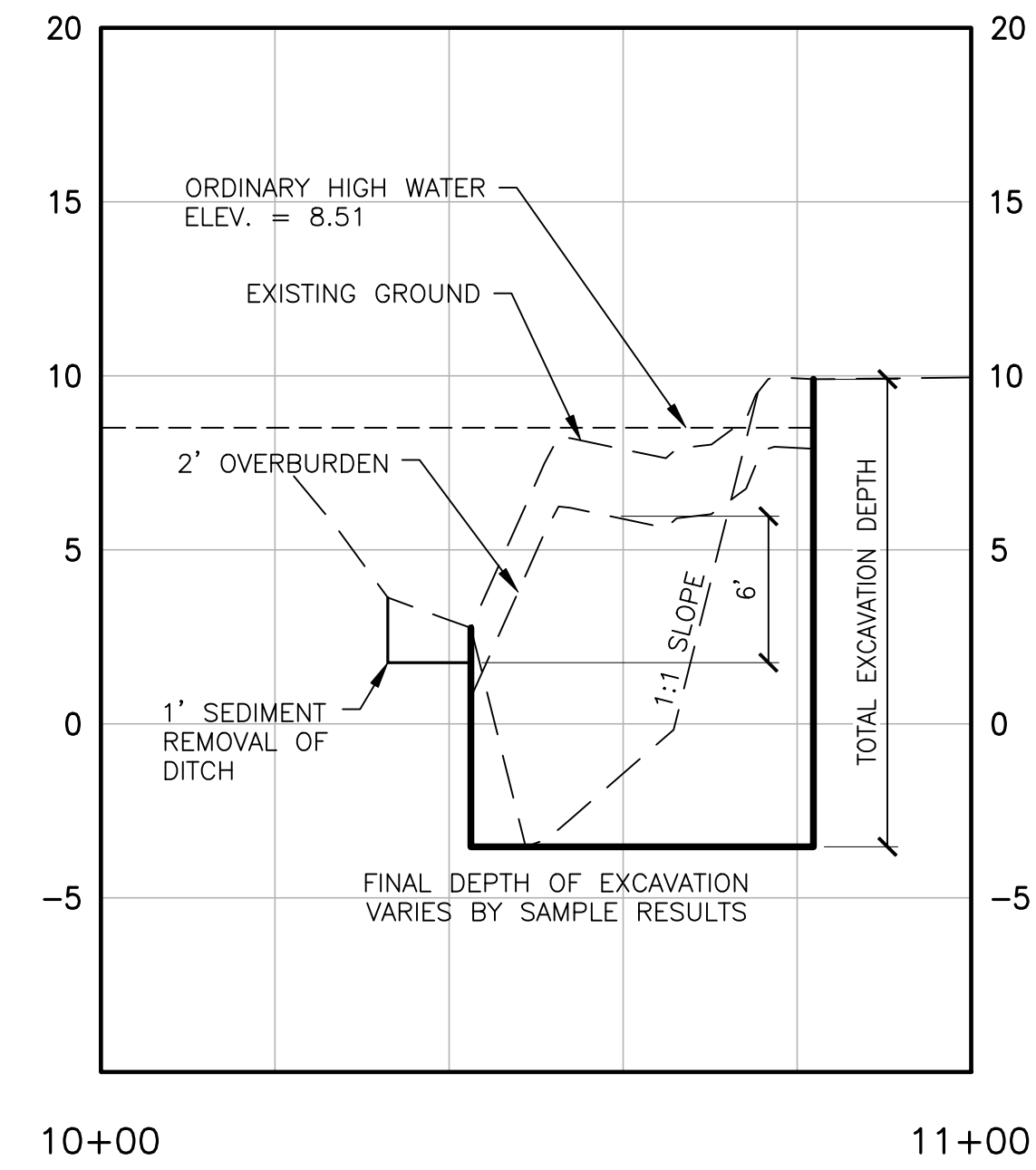


Site Location
 Ditch Interim Action
 Superlon Plastics Site, Tacoma, Washington

Figure 1

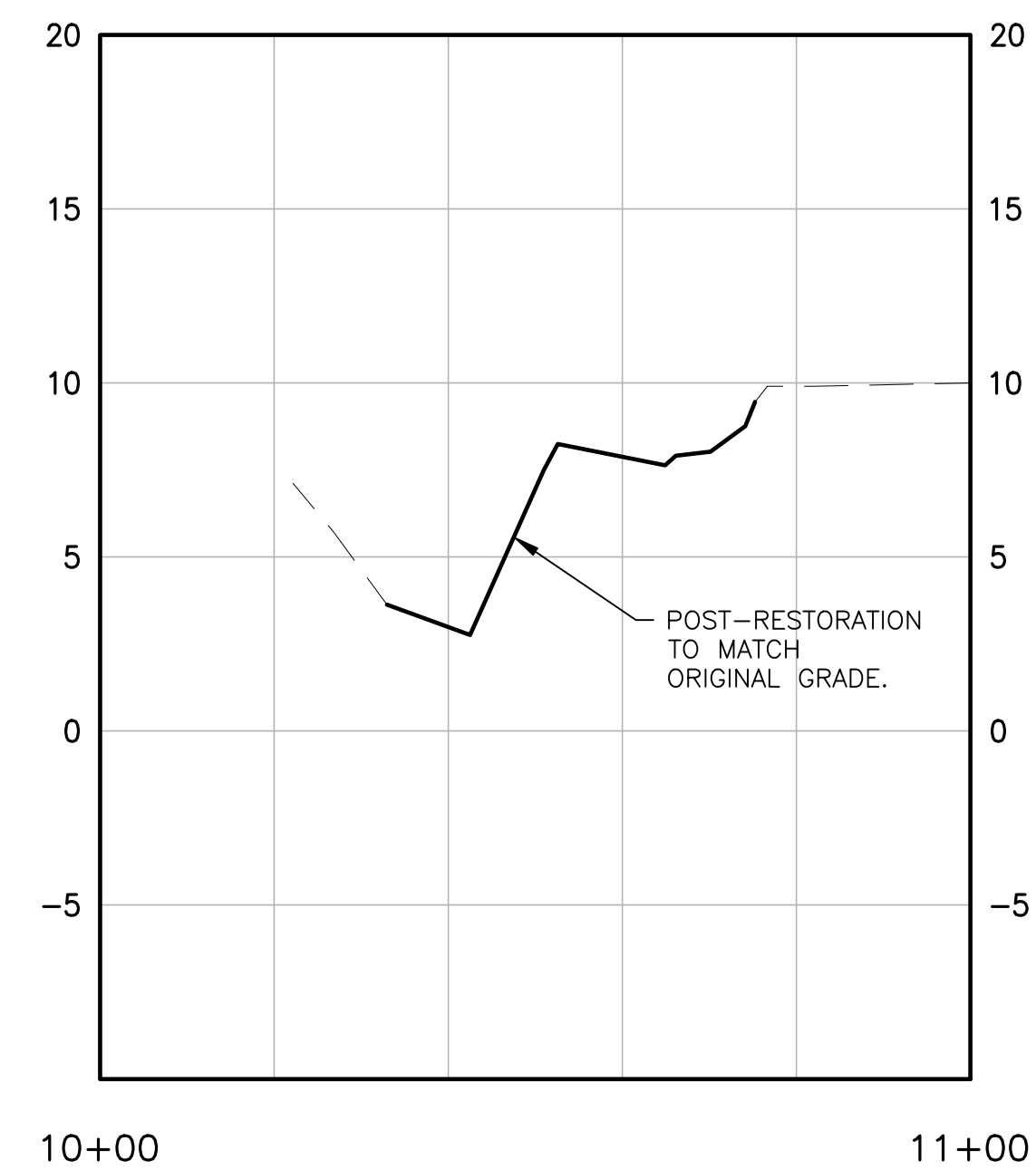


SCALE: 1" = 20'
 CONTOUR INTERVAL = 1'



**TYPICAL EXCAVATION
 CROSS-SECTION A-A**
 SCALE: 1"=20' HORIZ.
 1"=5' VERT.

Reference Number:
 Applicant Name: Jeff King
 Proposed Project: Removing Soil
 Location: 3408 Lincoln Ave
 Sheet 4 of 4 Date: 05/07/2020

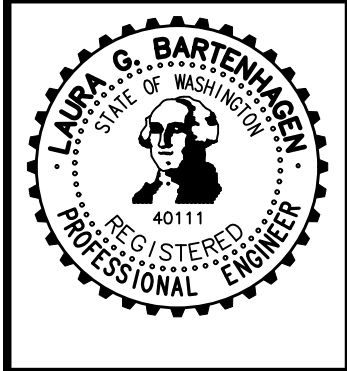


**CONCEPTUAL POST-RESTORATION
 CROSS-SECTION A-A**
 SCALE: 1"=20' HORIZ.
 1"=5' VERT.

ESTIMATED EXCAVATION VOLUMES
 DITCH 1' SEDIMENT: 141 CY
 OVERBURDEN 2': 729 CY
 OTHER SOILS: 2,750 CY

Figure 2: EN-13

REVISIONS		
NO.	DESCRIPTION/DATE	BY



ESM CONSULTING ENGINEERS, LLC
 FEDERAL WAY
 33400 8th Ave S, Suite 205
 Federal Way, WA 98003
 www.esmcivil.com
 Civil Engineering | Land Surveying | Project Management | Landscape Architecture
 (206) 835-6113
 (206) 837-9900

JEFF KING
SUPERLON PLASTICS
 DITCH REMEDIATION EXHIBIT
 CITY OF TACOMA WASHINGTON

JOB NO.: 1624-001-009
 DWG. NAME: EN-13
 DESIGNED BY:
 DRAWN BY: DCL
 CHECKED BY:
 DATE: 05/07/2020
 DATE OF PRINT:

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 Plotted By: jeff king

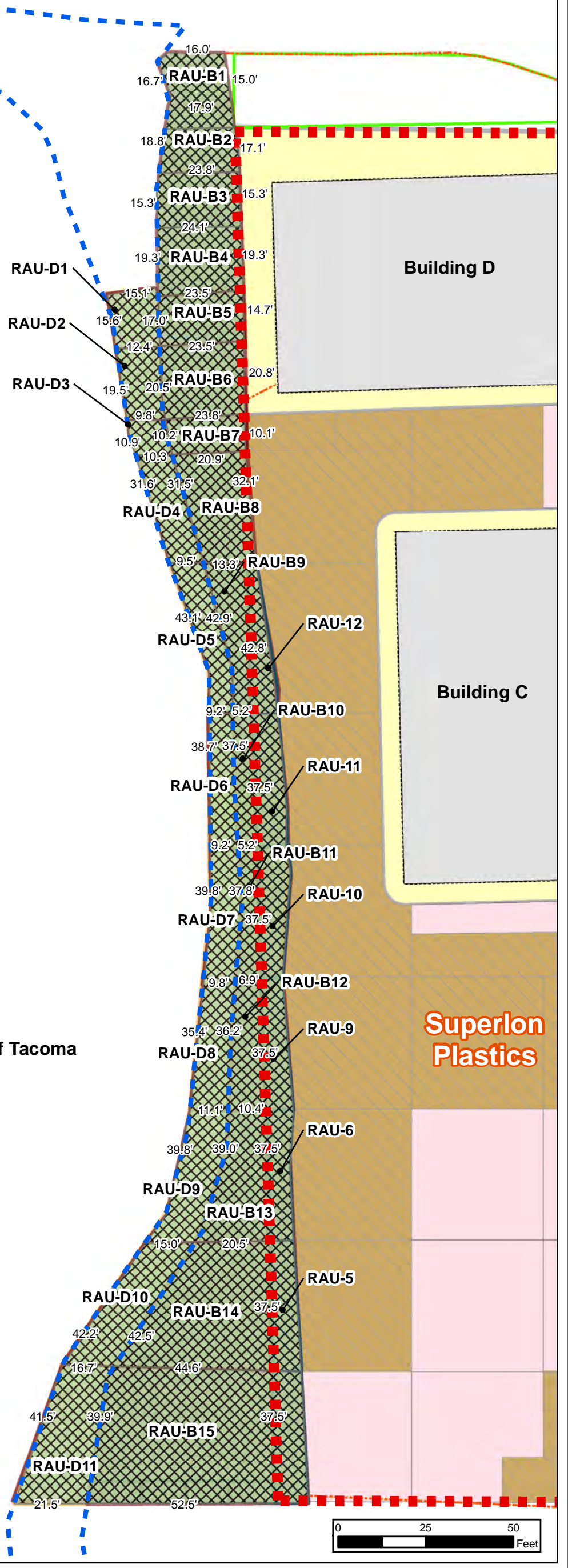


Legend

- Remediated
- Temporary Chain-link Fence
- City of Tacoma
- Property Boundary
- Drainage Ditch
- Building Footprint

On-Property Remedial Features

- Soil Remedial Action Units Not Requiring Remediation
- Soil Remedial Action Units Completed
- Soil Areas Not To Be Remediated



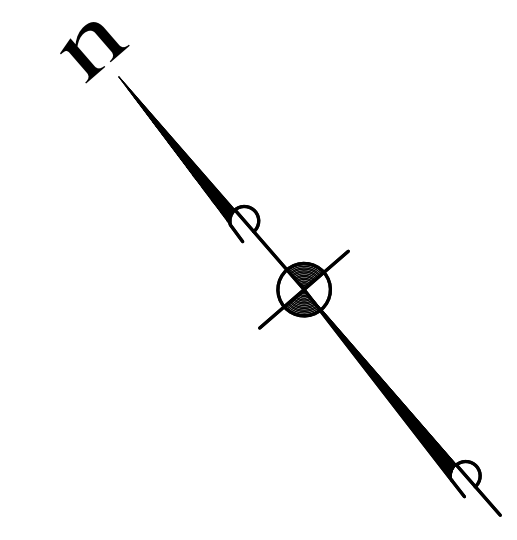
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Remediation Completed
Ditch Interim Action
Superlon Plastics Site, Tacoma, Washington

Figure 3

A PORTION OF THE NE 1/4 OF SECTION 35, TWP 21 N., RGE 3 E., W.M., CITY OF TACOMA, PIERCE COUNTY, WASHINGTON



SCALE: 1" = 30'
 CONTOUR INTERVAL = 1'

HORIZONTAL DATUM
 WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83/91. PROJECT IS REFERENCED VIA GPS TO CONTROL POINTS 120, 180 AND 182 AS DEPICTED ON THAT MAP TITLED "BLAIR-HYLEBOS PENINSULA SURVEY CONTROL MAP" BY PARAMETRIX FOR THE PORT OF TACOMA, DATED DEC 3, 2007

BASIS OF BEARINGS
 S 44°06'33" W ALONG THE CENTERLINE OF LINCOLN AVENUE AS DEPICTED SHEET 58 OF THAT RECORD OF SURVEY MAP FILED UNDER PIERCE COUNTY RECORDING NO. 200903105001.

VERTICAL DATUM
 CITY OF TACOMA NGVD 29.
 BASED ON POINT 180 AS NOTED CONTROL MAP AS NOTED ABOVE. ELEVATION OF POINT 180 = 17.43 (MLLW)
 ELEVATIONS SHOWN ARE MSL. (NGVD 29) CITY OF TACOMA DATUM. DATUM CONVERSIONS FROM MLLW. TO MSL:
 SUBTRACT 6.32 FEET FROM MLLW TO OBTAIN MSL (NGVD29) CITY OF TACOMA ELEVATIONS. SEE TACOMA PUBLIC WORKS VERTICAL DATUM CONVERSION SHEET PREPARED BY TACOMA PUBLIC WORKS. REVISED FEBRUARY 2004

NOTES
 THE BOUNDARY DEPICTED HEREON IS CALCULATED BASED ON SHEET 58 OF THAT RECORD OF SURVEY FILED UNDER PIERCE COUNTY RECORDING NO. 200903105001 AND SHEET 1 OF THAT RECORD OF SURVEY FILED UNDER PIERCE COUNTY RECORDING NO. 9904215001.
 THE POSITION OF SURFACE FEATURES (CATCH BASINS, LIGHTS, BUILDINGS, ETC.) ARE FROM ACTUAL FIELD LOCATIONS. THE POSITION OF UNDERGROUND UTILITIES ARE FROM ACTUAL FIELD LOCATIONS OF VISIBLE FEATURES THE UNDERGROUND LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND SHOULD NOT BE RELIED UPON FOR ANY CONSTRUCTION ON SITE.

CONTROL NOTES
 ELEVATIONS OF CONTROL POINTS 200, 201, 202 WERE REVISED 7-23-2018
 CONTROL POINTS 210, 211, 212, 213 ESTABLISHED 7-3-2018
 CONTROL POINT 214 ESTABLISHED 9-19-2019

LEGEND

○	BOLLARD
⊕	INFORMATION SIGN
⊗	STORM DRAIN MANHOLE
⊙	LUMINAIRE W/ARM
⊛	GAS VALVE
⊜	GUY ANCHOR
⊞	ELECTRICAL JUNCTION PULL/BOX
⊟	POWER POLE W/DROP LINE
⊠	POWER POLE W/LIGHT
⊡	POWER POLE
⊢	POWER POLE W/TRANSFORMER
⊣	SOIL LOG
⊤	TRAFFIC SIGNAL POLE
⊥	FIRE HYDRANT
⊦	HOSE BIB
⊧	WATER METER
⊨	POST INDICATOR VALVE
⊩	WATER VALVE
⊪	FOUND BRASS CAP
⊫	FOUND HUB & TACK
⊬	FOUND IRON PIPE
⊭	FOUND PK NAIL
⊮	FOUND REBAR & CAP
⊯	SET HUB & TACK
⊰	SET PK NAIL
⊱	SET SCRIBE
⊲	EDGE OF WATER
⊳	FENCE, CHAIN-LINK
⊴	FENCE, HOG WIRE
⊵	STORM

FIGURE 4 - PRE REMEDIATION DITCH TOPOGRAPHY

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 Plotted By: Roseme Garcia

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 Public Works |

JEFF KING
SUPERLON PLASTICS
 DITCH AS-BUILT
 CITY OF TACOMA
 WASHINGTON

JOB NO.: 1624-001-009
 DWG. NAME: TOPO-02
 DESIGNED BY:
 DRAWN BY: RFG
 CHECKED BY:
 DATE: 7/7/2021
 DATE OF PRINT:

1 OF SHEETS

APPENDENCES

APPENDIX 1: BACKFILL MATERIALS SPECIFICATIONS

CLAY AND 2-INCH SCREENED GRAVEL BORROW SOIL SPECIFICATIONS



Analytical Resources, LLC
Analytical Chemists and Consultants

06 June 2022

Kenny King
PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish, WA 98290

RE: Superlon Plastics (SLON)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
22E0138

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Shelly Fishel, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, LLC
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6202 (fax)

AR Assigned Number: <i>22E0138</i>	Turn-around Requested: 10 day	Date: 5.4.22
AR Client Company: PERC	Phone: 4253480921	Page: of
Client Contact: Kenny King	No. of Coolers: 1	Cooler Temps: 14.6°C

Client Project Name: Superlon Plastics					Analysis Requested							Notes/Comments
Client Project #: SLON		Samplers: King			RCRA Metals 6010D	SVOC 8270E	VOC 8260D					
Sample ID	Date	Time	Matrix	No. Containers								
SLON-Clay-01	05/04/22	08:50	Soil	5	✓	✓	✓					
SLON-BF-01	05/04/22	09:00	Soil	5	✓	✓	✓					
Comments/Special Instructions					Relinquished by: (Signature) <i>Kenny King</i>	Received by: (Signature) <i>LB</i>			Relinquished by: (Signature)			Received by: (Signature)
					Printed Name: Kenny King	Printed Name: SAMUEL BEASLEY			Printed Name:			Printed Name:
					Company: PERC	Company: ARI			Company:			Company:
					Date & Time: 5/5/22 16:26	Date & Time: 5/5/22 16:26			Date & Time:			Date & Time:

Limits of Liability: Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SLON-Clay-01	22E0138-01	Solid	04-May-2022 08:50	05-May-2022 16:26
SLON-BF-01	22E0138-02	Solid	04-May-2022 09:00	05-May-2022 16:26



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Reported:
06-Jun-2022 15:20

Work Order Case Narrative

Client: PERC-Pacific Environmental and Redevelopment Corp
Project: Superlon Plastics
Work Order: 22E0138

Sample receipt

Samples as listed on the preceding page were received 05-May-2022 16:26 under ARI work order 22E0138. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times. The samples were not preserved.

Initial and continuing calibrations were within method requirements except as flagged. "Q" flagged data is out of control high. All associated samples which contain analyte have been flagged with "Q" qualifier..

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Semivolatiles - EPA Method SW8270E

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements except Benzoic Acid and 2,4-Dinitrophenol which were out of control low. All associated samples which contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits except as flagged which were out of control high.

Total Metals - EPA Method 6010D



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The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits except Chromium sample/duplicate RPD which has been flagged.

Total Mercury - EPA Method 7470/7471

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.



Cooler Receipt Form

ARI Client: Perc
 COC No(s): _____ NA
 Assigned ARI Job No: 22E0138

Project Name: _____
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
 Were custody papers included with the cooler? YES NO
 Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 16:24

14:16

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 1009708

Cooler Accepted by: [Signature]

Date: 5/5/22 Time: 16:24

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO
 What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA YES NO
 How were bottles sealed in plastic bags? Individually Grouped Not
 Did all bottles arrive in good condition (unbroken)? YES NO
 Were all bottle labels complete and legible? YES NO
 Did the number of containers listed on COC match with the number of containers received? YES NO *
 Did all bottle labels and tags agree with custody papers? YES NO
 Were all bottles used correct for the requested analyses? YES NO
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI: _____ NA
 Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [Signature] Date: _____ Time: _____ Labels checked by: _____

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
* only 4 containers for BF-01. okay 05/07/22 [Signature]

By: _____ Date: _____



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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-Clay-01
22E0138-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 08:50

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:28

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 5035 (Sodium Bisulfate) Extract ID: 22E0138-01 B
Preparation Batch: BKE0298 Sample Size: 5 g (wet) Dry Weight: 3.98 g
Prepared: 05/11/2022 Final Volume: 5 mL % Solids: 79.60

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	1	0.48	1.26	ND	ug/kg	U
Vinyl Chloride	75-01-4	1	0.42	1.26	ND	ug/kg	U
Bromomethane	74-83-9	1	0.49	1.26	ND	ug/kg	U
Chloroethane	75-00-3	1	1.56	2.51	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	1	1.22	2.51	ND	ug/kg	U
Acrolein	107-02-8	1	2.20	6.28	ND	ug/kg	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	1	1.07	2.51	ND	ug/kg	U
Acetone	67-64-1	1	7.97	12.6	120	ug/kg	
1,1-Dichloroethene	75-35-4	1	0.47	1.26	ND	ug/kg	U
Iodomethane	74-88-4	1	1.14	1.26	ND	ug/kg	U
Methylene Chloride	75-09-2	1	5.48	6.28	83.6	ug/kg	
Acrylonitrile	107-13-1	1	2.48	6.28	ND	ug/kg	U
Carbon Disulfide	75-15-0	1	0.42	1.26	2.88	ug/kg	Q
trans-1,2-Dichloroethene	156-60-5	1	0.66	1.26	ND	ug/kg	U
Vinyl Acetate	108-05-4	1	4.09	6.28	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	1	0.36	1.26	ND	ug/kg	U
2-Butanone	78-93-3	1	3.07	6.28	6.70	ug/kg	
2,2-Dichloropropane	594-20-7	1	0.39	1.26	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	1	0.32	1.26	ND	ug/kg	U
Chloroform	67-66-3	1	0.36	1.26	ND	ug/kg	U
Bromochloromethane	74-97-5	1	0.50	1.26	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	1	0.75	1.26	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	1	0.35	1.26	ND	ug/kg	U
Carbon tetrachloride	56-23-5	1	0.39	1.26	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	1	0.29	1.26	ND	ug/kg	U
Benzene	71-43-2	1	0.21	1.26	ND	ug/kg	U
Trichloroethene	79-01-6	1	0.32	1.26	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	1	0.42	1.26	ND	ug/kg	U
Bromodichloromethane	75-27-4	1	0.32	1.26	ND	ug/kg	U
Dibromomethane	74-95-3	1	0.45	1.26	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	1	3.79	6.28	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	1	1.71	6.28	ND	ug/kg	U
cis-1,3-Dichloropropene	10061-01-5	1	0.33	1.26	ND	ug/kg	U
Toluene	108-88-3	1	0.31	1.26	0.38	ug/kg	J



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Reported:
06-Jun-2022 15:20

SLON-Clay-01
22E0138-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 08:50

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:28

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
trans-1,3-Dichloropropene	10061-02-6	1	0.52	1.26	ND	ug/kg	U
2-Hexanone	591-78-6	1	1.60	6.28	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	1	0.34	1.26	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	1	0.29	1.26	ND	ug/kg	U
Tetrachloroethene	127-18-4	1	0.25	1.26	ND	ug/kg	U
Dibromochloromethane	124-48-1	1	0.34	1.26	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	1	0.39	1.26	ND	ug/kg	U
Chlorobenzene	108-90-7	1	0.26	1.26	ND	ug/kg	U
Ethylbenzene	100-41-4	1	0.29	1.26	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	1	0.44	1.26	ND	ug/kg	U
m,p-Xylene	179601-23-1	1	0.62	2.51	ND	ug/kg	U
o-Xylene	95-47-6	1	0.30	1.26	ND	ug/kg	U
Xylenes, total	1330-20-7	1	0.88	2.51	ND	ug/kg	U
Styrene	100-42-5	1	0.31	1.26	ND	ug/kg	U
Bromoform	75-25-2	1	0.58	1.26	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	1	0.34	1.26	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	1	1.88	2.51	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	1	3.46	6.28	ND	ug/kg	U
n-Propylbenzene	103-65-1	1	0.30	1.26	ND	ug/kg	U
Bromobenzene	108-86-1	1	0.31	1.26	ND	ug/kg	U
Isopropyl Benzene	98-82-8	1	0.33	1.26	ND	ug/kg	U
2-Chlorotoluene	95-49-8	1	0.27	1.26	ND	ug/kg	U
4-Chlorotoluene	106-43-4	1	0.37	1.26	ND	ug/kg	U
t-Butylbenzene	98-06-6	1	0.32	1.26	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	1	0.32	1.26	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	1	0.33	1.26	ND	ug/kg	U
s-Butylbenzene	135-98-8	1	0.30	1.26	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	1	0.36	1.26	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	0.31	1.26	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	0.54	1.26	ND	ug/kg	U
n-Butylbenzene	104-51-8	1	0.35	1.26	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	0.82	1.26	ND	ug/kg	U
1,2-Dibromo-3-chloropropane	96-12-8	1	2.96	6.28	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	2.28	6.28	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	1	2.26	6.28	ND	ug/kg	U
Naphthalene	91-20-3	1	3.09	6.28	ND	ug/kg	U
1,2,3-Trichlorobenzene	87-61-6	1	2.92	6.28	ND	ug/kg	U



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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-Clay-01
22E0138-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 08:50

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:28

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Dichlorodifluoromethane	75-71-8	1	0.51	1.26	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	1	0.32	1.26	ND	ug/kg	U
2-Pentanone	107-87-9	1	2.70	6.28	ND	ug/kg	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>					<i>80-149 %</i>	<i>125 %</i>	
<i>Surrogate: Toluene-d8</i>					<i>77-120 %</i>	<i>104 %</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>					<i>80-120 %</i>	<i>106 %</i>	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>					<i>80-120 %</i>	<i>106 %</i>	



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Reported:
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SLON-Clay-01
22E0138-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E Sampled: 05/04/2022 08:50
Instrument: NT6 Analyst: JZ Analyzed: 05/25/2022 18:27

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 22E0138-01 D 01
Preparation Batch: BKE0230 Sample Size: 9.43 g (wet)
Prepared: 05/10/2022 Final Volume: 0.5 mL Dry Weight: 7.51 g
% Solids: 79.60

Sample Cleanup: Cleanup Method: GPC Extract ID: 22E0138-01 D 01
Cleanup Batch: CKE0232 Initial Volume: 0.5 uL
Cleaned: 25-May-2022 Final Volume: 0.5 uL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Phenol	108-95-2	1	16	67	ND	ug/kg	U
bis(2-chloroethyl) ether	111-44-4	1	17	67	ND	ug/kg	U
2-Chlorophenol	95-57-8	1	14	67	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	16	67	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	16	67	ND	ug/kg	U
Benzyl Alcohol	100-51-6	1	87	330	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	18	67	ND	ug/kg	U
2-Methylphenol	95-48-7	1	23	67	ND	ug/kg	U
2,2'-Oxybis(1-chloropropane)	108-60-1	1	19	67	ND	ug/kg	U
4-Methylphenol	106-44-5	1	22	67	ND	ug/kg	U
N-Nitroso-di-n-Propylamine	621-64-7	1	21	67	ND	ug/kg	U
Hexachloroethane	67-72-1	1	19	67	ND	ug/kg	U
Nitrobenzene	98-95-3	1	26	67	ND	ug/kg	U
Isophorone	78-59-1	1	13	67	ND	ug/kg	U
2-Nitrophenol	88-75-5	1	63	67	ND	ug/kg	U
2,4-Dimethylphenol	105-67-9	1	16	67	ND	ug/kg	U
Bis(2-Chloroethoxy)methane	111-91-1	1	17	67	ND	ug/kg	U
Benzoic acid	65-85-0	1	251	669	ND	ug/kg	U
2,4-Dichlorophenol	120-83-2	1	75	330	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	16	67	ND	ug/kg	U
Naphthalene	91-20-3	1	15	67	ND	ug/kg	U
4-Chloroaniline	106-47-8	1	100	330	ND	ug/kg	U
Hexachlorobutadiene	87-68-3	1	19	67	ND	ug/kg	U
4-Chloro-3-Methylphenol	59-50-7	1	115	330	ND	ug/kg	U
2-Methylnaphthalene	91-57-6	1	24	67	ND	ug/kg	U
Hexachlorocyclopentadiene	77-47-4	1	62	330	ND	ug/kg	U
2,4,6-Trichlorophenol	88-06-2	1	142	330	ND	ug/kg	U
2,4,5-Trichlorophenol	95-95-4	1	150	330	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	1	21	67	ND	ug/kg	U
2-Nitroaniline	88-74-4	1	120	330	ND	ug/kg	U
Dimethylphthalate	131-11-3	1	26	67	ND	ug/kg	U



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SLON-Clay-01
22E0138-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 05/04/2022 08:50

Instrument: NT6 Analyst: JZ

Analyzed: 05/25/2022 18:27

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Acenaphthylene	208-96-8	1	21	67	ND	ug/kg	U
2,6-Dinitrotoluene	606-20-2	1	96	330	ND	ug/kg	U
3-Nitroaniline	99-09-2	1	104	330	ND	ug/kg	U
Acenaphthene	83-32-9	1	16	67	ND	ug/kg	U
2,4-Dinitrophenol	51-28-5	1	77	669	ND	ug/kg	U
Dibenzofuran	132-64-9	1	18	67	ND	ug/kg	U
4-Nitrophenol	100-02-7	1	48	330	ND	ug/kg	U
2,4-Dinitrotoluene	121-14-2	1	96	330	ND	ug/kg	U
Fluorene	86-73-7	1	16	67	ND	ug/kg	U
Diethyl phthalate	84-66-2	1	21	67	287	ug/kg	
4-Chlorophenylphenyl ether	7005-72-3	1	20	67	ND	ug/kg	U
4-Nitroaniline	100-01-6	1	102	330	ND	ug/kg	U
4,6-Dinitro-2-methylphenol	534-52-1	1	122	669	ND	ug/kg	U
N-Nitrosodiphenylamine	86-30-6	1	17	67	ND	ug/kg	U
4-Bromophenyl phenyl ether	101-55-3	1	19	67	ND	ug/kg	U
Hexachlorobenzene	118-74-1	1	19	67	ND	ug/kg	U
Pentachlorophenol	87-86-5	1	97	330	ND	ug/kg	U
Phenanthrene	85-01-8	1	20	67	ND	ug/kg	U
Anthracene	120-12-7	1	20	67	ND	ug/kg	U
Carbazole	86-74-8	1	15	67	ND	ug/kg	U
Di-n-Butylphthalate	84-74-2	1	33	67	ND	ug/kg	U
Fluoranthene	206-44-0	1	42	67	ND	ug/kg	U
Pyrene	129-00-0	1	47	67	ND	ug/kg	U
Butylbenzylphthalate	85-68-7	1	25	67	ND	ug/kg	U
Benzo(a)anthracene	56-55-3	1	19	67	ND	ug/kg	U
3,3'-Dichlorobenzidine	91-94-1	1	89	330	ND	ug/kg	U
Chrysene	218-01-9	1	21	67	ND	ug/kg	U
bis(2-Ethylhexyl)phthalate	117-81-7	1	24	67	ND	ug/kg	U
Di-n-Octylphthalate	117-84-0	1	19	67	ND	ug/kg	U
Benzo(a)pyrene	50-32-8	1	21	67	ND	ug/kg	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	27	67	ND	ug/kg	U
Dibenzo(a,h)anthracene	53-70-3	1	25	67	ND	ug/kg	U
Benzo(g,h,i)perylene	191-24-2	1	26	67	ND	ug/kg	U
Benzo(a)fluoranthene, Total		1	32	67	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	1	29	67	ND	ug/kg	U
<i>Surrogate: 2-Fluorophenol</i>					22-120 %	76.7	%
<i>Surrogate: Phenol-d5</i>					27-120 %	74.6	%



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-Clay-01
22E0138-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 05/04/2022 08:50

Instrument: NT6 Analyst: JZ

Analyzed: 05/25/2022 18:27

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Recovery		Units	Notes
		Limits	Recovery		
<i>Surrogate: 2-Chlorophenol-d4</i>		36-120 %	88.9	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>		38-120 %	89.6	%	
<i>Surrogate: Nitrobenzene-d5</i>		32-120 %	95.1	%	
<i>Surrogate: 2-Fluorobiphenyl</i>		39-120 %	101	%	
<i>Surrogate: 2,4,6-Tribromophenol</i>		31-131 %	90.6	%	
<i>Surrogate: p-Terphenyl-d14</i>		31-130 %	97.1	%	



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-Clay-01
22E0138-01 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D

Sampled: 05/04/2022 08:50

Instrument: ICP2 Analyst: SKD

Analyzed: 05/23/2022 23:09

Analysis by: Analytical Resources, LLC

Sample Preparation:

Preparation Method: SWC EPA 3050B

Extract ID: 22E0138-01 E 01

Preparation Batch: BKE0312

Sample Size: 1.001 g (wet)

Dry Weight: 0.77 g

Prepared: 05/12/2022

Final Volume: 50 mL

% Solids: 77.23

Analyte	CAS Number	Dilution	Detection		Reporting		Result	Units	Notes
			Limit	Limit	Limit	Limit			
Arsenic	7440-38-2	2	0.595	6.47	0.638	mg/kg	J		
Barium	7440-39-3	2	0.336	0.776	136	mg/kg			
Cadmium	7440-43-9	2	0.0905	0.259	0.0948	mg/kg	J		
Chromium	7440-47-3	5	1.43	2.91	46.3	mg/kg	D		
Lead	7439-92-1	2	0.310	2.59	9.27	mg/kg			
Selenium	7782-49-2	2	1.66	6.47	ND	mg/kg	U		
Silver	7440-22-4	2	0.101	0.388	ND	mg/kg	U		



PERC-Pacific Environmental and Redevelopment Corp 8424 E Meadow Lake Drive Snohomish WA, 98290	Project: Superlon Plastics Project Number: SLON Project Manager: Kenny King	Reported: 06-Jun-2022 15:20
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SLON-Clay-01
22E0138-01 (Solid)

Metals and Metallic Compounds

Method: EPA 7471B Sampled: 05/04/2022 08:50
Instrument: HYDRA Analyst: ML Analyzed: 05/20/2022 14:05

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SMM EPA 7471B Extract ID: 22E0138-01 E
Preparation Batch: BKE0315 Dry Weight: 0.22 g
Prepared: 05/12/2022 Final Volume: 50 mL % Solids: 77.23

Analyte	CAS Number	Dilution	Detection	Reporting	Result	Units	Notes
			Limit	Limit			
Mercury	7439-97-6	1	0.00472	0.0225	0.0215	mg/kg	J



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8424 E Meadow Lake Drive
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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 09:00

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:53

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 5035 (Sodium Bisulfate) Extract ID: 22E0138-02 A
Preparation Batch: BKE0298 Sample Size: 5 g (wet) Dry Weight: 4.75 g
Prepared: 05/11/2022 Final Volume: 5 mL % Solids: 95.08

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	1	0.40	1.05	ND	ug/kg	U
Vinyl Chloride	75-01-4	1	0.35	1.05	ND	ug/kg	U
Bromomethane	74-83-9	1	0.41	1.05	ND	ug/kg	U
Chloroethane	75-00-3	1	1.31	2.10	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	1	1.03	2.10	ND	ug/kg	U
Acrolein	107-02-8	1	1.84	5.26	ND	ug/kg	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	1	0.89	2.10	ND	ug/kg	U
Acetone	67-64-1	1	6.67	10.5	43.7	ug/kg	
1,1-Dichloroethene	75-35-4	1	0.39	1.05	ND	ug/kg	U
Iodomethane	74-88-4	1	0.95	1.05	ND	ug/kg	U
Methylene Chloride	75-09-2	1	4.59	5.26	8.01	ug/kg	
Acrylonitrile	107-13-1	1	2.08	5.26	ND	ug/kg	U
Carbon Disulfide	75-15-0	1	0.35	1.05	1.71	ug/kg	Q
trans-1,2-Dichloroethene	156-60-5	1	0.55	1.05	ND	ug/kg	U
Vinyl Acetate	108-05-4	1	3.42	5.26	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	1	0.30	1.05	ND	ug/kg	U
2-Butanone	78-93-3	1	2.57	5.26	ND	ug/kg	U
2,2-Dichloropropane	594-20-7	1	0.32	1.05	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	1	0.27	1.05	ND	ug/kg	U
Chloroform	67-66-3	1	0.30	1.05	ND	ug/kg	U
Bromochloromethane	74-97-5	1	0.42	1.05	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	1	0.63	1.05	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	1	0.30	1.05	ND	ug/kg	U
Carbon tetrachloride	56-23-5	1	0.33	1.05	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	1	0.25	1.05	ND	ug/kg	U
Benzene	71-43-2	1	0.17	1.05	1.39	ug/kg	
Trichloroethene	79-01-6	1	0.27	1.05	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	1	0.35	1.05	ND	ug/kg	U
Bromodichloromethane	75-27-4	1	0.27	1.05	ND	ug/kg	U
Dibromomethane	74-95-3	1	0.37	1.05	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	1	3.17	5.26	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	1	1.44	5.26	ND	ug/kg	U
cis-1,3-Dichloropropene	10061-01-5	1	0.28	1.05	ND	ug/kg	U
Toluene	108-88-3	1	0.26	1.05	1.17	ug/kg	



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 09:00

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:53

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
trans-1,3-Dichloropropene	10061-02-6	1	0.43	1.05	ND	ug/kg	U
2-Hexanone	591-78-6	1	1.34	5.26	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	1	0.28	1.05	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	1	0.25	1.05	ND	ug/kg	U
Tetrachloroethene	127-18-4	1	0.21	1.05	ND	ug/kg	U
Dibromochloromethane	124-48-1	1	0.28	1.05	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	1	0.32	1.05	ND	ug/kg	U
Chlorobenzene	108-90-7	1	0.22	1.05	ND	ug/kg	U
Ethylbenzene	100-41-4	1	0.24	1.05	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	1	0.37	1.05	ND	ug/kg	U
m,p-Xylene	179601-23-1	1	0.52	2.10	ND	ug/kg	U
o-Xylene	95-47-6	1	0.25	1.05	ND	ug/kg	U
Xylenes, total	1330-20-7	1	0.73	2.10	ND	ug/kg	U
Styrene	100-42-5	1	0.26	1.05	ND	ug/kg	U
Bromoform	75-25-2	1	0.49	1.05	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	1	0.29	1.05	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	1	1.58	2.10	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	1	2.90	5.26	ND	ug/kg	U
n-Propylbenzene	103-65-1	1	0.25	1.05	ND	ug/kg	U
Bromobenzene	108-86-1	1	0.26	1.05	ND	ug/kg	U
Isopropyl Benzene	98-82-8	1	0.28	1.05	ND	ug/kg	U
2-Chlorotoluene	95-49-8	1	0.23	1.05	ND	ug/kg	U
4-Chlorotoluene	106-43-4	1	0.31	1.05	ND	ug/kg	U
t-Butylbenzene	98-06-6	1	0.26	1.05	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	1	0.27	1.05	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	1	0.28	1.05	ND	ug/kg	U
s-Butylbenzene	135-98-8	1	0.25	1.05	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	1	0.31	1.05	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	0.26	1.05	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	0.45	1.05	ND	ug/kg	U
n-Butylbenzene	104-51-8	1	0.29	1.05	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	0.69	1.05	ND	ug/kg	U
1,2-Dibromo-3-chloropropane	96-12-8	1	2.48	5.26	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	1.91	5.26	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	1	1.89	5.26	ND	ug/kg	U
Naphthalene	91-20-3	1	2.59	5.26	ND	ug/kg	U
1,2,3-Trichlorobenzene	87-61-6	1	2.44	5.26	ND	ug/kg	U



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 05/04/2022 09:00

Instrument: NT5 Analyst: PB

Analyzed: 05/11/2022 18:53

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Dichlorodifluoromethane	75-71-8	1	0.42	1.05	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	1	0.27	1.05	ND	ug/kg	U
2-Pentanone	107-87-9	1	2.26	5.26	ND	ug/kg	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>				<i>80-149 %</i>	<i>129</i>	<i>%</i>	
<i>Surrogate: Toluene-d8</i>				<i>77-120 %</i>	<i>104</i>	<i>%</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>				<i>80-120 %</i>	<i>105</i>	<i>%</i>	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>				<i>80-120 %</i>	<i>104</i>	<i>%</i>	



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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E Sampled: 05/04/2022 09:00
Instrument: NT6 Analyst: JZ Analyzed: 05/25/2022 19:00

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 22E0138-02 D 01
Preparation Batch: BKE0230 Sample Size: 7.9 g (wet)
Prepared: 05/10/2022 Final Volume: 0.5 mL Dry Weight: 7.51 g
% Solids: 95.08

Sample Cleanup: Cleanup Method: GPC Extract ID: 22E0138-02 D 01
Cleanup Batch: CKE0232 Initial Volume: 0.5 uL
Cleaned: 25-May-2022 Final Volume: 0.5 uL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Phenol	108-95-2	1	16	67	ND	ug/kg	U
bis(2-chloroethyl) ether	111-44-4	1	17	67	ND	ug/kg	U
2-Chlorophenol	95-57-8	1	14	67	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	16	67	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	16	67	ND	ug/kg	U
Benzyl Alcohol	100-51-6	1	87	330	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	18	67	ND	ug/kg	U
2-Methylphenol	95-48-7	1	23	67	ND	ug/kg	U
2,2'-Oxybis(1-chloropropane)	108-60-1	1	19	67	ND	ug/kg	U
4-Methylphenol	106-44-5	1	22	67	ND	ug/kg	U
N-Nitroso-di-n-Propylamine	621-64-7	1	21	67	ND	ug/kg	U
Hexachloroethane	67-72-1	1	19	67	ND	ug/kg	U
Nitrobenzene	98-95-3	1	26	67	ND	ug/kg	U
Isophorone	78-59-1	1	13	67	ND	ug/kg	U
2-Nitrophenol	88-75-5	1	63	67	ND	ug/kg	U
2,4-Dimethylphenol	105-67-9	1	16	67	ND	ug/kg	U
Bis(2-Chloroethoxy)methane	111-91-1	1	17	67	ND	ug/kg	U
Benzoic acid	65-85-0	1	251	669	ND	ug/kg	U
2,4-Dichlorophenol	120-83-2	1	75	330	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	16	67	ND	ug/kg	U
Naphthalene	91-20-3	1	15	67	ND	ug/kg	U
4-Chloroaniline	106-47-8	1	100	330	ND	ug/kg	U
Hexachlorobutadiene	87-68-3	1	19	67	ND	ug/kg	U
4-Chloro-3-Methylphenol	59-50-7	1	115	330	ND	ug/kg	U
2-Methylnaphthalene	91-57-6	1	24	67	ND	ug/kg	U
Hexachlorocyclopentadiene	77-47-4	1	62	330	ND	ug/kg	U
2,4,6-Trichlorophenol	88-06-2	1	142	330	ND	ug/kg	U
2,4,5-Trichlorophenol	95-95-4	1	150	330	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	1	21	67	ND	ug/kg	U
2-Nitroaniline	88-74-4	1	120	330	ND	ug/kg	U
Dimethylphthalate	131-11-3	1	26	67	ND	ug/kg	U



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 05/04/2022 09:00

Instrument: NT6 Analyst: JZ

Analyzed: 05/25/2022 19:00

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Acenaphthylene	208-96-8	1	21	67	ND	ug/kg	U
2,6-Dinitrotoluene	606-20-2	1	96	330	ND	ug/kg	U
3-Nitroaniline	99-09-2	1	104	330	ND	ug/kg	U
Acenaphthene	83-32-9	1	16	67	ND	ug/kg	U
2,4-Dinitrophenol	51-28-5	1	77	669	ND	ug/kg	U
Dibenzofuran	132-64-9	1	18	67	ND	ug/kg	U
4-Nitrophenol	100-02-7	1	48	330	ND	ug/kg	U
2,4-Dinitrotoluene	121-14-2	1	96	330	ND	ug/kg	U
Fluorene	86-73-7	1	16	67	ND	ug/kg	U
Diethyl phthalate	84-66-2	1	21	67	34	ug/kg	J
4-Chlorophenylphenyl ether	7005-72-3	1	20	67	ND	ug/kg	U
4-Nitroaniline	100-01-6	1	102	330	ND	ug/kg	U
4,6-Dinitro-2-methylphenol	534-52-1	1	122	669	ND	ug/kg	U
N-Nitrosodiphenylamine	86-30-6	1	17	67	ND	ug/kg	U
4-Bromophenyl phenyl ether	101-55-3	1	19	67	ND	ug/kg	U
Hexachlorobenzene	118-74-1	1	19	67	ND	ug/kg	U
Pentachlorophenol	87-86-5	1	97	330	ND	ug/kg	U
Phenanthrene	85-01-8	1	20	67	ND	ug/kg	U
Anthracene	120-12-7	1	20	67	ND	ug/kg	U
Carbazole	86-74-8	1	15	67	ND	ug/kg	U
Di-n-Butylphthalate	84-74-2	1	33	67	ND	ug/kg	U
Fluoranthene	206-44-0	1	42	67	ND	ug/kg	U
Pyrene	129-00-0	1	47	67	ND	ug/kg	U
Butylbenzylphthalate	85-68-7	1	25	67	ND	ug/kg	U
Benzo(a)anthracene	56-55-3	1	19	67	ND	ug/kg	U
3,3'-Dichlorobenzidine	91-94-1	1	89	330	ND	ug/kg	U
Chrysene	218-01-9	1	21	67	22	ug/kg	J
bis(2-Ethylhexyl)phthalate	117-81-7	1	24	67	ND	ug/kg	U
Di-n-Octylphthalate	117-84-0	1	19	67	ND	ug/kg	U
Benzo(a)pyrene	50-32-8	1	21	67	ND	ug/kg	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	27	67	ND	ug/kg	U
Dibenzo(a,h)anthracene	53-70-3	1	25	67	ND	ug/kg	U
Benzo(g,h,i)perylene	191-24-2	1	26	67	ND	ug/kg	U
Benzo(a)fluoranthene, Total		1	32	67	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	1	29	67	ND	ug/kg	U
Surrogate: 2-Fluorophenol				22-120 %	76.9	%	
Surrogate: Phenol-d5				27-120 %	78.8	%	



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 05/04/2022 09:00

Instrument: NT6 Analyst: JZ

Analyzed: 05/25/2022 19:00

Analysis by: Analytical Resources, LLC

Analyte	CAS Number	Recovery		Units	Notes
		Limits	Recovery		
<i>Surrogate: 2-Chlorophenol-d4</i>		36-120 %	88.5	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>		38-120 %	96.1	%	
<i>Surrogate: Nitrobenzene-d5</i>		32-120 %	101	%	
<i>Surrogate: 2-Fluorobiphenyl</i>		39-120 %	103	%	
<i>Surrogate: 2,4,6-Tribromophenol</i>		31-131 %	88.8	%	
<i>Surrogate: p-Terphenyl-d14</i>		31-130 %	101	%	



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

SLON-BF-01
22E0138-02 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D

Sampled: 05/04/2022 09:00

Instrument: ICP2 Analyst: MVP

Analyzed: 05/24/2022 18:28

Analysis by: Analytical Resources, LLC

Sample Preparation:

Preparation Method: SWC EPA 3050B

Extract ID: 22E0138-02 C 01

Preparation Batch: BKE0312

Sample Size: 1.019 g (wet)

Dry Weight: 0.97 g

Prepared: 05/12/2022

Final Volume: 50 mL

% Solids: 95.01

Analyte	CAS Number	Dilution	Detection	Reporting	Result	Units	Notes
			Limit	Limit			
Arsenic	7440-38-2	5	1.19	12.9	ND	mg/kg	U
Barium	7440-39-3	5	0.671	1.55	63.7	mg/kg	D
Cadmium	7440-43-9	5	0.181	0.516	ND	mg/kg	U
Chromium	7440-47-3	5	1.14	2.32	43.6	mg/kg	D
Lead	7439-92-1	5	0.620	5.16	4.35	mg/kg	J, D
Selenium	7782-49-2	5	3.31	12.9	10.5	mg/kg	J, D
Silver	7440-22-4	5	0.201	0.775	0.416	mg/kg	J, D



PERC-Pacific Environmental and Redevelopment Corp 8424 E Meadow Lake Drive Snohomish WA, 98290	Project: Superlon Plastics Project Number: SLON Project Manager: Kenny King	Reported: 06-Jun-2022 15:20
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SLON-BF-01
22E0138-02 (Solid)

Metals and Metallic Compounds

Method: EPA 7471B Sampled: 05/04/2022 09:00
Instrument: HYDRA Analyst: ML Analyzed: 05/20/2022 13:53

Analysis by: Analytical Resources, LLC

Sample Preparation:	Preparation Method: SMM EPA 7471B	Sample Size: 0.211 g (wet)	Extract ID: 22E0138-02 C
	Preparation Batch: BKE0315	Final Volume: 50 mL	Dry Weight: 0.20 g
	Prepared: 05/12/2022		% Solids: 95.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Mercury	7439-97-6	1	0.00524	0.0249	0.0196	mg/kg	J



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0298-BLK1)						Prepared: 11-May-2022 Analyzed: 11-May-2022 13:01					
Chloromethane	ND	0.38	1.00	ug/kg							U
Vinyl Chloride	ND	0.34	1.00	ug/kg							U
Bromomethane	0.40	0.39	1.00	ug/kg							J
Chloroethane	ND	1.24	2.00	ug/kg							U
Trichlorofluoromethane	ND	0.98	2.00	ug/kg							U
Acrolein	ND	1.75	5.00	ug/kg							U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.85	2.00	ug/kg							U
Acetone	ND	6.35	10.0	ug/kg							U
1,1-Dichloroethene	ND	0.37	1.00	ug/kg							U
Iodomethane	ND	0.91	1.00	ug/kg							U
Methylene Chloride	4.41	4.36	5.00	ug/kg							J
Acrylonitrile	ND	1.98	5.00	ug/kg							U
Carbon Disulfide	ND	0.33	1.00	ug/kg							U
trans-1,2-Dichloroethene	ND	0.53	1.00	ug/kg							U
Vinyl Acetate	ND	3.25	5.00	ug/kg							U
1,1-Dichloroethane	ND	0.28	1.00	ug/kg							U
2-Butanone	ND	2.44	5.00	ug/kg							U
2,2-Dichloropropane	ND	0.31	1.00	ug/kg							U
cis-1,2-Dichloroethene	ND	0.26	1.00	ug/kg							U
Chloroform	ND	0.29	1.00	ug/kg							U
Bromochloromethane	ND	0.40	1.00	ug/kg							U
1,1,1-Trichloroethane	ND	0.60	1.00	ug/kg							U
1,1-Dichloropropene	ND	0.28	1.00	ug/kg							U
Carbon tetrachloride	ND	0.31	1.00	ug/kg							U
1,2-Dichloroethane	ND	0.23	1.00	ug/kg							U
Benzene	ND	0.17	1.00	ug/kg							U
Trichloroethene	ND	0.26	1.00	ug/kg							U
1,2-Dichloropropane	ND	0.33	1.00	ug/kg							U
Bromodichloromethane	ND	0.26	1.00	ug/kg							U
Dibromomethane	ND	0.36	1.00	ug/kg							U
2-Chloroethyl vinyl ether	ND	3.02	5.00	ug/kg							U
4-Methyl-2-Pentanone	ND	1.37	5.00	ug/kg							U
cis-1,3-Dichloropropene	ND	0.26	1.00	ug/kg							U
Toluene	ND	0.25	1.00	ug/kg							U
trans-1,3-Dichloropropene	ND	0.41	1.00	ug/kg							U



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Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0298-BLK1)						Prepared: 11-May-2022 Analyzed: 11-May-2022 13:01					
2-Hexanone	ND	1.27	5.00	ug/kg							U
1,1,2-Trichloroethane	ND	0.27	1.00	ug/kg							U
1,3-Dichloropropane	ND	0.23	1.00	ug/kg							U
Tetrachloroethene	ND	0.20	1.00	ug/kg							U
Dibromochloromethane	ND	0.27	1.00	ug/kg							U
1,2-Dibromoethane	ND	0.31	1.00	ug/kg							U
Chlorobenzene	ND	0.21	1.00	ug/kg							U
Ethylbenzene	ND	0.23	1.00	ug/kg							U
1,1,1,2-Tetrachloroethane	ND	0.35	1.00	ug/kg							U
m,p-Xylene	ND	0.49	2.00	ug/kg							U
o-Xylene	ND	0.24	1.00	ug/kg							U
Xylenes, total	ND	0.70	2.00	ug/kg							U
Styrene	ND	0.25	1.00	ug/kg							U
Bromoform	ND	0.46	1.00	ug/kg							U
1,1,2,2-Tetrachloroethane	ND	0.27	1.00	ug/kg							U
1,2,3-Trichloropropane	ND	1.50	2.00	ug/kg							U
trans-1,4-Dichloro 2-Butene	ND	2.75	5.00	ug/kg							U
n-Propylbenzene	ND	0.24	1.00	ug/kg							U
Bromobenzene	ND	0.25	1.00	ug/kg							U
Isopropyl Benzene	ND	0.26	1.00	ug/kg							U
2-Chlorotoluene	ND	0.22	1.00	ug/kg							U
4-Chlorotoluene	ND	0.29	1.00	ug/kg							U
t-Butylbenzene	ND	0.25	1.00	ug/kg							U
1,3,5-Trimethylbenzene	ND	0.25	1.00	ug/kg							U
1,2,4-Trimethylbenzene	ND	0.27	1.00	ug/kg							U
s-Butylbenzene	ND	0.24	1.00	ug/kg							U
4-Isopropyl Toluene	ND	0.29	1.00	ug/kg							U
1,3-Dichlorobenzene	ND	0.24	1.00	ug/kg							U
1,4-Dichlorobenzene	ND	0.43	1.00	ug/kg							U
n-Butylbenzene	ND	0.28	1.00	ug/kg							U
1,2-Dichlorobenzene	ND	0.65	1.00	ug/kg							U
1,2-Dibromo-3-chloropropane	ND	2.36	5.00	ug/kg							U
1,2,4-Trichlorobenzene	ND	1.82	5.00	ug/kg							U
Hexachloro-1,3-Butadiene	ND	1.80	5.00	ug/kg							U
Naphthalene	ND	2.46	5.00	ug/kg							U



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Project: Superlon Plastics
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Reported:
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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0298-BLK1)											
						Prepared: 11-May-2022 Analyzed: 11-May-2022 13:01					
1,2,3-Trichlorobenzene	ND	2.32	5.00	ug/kg							U
Dichlorodifluoromethane	ND	0.40	1.00	ug/kg							U
Methyl tert-butyl Ether	ND	0.25	1.00	ug/kg							U
2-Pentanone	ND	2.15	5.00	ug/kg							U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	58.3			ug/kg	50.0		117	80-149			
<i>Surrogate: Toluene-d8</i>	51.7			ug/kg	50.0		103	77-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.1			ug/kg	50.0		100	80-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	50.8			ug/kg	50.0		102	80-120			
LCS (BKE0298-BS1)											
						Prepared: 11-May-2022 Analyzed: 11-May-2022 11:55					
Chloromethane	63.7			ug/kg	50.0		127	64-132			Q
Vinyl Chloride	60.4			ug/kg	50.0		121	74-135			Q
Bromomethane	54.6			ug/kg	50.0		109	53-144			
Chloroethane	57.8			ug/kg	50.0		116	55-149			
Trichlorofluoromethane	64.8			ug/kg	50.0		130	61-164			Q
Acrolein	293			ug/kg	250		117	59-140			
1,1,2-Trichloro-1,2,2-Trifluoroethane	64.2			ug/kg	50.0		128	74-143			Q
Acetone	274			ug/kg	250		109	48-137			
1,1-Dichloroethene	59.2			ug/kg	50.0		118	77-134			
Iodomethane	48.9			ug/kg	50.0		97.9	31-162			
Methylene Chloride	56.5			ug/kg	50.0		113	69-129			
Acrylonitrile	50.4			ug/kg	50.0		101	69-134			
Carbon Disulfide	63.9			ug/kg	50.0		128	71-137			Q
trans-1,2-Dichloroethene	56.4			ug/kg	50.0		113	79-130			
Vinyl Acetate	56.6			ug/kg	50.0		113	66-141			
1,1-Dichloroethane	57.0			ug/kg	50.0		114	80-126			
2-Butanone	271			ug/kg	250		108	70-132			
2,2-Dichloropropane	59.7			ug/kg	50.0		119	77-138			
cis-1,2-Dichloroethene	54.9			ug/kg	50.0		110	80-125			
Chloroform	57.7			ug/kg	50.0		115	80-126			
Bromochloromethane	52.0			ug/kg	50.0		104	80-129			
1,1,1-Trichloroethane	59.1			ug/kg	50.0		118	78-133			
1,1-Dichloropropene	54.2			ug/kg	50.0		108	63-145			
Carbon tetrachloride	55.7			ug/kg	50.0		111	71-129			
1,2-Dichloroethane	48.6			ug/kg	50.0		97.1	76-120			



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BKE0298-BS1)					Prepared: 11-May-2022 Analyzed: 11-May-2022 11:55						
Benzene	52.1			ug/kg	50.0		104	80-120			
Trichloroethene	51.5			ug/kg	50.0		103	80-120			
1,2-Dichloropropane	52.0			ug/kg	50.0		104	79-120			
Bromodichloromethane	51.5			ug/kg	50.0		103	80-122			
Dibromomethane	48.5			ug/kg	50.0		96.9	80-120			
2-Chloroethyl vinyl ether	48.1			ug/kg	50.0		96.2	51-129			
4-Methyl-2-Pentanone	245			ug/kg	250		98.2	73-121			
cis-1,3-Dichloropropene	51.1			ug/kg	50.0		102	80-120			
Toluene	48.6			ug/kg	50.0		97.2	75-120			
trans-1,3-Dichloropropene	52.1			ug/kg	50.0		104	80-124			
2-Hexanone	240			ug/kg	250		95.8	68-122			
1,1,2-Trichloroethane	47.9			ug/kg	50.0		95.8	79-120			
1,3-Dichloropropane	45.6			ug/kg	50.0		91.2	78-120			
Tetrachloroethene	50.7			ug/kg	50.0		101	74-124			
Dibromochloromethane	46.5			ug/kg	50.0		92.9	74-125			
1,2-Dibromoethane	47.3			ug/kg	50.0		94.6	80-120			
Chlorobenzene	48.3			ug/kg	50.0		96.5	78-120			
Ethylbenzene	50.8			ug/kg	50.0		102	80-125			
1,1,1,2-Tetrachloroethane	49.7			ug/kg	50.0		99.4	80-120			
m,p-Xylene	101			ug/kg	100		101	76-121			
o-Xylene	50.3			ug/kg	50.0		101	67-132			
Xylenes, total	151			ug/kg	150		101	67-132			
Styrene	50.0			ug/kg	50.0		100	80-120			
Bromoform	48.4			ug/kg	50.0		96.9	64-128			
1,1,2,2-Tetrachloroethane	45.7			ug/kg	50.0		91.3	74-120			
1,2,3-Trichloropropane	45.8			ug/kg	50.0		91.7	73-120			
trans-1,4-Dichloro 2-Butene	49.2			ug/kg	50.0		98.5	65-125			
n-Propylbenzene	52.5			ug/kg	50.0		105	72-124			
Bromobenzene	47.8			ug/kg	50.0		95.5	76-120			
Isopropyl Benzene	51.3			ug/kg	50.0		103	74-121			
2-Chlorotoluene	50.3			ug/kg	50.0		101	75-120			
4-Chlorotoluene	50.4			ug/kg	50.0		101	69-124			
t-Butylbenzene	51.0			ug/kg	50.0		102	72-122			
1,3,5-Trimethylbenzene	51.2			ug/kg	50.0		102	74-122			
1,2,4-Trimethylbenzene	50.6			ug/kg	50.0		101	75-121			



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Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BKE0298-BS1)					Prepared: 11-May-2022 Analyzed: 11-May-2022 11:55						
s-Butylbenzene	52.5			ug/kg	50.0		105	70-128			
4-Isopropyl Toluene	52.7			ug/kg	50.0		105	75-125			
1,3-Dichlorobenzene	49.5			ug/kg	50.0		99.0	75-120			
1,4-Dichlorobenzene	48.6			ug/kg	50.0		97.2	73-120			
n-Butylbenzene	54.8			ug/kg	50.0		110	73-130			
1,2-Dichlorobenzene	47.4			ug/kg	50.0		94.9	76-120			
1,2-Dibromo-3-chloropropane	46.6			ug/kg	50.0		93.2	72-136			
1,2,4-Trichlorobenzene	52.1			ug/kg	50.0		104	66-140			
Hexachloro-1,3-Butadiene	52.3			ug/kg	50.0		105	67-133			
Naphthalene	45.9			ug/kg	50.0		91.8	69-125			
1,2,3-Trichlorobenzene	48.9			ug/kg	50.0		97.8	68-132			
Dichlorodifluoromethane	69.3			ug/kg	50.0		139	67-142			Q
Methyl tert-butyl Ether	53.0			ug/kg	50.0		106	79-127			
n-Hexane	0.00			ug/kg	50.0			30-160			U
2-Pentanone	240			ug/kg	250		96.0	77-120			
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<i>Surrogate: 1,2-Dichloroethane-d4</i>	57.5			ug/kg	50.0		115	80-149			
<i>Surrogate: Toluene-d8</i>	51.5			ug/kg	50.0		103	77-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0			ug/kg	50.0		98.0	80-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	50.1			ug/kg	50.0		100	80-120			
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LCS Dup (BKE0298-BS1)					Prepared: 11-May-2022 Analyzed: 11-May-2022 12:35						
Chloromethane	60.1			ug/kg	50.0		120	64-132	5.79	30	Q
Vinyl Chloride	58.0			ug/kg	50.0		116	74-135	4.08	30	Q
Bromomethane	51.9			ug/kg	50.0		104	53-144	5.05	30	
Chloroethane	54.7			ug/kg	50.0		109	55-149	5.56	30	
Trichlorofluoromethane	59.1			ug/kg	50.0		118	61-164	9.09	30	Q
Acrolein	260			ug/kg	250		104	59-140	11.90	30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	60.0			ug/kg	50.0		120	74-143	6.83	30	Q
Acetone	247			ug/kg	250		99.0	48-137	10.10	30	
1,1-Dichloroethene	56.2			ug/kg	50.0		112	77-134	5.24	30	
Iodomethane	46.8			ug/kg	50.0		93.6	31-162	4.41	30	
Methylene Chloride	53.0			ug/kg	50.0		106	69-129	6.37	30	
Acrylonitrile	45.9			ug/kg	50.0		91.7	69-134	9.49	30	
Carbon Disulfide	60.0			ug/kg	50.0		120	71-137	6.28	30	Q
trans-1,2-Dichloroethene	53.3			ug/kg	50.0		107	79-130	5.81	30	



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BKE0298-BSD1)					Prepared: 11-May-2022 Analyzed: 11-May-2022 12:35						
Vinyl Acetate	51.6			ug/kg	50.0		103	66-141	9.16	30	
1,1-Dichloroethane	54.2			ug/kg	50.0		108	80-126	5.19	30	
2-Butanone	239			ug/kg	250		95.5	70-132	12.70	30	
2,2-Dichloropropane	56.5			ug/kg	50.0		113	77-138	5.60	30	
cis-1,2-Dichloroethene	52.8			ug/kg	50.0		106	80-125	4.00	30	
Chloroform	53.9			ug/kg	50.0		108	80-126	6.66	30	
Bromochloromethane	49.2			ug/kg	50.0		98.5	80-129	5.34	30	
1,1,1-Trichloroethane	56.3			ug/kg	50.0		113	78-133	4.89	30	
1,1-Dichloropropene	50.5			ug/kg	50.0		101	63-145	6.98	30	
Carbon tetrachloride	51.3			ug/kg	50.0		103	71-129	8.12	30	
1,2-Dichloroethane	44.8			ug/kg	50.0		89.7	76-120	7.97	30	
Benzene	49.2			ug/kg	50.0		98.4	80-120	5.68	30	
Trichloroethene	49.0			ug/kg	50.0		98.0	80-120	5.02	30	
1,2-Dichloropropane	48.9			ug/kg	50.0		97.8	79-120	6.06	30	
Bromodichloromethane	48.2			ug/kg	50.0		96.4	80-122	6.71	30	
Dibromomethane	44.7			ug/kg	50.0		89.5	80-120	7.95	30	
2-Chloroethyl vinyl ether	43.7			ug/kg	50.0		87.5	51-129	9.50	30	
4-Methyl-2-Pentanone	219			ug/kg	250		87.8	73-121	11.20	30	
cis-1,3-Dichloropropene	48.2			ug/kg	50.0		96.4	80-120	5.84	30	
Toluene	45.7			ug/kg	50.0		91.3	75-120	6.22	30	
trans-1,3-Dichloropropene	49.1			ug/kg	50.0		98.3	80-124	5.85	30	
2-Hexanone	216			ug/kg	250		86.3	68-122	10.50	30	
1,1,2-Trichloroethane	44.6			ug/kg	50.0		89.1	79-120	7.24	30	
1,3-Dichloropropane	42.3			ug/kg	50.0		84.7	78-120	7.46	30	
Tetrachloroethene	48.7			ug/kg	50.0		97.4	74-124	4.00	30	
Dibromochloromethane	44.3			ug/kg	50.0		88.6	74-125	4.73	30	
1,2-Dibromoethane	43.5			ug/kg	50.0		86.9	80-120	8.43	30	
Chlorobenzene	45.8			ug/kg	50.0		91.7	78-120	5.14	30	
Ethylbenzene	48.7			ug/kg	50.0		97.5	80-125	4.16	30	
1,1,1,2-Tetrachloroethane	47.1			ug/kg	50.0		94.2	80-120	5.31	30	
m,p-Xylene	96.6			ug/kg	100		96.6	76-121	4.24	30	
o-Xylene	47.0			ug/kg	50.0		94.0	67-132	6.79	30	
Xylenes, total	144			ug/kg	150		95.7	67-132	5.08	30	
Styrene	48.1			ug/kg	50.0		96.1	80-120	3.95	30	
Bromoform	43.9			ug/kg	50.0		87.7	64-128	9.93	30	



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BKE0298 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BKE0298-BSD1)					Prepared: 11-May-2022 Analyzed: 11-May-2022 12:35						
1,1,2,2-Tetrachloroethane	40.2			ug/kg	50.0		80.3	74-120	12.80	30	
1,2,3-Trichloropropane	40.0			ug/kg	50.0		80.0	73-120	13.60	30	
trans-1,4-Dichloro 2-Butene	43.7			ug/kg	50.0		87.5	65-125	11.90	30	
n-Propylbenzene	49.0			ug/kg	50.0		98.0	72-124	6.89	30	
Bromobenzene	45.0			ug/kg	50.0		90.1	76-120	5.86	30	
Isopropyl Benzene	47.0			ug/kg	50.0		94.1	74-121	8.62	30	
2-Chlorotoluene	47.5			ug/kg	50.0		95.0	75-120	5.71	30	
4-Chlorotoluene	47.2			ug/kg	50.0		94.4	69-124	6.53	30	
t-Butylbenzene	47.1			ug/kg	50.0		94.2	72-122	7.93	30	
1,3,5-Trimethylbenzene	47.3			ug/kg	50.0		94.6	74-122	7.86	30	
1,2,4-Trimethylbenzene	47.6			ug/kg	50.0		95.2	75-121	6.06	30	
s-Butylbenzene	48.9			ug/kg	50.0		97.7	70-128	7.28	30	
4-Isopropyl Toluene	49.2			ug/kg	50.0		98.5	75-125	6.82	30	
1,3-Dichlorobenzene	47.1			ug/kg	50.0		94.2	75-120	4.99	30	
1,4-Dichlorobenzene	46.2			ug/kg	50.0		92.3	73-120	5.19	30	
n-Butylbenzene	52.0			ug/kg	50.0		104	73-130	5.13	30	
1,2-Dichlorobenzene	44.8			ug/kg	50.0		89.6	76-120	5.77	30	
1,2-Dibromo-3-chloropropane	40.5			ug/kg	50.0		81.1	72-136	13.90	30	
1,2,4-Trichlorobenzene	50.2			ug/kg	50.0		100	66-140	3.72	30	
Hexachloro-1,3-Butadiene	52.2			ug/kg	50.0		104	67-133	0.02	30	
Naphthalene	43.9			ug/kg	50.0		87.7	69-125	4.57	30	
1,2,3-Trichlorobenzene	47.6			ug/kg	50.0		95.3	68-132	2.61	30	
Dichlorodifluoromethane	64.6			ug/kg	50.0		129	67-142	7.04	30	Q
Methyl tert-butyl Ether	49.9			ug/kg	50.0		99.8	79-127	6.00	30	
n-Hexane	0.00			ug/kg	50.0			30-160			U
2-Pentanone	213			ug/kg	250		85.2	77-120	11.90	30	
Surrogate: 1,2-Dichloroethane-d4	55.6			ug/kg	50.0		111	80-149			
Surrogate: Toluene-d8	51.2			ug/kg	50.0		102	77-120			
Surrogate: 4-Bromofluorobenzene	49.6			ug/kg	50.0		99.2	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	49.9			ug/kg	50.0		99.7	80-120			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - Quality Control

Batch BKE0230 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0230-BLK1)						Prepared: 10-May-2022 Analyzed: 25-May-2022 16:40					
Phenol	34	16	67	ug/kg							J
bis(2-chloroethyl) ether	ND	17	67	ug/kg							U
2-Chlorophenol	ND	14	67	ug/kg							U
1,3-Dichlorobenzene	ND	16	67	ug/kg							U
1,4-Dichlorobenzene	ND	16	67	ug/kg							U
Benzyl Alcohol	ND	87	330	ug/kg							U
1,2-Dichlorobenzene	ND	18	67	ug/kg							U
2-Methylphenol	ND	23	67	ug/kg							U
2,2'-Oxybis(1-chloropropane)	ND	19	67	ug/kg							U
4-Methylphenol	ND	22	67	ug/kg							U
N-Nitroso-di-n-Propylamine	ND	21	67	ug/kg							U
Hexachloroethane	ND	19	67	ug/kg							U
Nitrobenzene	ND	26	67	ug/kg							U
Isophorone	ND	13	67	ug/kg							U
2-Nitrophenol	ND	63	67	ug/kg							U
2,4-Dimethylphenol	ND	16	67	ug/kg							U
Bis(2-Chloroethoxy)methane	ND	17	67	ug/kg							U
Benzoic acid	ND	251	670	ug/kg							U
2,4-Dichlorophenol	ND	75	330	ug/kg							U
1,2,4-Trichlorobenzene	ND	16	67	ug/kg							U
Naphthalene	ND	15	67	ug/kg							U
4-Chloroaniline	ND	100	330	ug/kg							U
Hexachlorobutadiene	ND	19	67	ug/kg							U
4-Chloro-3-Methylphenol	ND	115	330	ug/kg							U
2-Methylnaphthalene	ND	24	67	ug/kg							U
Hexachlorocyclopentadiene	ND	62	330	ug/kg							U
2,4,6-Trichlorophenol	ND	142	330	ug/kg							U
2,4,5-Trichlorophenol	ND	150	330	ug/kg							U
2-Chloronaphthalene	ND	21	67	ug/kg							U
2-Nitroaniline	ND	120	330	ug/kg							U
Dimethylphthalate	ND	27	67	ug/kg							U
Acenaphthylene	ND	21	67	ug/kg							U
2,6-Dinitrotoluene	ND	96	330	ug/kg							U
3-Nitroaniline	ND	104	330	ug/kg							U
Acenaphthene	ND	16	67	ug/kg							U



PERC-Pacific Environmental and Redevelopment Corp
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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
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Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - Quality Control

Batch BKE0230 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0230-BLK1)											
						Prepared: 10-May-2022 Analyzed: 25-May-2022 16:40					
2,4-Dinitrophenol	ND	77	670	ug/kg							U
Dibenzofuran	ND	18	67	ug/kg							U
4-Nitrophenol	ND	48	330	ug/kg							U
2,4-Dinitrotoluene	ND	96	330	ug/kg							U
Fluorene	ND	16	67	ug/kg							U
Diethyl phthalate	24	21	67	ug/kg							J
4-Chlorophenylphenyl ether	ND	21	67	ug/kg							U
4-Nitroaniline	ND	102	330	ug/kg							U
4,6-Dinitro-2-methylphenol	ND	122	670	ug/kg							U
N-Nitrosodiphenylamine	ND	17	67	ug/kg							U
4-Bromophenyl phenyl ether	ND	19	67	ug/kg							U
Hexachlorobenzene	ND	19	67	ug/kg							U
Pentachlorophenol	ND	97	330	ug/kg							U
Phenanthrene	ND	20	67	ug/kg							U
Anthracene	ND	20	67	ug/kg							U
Carbazole	ND	15	67	ug/kg							U
Di-n-Butylphthalate	ND	33	67	ug/kg							U
Fluoranthene	ND	42	67	ug/kg							U
Pyrene	ND	47	67	ug/kg							U
Butylbenzylphthalate	ND	25	67	ug/kg							U
Benzo(a)anthracene	ND	19	67	ug/kg							U
3,3'-Dichlorobenzidine	ND	89	330	ug/kg							U
Chrysene	ND	21	67	ug/kg							U
bis(2-Ethylhexyl)phthalate	ND	24	67	ug/kg							U
Di-n-Octylphthalate	ND	19	67	ug/kg							U
Benzo(a)pyrene	ND	21	67	ug/kg							U
Indeno(1,2,3-cd)pyrene	ND	27	67	ug/kg							U
Dibenzo(a,h)anthracene	ND	25	67	ug/kg							U
Benzo(g,h,i)perylene	ND	26	67	ug/kg							U
Benzo(a)fluoranthene, Total	ND	33	67	ug/kg							U
1-Methylnaphthalene	ND	29	67	ug/kg							U
<i>Surrogate: 2-Fluorophenol</i>	1920			ug/kg	2500		76.8	22-120			
<i>Surrogate: Phenol-d5</i>	1920			ug/kg	2500		76.7	27-120			
<i>Surrogate: 2-Chlorophenol-d4</i>	2170			ug/kg	2500		86.8	36-120			



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Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - Quality Control

Batch BKE0230 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0230-BLK1)						Prepared: 10-May-2022 Analyzed: 25-May-2022 16:40					
Surrogate: 1,2-Dichlorobenzene-d4	1550			ug/kg	1670		93.0	38-120			
Surrogate: Nitrobenzene-d5	1610			ug/kg	1670		96.5	32-120			
Surrogate: 2-Fluorobiphenyl	1620			ug/kg	1670		97.3	39-120			
Surrogate: 2,4,6-Tribromophenol	1950			ug/kg	2500		77.9	31-131			
Surrogate: p-Terphenyl-d14	1630			ug/kg	1670		97.6	31-130			
LCS (BKE0230-BS1)						Prepared: 10-May-2022 Analyzed: 25-May-2022 17:14					
Phenol	1570	16	67	ug/kg	1670		94.3	37-120			
bis(2-chloroethyl) ether	2020	17	67	ug/kg	1670		121	43-120			*
2-Chlorophenol	1680	14	67	ug/kg	1670		101	45-120			
1,3-Dichlorobenzene	1770	16	67	ug/kg	1670		106	47-120			
1,4-Dichlorobenzene	1830	16	67	ug/kg	1670		110	46-120			
Benzyl Alcohol	1670	87	330	ug/kg	1670		100	16-120			
1,2-Dichlorobenzene	1820	18	67	ug/kg	1670		109	48-120			
2-Methylphenol	1640	23	67	ug/kg	1670		98.1	45-120			
2,2'-Oxybis(1-chloropropane)	2270	19	67	ug/kg	1670		136	36-120			*
4-Methylphenol	1690	22	67	ug/kg	1670		101	47-120			
N-Nitroso-di-n-Propylamine	1570	21	67	ug/kg	1670		93.9	44-120			
Hexachloroethane	1830	19	67	ug/kg	1670		110	43-120			
Nitrobenzene	2000	26	67	ug/kg	1670		120	39-120			
Isophorone	2810	13	67	ug/kg	1670		168	75-138			*
2-Nitrophenol	1910	63	67	ug/kg	1670		114	50-120			
2,4-Dimethylphenol	2610	16	67	ug/kg	4330		60.2	40-120			
Bis(2-Chloroethoxy)methane	2290	17	67	ug/kg	1670		137	49-120			*
Benzoic acid	6060	251	670	ug/kg	7670		79.1	10-160			Q
2,4-Dichlorophenol	4180	75	330	ug/kg	4330		96.5	51-120			
1,2,4-Trichlorobenzene	1910	16	67	ug/kg	1670		114	50-120			
Naphthalene	1940	15	67	ug/kg	1670		116	50-120			
4-Chloroaniline	2810	100	330	ug/kg	4330		64.8	17-149			
Hexachlorobutadiene	2060	19	67	ug/kg	1670		124	46-120			*
4-Chloro-3-Methylphenol	4250	115	330	ug/kg	4330		98.1	54-120			
2-Methylnaphthalene	1950	24	67	ug/kg	1670		117	54-120			
Hexachlorocyclopentadiene	2770	62	330	ug/kg	4330		64.0	23-149			
2,4,6-Trichlorophenol	4610	142	330	ug/kg	4330		106	51-120			
2,4,5-Trichlorophenol	4470	150	330	ug/kg	4330		103	52-120			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - Quality Control

Batch BKE0230 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BKE0230-BS1)						Prepared: 10-May-2022 Analyzed: 25-May-2022 17:14					
2-Chloronaphthalene	1980	21	67	ug/kg	1670		119	48-120			
2-Nitroaniline	4330	120	330	ug/kg	4330		99.9	51-120			
Dimethylphthalate	2160	27	67	ug/kg	1670		130	56-120			*
Acenaphthylene	1890	21	67	ug/kg	1670		114	56-120			
2,6-Dinitrotoluene	4850	96	330	ug/kg	4330		112	54-124			
3-Nitroaniline	3670	104	330	ug/kg	4330		84.8	39-142			
Acenaphthene	1990	16	67	ug/kg	1670		120	48-120			
2,4-Dinitrophenol	7680	77	670	ug/kg	7670		100	15-169			Q
Dibenzofuran	2060	18	67	ug/kg	1670		124	55-120			*
4-Nitrophenol	4470	48	330	ug/kg	4330		103	23-130			
2,4-Dinitrotoluene	4750	96	330	ug/kg	4330		110	57-127			
Fluorene	1990	16	67	ug/kg	1670		119	55-120			
Diethyl phthalate	2300	21	67	ug/kg	1670		138	54-120			*
4-Chlorophenylphenyl ether	2140	21	67	ug/kg	1670		129	52-120			*
4-Nitroaniline	3770	102	330	ug/kg	4330		86.9	47-124			
4,6-Dinitro-2-methylphenol	8200	122	670	ug/kg	7670		107	10-157			
N-Nitrosodiphenylamine	1940	17	67	ug/kg	1670		116	54-138			
4-Bromophenyl phenyl ether	2150	19	67	ug/kg	1670		129	50-120			*
Hexachlorobenzene	2060	19	67	ug/kg	1670		124	50-121			*
Pentachlorophenol	4750	97	330	ug/kg	4330		110	40-123			
Phenanthrene	2090	20	67	ug/kg	1670		125	55-120			*
Anthracene	1850	20	67	ug/kg	1670		111	57-120			
Carbazole	2020	15	67	ug/kg	1670		121	30-168			
Di-n-Butylphthalate	2350	33	67	ug/kg	1670		141	60-120			*
Fluoranthene	2340	42	67	ug/kg	1670		141	52-129			*
Pyrene	1900	47	67	ug/kg	1670		114	49-134			
Butylbenzylphthalate	2250	25	67	ug/kg	1670		135	44-144			
Benzo(a)anthracene	2140	19	67	ug/kg	1670		128	56-124			*
3,3'-Dichlorobenzidine	3580	89	330	ug/kg	4330		82.6	37-140			
Chrysene	2110	21	67	ug/kg	1670		127	53-124			*
bis(2-Ethylhexyl)phthalate	2200	24	67	ug/kg	1670		132	63-128			*
Di-n-Octylphthalate	2260	19	67	ug/kg	1670		135	59-120			*
Benzo(b)fluoranthene	2380	67	67	ug/kg	1670		143	42-132			*
Benzo(k)fluoranthene	2210	67	67	ug/kg	1670		132	60-147			*
Benzo(a)pyrene	2050	21	67	ug/kg	1670		123	53-120			*



PERC-Pacific Environmental and Redevelopment Corp
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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - Quality Control

Batch BKE0230 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BKE0230-BS1)					Prepared: 10-May-2022 Analyzed: 25-May-2022 17:14						
Indeno(1,2,3-cd)pyrene	2100	27	67	ug/kg	1670		126	40-128			
Dibenzo(a,h)anthracene	2150	25	67	ug/kg	1670		129	58-145			
Benzo(g,h,i)perylene	2010	26	67	ug/kg	1670		120	44-125			
Benzo(a)fluoranthene, Total	4590	33	67	ug/kg	3330		138	30-160			
1-Methylnaphthalene	2070	29	67	ug/kg	1670		124	55-120			*
<i>Surrogate: 2-Fluorophenol</i>	2320			ug/kg	2500		92.9	22-120			
<i>Surrogate: Phenol-d5</i>	2290			ug/kg	2500		91.5	27-120			
<i>Surrogate: 2-Chlorophenol-d4</i>	2520			ug/kg	2500		101	36-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	1670			ug/kg	1670		100	38-120			
<i>Surrogate: Nitrobenzene-d5</i>	1800			ug/kg	1670		108	32-120			
<i>Surrogate: 2-Fluorobiphenyl</i>	1820			ug/kg	1670		109	39-120			
<i>Surrogate: 2,4,6-Tribromophenol</i>	2910			ug/kg	2500		117	31-131			
<i>Surrogate: p-Terphenyl-d14</i>	1800			ug/kg	1670		108	31-130			



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKE0312 - SWC EPA 3050B

Instrument: ICP2 Analyst: SKD

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0312-BLK1)						Prepared: 12-May-2022 Analyzed: 23-May-2022 22:19					
Arsenic	ND	0.460	5.00	mg/kg							U
Barium	ND	0.260	0.600	mg/kg							U
Cadmium	ND	0.0700	0.200	mg/kg							U
Chromium	ND	0.441	0.900	mg/kg							U
Lead	ND	0.240	2.00	mg/kg							U
Selenium	ND	1.28	5.00	mg/kg							U
Silver	ND	0.0780	0.300	mg/kg							U
LCS (BKE0312-BS1)						Prepared: 12-May-2022 Analyzed: 23-May-2022 22:44					
Arsenic	202	0.460	5.00	mg/kg	200		101	80-120			
Barium	209	0.260	0.600	mg/kg	200		105	80-120			
Cadmium	57.7	0.0700	0.200	mg/kg	50.0		115	80-120			
Chromium	51.5	0.441	0.900	mg/kg	50.0		103	80-120			
Lead	212	0.240	2.00	mg/kg	200		106	80-120			
Selenium	208	1.28	5.00	mg/kg	200		104	80-120			
Silver	52.5	0.0780	0.300	mg/kg	50.0		105	80-120			
Duplicate (BKE0312-DUP1)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 24-May-2022 18:26					
Arsenic	ND	1.19	12.9	mg/kg		ND					U
Lead	4.55	0.621	5.17	mg/kg		4.35			4.49	20	J, D
Silver	ND	0.202	0.776	mg/kg		0.416					U
Duplicate (BKE0312-DUP2)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 25-May-2022 16:34					
Barium	60.3	0.673	1.55	mg/kg		63.7			5.49	20	D
Chromium	22.7	1.14	2.33	mg/kg		43.6			63.10	20	*, D
Selenium	9.69	3.31	12.9	mg/kg		10.5			7.66	20	J, D
Duplicate (BKE0312-DUP3)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 31-May-2022 18:58					
Cadmium	ND	0.181	0.517	mg/kg		ND					U
Matrix Spike (BKE0312-MS1)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 24-May-2022 18:31					
Arsenic	222	1.19	12.9	mg/kg	207	ND	107	75-125			D
Lead	230	0.621	5.17	mg/kg	207	4.35	109	75-125			D
Silver	55.0	0.202	0.776	mg/kg	51.7	0.416	105	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



PERC-Pacific Environmental and Redevelopment Corp 8424 E Meadow Lake Drive Snohomish WA, 98290	Project: Superlon Plastics Project Number: SLON Project Manager: Kenny King	Reported: 06-Jun-2022 15:20
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Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKE0312 - SWC EPA 3050B

Instrument: ICP2 Analyst: MVP

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BKE0312-MS2)		Source: 22E0138-02		Prepared: 12-May-2022		Analyzed: 25-May-2022 16:40					
Barium	266	0.673	1.55	mg/kg	207	63.7	97.6	75-125			D
Chromium	75.5	1.14	2.33	mg/kg	51.7	43.6	61.6	75-125			*, D
Selenium	229	3.31	12.9	mg/kg	207	10.5	105	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike (BKE0312-MS3)		Source: 22E0138-02		Prepared: 12-May-2022		Analyzed: 31-May-2022 19:04					
Cadmium	53.4	0.181	0.517	mg/kg	51.7	ND	103	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



PERC-Pacific Environmental and Redevelopment Corp
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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
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Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKE0315 - SMM EPA 7471B

Instrument: HYDRA Analyst: ML

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0315-BLK1)						Prepared: 12-May-2022 Analyzed: 20-May-2022 13:49					
Mercury	ND	0.00525	0.0250	mg/kg							U
LCS (BKE0315-BS1)						Prepared: 12-May-2022 Analyzed: 20-May-2022 13:51					
Mercury	0.443	0.00525	0.0250	mg/kg	0.500		88.5	80-120			
Duplicate (BKE0315-DUP1)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 20-May-2022 13:55					
Mercury	ND	0.00516	0.0246	mg/kg		0.0196					U
Matrix Spike (BKE0315-MS1)						Source: 22E0138-02 Prepared: 12-May-2022 Analyzed: 20-May-2022 13:58					
Mercury	0.253	0.00519	0.0247	mg/kg	0.247	0.0196	94.5	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
06-Jun-2022 15:20

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010D in Solid	
Silver	NELAP,WADOE,DoD-ELAP
Arsenic	NELAP,WADOE,DoD-ELAP,ADEC
Barium	NELAP,WADOE,ADEC,DoD-ELAP
Cadmium	NELAP,WADOE,DoD-ELAP,ADEC
Chromium	NELAP,WADOE,DoD-ELAP,ADEC
Lead	NELAP,WADOE,DoD-ELAP,ADEC
Selenium	NELAP,WADOE,DoD-ELAP
EPA 7471B in Solid	
Mercury	WADOE,NELAP,DoD-ELAP
EPA 8260D in Solid	
Chloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Bromomethane	WADOE,DoD-ELAP,NELAP,ADEC
Chloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Trichlorofluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Acrolein	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloro-1,2,2-Trifluoroethane	WADOE,DoD-ELAP,NELAP,ADEC
Acetone	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Iodomethane	WADOE,DoD-ELAP,NELAP,ADEC
Methylene Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Acrylonitrile	WADOE,DoD-ELAP,NELAP
Carbon Disulfide	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Acetate	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Butanone	WADOE,DoD-ELAP,NELAP
2,2-Dichloropropane	WADOE,DoD-ELAP,NELAP
cis-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Chloroform	WADOE,DoD-ELAP,NELAP,ADEC
Bromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
Carbon tetrachloride	WADOE,DoD-ELAP,NELAP,ADEC



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1,2-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Benzene	WADOE,DoD-ELAP,NELAP,ADEC
Trichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Bromodichloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Dibromomethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Chloroethyl vinyl ether	WADOE,DoD-ELAP,NELAP
4-Methyl-2-Pentanone	WADOE,DoD-ELAP,NELAP
cis-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
Toluene	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
2-Hexanone	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,3-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Tetrachloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Dibromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dibromoethane	WADOE,DoD-ELAP,NELAP,ADEC
Chlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Ethylbenzene	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
m,p-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
o-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
Xylenes, total	WADOE
Styrene	WADOE,DoD-ELAP,NELAP,ADEC
Bromoform	WADOE,DoD-ELAP,NELAP,ADEC
1,1,2,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,3-Trichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,4-Dichloro 2-Butene	WADOE,DoD-ELAP,NELAP
n-Propylbenzene	WADOE,DoD-ELAP,NELAP
Bromobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Isopropyl Benzene	WADOE,DoD-ELAP,NELAP,ADEC
2-Chlorotoluene	WADOE,DoD-ELAP,NELAP
4-Chlorotoluene	WADOE,DoD-ELAP,NELAP
t-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,3,5-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
1,2,4-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
s-Butylbenzene	WADOE,DoD-ELAP,NELAP
4-Isopropyl Toluene	WADOE,DoD-ELAP,NELAP
1,3-Dichlorobenzene	WADOE,DoD-ELAP,NELAP



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1,4-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
n-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,2-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
1,2-Dibromo-3-chloropropane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,4-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Hexachloro-1,3-Butadiene	WADOE,DoD-ELAP,NELAP,ADEC
Naphthalene	WADOE,DoD-ELAP,NELAP
1,2,3-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Dichlorodifluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Methyl tert-butyl Ether	WADOE,DoD-ELAP,NELAP
n-Hexane	WADOE
2-Pentanone	WADOE
Dibromofluoromethane	WADOE
4-Bromofluorobenzene	WADOE

EPA 8270E in Solid

Phenol	DoD-ELAP,NELAP,WADOE
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
Benzyl Alcohol	DoD-ELAP,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
2-Methylphenol	DoD-ELAP,NELAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP
4-Methylphenol	DoD-ELAP,NELAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,WADOE
Hexachloroethane	DoD-ELAP,NELAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,WADOE
Isophorone	DoD-ELAP,NELAP,WADOE
2-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dimethylphenol	DoD-ELAP,NELAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,WADOE
Benzoic acid	DoD-ELAP,NELAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,WADOE
Naphthalene	DoD-ELAP,NELAP,WADOE,ADEC
4-Chloroaniline	DoD-ELAP,NELAP,WADOE
Hexachlorobutadiene	DoD-ELAP,NELAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,WADOE



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2-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
Hexachlorocyclopentadiene	DoD-ELAP,NELAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2,4,5-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,WADOE
2-Nitroaniline	DoD-ELAP,NELAP,WADOE
Dimethylphthalate	DoD-ELAP,NELAP,WADOE
Acenaphthylene	DoD-ELAP,NELAP,WADOE,ADEC
2,6-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
3-Nitroaniline	DoD-ELAP,NELAP,WADOE
Acenaphthene	DoD-ELAP,NELAP,WADOE,ADEC
2,4-Dinitrophenol	DoD-ELAP,NELAP,WADOE
Dibenzofuran	DoD-ELAP,NELAP,WADOE,ADEC
4-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
Fluorene	DoD-ELAP,NELAP,WADOE,ADEC
Diethyl phthalate	DoD-ELAP,NELAP,WADOE
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,WADOE
Hexachlorobenzene	DoD-ELAP,NELAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,WADOE
Phenanthrene	DoD-ELAP,NELAP,WADOE,ADEC
Anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Carbazole	DoD-ELAP,NELAP,WADOE,ADEC
Di-n-Butylphthalate	DoD-ELAP,NELAP,WADOE
Fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Butylbenzylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,WADOE
Chrysene	DoD-ELAP,NELAP,WADOE,ADEC
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(a)pyrene	DoD-ELAP,NELAP,WADOE,ADEC



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Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,WADOE,ADEC
Benzofluoranthenes, Total	DoD-ELAP,NELAP,WADOE,ADEC
1-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
N-Nitrosodimethylamine	DoD-ELAP,NELAP,WADOE
Aniline	DoD-ELAP,NELAP,WADOE
Benzidine	DoD-ELAP,NELAP,WADOE
Retene	DoD-ELAP,NELAP,WADOE,ADEC
Perylene	DoD-ELAP,NELAP,WADOE,ADEC
Pyridine	DoD-ELAP,NELAP,WADOE
N-Nitrosomethylethylamine	NELAP,WADOE
2,6-Dichlorophenol	NELAP,WADOE
alpha-Terpineol	DoD-ELAP,NELAP,WADOE
2,3,4,6-Tetrachlorophenol	DoD-ELAP,WADOE
Triphenyl Phosphate	DoD-ELAP,NELAP,WADOE
Butyl Diphenyl Phosphate	DoD-ELAP,NELAP,WADOE
Dibutyl Phenyl Phosphate	DoD-ELAP,NELAP,WADOE
Tributyl Phosphate	DoD-ELAP,NELAP,WADOE
Butylated Hydroxytoluene	DoD-ELAP,NELAP,WADOE
Azobenzene (1,2-DP-Hydrazine)	NELAP
4-Chloroguaiacol	WADOE
3,4-Dichloroguaiacol	WADOE
4,5-Dichloroguaiacol	WADOE
4,6-Dichloroguaiacol	WADOE
Tetrachloroguaiacol	DoD-ELAP,WADOE
3,4,5-Trichloroguaiacol	WADOE
3,4,6-Trichloroguaiacol	WADOE
4,5,6-Trichloroguaiacol	WADOE
Guaiacol	WADOE
1,2,4,5-Tetrachlorobenzene	DoD-ELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022
WADOE	WA Dept of Ecology	C558	06/30/2022
WA-DW	Ecology - Drinking Water	C558	06/30/2022



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Notes and Definitions

- * Flagged value is not within established control limits.
- B This analyte was detected in the method blank.
- D The reported value is from a dilution
- D1 Surrogate was not detected due to sample extract dilution
- J Estimated concentration value detected below the reporting limit.
- M Estimated value for a GC/MS analyte detected and confirmed by an analyst but with low spectral match parameters.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- Y1 Raised reporting limit due to interference
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

TOPSOIL SPECIFICATIONS



27 September 2021

Kenny King
PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish, WA 98290

RE: Superlon Plastics SLON-TOP

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

<u>Associated Work Order(s)</u>	<u>Associated SDG ID(s)</u>
21I0005	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

Shelly Fishel, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: <u>2170005</u>		Turn-around Requested: 10 DAY			Date: 8/31/2021				
ARI Client Company: PERC		Phone: 4253480921			Page: of				
Client Contact: Kenny King		No. of Coolers:			Cooler Temps: 5.3				
Client Project Name: Superlon Plastics				Analysis Requested				Notes/Comments	
Client Project #: SLON		Samplers: KING		Total Metals 6010D	SVOC 8270E	VOC 8260D	PCBs		
Sample ID	Date	Time	Matrix					No. Containers	
SLON-TOP-01	08/31/21	06:30	SOIL	7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Comments/Special Instructions	Relinquished by: (Signature) <i>Kenny King</i>		Received by: (Signature) <i>D. Lovin</i>		Relinquished by: (Signature)		Received by: (Signature)		
	Printed Name: Kenny King		Printed Name: <i>Domini Lovin</i>		Printed Name:		Printed Name:		
	Company: PERC		Company: ARI		Company:		Company:		
	Date & Time: 8/31/2021 16:48		Date & Time: 08/31/21 1648		Date & Time:		Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SLON-TOP-01	21I0005-01	Solid	31-Aug-2021 06:30	31-Aug-2021 16:48



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Work Order Case Narrative

Client: PERC-Pacific Environmental and Redevelopment Corp
Project: Superlon Plastics SLON-TOP
Work Order: 2110005

Sample receipt

One sample as listed on the preceding page was received 31-Aug-2021 16:48 under ARI work order 2110005. For details regarding sample receipt, please refer to the Cooler Receipt Form.

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements except 2-Chloroethyl vinyl ether which was out of control high. All samples which contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits except 2-Chloroethyl vinyl ether percent recoveries which were out of control high and have been flagged.

Total Metals - EPA Method 6010D



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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Total Mercury - EPA Method 7470/7471

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Semivolatiles - EPA Method SW8270E

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The standard reference material (SRM) percent recoveriew were within control limits.



Cooler Receipt Form

ARI Client: Perc

Project Name: Super 12 Plaster

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21I0005

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1648 53

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: DL Date: 08/21/21 Time: 1648

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: ISS Date: 08/21/21 Time: 1724 Labels checked by: ISS

**** Notify Project Manager of discrepancies or concerns ****

ISS 09/01/2021

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



PERC-Pacific Environmental and Redevelopment Corp
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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
2110005-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D Sampled: 08/31/2021 06:30
Instrument: NT5 Analyst: PB Analyzed: 09/08/2021 17:16

Sample Preparation: Preparation Method: EPA 5035 (Sodium Bisulfate) Extract ID: 2110005-01 E
Preparation Batch: BJI0234 Sample Size: 3.21 g (wet)
Prepared: 09/08/2021 Final Volume: 5 mL Dry Weight: 2.84 g
% Solids: 88.39

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	1	0.67	1.76	1.45	ug/kg	J
Vinyl Chloride	75-01-4	1	0.59	1.76	ND	ug/kg	U
Bromomethane	74-83-9	1	0.69	1.76	ND	ug/kg	U
Chloroethane	75-00-3	1	2.19	3.52	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	1	1.72	3.52	ND	ug/kg	U
Acrolein	107-02-8	1	3.09	8.81	8.06	ug/kg	J
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	1	1.49	3.52	ND	ug/kg	U
Acetone	67-64-1	1	11.2	17.6	1040	ug/kg	
1,1-Dichloroethene	75-35-4	1	0.65	1.76	ND	ug/kg	U
Iodomethane	74-88-4	1	1.59	1.76	ND	ug/kg	U
Methylene Chloride	75-09-2	1	7.69	8.81	ND	ug/kg	U
Acrylonitrile	107-13-1	1	3.49	8.81	ND	ug/kg	U
Carbon Disulfide	75-15-0	1	0.58	1.76	ND	ug/kg	U
trans-1,2-Dichloroethene	156-60-5	1	0.93	1.76	ND	ug/kg	U
Vinyl Acetate	108-05-4	1	5.73	8.81	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	1	0.50	1.76	ND	ug/kg	U
2-Butanone	78-93-3	1	4.30	8.81	93.2	ug/kg	
2,2-Dichloropropane	594-20-7	1	0.54	1.76	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	1	0.45	1.76	ND	ug/kg	U
Chloroform	67-66-3	1	0.51	1.76	ND	ug/kg	U
Bromochloromethane	74-97-5	1	0.70	1.76	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	1	1.05	1.76	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	1	0.50	1.76	ND	ug/kg	U
Carbon tetrachloride	56-23-5	1	0.55	1.76	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	1	0.41	1.76	ND	ug/kg	U
Benzene	71-43-2	1	0.29	1.76	0.68	ug/kg	J
Trichloroethene	79-01-6	1	0.45	1.76	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	1	0.59	1.76	ND	ug/kg	U
Bromodichloromethane	75-27-4	1	0.45	1.76	ND	ug/kg	U
Dibromomethane	74-95-3	1	0.63	1.76	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	1	5.31	8.81	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	1	2.41	8.81	ND	ug/kg	U
cis-1,3-Dichloropropene	10061-01-5	1	0.46	1.76	ND	ug/kg	U
Toluene	108-88-3	1	0.44	1.76	2.12	ug/kg	
trans-1,3-Dichloropropene	10061-02-6	1	0.72	1.76	ND	ug/kg	U



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 08/31/2021 06:30

Instrument: NT5 Analyst: PB

Analyzed: 09/08/2021 17:16

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Hexanone	591-78-6	1	2.24	8.81	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	1	0.47	1.76	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	1	0.41	1.76	ND	ug/kg	U
Tetrachloroethene	127-18-4	1	0.35	1.76	ND	ug/kg	U
Dibromochloromethane	124-48-1	1	0.47	1.76	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	1	0.54	1.76	ND	ug/kg	U
Chlorobenzene	108-90-7	1	0.36	1.76	ND	ug/kg	U
Ethylbenzene	100-41-4	1	0.40	1.76	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	1	0.62	1.76	ND	ug/kg	U
m,p-Xylene	179601-23-1	1	0.87	3.52	ND	ug/kg	U
o-Xylene	95-47-6	1	0.42	1.76	ND	ug/kg	U
Xylenes, total	1330-20-7	1	1.23	3.52	ND	ug/kg	U
Styrene	100-42-5	1	0.43	1.76	ND	ug/kg	U
Bromoform	75-25-2	1	0.81	1.76	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	1	0.48	1.76	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	1	2.64	3.52	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	1	4.85	8.81	ND	ug/kg	U
n-Propylbenzene	103-65-1	1	0.42	1.76	ND	ug/kg	U
Bromobenzene	108-86-1	1	0.44	1.76	ND	ug/kg	U
Isopropyl Benzene	98-82-8	1	0.46	1.76	ND	ug/kg	U
2-Chlorotoluene	95-49-8	1	0.38	1.76	ND	ug/kg	U
4-Chlorotoluene	106-43-4	1	0.51	1.76	ND	ug/kg	U
t-Butylbenzene	98-06-6	1	0.44	1.76	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	1	0.45	1.76	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	1	0.47	1.76	ND	ug/kg	U
s-Butylbenzene	135-98-8	1	0.42	1.76	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	1	0.51	1.76	3.04	ug/kg	
1,3-Dichlorobenzene	541-73-1	1	0.43	1.76	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	0.76	1.76	ND	ug/kg	U
n-Butylbenzene	104-51-8	1	0.49	1.76	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	1.15	1.76	ND	ug/kg	U
1,2-Dibromo-3-chloropropane	96-12-8	1	4.16	8.81	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	3.20	8.81	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	1	3.17	8.81	ND	ug/kg	U
Naphthalene	91-20-3	1	4.34	8.81	8.43	ug/kg	J
1,2,3-Trichlorobenzene	87-61-6	1	4.09	8.81	ND	ug/kg	U
Dichlorodifluoromethane	75-71-8	1	0.71	1.76	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	1	0.45	1.76	ND	ug/kg	U



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Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 08/31/2021 06:30

Instrument: NT5 Analyst: PB

Analyzed: 09/08/2021 17:16

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Pentanone	107-87-9	1	3.78	8.81	7.48	ug/kg	J
<i>Surrogate: 1,2-Dichloroethane-d4</i>				80-149 %	116	%	
<i>Surrogate: Toluene-d8</i>				77-120 %	99.9	%	
<i>Surrogate: 4-Bromofluorobenzene</i>				80-120 %	93.0	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>				80-120 %	98.0	%	



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Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E Sampled: 08/31/2021 06:30
Instrument: NT14 Analyst: VTS Analyzed: 09/25/2021 11:31
Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 21I0005-01 B 01
Preparation Batch: BJI0283 Sample Size: 11.32 g (wet)
Prepared: 09/10/2021 Final Volume: 1 mL Dry Weight: 10.01 g
% Solids: 88.39
Sample Cleanup: Cleanup Method: GPC Extract ID: 21I0005-01 B 01
Cleanup Batch: CJI0105 Initial Volume: 1 uL
Cleaned: 14-Sep-2021 Final Volume: 1 uL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Phenol	108-95-2	1	4.4	20.0	10.4	ug/kg	J
bis(2-chloroethyl) ether	111-44-4	1	19.3	50.0	ND	ug/kg	U
2-Chlorophenol	95-57-8	1	13.8	20.0	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	3.1	20.0	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	3.1	20.0	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	2.4	20.0	ND	ug/kg	U
Benzyl Alcohol	100-51-6	1	16.3	20.0	ND	ug/kg	U
2,2'-Oxybis(1-chloropropane)	108-60-1	1	3.4	20.0	ND	ug/kg	U
2-Methylphenol	95-48-7	1	6.7	20.0	ND	ug/kg	U
Hexachloroethane	67-72-1	1	3.4	20.0	ND	ug/kg	U
N-Nitroso-di-n-Propylamine	621-64-7	1	7.4	20.0	ND	ug/kg	U
4-Methylphenol	106-44-5	1	7.4	20.0	16.1	ug/kg	J
Nitrobenzene	98-95-3	1	7.2	20.0	ND	ug/kg	U
Isophorone	78-59-1	1	3.9	20.0	ND	ug/kg	U
2-Nitrophenol	88-75-5	1	4.9	20.0	ND	ug/kg	U
2,4-Dimethylphenol	105-67-9	1	3.8	99.9	ND	ug/kg	U
Bis(2-Chloroethoxy)methane	111-91-1	1	4.3	20.0	ND	ug/kg	U
2,4-Dichlorophenol	120-83-2	1	15.3	99.9	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	3.6	20.0	ND	ug/kg	U
Naphthalene	91-20-3	1	4.2	20.0	ND	ug/kg	U
Benzoic acid	65-85-0	1	39.0	200	56.1	ug/kg	J
4-Chloroaniline	106-47-8	1	8.4	99.9	ND	ug/kg	U
Hexachlorobutadiene	87-68-3	1	4.8	20.0	ND	ug/kg	U
4-Chloro-3-Methylphenol	59-50-7	1	12.4	99.9	ND	ug/kg	U
2-Methylnaphthalene	91-57-6	1	4.5	20.0	ND	ug/kg	U
Hexachlorocyclopentadiene	77-47-4	1	24.4	99.9	ND	ug/kg	U
2,4,6-Trichlorophenol	88-06-2	1	9.0	99.9	ND	ug/kg	U
2,4,5-Trichlorophenol	95-95-4	1	25.7	99.9	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	1	8.0	20.0	ND	ug/kg	U
2-Nitroaniline	88-74-4	1	16.4	99.9	ND	ug/kg	U
Acenaphthylene	208-96-8	1	6.2	20.0	ND	ug/kg	U
Dimethylphthalate	131-11-3	1	4.4	20.0	ND	ug/kg	U



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Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 08/31/2021 06:30

Instrument: NT14 Analyst: VTS

Analyzed: 09/25/2021 11:31

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2,6-Dinitrotoluene	606-20-2	1	20.5	99.9	ND	ug/kg	U
Acenaphthene	83-32-9	1	5.2	20.0	13.0	ug/kg	J
3-Nitroaniline	99-09-2	1	22.2	99.9	ND	ug/kg	U
2,4-Dinitrophenol	51-28-5	1	33.8	200	ND	ug/kg	U
Dibenzofuran	132-64-9	1	14.1	20.0	ND	ug/kg	U
4-Nitrophenol	100-02-7	1	32.6	99.9	ND	ug/kg	U
2,4-Dinitrotoluene	121-14-2	1	16.2	99.9	ND	ug/kg	U
Fluorene	86-73-7	1	14.6	20.0	ND	ug/kg	U
4-Chlorophenylphenyl ether	7005-72-3	1	19.1	50.0	ND	ug/kg	U
Diethyl phthalate	84-66-2	1	19.7	50.0	ND	ug/kg	U
4-Nitroaniline	100-01-6	1	29.4	99.9	ND	ug/kg	U
4,6-Dinitro-2-methylphenol	534-52-1	1	38.0	200	ND	ug/kg	U
N-Nitrosodiphenylamine	86-30-6	1	5.3	20.0	ND	ug/kg	U
4-Bromophenyl phenyl ether	101-55-3	1	17.0	20.0	ND	ug/kg	U
Hexachlorobenzene	118-74-1	1	13.5	20.0	ND	ug/kg	U
Pentachlorophenol	87-86-5	1	31.2	99.9	ND	ug/kg	U
Phenanthrene	85-01-8	1	8.7	20.0	70.1	ug/kg	
Anthracene	120-12-7	1	7.2	20.0	7.6	ug/kg	J
Carbazole	86-74-8	1	4.3	20.0	6.3	ug/kg	J
Di-n-Butylphthalate	84-74-2	1	5.6	20.0	ND	ug/kg	U
Fluoranthene	206-44-0	1	6.1	20.0	71.6	ug/kg	
Pyrene	129-00-0	1	5.7	20.0	49.6	ug/kg	
Butylbenzylphthalate	85-68-7	1	9.4	20.0	58.3	ug/kg	M
Benzo(a)anthracene	56-55-3	1	6.0	20.0	9.8	ug/kg	J
3,3'-Dichlorobenzidine	91-94-1	1	7.1	99.9	ND	ug/kg	U
Chrysene	218-01-9	1	6.1	20.0	15.5	ug/kg	J
bis(2-Ethylhexyl)phthalate	117-81-7	1	5.5	50.0	53.1	ug/kg	
Di-n-Octylphthalate	117-84-0	1	4.4	20.0	ND	ug/kg	U
Benzo(a)fluoranthene, Total		1	10.0	40.0	18.9	ug/kg	J
Benzo(a)pyrene	50-32-8	1	4.2	20.0	5.8	ug/kg	J
Indeno(1,2,3-cd)pyrene	193-39-5	1	14.6	20.0	ND	ug/kg	U
Dibenzo(a,h)anthracene	53-70-3	1	17.2	20.0	ND	ug/kg	U
Benzo(g,h,i)perylene	191-24-2	1	13.6	20.0	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	1	5.3	20.0	ND	ug/kg	U
<i>Surrogate: 2-Fluorophenol</i>					27-120 %	71.4	%
<i>Surrogate: Phenol-d5</i>					29-120 %	74.1	%
<i>Surrogate: 2-Chlorophenol-d4</i>					31-120 %	79.9	%
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>					32-120 %	70.7	%



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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 08/31/2021 06:30

Instrument: NT14 Analyst: VTS

Analyzed: 09/25/2021 11:31

Analyte	CAS Number	Recovery	Recovery	Units	Notes
		Limits			
<i>Surrogate: Nitrobenzene-d5</i>		30-120 %	79.9	%	
<i>Surrogate: 2-Fluorobiphenyl</i>		35-120 %	85.4	%	
<i>Surrogate: 2,4,6-Tribromophenol</i>		24-134 %	90.3	%	
<i>Surrogate: p-Terphenyl-d14</i>		37-120 %	93.1	%	



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27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Aroclor PCB

Method: EPA 8082A		Sampled: 08/31/2021 06:30
Instrument: ECD7 Analyst: JGR		Analyzed: 09/21/2021 11:03
Sample Preparation:	Preparation Method: EPA 3546 (Microwave) Preparation Batch: BJI0286 Prepared: 09/10/2021	Sample Size: 5.69 g (wet) Final Volume: 5 mL Extract ID: 21I0005-01 B 02 Dry Weight: 5.03 g % Solids: 88.39
Sample Cleanup:	Cleanup Method: Silica Gel Cleanup Batch: CJI0155 Cleaned: 20-Sep-2021	Initial Volume: 5 mL Final Volume: 5 mL Extract ID: 21I0005-01 B 02
Sample Cleanup:	Cleanup Method: Sulfuric Acid Cleanup Batch: CJI0153 Cleaned: 20-Sep-2021	Initial Volume: 5 uL Final Volume: 5 uL Extract ID: 21I0005-01 B 02
Sample Cleanup:	Cleanup Method: Sulfur Cleanup Batch: CJI0154 Cleaned: 20-Sep-2021	Initial Volume: 5 uL Final Volume: 5 uL Extract ID: 21I0005-01 B 02

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	8.0	19.9	ND	ug/kg	U
Aroclor 1221	11104-28-2	1	8.0	19.9	ND	ug/kg	U
Aroclor 1232	11141-16-5	1	8.0	19.9	ND	ug/kg	U
Aroclor 1242	53469-21-9	1	8.0	19.9	ND	ug/kg	U
Aroclor 1248	12672-29-6	1	8.0	19.9	ND	ug/kg	U
Aroclor 1254	11097-69-1	1	8.0	19.9	ND	ug/kg	U
Aroclor 1260	11096-82-5	1	9.2	19.9	ND	ug/kg	U
Aroclor 1262	37324-23-5	1	9.2	19.9	ND	ug/kg	U
Aroclor 1268	11100-14-4	1	9.2	19.9	ND	ug/kg	U
<i>Surrogate: Decachlorobiphenyl</i>					40-133 %	84.6	%
<i>Surrogate: Tetrachlorometaxylene</i>					53-120 %	78.2	%
<i>Surrogate: Decachlorobiphenyl [2C]</i>					40-133 %	81.5	%
<i>Surrogate: Tetrachlorometaxylene [2C]</i>					53-120 %	74.1	%



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Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D Sampled: 08/31/2021 06:30
Instrument: ICP2 Analyst: MVP Analyzed: 09/09/2021 14:43

Sample Preparation: Preparation Method: SWC EPA 3050B Extract ID: 21I0005-01 C 01
Preparation Batch: BJI0003 Sample Size: 1.079 g (wet)
Prepared: 09/03/2021 Final Volume: 50 mL Dry Weight: 0.96 g
% Solids: 88.57

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aluminum	7429-90-5	5	8.50	18.3	11500	mg/kg	D
Antimony	7440-36-0	5	1.22	13.1	ND	mg/kg	U
Arsenic	7440-38-2	5	1.20	13.1	4.01	mg/kg	D, J
Barium	7440-39-3	5	0.680	1.57	53.3	mg/kg	D
Beryllium	7440-41-7	5	0.0942	0.262	0.252	mg/kg	J, D
Boron	7440-42-8	5	2.96	7.85	ND	mg/kg	U
Cadmium	7440-43-9	5	0.183	0.523	ND	mg/kg	U
Calcium	7440-70-2	5	5.76	13.1	5800	mg/kg	D
Chromium	7440-47-3	5	1.15	2.35	14.6	mg/kg	D
Cobalt	7440-48-4	5	0.110	0.785	6.97	mg/kg	D
Copper	7440-50-8	5	0.366	0.785	24.5	mg/kg	D
Iron	7439-89-6	5	2.80	13.1	19600	mg/kg	D
Lead	7439-92-1	5	0.628	5.23	4.78	mg/kg	J, D
Magnesium	7439-95-4	5	5.47	13.1	4410	mg/kg	D
Manganese	7439-96-5	5	0.419	1.05	248	mg/kg	D
Molybdenum	7439-98-7	5	0.209	1.31	0.405	mg/kg	D, J
Nickel	7440-02-0	5	1.01	2.62	14.6	mg/kg	D
Potassium	7440-09-7	5	28.0	131	1720	mg/kg	D
Selenium	7782-49-2	5	3.35	13.1	6.19	mg/kg	D, J
Silver	7440-22-4	5	0.204	0.785	ND	mg/kg	U
Sodium	7440-23-5	5	27.5	131	422	mg/kg	D
Strontium	7440-24-6	5	0.131	0.262	49.7	mg/kg	D
Thallium	7440-28-0	5	1.23	13.1	3.02	mg/kg	J, D
Tin	7440-31-5	5	2.66	5.23	ND	mg/kg	U
Titanium	7440-32-6	5	0.968	2.09	787	mg/kg	D
Vanadium	7440-62-2	5	0.235	0.785	47.8	mg/kg	D
Zinc	7440-66-6	5	2.09	5.23	50.3	mg/kg	D



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Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

SLON-TOP-01
21I0005-01 (Solid)

Metals and Metallic Compounds

Method: EPA 7471B		Sampled: 08/31/2021 06:30
Instrument: HYDRA Analyst: ML		Analyzed: 09/15/2021 15:54
Sample Preparation:	Preparation Method: SMM EPA 7471B	Extract ID: 21I0005-01 C
	Preparation Batch: BJI0390	Dry Weight: 0.25 g
	Prepared: 09/14/2021	% Solids: 88.57
	Sample Size: 0.283 g (wet)	
	Final Volume: 50 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Mercury	7439-97-6	1	0.00419	0.0199	0.0134	mg/kg	J



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0234-BLK1)						Prepared: 08-Sep-2021 Analyzed: 08-Sep-2021 11:14					
Chloromethane	ND	0.38	1.00	ug/kg							U
Vinyl Chloride	ND	0.34	1.00	ug/kg							U
Bromomethane	ND	0.39	1.00	ug/kg							U
Chloroethane	ND	1.24	2.00	ug/kg							U
Trichlorofluoromethane	ND	0.98	2.00	ug/kg							U
Acrolein	ND	1.75	5.00	ug/kg							U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.85	2.00	ug/kg							U
Acetone	8.87	6.35	10.0	ug/kg							J
1,1-Dichloroethene	ND	0.37	1.00	ug/kg							U
Iodomethane	ND	0.91	1.00	ug/kg							U
Methylene Chloride	ND	4.36	5.00	ug/kg							U
Acrylonitrile	ND	1.98	5.00	ug/kg							U
Carbon Disulfide	ND	0.33	1.00	ug/kg							U
trans-1,2-Dichloroethene	ND	0.53	1.00	ug/kg							U
Vinyl Acetate	ND	3.25	5.00	ug/kg							U
1,1-Dichloroethane	ND	0.28	1.00	ug/kg							U
2-Butanone	ND	2.44	5.00	ug/kg							U
2,2-Dichloropropane	ND	0.31	1.00	ug/kg							U
cis-1,2-Dichloroethene	ND	0.26	1.00	ug/kg							U
Chloroform	ND	0.29	1.00	ug/kg							U
Bromochloromethane	ND	0.40	1.00	ug/kg							U
1,1,1-Trichloroethane	ND	0.60	1.00	ug/kg							U
1,1-Dichloropropene	ND	0.28	1.00	ug/kg							U
Carbon tetrachloride	ND	0.31	1.00	ug/kg							U
1,2-Dichloroethane	ND	0.23	1.00	ug/kg							U
Benzene	ND	0.17	1.00	ug/kg							U
Trichloroethene	ND	0.26	1.00	ug/kg							U
1,2-Dichloropropane	ND	0.33	1.00	ug/kg							U
Bromodichloromethane	ND	0.26	1.00	ug/kg							U
Dibromomethane	ND	0.36	1.00	ug/kg							U
2-Chloroethyl vinyl ether	ND	3.02	5.00	ug/kg							U
4-Methyl-2-Pentanone	ND	1.37	5.00	ug/kg							U
cis-1,3-Dichloropropene	ND	0.26	1.00	ug/kg							U
Toluene	ND	0.25	1.00	ug/kg							U
trans-1,3-Dichloropropene	ND	0.41	1.00	ug/kg							U



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27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0234-BLK1)						Prepared: 08-Sep-2021 Analyzed: 08-Sep-2021 11:14					
2-Hexanone	ND	1.27	5.00	ug/kg							U
1,1,2-Trichloroethane	ND	0.27	1.00	ug/kg							U
1,3-Dichloropropane	ND	0.23	1.00	ug/kg							U
Tetrachloroethene	ND	0.20	1.00	ug/kg							U
Dibromochloromethane	ND	0.27	1.00	ug/kg							U
1,2-Dibromoethane	ND	0.31	1.00	ug/kg							U
Chlorobenzene	ND	0.21	1.00	ug/kg							U
Ethylbenzene	ND	0.23	1.00	ug/kg							U
1,1,1,2-Tetrachloroethane	ND	0.35	1.00	ug/kg							U
m,p-Xylene	ND	0.49	2.00	ug/kg							U
o-Xylene	ND	0.24	1.00	ug/kg							U
Xylenes, total	ND	0.70	2.00	ug/kg							U
Styrene	ND	0.25	1.00	ug/kg							U
Bromoform	ND	0.46	1.00	ug/kg							U
1,1,2,2-Tetrachloroethane	ND	0.27	1.00	ug/kg							U
1,2,3-Trichloropropane	ND	1.50	2.00	ug/kg							U
trans-1,4-Dichloro 2-Butene	ND	2.75	5.00	ug/kg							U
n-Propylbenzene	ND	0.24	1.00	ug/kg							U
Bromobenzene	ND	0.25	1.00	ug/kg							U
Isopropyl Benzene	ND	0.26	1.00	ug/kg							U
2-Chlorotoluene	ND	0.22	1.00	ug/kg							U
4-Chlorotoluene	ND	0.29	1.00	ug/kg							U
t-Butylbenzene	ND	0.25	1.00	ug/kg							U
1,3,5-Trimethylbenzene	ND	0.25	1.00	ug/kg							U
1,2,4-Trimethylbenzene	ND	0.27	1.00	ug/kg							U
s-Butylbenzene	ND	0.24	1.00	ug/kg							U
4-Isopropyl Toluene	ND	0.29	1.00	ug/kg							U
1,3-Dichlorobenzene	ND	0.24	1.00	ug/kg							U
1,4-Dichlorobenzene	ND	0.43	1.00	ug/kg							U
n-Butylbenzene	ND	0.28	1.00	ug/kg							U
1,2-Dichlorobenzene	ND	0.65	1.00	ug/kg							U
1,2-Dibromo-3-chloropropane	ND	2.36	5.00	ug/kg							U
1,2,4-Trichlorobenzene	ND	1.82	5.00	ug/kg							U
Hexachloro-1,3-Butadiene	ND	1.80	5.00	ug/kg							U
Naphthalene	ND	2.46	5.00	ug/kg							U



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27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0234-BLK1)											
						Prepared: 08-Sep-2021	Analyzed: 08-Sep-2021 11:14				
1,2,3-Trichlorobenzene	ND	2.32	5.00	ug/kg							U
Dichlorodifluoromethane	ND	0.40	1.00	ug/kg							U
Methyl tert-butyl Ether	ND	0.25	1.00	ug/kg							U
2-Pentanone	ND	2.15	5.00	ug/kg							U
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.7			ug/kg	50.0		101	80-149			
<i>Surrogate: Toluene-d8</i>	49.8			ug/kg	50.0		99.6	77-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	49.4			ug/kg	50.0		98.8	80-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	50.2			ug/kg	50.0		100	80-120			
LCS (BJI0234-BS1)											
						Prepared: 08-Sep-2021	Analyzed: 08-Sep-2021 10:14				
Chloromethane	44.2			ug/kg	50.0		88.4	64-132			
Vinyl Chloride	49.7			ug/kg	50.0		99.4	74-135			
Bromomethane	44.3			ug/kg	50.0		88.7	53-144			
Chloroethane	48.1			ug/kg	50.0		96.2	55-149			
Trichlorofluoromethane	51.7			ug/kg	50.0		103	61-164			
Acrolein	230			ug/kg	250		92.1	59-140			
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.1			ug/kg	50.0		100	74-143			
Acetone	274			ug/kg	250		110	48-137			
1,1-Dichloroethene	47.8			ug/kg	50.0		95.7	77-134			
Iodomethane	46.9			ug/kg	50.0		93.9	31-162			
Methylene Chloride	44.9			ug/kg	50.0		89.7	69-129			
Acrylonitrile	41.1			ug/kg	50.0		82.2	69-134			
Carbon Disulfide	49.1			ug/kg	50.0		98.2	71-137			
trans-1,2-Dichloroethene	48.3			ug/kg	50.0		96.6	79-130			
Vinyl Acetate	43.3			ug/kg	50.0		86.7	66-141			
1,1-Dichloroethane	47.6			ug/kg	50.0		95.2	80-126			
2-Butanone	220			ug/kg	250		88.0	70-132			
2,2-Dichloropropane	49.7			ug/kg	50.0		99.4	77-138			
cis-1,2-Dichloroethene	48.2			ug/kg	50.0		96.4	80-125			
Chloroform	45.9			ug/kg	50.0		91.9	80-126			
Bromochloromethane	43.9			ug/kg	50.0		87.9	80-129			
1,1,1-Trichloroethane	48.7			ug/kg	50.0		97.4	78-133			
1,1-Dichloropropene	48.4			ug/kg	50.0		96.9	63-145			
Carbon tetrachloride	49.9			ug/kg	50.0		99.8	71-129			
1,2-Dichloroethane	43.6			ug/kg	50.0		87.3	76-120			



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Project: Superlon Plastics SLON-TOP
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Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJI0234-BS1)					Prepared: 08-Sep-2021 Analyzed: 08-Sep-2021 10:14						
Benzene	47.1			ug/kg	50.0		94.2	80-120			
Trichloroethene	46.6			ug/kg	50.0		93.2	80-120			
1,2-Dichloropropane	45.9			ug/kg	50.0		91.8	79-120			
Bromodichloromethane	46.3			ug/kg	50.0		92.7	80-122			
Dibromomethane	43.5			ug/kg	50.0		87.1	80-120			
2-Chloroethyl vinyl ether	66.8			ug/kg	50.0		134	51-129			*, Q
4-Methyl-2-Pentanone	208			ug/kg	250		83.4	73-121			
cis-1,3-Dichloropropene	46.6			ug/kg	50.0		93.1	80-120			
Toluene	46.9			ug/kg	50.0		93.8	75-120			
trans-1,3-Dichloropropene	46.2			ug/kg	50.0		92.4	80-124			
2-Hexanone	217			ug/kg	250		87.0	68-122			
1,1,2-Trichloroethane	44.0			ug/kg	50.0		88.1	79-120			
1,3-Dichloropropane	45.9			ug/kg	50.0		91.8	78-120			
Tetrachloroethene	49.0			ug/kg	50.0		98.1	74-124			
Dibromochloromethane	47.1			ug/kg	50.0		94.1	74-125			
1,2-Dibromoethane	43.5			ug/kg	50.0		87.0	80-120			
Chlorobenzene	48.0			ug/kg	50.0		96.0	78-120			
Ethylbenzene	49.9			ug/kg	50.0		99.9	80-125			
1,1,1,2-Tetrachloroethane	46.8			ug/kg	50.0		93.6	80-120			
m,p-Xylene	100			ug/kg	100		100	76-121			
o-Xylene	49.0			ug/kg	50.0		98.0	67-132			
Xylenes, total	149			ug/kg	150		99.5	67-132			
Styrene	48.8			ug/kg	50.0		97.6	80-120			
Bromoform	45.2			ug/kg	50.0		90.5	64-128			
1,1,2,2-Tetrachloroethane	44.1			ug/kg	50.0		88.2	74-120			
1,2,3-Trichloropropane	42.4			ug/kg	50.0		84.9	73-120			
trans-1,4-Dichloro 2-Butene	44.2			ug/kg	50.0		88.4	65-125			
n-Propylbenzene	49.7			ug/kg	50.0		99.4	72-124			
Bromobenzene	46.4			ug/kg	50.0		92.8	76-120			
Isopropyl Benzene	49.3			ug/kg	50.0		98.6	74-121			
2-Chlorotoluene	47.3			ug/kg	50.0		94.7	75-120			
4-Chlorotoluene	49.1			ug/kg	50.0		98.3	69-124			
t-Butylbenzene	47.8			ug/kg	50.0		95.5	72-122			
1,3,5-Trimethylbenzene	49.7			ug/kg	50.0		99.4	74-122			
1,2,4-Trimethylbenzene	49.4			ug/kg	50.0		98.8	75-121			



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Project: Superlon Plastics SLON-TOP
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Project Manager: Kenny King

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27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJI0234-BS1)											
					Prepared: 08-Sep-2021	Analyzed: 08-Sep-2021 10:14					
s-Butylbenzene	49.7			ug/kg	50.0		99.4	70-128			
4-Isopropyl Toluene	51.2			ug/kg	50.0		102	75-125			
1,3-Dichlorobenzene	49.9			ug/kg	50.0		99.8	75-120			
1,4-Dichlorobenzene	49.0			ug/kg	50.0		97.9	73-120			
n-Butylbenzene	53.0			ug/kg	50.0		106	73-130			
1,2-Dichlorobenzene	46.6			ug/kg	50.0		93.3	76-120			
1,2-Dibromo-3-chloropropane	43.8			ug/kg	50.0		87.7	72-136			
1,2,4-Trichlorobenzene	56.4			ug/kg	50.0		113	66-140			
Hexachloro-1,3-Butadiene	50.8			ug/kg	50.0		102	67-133			
Naphthalene	48.4			ug/kg	50.0		96.7	69-125			
1,2,3-Trichlorobenzene	53.3			ug/kg	50.0		107	68-132			
Dichlorodifluoromethane	50.8			ug/kg	50.0		102	67-142			
Methyl tert-butyl Ether	44.7			ug/kg	50.0		89.4	79-127			
2-Pentanone	215			ug/kg	250		86.2	77-120			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.0			ug/kg	50.0		100	80-149			
<i>Surrogate: Toluene-d8</i>	49.4			ug/kg	50.0		98.8	77-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0			ug/kg	50.0		98.0	80-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	49.3			ug/kg	50.0		98.5	80-120			
LCS Dup (BJI0234-BSD1)											
					Prepared: 08-Sep-2021	Analyzed: 08-Sep-2021 10:50					
Chloromethane	47.0			ug/kg	50.0		93.9	64-132	6.06	30	
Vinyl Chloride	52.0			ug/kg	50.0		104	74-135	4.53	30	
Bromomethane	45.6			ug/kg	50.0		91.3	53-144	2.89	30	
Chloroethane	49.9			ug/kg	50.0		99.8	55-149	3.61	30	
Trichlorofluoromethane	55.1			ug/kg	50.0		110	61-164	6.25	30	
Acrolein	233			ug/kg	250		93.3	59-140	1.25	30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	53.2			ug/kg	50.0		106	74-143	6.07	30	
Acetone	266			ug/kg	250		106	48-137	3.06	30	
1,1-Dichloroethene	49.6			ug/kg	50.0		99.2	77-134	3.61	30	
Iodomethane	52.7			ug/kg	50.0		105	31-162	11.60	30	
Methylene Chloride	47.3			ug/kg	50.0		94.6	69-129	5.33	30	
Acrylonitrile	41.3			ug/kg	50.0		82.6	69-134	0.58	30	
Carbon Disulfide	52.0			ug/kg	50.0		104	71-137	5.80	30	
trans-1,2-Dichloroethene	50.8			ug/kg	50.0		102	79-130	5.06	30	
Vinyl Acetate	43.5			ug/kg	50.0		86.9	66-141	0.29	30	



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Reported:
27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJI0234-BSD1)											
						Prepared: 08-Sep-2021	Analyzed: 08-Sep-2021 10:50				
1,1-Dichloroethane	49.9			ug/kg	50.0		99.8	80-126	4.72	30	
2-Butanone	216			ug/kg	250		86.2	70-132	2.08	30	
2,2-Dichloropropane	52.2			ug/kg	50.0		104	77-138	4.89	30	
cis-1,2-Dichloroethene	50.6			ug/kg	50.0		101	80-125	4.81	30	
Chloroform	48.0			ug/kg	50.0		96.1	80-126	4.50	30	
Bromochloromethane	45.1			ug/kg	50.0		90.2	80-129	2.54	30	
1,1,1-Trichloroethane	50.9			ug/kg	50.0		102	78-133	4.45	30	
1,1-Dichloropropene	50.1			ug/kg	50.0		100	63-145	3.40	30	
Carbon tetrachloride	51.6			ug/kg	50.0		103	71-129	3.44	30	
1,2-Dichloroethane	44.1			ug/kg	50.0		88.3	76-120	1.11	30	
Benzene	48.2			ug/kg	50.0		96.3	80-120	2.17	30	
Trichloroethene	48.4			ug/kg	50.0		96.7	80-120	3.74	30	
1,2-Dichloropropane	46.3			ug/kg	50.0		92.7	79-120	0.90	30	
Bromodichloromethane	47.7			ug/kg	50.0		95.4	80-122	2.89	30	
Dibromomethane	42.8			ug/kg	50.0		85.6	80-120	1.73	30	
2-Chloroethyl vinyl ether	67.9			ug/kg	50.0		136	51-129	1.52	30	*, Q
4-Methyl-2-Pentanone	206			ug/kg	250		82.3	73-121	1.30	30	
cis-1,3-Dichloropropene	47.3			ug/kg	50.0		94.7	80-120	1.65	30	
Toluene	48.2			ug/kg	50.0		96.3	75-120	2.61	30	
trans-1,3-Dichloropropene	46.4			ug/kg	50.0		92.8	80-124	0.46	30	
2-Hexanone	211			ug/kg	250		84.4	68-122	3.01	30	
1,1,2-Trichloroethane	44.9			ug/kg	50.0		89.8	79-120	1.88	30	
1,3-Dichloropropane	46.0			ug/kg	50.0		92.1	78-120	0.37	30	
Tetrachloroethene	50.8			ug/kg	50.0		102	74-124	3.48	30	
Dibromochloromethane	47.5			ug/kg	50.0		95.0	74-125	0.92	30	
1,2-Dibromoethane	43.2			ug/kg	50.0		86.5	80-120	0.56	30	
Chlorobenzene	49.2			ug/kg	50.0		98.5	78-120	2.57	30	
Ethylbenzene	50.2			ug/kg	50.0		100	80-125	0.50	30	
1,1,1,2-Tetrachloroethane	47.4			ug/kg	50.0		94.8	80-120	1.25	30	
m,p-Xylene	102			ug/kg	100		102	76-121	1.39	30	
o-Xylene	50.0			ug/kg	50.0		100	67-132	2.06	30	
Xylenes, total	152			ug/kg	150		101	67-132	1.61	30	
Styrene	50.1			ug/kg	50.0		100	80-120	2.58	30	
Bromoform	45.8			ug/kg	50.0		91.5	64-128	1.15	30	
1,1,2,2-Tetrachloroethane	44.1			ug/kg	50.0		88.3	74-120	0.03	30	



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Reported:
27-Sep-2021 16:59

Volatile Organic Compounds - Quality Control

Batch BJI0234 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJI0234-BSD1)					Prepared: 08-Sep-2021		Analyzed: 08-Sep-2021 10:50				
1,2,3-Trichloropropane	41.4			ug/kg	50.0		82.8	73-120	2.53	30	
trans-1,4-Dichloro 2-Butene	44.5			ug/kg	50.0		89.0	65-125	0.70	30	
n-Propylbenzene	51.9			ug/kg	50.0		104	72-124	4.36	30	
Bromobenzene	47.4			ug/kg	50.0		94.9	76-120	2.23	30	
Isopropyl Benzene	51.3			ug/kg	50.0		103	74-121	4.05	30	
2-Chlorotoluene	49.5			ug/kg	50.0		99.0	75-120	4.40	30	
4-Chlorotoluene	51.1			ug/kg	50.0		102	69-124	4.00	30	
t-Butylbenzene	50.0			ug/kg	50.0		100	72-122	4.65	30	
1,3,5-Trimethylbenzene	51.2			ug/kg	50.0		102	74-122	3.10	30	
1,2,4-Trimethylbenzene	51.3			ug/kg	50.0		103	75-121	3.72	30	
s-Butylbenzene	51.6			ug/kg	50.0		103	70-128	3.74	30	
4-Isopropyl Toluene	52.9			ug/kg	50.0		106	75-125	3.35	30	
1,3-Dichlorobenzene	51.5			ug/kg	50.0		103	75-120	3.19	30	
1,4-Dichlorobenzene	50.2			ug/kg	50.0		100	73-120	2.48	30	
n-Butylbenzene	54.4			ug/kg	50.0		109	73-130	2.73	30	
1,2-Dichlorobenzene	48.0			ug/kg	50.0		96.1	76-120	2.94	30	
1,2-Dibromo-3-chloropropane	42.1			ug/kg	50.0		84.2	72-136	4.04	30	
1,2,4-Trichlorobenzene	56.7			ug/kg	50.0		113	66-140	0.43	30	
Hexachloro-1,3-Butadiene	50.3			ug/kg	50.0		101	67-133	0.87	30	
Naphthalene	46.4			ug/kg	50.0		92.9	69-125	4.04	30	
1,2,3-Trichlorobenzene	51.4			ug/kg	50.0		103	68-132	3.68	30	
Dichlorodifluoromethane	53.4			ug/kg	50.0		107	67-142	4.85	30	
Methyl tert-butyl Ether	46.2			ug/kg	50.0		92.5	79-127	3.35	30	
2-Pentanone	207			ug/kg	250		82.9	77-120	3.84	30	
Surrogate: 1,2-Dichloroethane-d4	50.6			ug/kg	50.0		101	80-149			
Surrogate: Toluene-d8	49.7			ug/kg	50.0		99.4	77-120			
Surrogate: 4-Bromofluorobenzene	50.0			ug/kg	50.0		99.9	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	49.5			ug/kg	50.0		99.0	80-120			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatile Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0283-BLK1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 09:06					
Phenol	ND	4.4	20.0	ug/kg							U
bis(2-chloroethyl) ether	ND	19.3	50.0	ug/kg							U
2-Chlorophenol	ND	13.9	20.0	ug/kg							U
1,3-Dichlorobenzene	ND	3.1	20.0	ug/kg							U
1,4-Dichlorobenzene	ND	3.1	20.0	ug/kg							U
1,2-Dichlorobenzene	ND	2.4	20.0	ug/kg							U
Benzyl Alcohol	ND	16.3	20.0	ug/kg							U
2,2'-Oxybis(1-chloropropane)	ND	3.4	20.0	ug/kg							U
2-Methylphenol	ND	6.7	20.0	ug/kg							U
Hexachloroethane	ND	3.5	20.0	ug/kg							U
N-Nitroso-di-n-Propylamine	ND	7.5	20.0	ug/kg							U
4-Methylphenol	ND	7.4	20.0	ug/kg							U
Nitrobenzene	ND	7.2	20.0	ug/kg							U
Isophorone	ND	3.9	20.0	ug/kg							U
2-Nitrophenol	ND	4.9	20.0	ug/kg							U
2,4-Dimethylphenol	ND	3.8	100	ug/kg							U
Bis(2-Chloroethoxy)methane	ND	4.3	20.0	ug/kg							U
2,4-Dichlorophenol	ND	15.3	100	ug/kg							U
1,2,4-Trichlorobenzene	ND	3.6	20.0	ug/kg							U
Naphthalene	ND	4.2	20.0	ug/kg							U
Benzoic acid	ND	39.0	200	ug/kg							U
4-Chloroaniline	ND	8.4	100	ug/kg							U
Hexachlorobutadiene	ND	4.8	20.0	ug/kg							U
4-Chloro-3-Methylphenol	ND	12.4	100	ug/kg							U
2-Methylnaphthalene	ND	4.5	20.0	ug/kg							U
Hexachlorocyclopentadiene	ND	24.5	100	ug/kg							U
2,4,6-Trichlorophenol	ND	9.0	100	ug/kg							U
2,4,5-Trichlorophenol	ND	25.8	100	ug/kg							U
2-Chloronaphthalene	ND	8.0	20.0	ug/kg							U
2-Nitroaniline	ND	16.4	100	ug/kg							U
Acenaphthylene	ND	6.2	20.0	ug/kg							U
Dimethylphthalate	ND	4.4	20.0	ug/kg							U
2,6-Dinitrotoluene	ND	20.5	100	ug/kg							U
Acenaphthene	ND	5.2	20.0	ug/kg							U
3-Nitroaniline	ND	22.3	100	ug/kg							U



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Project: Superlon Plastics SLON-TOP
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Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatile Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0283-BLK1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 09:06					
2,4-Dinitrophenol	ND	33.8	200	ug/kg							U
Dibenzofuran	ND	14.1	20.0	ug/kg							U
4-Nitrophenol	ND	32.6	100	ug/kg							U
2,4-Dinitrotoluene	ND	16.2	100	ug/kg							U
Fluorene	ND	14.6	20.0	ug/kg							U
4-Chlorophenylphenyl ether	ND	19.2	50.0	ug/kg							U
Diethyl phthalate	ND	19.7	50.0	ug/kg							U
4-Nitroaniline	ND	29.4	100	ug/kg							U
4,6-Dinitro-2-methylphenol	ND	38.0	200	ug/kg							U
N-Nitrosodiphenylamine	ND	5.3	20.0	ug/kg							U
4-Bromophenyl phenyl ether	ND	17.0	20.0	ug/kg							U
Hexachlorobenzene	ND	13.5	20.0	ug/kg							U
Pentachlorophenol	ND	31.3	100	ug/kg							U
Phenanthrene	ND	8.7	20.0	ug/kg							U
Anthracene	ND	7.2	20.0	ug/kg							U
Carbazole	ND	4.3	20.0	ug/kg							U
Di-n-Butylphthalate	ND	5.6	20.0	ug/kg							U
Fluoranthene	ND	6.1	20.0	ug/kg							U
Pyrene	ND	5.7	20.0	ug/kg							U
Butylbenzylphthalate	ND	9.4	20.0	ug/kg							U
Benzo(a)anthracene	ND	6.0	20.0	ug/kg							U
3,3'-Dichlorobenzidine	ND	7.1	100	ug/kg							U
Chrysene	ND	6.1	20.0	ug/kg							U
bis(2-Ethylhexyl)phthalate	ND	5.5	50.0	ug/kg							U
Di-n-Octylphthalate	ND	4.4	20.0	ug/kg							U
Benzo(a)fluoranthene, Total	ND	10.0	40.0	ug/kg							U
Benzo(a)pyrene	ND	4.2	20.0	ug/kg							U
Indeno(1,2,3-cd)pyrene	ND	14.7	20.0	ug/kg							U
Dibenzo(a,h)anthracene	ND	17.2	20.0	ug/kg							U
Benzo(g,h,i)perylene	ND	13.6	20.0	ug/kg							U
1-Methylnaphthalene	ND	5.3	20.0	ug/kg							U
Surrogate: 2-Fluorophenol	529			ug/kg	750		70.5	27-120			
Surrogate: Phenol-d5	539			ug/kg	750		71.8	29-120			
Surrogate: 2-Chlorophenol-d4	576			ug/kg	750		76.8	31-120			



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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatile Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0283-BLK1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 09:06					
Surrogate: 1,2-Dichlorobenzene-d4	352			ug/kg	500		70.5	32-120			
Surrogate: Nitrobenzene-d5	390			ug/kg	500		78.0	30-120			
Surrogate: 2-Fluorobiphenyl	406			ug/kg	500		81.3	35-120			
Surrogate: 2,4,6-Tribromophenol	567			ug/kg	750		75.6	24-134			
Surrogate: p-Terphenyl-d14	512			ug/kg	500		102	37-120			
LCS (BJI0283-BS1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 09:42					
Phenol	301	4.4	20.0	ug/kg	500		60.2	34-120			
bis(2-chloroethyl) ether	336	19.3	50.0	ug/kg	500		67.3	36-120			
2-Chlorophenol	310	13.9	20.0	ug/kg	500		62.0	39-120			
1,3-Dichlorobenzene	299	3.1	20.0	ug/kg	500		59.8	40-120			
1,4-Dichlorobenzene	338	3.1	20.0	ug/kg	500		67.5	39-120			
1,2-Dichlorobenzene	309	2.4	20.0	ug/kg	500		61.9	40-120			
Benzyl Alcohol	332	16.3	20.0	ug/kg	500		66.4	19-120			
2,2'-Oxybis(1-chloropropane)	362	3.4	20.0	ug/kg	500		72.4	32-120			
2-Methylphenol	300	6.7	20.0	ug/kg	500		60.1	28-120			
Hexachloroethane	340	3.5	20.0	ug/kg	500		68.0	38-120			
N-Nitroso-di-n-Propylamine	320	7.5	20.0	ug/kg	500		63.9	34-120			
4-Methylphenol	316	7.4	20.0	ug/kg	500		63.2	29-120			
Nitrobenzene	346	7.2	20.0	ug/kg	500		69.2	36-120			
Isophorone	478	3.9	20.0	ug/kg	500		95.7	37-120			
2-Nitrophenol	359	4.9	20.0	ug/kg	500		71.8	30-120			
2,4-Dimethylphenol	795	3.8	100	ug/kg	1300		61.1	10-120			
Bis(2-Chloroethoxy)methane	387	4.3	20.0	ug/kg	500		77.4	39-120			
2,4-Dichlorophenol	1070	15.3	100	ug/kg	1300		82.3	28-120			
1,2,4-Trichlorobenzene	318	3.6	20.0	ug/kg	500		63.6	35-120			
Naphthalene	317	4.2	20.0	ug/kg	500		63.4	43-120			
Benzoic acid	1470	39.0	200	ug/kg	2300		63.9	10-120			
4-Chloroaniline	873	8.4	100	ug/kg	1300		67.1	11-120			
Hexachlorobutadiene	309	4.8	20.0	ug/kg	500		61.9	37-120			
4-Chloro-3-Methylphenol	1190	12.4	100	ug/kg	1300		91.6	32-120			
2-Methylnaphthalene	347	4.5	20.0	ug/kg	500		69.3	43-120			
Hexachlorocyclopentadiene	784	24.5	100	ug/kg	1300		60.3	10-120			
2,4,6-Trichlorophenol	1170	9.0	100	ug/kg	1300		90.0	44.6-132			
2,4,5-Trichlorophenol	1210	25.8	100	ug/kg	1300		93.1	51.5-129			



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatile Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJI0283-BS1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 09:42					
2-Chloronaphthalene	371	8.0	20.0	ug/kg	500		74.1	40-120			
2-Nitroaniline	1250	16.4	100	ug/kg	1300		96.2	40-152			
Acenaphthylene	359	6.2	20.0	ug/kg	500		71.9	42-120			
Dimethylphthalate	443	4.4	20.0	ug/kg	500		88.6	43-120			
2,6-Dinitrotoluene	1350	20.5	100	ug/kg	1300		104	31-156			
Acenaphthene	364	5.2	20.0	ug/kg	500		72.8	45-120			
3-Nitroaniline	1170	22.3	100	ug/kg	1300		89.8	22-120			
2,4-Dinitrophenol	2270	33.8	200	ug/kg	2300		98.6	10-120			
Dibenzofuran	401	14.1	20.0	ug/kg	500		80.3	43-120			
4-Nitrophenol	1350	32.6	100	ug/kg	1300		104	15-138			
2,4-Dinitrotoluene	1280	16.2	100	ug/kg	1300		98.6	44-150			
Fluorene	363	14.6	20.0	ug/kg	500		72.6	45-120			
4-Chlorophenylphenyl ether	406	19.2	50.0	ug/kg	500		81.2	36-141			
Diethyl phthalate	500	19.7	50.0	ug/kg	500		100	50-120			
4-Nitroaniline	1300	29.4	100	ug/kg	1300		99.9	24-168			
4,6-Dinitro-2-methylphenol	2320	38.0	200	ug/kg	2300		101	33-144			
N-Nitrosodiphenylamine	380	5.3	20.0	ug/kg	500		75.9	70-154			
4-Bromophenyl phenyl ether	462	17.0	20.0	ug/kg	500		92.3	39-120			
Hexachlorobenzene	461	13.5	20.0	ug/kg	500		92.2	33-120			
Pentachlorophenol	1440	31.3	100	ug/kg	1300		111	16-120			
Phenanthrene	432	8.7	20.0	ug/kg	500		86.4	49-120			
Anthracene	410	7.2	20.0	ug/kg	500		82.0	45-120			
Carbazole	453	4.3	20.0	ug/kg	500		90.7	43-135			
Di-n-Butylphthalate	541	5.6	20.0	ug/kg	500		108	48-126			
Fluoranthene	465	6.1	20.0	ug/kg	500		93.0	53-145			
Pyrene	459	5.7	20.0	ug/kg	500		91.8	52-134			
Butylbenzylphthalate	460	9.4	20.0	ug/kg	500		91.9	45-132			
Benzo(a)anthracene	462	6.0	20.0	ug/kg	500		92.3	49-120			
3,3'-Dichlorobenzidine	1030	7.1	100	ug/kg	1300		79.5	10-120			
Chrysene	455	6.1	20.0	ug/kg	500		91.0	47-120			
bis(2-Ethylhexyl)phthalate	553	5.5	50.0	ug/kg	500		111	34-130			
Di-n-Octylphthalate	484	4.4	20.0	ug/kg	500		96.9	28-124			
Benzo(a)fluoranthene, Total	975	10.0	40.0	ug/kg	1000		97.5	30-160			
Benzo(a)pyrene	462	4.2	20.0	ug/kg	500		92.4	42-120			
Indeno(1,2,3-cd)pyrene	496	14.7	20.0	ug/kg	500		99.2	42-163			



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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatile Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJI0283-BS1)					Prepared: 10-Sep-2021		Analyzed: 25-Sep-2021 09:42				
Dibenzo(a,h)anthracene	514	17.2	20.0	ug/kg	500		103	30-133			
Benzo(g,h,i)perylene	497	13.6	20.0	ug/kg	500		99.3	46-148			
1-Methylnaphthalene	363	5.3	20.0	ug/kg	500		72.6	42-120			
Surrogate: 2-Fluorophenol	482			ug/kg	750		64.3	27-120			
Surrogate: Phenol-d5	493			ug/kg	750		65.8	29-120			
Surrogate: 2-Chlorophenol-d4	515			ug/kg	750		68.7	31-120			
Surrogate: 1,2-Dichlorobenzene-d4	300			ug/kg	500		60.0	32-120			
Surrogate: Nitrobenzene-d5	348			ug/kg	500		69.7	30-120			
Surrogate: 2-Fluorobiphenyl	365			ug/kg	500		73.0	35-120			
Surrogate: 2,4,6-Tribromophenol	653			ug/kg	750		87.1	24-134			
Surrogate: p-Terphenyl-d14	500			ug/kg	500		99.9	37-120			
Reference (BJI0283-SRM1)					Prepared: 10-Sep-2021		Analyzed: 25-Sep-2021 10:55				
Phenol	3270	43.9	200	ug/kg	4870		67.1	18-182			
2-Chlorophenol	3090	139	200	ug/kg	6050		51.1	16-183			
1,3-Dichlorobenzene	1860	31.3	200	ug/kg	5610		33.1	16-184			
1,4-Dichlorobenzene	2890	31.4	200	ug/kg	7450		38.7	12-188			
1,2-Dichlorobenzene	597	23.7	200	ug/kg	1700		35.1	17-184			
2-Methylphenol	3710	66.6	200	ug/kg	5870		63.2	27-174			
Hexachloroethane	2450	34.5	200	ug/kg	5770		42.4	9-191			
N-Nitroso-di-n-Propylamine	3320	74.5	200	ug/kg	7930		41.9	29-170			
4-Methylphenol	4350	73.9	200	ug/kg	5980		72.8	10-189			
Isophorone	5670	39.3	200	ug/kg	7010		80.9	20-180			
2-Nitrophenol	1710	48.6	200	ug/kg	3670		46.7	22-178			
2,4-Dimethylphenol	2480	37.8	1000	ug/kg	4380		56.6	19-181			
Bis(2-Chloroethoxy)methane	2880	43.1	200	ug/kg	4860		59.2	25-175			
2,4-Dichlorophenol	3470	153	1000	ug/kg	4410		78.8	29-171			
Naphthalene	903	42.4	200	ug/kg	1920		47.0	41-159			
2-Methylnaphthalene	2290	45.1	200	ug/kg	3600		63.5	51-149			
2,4,6-Trichlorophenol	4930	89.8	1000	ug/kg	5880		83.9	43-157			
2,4,5-Trichlorophenol	3520	258	1000	ug/kg	4150		84.8	32-168			
2-Chloronaphthalene	2080	79.6	200	ug/kg	3000		69.4	0-201			
2-Nitroaniline	2080	164	1000	ug/kg	2350		88.6	40-160			
Acenaphthylene	3590	62.4	200	ug/kg	5450		65.8	57-142			
2,6-Dinitrotoluene	7370	205	1000	ug/kg	7300		101	27-174			



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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Semivolatle Organic Compounds - Quality Control

Batch BJI0283 - EPA 3546 (Microwave)

Instrument: NT14 Analyst: VTS

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Reference (BJI0283-SRM1)						Prepared: 10-Sep-2021 Analyzed: 25-Sep-2021 10:55					
Acenaphthene	3280	52.2	200	ug/kg	4250		77.1	59-141			
Dibenzofuran	3520	141	200	ug/kg	4010		87.8	58-142			
4-Nitrophenol	4500	326	1000	ug/kg	3870		116	0-313			
2,4-Dinitrotoluene	5410	162	1000	ug/kg	5760		93.9	32-168			
Fluorene	5620	146	200	ug/kg	5780		97.2	48-152			
4-Chlorophenylphenyl ether	1460	192	500	ug/kg	1680		86.9	51-149			
N-Nitrosodiphenylamine	5100	53.2	200	ug/kg	5460		93.4	24-176			
4-Bromophenyl phenyl ether	3460	170	200	ug/kg	3500		98.9	35-165			
Hexachlorobenzene	2730	135	200	ug/kg	2610		105	41-159			
Pentachlorophenol	6800	313	1000	ug/kg	5820		117	8-192			
Phenanthrene	2090	87.2	200	ug/kg	2210		94.7	40-160			
Anthracene	2640	71.9	200	ug/kg	3240		81.3	52-148			
Fluoranthene	4560	60.9	200	ug/kg	4060		112	46-155			
Pyrene	6280	56.8	200	ug/kg	6300		99.7	27-173			
Benzo(a)anthracene	3250	59.6	200	ug/kg	3280		99.1	33-167			
Chrysene	1740	60.6	200	ug/kg	1750		99.6	62-139			
Di-n-Octylphthalate	7570	43.9	200	ug/kg	7640		99.1	7-192			
Benzo(a)pyrene	1320	42.3	200	ug/kg	1690		78.2	44-156			
Indeno(1,2,3-cd)pyrene	3040	147	200	ug/kg	2670		114	27-173			
Dibenzo(a,h)anthracene	3350	172	200	ug/kg	3030		111	19-181			
Benzo(g,h,i)perylene	2980	136	200	ug/kg	2550		117	40-160			
Surrogate: 2-Fluorophenol	4320			ug/kg	7500		57.6	27-120			
Surrogate: Phenol-d5	4570			ug/kg	7500		61.0	29-120			
Surrogate: 2-Chlorophenol-d4	4690			ug/kg	7500		62.5	31-120			
Surrogate: 1,2-Dichlorobenzene-d4	2630			ug/kg	5000		52.7	32-120			
Surrogate: Nitrobenzene-d5	3020			ug/kg	5000		60.4	30-120			
Surrogate: 2-Fluorobiphenyl	3310			ug/kg	5000		66.3	35-120			
Surrogate: 2,4,6-Tribromophenol	6570			ug/kg	7500		87.7	24-134			
Surrogate: p-Terphenyl-d14	4820			ug/kg	5000		96.4	37-120			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Aroclor PCB - Quality Control

Batch BJI0286 - EPA 3546 (Microwave)

Instrument: ECD7 Analyst: JGR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0286-BLK1)											
						Prepared: 10-Sep-2021	Analyzed: 21-Sep-2021 10:02				
Aroclor 1016	ND	8.0	20.0	ug/kg							U
Aroclor 1221	ND	8.0	20.0	ug/kg							U
Aroclor 1232	ND	8.0	20.0	ug/kg							U
Aroclor 1242	ND	8.0	20.0	ug/kg							U
Aroclor 1248	ND	8.0	20.0	ug/kg							U
Aroclor 1254	ND	8.0	20.0	ug/kg							U
Aroclor 1260	ND	9.3	20.0	ug/kg							U
Aroclor 1262	ND	9.3	20.0	ug/kg							U
Aroclor 1268	ND	9.3	20.0	ug/kg							U
<i>Surrogate: Decachlorobiphenyl</i>	34.8			ug/kg	40.0		87.0	40-133			
<i>Surrogate: Tetrachlorometaxylene</i>	29.5			ug/kg	40.0		73.7	53-120			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	33.5			ug/kg	40.0		83.8	40-133			
<i>Surrogate: Tetrachlorometaxylene [2C]</i>	27.5			ug/kg	40.0		68.7	53-120			
LCS (BJI0286-BS1)											
						Prepared: 10-Sep-2021	Analyzed: 21-Sep-2021 10:22				
Aroclor 1016 [2C]	367	8.0	20.0	ug/kg	500		73.4	52-120			
Aroclor 1260	362	9.3	20.0	ug/kg	500		72.4	57-120			
<i>Surrogate: Decachlorobiphenyl</i>	31.1			ug/kg	40.0		77.9	40-133			
<i>Surrogate: Tetrachlorometaxylene</i>	26.2			ug/kg	40.0		65.4	53-120			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	29.6			ug/kg	40.0		74.1	40-133			
<i>Surrogate: Tetrachlorometaxylene [2C]</i>	25.9			ug/kg	40.0		64.8	53-120			
LCS Dup (BJI0286-BSD1)											
						Prepared: 10-Sep-2021	Analyzed: 21-Sep-2021 10:43				
Aroclor 1016	398	8.0	20.0	ug/kg	500		79.6	52-120	9.22	30	
Aroclor 1260	392	9.3	20.0	ug/kg	500		78.4	57-120	7.91	30	
<i>Surrogate: Decachlorobiphenyl</i>	34.0			ug/kg	40.0		85.1	40-133			
<i>Surrogate: Tetrachlorometaxylene</i>	29.4			ug/kg	40.0		73.4	53-120			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	32.4			ug/kg	40.0		80.9	40-133			
<i>Surrogate: Tetrachlorometaxylene [2C]</i>	28.5			ug/kg	40.0		71.2	53-120			



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Metals and Metallic Compounds - Quality Control

Batch BJI0003 - SWC EPA 3050B

Instrument: ICP2 Analyst: MVP

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0003-BLK1)											
						Prepared: 03-Sep-2021 Analyzed: 06-Sep-2021 13:42					
Antimony	ND	0.466	5.00	mg/kg							U
Arsenic	ND	0.460	5.00	mg/kg							U
Barium	ND	0.260	0.600	mg/kg							U
Beryllium	ND	0.0360	0.100	mg/kg							U
Boron	ND	1.13	3.00	mg/kg							U
Cadmium	ND	0.0700	0.200	mg/kg							U
Calcium	ND	2.20	5.00	mg/kg							U
Chromium	ND	0.441	0.900	mg/kg							U
Cobalt	ND	0.0420	0.300	mg/kg							U
Copper	ND	0.140	0.300	mg/kg							U
Lead	ND	0.240	2.00	mg/kg							U
Magnesium	ND	2.09	5.00	mg/kg							U
Manganese	ND	0.160	0.400	mg/kg							U
Molybdenum	ND	0.0800	0.500	mg/kg							U
Nickel	ND	0.387	1.00	mg/kg							U
Potassium	ND	10.7	50.0	mg/kg							U
Selenium	ND	1.28	5.00	mg/kg							U
Silver	ND	0.0780	0.300	mg/kg							U
Sodium	ND	10.5	50.0	mg/kg							U
Strontium	ND	0.0500	0.100	mg/kg							U
Thallium	ND	0.471	5.00	mg/kg							U
Tin	ND	1.02	2.00	mg/kg							U
Titanium	ND	0.370	0.800	mg/kg							U
Zinc	ND	0.800	2.00	mg/kg							U
Blank (BJI0003-BLK3)											
						Prepared: 03-Sep-2021 Analyzed: 08-Sep-2021 14:35					
Iron	ND	1.07	5.00	mg/kg							U
Vanadium	ND	0.0900	0.300	mg/kg							U
Blank (BJI0003-BLK4)											
						Prepared: 03-Sep-2021 Analyzed: 09-Sep-2021 14:01					
Aluminum	ND	3.25	7.00	mg/kg							U
LCS (BJI0003-BS1)											
						Prepared: 03-Sep-2021 Analyzed: 06-Sep-2021 13:46					
Antimony	195	0.466	5.00	mg/kg	200		97.3	80-120			
Arsenic	193	0.460	5.00	mg/kg	200		96.3	80-120			



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Metals and Metallic Compounds - Quality Control

Batch BJI0003 - SWC EPA 3050B

Instrument: ICP2 Analyst: MVP

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJI0003-BS1)						Prepared: 03-Sep-2021 Analyzed: 06-Sep-2021 13:46					
Barium	189	0.260	0.600	mg/kg	200		94.4	80-120			
Beryllium	47.4	0.0360	0.100	mg/kg	50.0		94.8	80-120			
Boron	46.2	1.13	3.00	mg/kg	50.0		92.4	80-120			
Cadmium	50.5	0.0700	0.200	mg/kg	50.0		101	80-120			
Calcium	940	2.20	5.00	mg/kg	1000		94.0	80-120			
Chromium	46.4	0.441	0.900	mg/kg	50.0		92.9	80-120			
Cobalt	49.6	0.0420	0.300	mg/kg	50.0		99.2	80-120			
Copper	42.5	0.140	0.300	mg/kg	50.0		85.0	80-120			
Lead	195	0.240	2.00	mg/kg	200		97.7	80-120			
Magnesium	1020	2.09	5.00	mg/kg	1000		102	80-120			
Manganese	46.9	0.160	0.400	mg/kg	50.0		93.8	80-120			
Molybdenum	47.4	0.0800	0.500	mg/kg	50.0		94.7	80-120			
Nickel	47.9	0.387	1.00	mg/kg	50.0		95.8	80-120			
Potassium	975	10.7	50.0	mg/kg	1000		97.5	80-120			
Selenium	195	1.28	5.00	mg/kg	200		97.4	80-120			
Silver	47.8	0.0780	0.300	mg/kg	50.0		95.6	80-120			
Sodium	956	10.5	50.0	mg/kg	1000		95.6	80-120			
Strontium	47.3	0.0500	0.100	mg/kg	50.0		94.6	80-120			
Thallium	197	0.471	5.00	mg/kg	200		98.6	80-120			
Tin	46.9	1.02	2.00	mg/kg	50.0		93.7	80-120			
Titanium	185	0.370	0.800	mg/kg	200		92.6	80-120			
Zinc	46.4	0.800	2.00	mg/kg	50.0		92.8	80-120			
LCS (BJI0003-BS3)						Prepared: 03-Sep-2021 Analyzed: 08-Sep-2021 15:17					
Iron	182	1.07	5.00	mg/kg	200		91.1	80-120			
Vanadium	46.9	0.0900	0.300	mg/kg	50.0		93.7	80-120			
LCS (BJI0003-BS4)						Prepared: 03-Sep-2021 Analyzed: 09-Sep-2021 14:04					
Aluminum	216	3.25	7.00	mg/kg	200		108	80-120			



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Metals and Metallic Compounds - Quality Control

Batch BJI0390 - SMM EPA 7471B

Instrument: HYDRA Analyst: ML

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJI0390-BLK1)						Prepared: 14-Sep-2021 Analyzed: 15-Sep-2021 15:09					
Mercury	ND	0.00525	0.0250	mg/kg							U
LCS (BJI0390-BS1)						Prepared: 14-Sep-2021 Analyzed: 15-Sep-2021 15:12					
Mercury	0.425	0.00525	0.0250	mg/kg	0.500		85.0	80-120			



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Certified Analyses included in this Report

Analyte	Certifications
EPA 6010D in Solid	
Silver	NELAP,WADOE,DoD-ELAP
Aluminum	NELAP,WADOE,DoD-ELAP
Arsenic	NELAP,WADOE,DoD-ELAP,ADEC
Boron	NELAP,WADOE,DoD-ELAP
Barium	NELAP,WADOE,ADEC,DoD-ELAP
Beryllium	NELAP,WADOE,DoD-ELAP
Calcium	NELAP,WADOE,DoD-ELAP
Cadmium	NELAP,WADOE,DoD-ELAP,ADEC
Cobalt	NELAP,WADOE,DoD-ELAP
Chromium	NELAP,WADOE,DoD-ELAP,ADEC
Copper	NELAP,WADOE,DoD-ELAP
Iron	NELAP,WADOE,DoD-ELAP
Potassium	NELAP,WADOE,DoD-ELAP
Magnesium	NELAP,WADOE,DoD-ELAP
Manganese	NELAP,WADOE,DoD-ELAP
Molybdenum	NELAP,WADOE,DoD-ELAP
Sodium	NELAP,WADOE,DoD-ELAP
Sodium-1	DoD-ELAP
Nickel	NELAP,WADOE,DoD-ELAP,ADEC
Lead	NELAP,WADOE,DoD-ELAP,ADEC
Antimony	NELAP,WADOE,DoD-ELAP
Selenium	NELAP,WADOE,DoD-ELAP
Tin	NELAP,WADOE,DoD-ELAP
Strontium	NELAP,WADOE,DoD-ELAP
Titanium	NELAP,WADOE,DoD-ELAP
Thallium	NELAP,WADOE,DoD-ELAP
Vanadium	NELAP,WADOE,DoD-ELAP,ADEC
Zinc	NELAP,WADOE,DoD-ELAP
EPA 7471B in Solid	
Mercury	WADOE,NELAP,DoD-ELAP
EPA 8082A in Solid	
Aroclor 1016	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1016 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1221	WADOE,DoD-ELAP,NELAP,ADEC



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Aroclor 1221 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1232	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1232 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1242	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1242 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1248	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1248 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1254	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1254 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1260	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1260 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1262	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1262 [2C]	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1268	WADOE,DoD-ELAP,NELAP,ADEC
Aroclor 1268 [2C]	WADOE,DoD-ELAP,NELAP,ADEC

EPA 8260D in Solid

Chloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Bromomethane	WADOE,DoD-ELAP,NELAP,ADEC
Chloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Trichlorofluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Acrolein	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloro-1,2,2-Trifluoroethane	WADOE,DoD-ELAP,NELAP,ADEC
Acetone	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Iodomethane	WADOE,DoD-ELAP,NELAP,ADEC
Methylene Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Acrylonitrile	WADOE,DoD-ELAP,NELAP
Carbon Disulfide	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Acetate	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Butanone	WADOE,DoD-ELAP,NELAP
2,2-Dichloropropane	WADOE,DoD-ELAP,NELAP
cis-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Chloroform	WADOE,DoD-ELAP,NELAP,ADEC
Bromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC



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Carbon tetrachloride	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Benzene	WADOE,DoD-ELAP,NELAP,ADEC
Trichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Bromodichloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Dibromomethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Chloroethyl vinyl ether	WADOE,DoD-ELAP,NELAP
4-Methyl-2-Pentanone	WADOE,DoD-ELAP,NELAP
cis-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
Toluene	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
2-Hexanone	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,3-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Tetrachloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Dibromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dibromoethane	WADOE,DoD-ELAP,NELAP,ADEC
Chlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Ethylbenzene	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
m,p-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
o-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
Xylenes, total	WADOE
Styrene	WADOE,DoD-ELAP,NELAP,ADEC
Bromoform	WADOE,DoD-ELAP,NELAP,ADEC
1,1,2,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,3-Trichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,4-Dichloro 2-Butene	WADOE,DoD-ELAP,NELAP
n-Propylbenzene	WADOE,DoD-ELAP,NELAP
Bromobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Isopropyl Benzene	WADOE,DoD-ELAP,NELAP,ADEC
2-Chlorotoluene	WADOE,DoD-ELAP,NELAP
4-Chlorotoluene	WADOE,DoD-ELAP,NELAP
t-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,3,5-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
1,2,4-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
s-Butylbenzene	WADOE,DoD-ELAP,NELAP
4-Isopropyl Toluene	WADOE,DoD-ELAP,NELAP



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1,3-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
1,4-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
n-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,2-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
1,2-Dibromo-3-chloropropane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,4-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Hexachloro-1,3-Butadiene	WADOE,DoD-ELAP,NELAP,ADEC
Naphthalene	WADOE,DoD-ELAP,NELAP
1,2,3-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Dichlorodifluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Methyl tert-butyl Ether	WADOE,DoD-ELAP,NELAP
n-Hexane	WADOE
2-Pentanone	WADOE
Dibromofluoromethane	WADOE
4-Bromofluorobenzene	WADOE

EPA 8270E in Solid

Phenol	DoD-ELAP,NELAP,WADOE
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
Benzyl Alcohol	DoD-ELAP,NELAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP
2-Methylphenol	DoD-ELAP,NELAP,WADOE
Hexachloroethane	DoD-ELAP,NELAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,WADOE
4-Methylphenol	DoD-ELAP,NELAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,WADOE
Isophorone	DoD-ELAP,NELAP,WADOE
2-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dimethylphenol	DoD-ELAP,NELAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,WADOE
Naphthalene	DoD-ELAP,NELAP,WADOE,ADEC
Benzoic acid	DoD-ELAP,NELAP,WADOE
4-Chloroaniline	DoD-ELAP,NELAP,WADOE
Hexachlorobutadiene	DoD-ELAP,NELAP,WADOE



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4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,WADOE
2-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
Hexachlorocyclopentadiene	DoD-ELAP,NELAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2,4,5-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,WADOE
2-Nitroaniline	DoD-ELAP,NELAP,WADOE
Acenaphthylene	DoD-ELAP,NELAP,WADOE,ADEC
Dimethylphthalate	DoD-ELAP,NELAP,WADOE
2,6-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
Acenaphthene	DoD-ELAP,NELAP,WADOE,ADEC
3-Nitroaniline	DoD-ELAP,NELAP,WADOE
2,4-Dinitrophenol	DoD-ELAP,NELAP,WADOE
Dibenzofuran	DoD-ELAP,NELAP,WADOE,ADEC
4-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
Fluorene	DoD-ELAP,NELAP,WADOE,ADEC
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP
Diethyl phthalate	DoD-ELAP,NELAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,WADOE
Hexachlorobenzene	DoD-ELAP,NELAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,WADOE
Phenanthrene	DoD-ELAP,NELAP,WADOE,ADEC
Anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Carbazole	DoD-ELAP,NELAP,WADOE,ADEC
Di-n-Butylphthalate	DoD-ELAP,NELAP,WADOE
Fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Butylbenzylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,WADOE
Chrysene	DoD-ELAP,NELAP,WADOE,ADEC
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Benzofluoranthenes, Total	WADOE,ADEC
Benzo(a)pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,WADOE,ADEC
N-Nitrosodimethylamine	DoD-ELAP,NELAP,WADOE
Aniline	DoD-ELAP,NELAP,WADOE
Retene	DoD-ELAP,NELAP,WADOE
Pyridine	DoD-ELAP,NELAP,WADOE
1-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
Azobenzene (1,2-DP-Hydrazine)	NELAP,WADOE
2,3,4,6-Tetrachlorophenol	DoD-ELAP,WADOE
Benzidine	DoD-ELAP,NELAP
Tetrachloroguaiacol	DoD-ELAP,WADOE
3,4,5-Trichloroguaiacol	WADOE
3,4,6-Trichloroguaiacol	WADOE
4,5,6-Trichloroguaiacol	WADOE
Guaiacol	WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022
WADOE	WA Dept of Ecology	C558	06/30/2022
WA-DW	Ecology - Drinking Water	C558	06/30/2022



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
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Project: Superlon Plastics SLON-TOP
Project Number: Superlon Plastics SLON-TOP
Project Manager: Kenny King

Reported:
27-Sep-2021 16:59

Notes and Definitions

- * Flagged value is not within established control limits.
- B This analyte was detected in the method blank.
- D The reported value is from a dilution
- J Estimated concentration value detected below the reporting limit.
- M Estimated value for a GC/MS analyte detected and confirmed by an analyst but with low spectral match parameters.
- P1 The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

HYDROSEED SPECIFICATIONS



COMMERCIAL FERTILIZER

All products in this database are currently registered for distribution in Washington State.

Two major pieces of information in the database are the nutrient guarantees and the reported metals levels of nine heavy metals.

The "**Guaranteed Analysis**" is the minimum percentage (%) of each nutrient as claimed by the company. Blanks and "0's" indicate no guarantee for that nutrient.

The "**Reported Metals**" is the maximum claimed concentration of each listed heavy metal based on the results of the lab analysis required by WSDA of a representative sample. The results are reported in parts per million (ppm).

The [Washington Standards for Metals](#) [↗] are based on the Reported Metals and the maximum application rate of the product. To accurately compare products, the use rates need to be considered.

SELECT FERTILIZER COMPANY

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0 All

SHOW ENTRIES

COMPANY NAME

Tulsi Enterprises Ltd

TurfCare Supply Corp

TWO RIVERS TERMINAL LLC - PASCO, WA

REGISTRANT: TWO RIVERS TERMINAL LLC - PASCO, WA

Mailing Address
Post Office Box
City

PO BOX 2327
PASCO

COMPANY NAME

State	WA
Postal Code	99302
Telephone Number	
Fax Number	

COMPANY PRODUCTS

SHOW ENTRIES

- 1589-0079 Power-Line 46-0-0 Urea - Low Biuret 46-0-0
- 1589-0076 Power-Line CaBoom 0-0-2
- 1589-0074 Power-Line Carbond Ignite 3-12-12
- 1589-0075 Power-Line Carbond-P 7-24-0
- 1589-0065 Power-Line Professional Products 0-52-34 0-52-34
- 1589-0022 Power-Line Professional Products 11-52-0 Monoammonium Phosphate 11-52-0
- 1589-0027 Power-Line Professional Products 15-5-25 Blended Fertilizer 15-5-25
- 1589-0021 Power-Line Professional Products 16-16-16 Blended Fertilizer 16-16-16

PRODUCT: POWER-LINE PROFESSIONAL PRODUCTS 16-16-16 BLENDED FERTILIZER 16-16-16 (#1589-0021)

GUARANTEED ANALYSIS	(%)	REPORTED METALS	(ppm)
Total Nitrogen (N)	16.0000	Arsenic	<2.5000
Available Phosphoric Acid (P ₂ O ₅)	16.0000	Cadmium	6.0900

COI

Soluble Potash (K ₂ O)	16.0000	Cobalt	0.8830
Calcium (Ca)		Mercury	<0.0500
Magnesium (Mg)		Molybdenum	1.7600
Sulfur (S)	7.4000	Nickel	19.5000
Boron (B)		Lead	<1.5000
Chlorine (Cl)		Selenium	<2.5000
Cobalt (Co)		Zinc	110.0000
Copper (Cu)		The symbol "<" indicates that the metal was NOT FOUND at or above the minimum detection limit.	
Iron (Fe)			
Manganese (Mn)			
Molybdenum (Mo)		Waste-Derived?	
Sodium (Na)		Micronutrient Fertilizer?	N
Zinc (Zn)			
GYP SUM & LIMING MATERIALS	(%)		(%)
Calcium Carbonate (CaCO ₃)		Magnesium Carbonate (MgCO ₃)	
Calcium Carbonate Equivalent (CaCO ₃)		Calcium Sulfate (CaSO ₄ 2H ₂ O)	

COMPANY: TWO RIVERS TERMINAL LLC - PASCO, WA

Mailing Address	PO BOX 2327
Post Office Box	
City	PASCO
State	WA
Postal Code	99302
Telephone Number	
Fax Number	

COI

The "**Reported Metals**" is the maximum claimed concentration of each listed heavy metal based on the results of the lab analysis required by WSDA of a representative sample. The results are reported in parts per million (ppm).

The "**minimum detection limit**" is determined by the lab performing the test and may be different for each product.

The **Washington Standards for Metals** are based on the Reported Metals and the maximum application rate of the product. To accurately compare products, the use rates need to be considered.

[WAC 16-200-7064](#) 

WASHINGTON STANDARDS FOR METALS

Metals	Lbs./acre/yr.
Arsenic (As)	0.297
Cadmium (Cd)	0.079
Cobalt (Co)	0.594
Mercury (Hg)	0.019
Molybdenum (Mo)	0.079
Nickel (Ni)	0.713
Lead (Pb)	1.981
Selenium (Se)	0.055
Zinc (Zn)	7.329

Questions concerning the registration of the fertilizer product displayed on this page can be directed to fertreg@agr.wa.gov via email.

You can also view the Washington State Department of Ecology's [database of waste-derived & micronutrient fertilizers](#) 

For product information other than metals, please contact the company directly. If you are unable to find the address or telephone number on the label, refer to the company information on this database.

1589-0020 Power-Line Professional Products 20.5-0-0 Ammonium Sulfate Fertilizer 20.5-0-0

1589-0024 Power-Line Professional Products 21-7-14 Blended Fertilizer 21-7-14

APPENDIX 2: SEDIMENT ANALYTICAL DATA



Analytical Resources, Incorporated
Analytical Chemists and Consultants

14 August 2021

Kenny King
PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish, WA 98290

RE: Superlon Plastics

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
21G0281

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.


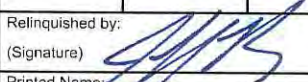

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 21G0281		Turn-around Requested: 15 day			Date: 7/22/21				Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)					
ARI Client Company: PERC		Phone: 425.346.0921			Page: of									
Client Contact: Kenny King					No. of Coolers: Cooler Temps: 13.2									
Client Project Name: Superlon Plastics					Analysis Requested						Notes/Comments			
Client Project #: SLON		Samplers: King			Total Metals 6010D	SVOC 8270E	VOC 8260D							
Sample ID	Date	Time	Matrix	No. Containers										
SLON-SLUD-01	07/22/21	12:04	Soil	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
SLON-SED-01	7/22/21	3:13	Soil	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
Comments/Special Instructions		Relinquished by: 			Received by: 			Relinquished by: _____			Received by: _____			
		Printed Name: JEFF KING			Printed Name: Dimitri Komradov			Printed Name: _____			Printed Name: _____			
		Company: PERC			Company: ARI			Company: _____			Company: _____			
		Date & Time: 7/22/21 3:50			Date & Time: 07/22/21 1350			Date & Time: _____			Date & Time: _____			

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SLON-SLUD-01	21G0281-01	Solid	22-Jul-2021 12:04	22-Jul-2021 15:50
SLON-SED-01	21G0281-02	Solid	22-Jul-2021 13:13	22-Jul-2021 15:50



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Work Order Case Narrative

Client: PERC-Pacific Environmental and Redevelopment Corp

Project: Superlon Plastics

Work Order: 21G0281

Sample receipt

Samples as listed on the preceding page were received 22-Jul-2021 15:50 under ARI work order 21G0281. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Semivolatiles - EPA Method SW8270E

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements except Pyrene and Benzo(g,h,i)perylene which were out of control high. All samples which contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits except 2-Fluoropheol, 2-Chlorophenol-d4, Nitrobenzene-d5 and 2,4,6-Tribromophenol which were out of control low in sample 21G0281-01 and have been flagged.

The method blank(s) were clean at the reporting limits.

The blank spike/blank spike duplicate (BS/BSA aka LCS/LCSD) percent recoveries were within control limits except 3,3-Dichlorobenzidine which was out of control high and has been flagged.

Total Metals - EPA Method 6010D



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Samplespecific QC was performed in association with sample 21G0281-02 in batch BJH0133. The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits.



Cooler Receipt Form

ARI Client: PERC
 COC No(s): _____ ~~NA~~
 Assigned ARI Job No: 2160281

Project Name: Superla plastics
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Tracking No: _____ ~~NA~~

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
 Were custody papers included with the cooler? YES NO
 Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) _____
 Time 15:30 _____ 132

If cooler temperature is out of compliance fill out form 00070F
 Cooler Accepted by: TRC Date: 07/22/21 Time: 1550 Temp Gun ID#: DOO 5228

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO
 What kind of packing material was used? ... Bubble Wrap Ice Gel Packs Baggies Foam Block Paper Other: _____
 Was sufficient ice used (if appropriate)? NA YES NO
 How were bottles sealed in plastic bags? Individually Grouped Not
 Did all bottles arrive in good condition (unbroken)? YES NO
 Were all bottle labels complete and legible? YES NO
 Did the number of containers listed on COC match with the number of containers received? YES NO
 Did all bottle labels and tags agree with custody papers? YES NO
 Were all bottles used correct for the requested analyses? YES NO
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
 Were all VOC vials free of air bubbles? NA YES NO
 Was sufficient amount of sample sent in each bottle? YES NO
 Date VOC Trip Blank was made at ARI NA
 Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TRC Date: 07/23/2021 Time: 0657 Labels checked by: TRC

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Client put large labels on all vials, covering pre-weighed values and changing total weight.

By: TRC Date: 07/23/2021



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

SLON-SED-01
21G0281-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D Sampled: 07/22/2021 13:13
Instrument: NT5 Analyst: PB Analyzed: 07/28/2021 14:58

Sample Preparation: Preparation Method: EPA 5035 (Sodium Bisulfate) Extract ID: 21G0281-02 E
Preparation Batch: BJG0669 Sample Size: 5.8 g (wet)
Prepared: 07/28/2021 Final Volume: 5 mL Dry Weight: 5.73 g
% Solids: 98.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	1	0.33	0.87	ND	ug/kg	U
Vinyl Chloride	75-01-4	1	0.29	0.87	ND	ug/kg	U
Bromomethane	74-83-9	1	0.34	0.87	0.45	ug/kg	J
Chloroethane	75-00-3	1	1.09	1.74	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	1	0.85	1.74	ND	ug/kg	U
Acrolein	107-02-8	1	1.53	4.36	ND	ug/kg	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	1	0.74	1.74	ND	ug/kg	U
Acetone	67-64-1	1	5.53	8.72	ND	ug/kg	U
1,1-Dichloroethene	75-35-4	1	0.32	0.87	ND	ug/kg	U
Iodomethane	74-88-4	1	0.79	0.87	ND	ug/kg	U
Methylene Chloride	75-09-2	1	3.80	4.36	ND	ug/kg	U
Acrylonitrile	107-13-1	1	1.73	4.36	ND	ug/kg	U
Carbon Disulfide	75-15-0	1	0.29	0.87	ND	ug/kg	U
trans-1,2-Dichloroethene	156-60-5	1	0.46	0.87	ND	ug/kg	U
Vinyl Acetate	108-05-4	1	2.84	4.36	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	1	0.25	0.87	ND	ug/kg	U
2-Butanone	78-93-3	1	2.13	4.36	ND	ug/kg	U
2,2-Dichloropropane	594-20-7	1	0.27	0.87	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	1	0.22	0.87	ND	ug/kg	U
Chloroform	67-66-3	1	0.25	0.87	ND	ug/kg	U
Bromochloromethane	74-97-5	1	0.34	0.87	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	1	0.52	0.87	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	1	0.25	0.87	ND	ug/kg	U
Carbon tetrachloride	56-23-5	1	0.27	0.87	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	1	0.20	0.87	ND	ug/kg	U
Benzene	71-43-2	1	0.14	0.87	ND	ug/kg	U
Trichloroethene	79-01-6	1	0.22	0.87	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	1	0.29	0.87	ND	ug/kg	U
Bromodichloromethane	75-27-4	1	0.22	0.87	ND	ug/kg	U
Dibromomethane	74-95-3	1	0.31	0.87	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	1	2.63	4.36	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	1	1.19	4.36	ND	ug/kg	U
cis-1,3-Dichloropropene	10061-01-5	1	0.23	0.87	ND	ug/kg	U
Toluene	108-88-3	1	0.22	0.87	ND	ug/kg	U
trans-1,3-Dichloropropene	10061-02-6	1	0.36	0.87	ND	ug/kg	U



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

SLON-SED-01
21G0281-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 07/22/2021 13:13

Instrument: NT5 Analyst: PB

Analyzed: 07/28/2021 14:58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Hexanone	591-78-6	1	1.11	4.36	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	1	0.23	0.87	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	1	0.20	0.87	ND	ug/kg	U
Tetrachloroethene	127-18-4	1	0.17	0.87	ND	ug/kg	U
Dibromochloromethane	124-48-1	1	0.23	0.87	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	1	0.27	0.87	ND	ug/kg	U
Chlorobenzene	108-90-7	1	0.18	0.87	ND	ug/kg	U
Ethylbenzene	100-41-4	1	0.20	0.87	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	1	0.31	0.87	ND	ug/kg	U
m,p-Xylene	179601-23-1	1	0.43	1.74	ND	ug/kg	U
o-Xylene	95-47-6	1	0.21	0.87	ND	ug/kg	U
Xylenes, total	1330-20-7	1	0.61	1.74	ND	ug/kg	U
Styrene	100-42-5	1	0.21	0.87	ND	ug/kg	U
Bromoform	75-25-2	1	0.40	0.87	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	1	0.24	0.87	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	1	1.31	1.74	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	1	2.40	4.36	ND	ug/kg	U
n-Propylbenzene	103-65-1	1	0.21	0.87	ND	ug/kg	U
Bromobenzene	108-86-1	1	0.22	0.87	ND	ug/kg	U
Isopropyl Benzene	98-82-8	1	0.23	0.87	ND	ug/kg	U
2-Chlorotoluene	95-49-8	1	0.19	0.87	ND	ug/kg	U
4-Chlorotoluene	106-43-4	1	0.25	0.87	ND	ug/kg	U
t-Butylbenzene	98-06-6	1	0.22	0.87	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	1	0.22	0.87	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	1	0.23	0.87	ND	ug/kg	U
s-Butylbenzene	135-98-8	1	0.21	0.87	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	1	0.25	0.87	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	0.21	0.87	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	0.38	0.87	ND	ug/kg	U
n-Butylbenzene	104-51-8	1	0.24	0.87	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	0.57	0.87	ND	ug/kg	U
1,2-Dibromo-3-chloropropane	96-12-8	1	2.06	4.36	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	1.59	4.36	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	1	1.57	4.36	ND	ug/kg	U
Naphthalene	91-20-3	1	2.15	4.36	ND	ug/kg	U
1,2,3-Trichlorobenzene	87-61-6	1	2.03	4.36	ND	ug/kg	U
Dichlorodifluoromethane	75-71-8	1	0.35	0.87	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	1	0.22	0.87	ND	ug/kg	U



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8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

SLON-SED-01
21G0281-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 07/22/2021 13:13

Instrument: NT5 Analyst: PB

Analyzed: 07/28/2021 14:58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Pentanone	107-87-9	1	1.87	4.36	ND	ug/kg	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>					80-149 %	108	%
<i>Surrogate: Toluene-d8</i>					77-120 %	99.8	%
<i>Surrogate: 4-Bromofluorobenzene</i>					80-120 %	98.1	%
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>					80-120 %	99.9	%



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

SLON-SED-01
21G0281-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E Sampled: 07/22/2021 13:13
Instrument: NT6 Analyst: JZ Analyzed: 08/09/2021 16:32
Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 21G0281-02 A 01
Preparation Batch: BJH0006 Sample Size: 7.59 g (wet)
Prepared: 08/03/2021 Final Volume: 0.5 mL Dry Weight: 7.50 g
% Solids: 98.83
Sample Cleanup: Cleanup Method: GPC Extract ID: 21G0281-02 A 01
Cleanup Batch: CJH0078 Initial Volume: 0.5 uL
Cleaned: 09-Aug-2021 Final Volume: 0.5 uL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Phenol	108-95-2	1	16	67	ND	ug/kg	U
bis(2-chloroethyl) ether	111-44-4	1	17	67	ND	ug/kg	U
2-Chlorophenol	95-57-8	1	14	67	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	1	16	67	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	1	16	67	ND	ug/kg	U
Benzyl Alcohol	100-51-6	1	87	330	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	1	18	67	ND	ug/kg	U
2-Methylphenol	95-48-7	1	23	67	ND	ug/kg	U
2,2'-Oxybis(1-chloropropane)	108-60-1	1	19	67	ND	ug/kg	U
4-Methylphenol	106-44-5	1	22	67	ND	ug/kg	U
N-Nitroso-di-n-Propylamine	621-64-7	1	21	67	ND	ug/kg	U
Hexachloroethane	67-72-1	1	19	67	ND	ug/kg	U
Nitrobenzene	98-95-3	1	26	67	ND	ug/kg	U
Isophorone	78-59-1	1	13	67	ND	ug/kg	U
2-Nitrophenol	88-75-5	1	63	67	ND	ug/kg	U
2,4-Dimethylphenol	105-67-9	1	16	67	ND	ug/kg	U
Bis(2-Chloroethoxy)methane	111-91-1	1	17	67	ND	ug/kg	U
Benzoic acid	65-85-0	1	251	670	ND	ug/kg	U
2,4-Dichlorophenol	120-83-2	1	75	330	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	1	16	67	ND	ug/kg	U
Naphthalene	91-20-3	1	15	67	ND	ug/kg	U
4-Chloroaniline	106-47-8	1	100	330	ND	ug/kg	U
Hexachlorobutadiene	87-68-3	1	19	67	ND	ug/kg	U
4-Chloro-3-Methylphenol	59-50-7	1	115	330	ND	ug/kg	U
2-Methylnaphthalene	91-57-6	1	24	67	ND	ug/kg	U
Hexachlorocyclopentadiene	77-47-4	1	62	330	ND	ug/kg	U
2,4,6-Trichlorophenol	88-06-2	1	142	330	ND	ug/kg	U
2,4,5-Trichlorophenol	95-95-4	1	150	330	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	1	21	67	ND	ug/kg	U
2-Nitroaniline	88-74-4	1	120	330	ND	ug/kg	U
Dimethylphthalate	131-11-3	1	26	67	ND	ug/kg	U
Acenaphthylene	208-96-8	1	21	67	ND	ug/kg	U



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Reported:
14-Aug-2021 13:46

SLON-SED-01
21G0281-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 07/22/2021 13:13

Instrument: NT6 Analyst: JZ

Analyzed: 08/09/2021 16:32

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2,6-Dinitrotoluene	606-20-2	1	96	330	ND	ug/kg	U
3-Nitroaniline	99-09-2	1	104	330	ND	ug/kg	U
Acenaphthene	83-32-9	1	16	67	ND	ug/kg	U
2,4-Dinitrophenol	51-28-5	1	77	670	ND	ug/kg	U
Dibenzofuran	132-64-9	1	18	67	ND	ug/kg	U
4-Nitrophenol	100-02-7	1	48	330	ND	ug/kg	U
2,4-Dinitrotoluene	121-14-2	1	96	330	ND	ug/kg	U
Fluorene	86-73-7	1	16	67	ND	ug/kg	U
Diethyl phthalate	84-66-2	1	21	67	ND	ug/kg	U
4-Chlorophenylphenyl ether	7005-72-3	1	20	67	ND	ug/kg	U
4-Nitroaniline	100-01-6	1	102	330	ND	ug/kg	U
4,6-Dinitro-2-methylphenol	534-52-1	1	122	670	ND	ug/kg	U
N-Nitrosodiphenylamine	86-30-6	1	17	67	ND	ug/kg	U
4-Bromophenyl phenyl ether	101-55-3	1	19	67	ND	ug/kg	U
Hexachlorobenzene	118-74-1	1	19	67	ND	ug/kg	U
Pentachlorophenol	87-86-5	1	97	330	ND	ug/kg	U
Phenanthrene	85-01-8	1	20	67	ND	ug/kg	U
Anthracene	120-12-7	1	20	67	ND	ug/kg	U
Carbazole	86-74-8	1	15	67	ND	ug/kg	U
Di-n-Butylphthalate	84-74-2	1	33	67	ND	ug/kg	U
Fluoranthene	206-44-0	1	42	67	ND	ug/kg	U
Pyrene	129-00-0	1	47	67	ND	ug/kg	U
Butylbenzylphthalate	85-68-7	1	25	67	ND	ug/kg	U
Benzo(a)anthracene	56-55-3	1	19	67	ND	ug/kg	U
3,3'-Dichlorobenzidine	91-94-1	1	89	330	ND	ug/kg	U
Chrysene	218-01-9	1	21	67	21	ug/kg	J
bis(2-Ethylhexyl)phthalate	117-81-7	1	24	67	ND	ug/kg	U
Di-n-Octylphthalate	117-84-0	1	19	67	ND	ug/kg	U
Benzo(a)pyrene	50-32-8	1	21	67	ND	ug/kg	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	27	67	ND	ug/kg	U
Dibenzo(a,h)anthracene	53-70-3	1	25	67	ND	ug/kg	U
Benzo(g,h,i)perylene	191-24-2	1	26	67	ND	ug/kg	U
Benzofluoranthenes, Total		1	32	67	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	1	29	67	ND	ug/kg	U
<i>Surrogate: 2-Fluorophenol</i>				22-120 %	70.7	%	
<i>Surrogate: Phenol-d5</i>				27-120 %	76.2	%	
<i>Surrogate: 2-Chlorophenol-d4</i>				36-120 %	77.8	%	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>				38-120 %	77.2	%	



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Reported:
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SLON-SED-01
21G0281-02 (Solid)

Semivolatile Organic Compounds

Method: EPA 8270E

Sampled: 07/22/2021 13:13

Instrument: NT6 Analyst: JZ

Analyzed: 08/09/2021 16:32

Analyte	CAS Number	Recovery		Units	Notes
		Limits	Recovery		
Surrogate: Nitrobenzene-d5		32-120 %	86.6	%	
Surrogate: 2-Fluorobiphenyl		39-120 %	82.6	%	
Surrogate: 2,4,6-Tribromophenol		31-131 %	91.2	%	
Surrogate: p-Terphenyl-d14		31-130 %	93.0	%	



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Reported:
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SLON-SED-01
21G0281-02 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D Sampled: 07/22/2021 13:13
Instrument: ICP2 Analyst: MVP Analyzed: 08/09/2021 15:10

Sample Preparation: Preparation Method: SWC EPA 3050B Extract ID: 21G0281-02 A
Preparation Batch: BJH0133 Dry Weight: 1.06 g
Prepared: 08/06/2021 Final Volume: 50 mL % Solids: 98.33

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.434	4.71	4.40	mg/kg	J
Barium	7440-39-3	2	0.245	0.566	35.8	mg/kg	
Cadmium	7440-43-9	2	0.0660	0.189	0.0757	mg/kg	J
Chromium	7440-47-3	2	0.416	0.848	14.7	mg/kg	
Lead	7439-92-1	2	0.226	1.89	3.03	mg/kg	
Selenium	7782-49-2	2	1.21	4.71	4.41	mg/kg	J
Silver	7440-22-4	2	0.0735	0.283	ND	mg/kg	U



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Project: Superlon Plastics
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Reported:
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Volatile Organic Compounds - Quality Control

Batch BJK0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJG0669-BLK1)						Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:38					
Chloromethane	ND	0.38	1.00	ug/kg							U
Vinyl Chloride	ND	0.34	1.00	ug/kg							U
Bromomethane	0.51	0.39	1.00	ug/kg							J
Chloroethane	ND	1.24	2.00	ug/kg							U
Trichlorofluoromethane	ND	0.98	2.00	ug/kg							U
Acrolein	ND	1.75	5.00	ug/kg							U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.85	2.00	ug/kg							U
Acetone	ND	6.35	10.0	ug/kg							U
1,1-Dichloroethene	ND	0.37	1.00	ug/kg							U
Iodomethane	ND	0.91	1.00	ug/kg							U
Methylene Chloride	ND	4.36	5.00	ug/kg							U
Acrylonitrile	ND	1.98	5.00	ug/kg							U
Carbon Disulfide	ND	0.33	1.00	ug/kg							U
trans-1,2-Dichloroethene	ND	0.53	1.00	ug/kg							U
Vinyl Acetate	ND	3.25	5.00	ug/kg							U
1,1-Dichloroethane	ND	0.28	1.00	ug/kg							U
2-Butanone	ND	2.44	5.00	ug/kg							U
2,2-Dichloropropane	ND	0.31	1.00	ug/kg							U
cis-1,2-Dichloroethene	ND	0.26	1.00	ug/kg							U
Chloroform	ND	0.29	1.00	ug/kg							U
Bromochloromethane	ND	0.40	1.00	ug/kg							U
1,1,1-Trichloroethane	ND	0.60	1.00	ug/kg							U
1,1-Dichloropropene	ND	0.28	1.00	ug/kg							U
Carbon tetrachloride	ND	0.31	1.00	ug/kg							U
1,2-Dichloroethane	ND	0.23	1.00	ug/kg							U
Benzene	ND	0.17	1.00	ug/kg							U
Trichloroethene	ND	0.26	1.00	ug/kg							U
1,2-Dichloropropane	ND	0.33	1.00	ug/kg							U
Bromodichloromethane	ND	0.26	1.00	ug/kg							U
Dibromomethane	ND	0.36	1.00	ug/kg							U
2-Chloroethyl vinyl ether	ND	3.02	5.00	ug/kg							U
4-Methyl-2-Pentanone	ND	1.37	5.00	ug/kg							U
cis-1,3-Dichloropropene	ND	0.26	1.00	ug/kg							U
Toluene	ND	0.25	1.00	ug/kg							U
trans-1,3-Dichloropropene	ND	0.41	1.00	ug/kg							U



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Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Volatile Organic Compounds - Quality Control

Batch BJK0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJG0669-BLK1)						Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:38					
2-Hexanone	ND	1.27	5.00	ug/kg							U
1,1,2-Trichloroethane	ND	0.27	1.00	ug/kg							U
1,3-Dichloropropane	ND	0.23	1.00	ug/kg							U
Tetrachloroethene	ND	0.20	1.00	ug/kg							U
Dibromochloromethane	ND	0.27	1.00	ug/kg							U
1,2-Dibromoethane	ND	0.31	1.00	ug/kg							U
Chlorobenzene	ND	0.21	1.00	ug/kg							U
Ethylbenzene	ND	0.23	1.00	ug/kg							U
1,1,1,2-Tetrachloroethane	ND	0.35	1.00	ug/kg							U
m,p-Xylene	ND	0.49	2.00	ug/kg							U
o-Xylene	ND	0.24	1.00	ug/kg							U
Xylenes, total	ND	0.70	2.00	ug/kg							U
Styrene	ND	0.25	1.00	ug/kg							U
Bromoform	ND	0.46	1.00	ug/kg							U
1,1,2,2-Tetrachloroethane	ND	0.27	1.00	ug/kg							U
1,2,3-Trichloropropane	ND	1.50	2.00	ug/kg							U
trans-1,4-Dichloro 2-Butene	ND	2.75	5.00	ug/kg							U
n-Propylbenzene	ND	0.24	1.00	ug/kg							U
Bromobenzene	ND	0.25	1.00	ug/kg							U
Isopropyl Benzene	ND	0.26	1.00	ug/kg							U
2-Chlorotoluene	ND	0.22	1.00	ug/kg							U
4-Chlorotoluene	ND	0.29	1.00	ug/kg							U
t-Butylbenzene	ND	0.25	1.00	ug/kg							U
1,3,5-Trimethylbenzene	ND	0.25	1.00	ug/kg							U
1,2,4-Trimethylbenzene	ND	0.27	1.00	ug/kg							U
s-Butylbenzene	ND	0.24	1.00	ug/kg							U
4-Isopropyl Toluene	ND	0.29	1.00	ug/kg							U
1,3-Dichlorobenzene	ND	0.24	1.00	ug/kg							U
1,4-Dichlorobenzene	ND	0.43	1.00	ug/kg							U
n-Butylbenzene	0.33	0.28	1.00	ug/kg							J
1,2-Dichlorobenzene	ND	0.65	1.00	ug/kg							U
1,2-Dibromo-3-chloropropane	ND	2.36	5.00	ug/kg							U
1,2,4-Trichlorobenzene	ND	1.82	5.00	ug/kg							U
Hexachloro-1,3-Butadiene	ND	1.80	5.00	ug/kg							U
Naphthalene	ND	2.46	5.00	ug/kg							U



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14-Aug-2021 13:46

Volatile Organic Compounds - Quality Control

Batch BJG0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJG0669-BLK1)											
						Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:38					
1,2,3-Trichlorobenzene	ND	2.32	5.00	ug/kg							U
Dichlorodifluoromethane	ND	0.40	1.00	ug/kg							U
Methyl tert-butyl Ether	ND	0.25	1.00	ug/kg							U
2-Pentanone	ND	2.15	5.00	ug/kg							U
Surrogate: 1,2-Dichloroethane-d4	50.3			ug/kg	50.0		101	80-149			
Surrogate: Toluene-d8	49.0			ug/kg	50.0		98.0	77-120			
Surrogate: 4-Bromofluorobenzene	50.1			ug/kg	50.0		100	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	49.5			ug/kg	50.0		98.9	80-120			

LCS (BJG0669-BS1)

						Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 09:36					
Chloromethane	50.0			ug/kg	50.0		99.9	64-132			
Vinyl Chloride	55.7			ug/kg	50.0		111	74-135			
Bromomethane	54.9			ug/kg	50.0		110	53-144			
Chloroethane	54.4			ug/kg	50.0		109	55-149			
Trichlorofluoromethane	57.5			ug/kg	50.0		115	61-164			
Acrolein	243			ug/kg	250		97.4	59-140			
1,1,2-Trichloro-1,2,2-Trifluoroethane	56.2			ug/kg	50.0		112	74-143			
Acetone	214			ug/kg	250		85.4	48-137			
1,1-Dichloroethene	53.8			ug/kg	50.0		108	77-134			
Iodomethane	49.4			ug/kg	50.0		98.9	31-162			
Methylene Chloride	48.2			ug/kg	50.0		96.4	69-129			
Acrylonitrile	46.8			ug/kg	50.0		93.5	69-134			
Carbon Disulfide	57.1			ug/kg	50.0		114	71-137			
trans-1,2-Dichloroethene	53.5			ug/kg	50.0		107	79-130			
Vinyl Acetate	49.2			ug/kg	50.0		98.5	66-141			
1,1-Dichloroethane	52.8			ug/kg	50.0		106	80-126			
2-Butanone	229			ug/kg	250		91.5	70-132			
2,2-Dichloropropane	55.0			ug/kg	50.0		110	77-138			
cis-1,2-Dichloroethene	52.4			ug/kg	50.0		105	80-125			
Chloroform	55.6			ug/kg	50.0		111	80-126			
Bromochloromethane	59.9			ug/kg	50.0		120	80-129			
1,1,1-Trichloroethane	56.7			ug/kg	50.0		113	78-133			
1,1-Dichloropropene	53.8			ug/kg	50.0		108	63-145			
Carbon tetrachloride	59.3			ug/kg	50.0		119	71-129			
1,2-Dichloroethane	47.0			ug/kg	50.0		94.0	76-120			



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Volatile Organic Compounds - Quality Control

Batch BJG0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJG0669-BS1)					Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 09:36						
Benzene	53.3			ug/kg	50.0		107	80-120			
Trichloroethene	52.6			ug/kg	50.0		105	80-120			
1,2-Dichloropropane	51.2			ug/kg	50.0		102	79-120			
Bromodichloromethane	51.2			ug/kg	50.0		102	80-122			
Dibromomethane	48.9			ug/kg	50.0		97.9	80-120			
2-Chloroethyl vinyl ether	57.8			ug/kg	50.0		116	51-129			
4-Methyl-2-Pentanone	232			ug/kg	250		92.7	73-121			
cis-1,3-Dichloropropene	52.4			ug/kg	50.0		105	80-120			
Toluene	51.9			ug/kg	50.0		104	75-120			
trans-1,3-Dichloropropene	51.7			ug/kg	50.0		103	80-124			
2-Hexanone	239			ug/kg	250		95.8	68-122			
1,1,2-Trichloroethane	48.1			ug/kg	50.0		96.1	79-120			
1,3-Dichloropropane	50.0			ug/kg	50.0		99.9	78-120			
Tetrachloroethene	55.2			ug/kg	50.0		110	74-124			
Dibromochloromethane	51.1			ug/kg	50.0		102	74-125			
1,2-Dibromoethane	47.8			ug/kg	50.0		95.5	80-120			
Chlorobenzene	52.1			ug/kg	50.0		104	78-120			
Ethylbenzene	54.7			ug/kg	50.0		109	80-125			
1,1,1,2-Tetrachloroethane	51.9			ug/kg	50.0		104	80-120			
m,p-Xylene	110			ug/kg	100		110	76-121			
o-Xylene	54.6			ug/kg	50.0		109	67-132			
Xylenes, total	165			ug/kg	150		110	67-132			
Styrene	55.8			ug/kg	50.0		112	80-120			
Bromoform	50.5			ug/kg	50.0		101	64-128			
1,1,2,2-Tetrachloroethane	47.7			ug/kg	50.0		95.3	74-120			
1,2,3-Trichloropropane	47.6			ug/kg	50.0		95.2	73-120			
trans-1,4-Dichloro 2-Butene	48.0			ug/kg	50.0		95.9	65-125			
n-Propylbenzene	56.4			ug/kg	50.0		113	72-124			
Bromobenzene	51.5			ug/kg	50.0		103	76-120			
Isopropyl Benzene	56.6			ug/kg	50.0		113	74-121			
2-Chlorotoluene	54.5			ug/kg	50.0		109	75-120			
4-Chlorotoluene	55.6			ug/kg	50.0		111	69-124			
t-Butylbenzene	56.1			ug/kg	50.0		112	72-122			
1,3,5-Trimethylbenzene	56.0			ug/kg	50.0		112	74-122			
1,2,4-Trimethylbenzene	55.9			ug/kg	50.0		112	75-121			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Volatile Organic Compounds - Quality Control

Batch BJK0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJG0669-BS1)					Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 09:36						
s-Butylbenzene	56.5			ug/kg	50.0		113	70-128			
4-Isopropyl Toluene	58.5			ug/kg	50.0		117	75-125			
1,3-Dichlorobenzene	53.9			ug/kg	50.0		108	75-120			
1,4-Dichlorobenzene	53.2			ug/kg	50.0		106	73-120			
n-Butylbenzene	59.0			ug/kg	50.0		118	73-130			
1,2-Dichlorobenzene	51.7			ug/kg	50.0		103	76-120			
1,2-Dibromo-3-chloropropane	45.3			ug/kg	50.0		90.6	72-136			
1,2,4-Trichlorobenzene	55.9			ug/kg	50.0		112	66-140			
Hexachloro-1,3-Butadiene	56.1			ug/kg	50.0		112	67-133			
Naphthalene	49.1			ug/kg	50.0		98.2	69-125			
1,2,3-Trichlorobenzene	52.7			ug/kg	50.0		105	68-132			
Dichlorodifluoromethane	59.0			ug/kg	50.0		118	67-142			
Methyl tert-butyl Ether	49.5			ug/kg	50.0		99.1	79-127			
2-Pentanone	233			ug/kg	250		93.1	77-120			
Surrogate: 1,2-Dichloroethane-d4	49.7			ug/kg	50.0		99.5	80-149			
Surrogate: Toluene-d8	49.0			ug/kg	50.0		98.0	77-120			
Surrogate: 4-Bromofluorobenzene	49.3			ug/kg	50.0		98.6	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	49.3			ug/kg	50.0		98.6	80-120			
LCS Dup (BJG0669-BSD1)					Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:13						
Chloromethane	46.0			ug/kg	50.0		92.0	64-132	8.19	30	
Vinyl Chloride	51.0			ug/kg	50.0		102	74-135	8.77	30	
Bromomethane	50.5			ug/kg	50.0		101	53-144	8.42	30	
Chloroethane	49.9			ug/kg	50.0		99.8	55-149	8.56	30	
Trichlorofluoromethane	52.4			ug/kg	50.0		105	61-164	9.27	30	
Acrolein	231			ug/kg	250		92.3	59-140	5.32	30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	52.4			ug/kg	50.0		105	74-143	6.96	30	
Acetone	204			ug/kg	250		81.8	48-137	4.36	30	
1,1-Dichloroethene	49.2			ug/kg	50.0		98.4	77-134	8.95	30	
Iodomethane	45.0			ug/kg	50.0		90.0	31-162	9.38	30	
Methylene Chloride	46.4			ug/kg	50.0		92.8	69-129	3.83	30	
Acrylonitrile	43.7			ug/kg	50.0		87.3	69-134	6.83	30	
Carbon Disulfide	52.0			ug/kg	50.0		104	71-137	9.30	30	
trans-1,2-Dichloroethene	49.6			ug/kg	50.0		99.3	79-130	7.52	30	
Vinyl Acetate	46.4			ug/kg	50.0		92.8	66-141	5.94	30	



PERC-Pacific Environmental and Redevelopment Corp
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Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Volatile Organic Compounds - Quality Control

Batch BJK0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJG0669-BSD1)					Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:13						
1,1-Dichloroethane	48.8			ug/kg	50.0		97.7	80-126	7.72	30	
2-Butanone	218			ug/kg	250		87.1	70-132	4.95	30	
2,2-Dichloropropane	50.9			ug/kg	50.0		102	77-138	7.76	30	
cis-1,2-Dichloroethene	48.5			ug/kg	50.0		97.1	80-125	7.58	30	
Chloroform	52.0			ug/kg	50.0		104	80-126	6.63	30	
Bromochloromethane	50.4			ug/kg	50.0		101	80-129	17.20	30	
1,1,1-Trichloroethane	52.5			ug/kg	50.0		105	78-133	7.74	30	
1,1-Dichloropropene	50.3			ug/kg	50.0		101	63-145	6.70	30	
Carbon tetrachloride	55.2			ug/kg	50.0		110	71-129	7.17	30	
1,2-Dichloroethane	45.1			ug/kg	50.0		90.3	76-120	4.00	30	
Benzene	49.8			ug/kg	50.0		99.7	80-120	6.64	30	
Trichloroethene	50.5			ug/kg	50.0		101	80-120	4.09	30	
1,2-Dichloropropane	49.1			ug/kg	50.0		98.1	79-120	4.18	30	
Bromodichloromethane	48.8			ug/kg	50.0		97.7	80-122	4.79	30	
Dibromomethane	46.6			ug/kg	50.0		93.3	80-120	4.81	30	
2-Chloroethyl vinyl ether	53.7			ug/kg	50.0		107	51-129	7.41	30	
4-Methyl-2-Pentanone	222			ug/kg	250		89.0	73-121	4.14	30	
cis-1,3-Dichloropropene	50.2			ug/kg	50.0		100	80-120	4.31	30	
Toluene	48.6			ug/kg	50.0		97.3	75-120	6.48	30	
trans-1,3-Dichloropropene	49.3			ug/kg	50.0		98.7	80-124	4.67	30	
2-Hexanone	228			ug/kg	250		91.3	68-122	4.78	30	
1,1,2-Trichloroethane	45.4			ug/kg	50.0		90.9	79-120	5.62	30	
1,3-Dichloropropane	47.1			ug/kg	50.0		94.3	78-120	5.81	30	
Tetrachloroethene	51.6			ug/kg	50.0		103	74-124	6.70	30	
Dibromochloromethane	47.7			ug/kg	50.0		95.4	74-125	6.82	30	
1,2-Dibromoethane	45.5			ug/kg	50.0		91.0	80-120	4.90	30	
Chlorobenzene	49.2			ug/kg	50.0		98.3	78-120	5.84	30	
Ethylbenzene	51.5			ug/kg	50.0		103	80-125	5.89	30	
1,1,1,2-Tetrachloroethane	48.5			ug/kg	50.0		97.0	80-120	6.84	30	
m,p-Xylene	105			ug/kg	100		105	76-121	5.45	30	
o-Xylene	51.4			ug/kg	50.0		103	67-132	5.86	30	
Xylenes, total	156			ug/kg	150		104	67-132	5.59	30	
Styrene	52.6			ug/kg	50.0		105	80-120	6.05	30	
Bromoform	47.3			ug/kg	50.0		94.6	64-128	6.61	30	
1,1,2,2-Tetrachloroethane	45.9			ug/kg	50.0		91.8	74-120	3.76	30	



PERC-Pacific Environmental and Redevelopment Corp
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Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Volatile Organic Compounds - Quality Control

Batch BJK0669 - EPA 5035 (Sodium Bisulfate)

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJG0669-BSD1)					Prepared: 28-Jul-2021 Analyzed: 28-Jul-2021 10:13						
1,2,3-Trichloropropane	45.0			ug/kg	50.0		90.0	73-120	5.56	30	
trans-1,4-Dichloro 2-Butene	44.8			ug/kg	50.0		89.5	65-125	6.95	30	
n-Propylbenzene	53.0			ug/kg	50.0		106	72-124	6.31	30	
Bromobenzene	49.3			ug/kg	50.0		98.6	76-120	4.42	30	
Isopropyl Benzene	53.1			ug/kg	50.0		106	74-121	6.45	30	
2-Chlorotoluene	51.1			ug/kg	50.0		102	75-120	6.51	30	
4-Chlorotoluene	52.2			ug/kg	50.0		104	69-124	6.19	30	
t-Butylbenzene	52.4			ug/kg	50.0		105	72-122	6.81	30	
1,3,5-Trimethylbenzene	52.4			ug/kg	50.0		105	74-122	6.62	30	
1,2,4-Trimethylbenzene	52.6			ug/kg	50.0		105	75-121	6.07	30	
s-Butylbenzene	53.3			ug/kg	50.0		107	70-128	5.96	30	
4-Isopropyl Toluene	55.2			ug/kg	50.0		110	75-125	5.79	30	
1,3-Dichlorobenzene	51.0			ug/kg	50.0		102	75-120	5.51	30	
1,4-Dichlorobenzene	50.4			ug/kg	50.0		101	73-120	5.32	30	
n-Butylbenzene	55.9			ug/kg	50.0		112	73-130	5.37	30	
1,2-Dichlorobenzene	48.7			ug/kg	50.0		97.4	76-120	6.05	30	
1,2-Dibromo-3-chloropropane	44.6			ug/kg	50.0		89.2	72-136	1.66	30	
1,2,4-Trichlorobenzene	54.8			ug/kg	50.0		110	66-140	2.12	30	
Hexachloro-1,3-Butadiene	54.5			ug/kg	50.0		109	67-133	2.87	30	
Naphthalene	49.1			ug/kg	50.0		98.2	69-125	0.01	30	
1,2,3-Trichlorobenzene	51.9			ug/kg	50.0		104	68-132	1.56	30	
Dichlorodifluoromethane	54.1			ug/kg	50.0		108	67-142	8.63	30	
Methyl tert-butyl Ether	46.6			ug/kg	50.0		93.3	79-127	6.05	30	
2-Pentanone	225			ug/kg	250		90.1	77-120	3.30	30	
Surrogate: 1,2-Dichloroethane-d4	48.7			ug/kg	50.0		97.3	80-149			
Surrogate: Toluene-d8	49.4			ug/kg	50.0		98.7	77-120			
Surrogate: 4-Bromofluorobenzene	49.2			ug/kg	50.0		98.5	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	49.0			ug/kg	50.0		98.0	80-120			



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Project: Superlon Plastics
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Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Semivolatile Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJH0006-BLK1)						Prepared: 03-Aug-2021 Analyzed: 09-Aug-2021 14:20					
Phenol	ND	16	67	ug/kg							U
bis(2-chloroethyl) ether	ND	17	67	ug/kg							U
2-Chlorophenol	ND	14	67	ug/kg							U
1,3-Dichlorobenzene	ND	16	67	ug/kg							U
1,4-Dichlorobenzene	ND	16	67	ug/kg							U
Benzyl Alcohol	ND	87	330	ug/kg							U
1,2-Dichlorobenzene	ND	18	67	ug/kg							U
2-Methylphenol	ND	23	67	ug/kg							U
2,2'-Oxybis(1-chloropropane)	ND	19	67	ug/kg							U
4-Methylphenol	ND	22	67	ug/kg							U
N-Nitroso-di-n-Propylamine	ND	21	67	ug/kg							U
Hexachloroethane	ND	19	67	ug/kg							U
Nitrobenzene	ND	26	67	ug/kg							U
Isophorone	ND	13	67	ug/kg							U
2-Nitrophenol	ND	63	67	ug/kg							U
2,4-Dimethylphenol	ND	16	67	ug/kg							U
Bis(2-Chloroethoxy)methane	ND	17	67	ug/kg							U
Benzoic acid	ND	251	670	ug/kg							U
2,4-Dichlorophenol	ND	75	330	ug/kg							U
1,2,4-Trichlorobenzene	ND	16	67	ug/kg							U
Naphthalene	ND	15	67	ug/kg							U
4-Chloroaniline	ND	100	330	ug/kg							U
Hexachlorobutadiene	ND	19	67	ug/kg							U
4-Chloro-3-Methylphenol	ND	115	330	ug/kg							U
2-Methylnaphthalene	ND	24	67	ug/kg							U
Hexachlorocyclopentadiene	ND	62	330	ug/kg							U
2,4,6-Trichlorophenol	ND	142	330	ug/kg							U
2,4,5-Trichlorophenol	ND	150	330	ug/kg							U
2-Chloronaphthalene	ND	21	67	ug/kg							U
2-Nitroaniline	ND	120	330	ug/kg							U
Dimethylphthalate	ND	27	67	ug/kg							U
Acenaphthylene	ND	21	67	ug/kg							U
2,6-Dinitrotoluene	ND	96	330	ug/kg							U
3-Nitroaniline	ND	104	330	ug/kg							U
Acenaphthene	ND	16	67	ug/kg							U



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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Semivolatile Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJH0006-BLK1)					Prepared: 03-Aug-2021 Analyzed: 09-Aug-2021 14:20						
2,4-Dinitrophenol	ND	77	670	ug/kg							U
Dibenzofuran	ND	18	67	ug/kg							U
4-Nitrophenol	ND	48	330	ug/kg							U
2,4-Dinitrotoluene	ND	96	330	ug/kg							U
Fluorene	ND	16	67	ug/kg							U
Diethyl phthalate	ND	21	67	ug/kg							U
4-Chlorophenylphenyl ether	ND	21	67	ug/kg							U
4-Nitroaniline	ND	102	330	ug/kg							U
4,6-Dinitro-2-methylphenol	ND	122	670	ug/kg							U
N-Nitrosodiphenylamine	ND	17	67	ug/kg							U
4-Bromophenyl phenyl ether	ND	19	67	ug/kg							U
Hexachlorobenzene	ND	19	67	ug/kg							U
Pentachlorophenol	ND	97	330	ug/kg							U
Phenanthrene	ND	20	67	ug/kg							U
Anthracene	ND	20	67	ug/kg							U
Carbazole	ND	15	67	ug/kg							U
Di-n-Butylphthalate	ND	33	67	ug/kg							U
Fluoranthene	ND	42	67	ug/kg							U
Pyrene	ND	47	67	ug/kg							U
Butylbenzylphthalate	ND	25	67	ug/kg							U
Benzo(a)anthracene	ND	19	67	ug/kg							U
3,3'-Dichlorobenzidine	ND	89	330	ug/kg							U
Chrysene	ND	21	67	ug/kg							U
bis(2-Ethylhexyl)phthalate	ND	24	67	ug/kg							U
Di-n-Octylphthalate	ND	19	67	ug/kg							U
Benzo(a)pyrene	ND	21	67	ug/kg							U
Indeno(1,2,3-cd)pyrene	ND	27	67	ug/kg							U
Dibenzo(a,h)anthracene	ND	25	67	ug/kg							U
Benzo(g,h,i)perylene	ND	26	67	ug/kg							U
Benzo(a)fluoranthene, Total	ND	33	67	ug/kg							U
1-Methylnaphthalene	ND	29	67	ug/kg							U
Surrogate: 2-Fluorophenol	2170			ug/kg	2500		86.6	22-120			
Surrogate: Phenol-d5	2190			ug/kg	2500		87.6	27-120			
Surrogate: 2-Chlorophenol-d4	2240			ug/kg	2500		89.7	36-120			
Surrogate: 1,2-Dichlorobenzene-d4	1440			ug/kg	1670		86.3	38-120			



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Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Semivolatle Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJH0006-BLK1)					Prepared: 03-Aug-2021		Analyzed: 09-Aug-2021 14:20				
Surrogate: Nitrobenzene-d5	1500			ug/kg	1670		90.1	32-120			
Surrogate: 2-Fluorobiphenyl	1500			ug/kg	1670		90.1	39-120			
Surrogate: 2,4,6-Tribromophenol	2520			ug/kg	2500		101	31-131			
Surrogate: p-Terphenyl-d14	1690			ug/kg	1670		102	31-130			
LCS (BJH0006-BS1)					Prepared: 03-Aug-2021		Analyzed: 09-Aug-2021 14:53				
Phenol	1590	16	67	ug/kg	1670		95.4	37-120			
bis(2-chloroethyl) ether	1500	17	67	ug/kg	1670		90.2	43-120			
2-Chlorophenol	1480	14	67	ug/kg	1670		88.8	45-120			
1,3-Dichlorobenzene	1400	16	67	ug/kg	1670		83.7	47-120			
1,4-Dichlorobenzene	1450	16	67	ug/kg	1670		87.1	46-120			
Benzyl Alcohol	1710	87	330	ug/kg	1670		103	16-120			
1,2-Dichlorobenzene	1460	18	67	ug/kg	1670		87.6	48-120			
2-Methylphenol	1510	23	67	ug/kg	1670		90.4	45-120			
2,2'-Oxybis(1-chloropropane)	1590	19	67	ug/kg	1670		95.5	36-120			
4-Methylphenol	1640	22	67	ug/kg	1670		98.6	47-120			
N-Nitroso-di-n-Propylamine	1580	21	67	ug/kg	1670		94.9	44-120			
Hexachloroethane	1460	19	67	ug/kg	1670		87.8	43-120			
Nitrobenzene	1560	26	67	ug/kg	1670		93.5	39-120			
Isophorone	2010	13	67	ug/kg	1670		121	75-138			
2-Nitrophenol	1720	63	67	ug/kg	1670		103	50-120			
2,4-Dimethylphenol	2990	16	67	ug/kg	4330		68.9	40-120			
Bis(2-Chloroethoxy)methane	1690	17	67	ug/kg	1670		101	49-120			
Benzoic acid	7670	251	670	ug/kg	7670		100	10-160			
2,4-Dichlorophenol	3450	75	330	ug/kg	4330		79.6	51-120			
1,2,4-Trichlorobenzene	1530	16	67	ug/kg	1670		92.0	50-120			
Naphthalene	1480	15	67	ug/kg	1670		89.0	50-120			
4-Chloroaniline	2770	100	330	ug/kg	4330		63.9	17-149			
Hexachlorobutadiene	1560	19	67	ug/kg	1670		93.5	46-120			
4-Chloro-3-Methylphenol	3670	115	330	ug/kg	4330		84.8	54-120			
2-Methylnaphthalene	1580	24	67	ug/kg	1670		94.7	54-120			
Hexachlorocyclopentadiene	3610	62	330	ug/kg	4330		83.2	23-149			
2,4,6-Trichlorophenol	3810	142	330	ug/kg	4330		88.0	51-120			
2,4,5-Trichlorophenol	3720	150	330	ug/kg	4330		85.9	52-120			
2-Chloronaphthalene	1570	21	67	ug/kg	1670		94.1	48-120			



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
14-Aug-2021 13:46

Semivolatle Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJH0006-BS1)						Prepared: 03-Aug-2021 Analyzed: 09-Aug-2021 14:53					
2-Nitroaniline	3910	120	330	ug/kg	4330		90.3	51-120			
Dimethylphthalate	1680	27	67	ug/kg	1670		101	56-120			
Acenaphthylene	1470	21	67	ug/kg	1670		88.5	56-120			
2,6-Dinitrotoluene	4340	96	330	ug/kg	4330		100	54-124			
3-Nitroaniline	3150	104	330	ug/kg	4330		72.8	39-142			
Acenaphthene	1630	16	67	ug/kg	1670		97.9	48-120			
2,4-Dinitrophenol	6930	77	670	ug/kg	7670		90.5	15-169			
Dibenzofuran	1640	18	67	ug/kg	1670		98.6	55-120			
4-Nitrophenol	3670	48	330	ug/kg	4330		84.7	23-130			
2,4-Dinitrotoluene	4090	96	330	ug/kg	4330		94.4	57-127			
Fluorene	1670	16	67	ug/kg	1670		100	55-120			
Diethyl phthalate	1710	21	67	ug/kg	1670		102	54-120			
4-Chlorophenylphenyl ether	1750	21	67	ug/kg	1670		105	52-120			
4-Nitroaniline	3830	102	330	ug/kg	4330		88.4	47-124			
4,6-Dinitro-2-methylphenol	5820	122	670	ug/kg	7670		75.9	10-157			
N-Nitrosodiphenylamine	1580	17	67	ug/kg	1670		94.6	54-138			
4-Bromophenyl phenyl ether	1790	19	67	ug/kg	1670		107	50-120			
Hexachlorobenzene	1720	19	67	ug/kg	1670		103	50-121			
Pentachlorophenol	2620	97	330	ug/kg	4330		60.5	40-123			
Phenanthrene	1560	20	67	ug/kg	1670		93.7	55-120			
Anthracene	1550	20	67	ug/kg	1670		92.9	57-120			
Carbazole	1490	15	67	ug/kg	1670		89.2	30-168			
Di-n-Butylphthalate	1610	33	67	ug/kg	1670		96.6	60-120			
Fluoranthene	1650	42	67	ug/kg	1670		98.8	52-129			
Pyrene	1890	47	67	ug/kg	1670		113	49-134			Q
Butylbenzylphthalate	1730	25	67	ug/kg	1670		104	44-144			
Benzo(a)anthracene	1620	19	67	ug/kg	1670		97.4	56-124			
3,3'-Dichlorobenzidine	4220	89	330	ug/kg	2670		158	37-140			*
Chrysene	1770	21	67	ug/kg	1670		106	53-124			
bis(2-Ethylhexyl)phthalate	1790	24	67	ug/kg	1670		108	63-128			
Di-n-Octylphthalate	1920	19	67	ug/kg	1670		115	59-120			
Benzo(b)fluoranthene	1770	67	67	ug/kg	1670		106	42-132			
Benzo(k)fluoranthene	1730	67	67	ug/kg	1670		104	60-147			
Benzo(a)pyrene	1720	21	67	ug/kg	1670		103	53-120			
Indeno(1,2,3-cd)pyrene	1780	27	67	ug/kg	1670		107	40-128			



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Semivolatile Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BJH0006-BS1)					Prepared: 03-Aug-2021		Analyzed: 09-Aug-2021 14:53				
Dibenzo(a,h)anthracene	1790	25	67	ug/kg	1670		107	58-145			
Benzo(g,h,i)perylene	1780	26	67	ug/kg	1670		107	44-125			Q
Benzo(a)fluoranthene, Total	3460	33	67	ug/kg	3330		104	30-160			
1-Methylnaphthalene	1680	29	67	ug/kg	1670		101	55-120			
Surrogate: 2-Fluorophenol	2160			ug/kg	2500		86.4	22-120			
Surrogate: Phenol-d5	2170			ug/kg	2500		86.7	27-120			
Surrogate: 2-Chlorophenol-d4	2200			ug/kg	2500		87.8	36-120			
Surrogate: 1,2-Dichlorobenzene-d4	1340			ug/kg	1670		80.7	38-120			
Surrogate: Nitrobenzene-d5	1490			ug/kg	1670		89.1	32-120			
Surrogate: 2-Fluorobiphenyl	1450			ug/kg	1670		86.8	39-120			
Surrogate: 2,4,6-Tribromophenol	2730			ug/kg	2500		109	31-131			
Surrogate: p-Terphenyl-d14	1640			ug/kg	1670		98.4	31-130			
LCS Dup (BJH0006-BSD1)					Prepared: 03-Aug-2021		Analyzed: 09-Aug-2021 15:26				
Phenol	1620	16	67	ug/kg	1670		97.0	37-120	1.65	30	
bis(2-chloroethyl) ether	1510	17	67	ug/kg	1670		90.9	43-120	0.77	30	
2-Chlorophenol	1490	14	67	ug/kg	1670		89.4	45-120	0.67	30	
1,3-Dichlorobenzene	1440	16	67	ug/kg	1670		86.7	47-120	3.46	30	
1,4-Dichlorobenzene	1480	16	67	ug/kg	1670		88.8	46-120	1.93	30	
Benzyl Alcohol	1740	87	330	ug/kg	1670		104	16-120	1.45	30	
1,2-Dichlorobenzene	1490	18	67	ug/kg	1670		89.3	48-120	1.91	30	
2-Methylphenol	1530	23	67	ug/kg	1670		91.6	45-120	1.37	30	
2,2'-Oxybis(1-chloropropane)	1620	19	67	ug/kg	1670		96.9	36-120	1.44	30	
4-Methylphenol	1630	22	67	ug/kg	1670		97.6	47-120	0.94	30	
N-Nitroso-di-n-Propylamine	1600	21	67	ug/kg	1670		96.0	44-120	1.17	30	
Hexachloroethane	1480	19	67	ug/kg	1670		88.9	43-120	1.21	30	
Nitrobenzene	1600	26	67	ug/kg	1670		96.1	39-120	2.79	30	
Isophorone	2070	13	67	ug/kg	1670		124	75-138	3.08	30	
2-Nitrophenol	1780	63	67	ug/kg	1670		107	50-120	3.04	30	
2,4-Dimethylphenol	3090	16	67	ug/kg	4330		71.4	40-120	3.55	30	
Bis(2-Chloroethoxy)methane	1730	17	67	ug/kg	1670		104	49-120	2.17	30	
Benzoic acid	7960	251	670	ug/kg	7670		104	10-160	3.66	30	
2,4-Dichlorophenol	3540	75	330	ug/kg	4330		81.8	51-120	2.69	30	
1,2,4-Trichlorobenzene	1570	16	67	ug/kg	1670		94.1	50-120	2.20	30	
Naphthalene	1530	15	67	ug/kg	1670		91.5	50-120	2.78	30	



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Project Manager: Kenny King

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Semivolatile Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJH0006-BS1)						Prepared: 03-Aug-2021 Analyzed: 09-Aug-2021 15:26					
4-Chloroaniline	2820	100	330	ug/kg	4330		65.0	17-149	1.72	30	
Hexachlorobutadiene	1600	19	67	ug/kg	1670		95.9	46-120	2.54	30	
4-Chloro-3-Methylphenol	3780	115	330	ug/kg	4330		87.2	54-120	2.86	30	
2-Methylnaphthalene	1620	24	67	ug/kg	1670		97.2	54-120	2.60	30	
Hexachlorocyclopentadiene	3640	62	330	ug/kg	4330		84.1	23-149	1.01	30	
2,4,6-Trichlorophenol	3850	142	330	ug/kg	4330		88.9	51-120	1.02	30	
2,4,5-Trichlorophenol	3840	150	330	ug/kg	4330		88.7	52-120	3.16	30	
2-Chloronaphthalene	1600	21	67	ug/kg	1670		96.0	48-120	2.04	30	
2-Nitroaniline	3970	120	330	ug/kg	4330		91.6	51-120	1.42	30	
Dimethylphthalate	1690	27	67	ug/kg	1670		101	56-120	0.62	30	
Acenaphthylene	1500	21	67	ug/kg	1670		90.0	56-120	1.75	30	
2,6-Dinitrotoluene	4470	96	330	ug/kg	4330		103	54-124	2.90	30	
3-Nitroaniline	3320	104	330	ug/kg	4330		76.6	39-142	5.04	30	
Acenaphthene	1650	16	67	ug/kg	1670		99.3	48-120	1.38	30	
2,4-Dinitrophenol	7400	77	670	ug/kg	7670		96.5	15-169	6.46	30	
Dibenzofuran	1670	18	67	ug/kg	1670		100	55-120	1.79	30	
4-Nitrophenol	3620	48	330	ug/kg	4330		83.5	23-130	1.37	30	
2,4-Dinitrotoluene	4160	96	330	ug/kg	4330		96.0	57-127	1.65	30	
Fluorene	1690	16	67	ug/kg	1670		101	55-120	1.24	30	
Diethyl phthalate	1760	21	67	ug/kg	1670		106	54-120	3.04	30	
4-Chlorophenylphenyl ether	1790	21	67	ug/kg	1670		107	52-120	2.21	30	
4-Nitroaniline	3910	102	330	ug/kg	4330		90.2	47-124	2.06	30	
4,6-Dinitro-2-methylphenol	6380	122	670	ug/kg	7670		83.2	10-157	9.20	30	
N-Nitrosodiphenylamine	1630	17	67	ug/kg	1670		97.6	54-138	3.07	30	
4-Bromophenyl phenyl ether	1830	19	67	ug/kg	1670		110	50-120	2.16	30	
Hexachlorobenzene	1790	19	67	ug/kg	1670		107	50-121	3.96	30	
Pentachlorophenol	2940	97	330	ug/kg	4330		67.9	40-123	11.50	30	
Phenanthrene	1610	20	67	ug/kg	1670		96.7	55-120	3.14	30	
Anthracene	1600	20	67	ug/kg	1670		95.9	57-120	3.15	30	
Carbazole	1520	15	67	ug/kg	1670		91.4	30-168	2.45	30	
Di-n-Butylphthalate	1650	33	67	ug/kg	1670		98.9	60-120	2.36	30	
Fluoranthene	1690	42	67	ug/kg	1670		102	52-129	2.76	30	
Pyrene	1950	47	67	ug/kg	1670		117	49-134	3.16	30	Q
Butylbenzylphthalate	1790	25	67	ug/kg	1670		107	44-144	3.01	30	
Benzo(a)anthracene	1680	19	67	ug/kg	1670		101	56-124	3.55	30	



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Semivolatile Organic Compounds - Quality Control

Batch BJH0006 - EPA 3546 (Microwave)

Instrument: NT6 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BJH0006-BSD1)					Prepared: 03-Aug-2021 Analyzed: 09-Aug-2021 15:26						
3,3'-Dichlorobenzidine	4380	89	330	ug/kg	2670		164	37-140	3.67	30	*
Chrysene	1830	21	67	ug/kg	1670		110	53-124	3.34	30	
bis(2-Ethylhexyl)phthalate	1820	24	67	ug/kg	1670		109	63-128	1.31	30	
Di-n-Octylphthalate	1970	19	67	ug/kg	1670		118	59-120	2.49	30	
Benzo(b)fluoranthene	1810	67	67	ug/kg	1670		109	42-132	1.88	30	
Benzo(k)fluoranthene	1810	67	67	ug/kg	1670		108	60-147	4.12	30	
Benzo(a)pyrene	1770	21	67	ug/kg	1670		106	53-120	2.85	30	
Indeno(1,2,3-cd)pyrene	1860	27	67	ug/kg	1670		111	40-128	4.00	30	
Dibenzo(a,h)anthracene	1840	25	67	ug/kg	1670		110	58-145	2.88	30	
Benzo(g,h,i)perylene	1840	26	67	ug/kg	1670		111	44-125	3.34	30	Q
Benzo(a)fluoranthenes, Total	3570	33	67	ug/kg	3330		107	30-160	3.09	30	
1-Methylnaphthalene	1730	29	67	ug/kg	1670		104	55-120	3.16	30	
Surrogate: 2-Fluorophenol	2180			ug/kg	2500		87.1	22-120			
Surrogate: Phenol-d5	2170			ug/kg	2500		86.8	27-120			
Surrogate: 2-Chlorophenol-d4	2210			ug/kg	2500		88.2	36-120			
Surrogate: 1,2-Dichlorobenzene-d4	1370			ug/kg	1670		82.0	38-120			
Surrogate: Nitrobenzene-d5	1510			ug/kg	1670		90.4	32-120			
Surrogate: 2-Fluorobiphenyl	1450			ug/kg	1670		86.7	39-120			
Surrogate: 2,4,6-Tribromophenol	2790			ug/kg	2500		112	31-131			
Surrogate: p-Terphenyl-d14	1680			ug/kg	1670		101	31-130			



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Metals and Metallic Compounds - Quality Control

Batch BJH0133 - SWC EPA 3050B

Instrument: ICP2 Analyst: MVP

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJH0133-BLK1)											
						Prepared: 06-Aug-2021 Analyzed: 09-Aug-2021 12:37					
Arsenic	1.07	0.460	5.00	mg/kg							J
Chromium	ND	0.441	0.900	mg/kg							U
Lead	ND	0.240	2.00	mg/kg							U
Selenium	ND	1.28	5.00	mg/kg							U
Blank (BJH0133-BLK2)											
						Prepared: 06-Aug-2021 Analyzed: 10-Aug-2021 13:26					
Barium	ND	0.260	0.600	mg/kg							U
Cadmium	ND	0.0700	0.200	mg/kg							U
Blank (BJH0133-BLK3)											
						Prepared: 06-Aug-2021 Analyzed: 11-Aug-2021 12:14					
Silver	ND	0.0780	0.300	mg/kg							U
LCS (BJH0133-BS1)											
						Prepared: 06-Aug-2021 Analyzed: 09-Aug-2021 12:40					
Arsenic	186	0.460	5.00	mg/kg	200		93.1	80-120			
Chromium	48.8	0.441	0.900	mg/kg	50.0		97.6	80-120			
Lead	190	0.240	2.00	mg/kg	200		94.9	80-120			
Selenium	190	1.28	5.00	mg/kg	200		94.8	80-120			
LCS (BJH0133-BS2)											
						Prepared: 06-Aug-2021 Analyzed: 10-Aug-2021 13:29					
Barium	184	0.260	0.600	mg/kg	200		91.8	80-120			
Cadmium	52.6	0.0700	0.200	mg/kg	50.0		105	80-120			
LCS (BJH0133-BS3)											
						Prepared: 06-Aug-2021 Analyzed: 11-Aug-2021 12:17					
Silver	50.4	0.0780	0.300	mg/kg	50.0		101	80-120			
Duplicate (BJH0133-DUP1)											
			Source: 21G0281-02			Prepared: 06-Aug-2021 Analyzed: 09-Aug-2021 15:07					
Arsenic	3.40	0.433	4.70	mg/kg		4.40			25.70	20	L, J
Chromium	13.5	0.415	0.847	mg/kg		14.7			8.13	20	
Lead	2.33	0.226	1.88	mg/kg		3.03			26.10	20	L
Selenium	5.07	1.20	4.70	mg/kg		4.41			13.90	20	
Duplicate (BJH0133-DUP2)											
			Source: 21G0281-02			Prepared: 06-Aug-2021 Analyzed: 10-Aug-2021 14:41					
Barium	34.8	0.245	0.564	mg/kg		35.8			2.77	20	
Cadmium	ND	0.0659	0.188	mg/kg		0.0757					U
Duplicate (BJH0133-DUP3)											
			Source: 21G0281-02			Prepared: 06-Aug-2021 Analyzed: 11-Aug-2021 12:35					
Silver	ND	0.0734	0.282	mg/kg		ND					U



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Metals and Metallic Compounds - Quality Control

Batch BJH0133 - SWC EPA 3050B

Instrument: ICP2 Analyst: MVP

QC Sample/Analyte	Detection Result	Reporting Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BJH0133-DUP3)		Source: 21G0281-02		Prepared: 06-Aug-2021		Analyzed: 11-Aug-2021 12:35					
Matrix Spike (BJH0133-MS1)		Source: 21G0281-02		Prepared: 06-Aug-2021		Analyzed: 09-Aug-2021 15:12					
Arsenic	195	0.432	4.70	mg/kg	188	4.40	102	75-125			
Chromium	65.2	0.415	0.846	mg/kg	47.0	14.7	108	75-125			
Lead	192	0.226	1.88	mg/kg	188	3.03	101	75-125			
Selenium	199	1.20	4.70	mg/kg	188	4.41	103	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike (BJH0133-MS2)		Source: 21G0281-02		Prepared: 06-Aug-2021		Analyzed: 10-Aug-2021 14:46					
Barium	238	0.244	0.564	mg/kg	188	35.8	108	75-125			
Cadmium	49.0	0.0658	0.188	mg/kg	47.0	0.0757	104	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike (BJH0133-MS3)		Source: 21G0281-02		Prepared: 06-Aug-2021		Analyzed: 11-Aug-2021 12:41					
Silver	46.1	0.0733	0.282	mg/kg	47.0	ND	98.0	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Certified Analyses included in this Report

Analyte	Certifications
EPA 6010D in Solid	
Silver	NELAP,WADOE,DoD-ELAP
Arsenic	NELAP,WADOE,DoD-ELAP,ADEC
Barium	NELAP,WADOE,ADEC,DoD-ELAP
Cadmium	NELAP,WADOE,DoD-ELAP,ADEC
Chromium	NELAP,WADOE,DoD-ELAP,ADEC
Lead	NELAP,WADOE,DoD-ELAP,ADEC
Selenium	NELAP,WADOE,DoD-ELAP
EPA 8260D in Solid	
Chloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Bromomethane	WADOE,DoD-ELAP,NELAP,ADEC
Chloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Trichlorofluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Acrolein	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloro-1,2,2-Trifluoroethane	WADOE,DoD-ELAP,NELAP,ADEC
Acetone	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Iodomethane	WADOE,DoD-ELAP,NELAP,ADEC
Methylene Chloride	WADOE,DoD-ELAP,NELAP,ADEC
Acrylonitrile	WADOE,DoD-ELAP,NELAP
Carbon Disulfide	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Vinyl Acetate	WADOE,DoD-ELAP,NELAP
1,1-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Butanone	WADOE,DoD-ELAP,NELAP
2,2-Dichloropropane	WADOE,DoD-ELAP,NELAP
cis-1,2-Dichloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Chloroform	WADOE,DoD-ELAP,NELAP,ADEC
Bromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,1-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
Carbon tetrachloride	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
Benzene	WADOE,DoD-ELAP,NELAP,ADEC
Trichloroethene	WADOE,DoD-ELAP,NELAP,ADEC



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1,2-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Bromodichloromethane	WADOE,DoD-ELAP,NELAP,ADEC
Dibromomethane	WADOE,DoD-ELAP,NELAP,ADEC
2-Chloroethyl vinyl ether	WADOE,DoD-ELAP,NELAP
4-Methyl-2-Pentanone	WADOE,DoD-ELAP,NELAP
cis-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
Toluene	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,3-Dichloropropene	WADOE,DoD-ELAP,NELAP,ADEC
2-Hexanone	WADOE,DoD-ELAP,NELAP
1,1,2-Trichloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,3-Dichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
Tetrachloroethene	WADOE,DoD-ELAP,NELAP,ADEC
Dibromochloromethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2-Dibromoethane	WADOE,DoD-ELAP,NELAP,ADEC
Chlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Ethylbenzene	WADOE,DoD-ELAP,NELAP,ADEC
1,1,1,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
m,p-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
o-Xylene	WADOE,DoD-ELAP,NELAP,ADEC
Xylenes, total	WADOE
Styrene	WADOE,DoD-ELAP,NELAP,ADEC
Bromoform	WADOE,DoD-ELAP,NELAP,ADEC
1,1,2,2-Tetrachloroethane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,3-Trichloropropane	WADOE,DoD-ELAP,NELAP,ADEC
trans-1,4-Dichloro 2-Butene	WADOE,DoD-ELAP,NELAP
n-Propylbenzene	WADOE,DoD-ELAP,NELAP
Bromobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Isopropyl Benzene	WADOE,DoD-ELAP,NELAP,ADEC
2-Chlorotoluene	WADOE,DoD-ELAP,NELAP
4-Chlorotoluene	WADOE,DoD-ELAP,NELAP
t-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,3,5-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
1,2,4-Trimethylbenzene	WADOE,DoD-ELAP,NELAP
s-Butylbenzene	WADOE,DoD-ELAP,NELAP
4-Isopropyl Toluene	WADOE,DoD-ELAP,NELAP
1,3-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
1,4-Dichlorobenzene	WADOE,DoD-ELAP,NELAP
n-Butylbenzene	WADOE,DoD-ELAP,NELAP
1,2-Dichlorobenzene	WADOE,DoD-ELAP,NELAP



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1,2-Dibromo-3-chloropropane	WADOE,DoD-ELAP,NELAP,ADEC
1,2,4-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Hexachloro-1,3-Butadiene	WADOE,DoD-ELAP,NELAP,ADEC
Naphthalene	WADOE,DoD-ELAP,NELAP
1,2,3-Trichlorobenzene	WADOE,DoD-ELAP,NELAP,ADEC
Dichlorodifluoromethane	WADOE,DoD-ELAP,NELAP,ADEC
Methyl tert-butyl Ether	WADOE,DoD-ELAP,NELAP
n-Hexane	WADOE
2-Pentanone	WADOE
Dibromofluoromethane	WADOE
4-Bromofluorobenzene	WADOE

EPA 8270E in Solid

Phenol	DoD-ELAP,NELAP,WADOE
bis(2-chloroethyl) ether	DoD-ELAP,NELAP,WADOE
2-Chlorophenol	DoD-ELAP,NELAP,WADOE
1,3-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
1,4-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
Benzyl Alcohol	DoD-ELAP,NELAP,WADOE
1,2-Dichlorobenzene	DoD-ELAP,NELAP,WADOE
2-Methylphenol	DoD-ELAP,NELAP,WADOE
2,2'-Oxybis(1-chloropropane)	DoD-ELAP,NELAP
4-Methylphenol	DoD-ELAP,NELAP,WADOE
N-Nitroso-di-n-Propylamine	DoD-ELAP,NELAP,WADOE
Hexachloroethane	DoD-ELAP,NELAP,WADOE
Nitrobenzene	DoD-ELAP,NELAP,WADOE
Isophorone	DoD-ELAP,NELAP,WADOE
2-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dimethylphenol	DoD-ELAP,NELAP,WADOE
Bis(2-Chloroethoxy)methane	DoD-ELAP,NELAP,WADOE
Benzoic acid	DoD-ELAP,NELAP,WADOE
2,4-Dichlorophenol	DoD-ELAP,NELAP,WADOE
1,2,4-Trichlorobenzene	DoD-ELAP,NELAP,WADOE
Naphthalene	DoD-ELAP,NELAP,WADOE,ADEC
4-Chloroaniline	DoD-ELAP,NELAP,WADOE
Hexachlorobutadiene	DoD-ELAP,NELAP,WADOE
4-Chloro-3-Methylphenol	DoD-ELAP,NELAP,WADOE
2-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
Hexachlorocyclopentadiene	DoD-ELAP,NELAP,WADOE
2,4,6-Trichlorophenol	DoD-ELAP,NELAP,WADOE



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2,4,5-Trichlorophenol	DoD-ELAP,NELAP,WADOE
2-Chloronaphthalene	DoD-ELAP,NELAP,WADOE
2-Nitroaniline	DoD-ELAP,NELAP,WADOE
Dimethylphthalate	DoD-ELAP,NELAP,WADOE
Acenaphthylene	DoD-ELAP,NELAP,WADOE,ADEC
2,6-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
3-Nitroaniline	DoD-ELAP,NELAP,WADOE
Acenaphthene	DoD-ELAP,NELAP,WADOE,ADEC
2,4-Dinitrophenol	DoD-ELAP,NELAP,WADOE
Dibenzofuran	DoD-ELAP,NELAP,WADOE,ADEC
4-Nitrophenol	DoD-ELAP,NELAP,WADOE
2,4-Dinitrotoluene	DoD-ELAP,NELAP,WADOE
Fluorene	DoD-ELAP,NELAP,WADOE,ADEC
Diethyl phthalate	DoD-ELAP,NELAP,WADOE
4-Chlorophenylphenyl ether	DoD-ELAP,NELAP,WADOE
4-Nitroaniline	DoD-ELAP,NELAP,WADOE
4,6-Dinitro-2-methylphenol	DoD-ELAP,NELAP,WADOE
N-Nitrosodiphenylamine	DoD-ELAP,NELAP,WADOE
4-Bromophenyl phenyl ether	DoD-ELAP,NELAP,WADOE
Hexachlorobenzene	DoD-ELAP,NELAP,WADOE
Pentachlorophenol	DoD-ELAP,NELAP,WADOE
Phenanthrene	DoD-ELAP,NELAP,WADOE,ADEC
Anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Carbazole	DoD-ELAP,NELAP,WADOE,ADEC
Di-n-Butylphthalate	DoD-ELAP,NELAP,WADOE
Fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Butylbenzylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
3,3'-Dichlorobenzidine	DoD-ELAP,NELAP,WADOE
Chrysene	DoD-ELAP,NELAP,WADOE,ADEC
bis(2-Ethylhexyl)phthalate	DoD-ELAP,NELAP,WADOE
Di-n-Octylphthalate	DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(k)fluoranthene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(a)pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Indeno(1,2,3-cd)pyrene	DoD-ELAP,NELAP,WADOE,ADEC
Dibenzo(a,h)anthracene	DoD-ELAP,NELAP,WADOE,ADEC
Benzo(g,h,i)perylene	DoD-ELAP,NELAP,WADOE,ADEC



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Benzofluoranthenes, Total	DoD-ELAP,NELAP,WADOE,ADEC
1-Methylnaphthalene	DoD-ELAP,NELAP,WADOE,ADEC
N-Nitrosodimethylamine	DoD-ELAP,NELAP,WADOE
Aniline	DoD-ELAP,NELAP,WADOE
Benzidine	DoD-ELAP,NELAP,WADOE
Retene	DoD-ELAP,NELAP,WADOE,ADEC
Perylene	DoD-ELAP,NELAP,WADOE,ADEC
Pyridine	DoD-ELAP,NELAP,WADOE
N-Nitrosomethylethylamine	NELAP,WADOE
2,6-Dichlorophenol	NELAP,WADOE
alpha-Terpineol	DoD-ELAP,NELAP,WADOE
2,3,4,6-Tetrachlorophenol	DoD-ELAP,WADOE
Triphenyl Phosphate	DoD-ELAP,NELAP,WADOE
Butyl Diphenyl Phosphate	DoD-ELAP,NELAP,WADOE
Dibutyl Phenyl Phosphate	DoD-ELAP,NELAP,WADOE
Tributyl Phosphate	DoD-ELAP,NELAP,WADOE
Butylated Hydroxytoluene	DoD-ELAP,NELAP,WADOE
Azobenzene (1,2-DP-Hydrazine)	NELAP
4-Chloroguaiacol	WADOE
3,4-Dichloroguaiacol	WADOE
4,5-Dichloroguaiacol	WADOE
4,6-Dichloroguaiacol	WADOE
Tetrachloroguaiacol	DoD-ELAP,WADOE
3,4,5-Trichloroguaiacol	WADOE
3,4,6-Trichloroguaiacol	WADOE
4,5,6-Trichloroguaiacol	WADOE
Guaiacol	WADOE
1,2,4,5-Tetrachlorobenzene	DoD-ELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022
WADOE	WA Dept of Ecology	C558	06/30/2022
WA-DW	Ecology - Drinking Water	C558	06/30/2022



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Notes and Definitions

- * Flagged value is not within established control limits.
- B This analyte was detected in the method blank.
- D The reported value is from a dilution
- E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
- J Estimated concentration value detected below the reporting limit.
- L Analyte concentration is ≤ 5 times the reporting limit and the replicate control limit defaults to \pm RL instead of 20% RPD
- M Estimated value for a GC/MS analyte detected and confirmed by an analyst but with low spectral match parameters.
- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria ($< 20\%$ RSD, $< 20\%$ drift or minimum RRF)
- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

APPENDIX 3: TPH ANALYTICAL DATA



Analytical Resources, LLC
Analytical Chemists and Consultants

20 December 2021

Kenny King
PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish, WA 98290

RE: Superlon Plastics

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
21L0187

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Shelly Fishel, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request



Analytical Resources, Incorporated
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

ARI Assigned Number: 21L0187	Turn-around Requested: 3 DAY Standard	Date: 12/12/2021
ARI Client Company: PERC	Phone: 4253480921	Page: of
Client Contact: Kenny King	No. of Coolers: —	Cooler Temps: 17.1

Client Project Name: Superlon Plastics					Analysis Requested							Notes/Comments	
Client Project #: SLON		Samplers: KING			NWT x								
Sample ID	Date	Time	Matrix	No. Containers									
B1TPH 1	12/12/21	10:50	SOIL	1	✓								
B1TPH 2	12/12/21	11:00	SOIL	1	✓								
B1TPH 3	12/12/21	11:10	SOIL	1	✓								
Comments/Special Instructions		Relinquished by: (Signature) <i>Kenny King</i>	Received by: (Signature) <i>Raven Barbera</i>		Relinquished by: (Signature)			Received by: (Signature)					
		Printed Name: Kenny King	Printed Name: Raven Barbera		Printed Name:			Printed Name:					
		Company: PERC	Company: ARI		Company:			Company:					
		Date & Time: 12/13/21 16:22	Date & Time: 12/13/21 16:22		Date & Time:			Date & Time:					

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



PERC-Pacific Environmental and Redevelopment Corp
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Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1TPH 1	21L0187-01	Solid	12-Dec-2021 10:50	13-Dec-2021 16:22
B1TPH 2	21L0187-02	Solid	12-Dec-2021 11:00	13-Dec-2021 16:22
B1TPH 3	21L0187-03	Solid	12-Dec-2021 11:10	13-Dec-2021 16:22



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Work Order Case Narrative

Client: PERC-Pacific Environmental and Redevelopment Corp
Project: Superlon Plastics
Work Order: 21L0187

Sample receipt

Samples as listed on the preceding page were received 13-Dec-2021 16:22 under ARI work order 21L0187. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: PERC

Project Name: Superlon Plastics

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21L0187

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1622 17.1

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO-1009708

Cooler Accepted by: RB Date: 12/13/21 Time: 1622

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: RB Date: 12/14/21 Time: 1151 Labels checked by: _____

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Cooler Temperature Compliance Form

ARI Work Order: 21L0187

Cooler#:		Temperature(°C): <u>17.1°C</u>	
Sample ID	Bottle Count	Bottle Type	
<u>samples received above</u>	<u>6°C</u>		

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Cooler#:		Temperature(°C):	
Sample ID	Bottle Count	Bottle Type	

Completed by: Date: 12/13/21 Time: 1622



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BITPH 1
21L0187-01 (Solid)

Petroleum Hydrocarbons

Method: NWTPH-Dx Sampled: 12/12/2021 10:50
Instrument: FID4 Analyst: TWC Analyzed: 12/16/2021 11:47

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 21L0187-01 A 01
Preparation Batch: BJL0333 Dry Weight: 2.79 g
Prepared: 12/15/2021 Final Volume: 10 mL % Solids: 27.86

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24) HC ID: DIESEL	DRO	1	179	1680	mg/kg	
Motor Oil Range Organics (C24-C38) HC ID: MOTOR OIL	RRO	1	359	9120	mg/kg	
<i>Surrogate: o-Terphenyl</i>			50-150 %	70.8	%	



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BITPH 2
21L0187-02 (Solid)

Petroleum Hydrocarbons

Method: NWTPH-Dx Sampled: 12/12/2021 11:00
Instrument: FID4 Analyst: TWC Analyzed: 12/16/2021 12:06

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 21L0187-02 A 01
Preparation Batch: B JL0333 Dry Weight: 3.20 g
Prepared: 12/15/2021 Final Volume: 10 mL % Solids: 31.98

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24) HC ID: DIESEL	DRO	1	156	3020	mg/kg	
Motor Oil Range Organics (C24-C38) HC ID: MOTOR OIL	RRO	1	313	11400	mg/kg	
<i>Surrogate: o-Terphenyl</i>			50-150 %	74.5	%	



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BITPH 3
21L0187-03 (Solid)

Petroleum Hydrocarbons

Method: NWTPH-Dx Sampled: 12/12/2021 11:10
Instrument: FID4 Analyst: TWC Analyzed: 12/16/2021 12:26

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3546 (Microwave) Extract ID: 21L0187-03 A 01
Preparation Batch: BJL0333 Dry Weight: 3.27 g
Prepared: 12/15/2021 Final Volume: 10 mL % Solids: 32.73

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24) HC ID: DIESEL	DRO	1	153	3400	mg/kg	
Motor Oil Range Organics (C24-C38) HC ID: MOTOR OIL	RRO	1	306	8970	mg/kg	
<i>Surrogate: o-Terphenyl</i>			50-150 %	74.8	%	



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Analysis by: Analytical Resources, LLC

Petroleum Hydrocarbons - Quality Control

Batch BJL0333 - EPA 3546 (Microwave)

Instrument: FID4 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BJL0333-BLK1)		Prepared: 15-Dec-2021 Analyzed: 16-Dec-2021 11:08								
Diesel Range Organics (C12-C24)	ND	50.0	mg/kg							U
Motor Oil Range Organics (C24-C38)	ND	100	mg/kg							U
<i>Surrogate: o-Terphenyl</i>	45.9		mg/kg	56.3		81.6	50-150			
LCS (BJL0333-BS1)		Prepared: 15-Dec-2021 Analyzed: 16-Dec-2021 11:27								
Diesel Range Organics (C12-C24)	1260	50.0	mg/kg	1500		83.8	63-120			
<i>Surrogate: o-Terphenyl</i>	47.4		mg/kg	56.3		84.3	50-150			



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Certified Analyses included in this Report

Analyte	Certifications
NWTPH-Dx in Solid	
Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP,WADOE
Residual Range Organics (C23-C32)	DoD-ELAP
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP,WADOE
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP,WADOE
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP,WADOE
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP,WADOE
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2022
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022
WADOE	WA Dept of Ecology	C558	06/30/2022
WA-DW	Ecology - Drinking Water	C558	06/30/2022



PERC-Pacific Environmental and Redevelopment Corp
8424 E Meadow Lake Drive
Snohomish WA, 98290

Project: Superlon Plastics
Project Number: SLON
Project Manager: Kenny King

Reported:
20-Dec-2021 16:42

Notes and Definitions

- U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- [2C] Indicates this result was quantified on the second column on a dual column analysis.

APPENDIX 4: ARCHAEOLOGICAL MONITORING REPORT FOR THE FOR SUPERLON PHASE III
DITCH REMEDIATION, TACOMA, WASHINGTON

Archaeological Monitoring Report for the for Superlon Phase III Ditch Remediation, Tacoma, Washington

Submitted to:
Pacific Environmental & Redevelopment Corporation (PERC)

Submitted by:
Historical Research Associates, Inc.
Brian Durkin, MS

Seattle, Washington
January 13, 2022



HISTORICAL
RESEARCH
ASSOCIATES, INC.

This project was implemented by HRA Principal Investigators Brian Durkin, MS, and Brent Hicks, MA, RPA, who meet the Secretary of the Interior's professional qualifications standards for archaeology. This report is intended for the exclusive use of the Client and its representatives. It contains results concerning archaeological monitoring. This report should be submitted to the appropriate state and local review agencies.

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1. Introduction

White Birch, LLC (White Birch), E. I. DuPont de Nemours and Company (DuPont), and The Chemours Company FC, LLC (Chemours), are conducting an interim action pursuant to the Washington State Model Toxics Control Act (MTCA) at 2116 Taylor Way, Tacoma, Washington. The property is owned by White Birch and is currently used by Superlon Plastics, Inc. This 3.1-acre area is located near the tip of the Blair-Hylebos Peninsula, on the Commencement Bay delta, in Section 35 of Township 21 North, Range 3 East on the Tacoma North (1994), WA 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle map.

In 2010, Pacific Environmental and Redevelopment Corporation (PERC) contracted with Historical Research Associates, Inc. (HRA), to conduct a cultural resources assessment of the property, including a review of the available documentary sources, an archaeological reconnaissance and historic property inventory survey, and photographic documentation of the project area resulting in preparation of a technical report (Kachmarsky et al. 2010). In 2021, HRA was contracted again to create an archaeological monitoring and inadvertent discovery plan (MIDP) for Phase 3 remediation of the ditch feature and to conduct the archaeological monitoring. This report represents the results of the archaeological monitoring that occurred in 2021.

1.1 Project Description

PERC is conducting an interim action to remediate a drainage ditch between Port of Tacoma and Superlon Plastic Company properties located at 2116 Taylor Way in Tacoma, Washington (Figure 1). Ditch sediment and surface water characterization in 2012 led to cleanup of tar oil from the drainage ditch. Post-remediation sediment sampling found elevated levels of arsenic and lead remain in the ditch, and the current remediation effort will recover these contaminants from the top 1 foot (ft) of the sediment in the bottom of the ditch and from the ditch's sidewalls. A soil berm along the Superlon/Port of Tacoma property line will also be removed but does not need to be monitored because these excavations will occur entirely within fill deposits and will not reach native soil in which archaeological materials may be present.

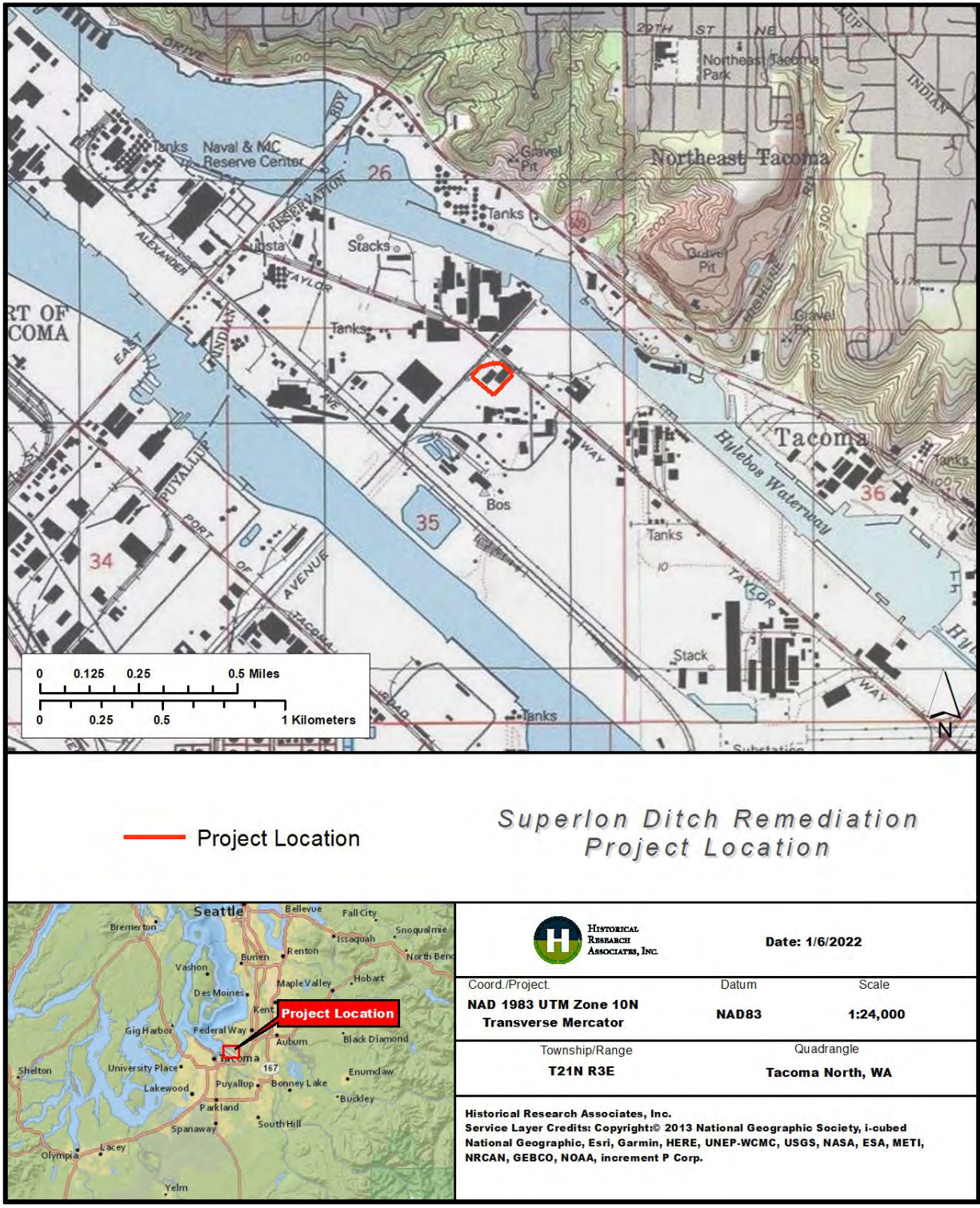


Figure 1-1. Project area and vicinity.

1.2 Regulatory Context

Although the project is required to comply with a host of Washington state and federal environmental laws, the project is being performed under the State Environmental Policy Act (SEPA). The project requires a Joint Aquatic Resource Permit from the U.S. Army Corps of Engineers (USACE) and, therefore, the procedures herein are meant to comply with applicable federal and state laws and regulations, particularly 36 CFR 800.13 of regulations implementing the National Historic Preservation Act of 1966, as amended, and applicable Washington state laws, particularly Archaeological Sites and Resources (RCW 27.53) and Indian Graves and Records (RCW 27.44).

1.3 Area of Potential Effects

The project is generally bounded by Lincoln Avenue to the northwest and Taylor Way to the northeast. Southwest of the property is a log yard owned by the Port of Tacoma. The drainage ditch that will be remediated separates the log yard from the Superlon Plastics parcel. To the southeast, the property is bordered by a roofing and waterproofing manufacturing building. Archaeological monitoring was focused solely on the ditch area to be remediated.

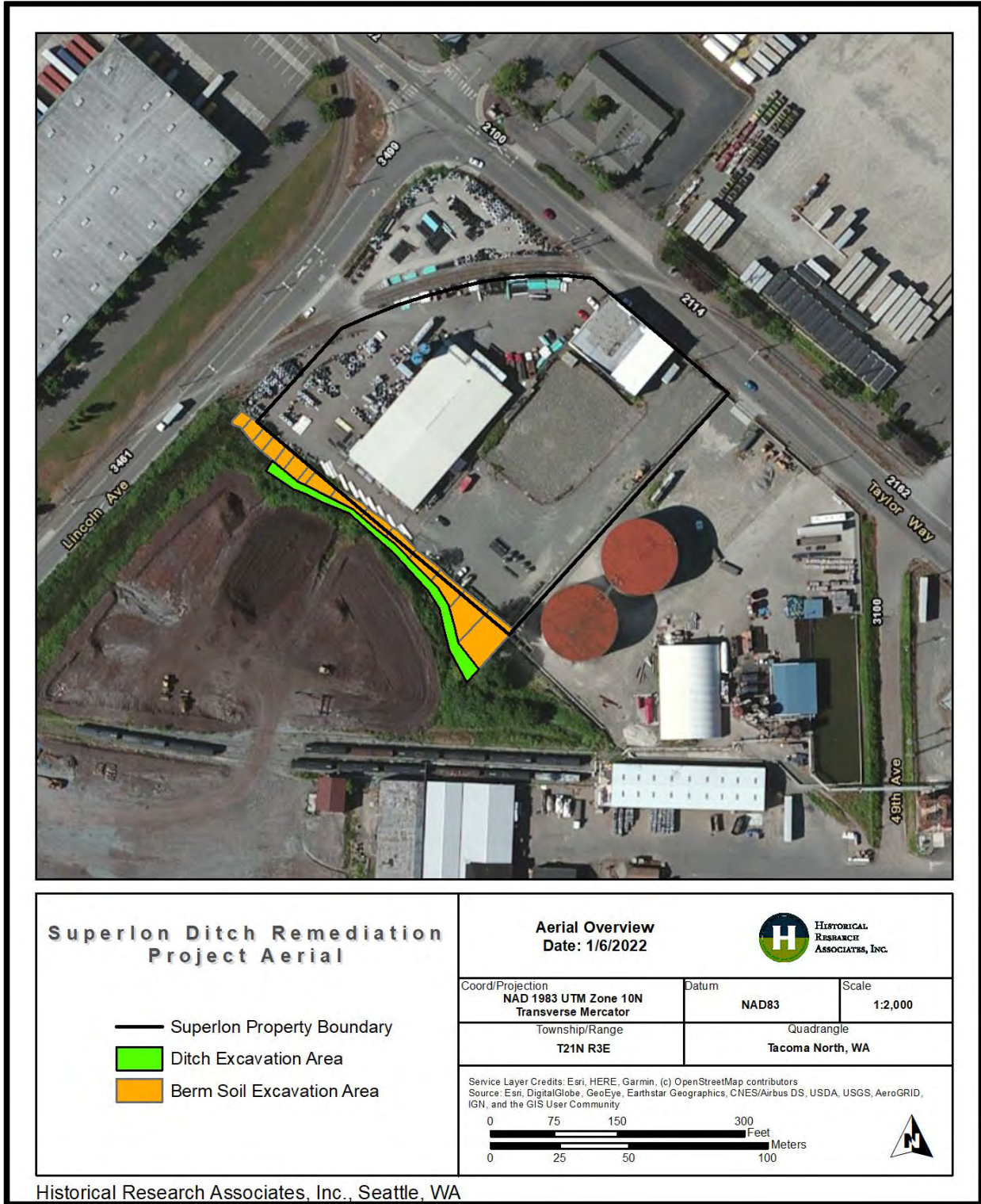


Figure 1-2. Aerial image of project location.

2. Background Research

Background research for this project can be found in *Archaeological Monitoring and Inadvertent Discovery Plan for Superlon Phase III Ditch Remediation, Tacoma, Washington* (HRA 2021) and in *Archaeological Reconnaissance and Historic Property Inventory for the Superlon Plastics Site, City of Tacoma, Pierce County, Washington*, for information prior to 2010 (Kachmarsky et al. 2010).

3. Environmental and Cultural Setting

The reader is directed to *Archaeological Reconnaissance and Historic Property Inventory for the Superlon Plastics Site, City of Tacoma, Pierce County, Washington* for the environmental, cultural, and historic background of the project vicinity (Kachmarsky et al. 2010).

4. Procedures for Archaeological Monitoring

Archaeological monitoring for this project followed the procedures established in *Archaeological Monitoring and Inadvertent Discovery Plan for Superlon Phase III Ditch Remediation, Tacoma, Washington* (HRA 2017). The relevant procedures from that plan include:

1. Archaeological monitoring took place during ground-disturbing activities associated with remediation of the ditch sediments that have the potential to affect native soils.
2. PERC arranged for a professional archaeologist who meets the Secretary of the Interior's (SOI) qualifications (36 CFR Part 61; required by the State of Washington in RCW 27.53.030.8) to provide oversight for all cultural resources-related activities. The archaeologist on site was 40-hour HAZWOPER certified.
3. Prior to the commencement of construction activities, the archaeologist briefed the onsite supervisor and equipment operators about cultural resource issues. The monitoring archaeologist explained the purpose of the work, how it will be conducted, and what crew members can help watch for.
4. The monitoring archaeologist recorded daily activities on a Daily Record Form and in a field notebook and took overview photographs of monitored locations as well as more detailed photographs of these locations, work in progress, and any cultural materials.
5. The monitoring archaeologist followed instructions from PERC's onsite representative or construction contractor in matters pertaining to safety.
6. During excavation, the archaeological monitor examined soils from excavation profiles and back-dirt piles. Equipment included, as appropriate, a shovel, trowel, and screen of ¼-inch mesh. The archaeologist watched for precontact or historic-period artifacts or layers/lenses of organic material or shell, and organically enriched midden soils that might indicate past human use.
7. PERC informed the construction contractor or machine operator about the archaeologist's monitoring work, and made provisions, within its agreement with them, for work stoppage, when applicable, for inspection of possible finds. PERC's on-site lead authorized the archaeologist to stop ground disturbance periodically, as needed, for a closer examination of exposed soils. Excavation was suspended until the archaeological monitor had an opportunity to inspect the sediments.

5. Monitoring Results

HRA archaeologist Justin Butler, BA, conducted archaeological monitoring for the Project periodically between June 21 and September 21, 2021. Brent Hicks, MA, who meets the Secretary of the Interior's professional qualifications standards for archaeology, supervised Mr. Butler.

An HRA archaeologist was present for all ground-disturbing activities that occurred in potentially native soils within the project area. The archaeological monitor observed the sediments and documented the activities using a digital camera and field notebook. The HRA monitor observed no significant, intact, precontact or historic-period archaeological deposits during ground-disturbing activities for the Project.

The excavation for the project occurred in discrete remedial action units (RAU). Each RAU included multiple excavation units (EU) and work only continued once cleanup within a RAU was completed. Within each RAU, the excavation began with vegetation removal (Figure 5-1), then soils within the ditch were removed until the soils met the predetermined cleanup levels (Figure 5-2), and, finally, the berm soils were excavated to a depth equal to the depth of contaminated soils (Figure 5-3). The process involved testing newly exposed soils for contamination before excavation to a greater depth continued. Therefore, monitoring occurred sporadically throughout the day. Excavated soils were stored and treated onsite before being removed. The ditch and berm were reconstructed using imported clean soils (Figure 5-4).



Figure 5-1. Overview of initial vegetation removal of RAU-D4, facing east.



Figure 5-2. Overview of excavation of ditch RAU-D5 at 3 ft below the surface, facing southeast.



Figure 5-3. Overview of excavation of RAU-B14 at 6 ft below the surface with modern debris, facing northwest.



Figure 5-4. Overview of berm and ditch after reconstruction, view east.

Ground disturbance included excavation of the berm soils and soils within the ditch. The depth of excavation was dependent on the level of contamination recorded in the field and varied from approximately 2 to 14 ft below the surface. The berm consisted of dry, loose, gravelly sandy silt containing construction debris, railroad ties, milled wood, and concrete and asphalt fragments (Figure 5-5). The HRA archaeologist intermittently monitored the removal of the berm when modern debris was present and continued full time monitoring when the excavations reached a depth in which native soils could exist. Typically, the modern debris extended to 3 to 4 ft below the surface. Beneath the berm the soils transitioned to a dark brown to yellowish brown gravelly sandy silt with common organic debris to a typical depth of between 4 and 7 ft below the surface. When excavation continued below 7 ft the soil transitioned to a dark gray compact fine silt with no gravels, similar to the soils observed within the ditch.



Figure 5-5. Overview of RAU B14 with modern debris within berm, facing east.

The ground disturbance within the ditch was carried out by removing the vegetation and then removing 1 ft of sediment followed by contamination testing. If contamination was present then another foot was removed. The soils within the ditch were typically a dark brown sandy silt organic rich layer from the surface to 2 ft below the surface that transitioned to a brown to gray compact fine silt with decaying vegetation between 2 and 3 ft below the surface. When the ditch was

excavated to a depth below 3 ft a very dark gray to bluish gray fine silt with no gravel was observed (See Figure 5-2).

The HRA monitor identified no precontact or historic-period archaeological materials during the monitoring. The majority of cultural materials observed were modern and located within the fill deposit that made up the berm. The cultural materials were deposited within the berm as part of the industrial operations that occurred on and adjacent to the property and included plastic tarps, plastic bags, milled wood, metal containers, metal fragments, asphalt, and concrete fragments varying in size from very large to small. While these materials were present throughout the project area, the deeper excavations in the berm only contained asphalt and concrete fragments. Once the very dark gray to bluish gray fine silty soils were encountered the cultural materials ceased.

6. Conclusions

An HRA archaeologist was present for ground-disturbing activities within or near native soils associated with the Superlon Phase III Ditch Remediation Project between June and September 2021. The HRA monitor identified no precontact or historic-period archaeological materials during the monitoring. HRA recommends that monitoring continue to take place on further excavation that occurs within or near native soils.

7. References

Historical Research Associates

2021 *Archaeological Monitoring and Inadvertent Discovery Plan for Superlon Phase III Ditch Remediation, Tacoma, Washington*. Historical Research Associates, Inc., Seattle, Washington. Prepared for Pacific Environmental and Redevelopment Corporation, Snohomish, Washington.

Kachmarsky, Erica, Shari Silverman, Natalie K. Perrin, and Jenny Dellert

2010 *Archaeological Reconnaissance and Historic Property Inventory for the Superlon Plastics Site, City of Tacoma, Pierce County, Washington*. Historical Research Associates, Inc., Seattle, Washington. Prepared for HDR, Inc., Seattle, Washington.