Former E.A. Nord Door Site

Summary of Source Control Evaluation to Assess Data Gaps for Completion of RI/FS

Prepared for: JELD-WEN, Inc.

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Prepared for:

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Klamath Falls, Oregon

This document has been prepared by SLR International Corporation. The material and data in this report were prepared under the supervision and direction of the undersigned.

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1. INTRODUCTION

SLR International Corporation (SLR) has prepared this summary of completed Source Control Evaluation (SCE) activities to Assess Data Gaps for Completion of the Remedial Investigation (RI)/Feasibility Study (FS) for the Former E.A. Nord Door facility (i.e. JELD-WEN Cleanup Site; FS ID 2757) located at 300 West Marine View Drive in Everett, Washington (Site). A Site Location Map is included as **Figure 1**. This summary report outlines activities completed per the December 2017 *SCE Work Plan to Address Data Gaps Identified in RI/FS and Draft Cleanup Action Plan* (SLR, 2017).

In addition, this summary report presents proposed additional assessment based on the findings of the SCE activities.

1.1 PURPOSE

The SCE activities presented in the SCE Work Plan focused on data gaps identified during Washington Department of Ecology (Ecology) initial review of the *Final Draft RI/FS and Draft Cleanup Action Plan* (SLR, 2016). Investigation activities at the Site were performed to meet the objectives in the Agreed Order for RI/FS Study and Draft Cleanup Action Plan (CAP) dated January 2, 2008.

1.2 OBJECTIVES

The overall objective of the RI/FS is to identify whether hazardous substances have been released to the environment; assess the nature, extent, and distribution of these substances; identify the potential migration pathways and receptors; assess the theoretical risk to human health and the environment; and generate or use data of sufficient quality for site characterization, risk assessment, and the subsequent analysis and selection of remedial alternatives.

The objective of the SCE activities presented in the SCE Work Plan was for further characterization of: 1) groundwater seeps; 2) the existing site stormwater drainage system; and, 3) the North Truck Dock (NTD) stormwater sump.

2. SOURCE CONTROL EVALUATION ACTIVITIES

Based on the findings of the RI, previous sampling conducted at the Site, and a series of communications with Ecology, the following additional investigation activities were completed to address identified data gaps. Sampling activities were completed per the Sampling and Analysis Plan (SAP), Quality Assurance Project Plan (QAPP), and Health, Environmental, and Safety Plan (HSEP), included as Attachments to the SCE Work Plan.

SCE activities per the SCE Work Plan were completed for further characterization of groundwater seeps to Port Gardner Bay, the existing site stormwater drainage system, and the NTD stormwater sump.

2.1 GROUNDWATER SEEPS

Near-shore groundwater seep sampling was completed as a source control evaluation tool. An assessment of groundwater seeps observed discharging into Port Gardner Bay on the northern, western, and southern side of the Site was completed to identify potential impacts to surface water and sediment via groundwater seep drainage from the Site. The groundwater seep assessment consisted of identification of observed seeps during low tidal conditions, visual observations from identified seeps, and groundwater seep sampling of select groundwater seep locations along the shoreline of the Site.

The investigation of the groundwater seeps was completed in two phases: a groundwater seep survey followed by groundwater seep sampling.

2.1.1 GROUNDWATER SEEP SURVEY

From April 17 to 20, 2018, SLR completed a groundwater seep survey per the SCE Work Plan. **Figure 2** includes a Site Plan with locations of identified groundwater seeps and **Table 1** provides a summary of field measurements and observations from the seep survey. The groundwater seep survey included the following scope of work:

- Coordinated site access with the respective property owners to complete the proposed scope of work.
- Identified groundwater seeps that are accessible during low tidal conditions while considering observed seep flow, historical groundwater flow direction, access, and safety. Seeps along the northern, western, and southern side of the Site were assessed, and the locations were marked with a labelled flag and the approximate locations were drawn onto a scaled site plan. In addition, the marked groundwater seeps were surveyed by Signature Surveying (a Washington State licensed surveyor). A table of the surveyed coordinates is included as **Attachment 1**.
- Water quality parameters including specific conductance, pH, temperature, dissolved oxygen (DO), and oxidation reduction potential (ORP) were recorded using calibrated multi-parameter water quality meters on a grab sample from the seep locations during outgoing and incoming tidal stages. Water quality parameters were also recorded for the adjacent surface water during

the outgoing tidal stage. A summary of the water quality parameter measurements and field observations are included on **Table 1**.

- Per comments from Ecology on the draft SCE Work Plan, the "finger area" was the focus of the groundwater seep survey due to its proximity to identified contaminated areas; however, the entire northern, western, and southern shoreline (including the knoll area) was included as part of the groundwater seep survey.

Per the SCE Work Plan, proposed groundwater seep sampling locations were identified based on the findings of the groundwater seep survey described above. Considerations for the proposed groundwater seep sampling locations included access/safety, observed groundwater seep flow rate during the seep survey, proximity to areas with identified sediment impacts, and representativeness of significant observations or areas (i.e. unusually high flow areas).

The proposed groundwater seep sampling locations and rationale were submitted to Ecology in the May 11, 2018 *Summary of Groundwater Seep Survey and Proposed Groundwater Seep Sampling Plan* (SLR, 2018), and are summarized below.

- Seep-N-2: This observed groundwater seep is the nearest seep to the inland portion of the finger area that is directly attributable to the former E.A Nord property. This seep is also adjacent to previously identified sediment impacts. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for Total Petroleum Hydrocarbons - Diesel and Oil Range (TPH-Dx), carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs), naphthalene, benzene, and dioxins/furans.

- Seep-N-14: This observed groundwater seep is within the finger area. This seep is also adjacent to previously identified sediment impacts. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, and dioxins/furans.

- Seep-N-18/19: These observed groundwater seeps are within the finger area. These seeps are adjacent to each other. One of the seeps was sampled (Seep-N-19), determined on access and observed flow during the seep sampling event. This seep is also adjacent to previously identified sediment impacts. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, and dioxins/furans.

- Seep-S-1: This observed groundwater seep is on the south shoreline. This seep is also adjacent to previously identified sediment impacts. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, dioxins/furans, and Polychlorinated Biphenyl (PCB) congeners.

- Seep-S-9: This groundwater seep exhibited relatively high flow during the seep survey (along with Seep-S-7, Seep-S-8, and Seep-S-10). The seep is adjacent to the leased Cadman Asphalt

property. The flow appeared to stay consistent throughout the seep survey period. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, and PCB congeners.

- Seep-S-14: This groundwater seep is the nearest seep to the previously identified TPH in upland Geoprobe location GP-24 adjacent to monitoring well MW-1. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, dioxins/furans, and PCB congeners.

- Seep-S-16: This groundwater seep is adjacent to the knoll area where upland impacts were previously identified in soil and groundwater. This seep is also in the vicinity of previously identified sediment impacts. This area has sufficient access and sufficient groundwater flow was observed during the seep survey for sample collection. This sample location was analyzed for TPH-Dx, cPAHs, naphthalene, benzene, dioxins/furans, and PCB congeners.

As presented in the *Proposed Groundwater Seep Sampling Plan*, alternate locations in the vicinity of the selected sampling locations were identified in case conditions restricted potential sample collection (i.e. access/safety issues or insufficient flow).

2.1.2 GROUNDWATER SEEP SAMPLING

From May 14 to 15, 2018, SLR completed a groundwater seep sampling event per the *SCE Work Plan* and the *Proposed Groundwater Seep Sampling Plan*. The groundwater seep sampling included the following scope of work:

- Near low tide, grab samples of water emitting from the selected groundwater seeps were collected directly into a clean laboratory-provided container by directing groundwater discharge from the groundwater seeps to the containers using a decontaminated vessel as necessary (i.e. Geoprobe sampler tube). At some locations, construction of an artificial channel was necessary to provide sufficient seep water for sample collection (see Photo Sheet in **Attachment 2**).

- Water quality parameters were measured and recorded as was completed for the April 2018 groundwater seep survey. Copies of field data sheets are included in **Attachment 3**.

- Groundwater seep samples were submitted to the analytical laboratory for the contaminants of potential concern (COPCs) identified in the seep sampling plan, and described above.

The groundwater flow from Seep location Seep-S-16 was observed to have a lack of groundwater seep flow during the seep sampling event. An alternate location was selected approximately 18 feet to the north of the original location. While this alternate location produced a slightly better flow, a channel in the sediment was constructed due to the low flow of the seep and the shallow grade of the shoreline. This method potentially introduced potentially-impacted sediment into the groundwater seep sample. Field notes for this sample location indicate the water was very turbid and black (see **Attachment 3**).

The duplicate sample from location Seep-S-16 was laboratory filtered with a 0.45-micron filter prior to sample extraction and analysis. The Seep-S-16 duplicate sample (DUPLICATE-0518) was analyzed for benzene and naphthalene, cPAHs, TPH-Dx, and PCB congeners.

2.1.2.1 Laboratory Analytical Results – Seep Sampling

Laboratory analytical results for groundwater seep samples with applicable Preliminary Cleanup Levels (PCLs) are summarized on **Table 2** and calculations used for toxic equivalent concentration (TEQ) values using the toxicity equivalency factors (TEF) for cPAHs, dioxin/furans, and PCB congeners are shown on **Table 3** (Ecology, 2015; Ecology, 2016). Copies of the laboratory analytical reports are included in **Attachment 4**. It should be noted that multiple discussions with Ecology have occurred regarding applicable PCLs. The PCLs presented in the summary tables included in this summary report are considered to be sufficient to screen the results of the SCE activities for their potential risk to human health and/or the environment and will be used for any proposed additional assessment.

Concentrations of benzene and naphthalene were not detected above the laboratory reporting limit in any of the seven seep locations sampled. TEQ cPAH concentrations using ½ the detection limit for non-detect values (ND= ½ DL) were below the applicable PCL at each of the seven sample locations. TPH-Dx was not measured above the laboratory reporting limit at seeps N-2, N-14, S-1, S-14, or S-16 and concentrations of TPH-Dx measured at seeps N-18 and S-9 were below the applicable PCL. Dioxins/furans TEQ values using ND= ½ DL were measured below the applicable PCL at the seep locations selected for dioxin/furan analysis.

Total PCB congeners were measured above the applicable PCL (per human health Surface Water Applicable or Relevant and Appropriate Requirement [ARAR] from Model Toxics Control Act [MTCA]) at the four locations selected for PCB congeners analysis, with elevated concentrations observed at Seep-S-16 (located adjacent to the knoll area). The TEQ value for dioxin-like PCB congeners was measured below the practical quantitation limit (PQL) at all four sample locations.

2.1.3 FINDINGS – GROUNDWATER SEEPS

A *Summary of Groundwater Seep Sampling* was submitted to Ecology on August 29, 2018 (SLR, 2018). The findings presented in that summary document are summarized below.

The only exceedance of applicable PCLs was for Total PCB congeners observed at seep sample locations Seep-S-1, Seep-S-9, Seep-S-14, and Seep-S-16; however, concentrations of dioxin-like PCB congeners calculated using the TEF methodology were below the PQL at each of these locations.

Previous upland assessments at the knoll area have been conducted including Geoprobe borings in 2009 and 2012 and test pitting with soil sampling in 2012. Two groundwater samples (GP-334 and GP-335) and ten soil samples were collected from within the knoll area and analyzed for PCB Aroclors. Only two soil samples measured a single PCB Aroclor above the laboratory reporting limit, and neither of these detections was measured above the PCL presented in the RI/FS. Sediment samples adjacent to seep location Seep-S-16 have measured PCB congeners above applicable PCLs in previous investigations. The construction of a channel in the sediment was necessary for groundwater seep sample collection due to

the low flow of the seep and the shallow grade; however, this appears to have introduced colloidal interference (turbidity) into the water sample that was not removed by laboratory filtering of the duplicate sample. The seep sample with the highest observed turbidity had the highest total PCB congeners which was unaffected by laboratory filtering.

2.2 EXISTING STORMWATER DRAINAGE SYSTEM

While door manufacturing at the Site ceased in 2005, the Industrial Stormwater General Permit for the door manufacturing operations was not terminated until March 2007 (see Attachment 5 of the SCE Work Plan). As a component to the SCE, an assessment of the Site stormwater drainage system configuration was completed to locate and identify current and/or historical outfalls, drainage system collection points, pipe locations, and the approximate drainage areas for the collection points.

The SCE activities did not address cleanup of the stormwater drainage system or characterization of stormwater and storm drain solids (with the exception of the NTD stormwater sump, described below). Any potential cleanout of the stormwater drainage system or long-term stormwater monitoring may be considered as part of the upland cleanup alternatives.

2.2.1 STORMWATER DRAINAGE SYSTEM TRACING

On April 4, 2018 SLR completed a site walk to compare the stormwater system components identified on the site plan depicted on the 2005 SWPPP to the existing site conditions and to identify potential access points for the proposed assessment.

Based on the findings of the site walk, on April 5, 6, and 9, 2018, SLR subcontracted APS (utility locating service provider) to trace identified catch basins, outfalls, and roof drain connections with an electro-magnetic tracer line. The results of the tracing were marked on the surface and photographed. SLR documented the findings on a scaled site plan, utilizing a measuring wheel and taking measurements in reference to existing site features. It should be noted that the accuracy of the site plan should only be considered accurate to the degree implied by the method used. Additional tracing was completed in select storm lines with a tracer line affixed with a camera to assess pipe material, pipe condition (cracks/breaks), piping diameter, significant debris accumulation or blockage, and to identify other pipe connections.

The findings of the stormwater drainage system tracing are presented on **Figure 3** and detailed in **Table 4**. Forty-one catch basins, thirteen downspouts, and ten outfalls were identified. It should be noted that several additional downspouts were identified which appeared to discharge onto the site's surface and drain as sheet flow, therefore they were not noted within this scope.

2.2.2 FINDINGS - STORMWATER DRAINAGE SYSTEM TRACING

The subject property appears to support a network of stormwater lines which discharge towards the northern 'finger area', southern tidal flat, and the stormwater network below the west-adjacent West Marine View Drive. The stormwater lines generally consist of 4-inch to 12-inch lines constructed with

either concrete or PVC. In general, the concrete storm lines were constructed in jointed segments. The PVC stormwater lines appeared in overall good condition and no major breaks or fractures were observed during the video inspections.

Based on the findings from this assessment, it appears that the storm lines have not been serviced or cleaned for several years and many of the catch basins and stormwater lines were partially or completely filled with sediment, debris, and/or stagnant water. Several of the lines were completely blocked with sediment or debris, which made tracing of those lines unsuccessful. Several of the catch basins were filled with sediment and/or vegetation and did not allow sufficient drainage at the time of our field work. When possible, the sediment and/or vegetation was removed to assess the condition and functionality of the catch basin(s) and stormwater lines. It could not be determined when the blockages occurred or whether they can be directly attributed to former JELD-WEN operations.

Outfall designated OF-4 was observed to have continuous water discharging from it regardless of recent precipitation events. Based on the camera tracing, it appears that water infiltrates the pipe between the first 40 to 150 feet of the line, nearest the outfall. The source of the water was not identified during the camera tracing due to the in-line water stirring up debris and distorting the images.

Modifications to the stormwater system were performed by the site property owner during summer of 2018, including redirecting downspout connections DS-1 and DS-2 from the NTD to an existing on-site catch basin.

While additional catch basins and a varying stormwater system configuration were observed, the general stormwater system drainage system was relatively similar to that presented in the 2005 SWPPP. No non-stormwater connections were observed during this assessment. The water discharging from OF-4 appeared to be water infiltration (groundwater) and not a connection.

2.3 NORTH TRUCK DOCK STORMWATER SUMP

As part of the stormwater drainage assessment, the stormwater sump in the North Truck Dock (NTD) area was traced and mapped by the utility locating service, and samples were collected of water entering the sump, solids inside the sump, and soil adjacent to observed current and historical discharge points.

2.3.1 NORTH TRUCK DOCK STORMWATER SUMP PIPING TRACING

On April 4th and 5th, 2018, SLR completed an investigation focused on the NTD stormwater sump located adjacent to the north entrance to the Site. The following section presents a summary of the findings from the sump piping tracing, sump solids sampling, and sump inlet water sampling.

SLR met with APS on April 5, 2018 to trace the NTD sump piping. **Figure 5** presents a zoom-in of the sump area and identified stormwater lines during this assessment. The NTD sump pump pumps water into a black 3-inch PVC above ground pipe to the edge of the loading dock retaining wall. The black PVC line has a series of elbow fittings and a cleanout, which then ties into a belowground 6-inch white PVC pipe which discharges to the northern side of the property. The 6-inch PVC formerly made a 90 degree

elbow and continued to the west along the concrete wall and chain-link fence on the northwestern edge of the property. The 90 degree elbow was broken at the time of the assessment and it is not known when this connection was altered. The former continuation of pipe from the broken connection towards the finger area is both aboveground and shallowly below ground. The former discharge point is aboveground and clear of debris, which terminates approximately 80 feet from the finger area. Photos from the sump tracing are included on **Figure 4**.

Inlets to the NTD sump include a 3-inch inlet and 8-inch inlet on the southwest side of the sump. The 3-inch line was found to be connected to the adjacent strip drain in the NTD and also tied to a roof downspout at the corner of the Main Warehouse Building (identified as DS-1 on Figure 4). The 8-inch line was found to be connected to a roof downspout within the Main Warehouse Building (identified as DS-2 on Figure 4). In addition, two weep holes or ring lift holes were observed during the water sampling activities (described below).

Upon discussions with the current property owner, SLR understands that the following activities have been performed at the NTD area by the current property owner:

- Plugged the two weep holes and confirmed that water is not entering the sump through the plugged weep holes.
- Cleaned dirt and debris from the NTD area and stockpiled that material on plastic and covered with plastic, per Ecology's recommendation.
- Replaced the sump pump and redirected the sump discharges to an on-site catch basin west of the NTD area.
- Temporarily redirected the rood downspout at the NE corner of the building to drain across the sidewalk and into the City of Everett stormwater drainage system. The roof downspout was reconnected and drains to the NTD trench drain/sump where it is pumped to the on-property stormwater catch basin.
- The current property owner has engaged in on-going communications with the Port of Everett and the City of Everett regarding drainage from West Marine View Drive onto the property and in the NTD area.

With these changes to the drainage in the NTD area the water entering the NTD area is limited to surface stormwater drainage, stormwater from an internal roof drain that connects to the sump via plastic piping, and stormwater from the roof drain from the NE corner of the building that discharges to the NTD trench drain and into the sump. The discharge from the NTD sump no longer discharges to the Port of Everett property. The water in the sump is pumped to an on-property stormwater catch basin.

2.3.2 SUMP INLET WATER SAMPLING

On April 4th and 5th, 2018 SLR met Ecology to collect samples from the NTD sump per the *SCE Work Plan*. This assessment was completed during a rain event. The sump pump was enabled to discharge

water from the sump and any water backed up in the piping was allowed to completely drain into the sump, before being pumped out. Continuous flow was observed from two inlets to the sump: a 3-inch line on the southwest side of the sump (sample ID of NTD-SW-3"-0418) and an 8-inch line on the southwest side of the sump (sample ID of NTD-SW-8"-0418). The 8-inch line appeared to have increased flow related with an increase in precipitation. Stormwater samples were collected directly into laboratory-provided containers for the site COPCs from each of these inlets. In addition, water quality parameters were recorded with a multi-parameter meter after conditions were allowed to equilibrate for approximately two minutes. Two weep holes or lift holes were observed discharging to the sump and samples were collected with a decontaminated stainless steel cup and transferred into laboratory-provided containers from the water discharging to the sump from these holes (sample IDs of NTD-SW-West-0418 and NTD-SW-East-0418). These water samples were also submitted for laboratory analysis of site COPCs.

Field parameter and laboratory analytical results are summarized on **Table 5**. Copies of the laboratory analytical reports are included in **Attachment 4**.

2.3.3 SUMP SOLIDS SAMPLING

One grab sample was collected of the sump solids and analyzed for site COPCs (sample ID of NTD-SED-0418). This sample was collected with a decontaminated stainless steel spoon after the sump pump was enabled to drain the contents of the sump. Laboratory analytical results are summarized on **Table 6** and copies of the analytical reports are included in **Attachment 4**.

Findings from the NTD investigation were submitted to Ecology via the *North Truck Dock Stormwater Sump Investigation Summary* (SLR, 2018).

2.3.4 NORTH TRUCK DOCK DISCHARGE SOIL SAMPLING

The NTD discharge point soil sampling was completed by SLR on July 9, 2018. Mr. Mahbub Alam (Ecology) was on-site during the sampling activities. Based on discussions with Ecology concerning the *North Truck Dock Stormwater Sump Investigation Summary*, the following scope of work was completed for the soil sampling on the Port of Everett property.

- Two (2) composite soil samples were collected: one composite sample from the approximate area of the disconnected discharge pipe (NTD-SED-A); and, one composite sample from the approximate original terminus of the discharge pipe (NTD-SED-B). These sample locations are shown on **Figure 4**.

- The composite soil samples consisted of three aliquots of soil of similar volume collected with a decontaminated stainless steel spoon and gently composited in a decontaminated stainless steel bowl and then placed directly into laboratory-provided containers with appropriate preservative (with the exception of volatiles analysis, which was collected per the 5035 method from in-situ soil).

- The sample aliquots were collected from within one horizontal foot of the current discharge point and below the uppermost plant root zone to limit potential organic interference in the laboratory analyses.

2.3.5 LABORATORY ANALYTICAL RESULTS – NORTH TRUCK DOCK INVESTIGATION

Low concentrations of some COPCs were measured in the stormwater inlet water samples, including naphthalene, TPH-Dx (diesel and residual range), dioxins/furans, and PCB congeners; however, concentrations of naphthalene and dioxins/furans were measured below the PCLs. The concentration of TPH-Dx (diesel range) in sump samples NTD-SW-East-0418 and NTD-SW-West-0418, and TPH-Dx (residual range) in NTD-SW-West-0418 measured above the PCLs. It should be noted that a laboratory procedure to remove potential organic interference (silica gel cleanup) was not performed on these samples per Ecology's *Guidance for Remediation of Petroleum Contaminated Sites* (Publication No. 10-09-057). Concentrations of Total PCB congeners observed at each of the water sample locations exceeded the PCL (based on ARAR Human Health criteria); however, concentrations of dioxin-like PCB congeners calculated using the TEF methodology were below the PCL at each of these locations.

Concentrations of benzene, naphthalene, cPAHs, TPH-Dx, and PCB congeners in the sump solids sample measured below the PCLs. The TEQ value for dioxins/furans measured 102 picograms per gram (pg/g), which is above the PCL of 6.3 pg/g based on the laboratory PQL (**Table 6**).

Based on the dialogue with Ecology concerning the *North Truck Dock Stormwater Sump Investigation Summary*, the discharge point soil samples were analyzed for the site COPCs and conventional parameters (Total Volatile Solids [TVS], Total Solids, Ammonia Nitrogen, Total Organic Carbon [TOC], and Grain Size).

A summary of the laboratory analytical results with a comparison to PCLs and the results of the NTD sump solids sample is provided on **Table 6**.

Benzene, naphthalene, TPH-Dx (Diesel Range), and PCB congeners (total and TEQ) were measured below the PCLs in both soil samples. Concentrations of cPAHs (TEQ) and dioxins/furans (TEQ) were measured above the PCLs in both soil samples. In addition, TPH-Dx (Residual Range) was measured above the PCL in NTD-SED-B (identified as most closely resembling motor oil in the laboratory report narrative). Copies of the laboratory analytical reports are included as **Attachment 4**.

2.3.6 FINDINGS – NORTH TRUCK DOCK INVESTIGATION

It was previously identified that surface drainage into the NTD area includes drainage from West Marine View Drive. Weep holes or ring lift holes were identified in the NTD sump and water samples were collected. The weep holes were subsequently plugged. Line tracing identified only stormwater piping was connected to the NTD sump, primarily via roof drain piping.

Two composited soil samples were collected on the Port of Everett property at the locations shown on **Figure 5**. The sample collection and analysis was completed per the SCE Work Plan, communications with Ecology, the June 26, 2018 Proposal for Soil Sampling – Port of Everett, and the access agreement

between JELD-WEN and the Port of Everett. The laboratory-measured concentrations of benzene, naphthalene, TPH-Dx (Diesel Range), and PCBs (total and TEQ) were below the PCLs in both samples. Concentrations of cPAHs (TEQ) and dioxins/furans (TEQ) were measured above the PCLs in both soil samples. TPH-Dx (Residual Range) was measured above the PCL in soil sample NTD-SED-B.

2.4 DATA QUALITY OBJECTIVES

The completed number of sampling locations, sampling depths, types of samples, and types of laboratory analysis were selected to meet the objective of the RI/FS and were proposed in the SAP and QAPP (Attachment 2 and 3 of the SCE Work Plan).

The data quality objectives (DQOs) for the RI/FS are designed to ensure that data of sufficient quality and quantity will be available to identify if hazardous compounds are present at the Site, evaluate risks posed by the presence of hazardous compounds, and identify if hazardous compounds may pose unacceptable risk to current and future human and ecological receptors via direct contact or migration.

Below is a summary of DQOs for the SCE activities.

Field Duplicate

One duplicate sample was collected from groundwater seep sample Seep-S-16 and analyzed for applicable COPCs. The relative percent difference (RPD) for Total PCB congeners was 0% (16,200 pg/L was measured in both the parent and the duplicate sample).

Laboratory Methods

Laboratory analysis of cPAHs was performed by the laboratory utilizing the 8270SIM method, as opposed to the 8310LL method that was proposed in the Work Plan. The TEQ PQL for the 8310LL method based on the laboratory reporting limit was calculated at 0.015 µg/L. When using the laboratory detection limit on the individual batch of samples per the 8270SIM method, a TEQ of 0.008 ug/L was achieved.

Data Validation and Data Reporting

Laboratory analytical results were validated per Section 4 of the QAPP including completing EPA validation level for all analytes. Future sampling for dioxin/furan and PCB Congener results will be evaluated by a third-party data analysis firm per the EPA4 validation level as required by the 2018 Ecology EIM database policy.

3. RECOMMENDATIONS FOR ADDITIONAL ASSESSMENT

This section provides recommendations for additional assessment based on the findings of the SCE activities.

3.1 GROUNDWATER SEEPS

Identified exceedances of applicable PCLs in groundwater seep samples was for Total PCB congeners observed at seep sample locations Seep-S-1, Seep-S-9, Seep-S-14, and Seep-S-16; however, concentrations of dioxin-like PCB congeners calculated using the TEF methodology were below the PCL at each of these locations.

Seep-S-16 had notably higher concentrations of Total PCB congeners and TEF concentration compared to the other seep samples; therefore, additional assessment is proposed for this area. Despite filtering the duplicate sample from Seep-S-16 by the laboratory, the concentration of Total PCB congeners was consistent between the parent sample and the filtered duplicate sample and it appears that laboratory filtering did not effectively remove PCB-contaminated sediment colloidal interference from the groundwater seep sample. It is our opinion that bulk water testing from the groundwater seep will not effectively remove PCB-contaminated sediment colloidal interference.

To assess the upland groundwater conditions that may be contributing to the groundwater seep concentrations measured at Seep-S-16, JELD-WEN proposes to install one permanent groundwater monitoring well in the upland area adjacent to the shoreline and Seep-S-16, pending access and safety issues. This monitoring well will be installed by a Washington-licensed drilling subcontractor and will be properly developed per Ecology guidelines. Upon completion of well installation and development activities, one groundwater sampling event will be conducted for PCB Congeners during outgoing tidal conditions. JELD-WEN understands that Ecology may request additional sampling events for PCB congeners to represent the cyclical nature of the groundwater system, or analysis of additional site COPCs at this well location.

3.2 EXISTING STORMWATER DRAINAGE SYSTEM

The Site appears to support a network of stormwater lines which discharge towards the northern ‘finger area’, southern tidal flat, and the stormwater network below the west-adjacent West Marine View Drive. The stormwater lines generally consist of 4-inch to 12-inch lines constructed with either concrete or PVC. In general, the concrete storm lines were constructed in jointed segments. The PVC stormwater lines appeared in overall good condition and no major breaks or fractures were observed.

Outfall designated OF-4 was observed to have continuous water discharging from it regardless of recent precipitation events. Based on the camera tracing, it appears that water infiltrates the pipe between the first 40 to 150 feet of the line, nearest the outfall. The source of the water was not identified during the camera tracing due to the in-line water stirring up debris and distorting the images. As stated below, catch basins have recently been modified to include discharge from downspouts that formerly discharged to the NTD sump.

No additional assessment is proposed for the existing stormwater drainage system; however, any potential cleanout of the stormwater drainage system or long-term stormwater monitoring would be considered as part of the upland cleanup alternatives.

3.3 NORTH TRUCK DOCK STORMWATER SUMP

Line tracing identified only stormwater piping was connected to the NTD sump, primarily via roof drain piping. It was previously identified that surface drainage into the NTD area includes drainage from West Marine View Drive. Weep holes or ring lift holes were identified in the NTD sump and water samples were collected. Modifications to the stormwater system were performed by the site property owner during summer of 2018, including plugging the weep holes in the sump and redirecting downspout connections DS-1 and DS-2 from the NTD sump to an existing on-property catch basin.

Based on discussions with Ecology and the Port of Everett (property owner of the adjacent site), additional assessment of the NTD discharge area will be conducted by Port of Everett as part of the RI/FS being conducted for the Former Baywood Site.

4. CONCLUSION

SLR requests a telephone conversation with Ecology to discuss the contents of this document and the recommended scope of additional assessment. Once Ecology has approved the additional assessment scope, SLR will prepare a work plan addendum with the appropriate details and QAPP changes to include EPA data validation of dioxin/furan and PCB congeners results using a third-party data analysis firm following Ecology's EIM database policy. The additional assessment proposed is intended to complete the Source Control Evaluation work at the Site, allowing for completion of the Remedial Investigation and Feasibility Study.

5. REFERENCES

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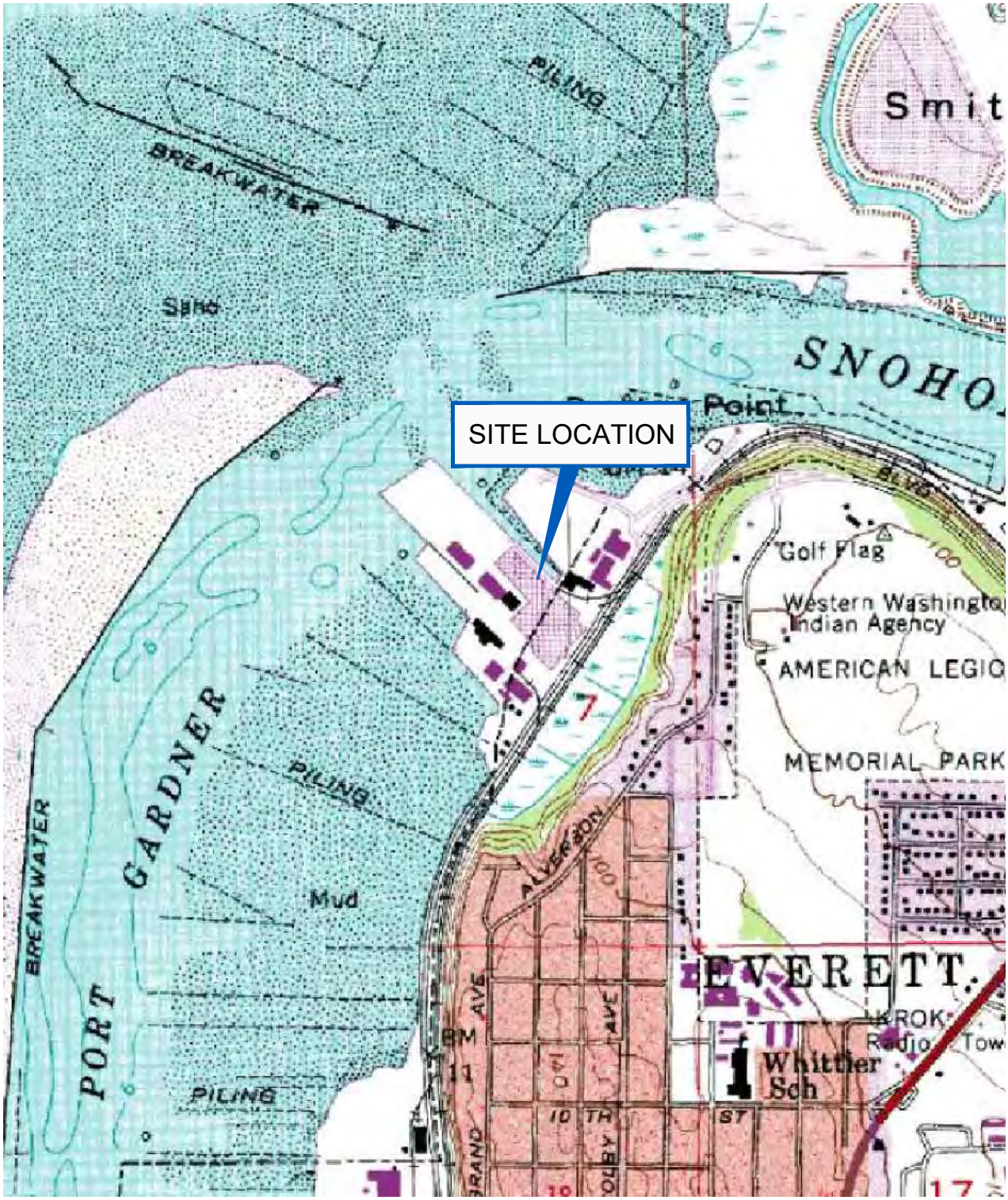
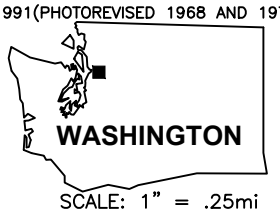
Ecology. 2015. *Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using the Toxicity Equivalency Factors (TEFs)*; Implementation Memorandum No. 10. April.

FIGURES



SOURCE: USGS 7.5 MINUTE QUADRANGLE MARYSVILLE, WA; 1991(PHOTOREVISED 1968 AND 1973)



SCALE: 1" = .25mi

0 .25 .5 .75mi

SLR

FORMER E.A. NORD
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
SUMMARY OF SCE TO ASSESS DATA GAPS FOR COMPLETION OF RI/FR

Drawing
SITE LOCATION MAP

Date December 17, 2018		Scale AS SHOWN	Fig. No. 1
File Name Figure 1		Project No. 108.00228.00048	

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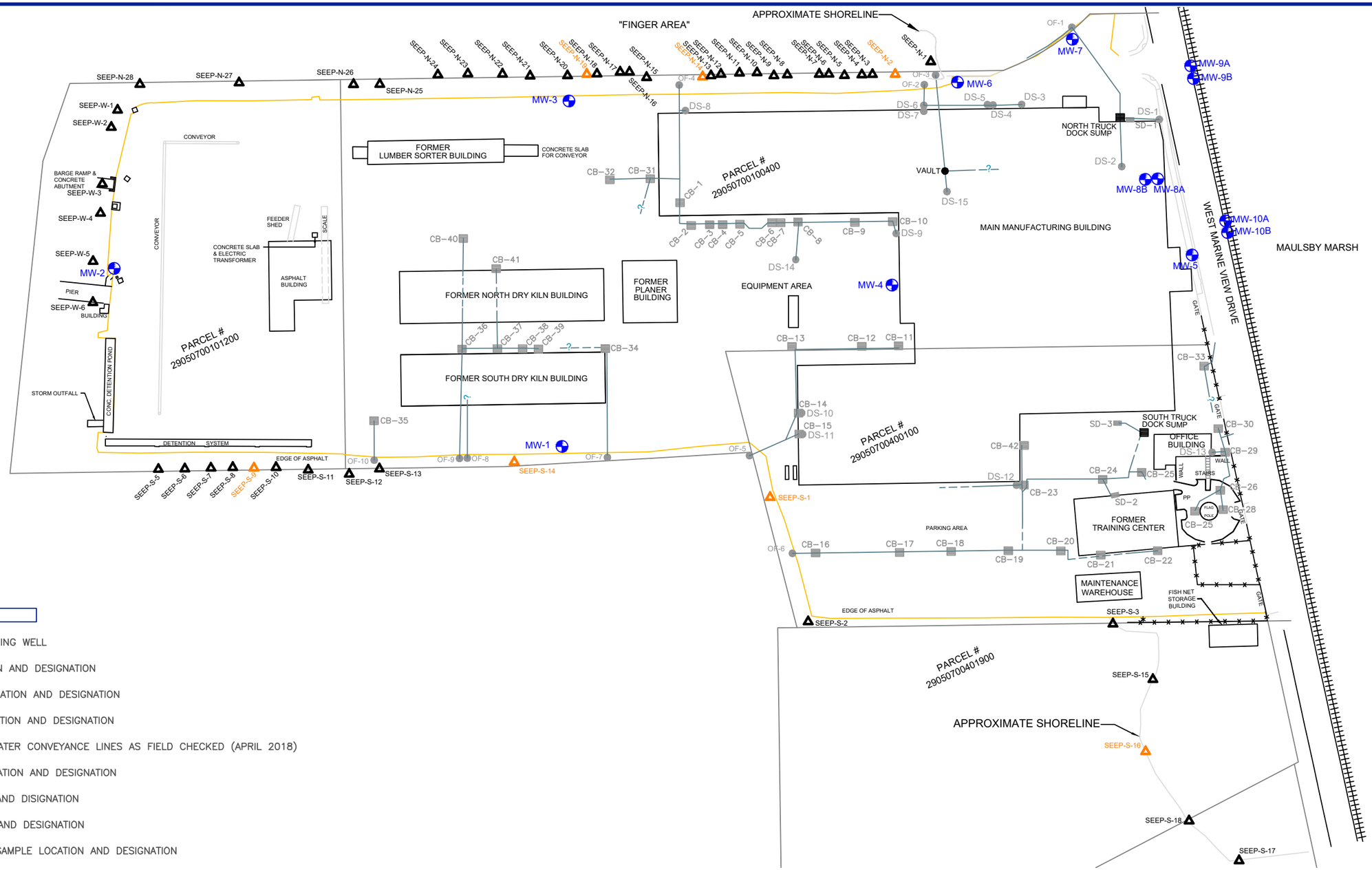

LEGEND

- EXISTING MONITORING WELL
- OF-1 OUTFALL LOCATION AND DESIGNATION
- CB–1 CATCH BASIN LOCATION AND DESIGNATION
- DS-1 DOWNSPOUT LOCATION AND DESIGNATION
- EXISTING STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- SD–1 STRIP DRAIN LOCATION AND DESIGNATION
- SUMP LOCATION AND DISIGNATION
- VAULT LOCATION AND DESIGNATION
- SEEP-N-2 SELECTED SEEP SAMPLE LOCATION AND DESIGNATION
- SEEP-N-6 SEEP SURVEY LOCATION AND DESIGNATION

0 175 350 525'

FORMER E.A. NORD SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report: SUMMARY OF SCE TO ASSESS DATA GAPS FOR COMPLETION OF RI/FS

Drawing: SEEP SAMPLING LOCATIONS

Date: December 17, 2018 | Scale: AS SHOWN | Fig. No. 2

File Name: Figure 2.dwg | Project No.: 108.00228.00048

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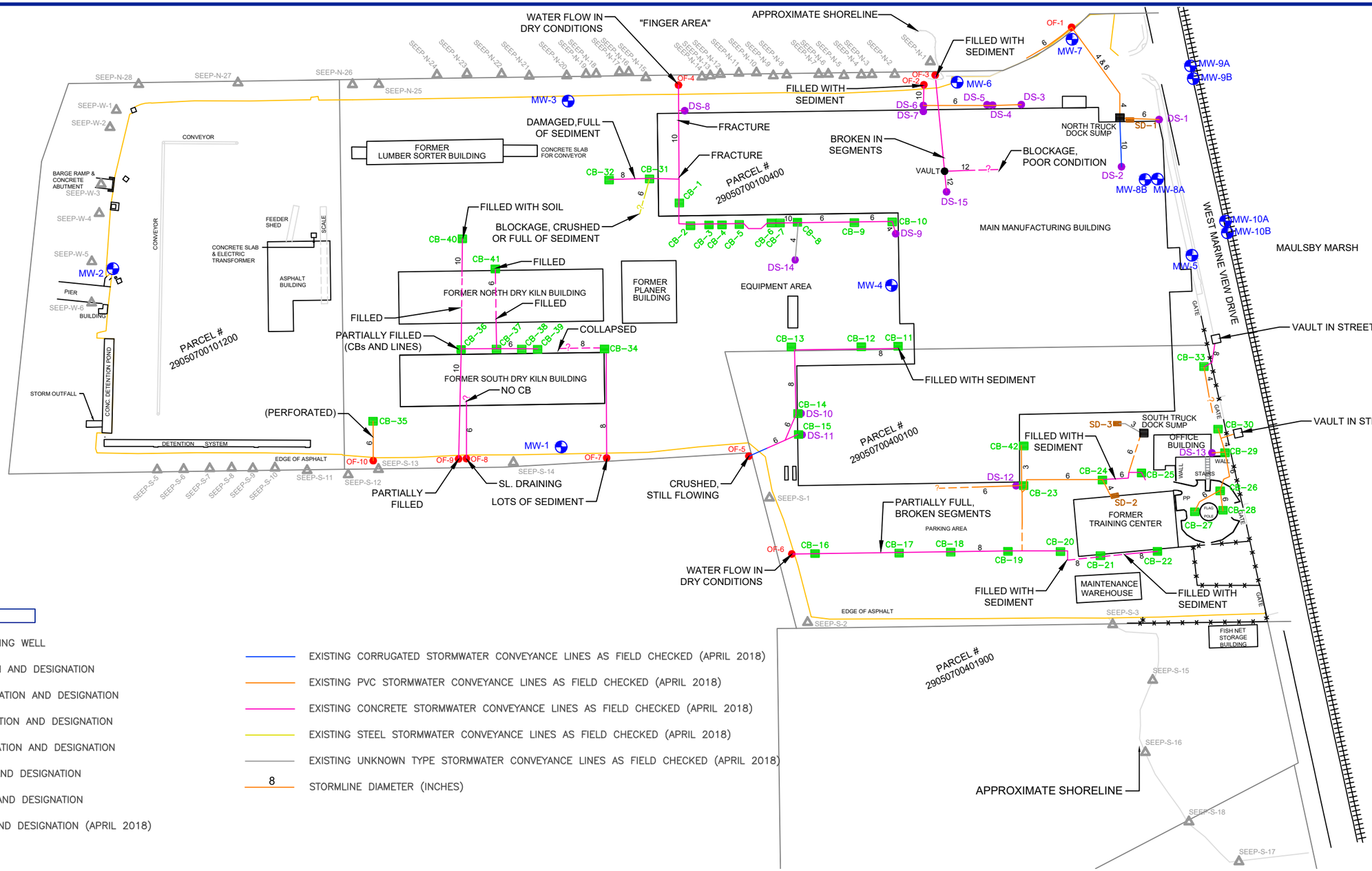

LEGEND

- EXISTING MONITORING WELL
- OF-1 OUTFALL LOCATION AND DESIGNATION
- CB–1 CATCH BASIN LOCATION AND DESIGNATION
- DS-1 DOWNSPOUT LOCATION AND DESIGNATION
- SD–1 STRIP DRAIN LOCATION AND DESIGNATION
- SUMP LOCATION AND DESIGNATION
- VAULT LOCATION AND DESIGNATION
- SEEP-N-2 SEEP LOCATION AND DESIGNATION (APRIL 2018)

- EXISTING CORRUGATED STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- EXISTING PVC STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- EXISTING CONCRETE STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- EXISTING STEEL STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- EXISTING UNKNOWN TYPE STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- 8 STORMLINE DIAMETER (INCHES)

0 175 350 525'

FORMER E.A. NORD SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report: SUMMARY OF SCE TO ASSESS DATA GAPS FOR COMPLETION OF RI/FS

Drawing: STORMWATER SYSTEM TRACING OBSERVATIONS

Date	December 14, 2018	Scale	AS SHOWN
File Name	Figure 3	Project No.	108.00228.00048

Fig. No. 3

SLR

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APPROXIMATE SHORELINE

"FINGER AREA"

OF-1
MW-7
OF-3
OF-2
MW-6
OF-4
DS-8
DS-6
DS-7
DS-5
DS-4
DS-3
VAULT
DS-15
PARCEL #
29050700100400
CB-1
CB-2
CB-3
CB-4
CB-5
CB-6
CB-7
CB-8
CB-9
CB-10
DS-9
DS-14
EQUIPMENT AREA
MW-4
NORTH TRUCK
DOCK SUMP
DS-1
SD-1
DS-2
MW-8B
MW-8A
MW-9A
MW-9B
MAIN MANUFACTURING
BUILDING
MW-5
GATE
WEST MARINE VIEW DRIVE
MW-10A
MW-10B
MAULSBY MARSH

(COMPOSITE SAMPLE LOCATION NTD–SED–B)

PHOTO OF END OF OUTFALL PIPE

PHOTO OF OUTFALL–1
(COMPOSITE SAMPLE LOCATION NTD–SED–A)

PHOTO OF THE NORTH TRUCK BAY SUMP

LEGEND

- EXISTING MONITORING WELL
- OF-1 OUTFALL LOCATION AND DESIGNATION
- CB–1 CATCH BASIN LOCATION AND DESIGNATION
- DS-1 DOWNSPOUT LOCATION AND DESIGNATION
- EXISTING SOTRMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)
- SD–1 STRIP DRAIN LOCATION AND DESIGNATION
- SUMP LOCATION AND DISIGNATION
- VAULT LOCATION AND DESIGNATION

0 100 200 300’

FORMER E.A. NORD SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report SUMMARY OF SCE TO ASSESS DATA GAPS FOR COMPLETION OF RI/FS

Drawing NORTH TRUCK DOCK INVESTIGATION AREA

Date December 17, 2018 | Scale AS SHOWN | Fig. No. 4

File Name SW_SITE PLAN_NORD | Project No. 108.00228.00048

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TABLES

Table 1
Groundwater Seep Survey Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord
Everett, WA

Location	Date	Time (2400)	Tidal Stage	Marysville Tide (ft)	Temp (C)	Cond. (ms/cm)	TDS (g/L)	DO (mg/L)	pH	ORP	NOTES
Northern Shoreline											
seep-N-1	4/17/2018	1055	Outgoing	2.1	10.0	0.31	0.2	12.8	6.16	195	
seep-N-1	4/17/2018	1325	Incoming	-0.5	9.6	0.17	--	4.9	6.94	205	
seep-N-1	4/19/2018	1430	Outgoing	-1.4	--	--	--	--	--	--	Good flow. Steep grade. Port property.
seep-N-2	4/17/2018	1114	Outgoing	1.5	9.2	5.78	3.8	18.3	6.54	208	
seep-N-2	4/17/2018	1328	Incoming	-0.5	9.1	4.34	--	4.7	6.67	241	
seep-N-2	4/19/2018	--	--	--	--	--	--	--	--	--	Fair seep to sample. Medium flow. Shallow grade.
seep-N-3	4/17/2018	1115	Incoming	1.4	9.5	5.69	4.0	10.7	6.82	163	
seep-N-3	4/17/2018	1330	Outgoing	-0.5	9.3	3.89	--	7.7	6.97	162	Very low flow, likely not a seep.
seep-N-3	4/19/2018	1435	Outgoing	-1.4	--	--	--	--	--	--	Poor to sample. Nearly dry. Shallow grade.
seep-N-4	4/17/2018	1126	Outgoing	1.1	9.7	7.76	5.0	11.0	6.83	143	
seep-N-4	4/17/2018	1332	Incoming	-0.5	10.0	5.34	--	6.4	6.99	122	Really low flow
seep-N-4	4/19/2018	1436	Outgoing	-1.4	--	--	--	--	--	--	Poor to sample. Nearly dry. Shallow grade.
seep-N-5	4/17/2018	1130	Outgoing	1.0	--	--	--	--	--	--	Submerged, not sampled
seep-N-5	4/17/2018	1334	Incoming	-0.5	--	--	--	--	--	--	Submerged, not sampled
seep-N-5	4/19/2018	1439	Incoming	-1.4	--	--	--	--	--	--	No access.
seep-N-6	4/17/2018	1137	Outgoing	0.8	9.3	6.56	4.3	5.7	6.93	-69	
seep-N-6	4/17/2018	1336	Incoming	-0.4	9.8	4.35	--	1.6	6.93	41	
seep-N-6	4/19/2018	1442	Incoming	-1.4	--	--	--	--	--	--	Fair to good flow to sample. Poor access (behind seawall)
seep-N-7	4/17/2018	1137	Outgoing	0.8	9.6	7.20	4.7	4.1	6.81	-20	
seep-N-7	4/17/2018	1337	Incoming	-0.4	--	--	--	--	--	--	No longer flowing (not a seep)
seep-N-7	4/19/2018	1445	Incoming	-1.4	--	--	--	--	--	--	Dry at lowest of tide
seep-N-8	4/17/2018	1149	Outgoing	0.5	9.0	4.31	2.8	8.7	7.12	31	
seep-N-8	4/17/2018	1338	Incoming	-0.4	9.4	2.96	--	1.7	7.11	67	
seep-N-8	4/19/2018	1510	Incoming	-1.2	--	--	--	--	--	--	Fair to sample. Medium flow. Shallow grade.
seep-N-9	4/17/2018	1156	Outgoing	0.3	9.2	7.29	4.7	5.3	7.07	-4	
seep-N-9	4/17/2018	1340	Incoming	-0.4	9.9	4.91	--	1.7	7.09	26	
seep-N-9	4/19/2018	1512	Incoming	-1.2	--	--	--	--	--	--	Fair to sample. Medium flow. Shallow grade.
seep-N-10	4/17/2018	1200	Outgoing	0.2	9.9	6.20	7.0	7.2	7.15	13	
seep-N-10	4/17/2018	1200	Outgoing	0.2	9.3	6.19	4.0	6.7	7.15	14	
seep-N-10	4/17/2018	1342	Incoming	-0.4	9.9	3.91	--	3.6	7.22	75	Good flow.
seep-N-10	4/19/2018	1514	Incoming	-1.2	--	--	--	--	--	--	Fair to sample. Medium flow. Shallow grade.
seep-N-11	4/17/2018	1208	Outgoing	0.0	10.2	8.67	5.6	4.1	7.30	-37	
seep-N-11	4/17/2018	1345	Incoming	-0.3	10.0	5.50	--	1.3	7.29	10	Medium flow.
seep-N-11	4/19/2018	1516	Incoming	-1.1	--	--	--	--	--	--	Low quality to sample. Med to low flow. Shallow grade.
seep-N-12	4/17/2018	1210	Outgoing	0.0	10.1	6.49	4.2	3.6	7.39	-69	
seep-N-12	4/17/2018	1346	Incoming	-0.3	10.1	4.46	--	2.7	7.45	7	
seep-N-12	4/19/2018	1520	Incoming	-1.1	--	--	--	--	--	--	Low quality to sample. Med to low flow. Shallow grade.
seep-N-13	4/17/2018	1219	Outgoing	-0.1	9.9	5.09	3.3	4.8	7.32	-35	
seep-N-13	4/17/2018	1347	Incoming	-0.3	10.2	3.47	--	2.4	7.44	44	
seep-N-13	4/19/2018	1520	Incoming	-1.1	--	--	--	--	--	--	Low quality to sample. Med to low flow. Shallow grade.
seep-N-14	4/17/2018	1220	Outgoing	-0.1	10.1	7.27	4.7	5.5	7.53	-84	
seep-N-14	4/17/2018	1351	Incoming	-0.2	9.8	5.12	--	1.6	7.59	-19	
seep-N-14	4/19/2018	1520	Incoming	-1.1	--	--	--	--	--	--	Fair to good flow to sample. Best of this area (N12-N14)
seep-N-15	4/17/2018	1230	Outgoing	-0.3	10.0	6.72	4.4	9.8	7.47	6	
seep-N-15	4/17/2018	1352	Incoming	-0.2	9.0	4.99	--	6.2	7.56	35	
seep-N-15	4/19/2018	1524	Incoming	-1.0	--	--	--	--	--	--	Low flow. Medium grade.
seep-N-16	4/17/2018	1235	Outgoing	-0.4	11.5	7.85	5.1	8.7	7.71	27	
seep-N-16	4/17/2018	1355	Incoming	-0.2	9.4	3.87	--	4.1	7.60	83	
seep-N-16	4/19/2018	1526	Incoming	-1.0	--	--	--	--	--	--	Low fow. Good gradient.
seep-N-17	4/17/2018	1238	Outgoing	-0.4	11.0	6.67	4.3	9.0	7.49	22	
seep-N-17	4/17/2018	1356	Incoming	-0.2	--	--	--	--	--	--	Just a trickle, no sample taken, probably not a seep
seep-N-17	4/19/2018	1526	Incoming	-1.0	--	--	--	--	--	--	Just a trickle, no sample taken, probably not a seep
seep-N-18	4/17/2018	1243	Outgoing	-0.4	9.3	3.87	2.5	10.9	7.55	-2.8	
seep-N-18	4/17/2018	1358	Incoming	-0.1	9.1	3.42	--	8.2	7.53	123	
seep-N-18	4/17/2018	1403	Incoming	0.0	9.3	4.86	3.2	9.0	7.56	-21	
seep-N-18	4/19/2018	1530	Incoming	-0.9	--	--	--	--	--	--	Low flow. Decent channel further into flats.
seep-N-19	4/17/2018	1245	Outgoing	-0.5	9.9	6.38	4.1	10.2	7.60	-27	
seep-N-19	4/17/2018	1359	Incoming	-0.1	9.7	3.95	--		7.60	45	
seep-N-19	4/19/2018	1530	Incoming	-0.9	--	--	--	--	--	--	Low flow. Decent channel further into flats.
seep-N-20	4/17/2018	1246	Outgoing	-0.5	9.4	6.96	4.5	9.0	7.46	-27	
seep-N-20	4/17/2018	1359	Incoming	-0.1	8.8	6.74	4.4	9.4	7.73	-19	
seep-N-20	4/17/2018	1400	Incoming	-0.1	9.1	4.54	--	7.7	7.46	71	
seep-N-20	4/19/2018	1532	Incoming	-0.8	--	--	--	--	--	--	Medium flow.
seep-N-21	4/17/2018	1256	Outgoing	-0.5	10.5	6.80	4.4	10.3	7.75	-42	
seep-N-21	4/17/2018	1407	Incoming	0.0	9.8	5.34	3.5	9.6	7.75	-32	
seep-N-21	4/19/2018	1533	Incoming	-0.8	--	--	--	--	--	--	Low flow. Shallow grade.
seep-N-22	4/17/2018	1255	Outgoing	-0.5	9.9	4.49	2.9	11.5	7.67	-24	
seep-N-22	4/17/2018	1412	Incoming	0.1	9.3	4.53	--	6.9	7.68	110	
seep-N-22	4/19/2018	1535	Incoming	-0.8	--	--	--	--	--	--	Low flow. Shallow grade.
seep-N-23	4/17/2018	1302	Outgoing	-0.6	13.2	11.7	7.6	9.4	7.99	8.8	
seep-N-23	4/17/2018	1411	Incoming	0.1	11.8	9.11	5.9	9.6	7.90	2.8	
seep-N-23	4/19/2018	1536	Incoming	-0.8	--	--	--	--	--	--	Low flow. Poor access.
seep-N-24	4/17/2018	1305	Outgoing	-0.6	11.9	13.0	8.5	9.3	7.84	15	
seep-N-24	4/17/2018	1414	Incoming	0.2	11.5	10.1	--	8.5	7.64	122	
seep-N-24	4/19/2018	1538	Incoming	-0.7	--	--	--	--	--	--	Medium flow. Poor access.
seep-N-25	4/17/2018	1325	Incoming	-0.5	12.2	10.5	6.8	10.1	8.14	30	Slow trickle.
seep-N-25	4/17/2018	1414	Incoming	0.2	11.4	9.05	5.9	10.5	8.28	3.5	
seep-N-25	4/19/2018	1540	Incoming	-0.7	--	--	--	--	--	--	Poor to fair channel to sample.
seep-N-26	4/17/2018	1329	Incoming	-0.5	12.1	10.5	6.8	10.1	7.94	31	ok flow.
seep-N-26	4/17/2018	1416	Incoming	0.2	11.5	9.99	6.5	10.2	8.04	10	
seep-N-26	4/19/2018	1542	Incoming	-0.6	--	--	--	--	--	--	Decent channel to sample from.
seep-N-27	4/17/2018	1335	Incoming	-0.5	13.1	9.93	6.5	9.8	7.97	47	Slow trickle.
seep-N-27	4/17/2018	1421	Incoming	0.4	12.8	12.8	8.3	8.8	7.76	32	
seep-N-27	4/19/2018	1543	Incoming	-0.6	--	--	--	--	--	--	Poor sample location. Very low flow. Shallow grade.

Table 1
Groundwater Seep Survey Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord
Everett, WA

Location	Date	Time (2400)	Tidal Stage	Marysville Tide (ft)	Temp (C)	Cond. (ms/cm)	TDS (g/L)	DO (mg/L)	pH	ORP	NOTES
seep-N-28	4/17/2018	1346	Incoming	-0.3	10.7	19.0	12.3	9.3	7.61	76	Very slow trickle.
seep-N-28	4/18/2018	1231	Outgoing	-0.1	11.1	17.0	11.1	8.6	7.67	143	
seep-N-28	4/19/2018	1544	Incoming	-0.6	--	--	--	--	--	--	No flow
Surface-N	4/18/2018	1040	Outgoing	4.0	9.0	0.85	0.6	11.4	8.57	84	
Southern Shoreline											
seep-S-1	4/18/2018	1045	Outgoing	3.7	9.1	0.69	0.63	11.0	9.03	157	Good Flow.
seep-S-1	4/18/2018	1336	Incoming	-1.1	9.5	0.81	0.74	9.95	7.97	193	Decreased flow from outgoing observation.
seep-S-2	4/18/2018	1057	Outgoing	3.2	9.7	1.65	1.51	9.14	8.08	180	ok flow.
seep-S-2	4/18/2018	1334	Outgoing	-1.1	--	--	--	--	--	--	No flow.
seep-S-3	4/18/2018	1115	Outgoing	2.4	9.4	1.76	1.63	7.32	7.54	189	Very slow trickle.
seep-S-3	4/18/2018	1327	Outgoing	-1.0	10.6	2.14	1.92	7.08	7.44	197	Very slow trickle.
seep-S-4	4/18/2018	1130	Outgoing	1.9	8.3	5.27	3.42	11.1	7.75	127	
seep-S-4	4/18/2018	1435	Incoming	-0.8	--	--	--	--	--	--	No flow
seep-S-5	4/18/2018	1137	Outgoing	1.6	8.3	5.80	3.77	10.5	7.66	132	
seep-S-5	4/18/2018	1429	Incoming	-0.9	9.1	7.11	6.63	8.01	7.90	157	Ok flow.
seep-S-5	4/18/2018	1450	Incoming	-0.5	9.3	10.40	6.75	9.86	7.81	123	Low flow.
seep-S-6	4/18/2018	1146	Outgoing	1.3	8.7	8.88	5.77	9.55	7.64	143	ok flow.
seep-S-6	4/18/2018	1427	Incoming	-0.9	--	--	--	--	--	--	Low flow.
seep-S-6	4/18/2018	1456	Incoming	-0.4	14.4	12.8	8.32	7.21	7.84	117	Low flow.
seep-S-7	4/18/2018	1153	Outgoing	1.0	9.0	8.72	5.67	9.84	7.72	141	ok to good flow.
seep-S-7	4/18/2018	1424	Incoming	-1.0	9.9	5.83	5.32	7.93	7.49	167	
seep-S-7	4/18/2018	1500	Incoming	-0.3	10.2	8.05	5.23	7.91	7.80	115	
seep-S-8	4/18/2018	1200	Outgoing	0.8	8.6	9.49	5.97	8.67	7.64	144	High flow.
seep-S-8	4/18/2018	1422	Incoming	-1.0	9.0	6.02	5.63	6.11	7.33	164	
seep-S-8	4/18/2018	1507	Incoming	-0.1	8.9	8.98	5.83	7.43	7.59	127	
seep-S-9	4/18/2018	1200	Outgoing	0.8	8.8	4.76	4.47	7.25	7.38	220	High flow.
seep-S-9	4/18/2018	1418	Incoming	-1.0	9.6	4.00	3.69	6.01	7.49	154	High flow.
seep-S-10	4/18/2018	1203	Outgoing	0.7	8.5	7.97	5.18	7.71	7.51	142	High flow.
seep-S-10	4/18/2018	1415	Incoming	-1.0	8.9	4.70	4.41	7.04	7.49	150	
seep-S-11	4/18/2018	1205	Outgoing	0.7	9.0	4.58	4.28	6.22	7.67	167	High flow.
seep-S-11	4/18/2018	1413	Incoming	-1.1	9.3	4.33	4.01	6.80	7.68	133	High flow.
seep-S-12	4/18/2018	1210	Outgoing	0.5	9.4	8.04	5.23	7.55	7.19	133	High flow.
seep-S-12	4/18/2018	1403	Incoming	-1.1	10.3	6.61	5.93	4.28	7.29	200	
seep-S-13	4/18/2018	1213	Outgoing	0.4	11.4	7.74	6.82	7.22	7.69	182	very low flow
seep-S-13	4/18/2018	1357	Incoming	-1.1	13.8	7.19	6.01	7.73	7.93	219	very low flow
seep-S-14	4/18/2018	1226	Outgoing	0.0	10.7	1.17	1.04	8.59	7.92	186	ok flow.
seep-S-14	4/18/2018	1350	Outgoing	-1.1	12.5	2.03	1.74	8.67	7.95	210	low flow
seep-S-15	4/19/2018	1319	Outgoing	-0.5	11.0	9.18	5.97	7.42	7.48	131	Good flow.
seep-S-15	4/19/2018	1502	Incoming	-1.3	10.9	9.10	5.92	4.61	7.59	-191	
seep-S-16	4/19/2018	1326	Outgoing	-0.6	14.6	7.39	4.80	4.67	7.85	130	Good flow.
seep-S-16	4/19/2018	1508	Incoming	-1.2	14.6	7.40	4.81	4.56	7.96	-150	
seep-S-17	4/19/2018	1336	Outgoing	-0.8	10.3	9.06	5.89	5.53	7.55	-30	Good flow.
seep-S-17	4/19/2018	1527	Incoming	-0.9	10.7	9.17	5.96	4.80	7.80	-69	
seep-S-18	4/19/2018	1345	Outgoing	-1.0	15.0	4.93	3.20	6.91	8.06	-60	Good flow.
seep-S-18	4/19/2018	1520	Incoming	-1.1	15.3	4.96	3.22	6.10	8.11	-102	
Surface-S	4/18/2018	1020	Outgoing	4.8	9.5	3.35	2.17	12.3	8.62	86	
Western Shoreline											
seep-W-1	4/18/2018	1241	Outgoing	-0.3	8.38	10.8	6.99	10.4	7.85	143	trickle. Difficult access.
seep-W-1	4/18/2018	1408	Incoming	-1.1	9.11	9.40	6.11	12.0	8.04	116	
seep-W-2	4/18/2018	1248	Outgoing	-0.5	7.79	3.95	2.57	12.0	8.02	118	ok trickle. Difficult access.
seep-W-2	4/18/2018	1413	Incoming	-1.1	7.94	3.38	2.19	11.0	8.06	105	
seep-W-3	4/18/2018	1255	Outgoing	-0.6	8.51	18.2	11.8	9.04	7.48	147	good. Difficult access.
seep-W-3	4/18/2018	1423	Incoming	-1.0	8.79	17.7	11.5	8.30	7.61	140	
seep-W-4	4/18/2018	1300	Outgoing	-0.7	8.82	16.7	10.9	8.63	7.64	143	ok/good flow. Difficult access.
seep-W-4	4/18/2018	1429	Incoming	-0.9	8.99	15.0	9.78	9.26	7.71	131	
seep-W-5	4/18/2018	1308	Outgoing	-0.8	8.62	14.8	9.64	8.55	7.82	138	ok flow. Difficult access.
seep-W-5	4/18/2018	1432	Incoming	-0.8	9.03	14.8	9.60	8.26	7.87	131	
seep-W-6	4/18/2018	1314	Outgoing	-0.9	8.96	14.1	9.19	8.62	7.79	125	good flow. Difficult access.
seep-W-6	4/19/2018	1418	Outgoing	-1.3	9.53	12.3	7.98	11.0	8.01	51	
Surface-W	4/19/2018	1420	Outgoing	-1.4	9.55	0.93	0.58	11.0	7.96	20	

Notes:
Tidal condition and elevation from station TWC1125 Marysville, Quilceda Creek
(https://tidesandcurrents.noaa.gov/stationhome.html?id=TWC1125)

Water quality parameters collected with YSI 556 and/or YSI Pro Plus

Table 2
Seep Sampling Analytical Summary Table
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord Facility
Everett, Washington

Lab Sample ID			Preliminary Cleanup Levels (PCLs)		L994838-01		L994838-02		L994838-03		L994838-04		L994838-05		L994838-06		L994838-07		L994838-08	
Field Sample ID					SEEP-N-2		SEEP-N-14		SEEP-N-18		SEEP-S-1		SEEP-S-9		SEEP-S-14		SEEP-S-16		DUPLICATE-0518	
Date Collected					05/15/2018		05/15/2018		05/15/2018		05/14/2018		05/14/2018		05/15/2018		05/14/2018		05/14/2018	
Method	Analyte	Units	Value	Source	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Volatile Organic Compounds (VOCs)																				
8260C	BENZENE	µg/L	2.4	(vi-b)	<0.0896		<0.0896		<0.0896		<0.0896		<0.0896		<0.0896		<0.0896		<0.0896	
8260C	NAPHTHALENE	µg/L	8.9	(vi-b)	<0.174	J0	<0.174	J0	<0.174	J0	<0.174	J0	<0.174	J0	<0.174	J0	<0.174	J0	<0.174	J0
Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)																				
8270D-SIM	BENZO(A)ANTHRACENE	µg/L	-	-	<0.00410		<0.00410		<0.00410		<0.00410		<0.00410		<0.00410		<0.00410		<0.00410	
8270D-SIM	BENZO(A)PYRENE	µg/L	-	-	<0.0116		<0.0116		<0.0116		<0.0116		<0.0116		<0.0116		<0.0116		<0.0116	
8270D-SIM	BENZO(B)FLUORANTHENE	µg/L	-	-	<0.00212		<0.00212		**0.0025**	B J	<0.00212		**0.00429**	B J	<0.00212		**0.00415**	B J	<0.00212	
8270D-SIM	BENZO(K)FLUORANTHENE	µg/L	-	-	<0.0136		<0.0136		<0.0136		<0.0136		<0.0136		<0.0136		<0.0136		<0.0136	
8270D-SIM	CHRYSENE	µg/L	-	-	<0.0108		<0.0108		<0.0108		<0.0108		<0.0108		<0.0108		<0.0108		<0.0108	
8270D-SIM	DIBENZ(A,H)ANTHRACENE	µg/L	-	-	<0.00396		<0.00396		<0.00396		<0.00396		<0.00396		<0.00396		<0.00396		<0.00396	
8270D-SIM	INDENO(1,2,3-CD)PYRENE	µg/L	-	-	<0.0148		<0.0148		<0.0148		<0.0148		<0.0148		<0.0148		<0.0148		<0.0148	
Calc.	TEQ: ND=1/2DL	µg/L	0.015	(pql)[A]	0.008		0.008		**0.008**		0.008		**0.008**		0.008		**0.008**		0.008	
Total Petroleum Hydrocarbons (TPH)																				
NWTPHDX-NO SGT	DIESEL RANGE ORGANICS	µg/L	500	(pot)	<66		<66		<66		<66		**115**	J	<66		<66		<66	
NWTPHDX-NO SGT	RESIDUAL RANGE ORGANICS	µg/L	500	(pot)	<82.5		<82.5		**470**		<82.5		**239**	J	<82.5		<82.5		<82.5	
Dioxins and Furans																				
8290A	TEQ: ND=1/2DL	pg/L	57	(pql)	**6.83**		**7.44**		**7.03**		**6.44**		-		**7.50**		**7.30**		-	
Polychlorinated Biphenyls (PCBs)																				
1668A	TEQ: ND=1/2DL	pg/L	1.31	(pql)	-		-		-		**0.573**		**0.592**		**0.542**		**1.11**		**0.142**	
1668A	Total PCBs	pg/L	7.0	(hh-cwa)	-		-		-		**460**		**72.2**		**71.8**		**16,200**		**16,200**	

Notes

Bold indicates detected above the laboratory detection limit

Gray shading indicates detected above the Preliminary Cleanup Level (PCL)

<0.0896 indicates not detected above the laboratory detection limit of 0.0896µg/L

TEQ: ND=1/2DL indicates toxic equivalent quotient (TEQ) value using a value of 1/2 the detection limit (DL) for non-detect (ND) results

Full laboratory results and Quality Assurance/Quality Control (QA/QC) results included in laboratory analytical reports (Attachment 4)

Lab Qualifiers

B: The same analyte is found in the associated blank

J: The identification of the analyte is acceptable; the reported value is an estimate.

J0: Calibration verification outside of acceptance limits. Result is estimated.

PCL Definitions:

hh-cwa:Surface Water ARAR - Human Health - Marine - Clean Water Act §304 / 40 CFR 131.45

pot: Potable Groundwater Screening Level

pql: Applicable Practical Quantitation Level (PQL) provided by laboratory. PQL calculations presented on Table 3

vi-b: Method B, Unrestricted Land Use (Protective of Vapor Intrusion)

A - PCL for cPAHs TEQ based on 8310LL Method

Table 3
PQL Calculation Tables
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord Facility
Everett, Washington

Compound	PQL	TEF	TEQ
Carcinogenic Polycyclic Aromatic Compounds (cPAHs) (ug/L)			
benzo[a]anthracene	**0.01**	0.1	**0.001**
benzo[a]pyrene	**0.01**	1	**0.01**
benzo[b]fluoranthene	**0.01**	0.1	**0.001**
benzo[k]fluoranthene	**0.01**	0.1	**0.001**
chrysene	**0.01**	0.01	**0.0001**
dibenzo[a,h]anthracene	**0.01**	0.1	**0.001**
indeno[1,2,3-cd]pyrene	**0.01**	0.1	**0.001**
Total TEQ			**0.015**
Dioxins/Furans (pg/L)			
2,3,7,8-TCDD	**5**	1	**5**
1,2,3,7,8-PeCDD	**25**	1	**25**
1,2,3,4,7,8-HxCDD	**25**	0.1	**2.5**
1,2,3,6,7,8-HxCDD	**25**	0.1	**2.5**
1,2,3,7,8,9-HxCDD	**25**	0.1	**2.5**
1,2,3,4,6,7,8-HpCDD	**25**	0.01	**0.25**
OCDD	**50**	0.0003	**0.015**
2,3,7,8-TCDF	**5**	0.1	**0.5**
1,2,3,7,8-PeCDF	**25**	0.03	**0.75**
2,3,4,7,8-PeCDF	**25**	0.3	**7.5**
1,2,3,4,7,8-HxCDF	**25**	0.1	**2.5**
1,2,3,6,7,8-HxCDF	**25**	0.1	**2.5**
1,2,3,7,8,9-HxCDF	**25**	0.1	**2.5**
2,3,4,6,7,8-HxCDF	**25**	0.1	**2.5**
1,2,3,4,6,7,8-HpCDF	**25**	0.01	**0.25**
1,2,3,4,7,8,9-HpCDF	**25**	0.01	**0.25**
OCDF	**50**	0.0003	**0.015**
Total TEQ			**57.0**
PCB Congeners (pg/L)			
77	**10**	0.0001	**0.001**
81	**10**	0.0003	**0.003**
105	**10**	0.00003	**0.0003**
114	**10**	0.00003	**0.0003**
118	**10**	0.00003	**0.0003**
123	**10**	0.00003	**0.0003**
126	**10**	0.1	**1**
156	**20**	0.00003	**0.0006**
157	**10**	0.00003	**0.0003**
167	**10**	0.00003	**0.0003**
169	**10**	0.03	**0.3**
189	**10**	0.00003	**0.0003**
Total TEQ			**1.31**

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
Out Fall 1					
DS-2 to North Truck Bay Sump	Corrugated Plastic	10	Good	Clean	The downspout drains the roof through the interior of the building.
DS-1 to SD-1	White PVC	6	Good	Clean	The downspout drains the roof from the exterior of the building and the storm line is at a relatively steep gradient. The storm line is a relatively short run of pipe.
Strip drain to North Truck Bay Sump	Corrugated Plastic	4	Good	Clean	The storm line is an extremely short run.
North Truck Bay Sump to OF-1	Black PVC & White PVC	4 & 6	Good	Clean	The first segment of piping is above ground in a black 4" PVC pipe before making several 45 degree elbows. The second segment is a below ground white 6" PVC pipe which was observed to be backfilled with water. The high flow from the sump pump keeps pipe relatively clear of large debris.
OF-1	White PVC	6	Broken	Mostly clean	A broken 90 degree elbow use to tie the main 6" PVC line from the sump to another 6" PVC line which parallels concrete wall on north side of property. The broken segment of line is mostly above ground, although, some is buried very shallow. The line terminates above ground and the last one foot is broken. The storm line collects standing water.
Out Fall 2					
DS-3 to DS-4	White PVC	6	Good	Mostly clean	Straight run of pipe. The downspout drains the roof on the exterior of the building. The downspout is broken but the in-ground drain still exists.
DS-4 to DS-5	White PVC	6	Good	Clean	Very short run of below ground piping which each drain two adjacent downspouts, on the exterior of the building.
DS-5 to DS-6	White PVC	6	Good	Clean	Straight run of pipe. The downspouts drain the roof on the exterior of the building.
DS-7 to OF-2	Concrete	Approx. 10	Fair	Dirty, filled with sediment near outfall	Straight run of pipe. The downspout drains the roof on the interior of the building which leads to a concrete vault. The drain line was filled with water and therefore we received poor video quality. However, slight offsets in joints were visible in the footage.
DS-6	White PVC	6	Good	Clean	DS-6 ties directly into a small in-ground drain which is directly above the approximately 10-inch diameter concrete pipe from DS-7 to OF-2.
Out Fall 3					
DS-15 to Vault	Concrete	12	Fair	Mostly clean	The concrete pipe appears to be in segments of 4 foot lengths. Slight separation between joints was observed.
Vault to unknown location	Concrete	12	Poor	Bad	Northeast trending line away from the interior concrete vault. The storm line was very dirty therefore there was no visibility with the camera. A blockage in line was observed approximately 60 feet from the vault.

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
Vault to OF-3	Concrete	12	Poor	Fair to bad	Concrete pipe appears to be in 4 foot segments. Some joint separation (up to ~2") was observed as well as some loose soil infiltrating the line. The storm line was mostly full of water and sediment near outfall.
Out Fall 4					
DS-9 to CB-10	Concrete	4	Poor	Fair	The storm line appears to terminate approximately 2 feet before reaching downspout. Based on location and direction, it appears that the storm line may have formerly connected to the downspout.
CB-10 to CB-9	Concrete	6	Fair	Fair	The catch basins are in poor condition. No water was observed in the line. The line was observed to have some sediment.
CB-9 to CB-8	Concrete	6	Fair	Fair	The catch basins are in poor condition. No water was observed in the line. The line was observed to have some sediment.
DS-14 to CB-8	White PVC	4	Good	Good	The downspout drains the roof on the exterior of the building. Appears in good condition but did not confirm with video due to poor access point.
CB-8 to CB-7	Concrete	10	Fair	Fair	The catch basins are in poor condition. No water was observed in the line. The line was observed to have significant sediment.
CB-7 to CB-6	Concrete	10	Fair	Fair	The catch basins are in fair condition. No water was observed in the line. The line was observed to have significant sediment.
CB-6 to CB-5	Concrete	10	Fair	Fair	The catch basins are in fair condition. No water was observed in the line. The line was observed to have significant sediment. The lines appear to make a jog away from the building due to the conveyor belt pit.
CB-5 to CB-4 to CB-3 to CB-2	Concrete	10	Fair	Fair	The catch basins are in fair condition. No water was observed in the line. The line was observed to have significant sediment, worse near CB-5.
CB-2 to CB-1	Concrete	10	Fair	Fair	The catch basins are in fair condition. The storm line makes 90 degree bend in line run. The line is partially filled with sediment but appears to drain water.
CB-1 to OF-4	Concrete	10	Fair	Fair	Straight run of pipe. The concrete pipe appears in fair condition. Significant water flows out of OF-4, regardless of weather, was observed. There appeared to be a significant fracture in line between the T with CB-31 and with the T with DS-8 that allows water to infiltrate into the storm line. Water was observed flowing in line from this point to the outfall, no evidence of fracture or separated joint visible on the video. After sending camera unit up line and disturbing the sediment, a sheen was noticed leaving the outfall.
CB-32 to CB-31	Concrete	~8	Poor	Poor	Straight run of pipe. The pipe is very damaged at CB-31, and is nearly completely crushed. CB-32 appears to have been removed and the cavity was observed to be filled with sediment. Based on effort taken to push the rod, the line is very full with sediment and possibly crushed or filled with sediment near CB-32.

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
CB-31 to unknown	Steel	6	Poor	Poor	The line is either collapsed or filled with sediment. We were unsuccessful in sending rod up the line. We then attempted to locate the steel line a as metallic utility which was also unseccessful. Unknown length, conditions or terminating point.
CB-31 to OF-4	Concrete	10 to 12	Poor	Fair	The line is very damaged in CB-31, and is partially crushed. The line appears in decent condition from CB-31 to the T joining CB-1 and OF-4. No water in line was observed in the line at the time of our work, however, it appears that this storm line would drain water.
DS-8 to OF-4	PVC	6	Good	Good	DS-8 ties into the top of the concrete line draining into OF-4.
Out Fall 5					
CB-11 to CB-12	Concrete	8	Fair	Poor	The catch basins and storm lines are filled with sediment and sticks. We were unsuccessful in sending the camera down lines.
CB-12 to CB-13	Concrete	8	Fair	Mostly clean	The storm line appears clear of debris although there was sediment in catch basins. The storm line was dry at the time of our work.
CB-13 to CB-14	Concrete	8	Fair to good	Mostly clean	The storm line appears to drain water. A catch basin was observed midway between these points on the video; however, the catch basin was under a concrete footing. The concrete footing was likely added after as a footing for the overhead conveyor. The storm line was observed to be in fair to good condition with some sediment.
DS-10 to CB-14	White PVC	6	Good	Good	The downspout terminates directly over catch basin.
CB-14 to OF-5	Concrete	8	Good	Mostly clean	The storm line makes two 45 degree bends and ties into storm line leading from CB-15 to OF-5. This segment of pipe appears in good operating condition. The outfall appears to drain into a black corrugated plastic pipe, which drains surface water from the parking lot. The corrugated pipe dives below a dirt berm and into the gravel shoreline, where it was observed to be buried and crushed; although water was observed to still flow.
DS-11 to CB-15	White PVC	6	Good	Good	The downspout terminates directly over catch basin.
CB-15 to OF-5	Concrete	8	Good	Mostly clean	See notes for CB-14 to OF-5
Out Fall 6					
SD-3 to South Truck Bay Sump	Unknown	unknown	unknown	unknown	This strip drain likely drains into truck bay sump, which then gets pumped via a submersible pump. The pump was not working at the time of our field work and therefore we could not access the drain line.
South Truck Bay Sump to CB-24	White PVC	6 & ~3	Good	Mostly clean	It appears that the sump pump pumps into a 3" PVC pipe which discharges into a 6" PVC near the corner of the truck dock and near the several 45 degree bends adjacent to the Y-connection with the concrete line from CB-25.

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
CB-25 to CB-24	Concrete	6	Fair	Poor	The storm line was observed to be very filled with sediment. The line appeared to tie into the PVC line from the Truck Sump to CB-24.
SD-2 to CB-24	White PVC	4	Good	Good	The strip drain and storm line appears to have been installed or serviced recently, based on cut and patch in asphalt. Both appeared in good condition.
CB-24 to CB-19	White PVC	6	Good	Good	The storm line was observed to be full of water. The line made a largely straight run with several 45 degree bends downline of CB-23. The storm line T's into the main run of lines continuing on towards the outfall, just upstream of CB-19.
CB-42 to CB-23	White PVC	3	Good	Good	The storm line appears to drain water. The line runs a straight line and ties into an upper portion of CB-23. The line runs under a lean to style building.
DS-12 to CB-23	White PVC	6	Good	Good	The downspout terminates directly over the catch basin.
Unknown to CB-23	White PVC	6	Good	Good	An unknown line trends southwest, parallel to the building. The line appears to support several small garden style drains in grass area adjacent to building.
CB-22 to CB-21	Concrete	8	Fair	Poor	The line was observed to be very full of sediment therefore we were unsuccessful in sending the camera or rod the full length.
CB-21 to CB-20	Concrete	8	Fair	Fair	The line was observed to be full of sediment. Two 90 degree elbows connect CB-21 to CB-20. We were unsuccessful in bending the rod around both elbows. Some standing water was observed in line.
CB-20 to CB-19	Concrete	8	Good to Fair	Fair	The storm line was observed to be full of water. A T-joint ties in the PVC line from CB-24 to the main concrete line.
CB-19 through OF-6	Concrete	8	Good to Fair	Fair	The storm line was observed to be full of water and partially filled with sediment. The concrete pipe appears to be built with 4-foot segments of concrete pipe. Most of the joints were observed to be tight; however, some joints were slightly offset up to approximately 0.5 inches. Very slight water flows from outfall regardless of weather.

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
Out Fall 7					
Unknown to CB-34	Concrete	8	Poor	Poor	A northwest trending line from CB-34 has an unknown destination. The line may be collapsed before it reaches another catch basin or filled with sediment. Another catch basin in the vicinity was not found at the time of field work.
CB-34 to OF-7	Concrete	8	Fair to Poor	Fair	Some sediment was observed within the line. Lots of sediment was observed near the outfall.
Out Fall 8					
OF-8	Concrete	6	Poor	Poor	Poor quality outfall. Very slight water draining while raining and no evidence of a catch basin was observed at the time of our field work.
Out Fall 9					
CB-40 to CB-36	Concrete	10	Poor	Poor	CB-40 is a poor quality catch basin which is elevated and filled with sediment. The storm line is also filled with sediment. Based on the tracing, there appears to be a blockage between the two catch basins.
CB-41 to CB-37	Concrete	6	Poor	Poor	CB-41 is filled with sediment. The storm line is also filled with sediment. Based on the tracing, there appears to be a blockage between the two catch basins.
CB-39 through CB-36	Concrete	6	Fair to poor	Poor	All of the catch basins are partially filled with sediment. The storm lines have significant sediment in them as well. None of the catch basins appear to drain significant water.
CB-36 to OF-9	Concrete	10	Fair to Poor	Poor	The catch basin was partially filled with sediment at the time of our field work. The storm line has sediment in it too, especially near the outfall.
Out Fall 10					
CB-35 to OF 10	White Perforated PVC	6	Good	Good	The catch basin appears to drain well. The outfall extends beyond asphalt parking pad.
Street Discharge 1					
CB-27 & CB-28 to CB-26	White PVC	6	Good	Good	The catch basins and lines were completely filled with water at the time of our field work. The catch basins in asphalt parking lot were in very good condition.
CB-26 to street discharge	White PVC	6	Good	Good	The storm line was partially filled with water and minor sediment at the time of our field work. The storm line makes several bends around landscaping features.
DS-13 to CB-29	White PVC	4	Good	Good	The storm line appears to be a mostly clean PVC line which discharges into CB-29. CB-29 has an open bottom which drops into the 6" Line. The discharge point was traced into a vault in the street.
CB-30 to street discharge	White PVC	6	Good	Good	Minor sediment was observed in the storm lines at the time of our field work. The storm line makes a T with line from CB-26, which then discharges into street catch basin.
Street Discharge 2					

Table 4
Stormwater System Tracing Observations
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Nord Door - JELD-WEN
Everett, Washington

Line Run	Pipe Material	Pipe Diameter (Inches)	Condition	Cleanliness	Notes
CB-33 to unknown	White PVC	4	Good	Fair	Some sediment was observed within storm line. The line parallels the chain-link fence until it terminates at the gate. The line does not appear to support any other catch basins.
CB-33 to street discharge	Concrete	8	Good	Good to fair	Partial sediment was observed in the line at the time of our site visit. The line makes several 45 degree joints under the sidewalk and appears to drain water into a vault in the street.

Table 5
North Truck Dock Sump Water Analytical Results
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord Door Facility
Everett, WA

Lab Sample ID			Preliminary Cleanup Levels (PCLs)		L983742-01		L983742-02		L983742-03		L983742-04	
Field Sample ID					NTD-SW-EAST-0418		NTD-SW-WEST-0418		NTD-SW-3"-0418		NTD-SW-8"-0418	
Date Collected					04/05/2018		04/05/2018		04/04/2018		04/04/2018	
Method	Analyte	Units	Value	Source	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Water Quality Parameters												
Field Measurement	Temperature	°C	-		8.33		8.45		7.28		8.35	
Field Measurement	Conductivity	mS/cm	-		0.458		0.325		0.183		0.016	
Field Measurement	Total Dissolved Solids (TDS)	g/L	-		0.294		0.211		0.119		0.011	
Field Measurement	Dissolved Oxygen (DO)	mg/L	-		5.20		4.40		6.33		7.09	
Field Measurement	pH	Units	-		5.69		6.22		6.89		6.37	
Field Measurement	Oxidation Reduction Potential (ORP)	mV	-		107.6		39.2		13.7		88.6	
Volatile Organic Compounds (VOCs)												
8260C	BENZENE	µg/L	0.8	mB	<0.5		<0.5		<0.5		<0.5	
8260C	NAPHTHALENE	µg/L	160	mA	**5.94**		**0.558**	J	**3.45**		**0.25**	J
Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)												
8270D-SIM	BENZO(A)ANTHRACENE	µg/L	-		<0.00410		<0.00410		<0.00410		<0.00410	
8270D-SIM	BENZO(A)PYRENE	µg/L	-		<0.0116		<0.0116		<0.0116		<0.0116	
8270D-SIM	BENZO(B)FLUORANTHENE	µg/L	-		<0.00212		<0.00212		<0.00212		<0.00212	
8270D-SIM	BENZO(K)FLUORANTHENE	µg/L	-		<0.0136		<0.0136		<0.0136		<0.0136	
8270D-SIM	CHRYSENE	µg/L	-		<0.0108		<0.0108		<0.0108		<0.0108	
8270D-SIM	DIBENZ(A,H)ANTHRACENE	µg/L	-		<0.00396		<0.00396		<0.00396		<0.00396	
8270D-SIM	INDENO(1,2,3-CD)PYRENE	µg/L	-		<0.0148		<0.0148		<0.0148		<0.0148	
Calc.	TEQ: ND=1/2DL	µg/L	0.015	pql [A]	ND		ND		ND		ND	
Total Petroleum Hydrocarbons (TPH)												
NWTPHDX-NO SGT	DIESEL RANGE ORGANICS	µg/L	500	pot	**534**		**776**		**218**		**316**	
NWTPHDX-NO SGT	RESIDUAL RANGE ORGANICS	µg/L	500	pot	**266**		**550**		**374**		**362**	
Dioxins/Furans												
8290A	TEQ: ND=1/2DL	pg/L	57	pql	**2.63**		**2.28**		**2.32**		**2.01**	
Polychlorinated Biphenyls (PCB) Congeners												
1668A	TEQ: ND=1/2DL	pg/L	1.3	pql	**0.102**		**0.0866**		**0.121**		**0.122**	
1668A	TOTAL PCBs	pg/L	7.0	hh-cwa	**653**		**562**		**80**		**344**	

Notes

Bold indicates detected above the laboratory detection limit

Green shading indicates detected above the Revised PCL

<0.05 indicates not detected above the laboratory reporting limit of 0.05 ug/L

TEQ: ND=DL/2 indicates toxic equivalent quotient (TEQ) value using a value of 1/2 the detection limit (DL) for non-detect (ND) results

Full laboratory results and Quality Assurance/Quality Control (QA/QC) results included in laboratory analytical reports (Attachment 4)

A - PCL for cPAHs is from SCE Work Plan using PQLs for 8310LL method

Lab Qualifiers

J: The identification of the analyte is acceptable; the reported value is an estimate.

Table 6
NTD Sump Solids and Discharge Point Soil Analytical Results
Summary of SCE to Assess Data Gaps for Completion of RI/FS
Former E.A. Nord Door Facility
Everett, WA

					CB Sump Solids		Port of Everett Soil Samples			
Lab Sample ID			Preliminary Cleanup Levels (PCLs)		L983744-01		L1009317-01		L1009317-02	
Field Sample ID					NTD-SED-0418		NTD-SED-A		NTD-SED-B	
Date Collected					04/04/2018		7/9/2018		7/9/2018	
Method	Analyte	Units	Value	Source	Result	Qual	Result	Qual	Result	Qual
Conventional Parameters										
2540 G-2011	TOTAL SOLIDS	%	-		**55.1**		**89.1**		**84.5**	
160.4/2540G	TOTAL VOLATILE SOLIDS	% of TS	-		-		**10.1**		**11.4**	
350.1	AMMONIA NITROGEN	mg/kg	-		-		<1.76		<1.86	
USDA LOI	TOTAL ORGANIC CARBON	mg/kg	-		-		**32,800**		**50,200**	
ASTM D 422	GRAVEL	%	-		-		**47**		**16**	
ASTM D 422	SAND	%	-		-		**37**		**33**	
ASTM D 422	SILT	%	-		-		**13**		**48**	
ASTM D 422	CLAY	%	-		-		**3**		**3**	
Volatile Organic Compounds (VOCs)										
8260C	BENZENE	mg/kg	0.002	gwl-s	**0.000762**	J	**0.000713**	J	**0.00137**	
8260C	NAPHTHALENE	mg/kg	0.24	gwl-s	**0.0237**		**0.0691**		**0.0178**	
Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs)										
8270D-SIM	BENZO(A)ANTHRACENE	mg/kg	-		**0.0567**		**0.29**		**0.117**	J
8270D-SIM	BENZO(A)PYRENE	mg/kg	-		**0.0516**		**0.235**		**0.141**	J
8270D-SIM	BENZO(B)FLUORANTHENE	mg/kg	-		**0.0677**		**0.312**		**0.251**	
8270D-SIM	BENZO(K)FLUORANTHENE	mg/kg	-		**0.02**		**0.076**	J	**0.0685**	J
8270D-SIM	CHRYSENE	mg/kg	-		**0.108**		**0.439**		**0.147**	
8270D-SIM	DIBENZ(A,H)ANTHRACENE	mg/kg	-		**0.0133**		<0.0135		**0.0515**	J
8270D-SIM	INDENO(1,2,3-CD)PYRENE	mg/kg	-		**0.0285**		**0.143**		**0.14**	J
TOTAL TEQ	Total TEQ	mg/kg	0.12	gwl-s	**0.071**		**0.322**		**0.205**	
Total Petroleum Hydrocarbons (TPH)										
NWTPHDX-NO SGT	DIESEL RANGE ORGANICS	mg/kg	2,000	mA	<363		**234**		**452**	
NWTPHDX-NO SGT	RESIDUAL RANGE ORGANICS	mg/kg	2,000	mA	**931**		**1,530**		**2,350 ***	
Dioxins/Furans										
8290A	TEQ: ND=DL/2	pg/g	5.2	Back[1]	**102**		**98.4**		**170**	
Polychlorinated Biphenyls (PCB) Congeners										
1668A	TOTAL PCBs	pg/g	3,500	Back[2]	**50,600**		**29,600**		**30,100**	
1668A	TEQ: ND=DL/2	pg/g	2.0	TEE	**6.2**		**1.2**		**0.96**	

Notes

Bold indicates detected above the laboratory reporting limit

Green shading indicates detected above the Revised PCL

<363 indicates not detected above the laboratory reporting limit of 363 mg/kg

TEQ: ND=DL/2 indicates toxic equivalent quotient value using a value of 1/2 the detection limit for non-detect values

Lab Qualifiers

J: The identification of the analyte is acceptable; the reported value is an estimate.

*: Most closely resembles Motor Oil

PCL Definitions:

gwl-s: Protective of leaching to groundwater, saturated soil

mA: Method A, Unrestricted Land Use

Back[1]: Natural background concentration - soil (Ecology, 2010)

Back[2]: Natural background concentration - marine sediment (Ecology, 2017)

TEE: Terrestrial Ecological Evaluation - Soil

ATTACHMENT 1

SURVEY OF GROUNDWATER SEEP LOCATIONS

NORD DOOR SITE, EVERETT
SEEP ELEVATIONS AND COORDINATES
5/20/2018

SEEP ID	Northing	Easting	Ground Elevation
SN1	10112.9	8939.8	6.5
SN2	10167.9	8870.9	3.2
SN3	10206.2	8835.3	1.7
SN4	10212.9	8826.5	1.3
SN5	10240.3	8808.5	-0.4
SN6	10261.1	8785.5	0.0
SN7	10267.0	8776.9	0.9
SN8	10312.5	8728.6	0.1
SN9	10324.7	8713.0	0.1
SN10	10348.9	8688.2	0.1
SN11	10370.7	8667.3	0.2
SN12	10388.7	8650.5	0.5
SN13	10397.8	8641.4	-0.1
SN14	10409.9	8632.1	-0.2

NOTE: *VERTICAL DATUM NAVD 88 PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.
*HORIZONTAL DATUM PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.

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NORD DOOR SITE, EVERETT
SEEP ELEVATIONS AND COORDINATES
5/20/2018

SEEP ID	Northing	Easting	Ground Elevation
SN15	10492.0	8535.9	2.4
SN16	10519.3	8511.4	1.4
SN17	10531.3	8500.1	1.6
SN18	10568.4	8463.6	1.6
SN19	10585.2	8449.2	1.4
SN20	10610.9	8424.5	0.6
SN21	10666.7	8371.3	0.7
SN22	10698.9	8337.5	1.6
SN23	10750.2	8302.6	0.8
SN24	10783.6	8262.7	0.7
SN25	10855.5	8191.5	1.1
SN26	10870.5	8183.5	0.6
SN27	10952.0	8089.4	2.2
SN28	11113.5	7929.7	0.2

NOTE: *VERTICAL DATUM NAVD 88 PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.
*HORIZONTAL DATUM PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.

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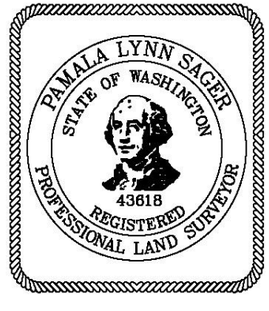
NORD DOOR SITE, EVERETT
SEEP ELEVATIONS AND COORDINATES
5/20/2018

SEEP ID	Northing	Easting	Ground Elevation
SS1	9740.8	8158.8	7.3
SS2	9597.1	8078.5	6.2
SS3	9247.4	8427.1	7.2
SS4	10597.2	7477.3	2.7
SS5	10567.5	7504.9	1.9
SS6	10544.3	7528.2	1.9
SS7	10509.1	7563.7	1.6
SS8	10480.8	7588.7	1.1
SS9	10454.7	7619.6	1.2
SS10	10431.0	7639.1	1.3
SS11	10412.8	7663.6	2.8
SS12	10379.3	7695.5	3.3
SS13	10324.3	7727.5	1.8
SS14	10159.8	7913.8	5.1

NOTE: *VERTICAL DATUM NAVD 88 PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.
*HORIZONTAL DATUM PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.



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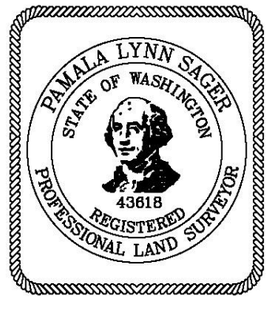
NORD DOOR SITE, EVERETT
SEEP ELEVATIONS AND COORDINATES
5/20/2018

SEEP ID	Northing	Easting	Ground Elevation
SS15	9031.1	8320.4	6.9
SS16	9002.0	8312.0	6.9
SS17	8771.5	8312.2	7.8
SS18	8900.1	8295.1	7.1
SW1	11112.8	7866.3	-1.0
SW2	11098.3	7840.8	-0.1
SW3	11038.5	7743.1	-0.7
SW4	11000.4	7676.8	-1.6
SW5	10939.3	7622.3	0.5
SW6	10914.6	7571.2	-2.1

NOTE: *VERTICAL DATUM NAVD 88 PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.
*HORIZONTAL DATUM PER W & H PACIFIC SITE MAP DATED 11/20/2006
FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.



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ATTACHMENT 2

PHOTO SHEET OF GROUNDWATER SEEP SAMPLING

Example of Seep Sampling Set-up

Site Photographs May 14, 2018	**Photo Sheet 1** **Former E.A. Nord Facility** **Everett, WA**	SLR

Groundwater Seep Sample Location Seep-S-16 (adjacent to knoll area)

Site Photographs May 14, 2018	**Photo Sheet 2** **Former E.A. Nord Facility** **Everett, WA**	SLR

ATTACHMENT 3

FIELD DATA SHEETS

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NOTED Sampled By: AP SL Sample I.D.: Seep-S-14

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1212 End (2400hr): 1232

Date Sampled: 05/5/2015 Sample Time (2400hr): 1214

Casing Diameter:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
	1216	20.30	6.272	4.076	7.03	7.48	110.7	not very	clear

Tide -1.44

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4
2 1000mL amber glass

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD Sampled By: AP SL Sample I.D.: Seep-N-18

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1251 End (2400hr): 1305

Date Sampled: 05/15/2018 Sample Time (2400hr): 1255

Casing Diameter:	2" ___	3" ___	4" ___	5" ___	6" ___	8" ___	Other ___
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)	
	1255	13.41	9.138	5.938	10.89	7.35	115.3	none	clear	Tide -1.13

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3

___ ___mL HDPE w/ H2SO4
_____
2x 1000 mL amber glass
_____
_____
_____

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD Sampled By: AP DL Sample I.D.: Seep-N-14

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1318 End (2400hr): 1332

Date Sampled: 05152018 Sample Time (2400hr): 1321

Casing Diameter:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
	1330	13.44	8.305	5.395	9.04	7.65	-77.8	cloudy	light brown

Tide -0.1

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____
Other: _____
Pump Intake Depth: _____ (feet)

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___ mL HDPE
___ ___ mL HDPE w/ HNO3
___ ___ mL HDPE w/ H2SO4
2 1000 mL amber glass

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD Sampled By: AP SL Sample I.D.: Seep-N-2

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1406 End (2400hr): 1415

Date Sampled: 05/5/2018 Sample Time (2400hr): 1408

Casing Diameter:	2" ___	3" ___	4" ___	5" ___	6" ___	8" ___	Other ___
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
	1413	13.10	9.183	5.964	11.15	7.20	70.8	slight	clear

Tide 1.40

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)
___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4
2 1000mL amber glass

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD Sampled By: AP SL Sample I.D.: Seep-S-1

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1455 End (2400hr): 1510

Date Sampled: 05142018 Sample Time (2400hr): 1455

Casing Diameter:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
	1455	17.05	5.074	3.299	9.74	8.13	38.6		clear

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4

2 1000mL amber glass

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD DOOR Sampled By: AP SL Sample I.D.: Seep-S-16

Location: EVERETT QA Samples: _____

Date Purged: _____ Start (2400hr): 1342 & 1412 End (2400hr): 1432

Date Sampled: 05/14/2018 Sample Time (2400hr): 1342 & 1412

Casing Diameter:	2" ___	3" ___	4" ___	5" ___	6" ___	8" ___	Other ___
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

Volume (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
	1340	13.62	8.632	5.611	6.24	7.55	-207.8	very	black
* DUPLICATE SAMPLE LOCATION *									

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4
2 1000mL amber glass

Well Integrity: _____ Odor: _____

Remarks: moved about 18-20ft to the North

Signature: Page 1 of _1_

SEEP-S-9

LOW-FLOW GROUNDWATER SAMPLING FIELD DATA SHEET

SLR

Project No. _____ Purged By: _____ Well I.D.: _____

Project Name: NORD DOOR Sampled By: AP SL Sample I.D.: Seep-S-9

Location: EVERETT, WA QA Samples: _____

Date Purged: _____ Start (2400hr): 1236 End (2400hr): 1302

Date Sampled: 05142018 Sample Time (2400hr): 1248

Casing Diameter:	2"	3"	4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	( )

Total depth (feet) = _____ Casing Volume (gal) = _____

Depth to water (feet) = _____ Minimum Purge (gal) = _____

Water column height (feet) = Actual Purge (gal) =

FIELD MEASUREMENTS

LOCATION ~~Volume~~ (Gal)	Time (2400hr)	Temp. (degrees C)	Conductivity (mS/cm)	TDS (g/L)	DO (mg/L)	pH (units)	ORP (mV)	Turbidity (Visual)	Color (Visual)
S-9	~~1236~~ ~~1248~~ up	13.84	13.92	9.052	8.23	7.06	105.0	yes	milky/cloudy

PURGING & SAMPLING EQUIPMENT

___ Well Wizard Bladder Pump
___ Active Extraction Well Pump
___ Submersible Pump
___ Peristaltic Pump
Other: _____
Pump Intake Depth: _____ (feet)

___ Bailer (disposable)
___ Bailer (PVC)
___ Bailer (Stainless Steel)
___ Dedicated _____

SAMPLE VESSELS

___ 40mL VOA
___ 40mL VOA w/ HCL
2 40 mL amber glass
5 40 mL amber glass w/ HCl
___ ___mL HDPE
___ ___mL HDPE w/ HNO3
___ ___mL HDPE w/ H2SO4
2 1000mL amber glass

Well Integrity: _____ Odor: _____

Remarks: _____

Signature: Page 1 of _1_

*no dioxin sample

ATTACHMENT 4

LABORATORY ANALYTICAL REPORTS

FINAL LAB REPORT

Nord Door

B2267

14-Jun-2018

Prepared by

SGS NORTH AMERICA

Prepared for

SLR International Corp

Chris Kramer

1800 Blankenship Rd, Ste 440
West Linn, OR 47068
Phone: 503-723-4423
Email: ckramer@slrconsulting.com

This report is approved by

Digitally signed by amy.boehm@sgs.com
DN: CN=amy.boehm@sgs.com
Reason: I am approving this document
Location:
Date: 2018-06-14 11:04:56

Amy Boehm

Senior Project Manager

PROJECT INFORMATION SUMMARY *(When applicable, see QC Annotations for details)*

Client Project	Nord Door
SGS Project #	B2267
Analytical Protocol(s)	Methods 8290A and 1668A
No. Samples Submitted	9 (Duplicate-0518 & Field-0518 on hold)
Additional QC Sample(s)	0
No. Laboratory Method Blanks	2
No. OPRs / Batch CS3	2
Date Received	17-May-18
Condition Received	Good
Temperature upon Receipt (ºC)	1.1, 0.4
Extraction within Holding Time	Yes
Analysis within Holding Time	Yes

QC ANNOTATIONS:

1. Please see Appendices attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

APPENDIX A: GENERAL DATA QUALIFIERS / DATA ATTRIBUTES

B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve) and is an estimated value.
EMPC	Represents an Estimated Maximum Possible Concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
H/h	If the standard recovery is below the method or SOP specified value “H” is assigned. If the obtained value is less than half the specified value “h” is assigned.
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.
ND	Indicates a non-detect.
NR or R	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes “Single Ion Mode” and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.

APPENDIX B: DRBC/TMDL SPECIFIC DATA QUALIFIERS / DATA ATTRIBUTES

J	The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL).
U	The analyte was not detected in the sample at the estimated detection limit (EDL).
E	The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).
D	Dilution Data. Result was obtained from the analysis of a dilution.
B	Analyte found in the sample and associated method blank.
C	Co-eluting congener
Cxx	Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'Xx' denotes the IUPAC number with the lowest numerical designated congener.
NR	Analyte is not reportable because of problems in sample preparation or analysis.
V	Labeled standard recovery is not within method control limits.
X	Results from re-injection/repeat/second-column analysis.
EMPC	Estimated maximum possible concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

APPENDIX C: LAB IDENTIFIERS

AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

SGS CERTIFICATIONS

Arkansas	88-0682
California (ELAP)	ELAP Cert #2914
CLIA	34D1013708
Connecticut	PH-0258
USDA Soil Permit	P330-17-00055
American Association for Laboratory Accreditation (A2LA)	2726.01 (ISO 17025:2005, 2009 TNI, DoD ELAP QSM 5.0)
Florida DOH	E87634
Louisiana DEQ	4115
Louisiana DOH	LA180027
Maine	2016028
Massachusetts	M-NC919
Minnesota (Primary NELAP For Method 23)	1179213
Mississippi	Reciprocity
Nebraska	NE-OS-33-17
New Hampshire	208317 & 208517
New Jersey	NC100
New York	11685
North Carolina DEQ	481
North Dakota	R-197
Oregon	NC200002
Pennsylvania	68-03675
South Carolina	99029002
Texas	T104704260
US Coast Guard	16714/159.317/SGS
Virginia	9502
Washington	C913
West Virginia	293

Rev. 13-Mar-2018

Sample ID: Seep-N-2

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.98 L	Lab Sample ID	B2267_15888_DF_001	Date Extracted:	24-May-2018
Date Collected:	15-May-2018	pH:	6	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	3:59:04

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	6.7			ES 2378-TCDD	97.2	
12378-PeCDD	ND	4.17			ES 12378-PeCDD	106	
123478-HxCDD	ND	3.4			ES 123478-HxCDD	89.4	
123678-HxCDD	ND	3.62			ES 123678-HxCDD	86.6	
123789-HxCDD	ND	3.35			ES 123789-HxCDD	91.4	
1234678-HpCDD	EMPC		12.2	J	ES 1234678-HpCDD	96.5	
OCDD	135				ES OCDD	68.8	
2378-TCDF	ND	5.75			ES 2378-TCDF	100	
12378-PeCDF	ND	2.88			ES 12378-PeCDF	97	
23478-PeCDF	ND	2.74			ES 23478-PeCDF	106	
123478-HxCDF	ND	3.2			ES 123478-HxCDF	94.1	
123678-HxCDF	ND	2.9			ES 123678-HxCDF	90.1	
234678-HxCDF	ND	2.74			ES 234678-HxCDF	98.3	
123789-HxCDF	ND	3.01			ES 123789-HxCDF	98.8	
1234678-HpCDF	EMPC		1.35	J	ES 1234678-HpCDF	111	
1234789-HpCDF	ND	1.75			ES 1234789-HpCDF	98.7	
OCDF	EMPC		6.75	J	ES OCDF	78.3	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	104	
Total TCDD	ND	6.7	ND		CS 12347-PeCDD	114	
Total PeCDD	ND	4.17	ND		CS 12346-PeCDF	114	
Total HxCDD	ND	3.44	ND		CS 123469-HxCDF	104	
Total HpCDD	18.8		31		CS 1234689-HpCDF	114	
Total TCDF	ND	5.75	ND				
Total PeCDF	ND	2.81	ND				
Total HxCDF	ND	2.95	ND				
Total HpCDF	ND		5.89				
Total PCDD/Fs	**153**		**178**				
ITEF TEQs							
TEQ: ND=0	0.135		0.277				
TEQ: ND=DL/2	6.69	6.59	6.83				
TEQ: ND=DL	13.3	13.2	13.4				

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Sample ID: Seep-N-14

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.97 L	Lab Sample ID	B2267_15888_DF_002	Date Extracted:	24-May-2018
Date Collected:	15-May-2018	pH:	6	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	4:50:38

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	6.67			ES 2378-TCDD	100	
12378-PeCDD	ND	4.75			ES 12378-PeCDD	106	
123478-HxCDD	ND	6			ES 123478-HxCDD	90.2	
123678-HxCDD	ND	6.06			ES 123678-HxCDD	90.1	
123789-HxCDD	ND	5.74			ES 123789-HxCDD	91.9	
1234678-HpCDD	EMPC		17.6	J	ES 1234678-HpCDD	102	
OCDD	247				ES OCDD	75.8	
2378-TCDF	ND	5.29			ES 2378-TCDF	100	
12378-PeCDF	ND	2.35			ES 12378-PeCDF	96.1	
23478-PeCDF	ND	2.25			ES 23478-PeCDF	104	
123478-HxCDF	ND	3.31			ES 123478-HxCDF	99.2	
123678-HxCDF	ND	3.17			ES 123678-HxCDF	92.8	
234678-HxCDF	ND	3.12			ES 234678-HxCDF	99.8	
123789-HxCDF	ND	3.53			ES 123789-HxCDF	106	
1234678-HpCDF	EMPC		4.09	J	ES 1234678-HpCDF	110	
1234789-HpCDF	ND	2.8			ES 1234789-HpCDF	109	
OCDF	EMPC		6.24	J	ES OCDF	91.6	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	110	
Total TCDD	ND	6.67	ND		CS 12347-PeCDD	115	
Total PeCDD	ND	4.75	ND		CS 12346-PeCDF	111	
Total HxCDD	ND		8.69		CS 123469-HxCDF	110	
Total HpCDD	35.6		53.2		CS 1234689-HpCDF	124	
Total TCDF	ND	5.29	ND				
Total PeCDF	ND	2.3	ND				
Total HxCDF	ND	3.27	ND				
Total HpCDF	ND		9.68				
Total PCDD/Fs	**282**		**325**				
ITEF TEQs							
TEQ: ND=0	0.247		0.47				
TEQ: ND=DL/2	7.22	7.01	7.44				
TEQ: ND=DL	14.2	14	14.4				

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Sample ID: Seep-N-18

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.97 L	Lab Sample ID	B2267_15888_DF_003	Date Extracted:	24-May-2018
Date Collected:	15-May-2018	pH:	6	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	5:42:12

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	7.1			ES 2378-TCDD	101	
12378-PeCDD	ND	3.04			ES 12378-PeCDD	105	
123478-HxCDD	ND	4.92			ES 123478-HxCDD	94.9	
123678-HxCDD	ND	4.78			ES 123678-HxCDD	93.1	
123789-HxCDD	ND	4.85			ES 123789-HxCDD	92.1	
1234678-HpCDD	ND	4.12			ES 1234678-HpCDD	97.1	
OCDD	ND	9.29			ES OCDD	68	
2378-TCDF	ND	5.56			ES 2378-TCDF	99.2	
12378-PeCDF	ND	3.19			ES 12378-PeCDF	90.8	
23478-PeCDF	ND	2.97			ES 23478-PeCDF	97.5	
123478-HxCDF	ND	4.14			ES 123478-HxCDF	103	
123678-HxCDF	ND	3.96			ES 123678-HxCDF	98.7	
234678-HxCDF	ND	3.99			ES 234678-HxCDF	101	
123789-HxCDF	ND	4.57			ES 123789-HxCDF	102	
1234678-HpCDF	ND	1.96			ES 1234678-HpCDF	108	
1234789-HpCDF	ND	2.82			ES 1234789-HpCDF	97.4	
OCDF	ND	8.38			ES OCDF	80.9	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	108	
Total TCDD	ND	7.1	ND		CS 12347-PeCDD	115	
Total PeCDD	ND	3.04	ND		CS 12346-PeCDF	105	
Total HxCDD	ND	4.84	ND		CS 123469-HxCDF	113	
Total HpCDD	ND	4.12	ND		CS 1234689-HpCDF	119	
Total TCDF	ND	5.56	ND				
Total PeCDF	ND	3.08	ND				
Total HxCDF	ND	4.15	ND				
Total HpCDF	ND	2.33	ND				
Total PCDD/Fs	**ND**		**ND**				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	7.03	7.03	7.03				
TEQ: ND=DL	14.1	14.1	14.1				

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Sample ID: Seep-S-1

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.95 L	Lab Sample ID	B2267_15888_DF_004	Date Extracted:	24-May-2018
Date Collected:	14-May-2018	pH:	5	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	6:33:46

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	6.47			ES 2378-TCDD	102	
12378-PeCDD	ND	3.28			ES 12378-PeCDD	111	
123478-HxCDD	ND	4.9			ES 123478-HxCDD	97.8	
123678-HxCDD	ND	4.7			ES 123678-HxCDD	96.5	
123789-HxCDD	ND	4.89			ES 123789-HxCDD	96.7	
1234678-HpCDD	EMPC		7.65	J	ES 1234678-HpCDD	106	
OCDD	77.4				ES OCDD	87.2	
2378-TCDF	ND	4.47			ES 2378-TCDF	102	
12378-PeCDF	ND	2.55			ES 12378-PeCDF	95.2	
23478-PeCDF	ND	2.37			ES 23478-PeCDF	105	
123478-HxCDF	ND	3.19			ES 123478-HxCDF	107	
123678-HxCDF	ND	2.87			ES 123678-HxCDF	100	
234678-HxCDF	ND	2.84			ES 234678-HxCDF	108	
123789-HxCDF	ND	3.21			ES 123789-HxCDF	109	
1234678-HpCDF	ND	1.37			ES 1234678-HpCDF	120	
1234789-HpCDF	ND	1.95			ES 1234789-HpCDF	111	
OCDF	ND	5.77			ES OCDF	99.1	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	105	
Total TCDD	ND	6.47	ND		CS 12347-PeCDD	115	
Total PeCDD	ND	3.28	ND		CS 12346-PeCDF	110	
Total HxCDD	ND	4.82	ND		CS 123469-HxCDF	114	
Total HpCDD	ND		16.4		CS 1234689-HpCDF	128	
Total TCDF	ND	4.47	ND				
Total PeCDF	ND	2.46	ND				
Total HxCDF	ND	3.02	ND				
Total HpCDF	ND	1.63	ND				
Total PCDD/Fs	**77.4**		**93.8**				
ITEF TEQs							
TEQ: ND=0	0.0774		0.154				
TEQ: ND=DL/2	6.36	6.3	6.44				
TEQ: ND=DL	12.6	12.6	12.7				

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Sample ID: Seep-S-14

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.94 L	Lab Sample ID	B2267_15888_DF_006	Date Extracted:	24-May-2018
Date Collected:	15-May-2018	pH:	6	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	7:25:21

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	6.55			ES 2378-TCDD	96.8	
12378-PeCDD	ND	5.67			ES 12378-PeCDD	105	
123478-HxCDD	ND	4.51			ES 123478-HxCDD	93.8	
123678-HxCDD	ND	4.57			ES 123678-HxCDD	90.3	
123789-HxCDD	ND	4.63			ES 123789-HxCDD	93.7	
1234678-HpCDD	EMPC		13.3	J	ES 1234678-HpCDD	101	
OCDD	EMPC		45.2	J	ES OCDD	62.9	
2378-TCDF	ND	5.76			ES 2378-TCDF	97.1	
12378-PeCDF	ND	3.43			ES 12378-PeCDF	91.7	
23478-PeCDF	ND	3.39			ES 23478-PeCDF	101	
123478-HxCDF	ND	3.27			ES 123478-HxCDF	101	
123678-HxCDF	ND	3.14			ES 123678-HxCDF	94.9	
234678-HxCDF	ND	2.95			ES 234678-HxCDF	101	
123789-HxCDF	ND	3.39			ES 123789-HxCDF	105	
1234678-HpCDF	6.95			J	ES 1234678-HpCDF	108	
1234789-HpCDF	ND	2.38			ES 1234789-HpCDF	104	
OCDF	ND	8.52			ES OCDF	79.7	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	109	
Total TCDD	ND	6.55	ND		CS 12347-PeCDD	115	
Total PeCDD	ND	5.67	ND		CS 12346-PeCDF	112	
Total HxCDD	ND		23.1		CS 123469-HxCDF	113	
Total HpCDD	21.9		35.1		CS 1234689-HpCDF	124	
Total TCDF	ND	5.76	ND				
Total PeCDF	ND	3.41	ND				
Total HxCDF	ND	3.18	ND				
Total HpCDF	14.8		14.8				
Total PCDD/Fs	**36.6**		**118**				
ITEF TEQs							
TEQ: ND=0	0.0695		0.247				
TEQ: ND=DL/2	7.32	7.29	7.5				
TEQ: ND=DL	14.6	14.6	14.7				

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Sample ID: Seep-S-16

Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.98 L	Lab Sample ID	B2267_15888_DF_007	Date Extracted:	24-May-2018
Date Collected:	14-May-2018	pH:	7	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	8:16:55

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	7.33			ES 2378-TCDD	91	
12378-PeCDD	ND	4.43			ES 12378-PeCDD	97.8	
123478-HxCDD	ND	4.99			ES 123478-HxCDD	92.7	
123678-HxCDD	ND	4.7			ES 123678-HxCDD	94.6	
123789-HxCDD	ND	4.4			ES 123789-HxCDD	96.1	
1234678-HpCDD	ND	3.19			ES 1234678-HpCDD	97.7	
OCDD	EMPC		14.7	J	ES OCDD	60.5	
2378-TCDF	ND	5.74			ES 2378-TCDF	95.8	
12378-PeCDF	ND	3.05			ES 12378-PeCDF	88.1	
23478-PeCDF	ND	2.83			ES 23478-PeCDF	99.7	
123478-HxCDF	ND	3.54			ES 123478-HxCDF	100	
123678-HxCDF	ND	3.54			ES 123678-HxCDF	94	
234678-HxCDF	ND	3.29			ES 234678-HxCDF	104	
123789-HxCDF	ND	3.63			ES 123789-HxCDF	108	
1234678-HpCDF	ND	1.45			ES 1234678-HpCDF	107	
1234789-HpCDF	ND	1.9			ES 1234789-HpCDF	105	
OCDF	ND	7.06			ES OCDF	79.8	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	102	
Total TCDD	ND	7.33	ND		CS 12347-PeCDD	110	
Total PeCDD	ND	4.43	ND		CS 12346-PeCDF	107	
Total HxCDD	ND	4.67	ND		CS 123469-HxCDF	114	
Total HpCDD	ND	3.19	ND		CS 1234689-HpCDF	121	
Total TCDF	ND	5.74	ND				
Total PeCDF	ND	2.94	ND				
Total HxCDF	ND	3.49	ND				
Total HpCDF	ND	1.66	ND				
Total PCDD/Fs	**ND**		**14.7**				
ITEF TEQs							
TEQ: ND=0	0		0.0147				
TEQ: ND=DL/2	7.29	7.29	7.3				
TEQ: ND=DL	14.6	14.6	14.6				

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Sample ID: Method Blank B2267_15888 — Method 8290A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Lab Project ID:	B2267	Date Received:	n/a
Project ID:	Nord Door	Weight/Volume:	1.00 L	Lab Sample ID	MB1_15888_DF_TLX	Date Extracted:	24-May-2018
Date Collected:	n/a	pH:	n/a	QC Batch No:	15888	Date Analyzed:	13-Jun-2018
		Split:	-	Dilution:	-	Time Analyzed:	3:07:30

Analyte	Conc. (pg/L)	DL (pg/L)	EMPC (pg/L)	Qualifiers	Standard	ES Recoveries	Qualifiers
2378-TCDD	ND	3.55			ES 2378-TCDD	102	
12378-PeCDD	ND	4.01			ES 12378-PeCDD	71.5	
123478-HxCDD	ND	4.9			ES 123478-HxCDD	90.9	
123678-HxCDD	ND	5.21			ES 123678-HxCDD	89.2	
123789-HxCDD	ND	4.72			ES 123789-HxCDD	92.8	
1234678-HpCDD	ND	2.58			ES 1234678-HpCDD	99.3	
OCDD	ND	7.91			ES OCDD	61.2	
2378-TCDF	ND	3.82			ES 2378-TCDF	101	
12378-PeCDF	ND	1.8			ES 12378-PeCDF	67.4	
23478-PeCDF	ND	1.77			ES 23478-PeCDF	70.8	
123478-HxCDF	ND	2.93			ES 123478-HxCDF	100	
123678-HxCDF	ND	2.95			ES 123678-HxCDF	92.2	
234678-HxCDF	ND	2.79			ES 234678-HxCDF	99.6	
123789-HxCDF	ND	3.04			ES 123789-HxCDF	107	
1234678-HpCDF	ND	1.19			ES 1234678-HpCDF	106	
1234789-HpCDF	ND	1.53			ES 1234789-HpCDF	104	
OCDF	ND	5.78			ES OCDF	76.9	
Totals					**Standard**	**CS Recoveries**	
					CS 37Cl-2378-TCDD	107	
Total TCDD	ND	3.55	ND		CS 12347-PeCDD	76.1	
Total PeCDD	ND	4.01	ND		CS 12346-PeCDF	90.8	
Total HxCDD	ND	4.92	ND		CS 123469-HxCDF	108	
Total HpCDD	ND	2.58	ND		CS 1234689-HpCDF	119	
Total TCDF	ND	3.82	ND				
Total PeCDF	ND	1.79	ND				
Total HxCDF	ND	2.92	ND				
Total HpCDF	ND	1.35	ND				
Total PCDD/Fs	**ND**		**ND**				
ITEF TEQs							
TEQ: ND=0	0		0				
TEQ: ND=DL/2	4.82	4.82	4.82				
TEQ: ND=DL	9.64	9.64	9.64				

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METHOD 8290A **PCDD/F ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name:	SGS North America		
Initial Calibration:	ICAL: HRMS2_DF_09062018_22NOV2017		
Instrument ID:	HRMS2	GC Column ID:	ZB-5ms
VER Data Filename:	180612B12	Analysis Date:	13-JUN-2018 01:24:23
Lab ID:	OPR1_15888_DF		

NATIVE ANALYTES	SPIKE CONC.	CONC. FOUND	RANGE (ng/mL)			OK
2,3,7,8-TCDD	10	11.4	6.7	-	15.8	Y
1,2,3,7,8-PeCDD	50	55.4	35	-	71	Y
1,2,3,4,7,8-HxCDD	50	59.5	35	-	82	Y
1,2,3,6,7,8-HxCDD	50	58	38	-	67	Y
1,2,3,7,8,9-HxCDD	50	54.8	32	-	81	Y
1,2,3,4,6,7,8-HpCDD	50	55.5	35	-	70	Y
OCDD	100	114	78	-	144	Y
2,3,7,8-TCDF	10	11.8	7.5	-	15.8	Y
1,2,3,7,8-PeCDF	50	56.3	40	-	67	Y
2,3,4,7,8-PeCDF	50	59.7	34	-	80	Y
1,2,3,4,7,8-HxCDF	50	55.3	36	-	67	Y
1,2,3,6,7,8-HxCDF	50	55.3	42	-	65	Y
2,3,4,6,7,8-HxCDF	50	55.2	35	-	78	Y
1,2,3,7,8,9-HxCDF	50	54.8	39	-	65	Y
1,2,3,4,6,7,8-HpCDF	50	58.6	41	-	61	Y
1,2,3,4,7,8,9-HpCDF	50	54.3	39	-	69	Y
OCDF	100	116	63	-	170	Y

Contract-required concentration limits for OPR as specified in Table 6,
Method 1613. 10/94

Processed: 13 Jun 2018 15:09 Analyst: FS

METHOD 8290A **PCDD/F ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS North America
Initial Calibration: ICAL: HRMS2_DF_09062018_22NOV2017
Instrument ID: HRMS2 GC Column ID: ZB-5ms
VER Data Filename: 180612B12 Analysis Date: 13-JUN-2018 01:24:23
Lab ID: OPR1_15888_DF

LABELED ANALYTES	SPIKE CONC.	CONC. FOUND	RANGE (ng/mL)			OK
13C-2,3,7,8-TCDD	100	97	20	-	175	Y
13C-1,2,3,7,8-PeCDD	100	99.4	21	-	227	Y
13C-1,2,3,4,7,8-HxCDD	100	91.8	21	-	193	Y
13C-1,2,3,6,7,8-HxCDD	100	92.5	25	-	163	Y
13C-1,2,3,7,8,9-HxCDD	100	94.9	26	-	166	Y
13C-1,2,3,4,6,7,8-HpCDD	100	94.9	26	-	166	Y
13C-OCDD	200	125	26	-	397	Y
13C-2,3,7,8-TCDF	100	99.6	22	-	152	Y
13C-1,2,3,7,8-PeCDF	100	92.5	21	-	192	Y
13C-2,3,4,7,8-PeCDF	100	99	13	-	328	Y
13C-1,2,3,4,7,8-HxCDF	100	97.2	19	-	202	Y
13C-1,2,3,6,7,8-HxCDF	100	92.4	21	-	159	Y
13C-2,3,4,6,7,8-HxCDF	100	99	22	-	176	Y
13C-1,2,3,7,8,9-HxCDF	100	97.4	17	-	205	Y
13C-1,2,3,4,6,7,8-HpCDF	100	95.6	21	-	158	Y
13C-1,2,3,4,7,8,9-HpCDF	100	94.8	20	-	186	Y
13C-OCDF	200	155	26	-	397	Y
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD	40	42.7	12.4	-	76.4	Y

Contract-required concentration limits for OPR as specified in Table 6,
Method 1613. 10/94

Processed: 13 Jun 2018 15:09 Analyst: FS

Sample ID: Seep-S-1

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.95 L	Sample ID:	B2267_15900_PCB_004-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	08-Jun-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	6.49			ES PCB-1	23.2
PCB-81 344'5-TeCB	ND	7.77			ES PCB-3	34.6
PCB-105 233'44'-PeCB	ND	8.91			ES PCB-4	33.9
PCB-114 2344'5-PeCB	ND	11.3			ES PCB-15	69.6
PCB-118 23'44'5-PeCB	EMPC		20.2		ES PCB-19	45.1
PCB-123 23'44'5'-PeCB	ND	10.7			ES PCB-37	87.3
PCB-126 33'44'5-PeCB	ND	8.68			ES PCB-54	55.2
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	8.66		C	ES PCB-77	109
PCB-167 23'44'55'-HxCB	ND	8.25			ES PCB-81	98.4
PCB-169 33'44'55'-HxCB	ND	9.09			ES PCB-104	73.4
PCB-189 233'44'55'-HpCB	ND	6.96			ES PCB-105	104
					ES PCB-114	83.3
TEQs (WHO 2005 M/H)					ES PCB-118	94.5
					ES PCB-123	95.5
ND = 0	0		0.000607		ES PCB-126	96.8
ND = 0.5 x DL	0.573		0.573		ES PCB-153	85.8
ND = DL	1.15		1.15		ES PCB-155	69.6
					ES PCB-156/157	95.3
Totals					ES PCB-167	72.1
Mono-CB	ND	16			ES PCB-169	78.8
Di-CB	229				ES PCB-170	66.7
Tri-CB	14.8				ES PCB-180	75.7
Tetra-CB	26.2		43.6		ES PCB-188	95.5
Penta-CB	53.5		73.7		ES PCB-189	84.7
Hexa-CB	56.9		87.1		ES PCB-202	95.9
Hepta-CB			11.7		ES PCB-205	94.3
Octa-CB	ND	10.1			ES PCB-206	93.6
Nona-CB	ND	12.4			ES PCB-208	79.8
Deca-CB	ND	17.9			ES PCB-209	122
					CS PCB-28	75.3
Total PCB (Mono-Deca)	381		460		CS PCB-111	93.7
					CS PCB-178	91.3

Checkcode: 923-581-BRM/A SGS North America - PCB v0.82 Report Created: 12-Jun-2018 09:25 Analyst: as

Sample ID: Seep-S-1

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.95 L	Sample ID:	B2267_15900_PCB_004-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	08-Jun-2018
		Units	pg/L	Checkcode:	923-581-BRM/A	Time Analyzed:	23:55:05

Mono	Conc.	Qualifiers
PCB-1	(17.3)	
PCB-2	(15.2)	
PCB-3	(14.7)	
Conc.	0	
EMPC	0	

Di	Conc.	Qualifiers
PCB-4	(51.2)	
PCB-10	(36.2)	
PCB-9	(27.2)	
PCB-7	(23.9)	
PCB-6	(25.6)	
PCB-5	(25.5)	
PCB-8	(24.2)	
PCB-14	(21.1)	
PCB-11	229	
PCB-13/12	(24)	C
PCB-15	(24.8)	
Conc.	229	
EMPC	229	

Tri	Conc.	Qualifiers
PCB-19	(49.7)	
PCB-30/18	(38.7)	C
PCB-17	(44.9)	
PCB-27	(33.4)	
PCB-24	(33.8)	
PCB-16	(56.8)	
PCB-32	(30.7)	
PCB-34	(13.3)	
PCB-23	(12.6)	
PCB-26/29	(12.6)	C
PCB-25	(12.1)	
PCB-31	(11.6)	
PCB-28/20	14.8	J C
PCB-21/33	(12)	C
PCB-22	(13.1)	
PCB-36	(12.2)	
PCB-39	(11.5)	
PCB-38	(12.4)	
PCB-35	(13.2)	
PCB-37	(12.2)	
Conc.	14.8	
EMPC	14.8	

Tetra	Conc.	Qualifiers
PCB-54	(11.2)	
PCB-50/53	(12.7)	C
PCB-45	(14.6)	
PCB-51	(12.3)	
PCB-46	(15.5)	
PCB-52	[10.9]	EMPC
PCB-73	(9.68)	
PCB-43	(14.6)	
PCB-69/49	(10.7)	C
PCB-48	(12.8)	
PCB-44/47/65	(11.7)	C
PCB-59/62/75	(9.13)	C
PCB-42	(14.1)	
PCB-41	(15.2)	
PCB-71/40	(12.7)	C
PCB-64	(8.67)	
Conc.		
EMPC		

Tetra	Conc.	Qualifiers
PCB-72	(6.96)	
PCB-68	(6.18)	
PCB-57	(7.34)	
PCB-58	(7)	
PCB-67	(6.65)	
PCB-63	(6.47)	
PCB-61/70/74/76	26.2	J C
PCB-66	[6.48]	J EMPC
PCB-55	(7.37)	
PCB-56	(7.7)	
PCB-60	(7.36)	
PCB-80	(6.44)	
PCB-79	(5.95)	
PCB-78	(7.91)	
PCB-81	(7.77)	
PCB-77	(6.49)	
Conc.	26.2	
EMPC	43.6	

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Totals	Conc.	EMPC
Mono-Tri	244	244
Tetra-Hexa	137	204
Hepta-Deca	0	11.7
Mono-Deca	381	460

Sample ID: Seep-S-1 — Method 1668A

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(8.36)		PCB-108/119/86/97/125/87	(11.8)	C	PCB-155	(8.73)		PCB-165	(7.99)	
PCB-96	(10.4)		PCB-117	(10.4)		PCB-152	(9.14)		PCB-146	(9.38)	
PCB-103	(13.3)		PCB-116/85	(12.8)	C	PCB-150	(9.33)		PCB-161	(7.15)	
PCB-94	(15.3)		PCB-110	39.8		PCB-136	(10.3)		PCB-153/168	22.9	C
PCB-95	13.7		PCB-115	(10.8)		PCB-145	(9.76)		PCB-141	(9.74)	
PCB-100/93	(13.6)	C	PCB-82	(16.5)		PCB-148	(9.42)		PCB-130	(11.5)	
PCB-102	(13.1)		PCB-111	(9.64)		PCB-151/135	[8.89]	J EMPC C	PCB-137	(9.02)	
PCB-98	(15)		PCB-120	(10.1)		PCB-154	(8.52)		PCB-164	(8.14)	
PCB-88	(14.3)		PCB-107/124	(10.9)	C	PCB-144	(9.56)		PCB-163/138/129	[21.3]	J EMPC C
PCB-91	(13.6)		PCB-109	(10)		PCB-147/149	33.9	C	PCB-160	(8.22)	
PCB-84	(16.8)		PCB-123	(10.7)		PCB-134	(13.4)		PCB-158	(7.11)	
PCB-89	(15.5)		PCB-106	(11.2)		PCB-143	(9.39)		PCB-128/166	(8.39)	C
PCB-121	(10.3)		PCB-118	[20.2]	EMPC	PCB-139/140	(9.41)	C	PCB-159	(7.27)	
PCB-92	(15.1)		PCB-122	(12.7)		PCB-131	(10.8)		PCB-162	(7.46)	
PCB-113/90/101	(12)	C	PCB-114	(11.3)		PCB-142	(11.1)		PCB-167	(8.25)	
PCB-83	(18.2)		PCB-105	(8.91)		PCB-132	(10.7)		PCB-156/157	(8.66)	C
PCB-99	(12.3)		PCB-127	(8.77)		PCB-133	(9.75)		PCB-169	(9.09)	
PCB-112	(10.8)		PCB-126	(8.68)							
			Conc.	53.5					**Conc.**	56.9	
			EMPC	73.7					**EMPC**	87.1	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(5.43)		PCB-174	(13.2)		PCB-202	(9.42)		PCB-208	(8.73)	
PCB-179	(6.68)		PCB-177	(13.1)		PCB-201	(9.82)		PCB-207	(8.36)	
PCB-184	(6.84)		PCB-181	(11.4)		PCB-204	(10.4)		PCB-206	(16.1)	
PCB-176	(6.16)		PCB-171/173	(13.3)	C	PCB-197	(9.56)				
PCB-186	(6.63)		PCB-172	(12.5)		PCB-200	(10.2)		**Conc.**	0	
PCB-178	(9.15)		PCB-192	(9.78)		PCB-198/199	(14)	C	**EMPC**	0	
PCB-175	(11.7)		PCB-180/193	[11.7]	J EMPC C	PCB-196	(14)				
PCB-187	(10.7)		PCB-191	(9.33)		PCB-203	(13.6)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(10.5)		PCB-170	(13.9)		PCB-195	(14.2)		PCB-209	(17.9)	
PCB-183	(10.6)		PCB-190	(9.48)		PCB-194	(13.1)				
PCB-185	(10.9)		PCB-189	(6.96)		PCB-205	(10.7)				
			Conc.	0		**Conc.**	0				
			EMPC	11.7		**EMPC**	0				

Sample ID: Seep-S-9

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.96 L	Sample ID:	B2267_15900_PCB_005-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	12.1			ES PCB-1	15.1
PCB-81 344'5-TeCB	ND	14.3			ES PCB-3	24.3
PCB-105 233'44'-PeCB	ND	15.3			ES PCB-4	25.9
PCB-114 2344'5-PeCB	ND	12.6			ES PCB-15	57
PCB-118 23'44'5-PeCB	19.5				ES PCB-19	34.6
PCB-123 23'44'5'-PeCB	ND	13.8			ES PCB-37	65.1
PCB-126 33'44'5-PeCB	ND	7.44			ES PCB-54	26
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	15.5		C	ES PCB-77	90.3
PCB-167 23'44'55'-HxCB	ND	10.5			ES PCB-81	86.5
PCB-169 33'44'55'-HxCB	ND	14.3			ES PCB-104	35.8
PCB-189 233'44'55'-HpCB	ND	14.8			ES PCB-105	74.6
					ES PCB-114	71
TEQs (WHO 2005 M/H)					ES PCB-118	73.1
					ES PCB-123	78.4
ND = 0	0.000585		0.000585		ES PCB-126	83.5
ND = 0.5 x DL	0.592		0.592		ES PCB-153	61.6
ND = DL	1.18		1.18		ES PCB-155	39
					ES PCB-156/157	62.8
Totals					ES PCB-167	62.3
Mono-CB	ND	39.5			ES PCB-169	57.8
Di-CB	ND	91.7			ES PCB-170	70.3
Tri-CB	ND	48.6			ES PCB-180	66.5
Tetra-CB	ND	18.1			ES PCB-188	62
Penta-CB	39				ES PCB-189	69
Hexa-CB	18.9		33.2		ES PCB-202	70.7
Hepta-CB	ND	13.3			ES PCB-205	64.5
Octa-CB	ND	17.4			ES PCB-206	67.1
Nona-CB	ND	23.8			ES PCB-208	69.8
Deca-CB	ND	26.6			ES PCB-209	84
					CS PCB-28	80.2
Total PCB (Mono-Deca)	57.9		72.2		CS PCB-111	104
					CS PCB-178	110

Checkcode: 123-707-STG/A SGS North America - PCB v0.82 Report Created: 12-Jun-2018 09:28 Analyst: as

Sample ID: Seep-S-9

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.96 L	Sample ID:	B2267_15900_PCB_005-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018
		Units	pg/L	Checkcode:	123-707-STG/A	Time Analyzed:	00:54:36

Mono	Conc.	Qualifiers
PCB-1	(46.1)	
PCB-2	(34.1)	
PCB-3	(33)	
Conc.	0	
EMPC	0	

Di	Conc.	Qualifiers
PCB-4	(124)	
PCB-10	(87.6)	
PCB-9	(64.8)	
PCB-7	(57)	
PCB-6	(61)	
PCB-5	(60.7)	
PCB-8	(57.8)	
PCB-14	(50.2)	
PCB-11	(59.4)	
PCB-13/12	(57.3)	C
PCB-15	(59.2)	
Conc.	0	
EMPC	0	

Tri	Conc.	Qualifiers
PCB-19	(79.2)	
PCB-30/18	(61.8)	C
PCB-17	(71.6)	
PCB-27	(53.3)	
PCB-24	(53.9)	
PCB-16	(90.6)	
PCB-32	(49)	
PCB-34	(19.4)	
PCB-23	(18.4)	
PCB-26/29	(18.5)	C
PCB-25	(17.7)	
PCB-31	(16.9)	
PCB-28/20	(18.2)	C
PCB-21/33	(17.5)	C
PCB-22	(19.2)	
PCB-36	(17.9)	
PCB-39	(16.8)	
PCB-38	(18.1)	
PCB-35	(19.2)	
PCB-37	(17.9)	
Conc.	0	
EMPC	0	

Tetra	Conc.	Qualifiers
PCB-54	(33.2)	
PCB-50/53	(15.2)	C
PCB-45	(17.4)	
PCB-51	(14.7)	
PCB-46	(18.6)	
PCB-52	(15.5)	
PCB-73	(11.6)	
PCB-43	(17.5)	
PCB-69/49	(12.8)	C
PCB-48	(15.3)	
PCB-44/47/65	(14)	C
PCB-59/62/75	(10.9)	C
PCB-42	(16.8)	
PCB-41	(18.2)	
PCB-71/40	(15.3)	C
PCB-64	(10.4)	

Tetra	Conc.	Qualifiers
PCB-72	(12.8)	
PCB-68	(11.4)	
PCB-57	(13.5)	
PCB-58	(12.9)	
PCB-67	(12.2)	
PCB-63	(11.9)	
PCB-61/70/74/76	(12.6)	C
PCB-66	(13.8)	
PCB-55	(13.6)	
PCB-56	(14.2)	
PCB-60	(13.5)	
PCB-80	(11.8)	
PCB-79	(10.9)	
PCB-78	(14.5)	
PCB-81	(14.3)	
PCB-77	(12.1)	
Conc.	0	
EMPC	0	

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Totals	Conc.	EMPC
Mono-Tri	0	0
Tetra-Hexa	57.9	72.2
Hepta-Deca	0	0
Mono-Deca	57.9	72.2

Sample ID: Seep-S-9											Method 1668A
Penta	**Conc.**	**Qualifiers**	**Penta**	**Conc.**	**Qualifiers**	**Hexa**	**Conc.**	**Qualifiers**	**Hexa**	**Conc.**	**Qualifiers**
PCB-104	(21.7)		PCB-108/119/86/97/125/87	(15.2)	C	PCB-155	(16.2)		PCB-165	(12.4)	
PCB-96	(27)		PCB-117	(13.4)		PCB-152	(17)		PCB-146	(14.6)	
PCB-103	(17.1)		PCB-116/85	(16.5)	C	PCB-150	(17.3)		PCB-161	(11.1)	
PCB-94	(19.6)		PCB-110	19.5		PCB-136	(19.1)		PCB-153/168	18.9	J C
PCB-95	(17.9)		PCB-115	(13.9)		PCB-145	(18.1)		PCB-141	(15.1)	
PCB-100/93	(17.4)	C	PCB-82	(21.1)		PCB-148	(14.7)		PCB-130	(17.9)	
PCB-102	(16.8)		PCB-111	(12.4)		PCB-151/135	(15.4)	C	PCB-137	(14)	
PCB-98	(19.3)		PCB-120	(13)		PCB-154	(13.3)		PCB-164	(12.7)	
PCB-88	(18.4)		PCB-107/124	(14.1)	C	PCB-144	(14.9)		PCB-163/138/129	[14.3]	J EMPC C
PCB-91	(17.4)		PCB-109	(12.9)		PCB-147/149	(15)	C	PCB-160	(12.8)	
PCB-84	(21.6)		PCB-123	(13.8)		PCB-134	(20.9)		PCB-158	(11.1)	
PCB-89	(19.9)		PCB-106	(14.4)		PCB-143	(14.6)		PCB-128/166	(10.7)	C
PCB-121	(13.2)		PCB-118	19.5		PCB-139/140	(14.6)	C	PCB-159	(9.27)	
PCB-92	(19.4)		PCB-122	(14.2)		PCB-131	(16.8)		PCB-162	(9.52)	
PCB-113/90/101	(15.4)	C	PCB-114	(12.6)		PCB-142	(17.2)		PCB-167	(10.5)	
PCB-83	(23.4)		PCB-105	(15.3)		PCB-132	(16.6)		PCB-156/157	(15.5)	C
PCB-99	(15.8)		PCB-127	(15)		PCB-133	(15.2)		PCB-169	(14.3)	
PCB-112	(13.8)		PCB-126	(7.44)							
			Conc.	39					**Conc.**	18.9	
			EMPC	39					**EMPC**	33.2	

Hepta	**Conc.**	**Qualifiers**	**Hepta**	**Conc.**	**Qualifiers**	**Octa**	**Conc.**	**Qualifiers**	**Nona**	**Conc.**	**Qualifiers**
PCB-188	(8.05)		PCB-174	(16.5)		PCB-202	(12.5)		PCB-208	(17.6)	
PCB-179	(9.91)		PCB-177	(16.3)		PCB-201	(13.1)		PCB-207	(16.8)	
PCB-184	(10.1)		PCB-181	(14.2)		PCB-204	(13.9)		PCB-206	(30)	
PCB-176	(9.14)		PCB-171/173	(16.6)	C	PCB-197	(12.7)				
PCB-186	(9.84)		PCB-172	(15.6)		PCB-200	(13.6)		**Conc.**	0	
PCB-178	(13.6)		PCB-192	(12.2)		PCB-198/199	(18.7)	C	**EMPC**	0	
PCB-175	(14.7)		PCB-180/193	(12.8)	C	PCB-196	(18.6)				
PCB-187	(13.4)		PCB-191	(11.7)		PCB-203	(18.1)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(13.2)		PCB-170	(14.8)		PCB-195	(29.2)		PCB-209	(26.6)	
PCB-183	(13.2)		PCB-190	(10.1)		PCB-194	(27)				
PCB-185	(13.7)		PCB-189	(14.8)		PCB-205	(22.2)				
			Conc.	0		**Conc.**	0				
			EMPC	0		**EMPC**	0				

Sample ID: Seep-S-14

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.95 L	Sample ID:	B2267_15900_PCB_006-R1	Date Extracted:	30-May-2018
Date Collected:	15-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	8.14			ES PCB-1	32.6
PCB-81 344'5-TeCB	ND	6.7			ES PCB-3	42
PCB-105 233'44'-PeCB	ND	8.27			ES PCB-4	39.3
PCB-114 2344'5-PeCB	ND	7.72			ES PCB-15	54.3
PCB-118 23'44'5-PeCB	ND	7.62			ES PCB-19	38.2
PCB-123 23'44'5'-PeCB	ND	7.71			ES PCB-37	74
PCB-126 33'44'5-PeCB	ND	7.72			ES PCB-54	45.7
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	12.2		C	ES PCB-77	90.4
PCB-167 23'44'55'-HxCB	ND	9.65			ES PCB-81	86.8
PCB-169 33'44'55'-HxCB	ND	10.3			ES PCB-104	56
PCB-189 233'44'55'-HpCB	ND	8.38			ES PCB-105	89.2
					ES PCB-114	80.2
TEQs (WHO 2005 M/H)					ES PCB-118	88.2
					ES PCB-123	87.5
ND = 0	0		0		ES PCB-126	85.3
ND = 0.5 x DL	0.542		0.542		ES PCB-153	80.5
ND = DL	1.08		1.08		ES PCB-155	54.5
					ES PCB-156/157	72.7
Totals					ES PCB-167	67.8
Mono-CB	ND	8.59			ES PCB-169	64.7
Di-CB	ND	23.2			ES PCB-170	66.1
Tri-CB	ND	21			ES PCB-180	77
Tetra-CB			6		ES PCB-188	91.4
Penta-CB	20.2		28.2		ES PCB-189	74.8
Hexa-CB	8.94		37.6		ES PCB-202	85
Hepta-CB	ND	6.5			ES PCB-205	76.8
Octa-CB	ND	9.57			ES PCB-206	78.4
Nona-CB	ND	17.3			ES PCB-208	79.7
Deca-CB	ND	20.1			ES PCB-209	105
					CS PCB-28	77.7
Total PCB (Mono-Deca)	29.1		71.8		CS PCB-111	90.3
					CS PCB-178	103

Checkcode: 518-487-GSB/A SGS North America - PCB v0.82 Report Created: 12-Jun-2018 09:29 Analyst: as

Sample ID: Seep-S-14

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.95 L	Sample ID:	B2267_15900_PCB_006-R1	Date Extracted:	30-May-2018
Date Collected:	15-May-2018	pH	6	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018
		Units	pg/L	Checkcode:	518-487-GSB/A	Time Analyzed:	01:54:07

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	(9.22)		PCB-19	(31)		PCB-54	(10.7)		PCB-72	(6)	
PCB-2	(8.24)		PCB-30/18	(24.2)	C	PCB-50/53	(11.3)	C	PCB-68	(5.33)	
PCB-3	(7.96)		PCB-17	(28)		PCB-45	(12.9)		PCB-57	(6.33)	
			PCB-27	(20.9)		PCB-51	(10.9)		PCB-58	(6.03)	
Conc.	0		PCB-24	(21.1)		PCB-46	(13.8)		PCB-67	(5.74)	
EMPC	0		PCB-16	(35.5)		PCB-52	(11.5)		PCB-63	(5.58)	
			PCB-32	(19.2)		PCB-73	(8.6)		PCB-61/70/74/76	[6]	J EMPC C
Di	**Conc.**	**Qualifiers**	PCB-34	(11.8)		PCB-43	(12.9)		PCB-66	(6.48)	
PCB-4	(18.1)		PCB-23	(11.2)		PCB-69/49	(9.46)	C	PCB-55	(6.36)	
PCB-10	(12.8)		PCB-26/29	(11.2)	C	PCB-48	(11.4)		PCB-56	(6.64)	
PCB-9	(31)		PCB-25	(10.8)		PCB-44/47/65	(10.4)	C	PCB-60	(6.35)	
PCB-7	(27.3)		PCB-31	(10.3)		PCB-59/62/75	(8.1)	C	PCB-80	(5.55)	
PCB-6	(29.2)		PCB-28/20	(11.1)	C	PCB-42	(12.5)		PCB-79	(5.13)	
PCB-5	(29.1)		PCB-21/33	(10.7)	C	PCB-41	(13.5)		PCB-78	(6.82)	
PCB-8	(27.7)		PCB-22	(11.7)		PCB-71/40	(11.3)	C	PCB-81	(6.7)	
PCB-14	(24)		PCB-36	(10.9)		PCB-64	(7.7)		PCB-77	(8.14)	
PCB-11	(28.4)		PCB-39	(10.2)							
PCB-13/12	(27.4)	C	PCB-38	(11)							
PCB-15	(28.3)		PCB-35	(11.7)							
			PCB-37	(10.9)							
Conc.	0		**Conc.**	0					**Conc.**	0	
EMPC	0		**EMPC**	0					**EMPC**	6	

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Totals	Conc.	EMPC
Mono-Tri	0	0
Tetra-Hexa	29.1	71.8
Hepta-Deca	0	0
Mono-Deca	29.1	71.8

Sample ID: Seep-S-14											Method 1668A
Penta	**Conc.**	**Qualifiers**	**Penta**	**Conc.**	**Qualifiers**	**Hexa**	**Conc.**	**Qualifiers**	**Hexa**	**Conc.**	**Qualifiers**
PCB-104	(8.35)		PCB-108/119/86/97/125/87	(8.49)	C	PCB-155	(8.48)		PCB-165	(7.23)	
PCB-96	(10.4)		PCB-117	(7.5)		PCB-152	(8.88)		PCB-146	(8.49)	
PCB-103	(9.56)		PCB-116/85	(9.22)	C	PCB-150	(9.06)		PCB-161	(6.46)	
PCB-94	(11)		PCB-110	20.2		PCB-136	(10)		PCB-153/168	8.94	J C
PCB-95	(10)		PCB-115	(7.76)		PCB-145	(9.48)		PCB-141	(8.8)	
PCB-100/93	(9.74)	C	PCB-82	(11.8)		PCB-148	(8.52)		PCB-130	(10.4)	
PCB-102	(9.4)		PCB-111	(6.92)		PCB-151/135	(8.95)	C	PCB-137	(8.15)	
PCB-98	(10.8)		PCB-120	(7.27)		PCB-154	(7.7)		PCB-164	(7.36)	
PCB-88	(10.3)		PCB-107/124	(7.86)	C	PCB-144	(8.65)		PCB-163/138/129	[14.8]	J EMPC C
PCB-91	(9.74)		PCB-109	(7.22)		PCB-147/149	[13.9]	J EMPC C	PCB-160	(7.43)	
PCB-84	(12.1)		PCB-123	(7.71)		PCB-134	(12.1)		PCB-158	(6.43)	
PCB-89	(11.1)		PCB-106	(8.03)		PCB-143	(8.49)		PCB-128/166	(9.82)	C
PCB-121	(7.37)		PCB-118	(7.62)		PCB-139/140	(8.51)	C	PCB-159	(8.5)	
PCB-92	(10.8)		PCB-122	(8.67)		PCB-131	(9.79)		PCB-162	(8.73)	
PCB-113/90/101	[8.03]	J EMPC C	PCB-114	(7.72)		PCB-142	(10)		PCB-167	(9.65)	
PCB-83	(13.1)		PCB-105	(8.27)		PCB-132	(9.65)		PCB-156/157	(12.2)	C
PCB-99	(8.85)		PCB-127	(8.13)		PCB-133	(8.81)		PCB-169	(10.3)	
PCB-112	(7.74)		PCB-126	(7.72)							
			Conc.	20.2					**Conc.**	8.94	
			EMPC	28.2					**EMPC**	37.6	

Hepta	**Conc.**	**Qualifiers**	**Hepta**	**Conc.**	**Qualifiers**	**Octa**	**Conc.**	**Qualifiers**	**Nona**	**Conc.**	**Qualifiers**
PCB-188	(5.13)		PCB-174	(6.8)		PCB-202	(5.83)		PCB-208	(9.84)	
PCB-179	(6.31)		PCB-177	(6.74)		PCB-201	(6.08)		PCB-207	(9.42)	
PCB-184	(6.47)		PCB-181	(5.86)		PCB-204	(6.44)		PCB-206	(24.8)	
PCB-176	(5.82)		PCB-171/173	(6.84)	C	PCB-197	(5.92)				
PCB-186	(6.27)		PCB-172	(6.45)		PCB-200	(6.34)		**Conc.**	0	
PCB-178	(8.65)		PCB-192	(5.05)		PCB-198/199	(8.69)	C	**EMPC**	0	
PCB-175	(6.04)		PCB-180/193	(5.26)	C	PCB-196	(8.66)				
PCB-187	(5.52)		PCB-191	(4.81)		PCB-203	(8.4)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(5.44)		PCB-170	(7.63)		PCB-195	(17.5)		PCB-209	(20.1)	
PCB-183	(5.46)		PCB-190	(5.2)		PCB-194	(16.2)				
PCB-185	(5.64)		PCB-189	(8.38)		PCB-205	(13.3)				
			Conc.	0		**Conc.**	0				
			EMPC	0		**EMPC**	0				

Sample ID: Seep-S-16

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.92 L	Sample ID:	B2267_15900_PCB_007-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	7	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	13.2			ES PCB-1	30.6
PCB-81 344'5-TeCB	ND	15			ES PCB-3	38.2
PCB-105 233'44'-PeCB	36.2				ES PCB-4	35.6
PCB-114 2344'5-PeCB	ND	12.5			ES PCB-15	56.9
PCB-118 23'44'5-PeCB	138				ES PCB-19	39.6
PCB-123 23'44'5'-PeCB	ND	10.6			ES PCB-37	66.8
PCB-126 33'44'5-PeCB	ND	15.1			ES PCB-54	48.5
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	22		C	ES PCB-77	67.4
PCB-167 23'44'55'-HxCB	ND	17.2			ES PCB-81	70.3
PCB-169 33'44'55'-HxCB	ND	23			ES PCB-104	63.3
PCB-189 233'44'55'-HpCB	ND	16.2			ES PCB-105	59
					ES PCB-114	55.8
TEQs (WHO 2005 M/H)					ES PCB-118	60.7
					ES PCB-123	64.5
ND = 0	0.00523		0.00523		ES PCB-126	47
ND = 0.5 x DL	1.11		1.11		ES PCB-153	57
ND = DL	2.21		2.21		ES PCB-155	61.6
					ES PCB-156/157	35.7
Totals					ES PCB-167	36.2
Mono-CB	141				ES PCB-169	27.4
Di-CB	1,120				ES PCB-170	36.6
Tri-CB	6,500		7,610		ES PCB-180	38.6
Tetra-CB	4,580		4,660		ES PCB-188	73.1
Penta-CB	1,490		1,770		ES PCB-189	31.8
Hexa-CB	458		640		ES PCB-202	52.2
Hepta-CB	72.2		192		ES PCB-205	35.3
Octa-CB	37.3		46.3		ES PCB-206	34.4
Nona-CB	ND	35.3			ES PCB-208	40.1
Deca-CB	ND	54.6			ES PCB-209	41.1
					CS PCB-28	69.8
Total PCB (Mono-Deca)	14,400		16,200		CS PCB-111	90.3
					CS PCB-178	102

Checkcode: 542-320-BGN/A SGS North America - PCB v0.82 Report Created: 12-Jun-2018 09:30 Analyst: as

Sample ID: Seep-S-16

Method 1668A

Client Data		**Sample Data**		**Laboratory Data**			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	17-May-2018
Project ID:	Nord Door	Weight/Volume:	0.92 L	Sample ID:	B2267_15900_PCB_007-R1	Date Extracted:	30-May-2018
Date Collected:	14-May-2018	pH	7	QC Batch No.:	15900	Date Analyzed:	09-Jun-2018
		Units	pg/L	Checkcode:	542-320-BGN/A	Time Analyzed:	02:53:37

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	141		PCB-19	[1,070]	EMPC	PCB-54	84.1		PCB-72	(13.4)	
PCB-2	(11.2)		PCB-30/18	1,860	C	PCB-50/53	752	C	PCB-68	(11.9)	
PCB-3	(10.8)		PCB-17	775		PCB-45	[35.4]	EMPC	PCB-57	(14.2)	
			PCB-27	1,150		PCB-51	203		PCB-58	(13.5)	
Conc.	141		PCB-24	(26.8)		PCB-46	69.5		PCB-67	(12.8)	
EMPC	141		PCB-16	75.6		PCB-52	1,570		PCB-63	(12.5)	
			PCB-32	984		PCB-73	(12.2)		PCB-61/70/74/76	188	C
Di	**Conc.**	**Qualifiers**	PCB-34	(22)		PCB-43	(18.4)		PCB-66	120	
PCB-4	518		PCB-23	(20.9)		PCB-69/49	639	C	PCB-55	(14.2)	
PCB-10	(27.4)		PCB-26/29	845	C	PCB-48	(16.1)		PCB-56	[23.6]	EMPC
PCB-9	(31.1)		PCB-25	417		PCB-44/47/65	482	C	PCB-60	(14.2)	
PCB-7	19.1		PCB-31	206		PCB-59/62/75	[23.3]	J EMPC C	PCB-80	(12.4)	
PCB-6	396		PCB-28/20	162	C	PCB-42	74.7		PCB-79	(11.5)	
PCB-5	(29.1)		PCB-21/33	[38.4]	EMPC C	PCB-41	(19.1)		PCB-78	(15.2)	
PCB-8	139		PCB-22	19.6		PCB-71/40	310	C	PCB-81	(15)	
PCB-14	(24.1)		PCB-36	(20.3)		PCB-64	81.7		PCB-77	(13.2)	
PCB-11	50.4		PCB-39	(19.1)							
PCB-13/12	(27.5)	C	PCB-38	(20.5)							
PCB-15	(28.4)		PCB-35	(21.8)							
			PCB-37	(20.3)							
Conc.	1,120		**Conc.**	6,500					**Conc.**	4,580	
EMPC	1,120		**EMPC**	7,610					**EMPC**	4,660	

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Totals	Conc.	EMPC
Mono-Tri	7,760	8,870
Tetra-Hexa	6,520	7,070
Hepta-Deca	109	239
Mono-Deca	14,400	16,200

Sample ID: Seep-S-16 — Method 1668A

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(8.56)		PCB-108/119/86/97/125/87	[116]	EMPC C	PCB-155	(7.43)		PCB-165	(8.38)	
PCB-96	(10.6)		PCB-117	(10.3)		PCB-152	(7.78)		PCB-146	[31.1]	EMPC
PCB-103	17.1		PCB-116/85	30.6	C	PCB-150	(7.94)		PCB-161	(7.5)	
PCB-94	(15.2)		PCB-110	333		PCB-136	29.5		PCB-153/168	146	C
PCB-95	413		PCB-115	(10.7)		PCB-145	(8.31)		PCB-141	19.2	
PCB-100/93	(13.4)	C	PCB-82	[16.7]	EMPC	PCB-148	(9.88)		PCB-130	(12)	
PCB-102	(13)		PCB-111	(9.56)		PCB-151/135	66.2	C	PCB-137	(9.46)	
PCB-98	(14.9)		PCB-120	(10)		PCB-154	(8.93)		PCB-164	(8.54)	
PCB-88	(14.2)		PCB-107/124	(10.8)	C	PCB-144	(10)		PCB-163/138/129	136	C
PCB-91	[46.6]	EMPC	PCB-109	(9.96)		PCB-147/149	[135]	EMPC C	PCB-160	(8.62)	
PCB-84	[103]	EMPC	PCB-123	(10.6)		PCB-134	(14.1)		PCB-158	(7.46)	
PCB-89	(15.4)		PCB-106	(11.1)		PCB-143	(9.85)		PCB-128/166	[16.2]	J EMPC C
PCB-121	(10.2)		PCB-118	138		PCB-139/140	(9.87)	C	PCB-159	(15.2)	
PCB-92	82.8		PCB-122	(14.1)		PCB-131	(11.4)		PCB-162	(15.6)	
PCB-113/90/101	296	C	PCB-114	(12.5)		PCB-142	(11.6)		PCB-167	(17.2)	
PCB-83	(18)		PCB-105	36.2		PCB-132	61.6		PCB-156/157	(22)	C
PCB-99	139		PCB-127	(13.1)		PCB-133	(10.2)		PCB-169	(23)	
PCB-112	(10.7)		PCB-126	(15.1)							
			Conc.	1,490					**Conc.**	458	
			EMPC	1,770					**EMPC**	640	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(6.85)		PCB-174	[25.2]	EMPC	PCB-202	[9.06]	J EMPC	PCB-208	(24.3)	
PCB-179	[23.6]	EMPC	PCB-177	(17.1)		PCB-201	(7.7)		PCB-207	(23.3)	
PCB-184	(8.63)		PCB-181	(14.9)		PCB-204	(8.15)		PCB-206	(46.3)	
PCB-176	(7.78)		PCB-171/173	(17.4)	C	PCB-197	(7.49)				
PCB-186	(8.37)		PCB-172	(16.4)		PCB-200	(8.02)		**Conc.**	0	
PCB-178	(11.5)		PCB-192	(12.8)		PCB-198/199	26.3	C	**EMPC**	0	
PCB-175	(15.4)		PCB-180/193	[71.2]	EMPC C	PCB-196	11				
PCB-187	72.2		PCB-191	(12.2)		PCB-203	(10.6)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(13.8)		PCB-170	(14.4)		PCB-195	(41.8)		PCB-209	(54.6)	
PCB-183	(13.9)		PCB-190	(9.81)		PCB-194	(38.6)				
PCB-185	(14.3)		PCB-189	(16.2)		PCB-205	(31.7)				
			Conc.	72.2		**Conc.**	37.3				
			EMPC	192		**EMPC**	46.3				

Sample ID: Method Blank B2267_15900

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	n/a
Project ID:	Nord Door	Weight/Volume:	2.00 L	Sample ID:	MB1_15900_PCB_TLX	Date Extracted:	30-May-2018
Date Collected:	n/a	pH	n/a	QC Batch No.:	15900	Date Analyzed:	08-Jun-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	4.79			ES PCB-1	64.6
PCB-81 344'5-TeCB	ND	5.07			ES PCB-3	71.1
PCB-105 233'44'-PeCB	ND	6.07			ES PCB-4	74.4
PCB-114 2344'5-PeCB	ND	6.53			ES PCB-15	86.4
PCB-118 23'44'5-PeCB	ND	6.97			ES PCB-19	77
PCB-123 23'44'5'-PeCB	ND	5.48			ES PCB-37	86
PCB-126 33'44'5-PeCB	ND	5.5			ES PCB-54	80.9
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	7.7		C	ES PCB-77	102
PCB-167 23'44'55'-HxCB	ND	5.85			ES PCB-81	94.1
PCB-169 33'44'55'-HxCB	ND	7.33			ES PCB-104	84.6
PCB-189 233'44'55'-HpCB	ND	3.98			ES PCB-105	99.5
					ES PCB-114	85.1
TEQs (WHO 2005 M/H)					ES PCB-118	99
					ES PCB-123	100
ND = 0	0		0		ES PCB-126	99
ND = 0.5 x DL	0.386		0.386		ES PCB-153	83.4
ND = DL	0.773		0.773		ES PCB-155	76.4
					ES PCB-156/157	85.7
Totals					ES PCB-167	84.1
Mono-CB	ND	4			ES PCB-169	76.4
Di-CB	ND	10.6			ES PCB-170	76.9
Tri-CB	ND	9.54			ES PCB-180	80.5
Tetra-CB	ND	5.53			ES PCB-188	97.1
Penta-CB	ND	5.92			ES PCB-189	89.7
Hexa-CB	ND	6.6			ES PCB-202	107
Hepta-CB	ND	5.4			ES PCB-205	96.3
Octa-CB	ND	6.09			ES PCB-206	99.1
Nona-CB	ND	10.3			ES PCB-208	85.8
Deca-CB	ND	9.51			ES PCB-209	121
					CS PCB-28	54.8
Total PCB (Mono-Deca)	0		0		CS PCB-111	73.6
					CS PCB-178	87.5

Checkcode: 845-611-WMD/A SGS North America - PCB v0.82 Report Created: 12-Jun-2018 09:22 Analyst: as

Sample ID: Method Blank B2267_15900

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2267	Date Received:	n/a
Project ID:	Nord Door	Weight/Volume:	2.00 L	Sample ID:	MB1_15900_PCB_TLX	Date Extracted:	30-May-2018
Date Collected:	n/a	pH	n/a	QC Batch No.:	15900	Date Analyzed:	08-Jun-2018
		Units	pg/L	Checkcode:	845-611-WMD/A	Time Analyzed:	22:55:34

Mono	Conc.	Qualifiers	Tri	Conc.	Qualifiers	Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-1	(3.98)		PCB-19	(12.1)		PCB-54	(6.15)		PCB-72	(4.54)	
PCB-2	(4.16)		PCB-30/18	(9.42)	C	PCB-50/53	(5.77)	C	PCB-68	(4.03)	
PCB-3	(4.02)		PCB-17	(10.9)		PCB-45	(6.63)		PCB-57	(4.79)	
			PCB-27	(8.13)		PCB-51	(5.58)		PCB-58	(4.57)	
Conc.	0		PCB-24	(8.23)		PCB-46	(7.07)		PCB-67	(4.34)	
EMPC	0		PCB-16	(13.8)		PCB-52	(5.88)		PCB-63	(4.23)	
			PCB-32	(7.47)		PCB-73	(4.41)		PCB-61/70/74/76	(4.48)	C
Di	**Conc.**	**Qualifiers**	PCB-34	(7.58)		PCB-43	(6.64)		PCB-66	(4.9)	
PCB-4	(8.47)		PCB-23	(7.21)		PCB-69/49	(4.85)	C	PCB-55	(4.81)	
PCB-10	(5.97)		PCB-26/29	(7.22)	C	PCB-48	(5.83)		PCB-56	(5.03)	
PCB-9	(13.9)		PCB-25	(6.93)		PCB-44/47/65	(5.33)	C	PCB-60	(4.81)	
PCB-7	(12.2)		PCB-31	(6.62)		PCB-59/62/75	(4.15)	C	PCB-80	(4.21)	
PCB-6	(13.1)		PCB-28/20	(7.12)	C	PCB-42	(6.4)		PCB-79	(3.88)	
PCB-5	(13)		PCB-21/33	(6.86)	C	PCB-41	(6.92)		PCB-78	(5.16)	
PCB-8	(12.4)		PCB-22	(7.51)		PCB-71/40	(5.8)	C	PCB-81	(5.07)	
PCB-14	(10.8)		PCB-36	(6.99)		PCB-64	(3.95)		PCB-77	(4.79)	
PCB-11	(12.7)		PCB-39	(6.58)							
PCB-13/12	(12.3)	C	PCB-38	(7.07)							
PCB-15	(12.7)		PCB-35	(7.52)							
			PCB-37	(6.99)							
Conc.	0		**Conc.**	0					**Conc.**	0	
EMPC	0		**EMPC**	0					**EMPC**	0	

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Totals	Conc.	EMPC
Mono-Tri	0	0
Tetra-Hexa	0	0
Hepta-Deca	0	0
Mono-Deca	0	0

Sample ID: Method Blank B2267_15900 — Method 1668A

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(5)		PCB-108/119/86/97/125/87	(6.04)	C	PCB-155	(5.52)		PCB-165	(6.51)	
PCB-96	(6.22)		PCB-117	(5.33)		PCB-152	(5.78)		PCB-146	(7.64)	
PCB-103	(6.79)		PCB-116/85	(6.55)	C	PCB-150	(5.9)		PCB-161	(5.82)	
PCB-94	(7.81)		PCB-110	(5.43)		PCB-136	(6.52)		PCB-153/168	(6.06)	C
PCB-95	(7.13)		PCB-115	(5.51)		PCB-145	(6.18)		PCB-141	(7.93)	
PCB-100/93	(6.92)	C	PCB-82	(8.4)		PCB-148	(7.67)		PCB-130	(9.35)	
PCB-102	(6.68)		PCB-111	(4.92)		PCB-151/135	(8.06)	C	PCB-137	(7.34)	
PCB-98	(7.67)		PCB-120	(5.17)		PCB-154	(6.94)		PCB-164	(6.63)	
PCB-88	(7.31)		PCB-107/124	(5.59)	C	PCB-144	(7.79)		PCB-163/138/129	(7.62)	C
PCB-91	(6.92)		PCB-109	(5.13)		PCB-147/149	(7.86)	C	PCB-160	(6.69)	
PCB-84	(8.58)		PCB-123	(5.48)		PCB-134	(10.9)		PCB-158	(5.79)	
PCB-89	(7.92)		PCB-106	(5.71)		PCB-143	(7.65)		PCB-128/166	(5.96)	C
PCB-121	(5.24)		PCB-118	(6.97)		PCB-139/140	(7.66)	C	PCB-159	(5.16)	
PCB-92	(7.7)		PCB-122	(7.34)		PCB-131	(8.82)		PCB-162	(5.3)	
PCB-113/90/101	(6.13)	C	PCB-114	(6.53)		PCB-142	(9.01)		PCB-167	(5.85)	
PCB-83	(9.29)		PCB-105	(6.07)		PCB-132	(8.69)		PCB-156/157	(7.7)	C
PCB-99	(6.29)		PCB-127	(5.97)		PCB-133	(7.94)		PCB-169	(7.33)	
PCB-112	(5.5)		PCB-126	(5.5)							
			Conc.	0					**Conc.**	0	
			EMPC	0					**EMPC**	0	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(4.45)		PCB-174	(7.17)		PCB-202	(3.97)		PCB-208	(7.47)	
PCB-179	(5.47)		PCB-177	(7.11)		PCB-201	(4.14)		PCB-207	(7.15)	
PCB-184	(5.6)		PCB-181	(6.18)		PCB-204	(4.38)		PCB-206	(13.1)	
PCB-176	(5.05)		PCB-171/173	(7.21)	C	PCB-197	(4.03)				
PCB-186	(5.43)		PCB-172	(6.8)		PCB-200	(4.31)		**Conc.**	0	
PCB-178	(7.5)		PCB-192	(5.32)		PCB-198/199	(5.91)	C	**EMPC**	0	
PCB-175	(6.37)		PCB-180/193	(5.55)	C	PCB-196	(5.89)				
PCB-187	(5.83)		PCB-191	(5.08)		PCB-203	(5.71)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(5.74)		PCB-170	(8.27)		PCB-195	(10.8)		PCB-209	(9.51)	
PCB-183	(5.75)		PCB-190	(5.64)		PCB-194	(10)				
PCB-185	(5.95)		PCB-189	(3.98)		PCB-205	(8.21)				
			Conc.	0		**Conc.**	0				
			EMPC	0		**EMPC**	0				

METHOD 1668A **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name: SGS North America
Initial Calibration: ICAL: MM7_PCB_06072017_03MAR2018
Instrument ID: MM7 GC Column ID:
VER Data Filename: 180608X16 Analysis Date: 08-JUN-2018 21:56:03
Lab ID: OPR1_15900_PCB

NATIVE ANALYTES	SPIKE CONC. (pg/uL)	RECOVERY (%)	RANGE (%)			OK
PCB-1 2-MoCB	50	115	50	-	150	Y
PCB-3 4-MoCB	50	113	50	-	150	Y
PCB-4 22'-DiCB	50	97	50	-	150	Y
PCB-15 44'-DiCB	50	119	50	-	150	Y
PCB-19 22'6-TrCB	50	106	50	-	150	Y
PCB-37 344'-TrCB	50	112	50	-	150	Y
PCB-54 22'66'-TeCB	50	91.9	50	-	150	Y
PCB-77 33'44'-TeCB	50	119	50	-	150	Y
PCB-81 344'5-TeCB	50	118	50	-	150	Y
PCB-104 22'466'-PeCB	50	95.9	50	-	150	Y
PCB-105 233'44'-PeCB	50	114	50	-	150	Y
PCB-114 2344'5-PeCB	50	121	50	-	150	Y
PCB-118 23'44'5-PeCB	50	114	50	-	150	Y
PCB-123 23'44'5'-PeCB	50	116	50	-	150	Y
PCB-126 33'44'5-PeCB	50	140	50	-	150	Y
PCB-155 22'44'66'-HxCB	50	119	50	-	150	Y
PCB-156/157 ...-HxCB	100	121	50	-	150	Y
PCB-167 23'44'55'-HxCB	50	136	50	-	150	Y
PCB-169 33'44'55'-HxCB	50	122	50	-	150	Y
PCB-188 22'34'566'-HpCB	50	98.4	50	-	150	Y
PCB-189 233'44'55'-HpCB	50	114	50	-	150	Y
PCB-202 22'33'55'66'-OcCB	50	91.8	50	-	150	Y
PCB-205 233'44'55'6-OcCB	50	113	50	-	150	Y
PCB-206 22'33'44'55'6-NoCB	50	107	50	-	150	Y
PCB-208 22'33'455'66'-NoCB	50	113	50	-	150	Y
PCB-209 DeCB	50	108	50	-	150	Y

Contract-required recovery limits for OPR as specified in Table 6,
Method 1668A.

Processed: 12 Jun 2018 09:21 Analyst: as

METHOD 1668A **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS North America
Initial Calibration: ICAL: MM7_PCB_06072017_03MAR2018
Instrument ID: MM7 GC Column ID:
VER Data Filename: 180608X16 Analysis Date: 08-JUN-2018 21:56:03
Lab ID: OPR1_15900_PCB

LABELED STANDARDS	SPIKE CONC. (pg/uL)	RECOVERY (%)	RANGE (%)			OK
ES PCB-1	100	63.1	15	-	140	Y
ES PCB-3	100	75	15	-	140	Y
ES PCB-4	100	79.8	30	-	140	Y
ES PCB-15	100	107	30	-	140	Y
ES PCB-19	100	94.6	30	-	140	Y
ES PCB-37	100	103	30	-	140	Y
ES PCB-54	100	97.9	30	-	140	Y
ES PCB-77	100	125	30	-	140	Y
ES PCB-81	100	120	30	-	140	Y
ES PCB-104	100	118	30	-	140	Y
ES PCB-105	100	121	30	-	140	Y
ES PCB-114	100	110	30	-	140	Y
ES PCB-118	100	121	30	-	140	Y
ES PCB-123	100	111	30	-	140	Y
ES PCB-126	100	113	30	-	140	Y
ES PCB-153	100	97	30	-	140	Y
ES PCB-155	100	81.4	30	-	140	Y
ES PCB-156/157	200	85	30	-	140	Y
ES PCB-167	100	77.1	30	-	140	Y
ES PCB-169	100	86.9	30	-	140	Y
ES PCB-170	100	90.6	30	-	140	Y
ES PCB-180	100	96.8	30	-	140	Y
ES PCB-188	100	117	30	-	140	Y
ES PCB-189	100	100	30	-	140	Y
ES PCB-202	100	112	30	-	140	Y
ES PCB-205	100	107	30	-	140	Y
ES PCB-206	100	107	30	-	140	Y
ES PCB-208	100	103	30	-	140	Y
ES PCB-209	100	130	30	-	140	Y
CLEANUP STANDARDS						
CS PCB-28	100	86.5	40	-	125	Y
CS PCB-111	100	102	40	-	125	Y
CS PCB-178	100	115	40	-	125	Y

Processed: 12 Jun 2018 09:21 Analyst: as

Sample Receipt Notification

5500 Business Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	*17-May-18 at 09:56*
AP Project name:	*B2267*
Requested TAT:	*21 days*
Projected due date:	*7-Jun-18*
Matrix:	*Aqueous*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Chris Kramer*
Company:	*SLR International Corp*
Project Name & Site:	*Nord Door*
Project PO#:	*108.00228.00048*
QAAP/Contract #:	*N/A*
Requested Analysis:	*Method 8290A & 1668A*
Phone#:	*503-723-4423*
Email Address:	*ckramer@slrconsulting.com*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
Seep-N-2	B2267_001	Water - D/F	2	1-Liter Amber	15-May-18	14:08	1.1	1	7810 0249 2100
Seep-N-14	B2267_002	Water - D/F	2	1-Liter Amber	15-May-18	13:21	1.1	1	7810 0249 2100
Seep-N-18	B2267_003	Water - D/F	2	1-Liter Amber	15-May-18	12:55	1.1, 0.4	1, 2	7810 0249 2100,7810 0249 2111,
Seep-S-1	B2267_004	Water - D/F & PCB	2	1-Liter Amber	14-May-18	14:55	1.1, 0.4	1, 2	7810 0249 2100,7810 0249 2111,
Seep-S-9	B2267_005	Water - PCB	2	1-Liter Amber	14-May-18	12:48	1.1, 0.4	1, 2	7810 0249 2100,7810 0249 2111,
Seep-S-14	B2267_006	Water - D/F & PCB	2	1-Liter Amber	15-May-18	12:14	0.4	2	7810 0249 2111
Seep-S-16	B2267_007	Water - D/F & PCB	2	1-Liter Amber	14-May-18	13:42	0.4	2	7810 0249 2111
Duplicate-0518	B2267_008	Water - HOLD	2	1-Liter Amber	14-May-18	14:12	0.4	2	7810 0249 2111
Field-0518	B2267_009	Water - HOLD	2	1-Liter Amber	15-May-18	14:35	1.1	1	7810 0249 2100

Preservation Type: **Sample Seals:** No

Notes/Comments:

Samples received intact.

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: Ashley Owens *Logged in by: Ashley Owens* *QC'ed by:* AK 17 May 18

B2267

SGS CHAIN OF CUSTODY

PROJECT INFO
PROJECT: Nord Door
P.O. #: 108.00228.00048
QUOTE #:
SITE REF:
TURN AROUND TIME: Standard
REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV
SPECIAL DELIVERABLES:
☐ DoD ☐ EDD/Version:
☐ State of Origin:

SPECIAL INSTRUCTIONS / COMMENTS
> Hold Duplicate-0518 and Field-0518

SEND DOCUMENTATION / RESULTS TO
COMPANY: SLR
CONTACT: Chris Kramer
ADDRESS: 1500 Blankenship Rd, Ste 440 West Linn, OR 97068
PHONE: 503-723-4423 EMAIL: ckramer@slrconsulting.com
smiller@slrconsulting.com

INVOICE TO (☒ CHECK IF SAME)
COMPANY:
CONTACT:
ADDRESS:
PHONE: EMAIL:

	SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE	ANALYSIS & METHOD: Dioxins/Furans	ANALYSIS & METHOD: PCB Congeners	MS MSD	MS/ DUP	REMARKS
001	Seep-N-2	5/15/18	1408	2	water		X				
002	Seep-N-14	5/15/18	1321				X				
003	Seep-N-18	5/15/18	1255				X				
004	Seep-S-1	5/14/18	1455				X	X			
005	Seep-S-9	5/14/18	1248					X			
006	Seep-S-14	5/15/18	1214				X	X			
007	Seep-S-16	5/14/18	1342				X	X			
008	Duplicate-0518	5/14/18	1412				X	X			
009	Field-0518	5/15/18	1435				X	X			

	DATE:	TIME:	RECEIVED BY:
COLLECTED/RELINQUISHED BY (1):	5/16/18	1300	
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:

RECEIVED BY LABORATORY: DATE: TIME:
Ashley Orcutt 5/17/18 9:56
COOLER SEAL: ☒ INTACT ☐ BROKEN ☐ ABSENT
CONTAINER SEALS: ☐ INTACT ☐ BROKEN ☒ ABSENT
CARRIER: FedEx TEMP: °C 1.1° / 0.4°
TRACKING #: 7810 0249 2100
7810 0249 2111

SGS NORTH AMERICA INC | ENVIRONMENT, HEALTH & SAFETY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 866 846 8290 www.us.sgs.com/environment
Member of the SGS Group (SGS SA)

FINAL LAB REPORT

Nord Door

B2413

24-Jul-2018

Prepared by

SGS NORTH AMERICA

Prepared for

SLR International Corp

Chris Kramer

1800 Blankenship Rd, Ste 440
West Linn, OR 47068
Phone: 503-723-4423
Email: ckramer@slrconsulting.com

This report is approved by

Digitally signed by Amy J. Boehm
DN: CN=Amy J. Boehm, O="", OU=SGS, E=amy.boehm@sgs.com, C=US
Reason: I am approving this document
Location:
Date: 2018-07-24 14:09:43

Amy Boehm

Senior Project Manager

PROJECT INFORMATION SUMMARY *(When applicable, see QC Annotations for details)*

Client Project	Nord Door
SGS Project #	B2413
Analytical Protocol(s)	1668A
No. Samples Submitted	1
Additional QC Sample(s)	0
No. Laboratory Method Blanks	1
No. OPRs / Batch CS3	1
Date Received	17-May-18
Condition Received	Good
Temperature upon Receipt (ºC)	0.4
Extraction within Holding Time	Yes
Analysis within Holding Time	Yes

QC ANNOTATIONS:

1. Please see Appendices attached for data qualifier/attribute and lab identifier descriptions which may be contained in the project.

2. Sample Duplicate-0518 was originally received in project B2267 and put on HOLD. The sample was taken off HOLD and initiated for analysis on 3-July-2018. Per client request, the sample was filtered through an 0.45 um filter prior to extraction.

APPENDIX A: GENERAL DATA QUALIFIERS / DATA ATTRIBUTES

B	The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
C	Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
E	The reported concentration exceeds the calibration range (upper point of the calibration curve) and is an estimated value.
EMPC	Represents an Estimated Maximum Possible Concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
H/h	If the standard recovery is below the method or SOP specified value “H” is assigned. If the obtained value is less than half the specified value “h” is assigned.
J	Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.
ND	Indicates a non-detect.
NR or R	Indicates a value that is not reportable.
PR	Due to interference, the associated congener is poorly resolved.
QI	Indicates the presence of a quantitative interference.
SI	Denotes “Single Ion Mode” and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
U	The analyte was not detected. The estimated detection limit (EDL) may be reported for this analyte.
V	The labeled standard recovery was found to be outside of the method control limits.

APPENDIX B: DRBC/TMDL SPECIFIC DATA QUALIFIERS / DATA ATTRIBUTES

J	The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL).
U	The analyte was not detected in the sample at the estimated detection limit (EDL).
E	The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).
D	Dilution Data. Result was obtained from the analysis of a dilution.
B	Analyte found in the sample and associated method blank.
C	Co-eluting congener
Cxx	Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'Xx' denotes the IUPAC number with the lowest numerical designated congener.
NR	Analyte is not reportable because of problems in sample preparation or analysis.
V	Labeled standard recovery is not within method control limits.
X	Results from re-injection/repeat/second-column analysis.
EMPC	Estimated maximum possible concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

APPENDIX C: LAB IDENTIFIERS

AR	Indicates use of the archived portion of the sample extract.
CU	Indicates a sample that required additional clean-up prior to MS injection/processing.
D	Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
DE	Indicates a dilution performed with the addition of ES (extraction standard) solution.
DUP	Designation for a duplicate sample.
MS	Designation for a matrix spike.
MSD	Designation for a matrix spike duplicate.
RJ	Indicates a reinjection of the sample extract.
S	Indicates a sample split. The number that follows the "S" indicates the split factor.

SGS CERTIFICATIONS

Arkansas	88-0682
California (ELAP)	ELAP Cert #2914
CLIA	34D1013708
Connecticut	PH-0258
USDA Soil Permit	P330-17-00055
American Association for Laboratory Accreditation (A2LA)	2726.01 (ISO 17025:2005, 2009 TNI, DoD ELAP QSM 5.0)
Florida DOH	E87634
Louisiana DEQ	4115
Louisiana DOH	LA180027
Maine	2016028
Massachusetts	M-NC919
Minnesota (Primary NELAP For Method 23)	1179213
Mississippi	Reciprocity
Nebraska	NE-OS-33-17
New Hampshire	208317 & 208517
New Jersey	NC100
New York	11685
North Carolina DEQ	481
North Dakota	R-197
Oregon	NC200002
Pennsylvania	68-03675
South Carolina	99029002
Texas	T104704260
US Coast Guard	16714/159.317/SGS
Virginia	9502
Washington	C913
West Virginia	293

Rev. 13-Mar-2018

PCB Report — Method 1668A

Analyte	Method Blank B2413_16007	Duplicate-0518
	pg/L	pg/L
PCB-77	(2)	(4.4)
PCB-81	(1.99)	(4.56)
PCB-105	(0.768)	185
PCB-114	(0.761)	[9.3]
PCB-118	0.99	482
PCB-123	(0.785)	[6.74]
PCB-126	(0.539)	(1.7)
PCB-156/157	(0.67)	127
PCB-167	(0.448)	[31.8]
PCB-169	(0.479)	(2.08)
PCB-189	(0.526)	[3.51]
Total Mono-CB	[5.4]	101
Total Di-CB	(3.04)	866
Total Tri-CB	[1.52]	5,840
Total Tetra-CB	(1.49)	3,410
Total Penta-CB	0.99	2,540
Total Hexa-CB	2.44	2,410
Total Hepta-CB	(0.492)	575
Total Octa-CB	(0.331)	115
Total Nona-CB	(3.85)	[27.7]
Total Deca-CB	(0.372)	5.05
TEQs (WHO 2005 M/H)		
ND = 0; EMPC = 0	0.0000297	0.0238
ND = 0; EMPC = EMPC	0.0000297	0.0254
ND = DL/2; EMPC = 0	0.0346	0.141
ND = DL/2; EMPC = EMPC	0.0346	0.142
ND = DL; EMPC = 0	0.0692	0.258
ND = DL; EMPC = EMPC	0.0692	0.259

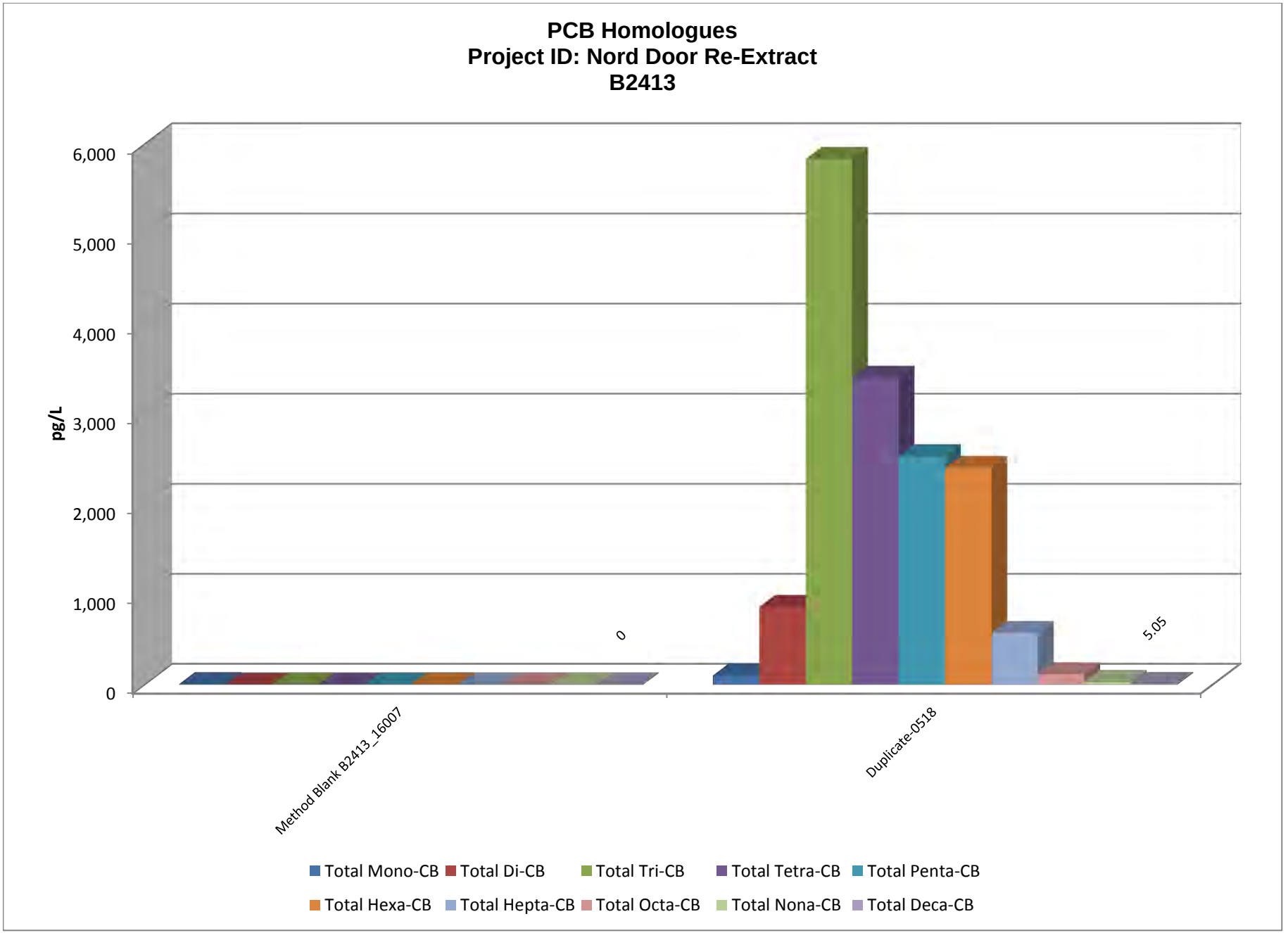
Checkcode 620-854-FQD/A 749-648-HZY/A

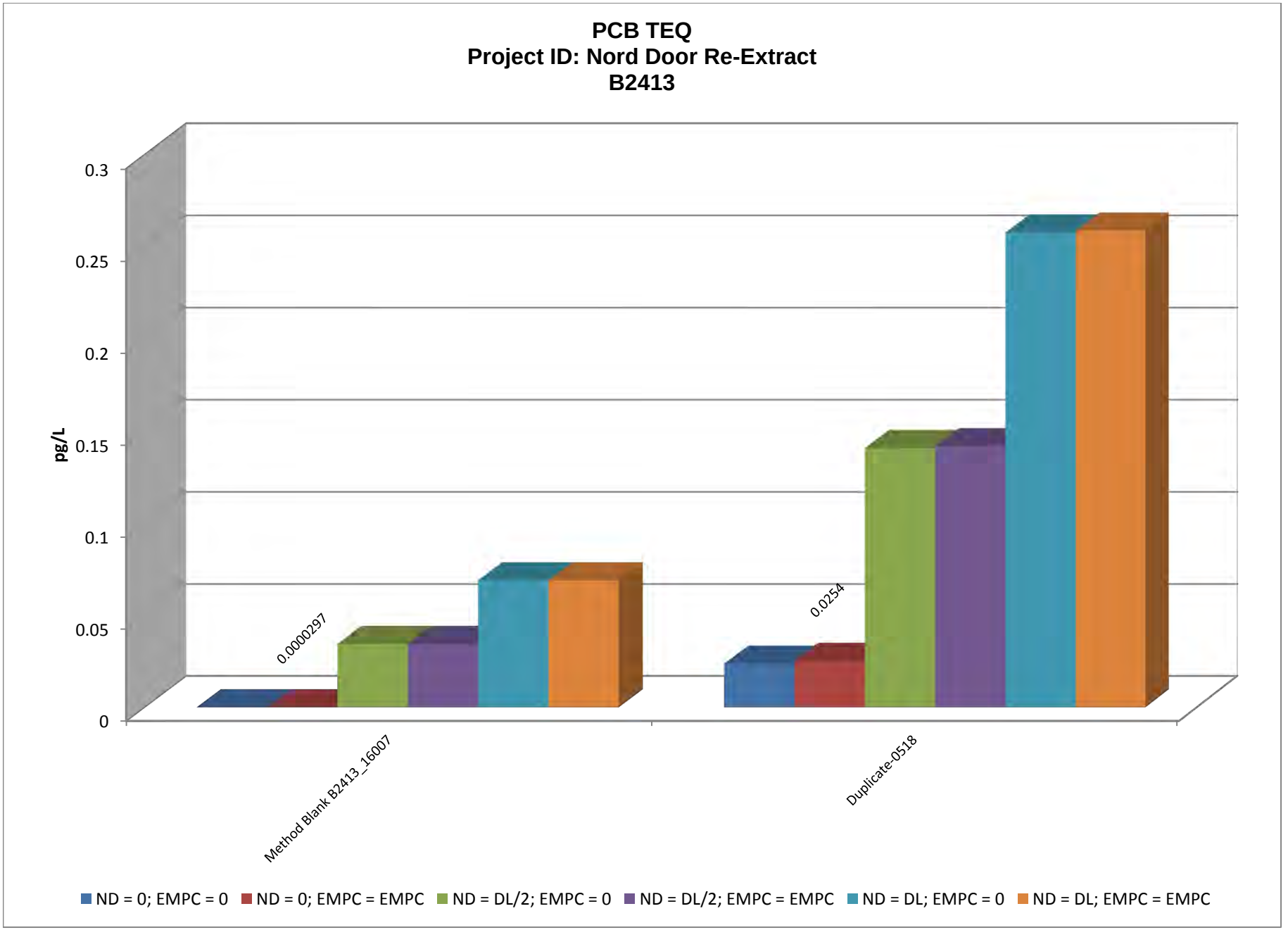
() = DL
[] = EMPC

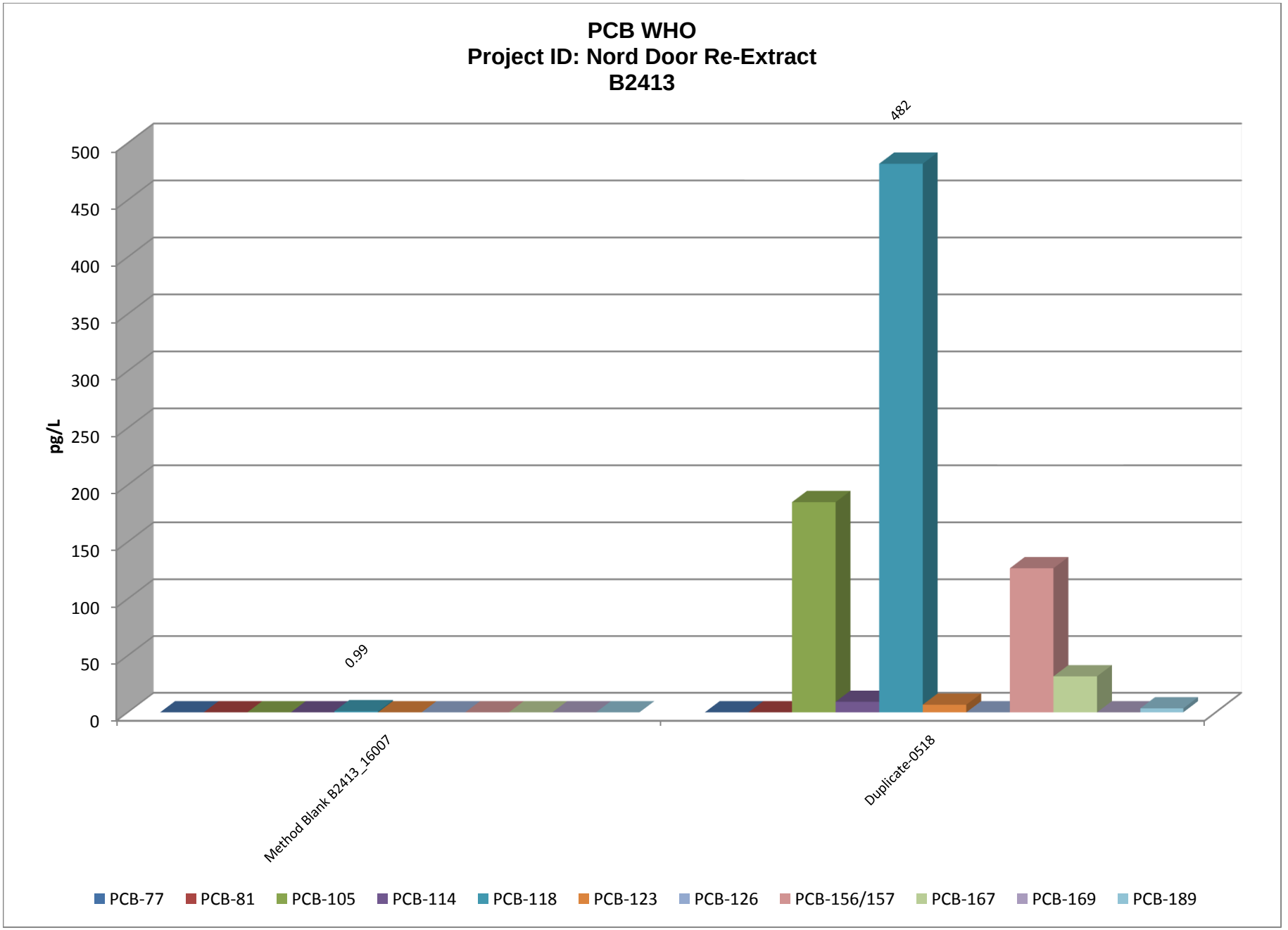
PCB Recoveries — Method 1668A

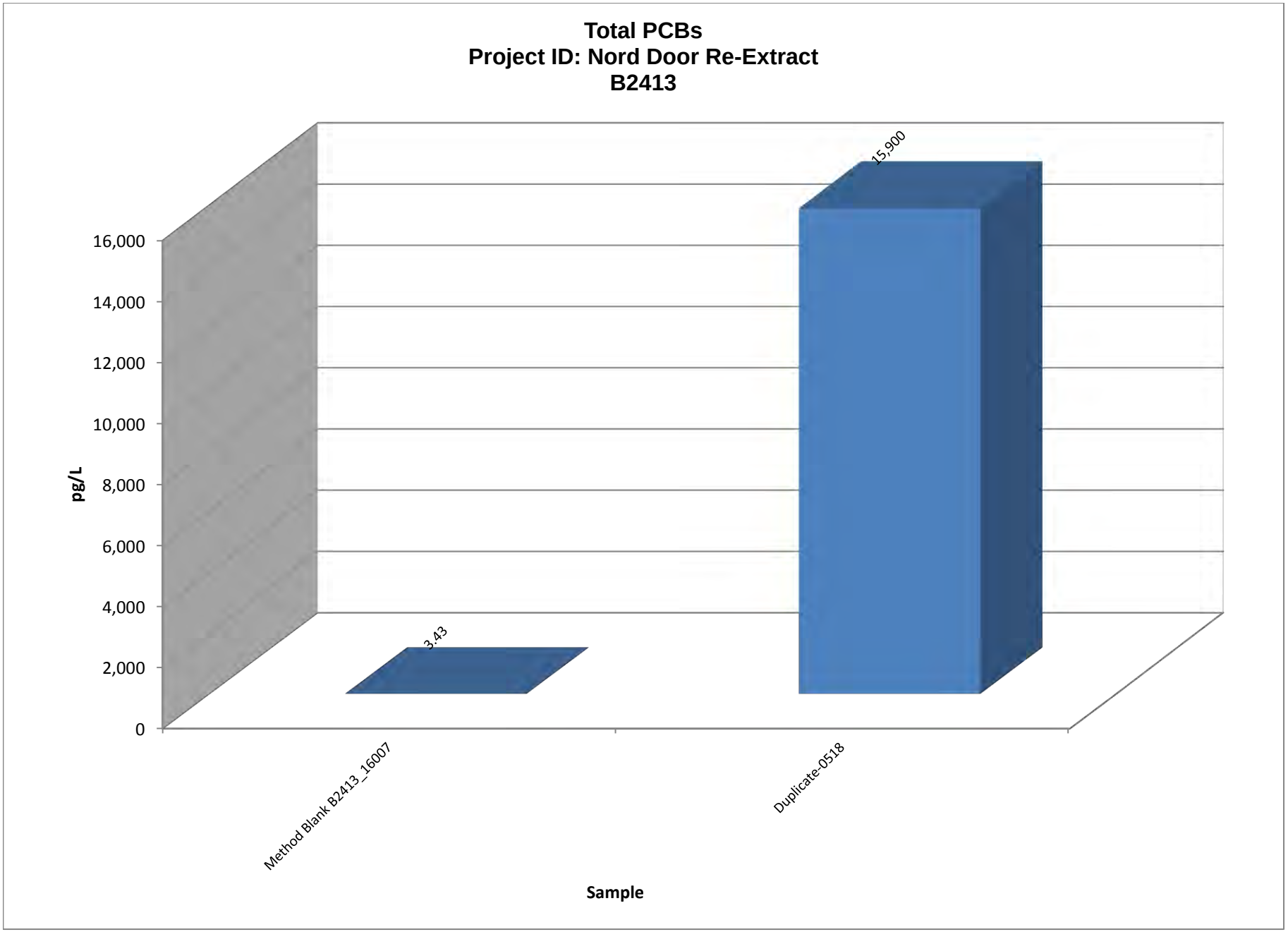
Standard	Method Blank B2413_16007	Duplicate-0518
ES PCB-1	98.9	65.1
ES PCB-3	97.1	69.2
ES PCB-4	119	84.2
ES PCB-15	90.5	89.5
ES PCB-19	120	89.9
ES PCB-39	73.4	80.3
ES PCB-54	91.3	79.3
ES PCB-77	101	101
ES PCB-81	99.5	101
ES PCB-104	109	88.2
ES PCB-105	128	118
ES PCB-114	120	115
ES PCB-118	122	115
ES PCB-123	127	116
ES PCB-126	117	111
ES PCB-153	95.5	96.8
ES PCB-155	83.1	75.3
ES PCB-156/157	95.6	88.6
ES PCB-167	94.4	86.8
ES PCB-169	100	80.8
ES PCB-170	102	97.6
ES PCB-180	104	101
ES PCB-188	93.6	90.3
ES PCB-189	93.9	76.5
ES PCB-202	99.5	91.8
ES PCB-205	104	72.8
ES PCB-206	102	69.7
ES PCB-208	103	89.2
ES PCB-209	103	63.9

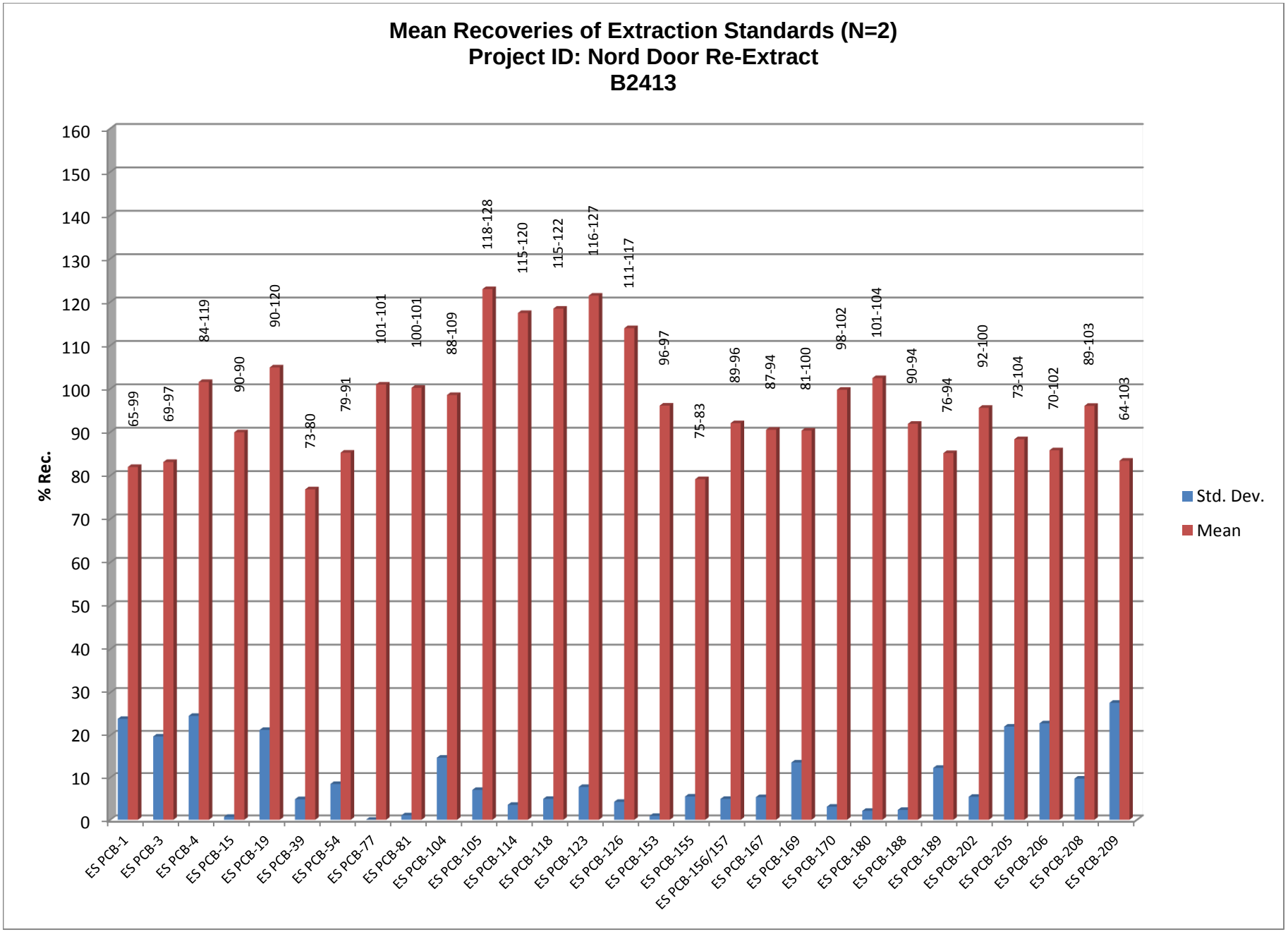
Checkcode 620-854-FQD/A 749-648-HZY/A


PCB Homologues
Project ID: Nord Door Re-Extract
B2413
pg/L
6,000
5,000
4,000
3,000
2,000
1,000
0
0
5.05
Method Blank B2413_16007
Duplicate-0518
Total Mono-CB
Total Di-CB
Total Tri-CB
Total Tetra-CB
Total Penta-CB
Total Hexa-CB
Total Hepta-CB
Total Octa-CB
Total Nona-CB
Total Deca-CB


PCB TEQ
Project ID: Nord Door Re-Extract
B2413
pg/L
0.3
0.25
0.2
0.15
0.1
0.05
0
0.0000297
0.0254
Method Blank B2413_16007
Duplicate-0518
ND = 0; EMPC = 0
ND = 0; EMPC = EMPC
ND = DL/2; EMPC = 0
ND = DL/2; EMPC = EMPC
ND = DL; EMPC = 0
ND = DL; EMPC = EMPC


PCB WHO
Project ID: Nord Door Re-Extract
B2413
pg/L
500
450
400
350
300
250
200
150
100
50
0
0.99
482
Method Blank B2413_16007
Duplicate-0518
PCB-77
PCB-81
PCB-105
PCB-114
PCB-118
PCB-123
PCB-126
PCB-156/157
PCB-167
PCB-169
PCB-189


Total PCBs
Project ID: Nord Door Re-Extract
B2413
pg/L
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
3.43
15,900
Method Blank B2413_16007
Duplicate-0518
Sample


Mean Recoveries of Extraction Standards (N=2)
Project ID: Nord Door Re-Extract
B2413
% Rec.
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
65-99
69-97
84-119
90-90
90-120
73-80
79-91
101-101
100-101
88-109
118-128
115-120
115-122
116-127
111-117
96-97
75-83
89-96
87-94
81-100
98-102
101-104
90-94
76-94
92-100
73-104
70-102
89-103
64-103
ES PCB-1
ES PCB-3
ES PCB-4
ES PCB-15
ES PCB-19
ES PCB-39
ES PCB-54
ES PCB-77
ES PCB-81
ES PCB-104
ES PCB-105
ES PCB-114
ES PCB-118
ES PCB-123
ES PCB-126
ES PCB-153
ES PCB-155
ES PCB-156/157
ES PCB-167
ES PCB-169
ES PCB-170
ES PCB-180
ES PCB-188
ES PCB-189
ES PCB-202
ES PCB-205
ES PCB-206
ES PCB-208
ES PCB-209
Std. Dev.
Mean

Sample ID: Duplicate-0518 — Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2413	Date Received:	17-May-2018
Project ID:	Nord Door Re-Extract	Weight/Volume:	0.95 L	Sample ID:	B2413_16007_PCB_001	Date Extracted:	10-Jul-2018
Date Collected:	14-May-2018	pH	8	QC Batch No.:	16007	Date Analyzed:	16-Jul-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	4.4			ES PCB-1	65.1
PCB-81 344'5-TeCB	ND	4.56			ES PCB-3	69.2
PCB-105 233'44'-PeCB	185				ES PCB-4	84.2
PCB-114 2344'5-PeCB	EMPC		9.3	J	ES PCB-15	89.5
PCB-118 23'44'5-PeCB	482				ES PCB-19	89.9
PCB-123 23'44'5'-PeCB	EMPC		6.74	J	ES PCB-37	80.3
PCB-126 33'44'5-PeCB	ND	1.7			ES PCB-54	79.3
PCB-156/157 233'44'5/233'44'5'-HxCB	127			C	ES PCB-77	101
PCB-167 23'44'55'-HxCB	EMPC		31.8		ES PCB-81	101
PCB-169 33'44'55'-HxCB	ND	2.08			ES PCB-104	88.2
PCB-189 233'44'55'-HpCB	EMPC		3.51	J	ES PCB-105	118
					ES PCB-114	115
TEQs (WHO 2005 M/H)					ES PCB-118	115
					ES PCB-123	116
ND = 0	0.0238		0.0254		ES PCB-126	111
ND = 0.5 x DL	0.141		0.142		ES PCB-153	96.8
ND = DL	0.258		0.259		ES PCB-155	75.3
					ES PCB-156/157	88.6
Totals					ES PCB-167	86.8
Mono-CB	101		107		ES PCB-169	80.8
Di-CB	866		896		ES PCB-170	97.6
Tri-CB	5,840		5,840		ES PCB-180	101
Tetra-CB	3,410		3,450		ES PCB-188	90.3
Penta-CB	2,540		2,610		ES PCB-189	76.5
Hexa-CB	2,410		2,490		ES PCB-202	91.8
Hepta-CB	575		617		ES PCB-205	72.8
Octa-CB	115		136		ES PCB-206	69.7
Nona-CB			27.7		ES PCB-208	89.2
Deca-CB	5.05			J	ES PCB-209	63.9
					CS PCB-28	77.9
Total PCB (Mono-Deca)	15,900		16,200		CS PCB-111	116
					CS PCB-178	102

Checkcode: 749-648-HZY/A — SGS North America - PCB v0.82 — Report Created: 23-Jul-2018 12:43 Analyst: MC

Sample ID: Duplicate-0518 — Method 1668A

Client Data		**Sample Data**		**Laboratory Data**			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2413	Date Received:	17-May-2018
Project ID:	Nord Door Re-Extract	Weight/Volume:	0.95 L	Sample ID:	B2413_16007_PCB_001	Date Extracted:	10-Jul-2018
Date Collected:	14-May-2018	pH	8	QC Batch No.:	16007	Date Analyzed:	16-Jul-2018
		Units	pg/L	Checkcode:	749-648-HZY/A	Time Analyzed:	20:43:23

Mono	Conc.	Qualifiers
PCB-1	96.2	
PCB-2	5.15	J
PCB-3	[6.02]	J B EMPC
Conc.	101	
EMPC	107	

Di	Conc.	Qualifiers
PCB-4	389	
PCB-10	7.66	J
PCB-9	18.6	
PCB-7	16.2	
PCB-6	300	
PCB-5	(4.91)	
PCB-8	103	
PCB-14	(4.17)	
PCB-11	[30.3]	EMPC
PCB-13/12	20	J C
PCB-15	11.6	
Conc.	866	
EMPC	896	

Tri	Conc.	Qualifiers
PCB-19	879	
PCB-30/18	1,390	C
PCB-17	503	
PCB-27	844	
PCB-24	[8.51]	J EMPC
PCB-16	65.2	
PCB-32	739	
PCB-34	(5.67)	
PCB-23	(5.29)	
PCB-26/29	694	C
PCB-25	338	
PCB-31	171	
PCB-28/20	149	C
PCB-21/33	36.9	C
PCB-22	18	
PCB-36	(5.26)	
PCB-39	(5.2)	
PCB-38	(5.84)	
PCB-35	(6.04)	
PCB-37	8.55	J
Conc.	5,840	
EMPC	5,840	

Tetra	Conc.	Qualifiers	Tetra	Conc.	Qualifiers
PCB-54	62.5		PCB-72	(4.86)	
PCB-50/53	569	C	PCB-68	(4.39)	
PCB-45	23.7		PCB-57	(5.07)	
PCB-51	137		PCB-58	(4.96)	
PCB-46	63.9		PCB-67	(4.72)	
PCB-52	1,150		PCB-63	(4.5)	
PCB-73	10.3	J	PCB-61/70/74/76	157	C
PCB-43	7.69	J	PCB-66	87.8	
PCB-69/49	461	C	PCB-55	(4.97)	
PCB-48	[15.6]	EMPC	PCB-56	[23]	EMPC
PCB-44/47/65	335	C	PCB-60	[4.43]	J EMPC
PCB-59/62/75	20.9	J C	PCB-80	(4.53)	
PCB-42	54.7		PCB-79	(4.49)	
PCB-41	(3.2)		PCB-78	(5.47)	
PCB-71/40	212	C	PCB-81	(4.56)	
PCB-64	53.9		PCB-77	(4.4)	
			Conc.	3,410	
			EMPC	3,450	

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Totals	Conc.	EMPC
Mono-Tri	6,800	6,850
Tetra-Hexa	8,360	8,550
Hepta-Deca	695	785
Mono-Deca	15,900	16,200

Sample ID: Duplicate-0518 — Method 1668A

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(0.57)		PCB-108/119/86/97/125/87	210	C	PCB-155	(0.472)		PCB-165	(0.486)	
PCB-96	[4.55]	J EMPC	PCB-117	5.38	J	PCB-152	(0.503)		PCB-146	79.2	
PCB-103	10.8		PCB-116/85	48.8	C	PCB-150	(0.506)		PCB-161	(0.434)	
PCB-94	(2.39)		PCB-110	506		PCB-136	36.2		PCB-153/168	443	C
PCB-95	300		PCB-115	(1.67)		PCB-145	(0.532)		PCB-141	101	
PCB-100/93	5.91	J C	PCB-82	34.9		PCB-148	(0.553)		PCB-130	[43]	EMPC
PCB-102	[10.3]	J EMPC	PCB-111	(1.62)		PCB-151/135	101	C	PCB-137	44.9	
PCB-98	(2.3)		PCB-120	(1.65)		PCB-154	6.84	J	PCB-164	39.5	
PCB-88	(2.62)		PCB-107/124	[17.4]	J EMPC C	PCB-144	15		PCB-163/138/129	730	C
PCB-91	41		PCB-109	26.6		PCB-147/149	284	C	PCB-160	(0.454)	
PCB-84	86.2		PCB-123	[6.74]	J EMPC	PCB-134	21.4		PCB-158	75.6	
PCB-89	(2.47)		PCB-106	(1.73)		PCB-143	[1.58]	J EMPC	PCB-128/166	127	C
PCB-121	(1.66)		PCB-118	482		PCB-139/140	10.5	J C	PCB-159	3.38	J
PCB-92	69.5		PCB-122	[7.81]	J EMPC	PCB-131	[5.97]	J EMPC	PCB-162	3.5	J
PCB-113/90/101	354	C	PCB-114	[9.3]	J EMPC	PCB-142	(0.619)		PCB-167	[31.8]	EMPC
PCB-83	[12.6]	EMPC	PCB-105	185		PCB-132	152		PCB-156/157	127	C
PCB-99	175		PCB-127	(1.76)		PCB-133	7.27	J	PCB-169	(2.08)	
PCB-112	(1.73)		PCB-126	(1.7)							
			Conc.	2,540					**Conc.**	2,410	
			EMPC	2,610					**EMPC**	2,490	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(0.232)		PCB-174	75.2		PCB-202	11.2		PCB-208	[5.67]	J EMPC
PCB-179	21.5		PCB-177	41.5		PCB-201	[4.7]	J EMPC	PCB-207	(6.59)	
PCB-184	(0.266)		PCB-181	[0.896]	J EMPC	PCB-204	(0.581)		PCB-206	[22.1]	EMPC
PCB-176	[4.1]	J EMPC	PCB-171/173	[22.7]	EMPC C	PCB-197	(0.557)				
PCB-186	(0.249)		PCB-172	14.6		PCB-200	[3.92]	J EMPC	**Conc.**	0	
PCB-178	13.3		PCB-192	(0.711)		PCB-198/199	37.9	C	**EMPC**	27.7	
PCB-175	[2.47]	J EMPC	PCB-180/193	165	C	PCB-196	[12.1]	EMPC			
PCB-187	85.5		PCB-191	[3.13]	J EMPC	PCB-203	24.4		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(0.783)		PCB-170	101		PCB-195	11		PCB-209	5.05	J
PCB-183	38.6		PCB-190	18.7		PCB-194	30.5				
PCB-185	[4.78]	J EMPC	PCB-189	[3.51]	J EMPC	PCB-205	(1.32)				
			Conc.	575		**Conc.**	115				
			EMPC	617		**EMPC**	136				

Sample ID: Method Blank B2413_16007

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2413	Date Received:	n/a
Project ID:	Nord Door Re-Extract	Weight/Volume:	2.00 L	Sample ID:	MB1_16007_PCB_TLX	Date Extracted:	10-Jul-2018
Date Collected:	n/a	pH	n/a	QC Batch No.:	16007	Date Analyzed:	16-Jul-2018

Analyte	Conc.	DL	EMPC	Qualifier	Standard	Recovery
	pg/L	pg/L	pg/L			%
PCB-77 33'44'-TeCB	ND	2			ES PCB-1	98.9
PCB-81 344'5-TeCB	ND	1.99			ES PCB-3	97.1
PCB-105 233'44'-PeCB	ND	0.768			ES PCB-4	119
PCB-114 2344'5-PeCB	ND	0.761			ES PCB-15	90.5
PCB-118 23'44'5-PeCB	0.99			J	ES PCB-19	120
PCB-123 23'44'5'-PeCB	ND	0.785			ES PCB-37	73.4
PCB-126 33'44'5-PeCB	ND	0.539			ES PCB-54	91.3
PCB-156/157 233'44'5/233'44'5'-HxCB	ND	0.67		C	ES PCB-77	101
PCB-167 23'44'55'-HxCB	ND	0.448			ES PCB-81	99.5
PCB-169 33'44'55'-HxCB	ND	0.479			ES PCB-104	109
PCB-189 233'44'55'-HpCB	ND	0.526			ES PCB-105	128
					ES PCB-114	120
TEQs (WHO 2005 M/H)					ES PCB-118	122
					ES PCB-123	127
ND = 0	0.0000297		0.0000297		ES PCB-126	117
ND = 0.5 x DL	0.0346		0.0346		ES PCB-153	95.5
ND = DL	0.0692		0.0692		ES PCB-155	83.1
					ES PCB-156/157	95.6
Totals					ES PCB-167	94.4
Mono-CB			5.4		ES PCB-169	100
Di-CB	ND	3.04			ES PCB-170	102
Tri-CB			1.52		ES PCB-180	104
Tetra-CB	ND	1.49			ES PCB-188	93.6
Penta-CB	0.99		2.56		ES PCB-189	93.9
Hexa-CB	2.44		3.96		ES PCB-202	99.5
Hepta-CB	ND	0.492			ES PCB-205	104
Octa-CB	ND	0.331			ES PCB-206	102
Nona-CB	ND	3.85			ES PCB-208	103
Deca-CB	ND	0.372			ES PCB-209	103
					CS PCB-28	74.9
Total PCB (Mono-Deca)	3.43		13.4		CS PCB-111	117
					CS PCB-178	99.5

Checkcode: 620-854-FQD/A SGS North America - PCB v0.82 Report Created: 23-Jul-2018 08:47 Analyst: MC

Sample ID: Method Blank B2413_16007

Method 1668A

Client Data		Sample Data		Laboratory Data			
Name:	SLR International Corp	Matrix:	Aqueous	Project No.:	B2413	Date Received:	n/a
Project ID:	Nord Door Re-Extract	Weight/Volume:	2.00 L	Sample ID:	MB1_16007_PCB_TLX	Date Extracted:	10-Jul-2018
Date Collected:	n/a	pH	n/a	QC Batch No.:	16007	Date Analyzed:	16-Jul-2018
		Units	pg/L	Checkcode:	620-854-FQD/A	Time Analyzed:	17:50:04

Mono	Conc.	Qualifiers
PCB-1	[2.47]	J EMPC
PCB-2	(1.15)	
PCB-3	[2.94]	J EMPC
Conc.	0	
EMPC	5.4	

Di	Conc.	Qualifiers
PCB-4	(3.15)	
PCB-10	(2.17)	
PCB-9	(4.05)	
PCB-7	(3.5)	
PCB-6	(3.67)	
PCB-5	(3.64)	
PCB-8	(3.4)	
PCB-14	(3.09)	
PCB-11	(3.62)	
PCB-13/12	(3.57)	C
PCB-15	(2.92)	
Conc.	0	
EMPC	0	

Tri	Conc.	Qualifiers
PCB-19	(1.47)	
PCB-30/18	(1.23)	C
PCB-17	(1.47)	
PCB-27	(1.07)	
PCB-24	(1.08)	
PCB-16	(1.86)	
PCB-32	(1.01)	
PCB-34	(1.88)	
PCB-23	(1.76)	
PCB-26/29	(1.81)	C
PCB-25	(1.73)	
PCB-31	(1.69)	
PCB-28/20	[1.52]	J EMPC C
PCB-21/33	(1.77)	C
PCB-22	(1.89)	
PCB-36	(1.75)	
PCB-39	(1.73)	
PCB-38	(1.94)	
PCB-35	(2.01)	
PCB-37	(1.73)	
Conc.	0	
EMPC	1.52	

Tetra	Conc.	Qualifiers
PCB-54	(0.737)	
PCB-50/53	(1.29)	C
PCB-45	(1.67)	
PCB-51	(1.2)	
PCB-46	(1.63)	
PCB-52	(1.41)	
PCB-73	(1.02)	
PCB-43	(1.65)	
PCB-69/49	(1.14)	C
PCB-48	(1.41)	
PCB-44/47/65	(1.31)	C
PCB-59/62/75	(1.03)	C
PCB-42	(1.52)	
PCB-41	(1.85)	
PCB-71/40	(1.31)	C
PCB-64	(0.955)	

Tetra	Conc.	Qualifiers
PCB-72	(2.13)	
PCB-68	(1.92)	
PCB-57	(2.22)	
PCB-58	(2.17)	
PCB-67	(2.06)	
PCB-63	(1.97)	
PCB-61/70/74/76	(2.12)	C
PCB-66	(2.35)	
PCB-55	(2.17)	
PCB-56	(2.33)	
PCB-60	(2.22)	
PCB-80	(1.98)	
PCB-79	(1.96)	
PCB-78	(2.39)	
PCB-81	(1.99)	
PCB-77	(2)	
Conc.	0	
EMPC	0	

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Totals	Conc.	EMPC
Mono-Tri	0	6.92
Tetra-Hexa	3.43	6.51
Hepta-Deca	0	0
Mono-Deca	3.43	13.4

SGS

Sample ID: Method Blank B2413_16007 — Method 1668A

Penta	Conc.	Qualifiers	Penta	Conc.	Qualifiers	Hexa	Conc.	Qualifiers	Hexa	Conc.	Qualifiers
PCB-104	(0.359)		PCB-108/119/86/97/125/87	(0.916)	C	PCB-155	(0.607)		PCB-165	(0.745)	
PCB-96	(0.409)		PCB-117	(0.799)		PCB-152	(0.646)		PCB-146	(0.842)	
PCB-103	(0.966)		PCB-116/85	(0.957)	C	PCB-150	(0.651)		PCB-161	(0.665)	
PCB-94	(1.12)		PCB-110	[1.57]	J EMPC	PCB-136	(0.695)		PCB-153/168	[1.51]	J EMPC C
PCB-95	(1.05)		PCB-115	(0.78)		PCB-145	(0.684)		PCB-141	(0.892)	
PCB-100/93	(1.01)	C	PCB-82	(1.28)		PCB-148	(0.848)		PCB-130	(1.04)	
PCB-102	(0.966)		PCB-111	(0.759)		PCB-151/135	(0.881)	C	PCB-137	(0.902)	
PCB-98	(1.08)		PCB-120	(0.772)		PCB-154	(0.768)		PCB-164	(0.642)	
PCB-88	(1.23)		PCB-107/124	(0.839)	C	PCB-144	(0.852)		PCB-163/138/129	2.44	J C
PCB-91	(0.897)		PCB-109	(0.737)		PCB-147/149	(0.854)	C	PCB-160	(0.695)	
PCB-84	(1.22)		PCB-123	(0.785)		PCB-134	(1.02)		PCB-158	(0.63)	
PCB-89	(1.16)		PCB-106	(0.808)		PCB-143	(0.906)		PCB-128/166	(0.567)	C
PCB-121	(0.776)		PCB-118	0.99	J	PCB-139/140	(0.844)	C	PCB-159	(0.475)	
PCB-92	(1.12)		PCB-122	(0.919)		PCB-131	(0.977)		PCB-162	(0.462)	
PCB-113/90/101	(0.945)	C	PCB-114	(0.761)		PCB-142	(0.948)		PCB-167	(0.448)	
PCB-83	(1.4)		PCB-105	(0.768)		PCB-132	(0.935)		PCB-156/157	(0.67)	C
PCB-99	(0.926)		PCB-127	(0.829)		PCB-133	(0.923)		PCB-169	(0.479)	
PCB-112	(0.811)		PCB-126	(0.539)							
			Conc.	0.99					**Conc.**	2.44	
			EMPC	2.56					**EMPC**	3.96	

Hepta	Conc.	Qualifiers	Hepta	Conc.	Qualifiers	Octa	Conc.	Qualifiers	Nona	Conc.	Qualifiers
PCB-188	(0.231)		PCB-174	(0.606)		PCB-202	(0.332)		PCB-208	(3.28)	
PCB-179	(0.254)		PCB-177	(0.64)		PCB-201	(0.332)		PCB-207	(3.13)	
PCB-184	(0.265)		PCB-181	(0.554)		PCB-204	(0.352)		PCB-206	(4.42)	
PCB-176	(0.237)		PCB-171/173	(0.633)	C	PCB-197	(0.337)				
PCB-186	(0.248)		PCB-172	(0.629)		PCB-200	(0.335)		**Conc.**	0	
PCB-178	(0.348)		PCB-192	(0.477)		PCB-198/199	(0.476)	C	**EMPC**	0	
PCB-175	(0.582)		PCB-180/193	(0.508)	C	PCB-196	(0.452)				
PCB-187	(0.543)		PCB-191	(0.457)		PCB-203	(0.427)		**Deca**	**Conc.**	**Qualifiers**
PCB-182	(0.525)		PCB-170	(0.685)		PCB-195	(0.514)		PCB-209	(0.372)	
PCB-183	(0.519)		PCB-190	(0.481)		PCB-194	(0.458)				
PCB-185	(0.573)		PCB-189	(0.526)		PCB-205	(0.33)				
			Conc.	0		**Conc.**	0				
			EMPC	0		**EMPC**	0				

METHOD 1668A **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8A**

Lab Name: SGS North America
Initial Calibration: ICAL: MM4_PCB_06072017_16MAR2018
Instrument ID: MM4 GC Column ID:
VER Data Filename: 180716S07 Analysis Date: 16-JUL-2018 16:53:53
Lab ID: OPR1_16007_PCB

NATIVE ANALYTES	SPIKE CONC. (pg/uL)	RECOVERY (%)	RANGE (%)			OK
PCB-1 2-MoCB	50	115	50	-	150	Y
PCB-3 4-MoCB	50	106	50	-	150	Y
PCB-4 22'-DiCB	50	110	50	-	150	Y
PCB-15 44'-DiCB	50	107	50	-	150	Y
PCB-19 22'6-TrCB	50	112	50	-	150	Y
PCB-37 344'-TrCB	50	108	50	-	150	Y
PCB-54 22'66'-TeCB	50	110	50	-	150	Y
PCB-77 33'44'-TeCB	50	108	50	-	150	Y
PCB-81 344'5-TeCB	50	104	50	-	150	Y
PCB-104 22'466'-PeCB	50	123	50	-	150	Y
PCB-105 233'44'-PeCB	50	112	50	-	150	Y
PCB-114 2344'5-PeCB	50	121	50	-	150	Y
PCB-118 23'44'5-PeCB	50	115	50	-	150	Y
PCB-123 23'44'5'-PeCB	50	116	50	-	150	Y
PCB-126 33'44'5-PeCB	50	118	50	-	150	Y
PCB-155 22'44'66'-HxCB	50	119	50	-	150	Y
PCB-156/157 ...-HxCB	100	113	50	-	150	Y
PCB-167 23'44'55'-HxCB	50	122	50	-	150	Y
PCB-169 33'44'55'-HxCB	50	110	50	-	150	Y
PCB-188 22'34'566'-HpCB	50	121	50	-	150	Y
PCB-189 233'44'55'-HpCB	50	117	50	-	150	Y
PCB-202 22'33'55'66'-OcCB	50	107	50	-	150	Y
PCB-205 233'44'55'6-OcCB	50	111	50	-	150	Y
PCB-206 22'33'44'55'6-NoCB	50	111	50	-	150	Y
PCB-208 22'33'455'66'-NoCB	50	123	50	-	150	Y
PCB-209 DeCB	50	110	50	-	150	Y

Contract-required recovery limits for OPR as specified in Table 6,
Method 1668A.

Processed: 18 Jul 2018 14:35 Analyst: MC

METHOD 1668A **PCB ONGOING PRECISION AND RECOVERY (OPR)** **FORM 8B**

Lab Name: SGS North America
Initial Calibration: ICAL: MM4_PCB_06072017_16MAR2018
Instrument ID: MM4 GC Column ID:
VER Data Filename: 180716S07 Analysis Date: 16-JUL-2018 16:53:53
Lab ID: OPR1_16007_PCB

LABELED STANDARDS	SPIKE CONC. (pg/uL)	RECOVERY (%)	RANGE (%)			OK
ES PCB-1	100	99.1	15	-	140	Y
ES PCB-3	100	98.3	15	-	140	Y
ES PCB-4	100	121	30	-	140	Y
ES PCB-15	100	101	30	-	140	Y
ES PCB-19	100	119	30	-	140	Y
ES PCB-37	100	83.9	30	-	140	Y
ES PCB-54	100	100	30	-	140	Y
ES PCB-77	100	94.3	30	-	140	Y
ES PCB-81	100	93.6	30	-	140	Y
ES PCB-104	100	107	30	-	140	Y
ES PCB-105	100	110	30	-	140	Y
ES PCB-114	100	110	30	-	140	Y
ES PCB-118	100	110	30	-	140	Y
ES PCB-123	100	111	30	-	140	Y
ES PCB-126	100	101	30	-	140	Y
ES PCB-153	100	95.6	30	-	140	Y
ES PCB-155	100	91.9	30	-	140	Y
ES PCB-156/157	200	90.9	30	-	140	Y
ES PCB-167	100	88.4	30	-	140	Y
ES PCB-169	100	94.2	30	-	140	Y
ES PCB-170	100	101	30	-	140	Y
ES PCB-180	100	102	30	-	140	Y
ES PCB-188	100	96	30	-	140	Y
ES PCB-189	100	90.5	30	-	140	Y
ES PCB-202	100	96.8	30	-	140	Y
ES PCB-205	100	96.5	30	-	140	Y
ES PCB-206	100	97.9	30	-	140	Y
ES PCB-208	100	102	30	-	140	Y
ES PCB-209	100	95.7	30	-	140	Y
CLEANUP STANDARDS						
CS PCB-28	100	77.9	40	-	125	Y
CS PCB-111	100	107	40	-	125	Y
CS PCB-178	100	98.8	40	-	125	Y

Processed: 18 Jul 2018 14:35 Analyst: MC

Sample Receipt Notification

5500 Business Drive
Wilmington, NC 28405 USA
Tel: 910 794-1613
Toll Free: 866 846-8290
Fax: 910 794-3919

Project Manager:	*Amy Boehm*
Receipt Date & Time:	*17-May-18 at 09:56*
AP Project name:	*B2413*
Requested TAT:	*22 days*
Projected due date:	*25-Jul-18*
Matrix:	*Aqueous*
Phone#:	*910-794-1613*
Email Address:	*Amy.Boehm@sgs.com*

Company Contact:	*Chris Kramer*
Company:	*SLR International Corp*
Project Name & Site:	*Nord Door*
Project PO#:	*108.00228.00048*
QAAP/Contract #:	
Requested Analysis:	*Method 1668A*
Phone#:	*503-723-4423*
Email Address:	*ckramer@slrconsulting.com*

Client Smp ID	AP Smp ID	Sample Condition & Notes	Quantity	Size	Sampling Date	Sampling Time	Received Temp	Container #	Shipping #
Duplicate-0518	B2413_001	Water	2	1-Liter Amber	14-May-18	14:12	0.4	1	7810 0249 2111

Preservation Type: **Sample Seals:** No

Notes/Comments:

Samples received intact.

Extract per client request: B2267-008. Filter w/ 0.45um filter before extraction.

Any un-extracted sample will be stored for 90 days from reporting date. Additional storage fees may apply for any samples stored longer than 90 days.

Received by: Ashley Owens *Logged in by: Ashley Owens* *QC'ed by:* _____

B2267
B2413

SGS CHAIN OF CUSTODY

PROJECT INFO
PROJECT: Nord Door
P.O. #: 108.00228.00048
QUOTE #:
SITE REF:
TURN AROUND TIME: Standard
REPORT LEVEL: ☐ Level I ☐ Level II ☐ Level IV
SPECIAL DELIVERABLES:
☐ DoD ☐ EDD/Version:
☐ State of Origin:

SPECIAL INSTRUCTIONS / COMMENTS
> Hold Duplicate-0518 and Field-0518

SEND DOCUMENTATION / RESULTS TO
COMPANY: SLR
CONTACT: Chris Kramer
ADDRESS: 1500 Blankenship Rd, Ste 440 West Linn, OR 97068
PHONE: 503-723-4423 EMAIL: ckramer@slrconsulting.com; smiller@slrconsulting.com

INVOICE TO (☒ CHECK IF SAME)
COMPANY:
CONTACT:
ADDRESS:
PHONE: EMAIL:

	SAMPLE ID / DESCRIPTION	DATE	TIME	QTY	MATRIX	PRESERVATIVE	ANALYSIS & METHOD: Dioxins/Furans	ANALYSIS & METHOD: PCB Congeners	MS MSD	MS/ DUP	REMARKS
001	Seep-N-2	5/15/18	1408	2	water		X				
002	Seep-N-14	5/15/18	1321				X				
003	Seep-N-18	5/15/18	1255				X				
004	Seep-S-1	5/14/18	1455				X	X			
005	Seep-S-9	5/14/18	1248					X			
006	Seep-S-14	5/15/18	1219				X	X			
007	Seep-S-16	5/14/18	1342				X	X			
008	Duplicate-0518 *	5/14/18	1412				X	X			*=Samples in this project.
009	Field-0518	5/15/18	1435				X	X			

	DATE:	TIME:	RECEIVED BY:
COLLECTED/RELINQUISHED BY (1):	5/16/18	1300	
RELINQUISHED BY (2):	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY (3):	DATE:	TIME:	RECEIVED BY:

RECEIVED BY LABORATORY: Ashley Owens DATE: 5/17/18 TIME: 9:56
COOLER SEAL: ☒ INTACT ☐ BROKEN ☐ ABSENT
CONTAINER SEALS: ☐ INTACT ☐ BROKEN ☒ ABSENT
CARRIER: FedEx TEMP: °C 1.1° / 0.4°
TRACKING #: 7810 0249 2100
7810 0249 2111

SGS NORTH AMERICA INC | ENVIRONMENT, HEALTH & SAFETY 5500 Business Drive Wilmington, NC 28405 910 350 1903 | 866 846 8290 www.us.sgs.com/environment
Member of the SGS Group (SGS SA)

ANALYTICAL REPORT

May 24, 2018

SLR International Corp. - West Linn, OR

Sample Delivery Group:	L994838
Samples Received:	05/17/2018
Project Number:	108.00228.00048
Description:	Nord Door Project - Everett, WA
Site:	EVERETT, WA
Report To:	Chris Kramer 1800 Blankenship Road, Suite 440 West Linn, OR 97068

Entire Report Reviewed By:

Brian Ford

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

SEEP-N-2 L994838-01 GW

Collected by: Steven L. | Collected date/time: 05/15/18 14:08 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 13:05	05/19/18 13:05	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 04:40	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 17:50	KM

SEEP-N-14 L994838-02 GW

Collected by: Steven L. | Collected date/time: 05/15/18 13:21 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 13:25	05/19/18 13:25	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 04:57	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 18:12	KM

SEEP-N-18 L994838-03 GW

Collected by: Steven L. | Collected date/time: 05/15/18 12:55 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 13:45	05/19/18 13:45	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 05:13	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 18:34	KM

SEEP-S-1 L994838-04 GW

Collected by: Steven L. | Collected date/time: 05/14/18 14:55 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 14:04	05/19/18 14:04	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 05:29	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 18:56	KM

SEEP-S-9 L994838-05 GW

Collected by: Steven L. | Collected date/time: 05/14/18 12:48 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 14:24	05/19/18 14:24	LRL
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 05:45	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 19:18	KM

SEEP-S-14 L994838-06 GW

Collected by: Steven L. | Collected date/time: 05/15/18 12:14 | Received date/time: 05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 15:42	05/19/18 15:42	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 06:01	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 19:40	KM

SEEP-S-16 L994838-07 GW

Collected by	Collected date/time	Received date/time
Steven L.	05/14/18 13:42	05/17/18 08:45

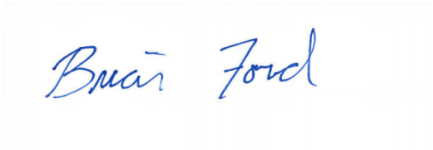
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 16:02	05/19/18 16:02	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 06:17	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1112962	1	05/20/18 07:09	05/20/18 20:02	KM

DUPLICATE-0518 L994838-08 GW

Collected by	Collected date/time	Received date/time
Steven L.	05/14/18 14:12	05/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1113612	1	05/19/18 16:22	05/19/18 16:22	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1113743	1	05/20/18 20:57	05/23/18 06:34	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1113903	1	05/20/18 20:55	05/21/18 09:07	KM

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 13:05	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 13:05	WG1113612
(S) Toluene-d8	*109*			*80.0-120*		*05/19/2018 13:05*	WG1113612
(S) Dibromofluoromethane	*96.5*			*76.0-123*		*05/19/2018 13:05*	WG1113612
(S) 4-Bromofluorobenzene	*94.1*			*80.0-120*		*05/19/2018 13:05*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 04:40	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 04:40	WG1113743
(S) o-Terphenyl	*99.8*			*52.0-156*		*05/23/2018 04:40*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 17:50	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 17:50	WG1112962
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2018 17:50	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 17:50	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 17:50	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 17:50	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 17:50	WG1112962
(S) Nitrobenzene-d5	*115*			*31.0-160*		*05/20/2018 17:50*	WG1112962
(S) 2-Fluorobiphenyl	*108*			*48.0-148*		*05/20/2018 17:50*	WG1112962
(S) p-Terphenyl-d14	*129*			*37.0-146*		*05/20/2018 17:50*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 13:25	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 13:25	WG1113612
(S) Toluene-d8	*108*			*80.0-120*		*05/19/2018 13:25*	WG1113612
(S) Dibromofluoromethane	*96.4*			*76.0-123*		*05/19/2018 13:25*	WG1113612
(S) 4-Bromofluorobenzene	*98.9*			*80.0-120*		*05/19/2018 13:25*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 04:57	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 04:57	WG1113743
(S) o-Terphenyl	*103*			*52.0-156*		*05/23/2018 04:57*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 18:12	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 18:12	WG1112962
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2018 18:12	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 18:12	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 18:12	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 18:12	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 18:12	WG1112962
(S) Nitrobenzene-d5	*111*			*31.0-160*		*05/20/2018 18:12*	WG1112962
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*05/20/2018 18:12*	WG1112962
(S) p-Terphenyl-d14	*126*			*37.0-146*		*05/20/2018 18:12*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 13:45	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 13:45	WG1113612
(S) Toluene-d8	*107*			*80.0-120*		*05/19/2018 13:45*	WG1113612
(S) Dibromofluoromethane	*95.5*			*76.0-123*		*05/19/2018 13:45*	WG1113612
(S) 4-Bromofluorobenzene	*96.5*			*80.0-120*		*05/19/2018 13:45*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 05:13	WG1113743
Residual Range Organics (RRO)	470		82.5	250	1	05/23/2018 05:13	WG1113743
(S) o-Terphenyl	*97.4*			*52.0-156*		*05/23/2018 05:13*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 18:34	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 18:34	WG1112962
Benzo(b)fluoranthene	0.00250	B J	0.00212	0.0500	1	05/20/2018 18:34	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 18:34	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 18:34	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 18:34	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 18:34	WG1112962
(S) Nitrobenzene-d5	*112*			*31.0-160*		*05/20/2018 18:34*	WG1112962
(S) 2-Fluorobiphenyl	*109*			*48.0-148*		*05/20/2018 18:34*	WG1112962
(S) p-Terphenyl-d14	*129*			*37.0-146*		*05/20/2018 18:34*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 14:04	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 14:04	WG1113612
(S) Toluene-d8	*105*			*80.0-120*		*05/19/2018 14:04*	WG1113612
(S) Dibromofluoromethane	*97.1*			*76.0-123*		*05/19/2018 14:04*	WG1113612
(S) 4-Bromofluorobenzene	*94.4*			*80.0-120*		*05/19/2018 14:04*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 05:29	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 05:29	WG1113743
(S) o-Terphenyl	*99.5*			*52.0-156*		*05/23/2018 05:29*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 18:56	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 18:56	WG1112962
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2018 18:56	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 18:56	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 18:56	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 18:56	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 18:56	WG1112962
(S) Nitrobenzene-d5	*117*			*31.0-160*		*05/20/2018 18:56*	WG1112962
(S) 2-Fluorobiphenyl	*115*			*48.0-148*		*05/20/2018 18:56*	WG1112962
(S) p-Terphenyl-d14	*133*			*37.0-146*		*05/20/2018 18:56*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 14:24	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 14:24	WG1113612
(S) Toluene-d8	*109*			*80.0-120*		*05/19/2018 14:24*	WG1113612
(S) Dibromofluoromethane	*94.9*			*76.0-123*		*05/19/2018 14:24*	WG1113612
(S) 4-Bromofluorobenzene	*95.6*			*80.0-120*		*05/19/2018 14:24*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	115	J	66.0	200	1	05/23/2018 05:45	WG1113743
Residual Range Organics (RRO)	239	J	82.5	250	1	05/23/2018 05:45	WG1113743
(S) o-Terphenyl	*99.8*			*52.0-156*		*05/23/2018 05:45*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 19:18	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 19:18	WG1112962
Benzo(b)fluoranthene	0.00429	B J	0.00212	0.0500	1	05/20/2018 19:18	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 19:18	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 19:18	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 19:18	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 19:18	WG1112962
(S) Nitrobenzene-d5	*109*			*31.0-160*		*05/20/2018 19:18*	WG1112962
(S) 2-Fluorobiphenyl	*104*			*48.0-148*		*05/20/2018 19:18*	WG1112962
(S) p-Terphenyl-d14	*126*			*37.0-146*		*05/20/2018 19:18*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0896	0.500	1	05/19/2018 15:42	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 15:42	WG1113612
(S) Toluene-d8	*109*			*80.0-120*		*05/19/2018 15:42*	WG1113612
(S) Dibromofluoromethane	*97.6*			*76.0-123*		*05/19/2018 15:42*	WG1113612
(S) 4-Bromofluorobenzene	*91.9*			*80.0-120*		*05/19/2018 15:42*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 06:01	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 06:01	WG1113743
(S) o-Terphenyl	*105*			*52.0-156*		*05/23/2018 06:01*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 19:40	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 19:40	WG1112962
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/20/2018 19:40	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 19:40	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 19:40	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 19:40	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 19:40	WG1112962
(S) Nitrobenzene-d5	*116*			*31.0-160*		*05/20/2018 19:40*	WG1112962
(S) 2-Fluorobiphenyl	*113*			*48.0-148*		*05/20/2018 19:40*	WG1112962
(S) p-Terphenyl-d14	*132*			*37.0-146*		*05/20/2018 19:40*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 16:02	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 16:02	WG1113612
(S) Toluene-d8	*107*			*80.0-120*		*05/19/2018 16:02*	WG1113612
(S) Dibromofluoromethane	*99.6*			*76.0-123*		*05/19/2018 16:02*	WG1113612
(S) 4-Bromofluorobenzene	*93.2*			*80.0-120*		*05/19/2018 16:02*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 06:17	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 06:17	WG1113743
(S) o-Terphenyl	*96.6*			*52.0-156*		*05/23/2018 06:17*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/20/2018 20:02	WG1112962
Benzo(a)pyrene	U		0.0116	0.0500	1	05/20/2018 20:02	WG1112962
Benzo(b)fluoranthene	0.00415	B J	0.00212	0.0500	1	05/20/2018 20:02	WG1112962
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/20/2018 20:02	WG1112962
Chrysene	U		0.0108	0.0500	1	05/20/2018 20:02	WG1112962
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/20/2018 20:02	WG1112962
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/20/2018 20:02	WG1112962
(S) Nitrobenzene-d5	*119*			*31.0-160*		*05/20/2018 20:02*	WG1112962
(S) 2-Fluorobiphenyl	*106*			*48.0-148*		*05/20/2018 20:02*	WG1112962
(S) p-Terphenyl-d14	*136*			*37.0-146*		*05/20/2018 20:02*	WG1112962

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0896	0.500	1	05/19/2018 16:22	WG1113612
Naphthalene	U	J0	0.174	2.50	1	05/19/2018 16:22	WG1113612
(S) Toluene-d8	*108*			*80.0-120*		*05/19/2018 16:22*	WG1113612
(S) Dibromofluoromethane	*97.2*			*76.0-123*		*05/19/2018 16:22*	WG1113612
(S) 4-Bromofluorobenzene	*89.7*			*80.0-120*		*05/19/2018 16:22*	WG1113612

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.0	200	1	05/23/2018 06:34	WG1113743
Residual Range Organics (RRO)	U		82.5	250	1	05/23/2018 06:34	WG1113743
(S) o-Terphenyl	*94.0*			*52.0-156*		*05/23/2018 06:34*	WG1113743

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)anthracene	U		0.00410	0.0500	1	05/21/2018 09:07	WG1113903
Benzo(a)pyrene	U		0.0116	0.0500	1	05/21/2018 09:07	WG1113903
Benzo(b)fluoranthene	U		0.00212	0.0500	1	05/21/2018 09:07	WG1113903
Benzo(k)fluoranthene	U		0.0136	0.0500	1	05/21/2018 09:07	WG1113903
Chrysene	U		0.0108	0.0500	1	05/21/2018 09:07	WG1113903
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	05/21/2018 09:07	WG1113903
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	05/21/2018 09:07	WG1113903
(S) Nitrobenzene-d5	*101*			*31.0-160*		*05/21/2018 09:07*	WG1113903
(S) 2-Fluorobiphenyl	*98.7*			*48.0-148*		*05/21/2018 09:07*	WG1113903
(S) p-Terphenyl-d14	*114*			*37.0-146*		*05/21/2018 09:07*	WG1113903

Method Blank (MB)

(MB) R3311358-2 05/19/18 11:39

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0896	0.500
Naphthalene	0.179	J	0.174	2.50
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*96.2*			*76.0-123*
(S) 4-Bromofluorobenzene	*94.7*			*80.0-120*

Laboratory Control Sample (LCS)

(LCS) R3311358-1 05/19/18 11:00

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	25.0	22.8	91.1	69.0-123	
Naphthalene	25.0	16.6	66.3	62.0-128	
(S) Toluene-d8			*104*	*80.0-120*	
(S) Dibromofluoromethane			*95.3*	*76.0-123*	
(S) 4-Bromofluorobenzene			*103*	*80.0-120*	

L995065-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L995065-02 05/19/18 19:38 • (MS) R3311358-3 05/19/18 19:57 • (MSD) R3311358-4 05/19/18 20:17

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	ND	25.5	25.5	102	102	1	34.0-147			0.158	20
Naphthalene	25.0	ND	16.3	15.8	65.0	63.3	1	42.0-146			2.68	24
(S) Toluene-d8					*104*	*107*		*80.0-120*				
(S) Dibromofluoromethane					*96.8*	*97.8*		*76.0-123*				
(S) 4-Bromofluorobenzene					*101*	*102*		*80.0-120*				

Method Blank (MB)

(MB) R3312314-1 05/22/18 17:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*99.5*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3312314-2 05/22/18 17:51 • (LCSD) R3312314-3 05/22/18 18:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	739	777	98.5	104	50.0-150			4.99	20
Residual Range Organics (RRO)	750	703	728	93.7	97.1	50.0-150			3.50	20
(S) o-Terphenyl				*105*	*107*	*52.0-156*				

Method Blank (MB)

(MB) R3311677-3 05/20/18 12:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00302	J	0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
(S) Nitrobenzene-d5	*114*			*31.0-160*
(S) 2-Fluorobiphenyl	*95.7*			*48.0-148*
(S) p-Terphenyl-d14	*126*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3311677-1 05/20/18 11:36 • (LCSD) R3311677-2 05/20/18 11:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzo(a)anthracene	2.00	2.03	2.07	102	103	59.0-134			1.56	20
Benzo(a)pyrene	2.00	2.13	2.16	107	108	61.0-145			1.20	20
Benzo(b)fluoranthene	2.00	2.12	2.10	106	105	57.0-136			1.14	20
Benzo(k)fluoranthene	2.00	2.11	2.23	106	111	57.0-141			5.36	20
Chrysene	2.00	2.03	2.07	101	103	63.0-140			1.99	20
Dibenz(a,h)anthracene	2.00	2.23	2.25	112	112	49.0-141			0.794	20
Indeno(1,2,3-cd)pyrene	2.00	2.23	2.25	111	113	53.0-141			1.23	20
(S) Nitrobenzene-d5				*118*	*114*	*31.0-160*				
(S) 2-Fluorobiphenyl				*97.4*	*94.9*	*48.0-148*				
(S) p-Terphenyl-d14				*123*	*122*	*37.0-146*				

Method Blank (MB)

(MB) R3311907-3 05/21/18 02:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
(S) Nitrobenzene-d5	*102*			*31.0-160*
(S) 2-Fluorobiphenyl	*110*			*48.0-148*
(S) p-Terphenyl-d14	*118*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3311907-1 05/21/18 01:44 • (LCSD) R3311907-2 05/21/18 02:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzo(a)anthracene	2.00	2.18	2.18	109	109	59.0-134			0.298	20
Benzo(a)pyrene	2.00	2.03	2.12	101	106	61.0-145			4.55	20
Benzo(b)fluoranthene	2.00	1.98	2.04	98.9	102	57.0-136			3.21	20
Benzo(k)fluoranthene	2.00	2.11	2.16	106	108	57.0-141			2.35	20
Chrysene	2.00	2.04	2.11	102	106	63.0-140			3.32	20
Dibenz(a,h)anthracene	2.00	2.04	2.08	102	104	49.0-141			1.77	20
Indeno(1,2,3-cd)pyrene	2.00	2.05	2.10	102	105	53.0-141			2.35	20
(S) Nitrobenzene-d5				*100*	*106*	*31.0-160*				
(S) 2-Fluorobiphenyl				*101*	*107*	*48.0-148*				
(S) p-Terphenyl-d14				*110*	*116*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

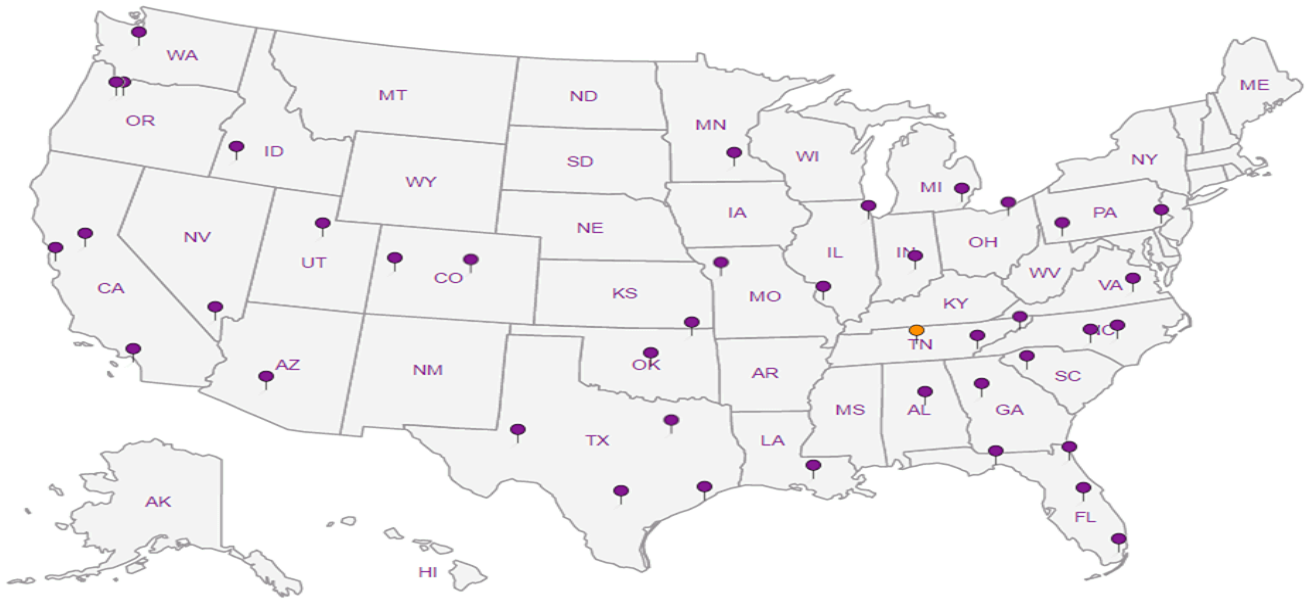
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



SLR International Corp. - West Linn, OR

1800 Blankenship Road, Suite 440

Billing Information:
Accounts Payable
1800 Blankenship Rd, Ste 440
West Linn, OR 97068

Pres Chk

Report to: Chris Kramer

Email To: ckramer@slrconsulting.com; smiller@slrconsulting.com;

Project Description: Nord Door Project - Everett, WA

City/State Collected:

Phone: 503-723-4423
Fax: 503-723-4436

Client Project # 108.00228.00048

Lab Project # SLRWLOR-NORDDOOR

Collected by (print): Steven Losleben

Site/Facility ID # EVERETT, WA

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard TAT

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace Analytical

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Mount Juliet, TN 37122
Phone: 615-758-5858
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Fax: 615-758-5859

L# 994838

B149

Acctnum: SLRWLOR
Template: T135873
Prelogin: P652609
TSR: 110 - Brian Ford
PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDX LVINOSGT 40mlAmb-HCl-BT	PAHSIMLVID cPAHs 40mlAmb-NoPres-WT	V8260LLC benz/naph 40mlAmb-HCl	Remarks	Sample # (lab only)
Seep-N-2	Grab	GW	surface	5/15/18	1408	7	X	X	X		-04
Seep-N-14		GW		5/15/18	1321	7	X	X	X		-02
Seep-N-18		GW		5/15/18	1255	7	X	X	X		-03
Seep-S-1		GW		5/14/18	1455	7	X	X	X		-04
Seep-S-9		GW		5/14/18	1248	7	X	X	X		-05
Seep-S-14		GW		5/15/18	1214	7	X	X	X		-06
Seep-S-16	↓	GW	↓	5/14/18	1342	7	X	X	X		-07
Duplicate-0518		GW		5/14/18	1412	7	X	X	X		
Field-0518		GW		5/15/18	1435	7	X	X	X		
		GW									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Hold Duplicate-0518 and Field-0518 pending results.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4361 6932 0946

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	5/16/18	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCl / MeoH TBR

Temp: 5.5 °C Bottles Received: 63

Date: 5-17-18 Time: 0845

If preservation required by Login: Date/Time

Condition: NCF / OK

5-111

Andy Vann

From: Brian Ford
Sent: Friday, May 18, 2018 11:11 AM
To: Login; Brian Ford
Subject: L994838 *SLRWLOR* log off hold

Please log Duplicate-0518 off hold label 05-111 for NWTPHDXLVINOSGT, PAHSIMLVID, and V8260LLC. Can be added to L994838.

Thanks,

Brian Ford
Technical Service Representative
ESC Lab Sciences-a subsidiary of Pace Analytical
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