Draft Pre-Remedial Design Investigation Data Report – Upland Areas of Jeld Wen Site

Jeld Wen Site

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1.0 Introduction

This Draft Pre-Remedial Design Investigation (PRDI) Data Report – Upland Areas of the Jeld Wen Site (Upland PRDI Data Report) has been prepared in accordance with Agreed Order (AO) Number DE 5095 for the former E.A. Nord, Inc, door facility (i.e., Former Nord Door Facility) (through its successor-in-interest, JELD-WEN, Inc. [JELD-WEN]), located at 300 West Marine View Drive, Everett, Washington, 98201 (Site), executed between JELD-WEN and the Washington State Department of Ecology (Ecology). This Report is specifically described in the Second Amendment to the AO[1], Exhibit G – Scope of Work and Schedule, Task 2: PRDI Data Report, and was prepared in accordance with the Cleanup Action Plan (CAP)[2]. This Upland PRDI Data Report has been prepared to document the findings of the PRDI activities that were performed in accordance with the PRDI Work Plan[3] – Upland Areas of the Jeld Wen Site (Uplands PRDI Work Plan), that was approved by Ecology[4].

This Upland PRDI Data Report has been prepared to meet the requirements of the Model Toxics Control Cleanup Act (MTCA) administered by Ecology under Chapter 173-340 of the Washington Administrative Code (WAC).

2.0 Conceptual Site Model

The Conceptual Site Model (CSM) for the two target remedial action areas, the Woodlife Area and the Creosote/Fuel Oil Area (shown on Figure 1), was presented in detail in the Upland PRDI Work Plan and is summarized in the following section.

2.1 Woodlife Area

Characterization data and history indicate that the primary source of contaminants in soil and groundwater in the Woodlife Area are attributed to an approximately 10,000-gallon aboveground storage tank (AST) containing Woodlife wood treatment solution (which contained pentachlorophenol [PCP]) that was formerly located northeast of the main manufacturing building, associated underground piping from the AST, and the former dip tank located within the main manufacturing building.

Soil and groundwater sampling was completed for analysis of PCP, Polychlorinated dibenzo-p-dioxins and dibenzofurans (hereafter referred to as “dioxins”), and total petroleum hydrocarbons (TPH) based on the location and historical use of the Woodlife solution. PCP was not detected above the laboratory reporting limit in any groundwater samples on the Site. PCP was only detected above the laboratory reporting limit in three soil samples from the Woodlife Area. TPH was detected above the reporting limit in some soil and groundwater samples from the Woodlife

[1] Washington Department of Ecology (Ecology). Second Amendment to Agreed Order for Remedial Investigation/Feasibility Study and Draft Cleanup Action Plan – JELD-WEN, No. DE5095. Effective Date July 28, 2023.

[2] Ecology. Exhibit F - Final Cleanup Action Plan. Jeld Wen Site. August 2023.

[3] SLR International Corp. (SLR). Final Pre-Remedial Design Investigation Work Plan – Upland Areas of Jeld Wen Site. April 3, 2024.

[4] Letter to JELD-WEN, Inc. from Ecology. RE: Approval of PRDI Step 2 Work Plans at the Jeld Wen Site. April 25, 2024.

Area but were limited in extent. There appears to be some crossover with impacts associated with the former National Pole treating operations and fuel oil storage (Creosote/Fuel Oil Area), as discussed below in Section 2.2. Elevated photoionization detector (PID) measurements during field screening at one historical boring, GP-501, suggests the presence of volatile-range contaminants. This boring is in the vicinity of a former toluene tank, and no other borings in the Woodlife Area exhibited similar field screening anomalies.

Dioxins analytical results indicate that the impacts are from underground piping connected to the former Woodlife AST and former dip tank, and these impacts are localized. It is likely that residual dioxins are more persistent than the PCP that was used in the Woodlife solution and is an apt constituent to trace the horizontal and vertical extent of Woodlife-associated impacts.

The Property is zoned as industrial use, and it is likely that industrial activities will continue in the Woodlife Area for the foreseeable future. Potentially complete exposure pathways for soil in the Woodlife Area include direct exposure by construction workers and/or industrial workers (e.g. dermal, incidental ingestion) associated with future on-site work or property development work.

Groundwater at the Site is not considered potable and no groundwater production wells are located at the Site. Groundwater impacts are currently contained under existing surface caps, buildings, and roadways, further limiting potential exposure. Past sampling of shoreline seeps in the "log way" indicate that groundwater contaminants of potential concern (COPCs) are localized and are not present in surface water or sediment adjacent to the Woodlife Area. Volatilization of dioxins from groundwater is not considered a pathway based on its low volatility. Therefore, no complete exposure pathways were identified for groundwater impacts in the Woodlife Area.

2.2 Creosote/Fuel Oil Area

Characterization data and reported history of use indicate that the primary source of COPCs in the Creosote/Fuel Oil Area is the pre-1940 to ca. 1948 former pole treating operation and the 1950's oil-fired boiler formerly on the eastern portion of the Site, adjacent to the current placement of West Marine View Drive.

Groundwater has been measured as shallow as approximately 2 feet bgs and is likely influenced by surface water infiltration, site features, stormwater conveyance lines, and utilities infrastructure. Boring logs do not identify a continuous aquitard or aquiclude for the Site within the extent of site investigations (up to 60 feet bgs); however, strata of finer-grained soils (i.e., silty sands) have been observed in some soil borings. Shallow groundwater samples at the Creosote/Fuel Oil Area have shown indications of brackish groundwater conditions. The tidal influence assessment conducted in 2019[5] within the Creosote/Fuel Oil Area indicated that changes in groundwater elevation associated with tidal swings were minimal.

Historical operations by National Pole included treating timber poles with a creosote wood preservative. Creosote is derived from coal tar and consists of a mixture of aromatic hydrocarbons, anthracene, naphthalene, and phenanthrene derivatives (i.e., heavy chain hydrocarbons). Likely historical releases of COPCs associated with pole treating operations include spills and incidental releases of creosote to the ground surface by way of transporting and

[5] SLR. Summary Report – 2019 Data Gap Assessment. Former E.A. Nord Facility. July 9, 2019.

drying of treated poles. The eventual migration of creosote to shallow groundwater, and subsequently to deep groundwater, is evident in some areas due to both the density of the product observed and the absence of a continuous shallow aquitard.

Releases of petroleum hydrocarbons in the Creosote/Fuel Oil Area are likely associated with the historical fuel storage tanks that were located south of the identified pole treating activities. Grading and filling activities associated with construction of West Marine View Drive likely resulted in burial of surficial contamination east of the primary operations area.

Migration of vapor from the volatilization of vapor intrusion (VI) COPCs (represented by naphthalene as indicator hazardous substance [IHS]) in contaminated shallow groundwater to soil gas has been assessed from within the footprint of the existing main manufacturing building and has been measured in exceedance of sub-slab soil gas criteria. The main manufacturing building has remained vacant since confirmation of sub-slab soil gas impacts.

Groundwater sampling data has demonstrated that creosote impacts to soil and groundwater are localized around the former operation areas in the Creosote/Fuel Oil Area and beneath West Marine View Drive. Groundwater migration and/or seepage to surface water does not appear to be a significant mechanism for the transport of Creosote/Fuel Oil Area impacts, as indicated by data gathered from permanent groundwater monitoring wells on Site and groundwater seeps throughout the Site's shoreline.

The Property is zoned as industrial use, and it is likely that industrial activities will continue in the on-property portion of the Creosote/Fuel Oil Area for the foreseeable future. The off-property portion of the Creosote/Fuel Oil Area consists of a public roadway and railroad-owned property, which will also remain at their current use for the foreseeable future. Potentially complete exposure pathways for soil in the Creosote/Fuel Oil Area include direct exposure by construction workers (e.g. dermal, incidental ingestion) associated with future on-site work or property development work.

The presence of shallow groundwater and the shallow depth of existing subsurface utilities adjacent to the Creosote/Fuel Oil Area indicate that potential future construction worker exposure to soil is limited to less than approximately 5 feet from the current ground surface. This finding is supported by the presence of shallow groundwater, surface structures, and the relatively conductive hydrogeology at the Site. No reasonable scenario exists for human or terrestrial ecological exposure to soil contamination greater than 15 feet bgs (current ground surface); therefore, no exposure pathway for deep soil is considered complete.

Concentrations of benzene and naphthalene in soil gas samples measured during Remedial Investigation (RI)[6] activities exceeded applicable screening criteria under the existing main manufacturing building floor slabs. Therefore, the indoor air exposure pathway for workers on property is considered complete. Exposure to soil gas outside of existing buildings (i.e., volatilization to outdoor air) is unlikely due to immediate dilution by ambient air and lack of confinement to allow buildup in the vapor phase. The volatilization of VI COPCs in the deep zone groundwater that are untreated may potentially re-contaminate the shallow groundwater, which

[6] SLR / Anchor QEA, LLC (Anchor). Final Remedial Investigation/Feasibility Study. Jeld Wen / Former Nord Door Facility. December 2021.



has a direct pathway to receptors via VI. The VI pathway is not complete for off-property portions of the Creosote/Fuel Oil Area.

Groundwater is not considered a current or likely future source of drinking water. Groundwater impacts are currently contained under existing surface caps, buildings, and roadways, further limiting potential exposure. Impacted groundwater within the shallow or deep zone of the Creosote/Fuel Oil Area has not been shown to migrate to adjacent surface water or sediments despite the duration between the initial release(s) and the site investigation activities (up to 80 years in some cases). Therefore, no complete exposure pathways were identified for shallow or deep groundwater associated with the Creosote/Fuel Oil Area; however, there is a connection and complete pathway between soil gas and shallow zone groundwater that does necessitate risk controls for on-property portions of the Creosote/Fuel Oil Area.

3.0 Summary of Selected Remedy

3.1.1 Woodlife Area

Feasibility Study (FS)[7] alternatives for the Woodlife Area were developed by considering the horizontal and vertical delineation of impacts identified during RI sampling activities. Ecology selected Alternative 2: Soil Removal, Engineering Controls, and Institutional Controls, as the preferred cleanup alternative (see Figure 2).

The purpose of the onsite soil excavation for the Woodlife Area is to remove the impacted soil for offsite disposal. Removal of the impacted soil will effectively address the limited groundwater impacts due to the hydrophobic nature of dioxins. The extent of the excavation will be based on existing analytical data supplemented with additional investigation completed during the PRDI activities (see Section 4.3). Institutional controls will include restrictions on soil disturbance where impacted soil remains, and restrictions on the placement of drinking water wells on the property.

A dioxin Cleanup Level (CUL) of 5.2 picograms per gram (pg/g; or, parts per trillion [ppt]) was presented in the CAP, which is equivalent to the natural background concentration[8]. Remediation Levels (RELs) are not proposed for the soil and groundwater cleanup components in the Woodlife Area; however, if the soil impacts can't be fully delineated due to site conditions or health and safety concerns (i.e., significant groundwater infiltration causing excavation/trenching concerns), some contamination could allowably remain in place, being capped with clean backfill and asphalt pavement. If soil impacts extend below 5 feet bgs, an REL of 13 ppt (MTCA method B direct contact value) will be used to limit the depth and spatial extent of excavation, in conjunction with observations of site conditions or health & safety concerns which will dictate the use of engineering controls (clean backfill and asphalt surface cap) and institutional controls as primary components of the remedial action.

3.1.2 Creosote/Fuel Oil Area

[7] SLR / Anchor, RI/FS Report.

[8] Ecology. Natural Background for Dioxins/Furans in WA Soils. Technical Memorandum #8. August 2010.

Affected media in the Creosote/Fuel Oil Area include soil, groundwater, and soil gas. FS[9] alternatives for the Creosote/Fuel Oil Area were developed by considering distinct areas that require cleanup action: on-property ("property" defined as the legal boundaries of the former E.A. Nord facility, as opposed to the "Site" which includes the extent of contamination caused by the release of hazardous substances) vadose zone; on-property shallow groundwater (to 15 feet bgs); on-property deep groundwater (>15 feet bgs); off-property vadose zone; off-property shallow groundwater (to 15 feet bgs); and off-property deep groundwater (>15 feet bgs). Ecology has selected Alternative 7: Hot Spot Soil Removal and BIO (with Monitored Natural Attenuation [MNA], IC, EC) as the preferred cleanup alternative (see Figure 3).

Alternative 7 includes excavation and offsite disposal of Hot Spot contaminated soil on-property; operation of an enhanced BIO treatment system for deeper on-site groundwater and shallow and deeper off-property groundwater; MNA; and institutional and engineering controls. Ecology issued a letter in February 2024[10] that refines the scope of the BIO treatment system to consist of Air Sparging (AS) and Soil Vapor Extraction (SVE) to target the primary risk mechanism of volatilization of groundwater to on-property workers via vapor intrusion. The enhanced component of the BIO system described in the FS (Nitrate-Nutrient-Surfactant [NNS] injections and recirculation) is to be considered the primary Contingent Remedial Action (CRA) – pending completion of a Focused Feasibility Study (FFS), if necessary. As stated in the BIO deferral letter (included as Attachment 1), this change is not considered a significant change to the CAP, but rather primarily results in a modification of the sequencing of the cleanup components specified within the CAP.

The Hot Spot excavation was designed to address high concentration soil impacts at depths where direct exposure is most likely (via future construction worker scenario) and will reduce potential exposures from VI due to volatilization of shallow groundwater impacts (to future building/Site occupants) via source removal. Operation of the BIO treatment system (AS/SVE) in the shallow zone groundwater will reduce potential exposures through VI, and operation of the BIO treatment system (AS) in deeper groundwater will reduce the potential migration of lighter end hydrocarbon contamination associated with the DNAPL that could migrate vertically to the shallow groundwater zone.

The CAP presents an alternate soil Point of Compliance (POC) of 9 feet bgs; however, the most likely scenario for direct exposure would be via utility trenching which, as described in section 2.2, is not expected to proceed deeper than 5 feet bgs as Site conditions could easily lead to flowing sands that could quickly destabilize a shored excavation. The extent of the excavation will be based on existing analytical data supplemented with additional investigation completed during the PRDI (see Section 4.4.1). Limits of excavation will be guided by field observations, with a qualitative REL of no visible NAPL. Impacted soil will be hauled off-site to an approved waste disposal destination pending waste profiling and approval. The use of engineered shoring and dewatering equipment will likely be needed if the excavation will extend into the shallow groundwater table. Clean backfill would be imported (or sourced from clean overburden), placed into the excavation, and compacted. The area would be finished with a surface cap to provide a

[9] SLR / Anchor, RI/FS Report.

[10] Letter to JELD-WEN, Inc. from Ecology. RE: Clarification on Creosote Area Cleanup Plans at the Jeld Wen Site. February 23, 2024.



contiguous surface capping throughout the contaminated area (i.e. engineering control). Due to the prolonged disruption and required closures that would be necessary, excavation will not include soil beneath West Marine View Drive or BNSF property.

The BIO System (as modified in the BIO deferral letter from Ecology) will consist of AS/SVE to focus on removal of residual volatile hydrocarbons following Hot Spot soil removal and address potential migration of lighter end hydrocarbon contamination in the deep zone groundwater that could migrate vertically to the shallow groundwater zone.

Institutional controls may include restrictions to on-site soil disturbance, restrictions to the installation of drinking water wells, and notices of impacted soil. If the soil restrictions are utilized, a soil management plan would be developed to control potential exposure risks posed by direct exposure to residual subsurface contamination (e.g., in the off-property areas under public roadway and railroad tracks where sufficient remedial action is not feasible) and to protect the integrity of the remedy. In addition, a paved surface (engineering control) will be maintained so that the Site still qualifies for Terrestrial Ecological Evaluation (TEE) exclusion.

As presented in the CAP, the BIO cleanup action will continue until there is a diminishing return and subsequent approval from Ecology. When the groundwater REL for naphthalene of 500 micrograms per liter (µg/L or parts per billion [ppb]) has been achieved and the BIO System is showing diminishing return, the performing Potentially Liable Persons (PLPs) will initiate a study to determine if MNA is applicable to achieve the CULs in a reasonable restoration timeframe--estimated at 10 years in the CAP. At any stage in the cleanup, if Ecology determines that the CUL will not be achieved within a reasonable restoration timeframe, the performing PLPs shall conduct a CRA or prepare an FFS under Ecology's direction to address the remaining contamination.

4.0 Upland Pre-Remedial Design Investigation

The existing data sets summarized in the RI/FS Report were sufficient to characterize the nature and extent of COC contamination in the upland portions of the Site for the purpose of the RI/FS. As described in the CAP, soil removal and surface capping are the selected remedy for the Woodlife Area, and Hot Spot soil removal and bioremediation (as amended in the BIO deferral letter) is the selected remedy for the Creosote/Fuel Oil Area.

Further vertical and lateral delineation in removal areas was needed to refine these areas for completion of the remedial design and ensure that implementation of the remedies is protective of human health and the environment. Pilot testing of the BIO system was needed to assess the feasibility of the technology under Site-specific conditions.

4.1 General Scope of Work

In order to address data gaps related to the Ecology-selected upland remedial actions and the modification to the selected alternative detailed in the BIO deferral letter, the following upland PRDI scope of work was performed:

- Assessment of Site features including surface topography, underground utilities, and subsurface infrastructure of the main manufacturing building (i.e., configuration of pilings).
- Lateral and vertical delineation of soil impacts for soil removal in the Woodlife Area.

- Lateral and vertical delineation of soil impacts for Hot Spot soil removal in the Creosote/Fuel Oil Area.
- Aquifer testing (via slug tests) of the shallow groundwater zone to assist with excavation dewatering design and for general hydrogeological data.
- Geotechnical assessment to assist with shoring and excavation design.
- Pilot testing components of the BIO system for the Creosote/Fuel Oil Area, including AS/SVE pilot testing to determine effective radius of influence (ROI) to assist with full-scale design.

Upland PRDI activities were performed in accordance with the SAP, and the analytical methodology and quality assurance protocols used during the PRDI are described in the Quality Assurance Project Plan (QAPP), both of the Upland PRDI Work Plan.

4.2 Site Features and Preparation

4.2.1 Surveying

4.2.1.1 Work Completed

A Washington-licensed land surveyor was subcontracted to survey select features including parcel and property boundaries, current shoreline and edge of asphalt, surface topography, subsurface utilities within the proposed soil removal areas, the location and configuration of the pilings supporting the main manufacturing building within the target treatment area, and the location of all upland PRDI sample locations (including top-of-casing measurements for new wells).

A private utility locating contractor marked the location of any public or privately-owned utilities within the work areas in accordance with the SLR utility contact prevention program, with support from the surveying work. The City of Everett utility map service[11] was reviewed for the presence and reported depths of public utilities adjacent to the Subject Property.

4.2.1.2 Supporting Documents

- Attachment 2 – Site Survey Documents
- Figure 4 – Public Utility Plan

4.2.1.3 Design Elements

- Identifying the location and configuration of the pilings will support design of potential shoring for the Hot Spot soil removal in the Creosote/Fuel Oil Area.
- Extent of current edge of asphalt and outfall locations will support design of sediment remedy.

[11] https://gismaps.everettwa.gov/apps/MapEverettDE/

- Understanding of surface topography in the Woodlife Area near the main entrance is an essential design element due to the presence of stormwater surface flow that enters the property from the adjacent public roadway.
- Surface topography data across the eastern portion of the Site is needed to assess future concerns with sea level rise and site inundation during King Tide events.
- The location and depths of underground utilities near the excavation footprints will support assessment of potential most-likely utility worker exposure POC.
- Coordinates of PRDI sample locations will support understanding of lateral extent of remedy areas and used to guide extents of proposed excavations.

4.2.1.4 Summary of Findings

The surveying tasks provided essential spatial data needed to support design efforts and implementation of remedial action(s).

4.3 Woodlife Area

Upland PRDI activities in the Woodlife Area focused on further delineating and confirming the lateral and vertical extent of dioxins contamination in soil that will require removal to meet cleanup objectives.

4.3.1 Soil Removal Delineation Assessment

4.3.1.1 Work Completed

The sampling design to delineate the soil removal area included collection of discrete soil samples from an approximately 40 x 40-foot grid across the preliminary soil removal area (see Figure 5). Sampling included 26 Geoprobe soil borings completed up to 10 feet bgs and one hand auger sample to 1.5 feet bgs. The boring completed near the former sampling location GP-501 (discussed in Section 2.1) was completed to a depth of 15 feet bgs.

Up to three soil samples at each location from varying depth intervals were collected for laboratory analysis of dioxins. Sample depth intervals were selected based on the CSM for the Woodlife Area and the findings of previous Woodlife Area soil investigations[12]. Soil intervals were processed for analysis in descending order of depth (e.g. the shallowest interval was analyzed first, and subsequent deeper intervals were to be analyzed based on the analytical results in comparison to CUL of the shallower interval). In addition, two soil samples from the boring completed near former sampling location GP-501 were submitted for laboratory analysis of VOCs, as were samples from other borings that exhibited characteristics of volatile constituents during field screening (i.e., elevated PID measurements).

Mitigation measures employed to prevent runoff from entering the investigation area during the PRDI activities included use of a minimally invasive drilling method (a Geoprobe core is only

[12] SLR. Summary Report for Additional Upland Assessment – Former Woodlife Area, JELD-WEN inc. Former Nord Door Site. July 9, 2013.

approximately 2-inches in diameter and can be completed within a matter of minutes) and immediate abandonment of the borings with a bentonite fill and an asphalt surface patch. In addition, the work was performed during the dry season which minimized concerns with stormwater run-on/run-off.

4.3.1.2 Supporting Documents

- Figure 5 – Woodlife Area Soil Removal Delineation Assessment – Sample Locations and Results
- Figures 6 (a-k) – Woodlife Area Soil Removal Delineation Assessment – Cross Sections
- Table 1 – Woodlife Area Soil Analytical Summary – Dioxins
- Table 2 – Woodlife Area Soil Analytical Summary – VOCs
- Attachment 3 – Laboratory Analytical Reports
- Attachment 4 – Boring Logs

4.3.1.3 Design Elements

- Analytical results provided more certainty as to the potential lateral extents in areas where disturbances may cause access concerns (as the Woodlife Area is located within the current main driveway and vehicle access point for the Site in its entirety) and the potential vertical extents to design the necessary dewatering apparatus and understand the scale of dewatering activities.
- The data from this scope along with the data from the Survey (Section 4.2.1) will support the design of the Woodlife Area soil removal; design of traffic/pedestrian controls during the soil excavation; design of dewatering systems to be used during the soil excavation (if needed); design of surface run-on/run-off controls and erosion control best management practices (BMPs); and the design of a backfilling and surface grading/paving plan.
- It is anticipated that the backfilling and surface grading/paving plan will involve the property owner and may involve the City of Everett for changes to the driveway access that would redirect surface water run-on.

4.3.1.4 Summary of Findings

The PRDI sampling sufficiently delineated the vertical and horizontal extent of on-property dioxins impacts associated with the Woodlife Area for the purposes of design, particularly in the area of the current property access route. While there may be data gaps as to the horizontal extent to the south towards the warehouse building (which appears to be an area that is co-located with Creosote/Fuel Oil Area impacts) and towards the small grassy area north of the entrance (which was further assessed by hand auger sample WL-P27 that showed a declining trend in dioxins concentrations), these areas can be assessed using post-excavation confirmation soil sampling to achieve cleanup objectives. As shown on the cross sections (Figure 6a to 6k), in general the extents of the proposed soil removal area during construction can be guided by the historical and this recent PRDI data.



Field screening and laboratory analysis for VOCs in the vicinity of former boring GP-501, and at other locations with elevated PID measurements (Table 2) did identify the presence of VOCs in soils; however, it does not support the notion that VOCs constitute a primary COPC in the Woodlife Area or that the presence of localized solvents in the subsurface assisted dioxins contaminant migration.

4.4 Creosote/Fuel Oil Area

Upland PRDI activities for the Creosote/Fuel Oil Area included a multi-faceted approach that focused on further delineating and confirming the lateral and vertical extent of shallow soil contamination that will require removal (i.e., identification and definition of the Hot Spot), further delineating and confirming the lateral extent of groundwater that will require treatment, and assessing the feasibility and performance of the components of the BIO System.

4.4.1 Hot Spot Soil Removal Delineation Assessment

4.4.1.1 Work Completed

Sampling in this area was focused on further delineating and confirming the lateral and vertical extent and defining the Hot Spot soil removal area. The sampling design included a collection of discrete soil samples and field screening from an approximately 40 x 40-foot grid across the preliminary Hot Spot removal area (see Figure 7). Sampling included 47 Geoprobe soil borings completed up to 10 feet bgs. Continuous soil cores were field screened with a PID and descriptions of NAPL in the soil matrix were recorded in approximately 1-foot increments throughout the soil column. NAPL descriptions were in accordance with the Upland PRDI Work Plan that categorized field observations by: i) Product Saturated Soil; ii) Some Product Present in Soil Matrix (i.e., blebs); iii) Significant Grain Staining (>50% soil particles coated with product); and, iv) Some Grain Staining (<50% soil particles coated with product).

One soil sample at each location was collected for laboratory analysis of cPAHs based on the depth with the highest PID measurement; however, samples were not collected for laboratory analysis from borings with the presence of NAPL as those areas would likely be removed during implementation of the remedy.

Following completion of the soil sampling the borings were abandoned and the surface was patched with like material.

4.4.1.2 Supporting Documents

- Figure 7 – Creosote/Fuel Oil Area Soil Removal Delineation Assessment - Sample Locations and Results
- Figure 8 (a-b) – Creosote/Fuel Oil Area Soil Removal Delineation Assessment – Cross Sections
- Figure 9 (a-h) - Creosote/Fuel Oil Area Soil Removal Delineation Assessment – NAPL Observations by Depth
- Table 3 – Creosote/Fuel Oil Area Soil Analytical Summary – cPAHs
- Attachment 3 – Laboratory Analytical Reports

- Attachment 4 – Boring Logs
- Attachment 5 – NAPL Observation Guidance

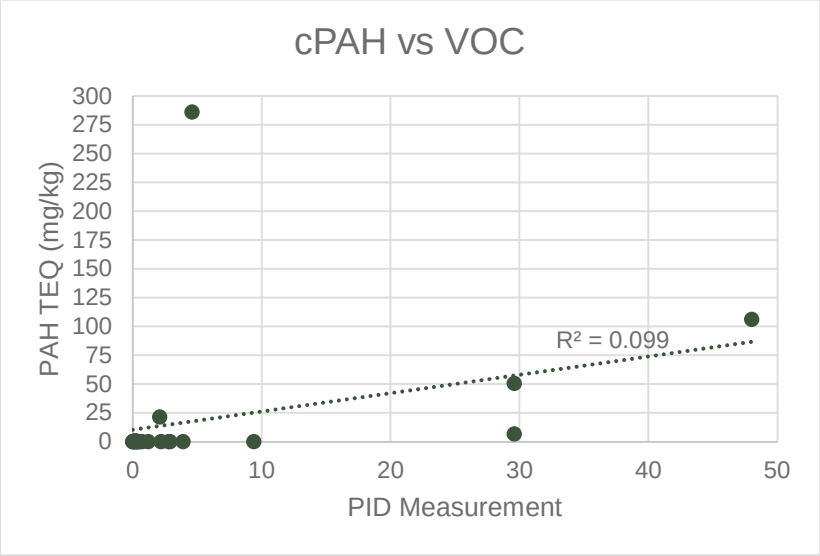
4.4.1.3 Design Elements

- Analytical results provide more certainty as to the potential lateral and vertical extents of Hot Spot soils.
- NAPL classification promotes a clearer semi-quantitative measure of Hot Spot soil to guide excavation design and for use as an REL.

4.4.1.4 Summary of Findings

As observed in the field, the presence of NAPL in varying degrees denoting Hot Spot soils is not a continuous block of uninterrupted mass-- as was envisioned during development of the soil removal component in the FS. Hot Spot soils are, rather, a discontinuous ganglion of free product (Figure 8a and Figure 8b). With the exception of 3 soil sample locations, the top 4 feet of the soil column in the Hot Spot area did not contain the presence of NAPL and therefore are not considered Hot Spot soils. The presence of Hot Spot soils increased with depth and the areas with the thickest interval of Hot Spot soils were at the on-property portion adjacent to West Marine View Drive (Figure 9a to Figure 9h).

PID measurements were lower than expected and the use of post-excavation field screening with a PID as an REL does not appear to be an effective strategy. While there is an apparent increasing trend between a majority of PID measurements and laboratory cPAH TEQ results (see below graph), the correlation is not sufficiently conclusive. Use of a PID for field screening as presented in the CAP does not support identification of the primary COC for this area; therefore, visual observations as presented in the NAPL Observation Guidance (Attachment 5) is expected to be the REL during implementation of the remedy.



4.4.2 Shallow Groundwater Zone Assessment

4.4.2.1 Work Completed

To assess the extent of shallow groundwater impacts, five shallow groundwater monitoring wells were installed to 13 feet bgs (MW-23S, MW-24S, MW-27S, MW-29S, and MW-31S). The wells were constructed with a 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) riser and screen (10-foot section of 0.010-inch slotted PVC) that intercepts the groundwater table. The wells were completed with flush-mount monuments and finished to match the surrounding ground surface elevation. Following installation, the wells were developed using the surge-and-pump method to remove suspended sediments and other material resulting from drilling disturbance.

Prior to the sampling event, SLR personnel measured the depth to groundwater in each well using an electronic water level meter. SLR purged and sampled each well using low-flow methods[13] with a bladder pump. The intake of the pump was placed at the approximate mid-point of the well screen in each well. During purging, field parameters (pH, conductivity, temperature, dissolved oxygen (DO), and oxidation-reduction potential [ORP]) were measured approximately every three minutes, and following stabilization of the field parameter readings, each sample was collected. Care was taken to ensure that one pulse from the bladder pump delivered a water volume sufficient to fill a 40-mL VOC vial for the volatiles analysis. The groundwater samples were submitted to a Washington-accredited laboratory for analysis of naphthalene, cPAHs, and TDS. Ecology requested inclusion of laboratory analysis for TDS to evaluate the correlation between field measurements of conductivity and laboratory analysis of TDS.

4.4.2.2 Supporting Documents

- Figure 10 – Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment - Sample Locations and Results
- Table 4 – Well Construction Details
- Table 5 – Groundwater Elevations
- Table 6 – Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment – Field Parameters
- Table 7 – Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment Analytical Summary – cPAHs
- Table 8 – Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment Analytical Summary – Naphthalene
- Attachment 3 – Laboratory Analytical Reports
- Attachment 4 – Boring Logs

[13] United States Environmental Protection Agency (USEPA). Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. Revised September 19, 2017.

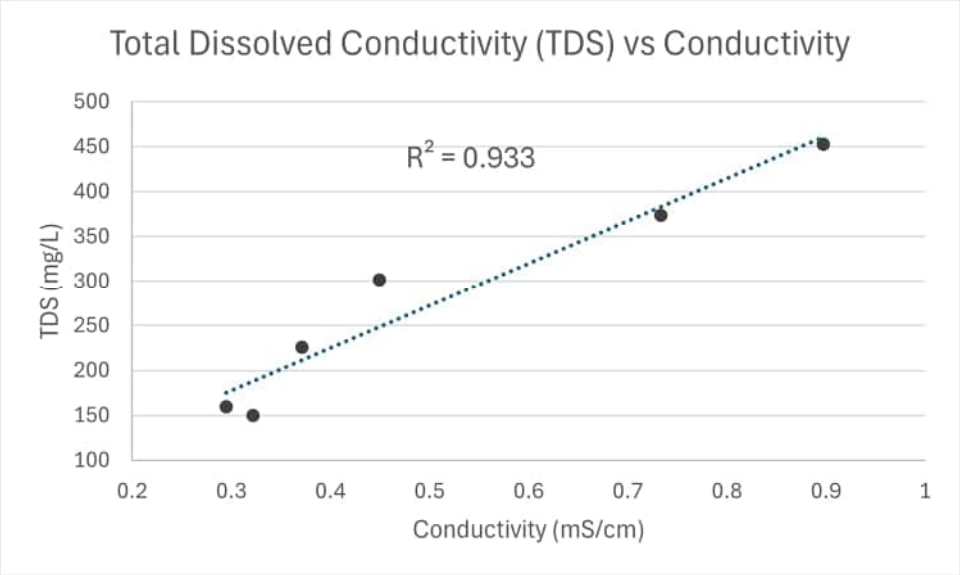
4.4.2.3 Design Elements

- Data from the new shallow groundwater monitoring wells will support both evaluation of the horizontal extent of shallow groundwater zone impacts as well as the treatment system design (e.g., the number and spacing of AS/SVE points).
- Depending on the extent of the Hot Spot soil removal, these wells could be utilized as compliance monitoring points following the completion of the Hot Spot soil removal, during operation of the BIO system, and/or for MNA.

4.4.2.4 Summary of Findings

The PRDI sampling results in conjunction with the existing RI data (Figure 10/Table 8) sufficiently delineate the horizontal extent of naphthalene in on-property shallow zone groundwater for design purposes. Naphthalene impacts in shallow groundwater is the primary driver for assessment of the vapor intrusion pathway, which is considered the primary risk factor concerning shallow groundwater contamination at the Site. Concentrations of naphthalene are not consistent throughout the Creosote/Fuel Oil Area and appear in a configuration similar to the soil observations—with the bulk of the impacted area being beneath the main warehouse building closest to West Marine View Drive or beneath the roadway itself.

As shown in the graph below, there is a strong correlation between laboratory analysis of TDS and field measurements of conductivity. Supplementing field measurements of conductivity with laboratory analysis of TDS appears unnecessary going forward to support the exclusion of the drinking water pathway due to the brackish nature of the groundwater bearing unit.



4.4.3 Deep Groundwater Zone Assessment

4.4.3.1 Work Completed

Five deep groundwater zone monitoring wells (MW-22D, MW-25D, MW-26D, MW-28D, MW-30M, MW-32D, and MW-33D) were installed to assess deep zone groundwater impacts and to assess

and monitor DNAPL presence and migration in the Creosote/Fuel Oil Area. The wells were completed to approximately 50 feet bgs and constructed with a 2-inch-diameter Schedule 40 PVC riser and screen (10-foot section of 0.010-inch slotted PVC), similar to the shallow groundwater zone wells; however, the deep wells were finished with a 2-foot blank PVC "sump". The wells were completed with flush-mount well monuments and finished to match the surrounding ground surface elevation. Following installation, development activities were completed by using surging and pumping methods to remove suspended sediments and drilling material debris.

The deep groundwater zone monitoring wells were sampled in conjunction with the shallow groundwater zone assessment sampling per the procedures described in section 4.4.2.1 (i.e., low-flow method with bladder pump). In addition, the sumps were checked for the presence/absence of DNAPL with a bailer. Routine sump checks are on-going.

4.4.3.2 Supporting Documents

The following documents are included at the end of the report:

- Figure 11 – Creosote/Fuel Oil Area Deep Groundwater Zone Assessment - Sample Locations and Results
- Table 4 – Well Construction Details
- Table 5 – Groundwater Elevations
- Table 9 – Creosote/Fuel Oil Area Deep Groundwater Zone Assessment – Field Parameters
- Table 10 – Creosote/Fuel Oil Area Deep Groundwater Zone Assessment Analytical Summary – Naphthalene
- Table 11 – Creosote/Fuel Oil Area Deep Groundwater Zone Assessment – Sump Check Log
- Attachment 3 – Laboratory Analytical Reports
- Attachment 4 – Boring Logs

4.4.3.3 Design Elements

- Data from the new deep groundwater monitoring wells support evaluation of the extent of deep naphthalene groundwater zone impacts. This information will be used to support treatment design (i.e., the amount and spacing of AS/SVE points) in order to minimize effects to the shallow zone groundwater, and subsequent indoor air, that volatilization of VI COCs from sparging in deep zone groundwater could result in.
- Depending on the extent of the Hot Spot soil removal, these wells could be utilized as compliance monitoring points following the completion of the Hot Spot soil removal, during operation of the BIO system, and/or for MNA.

4.4.3.4 Summary of Findings

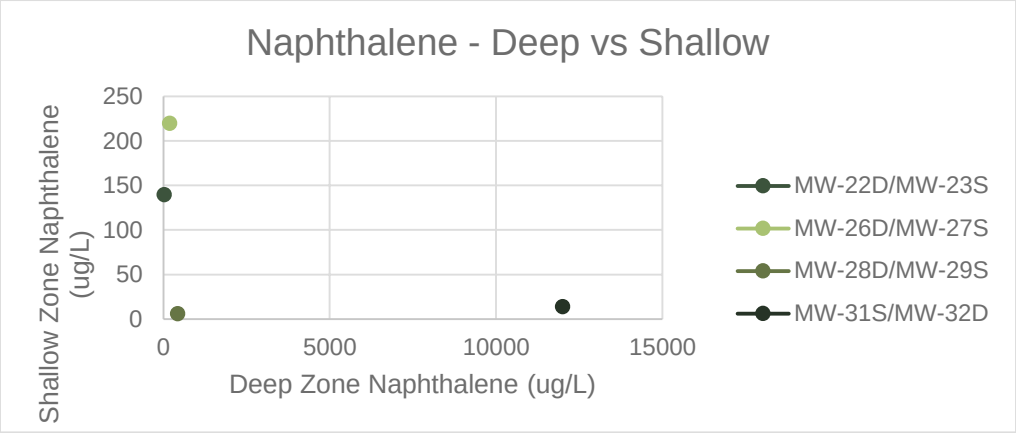
A product assessment using an interface meter and clear disposable bailers was conducted at deep groundwater monitoring wells MW-22D, MW-25D, MW-26D, MW-28D, MW-30M, MW-32D,



and MW-33D during the annual groundwater sampling event and subsequent monthly sump checks. Measurable product as DNAPL was observed consistently at deep monitoring well MW-25D and MW-33D only, supporting the CSM that the presence of DNAPL tends to be localized and non-migratory. Measurable DNAPL in the first bailers dropped for each well stayed relatively consistent throughout additional monthly assessments.

Ecology requested inclusion of laboratory analysis of Specific Gravity of the observed NAPL. The NAPL sample submitted had a specific gravity of 1.10, which confirms that the density of the NAPL is greater than water and downward vertical migration is the appropriate pathway to assess.

The concept of the deep zone component of the BIO system is to volatilize VI COCs that could affect the shallow zone groundwater and subsequently indoor air. Paired deep and shallow groundwater wells were both submitted for laboratory analysis of naphthalene. The following graph shows that there is not a significant correlation between the paired wells, and it does not support that higher concentrations of volatile constituents measured in deep groundwater are responsible for higher concentrations of the same volatile constituents in shallow zone groundwater.



Deep well MW-32D, mid zone well MW-30M, and shallow well MW-31S are all in close proximity and had concentrations of naphthalene measured at 12,000 ppb, 3,500 ppb, and 1.8 ppb, respectively. This is not sufficient evidence of causality as the presence of impacts in the mid zone could just as likely be attributed to leaching from mid zone soil impacts than volatilization of deep groundwater impacts. The comparison of those three locations does suggest that elevated concentrations of naphthalene (12,000 ppb) are co-located with concentrations in shallow groundwater that are below the VI screening criteria of 8.9 ppb and the presence of elevated deep groundwater zone impacts alone do no represent a VI risk. This information will be used in development of the design elements for the deep zone groundwater component of the BIO system.

4.4.4 Geotechnical Investigation Activities

4.4.4.1 Work Completed

The geotechnical investigation consisted of drilling a single test boring (GT-1) to a total depth of 51.5 feet bgs. The boring was completed with a hollow stem auger (HSA) drilling rig. For sands below the groundwater table, water was pumped into the auger while drilling to prevent bottom

heave and sample disturbance. The location of GT-1 was placed in proximity to the proposed Hot Spot soil removal area, but outside of the expected area of NAPL impacts as to not effect the geotechnical laboratory analysis (and as areas with NAPL would likely be removed).

The geotechnical investigation was designed to extend a minimum of approximately 15 feet below the bottom of the anticipated shoring system (assuming a 10-foot excavation in the observed soils would be of the order of twice the excavation depth), and to support future liquefaction evaluation, an exploration depth of 50 feet was completed.

During drilling, soil samples were collected at 2 ½-foot intervals in the upper 10 feet, and 5-foot intervals thereafter. Sampling was performed by driving modified California- and standard split-spoon samplers with an auto-hammer that delivers a 140-pound blow from a height of 30 inches. The number of blows required to drive the sampler each 6 inches was recorded, and the number of blows to drive the sampler the final 12 inches was recorded as the Standard Penetration Test (SPT) blow counts. The soil lithology and pertinent characteristics were observed by SLR personnel in the field and were recorded on a soil boring log.

Samples were delivered to a designated specialty geotechnical laboratory for select testing to determine the engineering and index properties of the soils including: Moisture and Dry Density, Particle size analysis, Atterberg Limits, and Direct Shear/3 Points (Intact Sample).

The geotechnical boring was abandoned in similar manner as the Geoprobe borings described above.

4.4.4.2 Supporting Documents

The following documents are included at the end of the report:

- Figure 1 – PRDI Sample Locations
- Table 4 – Well Construction Details
- Attachment 4 – Boring Logs
- Attachment 6 – Geotechnical Laboratory Reports

4.4.4.3 Design Elements

- Data from the geotechnical assessment will support design of potential shoring apparatus, if needed to perform the Hot Spot soil removal in the Creosote/Fuel Oil Area.
- Geotechnical laboratory data in conjunction with the aquifer test data (see Section 4.4.5), will support design of the dewatering apparatus, if needed to perform the Hot Spot soil removal in the Creosote/Fuel Oil Area.

4.4.4.4 Summary of Findings

Based on the information collected during drilling, the site is underlain by approximately 12 feet of undocumented fill consisting of loose, predominately sand and silty sand materials, with a thin interbedded layer of silt. The underlying native soils consist of medium dense to very dense sand with various amounts of silt extending to approximately 40 feet bgs. Alternating layers of silt and sand are present at greater depths to the full depth explored of 51.5 ft bgs.



Moisture and Visual Class

Soil consisted of dark gray to very dark gray poorly graded sands, with and without silt and gravel. These soils are categorized in the United Soil Classification System (USCS) as poorly graded sand, designated 'SP', and silty sand, designated 'SM'. Beyond 45 feet bgs, the laboratory noted trace shell fragments in the soils. Apart from the shells, no organic material was noted by the lab. Moisture content ranged from 3.1% at the 1.5 to 3.0 feet depth, to 23.2% at the 45.0 to 46.5 feet depth.

Particle-Size Analysis and percent passing #200 Sieve

Select samples were analyzed for particle size through mechanical sieves. Fine grained particles are separated with a #200 standard sieve. The percentage of passing particles are graphed to demonstrate the relative amounts of particles by size classification. Results from these tests indicate that site material is prominently medium and fine sands in the upper 40 feet. These results are consistent with the depositional environment of the Possession Sound shoreline. Silt content appears to increase at depths beyond 40 feet bgs.

Direct Shear

Direct Shear testing is performed to determine soil's shear strength. In this test, a relatively undisturbed sample is subjected to shear stresses. The resulting load and shear deformation is recorded. The peak shear strength is commonly taken as the max shear load sustained during the test.

Direct shear testing was performed on samples taken from 4 feet, 21 feet, and 41 feet for the purpose of designing excavation support systems. The results indicate that the in-place materials have friction angles ranging from 28 to 38 degrees with cohesion values of 0 to 400 pounds per square foot (psf).

Atterberg Limits

Atterberg limits testing was performed on select samples to determine their liquid and plastic limits. These index properties are helpful in determining the consistency of cohesive materials and can be utilized to determine liquefaction susceptibility.

Based on the results of the testing, the soil sampled at 45 feet had liquid and plastic limits of 20% and 18% respectively and is classified as low plasticity silt. Because the fines content was determined to be approximately 35%, the soil classifies as silty sand and could be considered susceptible to liquefaction depending on the soils in-place density.

4.4.5 Aquifer Tests

4.4.5.1 Work Completed

Characteristics of the shallow unconfined aquifer underlying the Creosote/Fuel Oil Area were assessed using traditional aquifer testing protocols to support dewatering and shoring design considerations and to provide general hydrogeological information. PRDI activities completed to assess the shallow aquifer included the following:



- Transducer assessment to assess tidal fluctuations and background conditions at existing groundwater monitoring wells and new monitoring wells described above.
- Slug tests and/or rising/falling head test at existing monitoring wells.

Transducer Assessment

Pressure transducers were installed and employed from May 20 to July 25, 2024, to assess long-term tidal fluctuations and background conditions at existing groundwater observation monitoring wells (MW-4, MW-5, MW-6, MW-7, MW-8A, MW-10A, MW-11A, and MW-15). Transducers were suspended at approximately 2 feet above the bottom of the well casing and programmed to record pressure and transducer readings at 1-hour intervals. A barometer pressure transducer was installed in open-air during the assessment to collect ambient atmospheric pressure data, that was ultimately used to correct collected data from the observation wells to ambient atmospheric pressures and temperatures.

Rising Head/Falling Head Slug Tests

Slug-test methods are commonly used for unpumped well hydraulic testing. This involves quickly changing the water level in the well and measuring the recovery rate as it returns to its static state. The recovery rate helps estimate the hydraulic conductivity (K) and transmissivity (T) of the aquifer materials around the well. This method is useful for assessing groundwater in contaminated areas where pumping tests are not feasible due to concerns such as accumulation and disposal of contaminated groundwater, as is the case at the Subject Property.

SLR personnel performed rising head and falling head slug tests at MW-7 to model conditions for the Woodlife Area soil excavation and MW-8A to model conditions for the Hot Spot soil removal in the Creosote/Fuel Oil Area.

Prior to slug testing each well, SLR personnel measured the depth to groundwater using an electronic water level indicator. After a static water level was measured, the total depth of each well was measured from top-of-casing (TOC) with accurate time of the slug test well, and any observation wells, noting any sediment at the bottom based on feel and existing well records.

Slug tests were completed using a 42-inch long, 1.75-inch diameter slug (weighted rod) with capped ends to model hydraulic head drawdown and recovery by displacing the wellbore water column. For falling head tests, a slug was installed approximately 0.5 ft below the initial depth to water TOC, ensuring the installed transducer and cable did not obstruct slug installation. Upon slug installation, the water column level immediately increased from volume displacement and 1-second interval transducer data was collected and observed in real time. Each falling head slug test was considered completed once the well recovered to maximum displacement (or 95% or greater recovery) to the initial groundwater level measured. With the slug fully submerged and a stable water level, the slug was quickly removed from the well to conduct a rising head slug test (as the water column level falls and begins to slowly increase). Continuously, 1-second interval transducer data was collected and observed in real time. Each rising head slug test was considered completed once the well recovered to maximum displacement (or 95% or greater recovery) to the initial groundwater level measured.



4.4.5.2 Supporting Documents

- Figure 1 – PRDI Sample and Activity Locations
- Attachment 7 – Aquifer Test Supporting Documents

4.4.5.3 Design Elements

PRDI activities provided the following support for design elements:

- Slug test data will supplement other findings from the PRDI activities to assess the area, depth, and volume of soil below the groundwater table (if any) that will be removed.
- Extensive transducer assessments to assess tidal fluctuations and background conditions in existing groundwater monitoring wells that may affect soil excavation or installation and operation of the BIO system.
- Slug test analysis results aid in estimating dewatering rate and volume for proposed soil removal areas.
- Slug test data aids in the designing of shoring required for the soil removal areas (in addition to geotechnical assessment described in Section 4.4.4).

4.4.5.4 Summary of Findings

Nearshore wells MW-6 and MW-15 had consistent, similar groundwater fluctuations that appear tied to tidal elevation fluctuations. No other monitored wells, including MW-7 adjacent to the Woodlife Area soil removal and MW-8A adjacent to the Creosote/Fuel Oil Area Hot Spot soil removal, experienced groundwater elevation changes similar to the tidal elevation fluctuations (see Graph in Attachment 7), which is similar to findings from previous tidal assessments performed as part of the RI.

The continuous transducer data from each well was analyzed using AQTESOLV™ software to estimate local hydraulic conductivity values from falling-head and rising-head tests. SLR personnel evaluated the slug test data using the Bouwer and Rice (1976), Hyder et al. (1994) [KGS model], Hvorslev (1951), and Dagan (1978) solution methods for comparison. Based on the results of the slug tests, the geometric mean of calculated K values per solution method for the MW-7 area aquifer ranged from 2.82 ft/day (9.94E-04 cm/sec) to 29.58 ft/day (1.04E-02 cm/sec). The geometric mean of calculated K values per solution method for the MW-8 area aquifer ranged from 0.11 ft/day (4.01E-05 cm/sec) to 0.60 ft/day (2.11E-04 cm/sec). This data suggests that the fill material present at each location and associated hydrogeological properties are not consistent and each proposed excavation area will need to be designed independently in regard to construction specifications (i.e., shoring and dewatering).

4.4.6 BIO System Pilot Test

4.4.6.1 Work Completed

Bioremediation (BIO, as described in the CAP) comprising AS and SVE was selected as a component of the remedy alternative, as adjusted by the BIO deferral letter, to address the primary

exposure risk of VI from COCs in shallow and deep groundwater within the Creosote/Fuel Oil Area.

AS Point Installation

Two air sparge points (designated AS-S [shallow] and AS-D [deep]) were installed at the fringe of the Hot Spot soil removal area, as estimated in the CAP, using sonic drilling methods. During drilling, soil cores were continuously collected from within the core barrel in 5-foot to 10-foot-long soil core bags (4-inches in diameter). SLR personnel logged the geologic conditions in the cores in accordance with USCS and field screened each core for the potential presence of petroleum hydrocarbons and volatile organic compounds by using visual appearance and odors. Because the contaminant concentrations in the soil near these locations have previously been adequately characterized, soil samples were not collected for laboratory analysis.

The AS wells were constructed with 1-inch-diameter Schedule 40 polyvinyl chloride (PVC) piping and a 2-foot-long screen (0.010-inch slotted PVC). The well annulus was sealed with bentonite grout due to the application of pressure utilized during the pilot test. The top of the casing is protected by a flush-grade monument set in concrete to match the surrounding ground elevation.

Horizontal SVE Point Installation

A horizontal SVE well was constructed in the proposed pilot test area. To install the horizontal SVE well, the concrete floor inside the building was saw cut and a shallow trench was excavated approximately 10 feet in length to a depth of approximately 2 to 3 feet bgs. The horizontal SVE well consisted of a slotted horizontal pipe placed within the trench excavation, which was then backfilled with a layer of pea gravel, a layer of geotextile filter fabric, and a layer of 6-millimeter-thick polyethylene sheeting (to function as a vapor barrier). The slotted pipe was attached to a tee and extended above the existing surface and the area above the vapor barrier was backfilled with removed material to just under the bottom of existing pavement. A new concrete surface was poured around the pipe extension and above the vapor barrier to match the surrounding ground elevation. A schematic is included as Figure 12.

Vapor Pin Installation

To monitor the vacuum influence on the subsurface, eight flush-mount soil vapor pins were installed around the horizontal well with connections for Magnehelic differential pressure gauges. The vapor pins were installed in approximately 10 to 20 foot radial increments from the closest corner of the horizontal well at lateral distances of 10 feet (VP-10), 20 feet (VP-20), 30 feet (VP-30), 40 feet (VP-40), 50 feet (VP-50), 60 feet (VP-60), 80 feet (VP-80), and 100 feet (VP-100). The vapor pins were installed by drilling a 1 ½ inch hole perpendicular through a concrete slab to approximately 1 ¾ inches depth. A 5/8-inch drill bit was then used to drill through the concrete to the soil surface and the vapor pin was assembled and installed in the 5/8-inch drill hole. A leak test was performed after installation using a manual vacuum pump to ensure the vapor pin installation was airtight. A stainless-steel fitted cover was then screwed over the vapor pin.

Additional Monitoring Points

Existing monitoring wells and new monitoring wells installed as part of the shallow and deep zone groundwater assessment, described above, were also utilized during the AS/SVE pilot testing, as needed. Monitoring wells utilized are referenced in the descriptions below regarding testing.

AS/SVE Pilot Testing

Two series of pilot testes were performed to evaluate the effectiveness of AS/SVE in relation to subsurface conditions at the Site, and to determine site-specific properties required to complete a full-scale system design.

Equipment utilized for the pilot test included a gasoline-powered portable reciprocating air compressor with a flow regulator, pressure gauge, and rotameter to monitor the applied pressure and flow, and a five-horsepower regenerative blower connected to a moisture knockout tank with sampling ports to monitor air flow. The testing in each zone consisted of a step test to establish flow/pressure curves followed by longer-term steady state tests to establish the ROI of a typical shallow or deep AS point in each zone.

The air sparging ROI was evaluated by analyzing by pilot test measurements including DO, ORP, groundwater elevation, well headspace PID readings, and presence/absence of bubbles in the monitoring wells (assessed visually and/or auditorily). The SVE pilot system was used in conjunction with the AS pilot tests to replicate the function of the full-scale system to control sub-slab vapors generated by air sparging.

SVE Test

During the SVE test, a vacuum was applied to an SVE knockout tank by using a regenerative blower capable of a maximum airflow rate of approximately 216 cubic feet per minute. The test was conducted for approximately 7.5 hours over the course of two days. SLR monitored the following parameters at regular intervals during the SVE tests:

- The estimated concentration of hydrocarbon vapors in the extracted vapor by using a PID at the influent of the vacuum pump;
- The concentration of oxygen (O_2) and carbon dioxide (CO_2) in extracted vapor using a multi-gas meter at the influent of the vacuum pump;
- The extracted airflow rate by using a thermal anemometer in a pipe connected to the influent of the vacuum pump; and
- The induced vacuum in vapor pins using a set of Magnehelic pressure gauges.

A sample of the extracted vapors was collected at the end of each field day of pilot testing and submitted for laboratory analysis of VOCs.

In addition, pressure transducers were installed in select monitoring wells to assess changes to the groundwater table's uppermost elevation due to performance of the test, which could affect the operation of a full-scale SVE system.

Shallow Air Sparging Test

A shallow air sparging test was performed for approximately 8.5 hours over the course of two days. Compressed air was injected into AS-S at an initial pressure of 1.0 psi, which was measured using a pressure gauge on the air injection manifold downstream of the airflow regulator on the compressor. Vacuum applied to the horizontal SVE well was monitored at 20 in. H_2O during testing. During the test, the airflow rate into AS-S was measured using an in-line rotameter at the air injection manifold. The maximum airflow rate achieved during this test was approximately 151 cubic feet per minute (cfm) at 1.0 psi.

During the sparging test, the following field parameters were measured at nearby monitoring wells MW-27S, MW-29S, and MW-31S:

- Temperature (degrees C), DO, and ORP using a multi-meter probe;
- Headspace hydrocarbon vapor concentrations using a PID;
- Bubbling intensity in the monitoring wells was noted via visual and auditory monitoring;
- Water levels were monitored with a water-level meter; and,
- Vacuum influence was monitored via Magnehelic gauges at vapor pins installed as part of the SVE test.

Deep Air Sparging Test

A deep air sparging test was performed for approximately 6 hours during one day. Compressed air was injected into AS-D at an initial pressure of 1.0 psi and was increased to 5.0 psi. Vacuum applied to the horizontal SVE well was monitored at 20 in. H_2O during testing. During the test, the airflow rate into AS-D was measured by using an in-line rotameter at the air injection manifold. The maximum airflow rate achieved during this test was approximately 143 cfm at 5.0 psi.

Field parameters were collected as per the abovementioned Shallow Air Sparging Test in wells MW-26D, MW-27S, MW-28D, MW-29S, MW-30M, MW-31S, and MW-32D, and from the vapor pins installed as part of the SVE test.

4.4.6.2 Supporting Documents

- Figure 12 - SVE Horizontal Well Schematic
- Figure 13 - SVE Pilot Test ROI
- Figure 14 - Shallow Air Sparge Pilot Test Summary
- Figure 15 - Deep Air Sparge Pilot Test Summary
- Table 12 - SVE Pilot Test Effluent Analytical Summary – VOCs
- Table 13 - SVE Pilot Test – Vapor Pin Vacuum Measurements
- Table 14 – Shallow Air Sparge Pilot Test Measurements
- Table 15 – Deep Air Sparge Pilot Test Measurements
- Attachment 8 – Pilot Test Graphs



4.4.6.3 Design Elements

- Assess use of a horizontal SVE well configuration for a full scale SVE system considering minimal vadose zone due to shallow groundwater table.
- Preliminary ROI obtained for shallow and deep sparging and SVE to support design of and spacing for extraction and sparging points.

4.4.6.4 Summary of Findings

During the SVE pilot test, minimal volatiles concentrations were detected in the extracted vapors (PID readings between 0.0 and 0.1 parts per million [ppm]). It is not uncommon to observe an immediate drop in hydrocarbon concentrations upon startup in situations where significant air flow throughout the formation is induced by the blower. It is possible that measurable concentrations were not captured upon the first measurement interval. Analytical results of the effluent did not measure the presence of naphthalene (Table 12), and VOCs that were measured could have been influenced by pilot testing equipment (i.e., Tetrahydrofuran from PVC glue or BTEX from gasoline).

During the SVE test, vacuum influence was measured in the vapor pins and nearby monitoring wells. Very low vacuum levels were observed in the wells, which generally decreased with increasing distance from the horizontal SVE point. The applied vacuum in the horizontal SVE point was low (20 inches of H_2O) and consistent throughout the test to minimize mounding. The normalized vacuum measurements were plotted against the distance from the horizontal well to determine the distance at which the induced vacuum in a theoretical well would become zero, or the ROI. Based on this analysis, while a few measurements were recorded at the 100-foot point (VP-100), no measurements were recorded at the 80-foot point (VP-80) which could suggest varying subsurface conditions between those two locations. In general, vacuum influence was observed consistently between 50 and 60 feet throughout the tests (Table 13/Figure 13).

The temperature, DO, ORP levels, and vacuum influence remained relatively constant during the shallow air sparge test (Figure 14). Groundwater mounding up to the top of casing was observed at MW-29S. The PID readings increased with time at MW-32D (located approximately 30 feet from AS-S), which suggests air sparging is effective. PID readings stayed relatively constant in all other wells. The estimated air sparging ROI at the time of the test was approximately 30 feet; however, the ROI should increase when the groundwater table is higher due to an optimum 1:1 ratio of the submerged depth of the screen to the radius of influence at the groundwater table.

The temperature, DO, and vacuum influence remained relatively constant and appeared to be unaffected during the deep air sparge test (Figure 15). Groundwater mounding up to the top of casing was observed at MW-28D and MW-32D. DO measurements increased in shallow zone wells during the deep sparge test suggesting the continuity of the aquifer and confirming absence of a significant aquitard. The estimated air sparging ROI at the time of the test was approximately 80 feet; however, the ROI should increase when the groundwater table is higher due to an optimum 1:1 ratio of the submerged depth of the screen to the radius of influence at the groundwater table.

During the deep sparge test, mounding of the groundwater table required shutdown of the SVE system as water was observed in the moisture knockout tank. This instance was a reminder as to the minimal vadose zone available to capture vapors and safely and effectively operate a



system during current site conditions, of which are only expected to become worse over time (see Section 4.5.1).

4.5 Other

4.5.1 Resilience to Climate Change

The new MTCA rule[14] includes a requirement that cleanup alternatives be sufficiently resilient to potential climate change. An aerial map showing the estimated future inundation area(s) with consideration to estimated sea level rise predictions by the WA Coastal Network (as presented in the RI/FS Report) is included as Figure 16. Rising sea levels could potentially inundate low-lying portions of the upland areas of the Site, including in the vicinity of the remedial action areas. A near-term potential effect on the upland remedy would be interruption of an active SVE system due to intermittent inundation during King Tide events. Elements of climate resiliency (i.e., increase of surface elevation via import of material or water level-operated system) will be incorporated into the EDR.

4.5.2 Archaeology

An Inadvertent Discovery Plan (IDP) was prepared in accordance with applicable state and federal laws and was maintained on site during ground disturbing activities (i.e., drilling beyond extent of fill material). At the request of Ecology[15], upon consultation with Department of Archaeology & Historic Preservation (DAHP), a licensed archaeologist performed monitoring during ground disturbance activities. No evidence of archaeological artifacts were observed during upland PRDI activities. A copy of the archaeological monitoring report is included as an attachment to the Draft PRDI Data Report – Marine Areas[16].

4.5.3 Permitting

Permitting was limited to drilling and well permits that were obtained by the licensed driller(s). Copies of well logs filed with Ecology are provided in Attachment 9.

4.5.4 Waste Management

Solid and liquid waste generated as part of the Upland PRDI activities (i.e., soil cuttings and purge water) was handled in accordance with applicable solid waste handling and disposal requirements regarding storage, labelling, profiling, and disposal destination. Documentation of disposal is included in Attachment 10.

[14] WAC 173-340; Updated August 23, 2023

[15] Letter to Frank Winslow, Ecology from Treasure Mitchell, Ecology. RE: Model Toxics Control Act Consultation Requirement – WAC 173-340-815. May 7, 2024

[16] To be prepared and submitted independently by Anchor

4.5.5 Uncertainty Analysis

Data generated for this PRDI was collected in accordance with the SAP and QAPP. A Data Validation Summary is included as Attachment 11. In general, data objectives from the Upland PRDI Work Plan were achieved and no data was rejected for its intended purpose.

5.0 Schedule

The final Project schedule was established in the Second Amendment to the AO. The Draft PRDI Data Report per Schedule C.1 of the AO is 90 days following availability of validated investigation data, which Ecology confirmed was on January 8, 2025. The Final PRDI Data Report per Schedule C.2 of the AO is 30 calendar days following receipt of Ecology's final comments on the Draft PRDI Data Report.

6.0 Closure

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

Sincerely,

SLR International Corporation

[DRAFT FOR ECOLOGY]

R. Scott Miller, P.E.
Senior Principal

[DRAFT FOR ECOLOGY]

Chris Kramer
Principal

Figures



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- APPROXIMATE INVESTIGATION AREA BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- AQUIFER TEST LOCATION
- HORIZONTAL SVE TRENCH
- VAPOR PIN LOCATION
- GT — PRDI GEOTECH BORING LOCATION
- CF — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

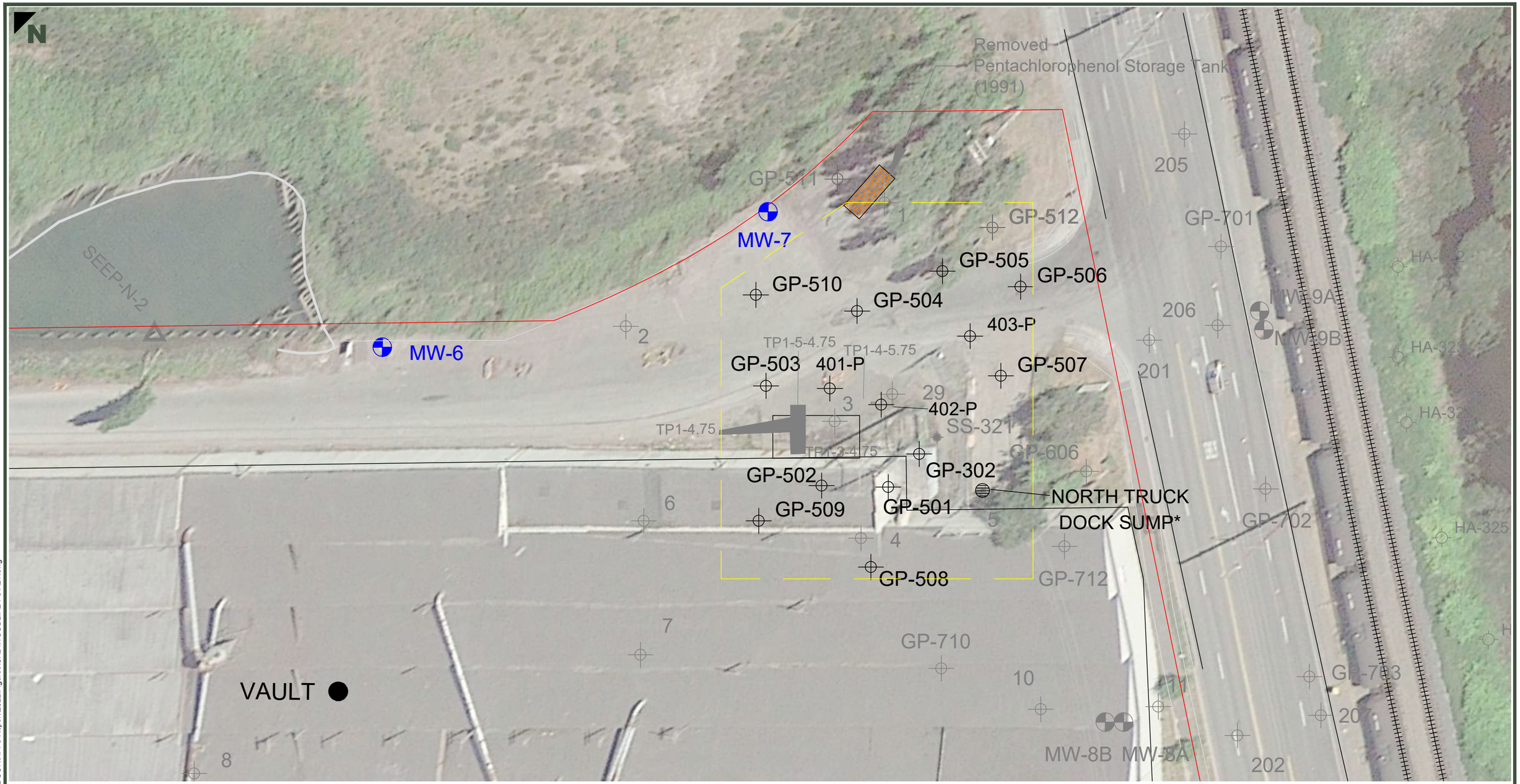
SLR

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
SITE PLAN AND SAMPLE LOCATIONS

Date	APRIL 2025	Scale	AS SHOWN	Fig. No.
File Name	2024_Nord.dwg	Project No.	108.020778.00001	1



LEGEND

MW-6 EXISTING GROUNDWATER MONITORING WELLS

ESTIMATED LIMITS OF EXCAVATION (ACTUAL HORIZONTAL AND VERTICAL EXTENTS TO BE DETERMINED BY PRE-REMEDIAL DESIGN INVESTIGATION)

APPROXIMATE PROPERTY BOUNDARY

NOTES

FIGURE FROM 2023 CLEANUP ACTION PLAN (CAP).

THE BUILDINGS, SURFACE UTILITIES, EDGE OF PAVEMENT, AND APPROXIMATE SHORELINE SHOWN ON THIS MAP ARE BASED ON A 2006 SURVEY PERFORMED BY WH PACIFIC.

0 45 90 135'

SLR ANCHOR QEA

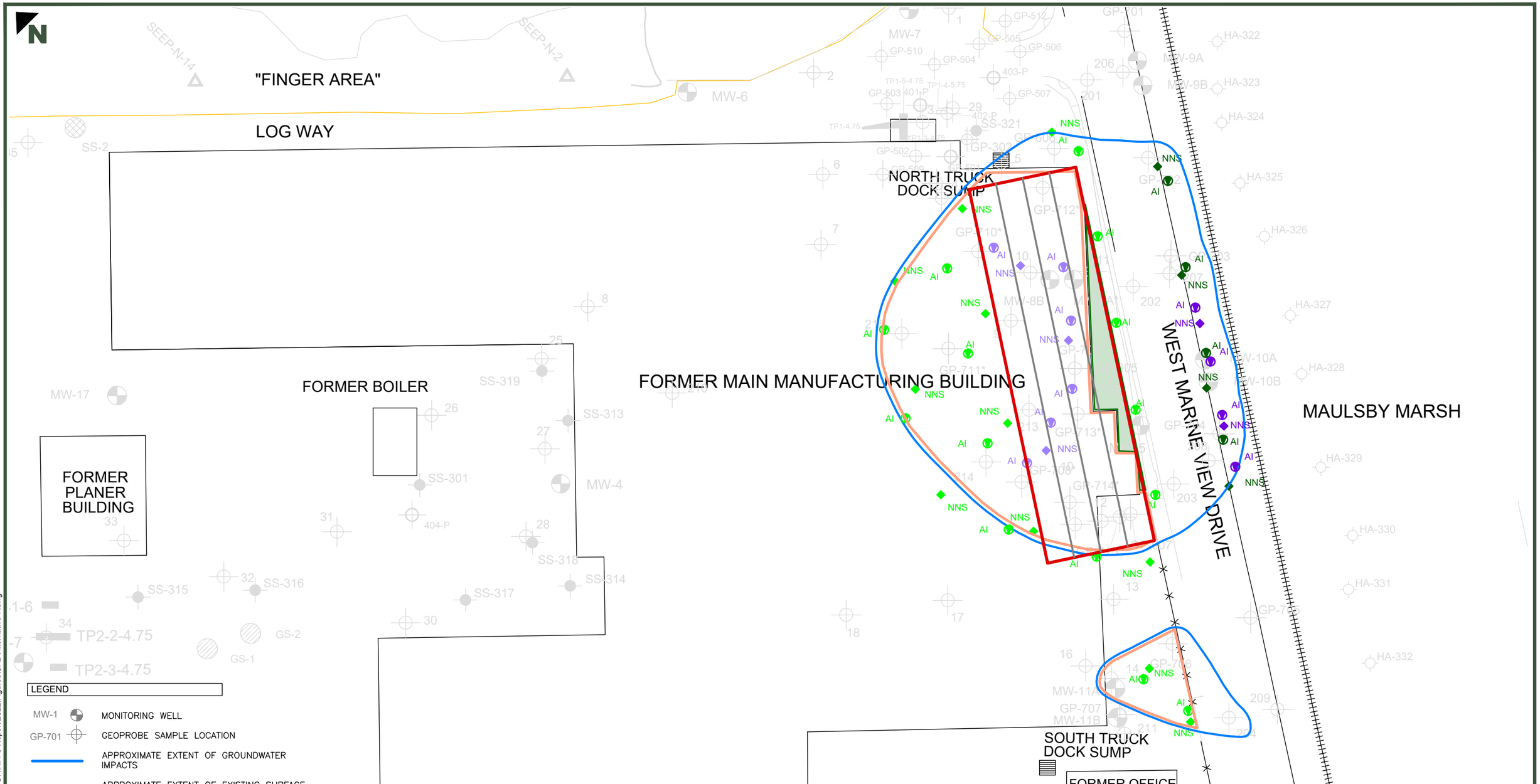
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
UPLAND CLEANUP AREA - WOODLIFE AREA

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 2
File Name	WOODLIFE FS ALT	Project No.	108.020778.00001	

N:\Portland\Projects\JELD-WEN\JELD-WEN NORD DOOR\RI-FS Report\2022\Figures\CAD\WOODLIFE FS ALT.dwg



LEGEND

MW-1	MONITORING WELL
GP-701	GEOPROBE SAMPLE LOCATION
	APPROXIMATE EXTENT OF GROUNDWATER IMPACTS
	APPROXIMATE EXTENT OF EXISTING SURFACE CAP WITHIN IMPACTED AREA ON PROPERTY
	APPROXIMATE EXTENT OF UNPAVED GROUND SURFACE ON PROPERTY (3,700 SQ FT)
	HOTSPOT REMOVAL AREA (100 FT X 350 FT)
	PROPOSED SHORING (25 FT SPACING)

PROPOSED BIOREMEDIATION TREATMENT

AI	AI WELLS (ON PROPERTY)	NNS	NNS WELLS (ON PROPERTY)
AI	AI WELLS (OFF PROPERTY)	NNS	NNS WELLS (OFF PROPERTY)
AI	AI DEEP WELLS (ON PROPERTY)	NNS	NNS VERTICAL RECIRCULATION WELLS (ON PROPERTY)
AI	AI DEEP WELLS (OFF PROPERTY)	NNS	NNS VERTICAL RECIRCULATION WELLS (OFF PROPERTY)

NOTES

FIGURE FROM 2023 CLEANUP ACTION PLAN (CAP).

REMEDY WAS MODIFIED PER BIO DEFERRAL LETTER (ECOLOGY, FEBRUARY 2024).

0 90 180 270’

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
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Figure
UPLAND CLEANUP ACTION - CREOSOTE/FUEL OIL AREA

Date	APRIL 2025	Scale	AS SHOWN	Fig. No.	3
File Name	Alternative 7	Project No.	108.020778.00001		

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LEGEND

- SUBJECT PROPERTY BOUNDARY
- WATER
- SEWER
- GAS MAIN
- DRAINAGE MAINS
- MH — DRAINAGE MANHOLE
- MH — SEWER MANHOLE
- CB — DRAINAGE CATCH BASIN

NOTES

UTILITY INFORMATION FROM SNOHOMISH COUNTY ASSESSOR ONLINE MAPPING (SCOPI)

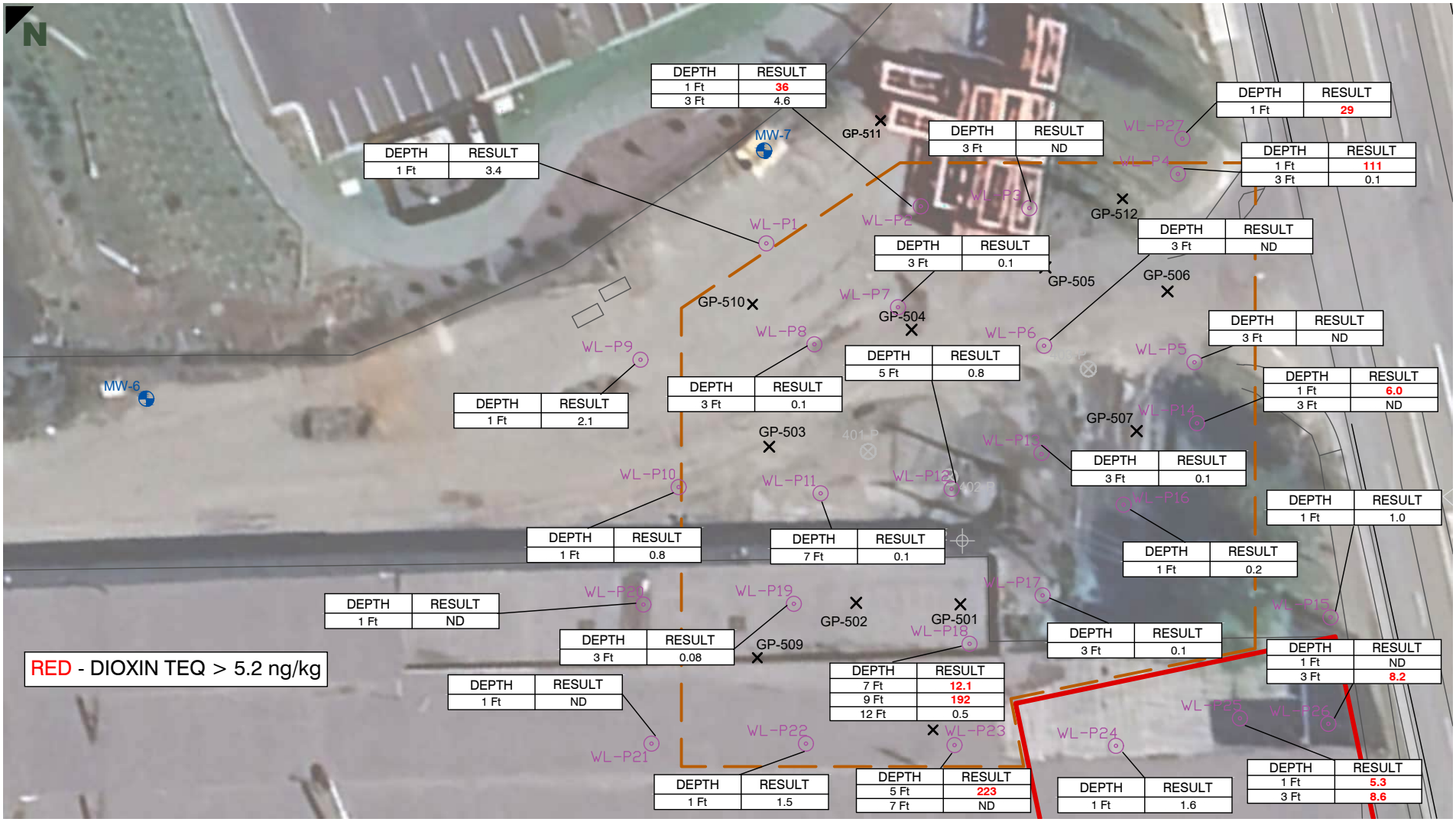
SLR

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
PUBLIC UTILITY PLAN

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 4
File Name	2024_Nord.dwg	Project No.	108.020778.00001	



LEGEND

- GEOPROBE SAMPLING LOCATION, SLR 2012
- GEOPROBE SAMPLE LOCATION, SLR 2009
- SURFACE SOIL SAMPLE LOCATION, SLR 2009
- NEAR SURFACE SOIL SAMPLE LOCATION, SLR 2009
- EXISTING MONITORING WELL
- GEOPROBE SAMPLING LOCATION, SLR 2013
- PRDI SOIL BORING LOCATION
- CREOSOTE/FUEL OIL AREA HOTSPOT (100 FT X 350 FT) FROM CAP
- WOODLIFE SOIL REMOVAL AREA
- ESTIMATED EXTENT OF IMPACTS AT 1' bgs
- ESTIMATED EXTENT OF IMPACTS AT 3' bgs
- ESTIMATED EXTENT OF IMPACTS AT 5' bgs
- 40'x40' SAMPLING GRID

0 45 90 135'

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

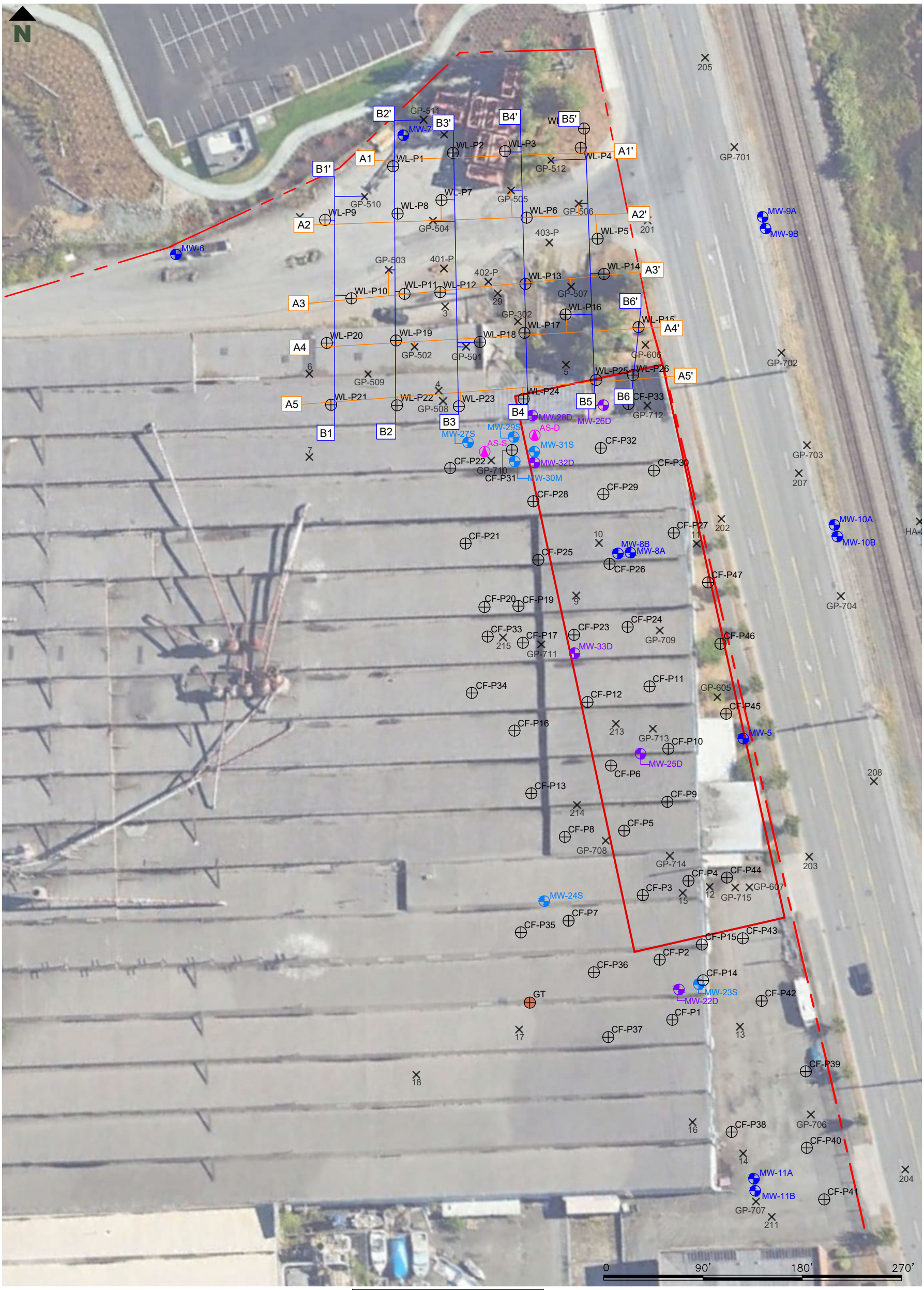
Report
DRAFT PRDI DATA REPORT

Figure
WOODLIFE AREA SOIL REMOVAL DELINEATION ASSESSMENT - SAMPLE LOCATIONS AND RESULTS

Date	APRIL 2025	Scale	AS SHOWN
File Name	RD Workplan-3	Project No.	108.020778.00001

Fig. No. 5

Last Saved: April 08, 2025 1:14:02 PM by ehernandez Drawing path: N:\Portland\Figures\JELD-WEN\JELD-WEN NordDoor\PHASE 2\RD Workplan.dwg



LEGEND

- SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- GT — PRDI GEOTECH BORING LOCATION
- CF — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL BORING LOCATION AND DESIGNATION
- CAP PROPOSED HOT SPOT EXCAVATION AREA

NOTES

CROSS SECTIONS SHOWN ON FIGURES 6a - 6k

SLR

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report

DRAFT PRDI DATA REPORT

Figure

WOODLIFE AREA SOIL REMOVAL DELINEATION ASSESSMENT - CROSS SECTIONS

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 6
File Name	2024_Nord.dwg	Project No.	108.020778.00001	

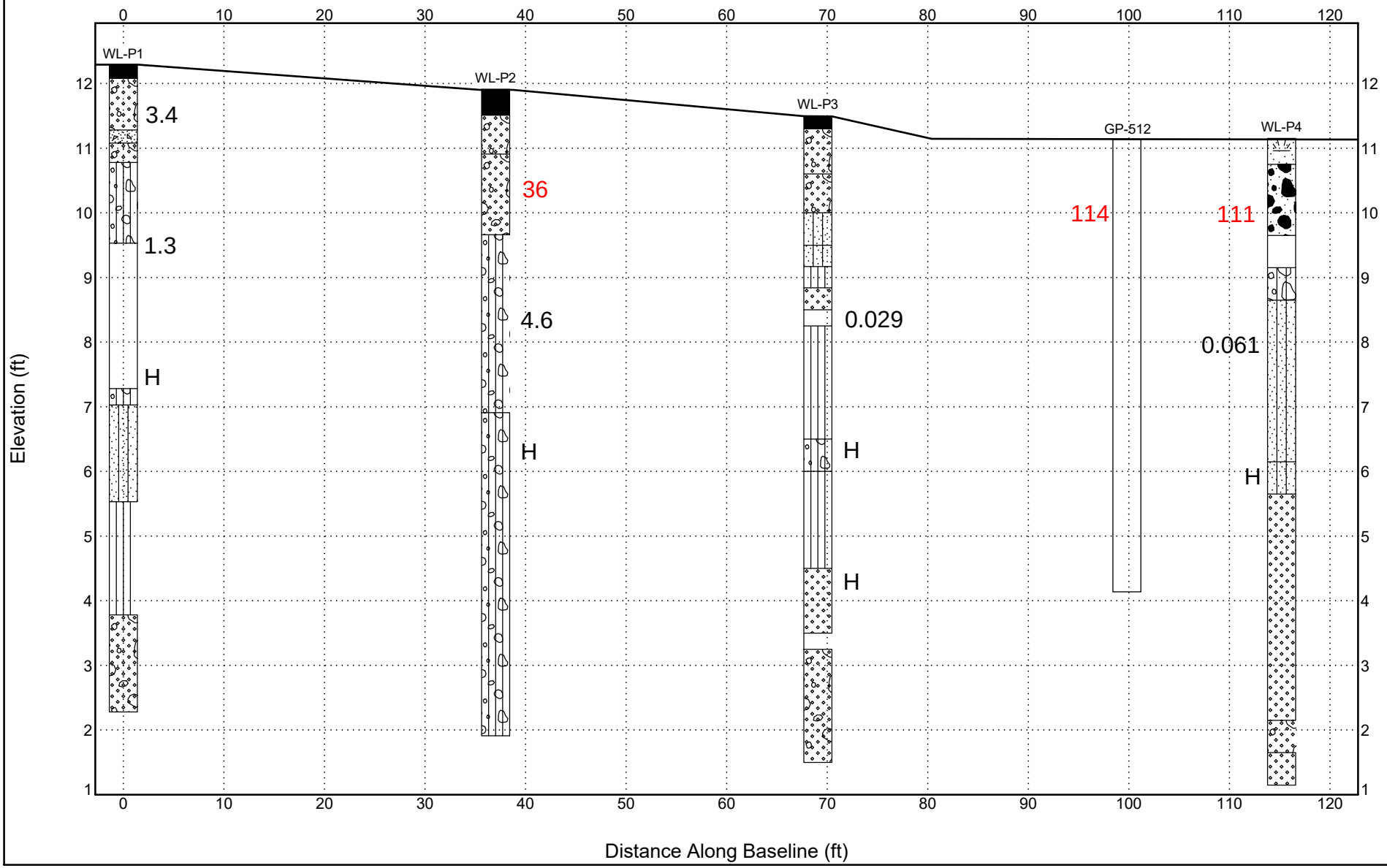
Figure 6a
Woodlife Area Soil Removal Grid Cross Section
A1-A1'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

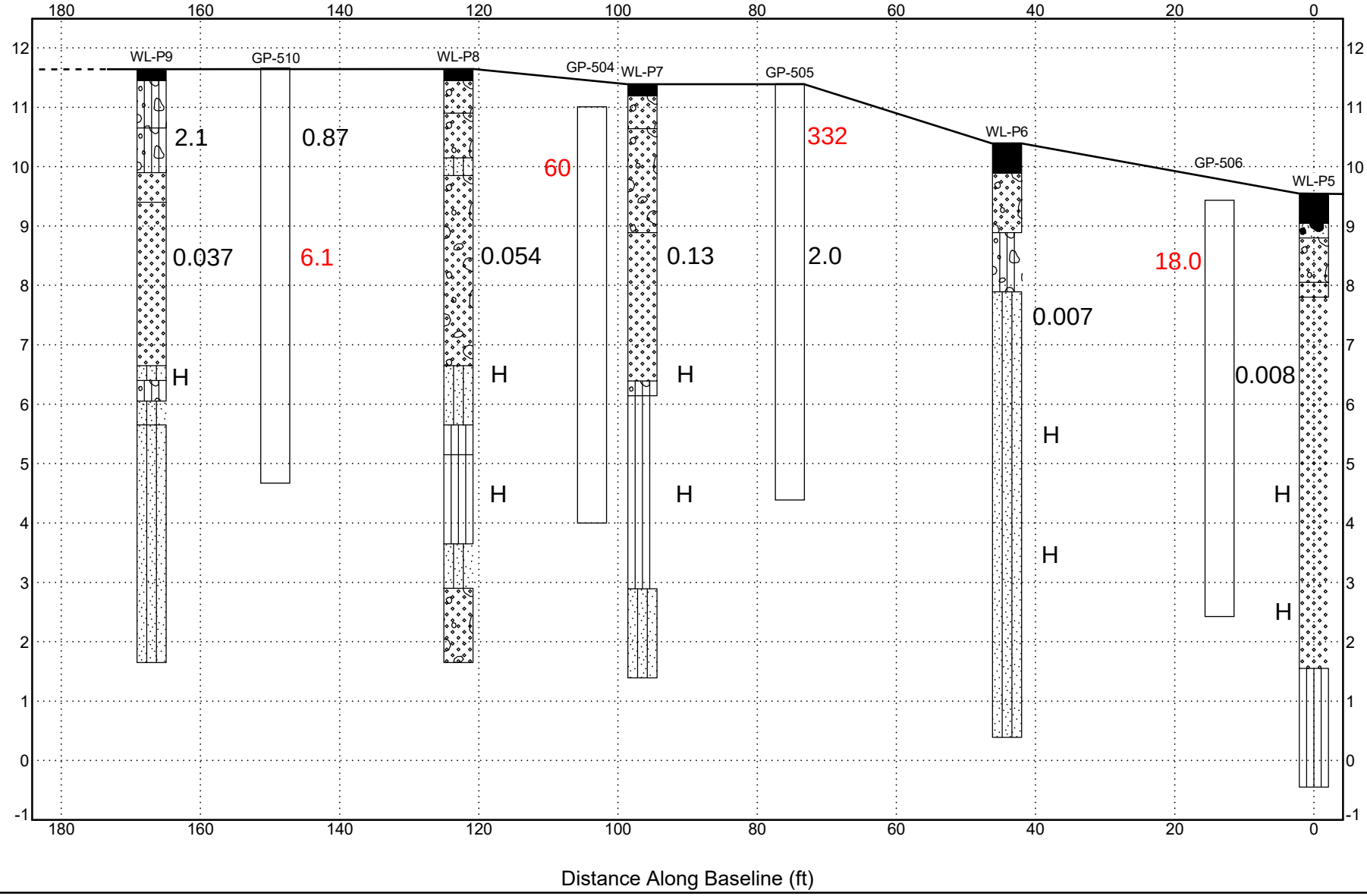
Figure 6b
Woodlife Area Soil Removal Grid Cross Section A2-A2'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.020778.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

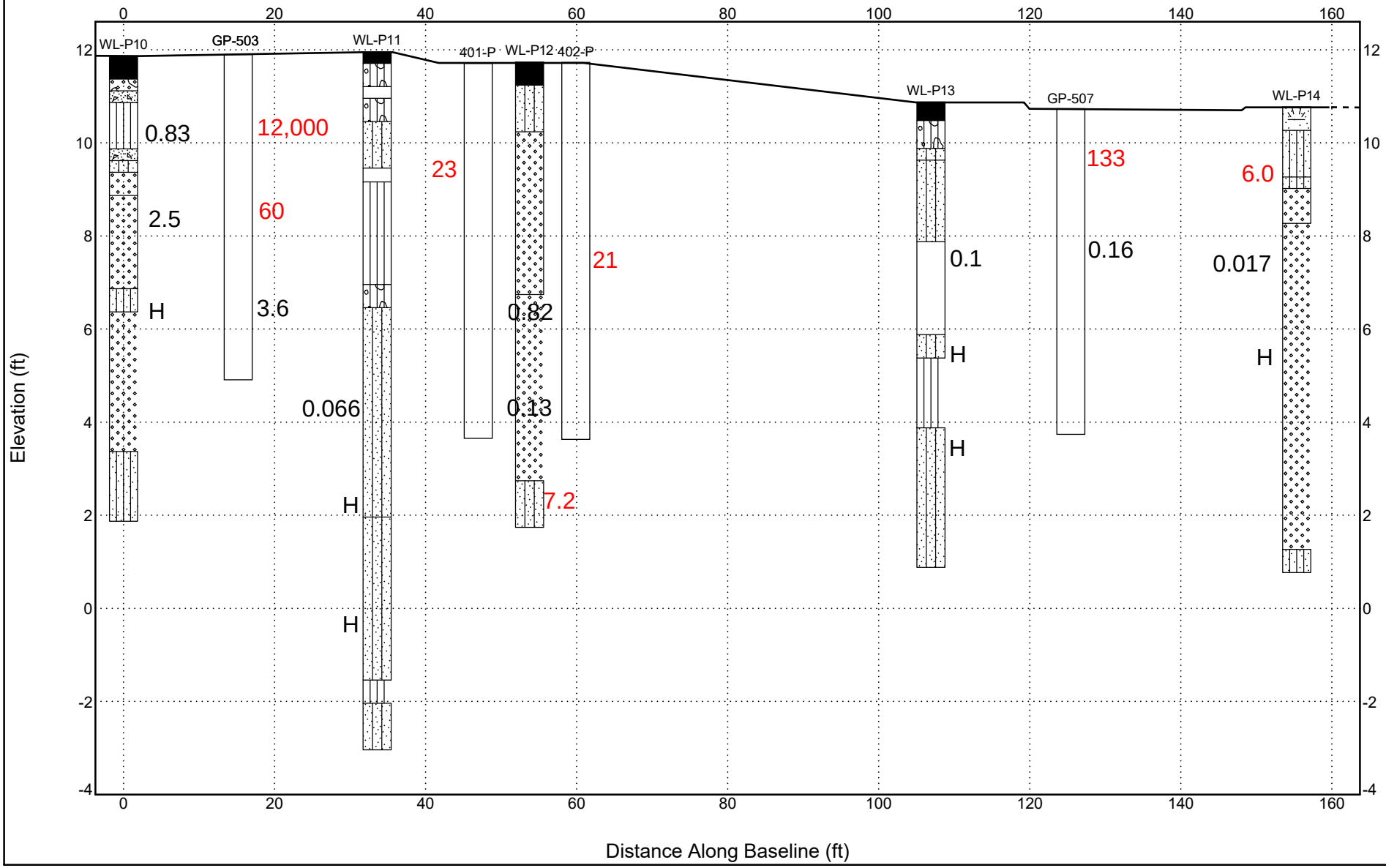
Figure 6c
Woodlife Area Soil Removal Grid Cross Section
A3-A3'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.020778.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

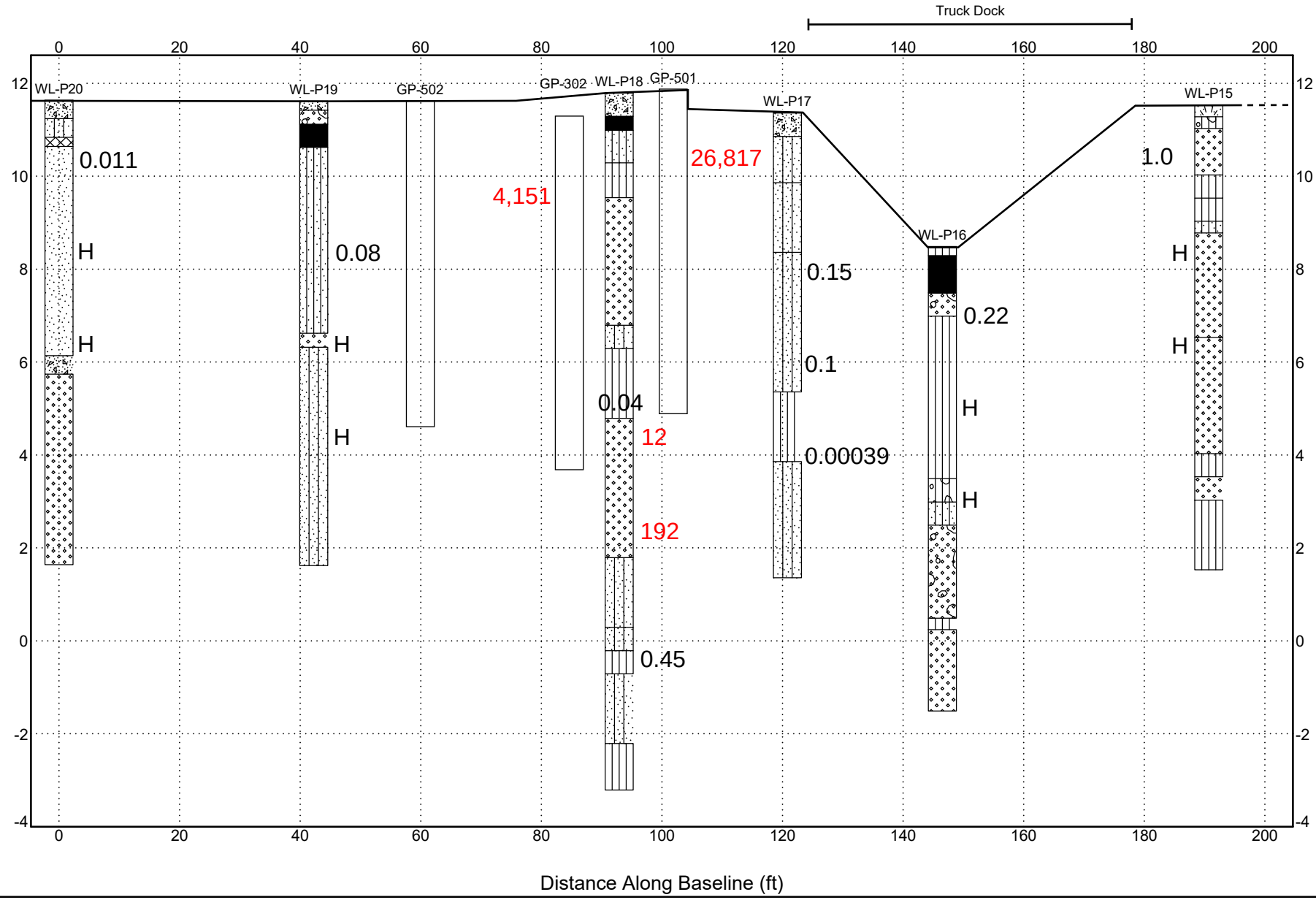
Figure 6d
Woodlife Area Soil Removal Grid Cross Section A4-A4'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.020778.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

Figure 6e

Woodlife Area Soil Removal Grid Cross Section

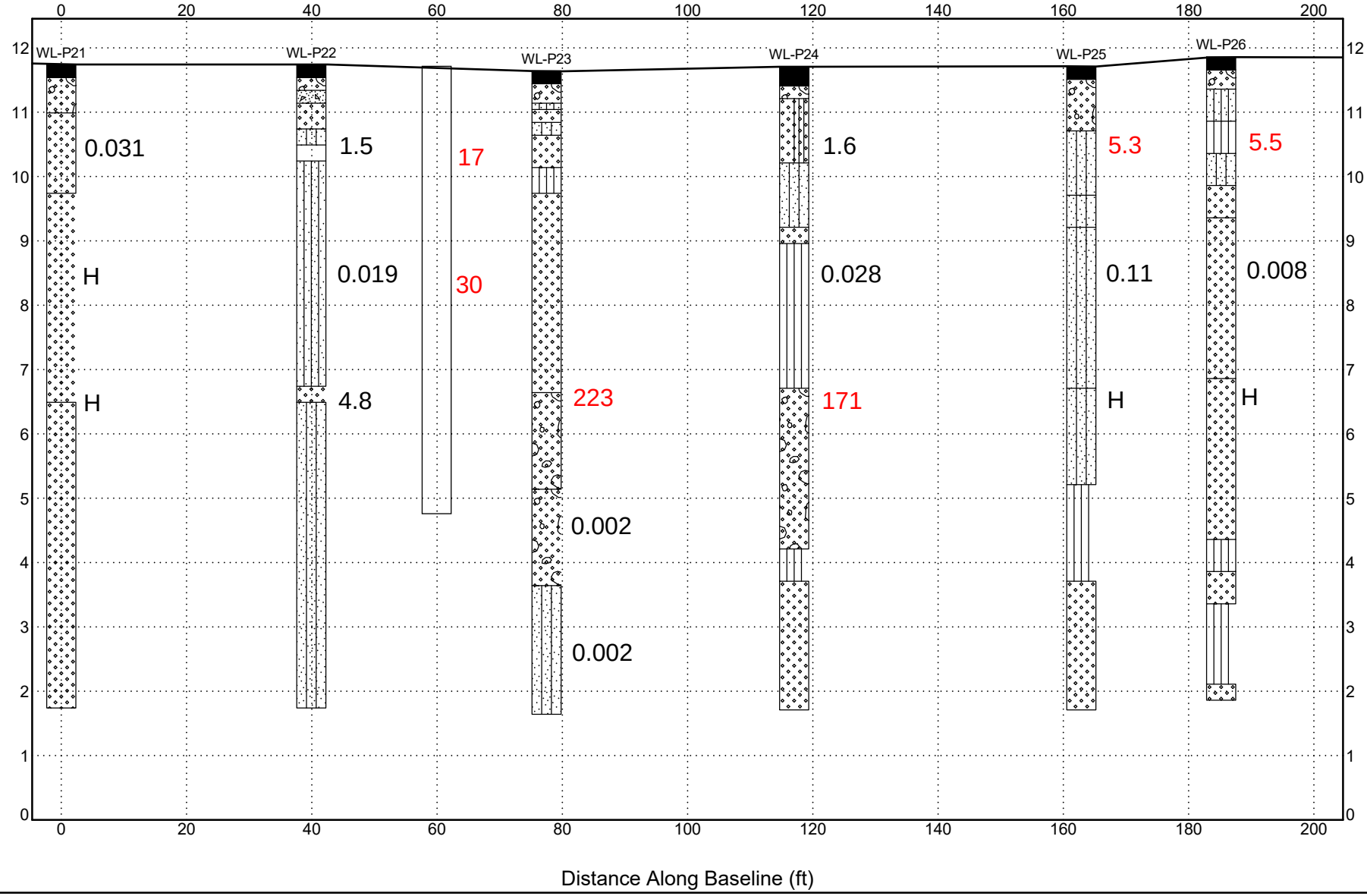
A5-A5'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.020778.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

Figure 6f

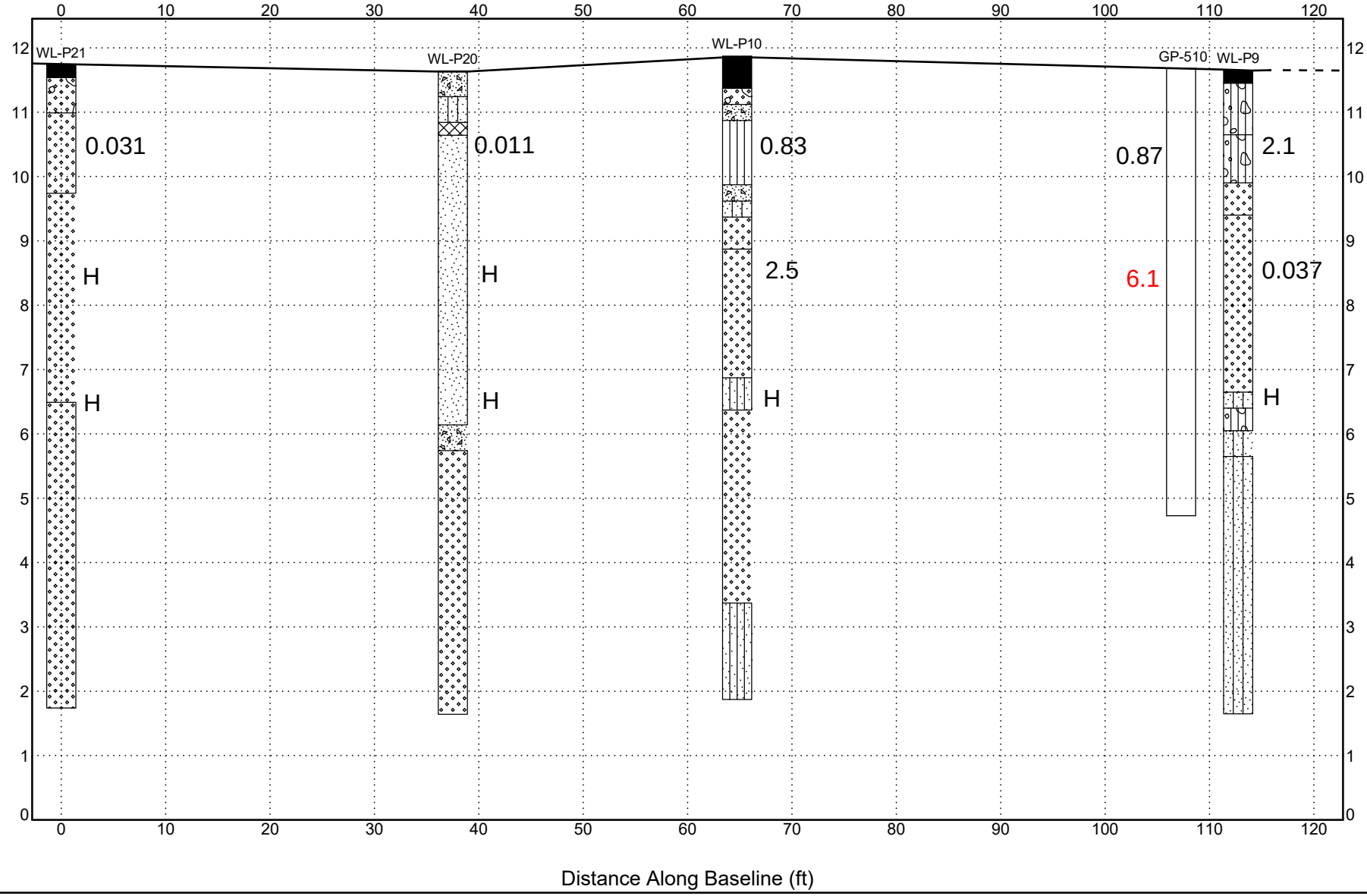
Woodlife Area Soil Removal Grid Cross Section B1-B1'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

Figure 6g

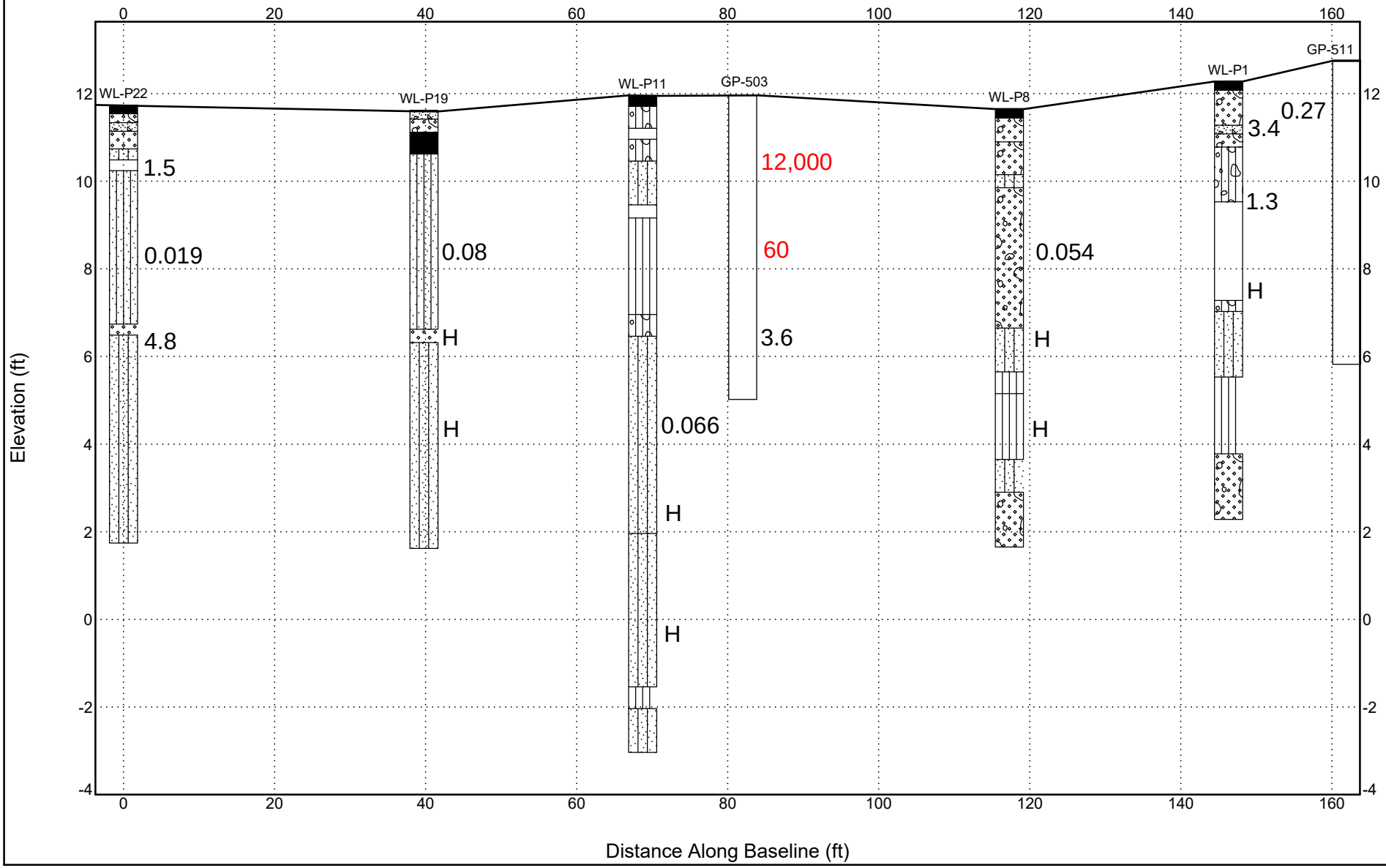
Woodlife Area Soil Removal Grid Cross Section B2-B2'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

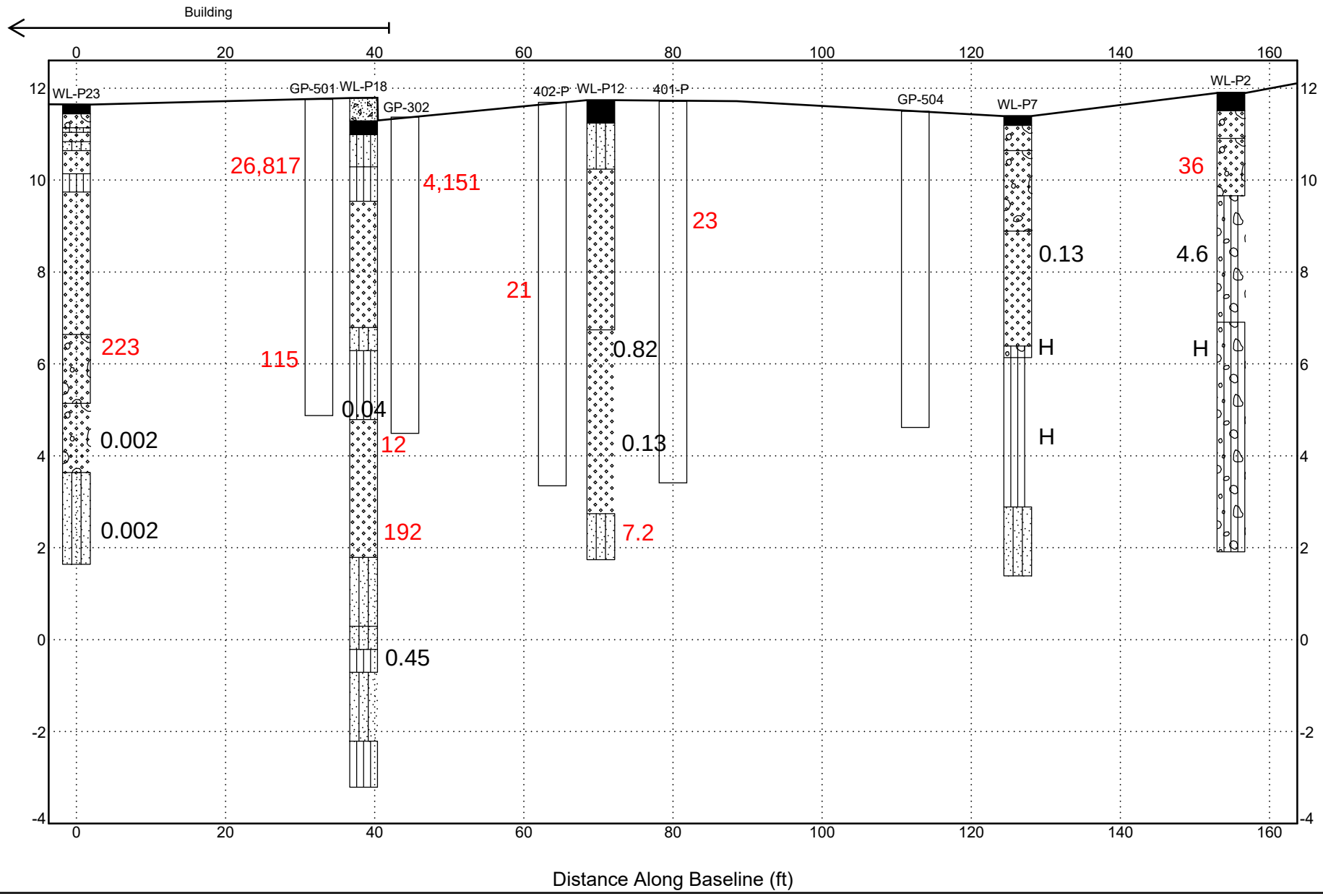
Figure 6h
Woodlife Area Soil Removal Grid Cross Section
B3-B3'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

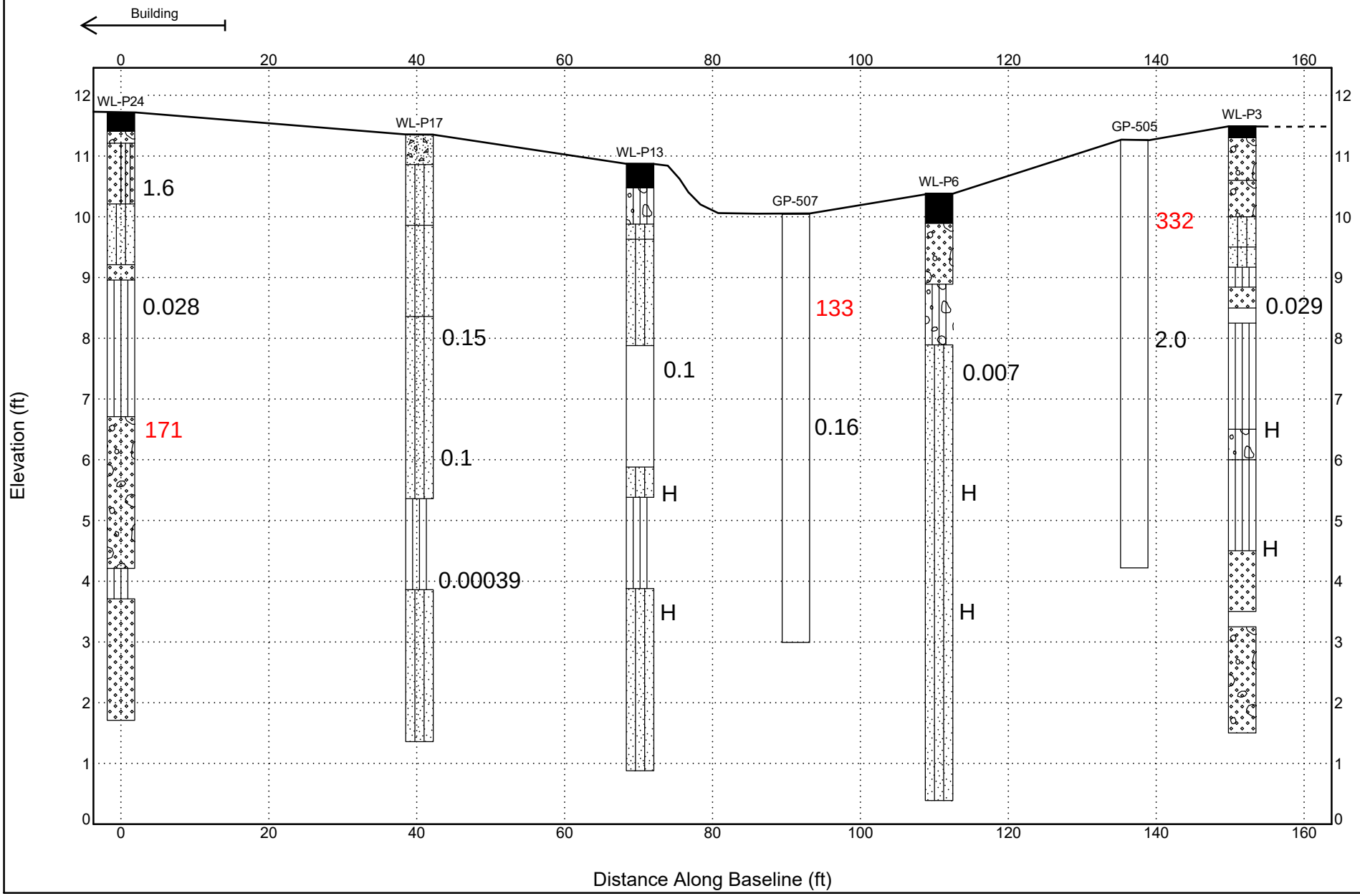
Figure 6i
Woodlife Area Soil Removal Grid Cross Section
B4-B4'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

Figure 6j

Woodlife Area Soil Removal Grid Cross Section

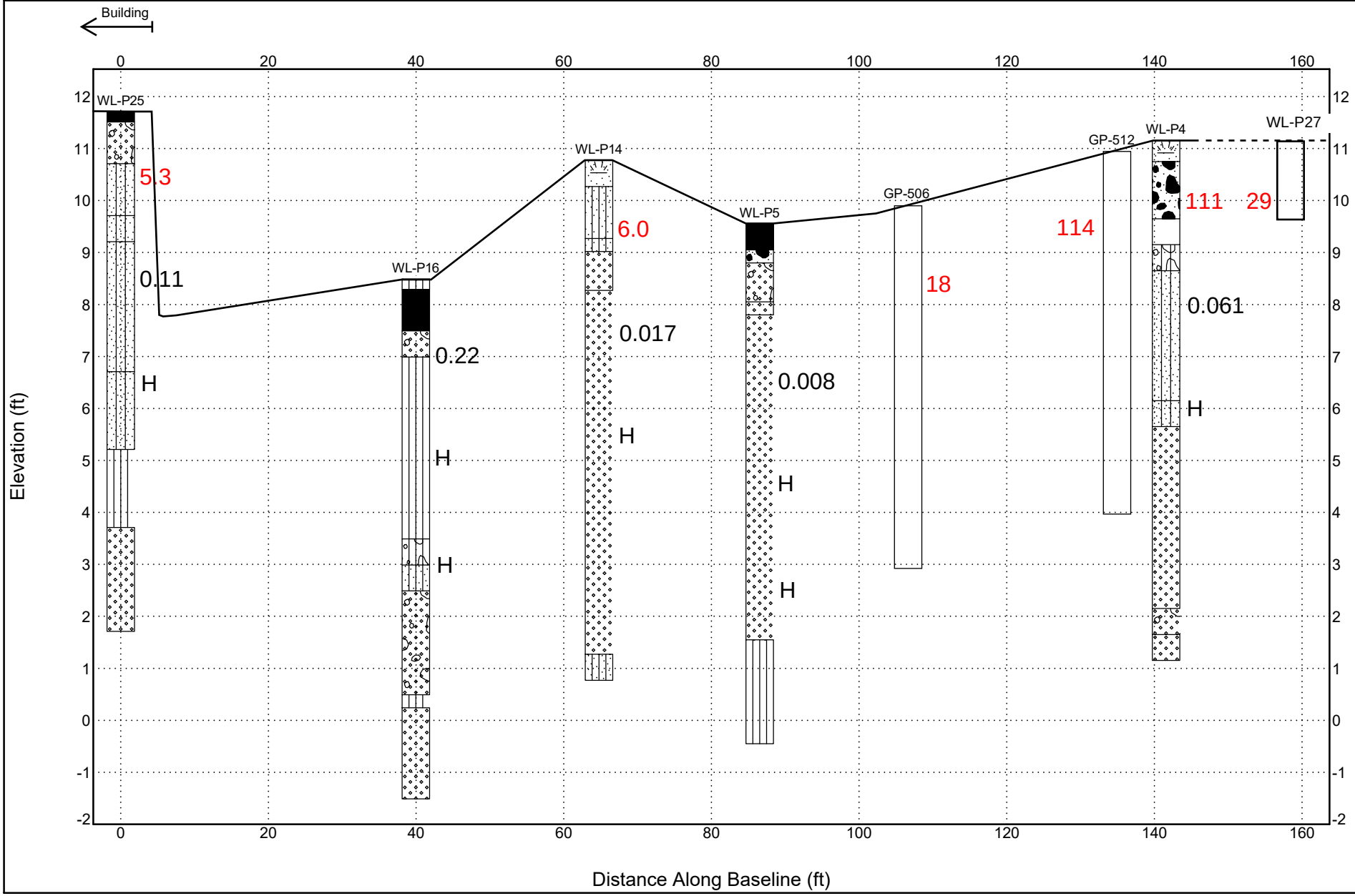
B5-B5'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.

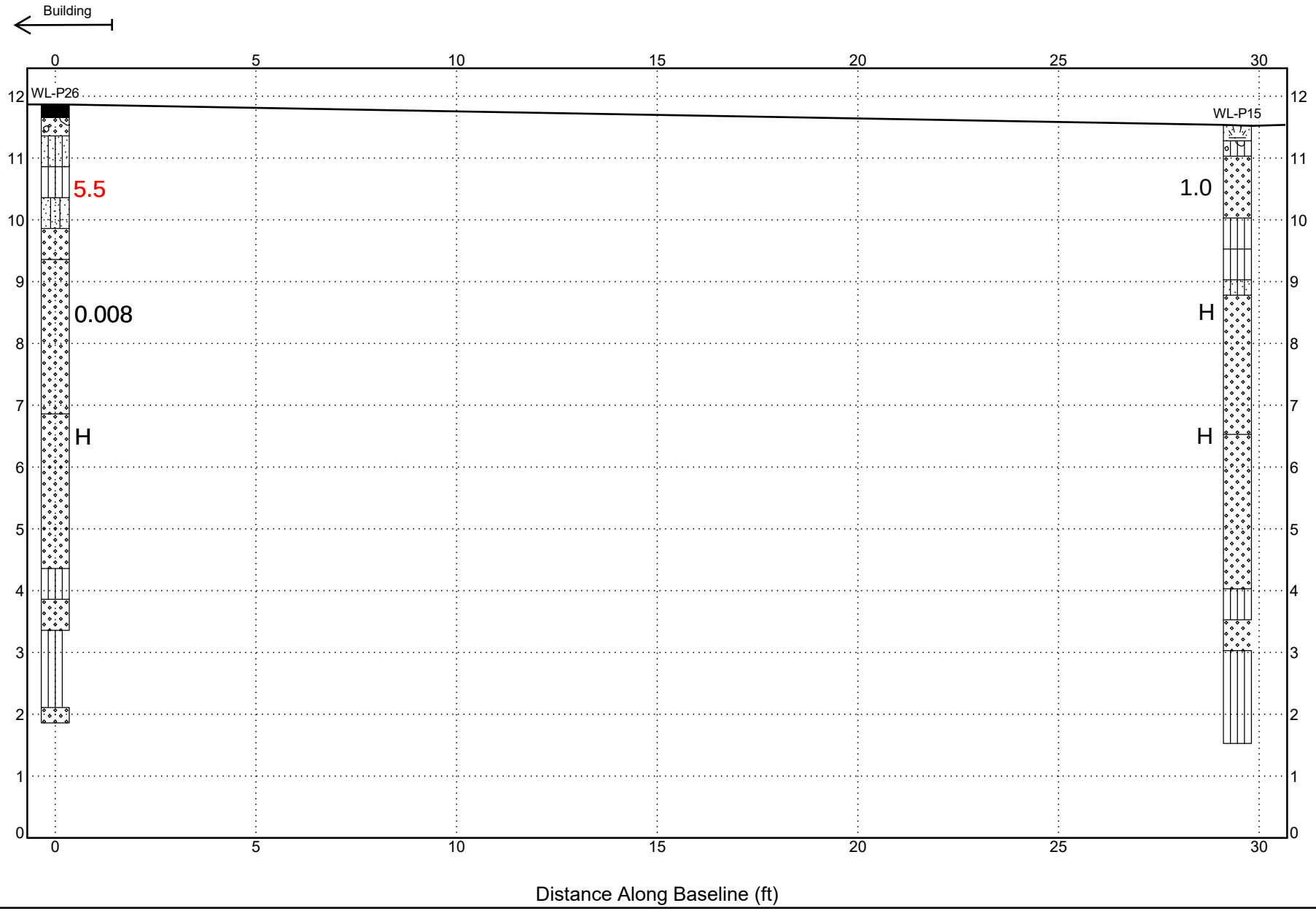
Figure 6k
Woodlife Area Soil Removal Grid Cross Section B6-B6'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

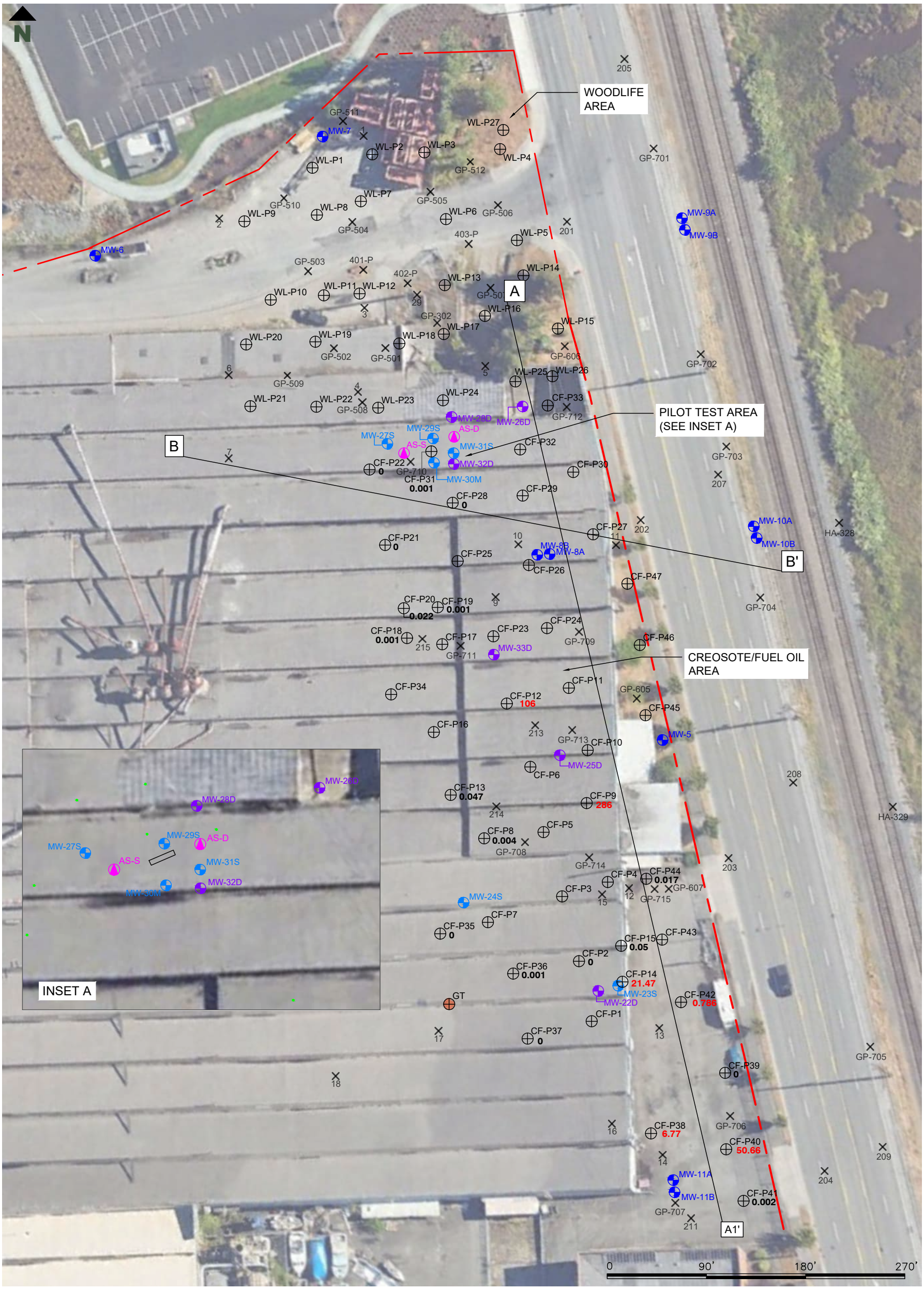
PROJECT NUMBER 108.020778.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

Note: Values shown are Dioxins TEQ in ppt. Red font indicates measured above CUL of 5.2 ppt. "H" indicates sample interval held by laboratory and not analyzed.



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- HORIZONTAL SVE TRENCH
- VAPOR PIN LOCATION
- GT — PRDI GEOTECH BORING LOCATION
- CF — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION
- CROSS SECTION EXTENTS (SEE FIGURES 8A AND 8B)

NOTES

ALL VALUES SHOWN IN MILLIGRAMS PER KILOGRAM (mg/kg).

PAH TEQ VALUES GREATER THAN THE CUL OF 0.19 mg/kg SHOWN IN RED.

SAMPLES WERE NOT COLLECTED FROM BORINGS WITH OBSERVED PRESENCE OF NAPL.

SLR

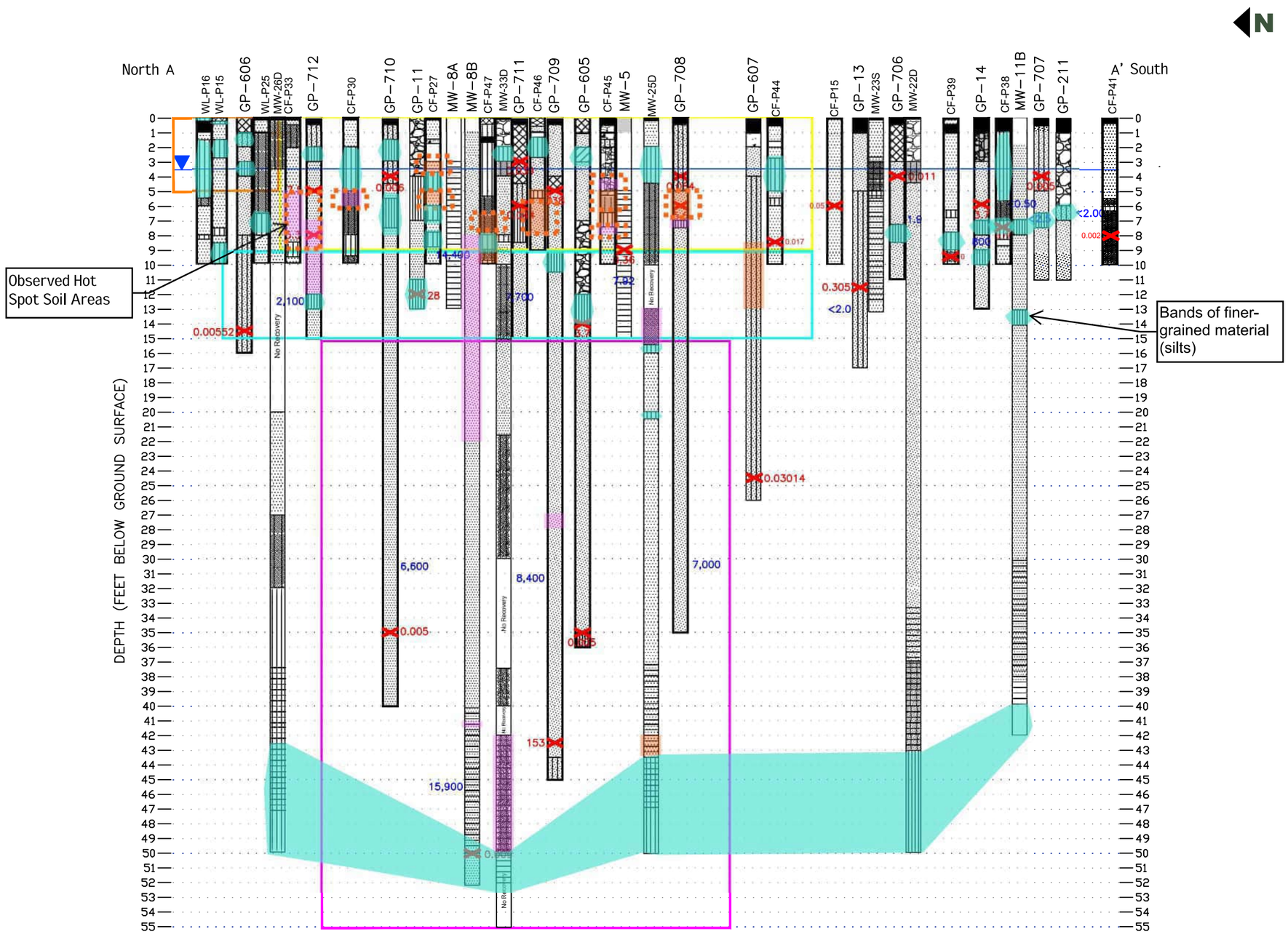
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - SAMPLE LOCATIONS AND RESULTS

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 7



NOTES

NOT ALL SAMPLE LOCATIONS PRESENTED ON THIS CROSS SECTION

LEGEND

- APPROXIMATE GROUNDWATER LEVEL
- PROPOSED BORING/MW
- AS ASPHALT
- CL CLAY
- CONCRETE
- GM GRAVEL WITH SILT
- GP GRAVEL AND SAND
- PT PEAT
- ML SILT
- SM SILTY SAND
- SP SAND
- TOPSOIL
- SAND/SILTY SAND
- SILT
- TOPSOIL
- GRAVEL/CEMENT
- ESTIMATED WOODLIFE REMOVAL AREA FROM CAP
- ESTIMATED CREOSOTE/FUEL OIL AREA HOT SPOT REMOVAL FROM CAP
- ESTIMATED CREOSOTE/FUEL OIL AREA SHALLOW GROUNDWATER BIO TREATMENT AREA FROM CAP
- CREOSOTE/FUEL OIL AREA DEEP GROUNDWATER BIO TREATMENT AREA FROM CAP
- GEOPROBE SOIL SAMPLE LOCATION
- 200 SOIL ANALYTICAL RESULTS (cPAH TEQ, MG/KG)
- 700 GROUNDWATER ANALYTICAL RESULTS (NAPHTHALENE, ug/L)

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

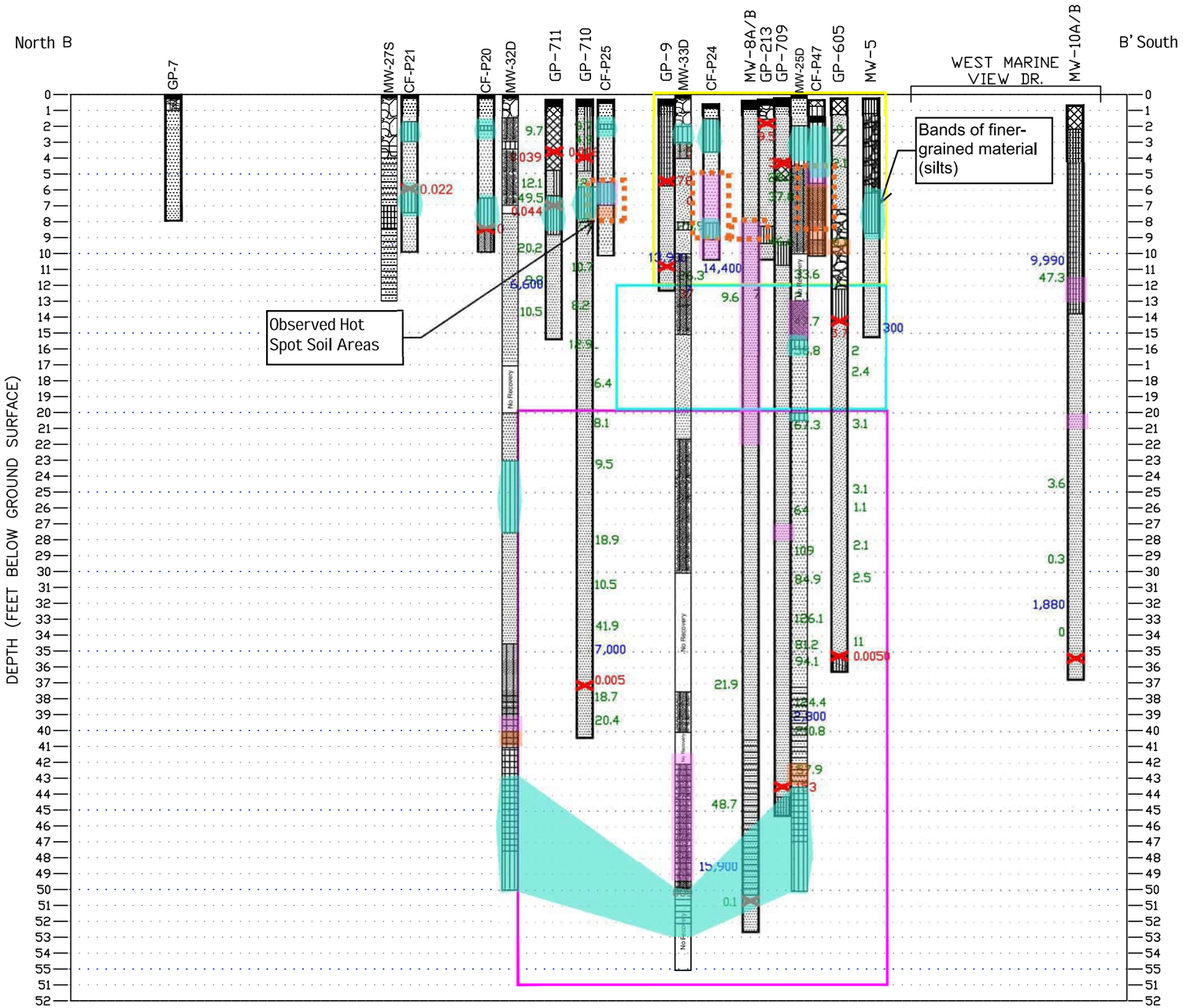
Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - CROSS SECTION A-A'

Date	March 13, 2024	Scale	AS SHOWN	Fig. No. 8a
File Name	Remedial Design Draft	Project No.	108.020778.00001	

SLR

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APPROXIMATE HORIZONTAL SCALE

0 50 100 150'

APPROXIMATE VERTICAL SCALE

0 7.5 15 22.5'

NOTES

NOT ALL SAMPLE LOCATIONS PRESENTED ON THIS CROSS SECTION

LEGEND

- APPROXIMATE GROUNDWATER LEVEL
- PROPOSED BORING/MW
- AS ASPHALT
- CL CLAY
- CONCRETE
- GM GRAVEL WITH SILT
- GP GRAVEL AND SAND
- PT PEAT
- ML SILT
- SM SILTY SAND
- SP SAND
- TOPSOIL
- SAND/SILTY SAND
- SILT
- TOPSOIL
- GRAVEL/CEMENT
- ESTIMATED WOODLIFE REMOVAL AREA FROM CAP
- ESTIMATED CREOSOTE/FUEL OIL AREA HOT SPOT REMOVAL FROM CAP
- ESTIMATED CREOSOTE/FUEL OIL AREA SHALLOW GROUNDWATER BIO TREATMENT AREA FROM CAP
- CREOSOTE/FUEL OIL AREA DEEP GROUNDWATER BIO TREATMENT AREA FROM CAP
- GEOPROBE SOIL SAMPLE LOCATION
- 58.8 PID READINGS
- 3.7 cPAH TEQ VALUES (mg/kg)
- 300 NAPTHALENE VALUES IN GROUNDWATER (µg/L)

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - CROSS SECTION B-B'

Date	March 13, 2024	Scale	AS SHOWN
File Name	Remedial Design Draft	Project No.	108.020778.00001

Fig. No. 8b

SLR

Drawing path: N:\Portland\Figures\JELD-WEN\JELD-WEN NorthDoor\PHASE 2\Remedial Design Draft.dwg



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- GT — PRDI GEOTECH BORING LOCATION
- CF/WL — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

SLR

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9a



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9b



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9c



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

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300 WEST MARINE VIEW DRIVE
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Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN	Fig. No.
File Name	2024_Nord.dwg	Project No.	108.020778.00001	9d



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- GT — PRDI GEOTECH BORING LOCATION
- CF/WL — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

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Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 9e
File Name	2024_Nord.dwg	Project No.	108.020778.00001	



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

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JELD WEN SITE
300 WEST MARINE VIEW DRIVE
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Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9f



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

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DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9g



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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- GT — PRDI GEOTECH BORING LOCATION
- CF/WL — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

SLR

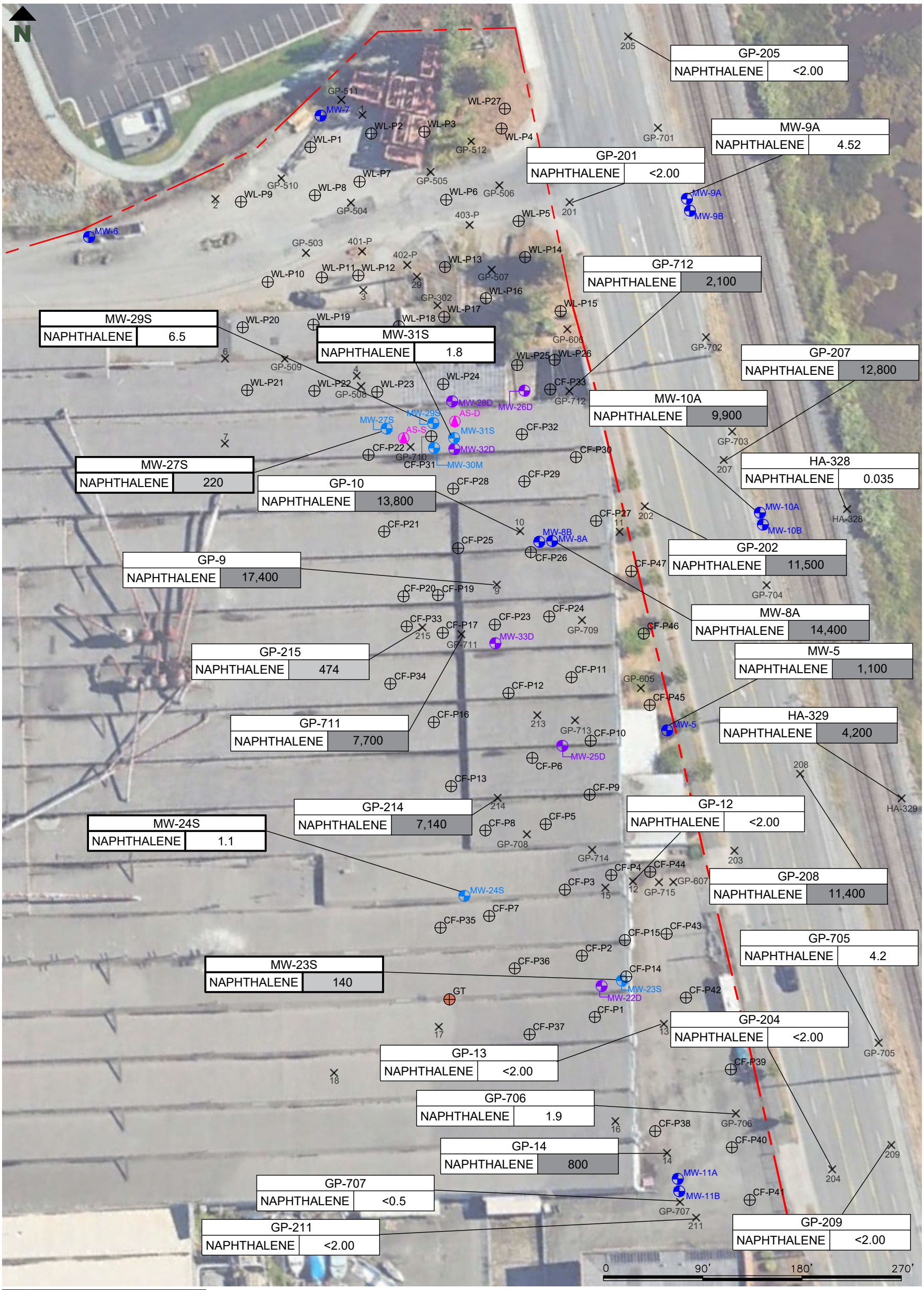
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE/FUEL OIL AREA SOIL REMOVAL DELINEATION ASSESSMENT - NAPL OBSERVATIONS BY DEPTH

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 9h



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- GT — PRDI GEOTECH BORING LOCATION
- CF/WL — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

NOTES

ALL VALUES IN MICROGRAMS PER LITER (ug/L).

VALUES ABOVE THE CUL OF 8.9 FROM THE CAP SHADED IN LIGHT GRAY. VALUES ABOVE THE REL OF 500 FROM THE CAP SHADED IN DARK GRAY.SAMPLE TABLES FROM PRDI ACTIVITIES ONLY OUTLINED IN BOLD.

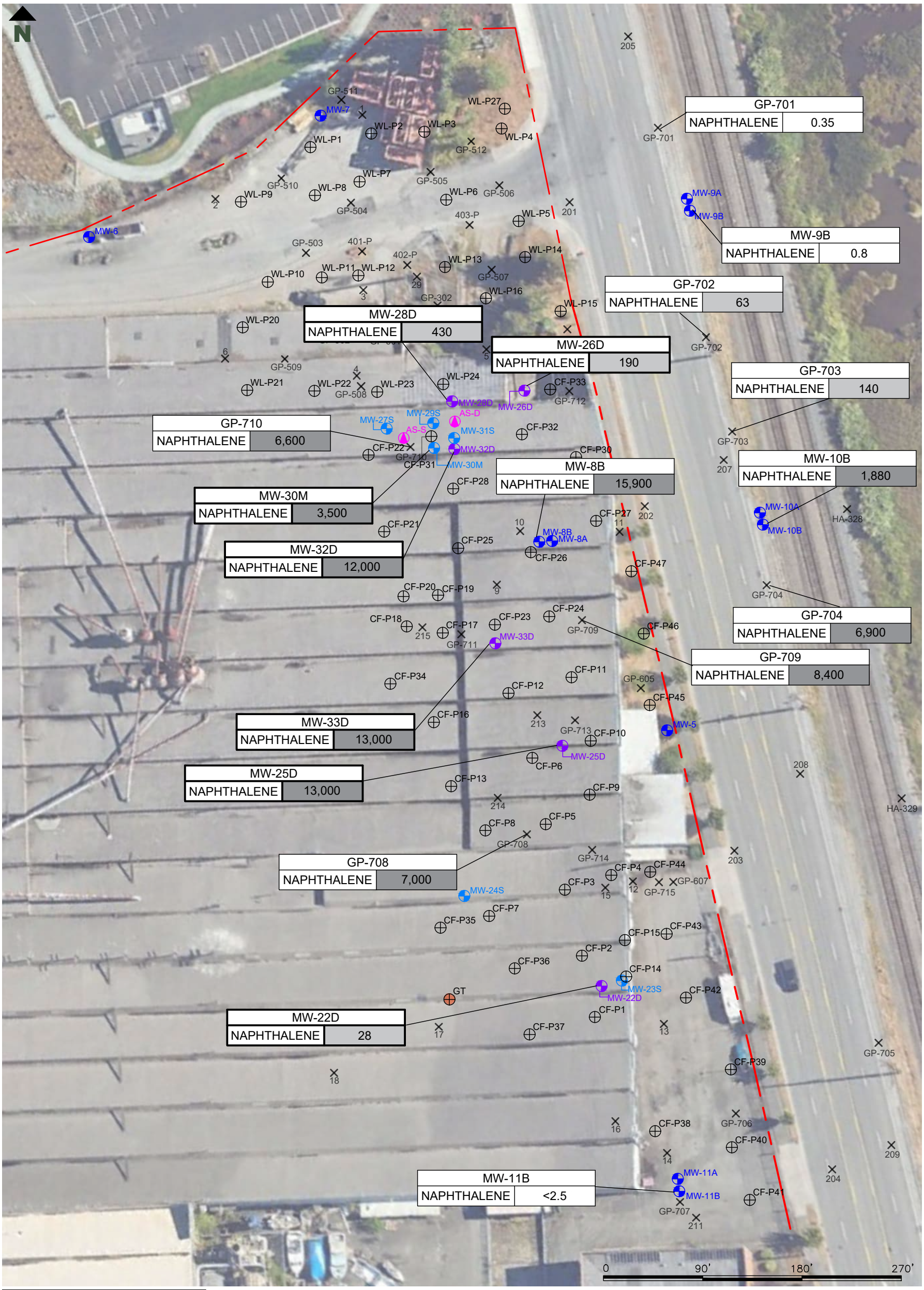
SLR

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE FUEL/OIL AREA SHALLOW GROUNDWATER ZONE ASSESSMENT - SAMPLE LOCATIONS AND RESULTS

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 10
File Name	2024_Nord.dwg	Project No.	108.020778.00001	



LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
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- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
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- CF/WL — GEOPROBE SOIL BORING LOCATION AND DESIGNATION
- HISTORICAL SOIL BORING LOCATION AND DESIGNATION

NOTES

ALL VALUES IN MICROGRAMS PER LITER (ug/L).

VALUES ABOVE THE CUL OF 8.9 FROM THE CAP SHADED IN LIGHT GRAY. VALUES ABOVE THE REL OF 500 FROM THE CAP SHADED IN DARK GRAY.SAMPLE TABLES FROM PRDI ACTIVITIES ONLY OUTLINED IN BOLD.

SLR

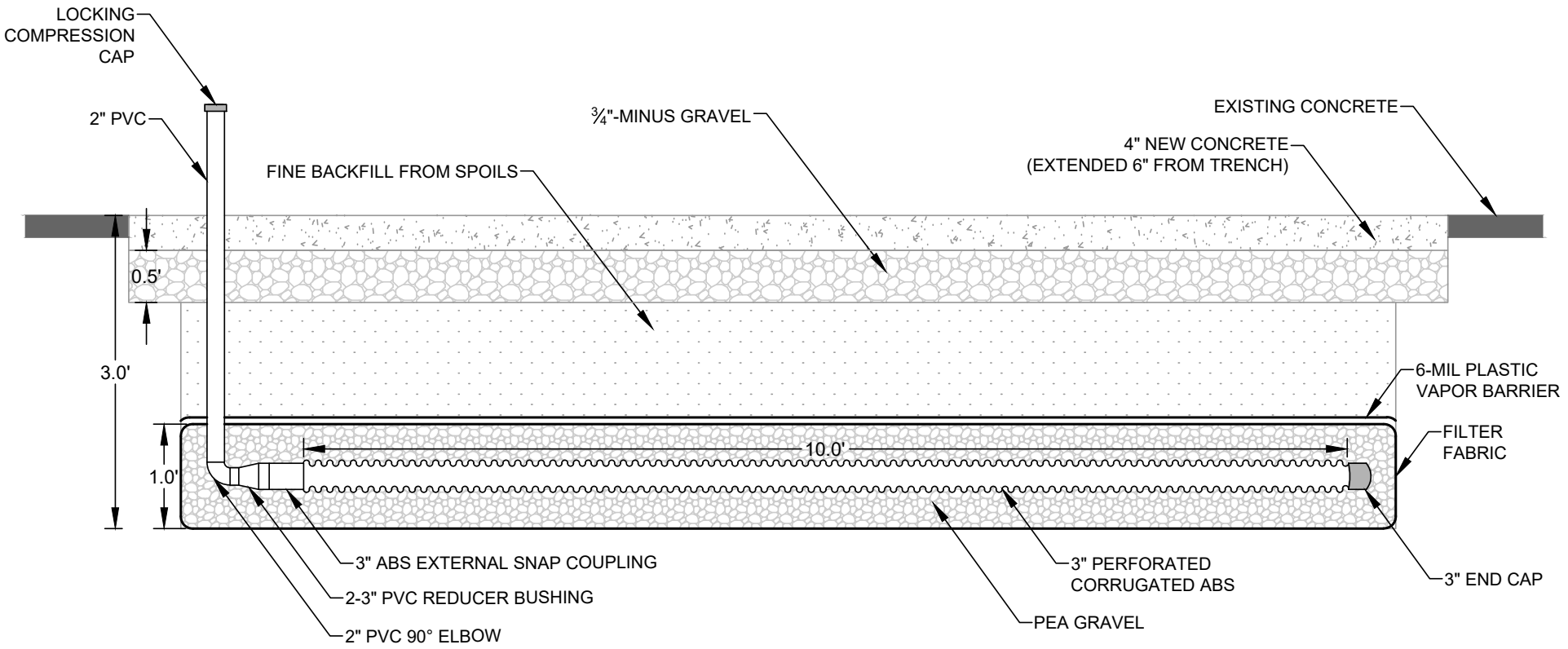
JELD WEN SITE
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EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
CREOSOTE FUEL/OIL AREA DEEP GROUNDWATER ZONE ASSESSMENT - SAMPLE LOCATIONS AND RESULTS

Date	APRIL 2025	Scale	AS SHOWN
File Name	2024_Nord.dwg	Project No.	108.020778.00001

Fig. No. 11



NOTES

1. EXISTING ASPHALT WAS SAWCUT.
2. TRENCH IS 3' DEEP AND 18" WIDE. ASPHALT WAS CUT 6" OVER FROM TRENCH DIMENSIONS.
3. NEW CONCRETE WAS POURED TO BE LEVEL WITH EXISTING ASPHALT.

0 1.5 3.0 4.5'

SLR

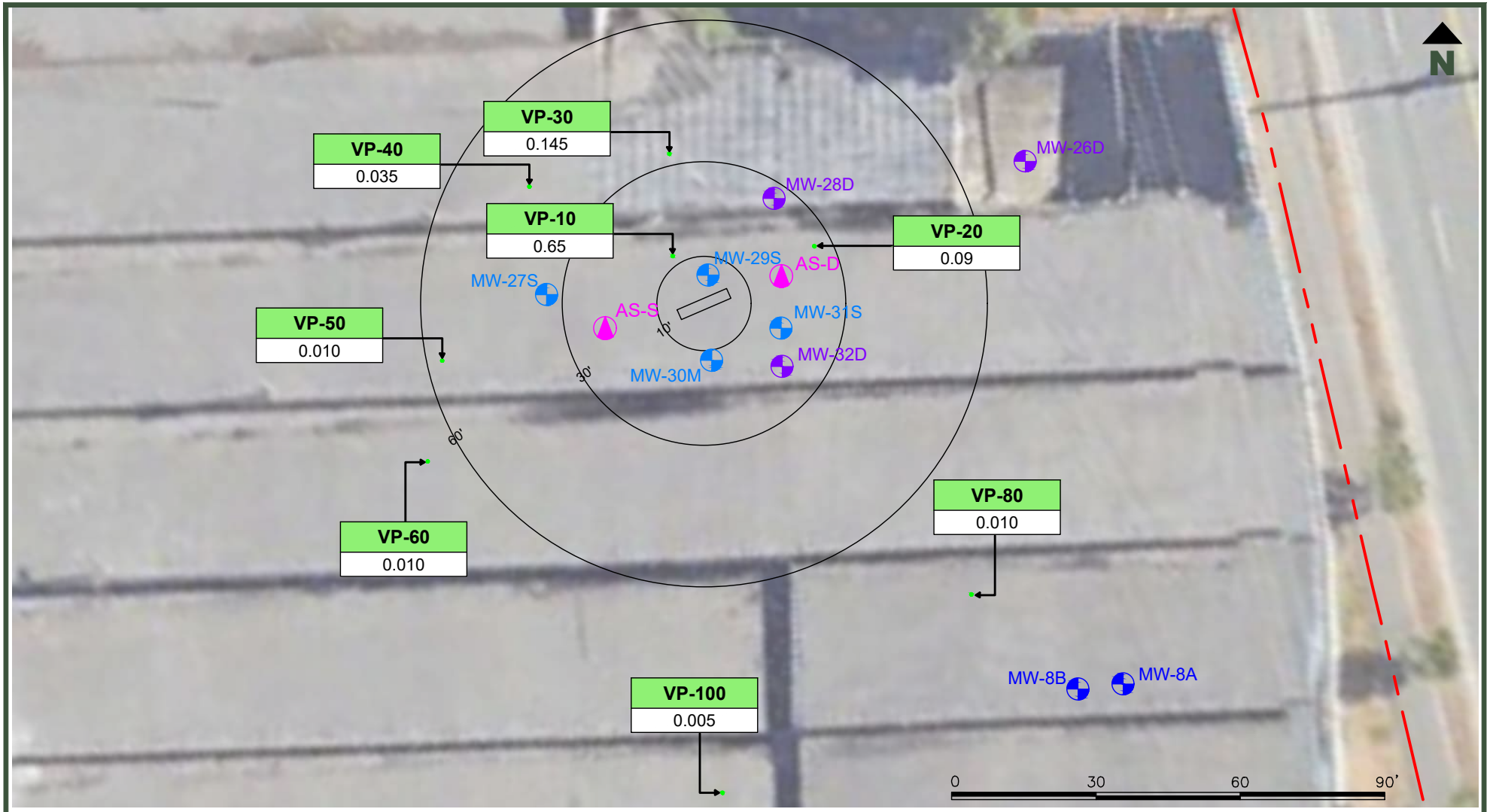
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
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Report
DRAFT PRDI DATA REPORT

Figure
SVE HORIZONTAL WELL SCHEMATIC

Date	April 9, 2025	Scale	AS SHOWN	Fig. No. 12
File Name	PRDI Data Report	Project No.	108.020778.00001	

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LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- HORIZONTAL SVE TRENCH
- ESTIMATED ROI CONTOUR

NOTES

Maximum influence observed with SVE blower operating at 20 inches H2O at horizontal SVE well.

SLR

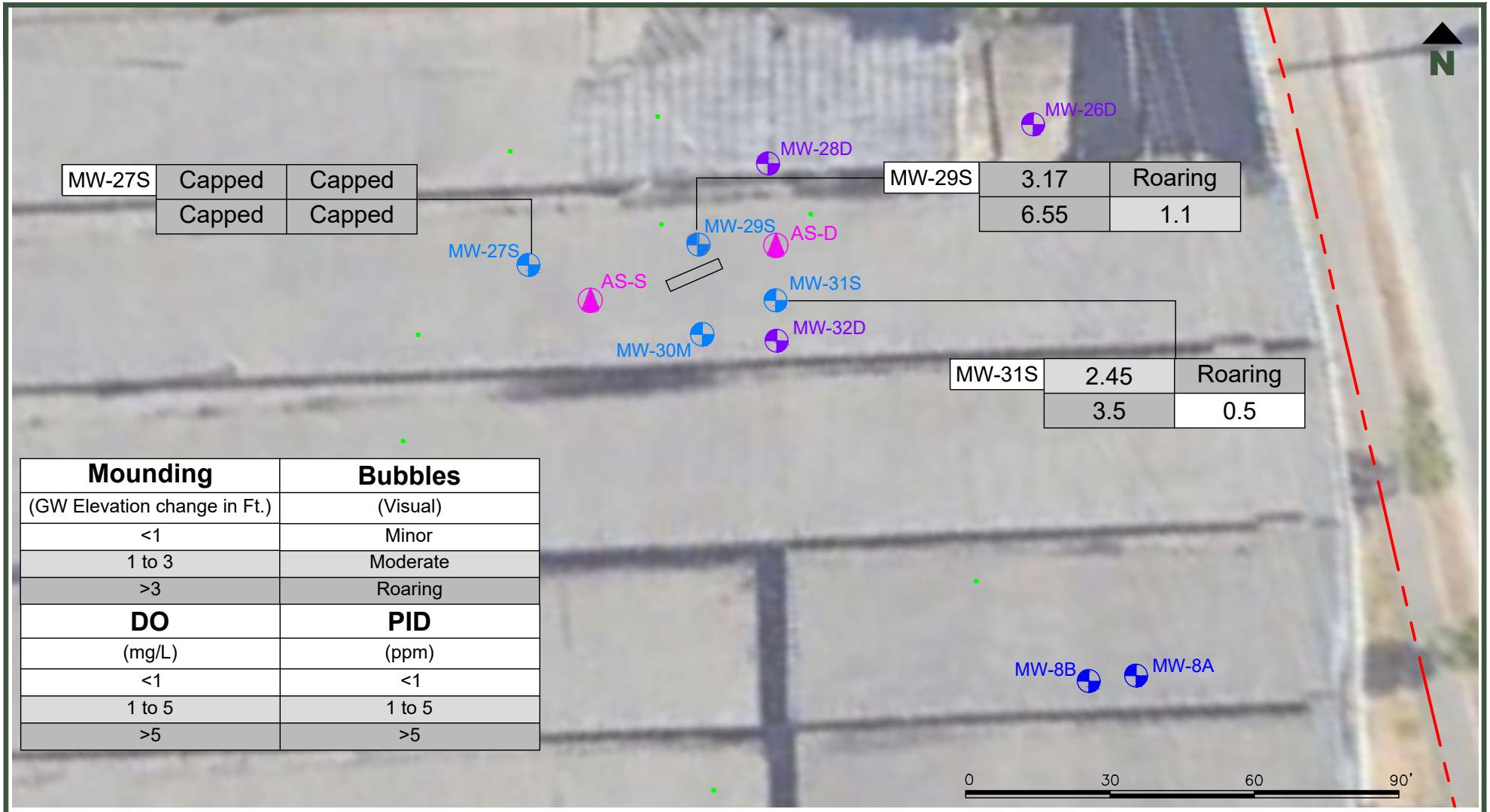
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
SVE PILOT TEST ROI

Date	APRIL 2025	Scale	AS SHOWN	Fig. No. 13
File Name	2024_Nord	Project No.	108.020778.00001	

Drawing path: N:\Portland\Projects\JELD-WEN\JELD-WEN NORD DOOR\108.V20689.00001_2024 PRDI Activities\Figures\New CADD\2024_Nord.dwg



MW-27S	Capped	Capped
	Capped	Capped

MW-29S	3.17	Roaring
	6.55	1.1

MW-31S	2.45	Roaring
	3.5	0.5

Mounding	Bubbles
(GW Elevation change in Ft.)	(Visual)
<1	Minor
1 to 3	Moderate
>3	Roaring
DO	**PID**
(mg/L)	(ppm)
<1	<1
1 to 5	1 to 5
>5	>5

LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- HORIZONTAL SVE TRENCH

NOTES

Performed on November 8, 2024 with compressor operating at 1.0 CFM on shallow Air Sparge well (AS-S) and blower operating at 20 inches H2O at horizontal SVE well.

SLR

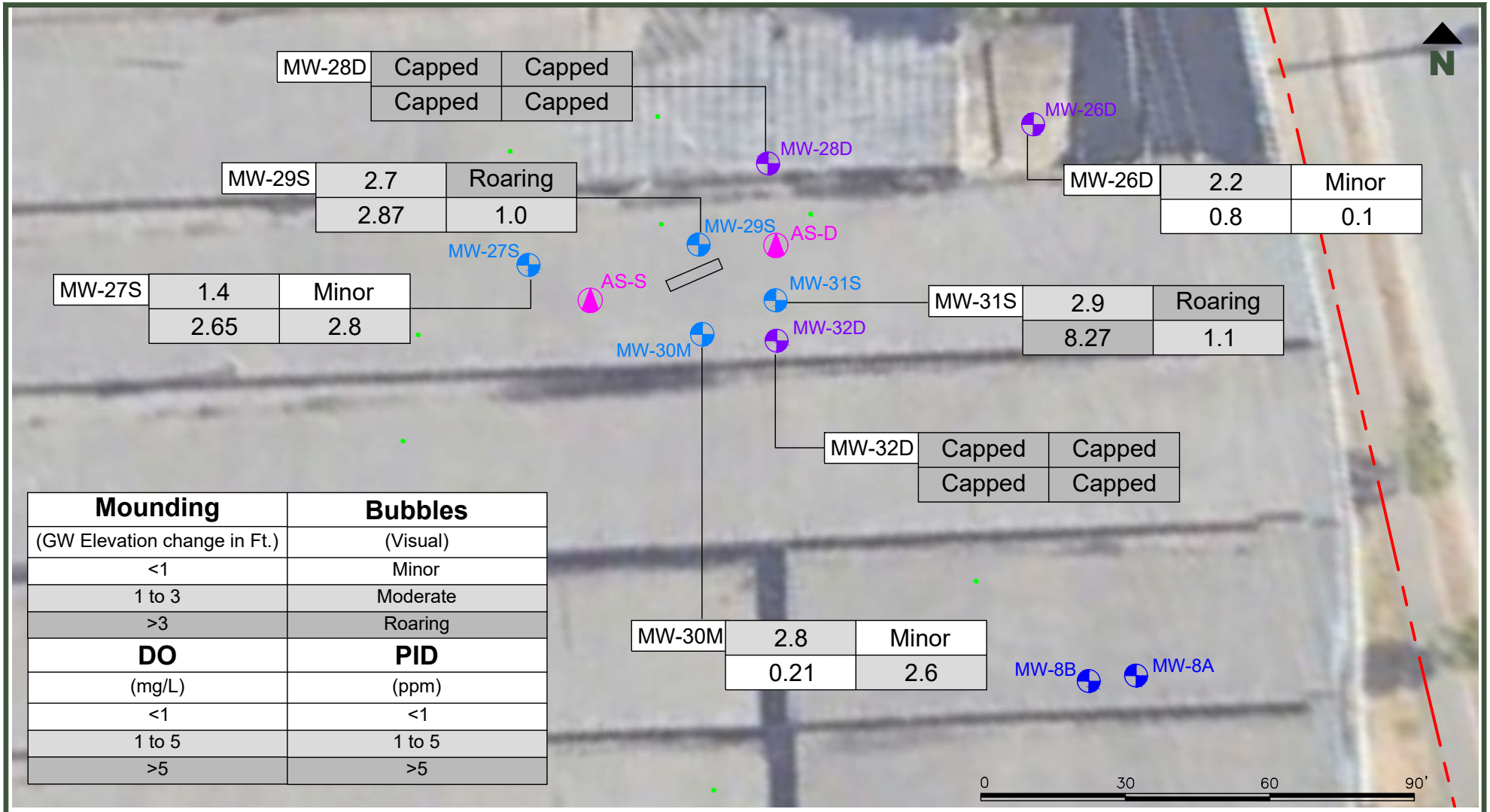
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
DRAFT PRDI DATA REPORT

Figure
SHALLOW AIR SPARGE PILOT TEST SUMMARY

Date	April 7, 2025	Scale	AS SHOWN	Fig. No. 14
File Name	2024_Nord	Project No.	108.020778.00001	

Drawing path: N:\Portland\Projects\JELD-WEN\JELD-WEN NORD DOOR\108.V20689.00001_2024 PRDI Activities\Figures\New CADD\2024_Nord.dwg



Mounding	Bubbles
(GW Elevation change in Ft.)	(Visual)
<1	Minor
1 to 3	Moderate
>3	Roaring
DO	**PID**
(mg/L)	(ppm)
<1	<1
1 to 5	1 to 5
>5	>5

LEGEND

- APPROXIMATE SUBJECT PROPERTY BOUNDARY
- MW — EXISTING GROUNDWATER MONITORING WELL
- MW — NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- MW — NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AS — AIR SPARGE WELL
- HORIZONTAL SVE TRENCH

NOTES

Performed on November 7, 2024 with compressor operating at 5.0 CFM on deep Air Sparge well (AS-D) and blower operating at 20 inches H2O at horizontal SVE well.

SLR

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300 WEST MARINE VIEW DRIVE
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DRAFT PRDI DATA REPORT

Figure
DEEP AIR SPARGE PILOT TEST SUMMARY

Date	April 7, 2025	Scale	AS SHOWN	Fig. No. 15
File Name	2024_Nord	Project No.	108.020778.00001	

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SLR

Figure 16
Sea Level Rise
Jeld-Wen/Former Nord Door Facility

Tables

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Initial RI Investigation (2009)						SLR Phase 2 Upland Soil and Groundwater Investigation (2012)						SLR Phase 2 Upland Soil and Groundwater Investigation (2012)					
Sample Location			**GP-302**						**401-P**						**402-P**					
Sample ID			GP-302-1						401-P						402-P					
Sample Depth (feet bgs)			1.0						2.0						3.0					
Sample Date			5/20/2009						5/17/2012						5/17/2012					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**41.2**		0.1	4.12	4.12	4.12	**0.707**	K	0.1	0.0707	0.07	0.07	**5.47**		0.1	0.547	0.55	0.55
2,3,7,8-TCDD	-	-	**18.4**		1	18.4	18.40	18.40	**0.228**	J	1	0.228	0.23	0.23	**2.82**		1	2.82	2.82	2.82
1,2,3,7,8-PeCDF	-	-	**190**		0.03	5.7	5.70	5.70	**2.57**		0.03	0.0771	0.08	0.08	**3.78**		0.03	0.1134	0.11	0.11
2,3,4,7,8-PeCDF	-	-	**208**		0.3	62.4	62.40	62.40	**6.2**		0.3	1.86	1.86	1.86	**5.7**		0.3	1.71	1.71	1.71
1,2,3,7,8-PeCDD	-	-	**315**		1	315	315.00	315.00	**1.15**	J	1	1.15	1.15	1.15	**7.36**		1	7.36	7.36	7.36
1,2,3,4,7,8-HxCDF	-	-	**1,570**		0.1	157	157.00	157.00	**12.2**		0.1	1.22	1.22	1.22	**5.18**	J, G	0.1	0.518	0.52	0.52
1,2,3,6,7,8-HxCDF	-	-	**1,610**		0.1	161	161.00	161.00	**4.66**		0.1	0.466	0.47	0.47	**4.46**		0.1	0.446	0.45	0.45
2,3,4,6,7,8-HxCDF	-	-	**918**		0.1	91.8	91.80	91.80	**7.4**		0.1	0.74	0.74	0.74	**3.78**		0.1	0.378	0.38	0.38
1,2,3,7,8,9-HxCDF	-	-	**43.3**		0.1	4.33	4.33	4.33	**5.71**	K	0.1	0.571	0.57	0.57	**1.71**	K	0.1	0.171	0.17	0.17
1,2,3,4,7,8-HxCDD	-	-	**1,110**		0.1	111	111.00	111.00	**2.48**	K	0.1	0.248	0.25	0.25	**7.96**		0.1	0.796	0.80	0.80
1,2,3,6,7,8-HxCDD	-	-	**5,880**		0.1	588	588.00	588.00	**34.5**		0.1	3.45	3.45	3.45	**18.8**		0.1	1.88	1.88	1.88
1,2,3,7,8,9-HxCDD	-	-	**2,200**		0.1	220	220.00	220.00	**7.5**		0.1	0.75	0.75	0.75	**12.8**		0.1	1.28	1.28	1.28
1,2,3,4,6,7,8-HpCDF	-	-	**42,000**		0.01	420	420.00	420.00	**154**		0.01	1.54	1.54	1.54	**38.3**		0.01	0.383	0.38	0.38
1,2,3,4,7,8,9-HpCDF	-	-	**2,340**		0.01	23.4	23.40	23.40	**8.88**	K	0.01	0.0888	0.09	0.09	**3.04**	K	0.01	0.0304	0.03	0.03
1,2,3,4,6,7,8-HpCDD	-	-	**156,000**	E	0.01	1560	1560.0	1560.0	**792**		0.01	7.92	7.92	7.92	**198**		0.01	1.98	1.98	1.98
OCDF	-	-	**284,000**	E	0.0003	85.2	85.2	85.2	**435**		0.0003	0.1305	0.1305	0.131	**133**		0.0003	0.0399	0.0399	0.040
OCDD	-	-	**1,080,000**	E	0.0003	324	324.0	324.0	**7,710**		0.0003	2.313	2.313	2.313	**1,580**		0.0003	0.474	0.474	0.474
TEQ	**5.2**	**13**				**4151**	**4151**	**4151**				**23**	**23**	**23**				**21**	**21**	**21**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Phase 2 Upland Soil and Groundwater Investigation (2012)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**403-P**						**GP-501**						**GP-501**					
Sample ID			403-P						GP-501-1						GP-501-5					
Sample Depth (feet bgs)			3.0						1.0						5.0					
Sample Date			5/17/2012						3/14/2013						3/14/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**3.37**	K	0.1	0.337	0.34	0.34	**1,480**	E	0.1	148	148.00	148.00	**7.07**		0.1	0.707	0.71	0.71
2,3,7,8-TCDD	-	-	**1.61**		1	1.61	1.61	1.61	**8.64**		1	8.64	8.64	8.64	< 0.138		1	0	0.07	0.14
1,2,3,7,8-PeCDF	-	-	**10.2**		0.03	0.306	0.31	0.31	**3,630**		0.03	108.9	108.90	108.90	**24.8**		0.03	0.744	0.74	0.74
2,3,4,7,8-PeCDF	-	-	**21.9**		0.3	6.57	6.57	6.57	**7,500**	E	0.3	2250	2250.00	2250.00	**61.1**		0.3	18.33	18.33	18.33
1,2,3,7,8-PeCDD	-	-	**13.6**		1	13.6	13.60	13.60	**111**		1	111	111.00	111.00	**0.654**	J	1	0.654	0.65	0.65
1,2,3,4,7,8-HxCDF	-	-	**74.3**		0.1	7.43	7.43	7.43	**15,500**	E	0.1	1550	1550.00	1550.00	**112**		0.1	11.2	11.20	11.20
1,2,3,6,7,8-HxCDF	-	-	**55.4**		0.1	5.54	5.54	5.54	**3,080**		0.1	308	308.00	308.00	**23.5**		0.1	2.35	2.35	2.35
2,3,4,6,7,8-HxCDF	-	-	**75.1**		0.1	7.51	7.51	7.51	**6,140**	E	0.1	614	614.00	614.00	**36**		0.1	3.6	3.60	3.60
1,2,3,7,8,9-HxCDF	-	-	< 2.7		0.1	0	0.14	0.27	**2,720**		0.1	272	272.00	272.00	**15.8**		0.1	1.58	1.58	1.58
1,2,3,4,7,8-HxCDD	-	-	**57.1**		0.1	5.71	5.71	5.71	**433**		0.1	43.3	43.30	43.30	**1.48**	J	0.1	0.148	0.15	0.15
1,2,3,6,7,8-HxCDD	-	-	**377**		0.1	37.7	37.70	37.70	**70,000**	E	0.1	7000	7000.00	7000.00	**174**		0.1	17.4	17.40	17.40
1,2,3,7,8,9-HxCDD	-	-	**87.7**		0.1	8.77	8.77	8.77	**4,220**		0.1	422	422.00	422.00	**10.6**		0.1	1.06	1.06	1.06
1,2,3,4,6,7,8-HpCDF	-	-	**2,110**		0.01	21.1	21.10	21.10	**199,000**	E	0.01	1990	1990.00	1990.00	**671**		0.01	6.71	6.71	6.71
1,2,3,4,7,8,9-HpCDF	-	-	**129**		0.01	1.29	1.29	1.29	**24,700**	E	0.01	247	247.00	247.00	**36.9**		0.01	0.369	0.37	0.37
1,2,3,4,6,7,8-HpCDD	-	-	**9,600**	E	0.01	96	96.00	96.00	**959,000**	S,E	0.01	9590	9590.00	9590.00	**3,890**		0.01	38.9	38.90	38.90
OCDF	-	-	**7,260**	E	0.0003	2.178	2.1780	2.178	**1,680,000**	E	0.0003	504	504.0000	504.000	**1,460**		0.0003	0.438	0.4380	0.438
OCDD	-	-	**105,000**	E	0.0003	31.5	31.500	31.500	**5,500,000**	E	0.0003	1650	1650.000	1650.000	**36,700**		0.0003	11.01	11.010	11.010
TEQ	**5.2**	**13**				**247**	**247**	**247**				**26817**	**26817**	**26817**				**115**	**115**	**115**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**GP-503**						**GP-503**						**GP-503**					
Sample ID			GP-503-1						GP-503-3						GP-503-5					
Sample Depth (feet bgs)			1.0						3.0						5.0					
Sample Date			3/13/2013						3/13/2013						3/13/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**20.2**		0.1	2.02	2.02	2.02	**21.9**		0.1	2.19	2.19	2.19	< 0.258		0.1	0	0.01	0.03
2,3,7,8-TCDD	-	-	**12.2**		1	12.2	12.20	12.20	**3.18**		1	3.18	3.18	3.18	< 0.319		1	0	0.16	0.32
1,2,3,7,8-PeCDF	-	-	**110**		0.03	3.3	3.30	3.30	**8.71**		0.03	0.2613	0.26	0.26	< 0.267		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	**933**		0.3	279.9	279.90	279.90	**16.5**		0.3	4.95	4.95	4.95	< 0.25		0.3	0	0.04	0.08
1,2,3,7,8-PeCDD	-	-	**190**		1	190	190.00	190.00	**5.85**		1	5.85	5.85	5.85	< 0.384		1	0	0.19	0.38
1,2,3,4,7,8-HxCDF	-	-	**3,380**		0.1	338	338.00	338.00	**14**		0.1	1.4	1.40	1.40	**0.811**	EMPC, J	0.1	0.0811	0.08	0.08
1,2,3,6,7,8-HxCDF	-	-	**1,220**		0.1	122	122.00	122.00	**8.13**		0.1	0.813	0.81	0.81	< 0.258		0.1	0	0.01	0.03
2,3,4,6,7,8-HxCDF	-	-	**2,020**		0.1	202	202.00	202.00	**11.9**		0.1	1.19	1.19	1.19	**0.443**	EMPC, J	0.1	0.0443	0.04	0.04
1,2,3,7,8,9-HxCDF	-	-	< 14.2		0.1	0	0.71	1.42	**2.74**	J	0.1	0.274	0.27	0.27	< 0.317		0.1	0	0.02	0.03
1,2,3,4,7,8-HxCDD	-	-	**931**		0.1	93.1	93.10	93.10	**8.28**		0.1	0.828	0.83	0.83	< 0.485		0.1	0	0.02	0.05
1,2,3,6,7,8-HxCDD	-	-	**20,500**	E	0.1	2050	2050.00	2050.00	**67.8**		0.1	6.78	6.78	6.78	**5.15**		0.1	0.515	0.52	0.52
1,2,3,7,8,9-HxCDD	-	-	**3,060**		0.1	306	306.00	306.00	**13.5**		0.1	1.35	1.35	1.35	**0.889**	EMPC, J	0.1	0.0889	0.09	0.09
1,2,3,4,6,7,8-HpCDF	-	-	**98,500**	E	0.01	985	985.00	985.00	**340**		0.01	3.4	3.40	3.40	**28.2**		0.01	0.282	0.28	0.28
1,2,3,4,7,8,9-HpCDF	-	-	**7,150**	E	0.01	71.5	71.50	71.50	**22.9**		0.01	0.229	0.23	0.23	**2.4**	J	0.01	0.024	0.02	0.02
1,2,3,4,6,7,8-HpCDD	-	-	**624,000**	E	0.01	6240	6240.00	6240.00	**1,970**		0.01	19.7	19.70	19.70	**183**		0.01	1.83	1.83	1.83
OCDF	-	-	**503,000**	E	0.0003	150.9	150.9000	150.900	**1,680**		0.0003	0.504	0.5040	0.504	**158**		0.0003	0.0474	0.0474	0.047
OCDD	-	-	**4,550,000**	E	0.0003	1365	1365.000	1365.000	**22,600**		0.0003	6.78	6.780	6.780	**2,240**		0.0003	0.672	0.672	0.672
TEQ	**5.2**	**13**				**12411**	**12412**	**12412**				**60**	**60**	**60**				**4**	**4**	**5**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**GP-504**						**GP-505**						**GP-505**					
Sample ID			GP-504-1						GP-505-1						GP-505-3					
Sample Depth (feet bgs)			1.0						1.0						3.0					
Sample Date			3/13/2013						3/13/2013						3/13/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.546**		0.1	0.0546	0.05	0.05	**3.57**		0.1	0.357	0.36	0.36	**0.652**		0.1	0.0652	0.07	0.07
2,3,7,8-TCDD	-	-	**0.611**		1	0.611	0.61	0.61	**1.93**		1	1.93	1.93	1.93	**0.351**	J	1	0.351	0.35	0.35
1,2,3,7,8-PeCDF	-	-	**2.33**	J	0.03	0.0699	0.07	0.07	**11.2**		0.03	0.336	0.34	0.34	< 0.326		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	**3.61**		0.3	1.083	1.08	1.08	**26.2**		0.3	7.86	7.86	7.86	< 0.309		0.3	0	0.05	0.09
1,2,3,7,8-PeCDD	-	-	**5.19**		1	5.19	5.19	5.19	**15.8**		1	15.8	15.80	15.80	**0.664**	J	1	0.664	0.66	0.66
1,2,3,4,7,8-HxCDF	-	-	**10.7**		0.1	1.07	1.07	1.07	**99.4**		0.1	9.94	9.94	9.94	**0.262**	EMPC, J	0.1	0.0262	0.03	0.03
1,2,3,6,7,8-HxCDF	-	-	**10.5**		0.1	1.05	1.05	1.05	**87.6**		0.1	8.76	8.76	8.76	**0.232**	EMPC, J	0.1	0.0232	0.02	0.02
2,3,4,6,7,8-HxCDF	-	-	**13.3**		0.1	1.33	1.33	1.33	**128**		0.1	12.8	12.80	12.80	< 0.249		0.1	0	0.01	0.02
1,2,3,7,8,9-HxCDF	-	-	< 1.06		0.1	0	0.05	0.11	**12.6**		0.1	1.26	1.26	1.26	< 0.288		0.1	0	0.01	0.03
1,2,3,4,7,8-HxCDD	-	-	**49.5**		0.1	4.95	4.95	4.95	**62.3**		0.1	6.23	6.23	6.23	< 0.398		0.1	0	0.02	0.04
1,2,3,6,7,8-HxCDD	-	-	**66**		0.1	6.6	6.60	6.60	**367**		0.1	36.7	36.70	36.70	**1.61**	J	0.1	0.161	0.16	0.16
1,2,3,7,8,9-HxCDD	-	-	**23.8**		0.1	2.38	2.38	2.38	**116**		0.1	11.6	11.60	11.60	< 0.415		0.1	0	0.02	0.04
1,2,3,4,6,7,8-HpCDF	-	-	**269**		0.01	2.69	2.69	2.69	**2,100**		0.01	21	21.00	21.00	**6.88**		0.01	0.0688	0.07	0.07
1,2,3,4,7,8,9-HpCDF	-	-	**18.2**		0.01	0.182	0.18	0.18	**186**		0.01	1.86	1.86	1.86	**0.495**	EMPC, J	0.01	0.005	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**2,460**		0.01	24.6	24.60	24.60	**13,400**		0.01	134	134.00	134.00	**46.4**		0.01	0.464	0.46	0.46
OCDF	-	-	**602**		0.0003	0.1806	0.1806	0.181	**5,890**		0.0003	1.767	1.7670	1.767	**38.4**		0.0003	0.0115	0.0115	0.012
OCDD	-	-	**27,100**		0.0003	8.13	8.130	8.130	**199,000**		0.0003	59.7	59.700	59.700	**542**		0.0003	0.1626	0.163	0.163
TEQ	**5.2**	**13**				**60**	**60**	**60**				**332**	**332**	**332**				**2**	**2**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**GP-506**						**GP-507**						**GP-507**					
Sample ID			GP-506-1						GP-507-1						GP-507-3					
Sample Depth (feet bgs)			1.0						1.0						3.0					
Sample Date			3/13/2013						3/13/2013						3/13/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.937**		0.1	0.0937	0.09	0.09	**4.82**		0.1	0.482	0.48	0.48	< 0.224		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	**0.252**	EMPC, J	1	0.252	0.25	0.25	< 1.44		1	0	0.72	1.44	< 0.279		1	0	0.14	0.28
1,2,3,7,8-PeCDF	-	-	**1.23**	J	0.03	0.0369	0.04	0.04	**9.94**		0.03	0.2982	0.30	0.30	< 0.274		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	**2.46**		0.3	0.738	0.74	0.74	**21.6**		0.3	6.48	6.48	6.48	< 0.276		0.3	0	0.04	0.08
1,2,3,7,8-PeCDD	-	-	**1.66**	J	1	1.66	1.66	1.66	**9.62**		1	9.62	9.62	9.62	< 0.285		1	0	0.14	0.29
1,2,3,4,7,8-HxCDF	-	-	**5.5**		0.1	0.55	0.55	0.55	**47.4**		0.1	4.74	4.74	4.74	< 0.177		0.1	0	0.01	0.02
1,2,3,6,7,8-HxCDF	-	-	**5.17**		0.1	0.517	0.52	0.52	**28.9**		0.1	2.89	2.89	2.89	< 0.168		0.1	0	0.01	0.02
2,3,4,6,7,8-HxCDF	-	-	**6.51**		0.1	0.651	0.65	0.65	**40.2**		0.1	4.02	4.02	4.02	< 0.204		0.1	0	0.01	0.02
1,2,3,7,8,9-HxCDF	-	-	< 0.556		0.1	0	0.03	0.06	**5.04**		0.1	0.504	0.50	0.50	< 0.21		0.1	0	0.01	0.02
1,2,3,4,7,8-HxCDD	-	-	**4.74**		0.1	0.474	0.47	0.47	**24.2**		0.1	2.42	2.42	2.42	< 0.331		0.1	0	0.02	0.03
1,2,3,6,7,8-HxCDD	-	-	**22.4**		0.1	2.24	2.24	2.24	**196**		0.1	19.6	19.60	19.60	< 0.307		0.1	0	0.02	0.03
1,2,3,7,8,9-HxCDD	-	-	**8.86**		0.1	0.886	0.89	0.89	**93**		0.1	9.3	9.30	9.30	< 0.333		0.1	0	0.02	0.03
1,2,3,4,6,7,8-HpCDF	-	-	**90.9**		0.01	0.909	0.91	0.91	**683**		0.01	6.83	6.83	6.83	**1.71**	J	0.01	0.0171	0.02	0.02
1,2,3,4,7,8,9-HpCDF	-	-	**6.44**		0.01	0.0644	0.06	0.06	**42.7**		0.01	0.427	0.43	0.43	< 0.316		0.01	0	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**669**		0.01	6.69	6.69	6.69	**4,960**	E	0.01	49.6	49.60	49.60	**11.4**		0.01	0.114	0.11	0.11
OCDF	-	-	**217**		0.0003	0.0651	0.0651	0.065	**1,510**		0.0003	0.453	0.4530	0.453	**4.59**	J	0.0003	0.0014	0.0014	0.001
OCDD	-	-	**8,040**		0.0003	2.412	2.412	2.412	**51,300**		0.0003	15.39	15.390	15.390	**99.4**	J	0.0003	0.0298	0.030	0.030
TEQ	**5.2**	**13**				**18**	**18**	**18**				**133**	**134**	**134**				**0.2**	**0.6**	**1**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**GP-508**						**GP-508**						**GP-510**					
Sample ID			GP-508-1						GP-508-3						GP-510-1					
Sample Depth (feet bgs)			1.0						3.0						1.0					
Sample Date			3/13/2013						3/13/2013						3/13/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**15.8**		0.1	1.58	1.58	1.58	**6.11**		0.1	0.611	0.61	0.61	< 0.239		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	**3.11**		1	3.11	3.11	3.11	**1.64**		1	1.64	1.64	1.64	< 0.247		1	0	0.12	0.25
1,2,3,7,8-PeCDF	-	-	**6.29**		0.03	0.1887	0.19	0.19	**9.66**		0.03	0.2898	0.29	0.29	< 0.292		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	**9.84**		0.3	2.952	2.95	2.95	**12.1**		0.3	3.63	3.63	3.63	< 0.295		0.3	0	0.04	0.09
1,2,3,7,8-PeCDD	-	-	**5.06**		1	5.06	5.06	5.06	**9.61**		1	9.61	9.61	9.61	< 0.31		1	0	0.16	0.31
1,2,3,4,7,8-HxCDF	-	-	**3.36**	EMPC, J, L	0.1	0.336	0.34	0.34	**35**	EMPC, J	0.1	3.5	3.50	3.50	< 0.28		0.1	0	0.01	0.03
1,2,3,6,7,8-HxCDF	-	-	**3.67**		0.1	0.367	0.37	0.37	**24.2**		0.1	2.42	2.42	2.42	< 0.267		0.1	0	0.01	0.03
2,3,4,6,7,8-HxCDF	-	-	**4.17**		0.1	0.417	0.42	0.42	**12.8**		0.1	1.28	1.28	1.28	< 0.304		0.1	0	0.02	0.03
1,2,3,7,8,9-HxCDF	-	-	< 0.476		0.1	0	0.02	0.05	< 0.449		0.1	0	0.02	0.04	< 0.333		0.1	0	0.02	0.03
1,2,3,4,7,8-HxCDD	-	-	**4.25**		0.1	0.425	0.43	0.43	**10**		0.1	1	1.00	1.00	< 0.448		0.1	0	0.02	0.04
1,2,3,6,7,8-HxCDD	-	-	**7.88**		0.1	0.788	0.79	0.79	**19.3**		0.1	1.93	1.93	1.93	**1.55**	J	0.1	0.155	0.16	0.16
1,2,3,7,8,9-HxCDD	-	-	**5.72**		0.1	0.572	0.57	0.57	**12.8**		0.1	1.28	1.28	1.28	< 0.452		0.1	0	0.02	0.05
1,2,3,4,6,7,8-HpCDF	-	-	**17.2**		0.01	0.172	0.17	0.17	**158**		0.01	1.58	1.58	1.58	**9.91**		0.01	0.0991	0.10	0.10
1,2,3,4,7,8,9-HpCDF	-	-	**1.38**	EMPC, J	0.01	0.0138	0.01	0.01	**9.56**		0.01	0.0956	0.10	0.10	< 0.293		0.01	0	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**76.5**		0.01	0.765	0.77	0.77	**74**		0.01	0.74	0.74	0.74	**46.8**		0.01	0.468	0.47	0.47
OCDF	-	-	**33.1**		0.0003	0.0099	0.0099	0.010	**52**		0.0003	0.0156	0.0156	0.016	**35.4**		0.0003	0.0106	0.0106	0.011
OCDD	-	-	**296**		0.0003	0.0888	0.089	0.089	**88.6**		0.0003	0.0266	0.027	0.027	**467**		0.0003	0.1401	0.140	0.140
TEQ	**5.2**	**13**				**17**	**17**	**17**				**30**	**30**	**30**				**0.9**	**1**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)						SLR Additional Upland Assessment - Former Woodlife Area (2013)					
Sample Location			**GP-510**						**GP-511**						**GP-512**					
Sample ID			GP-510-3						GP-511-1						GP-512-1					
Sample Depth (feet bgs)			3.0						1.0						1.0					
Sample Date			3/13/2013						3/13/2013						3/13/2013					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**3.42**		0.1	0.342	0.34	0.34	< 0.235		0.1	0	0.01	0.02	**3.11**		0.1	0.311	0.31	0.31
2,3,7,8-TCDD	-	-	**1.09**		1	1.09	1.09	1.09	< 0.271		1	0	0.14	0.27	**3.51**		1	3.51	3.51	3.51
1,2,3,7,8-PeCDF	-	-	**1.64**	J	0.03	0.0492	0.05	0.05	< 0.218		0.03	0	0.00	0.01	**4.76**		0.03	0.1428	0.14	0.14
2,3,4,7,8-PeCDF	-	-	**2.65**		0.3	0.795	0.80	0.80	< 0.202		0.3	0	0.03	0.06	**10.7**		0.3	3.21	3.21	3.21
1,2,3,7,8-PeCDD	-	-	**2.2**	J	1	2.2	2.20	2.20	< 0.282		1	0	0.14	0.28	**23.8**		1	23.8	23.80	23.80
1,2,3,4,7,8-HxCDF	-	-	**1.15**	EMPC, J	0.1	0.115	0.12	0.12	< 0.24		0.1	0	0.01	0.02	**23.5**		0.1	2.35	2.35	2.35
1,2,3,6,7,8-HxCDF	-	-	**0.946**	EMPC, J	0.1	0.0946	0.09	0.09	< 0.236		0.1	0	0.01	0.02	**27.8**		0.1	2.78	2.78	2.78
2,3,4,6,7,8-HxCDF	-	-	**1.15**	EMPC, J	0.1	0.115	0.12	0.12	< 0.244		0.1	0	0.01	0.02	**40**		0.1	4	4.00	4.00
1,2,3,7,8,9-HxCDF	-	-	< 0.333		0.1	0	0.02	0.03	< 0.337		0.1	0	0.02	0.03	< 1.56		0.1	0	0.08	0.16
1,2,3,4,7,8-HxCDD	-	-	**1.76**	J	0.1	0.176	0.18	0.18	< 0.363		0.1	0	0.02	0.04	**49**		0.1	4.9	4.90	4.90
1,2,3,6,7,8-HxCDD	-	-	**3.19**	L, EMPC	0.1	0.319	0.32	0.32	**0.491**	J	0.1	0.0491	0.05	0.05	**128**		0.1	12.8	12.80	12.80
1,2,3,7,8,9-HxCDD	-	-	**2.02**	EMPC, J	0.1	0.202	0.20	0.20	< 0.372		0.1	0	0.02	0.04	**96.2**		0.1	9.62	9.62	9.62
1,2,3,4,6,7,8-HpCDF	-	-	**8.01**		0.01	0.0801	0.08	0.08	**1.68**	J	0.01	0.0168	0.02	0.02	**641**		0.01	6.41	6.41	6.41
1,2,3,4,7,8,9-HpCDF	-	-	**0.51**	EMPC, J	0.01	0.0051	0.01	0.01	< 0.422		0.01	0	0.00	0.00	**43.3**		0.01	0.433	0.43	0.43
1,2,3,4,6,7,8-HpCDD	-	-	**44.8**		0.01	0.448	0.45	0.45	**14.4**		0.01	0.144	0.14	0.14	**3,110**		0.01	31.1	31.10	31.10
OCDF	-	-	**13.9**		0.0003	0.0042	0.0042	0.004	**5.04**		0.0003	0.0015	0.0015	0.002	**1,660**		0.0003	0.498	0.4980	0.498
OCDD	-	-	**246**		0.0003	0.0738	0.074	0.074	**190**		0.0003	0.057	0.057	0.057	**27,300**		0.0003	8.19	8.190	8.190
TEQ	**5.2**	**13**				**6.1**	**6.1**	**6.1**				**0.3**	**0.7**	**1**				**114**	**114**	**114**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Source Control Evaluation to Address Data Gaps (2017)						SLR Source Control Evaluation to Address Data Gaps (2017)						SLR Source Control Evaluation to Address Data Gaps (2017)					
Sample Location			**NTD**						**NTD**						**NTD**					
Sample ID			NTD-SED-0418						NTD-SED-A						NTD-SED-B					
Sample Depth (feet bgs)			Truck Dock Sump Solids						0-1						0-1					
Sample Date			4/4/2018						7/9/2018						7/9/2018					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**4.45**		0.1	0.445	0.45	0.45	**2.74**		0.1	0.274	0.27	0.27	**4.47**		0.1	0.447	0.45	0.45
2,3,7,8-TCDD	-	-	**2.44**		1	2.44	2.44	2.44	**1.8**	EMPC	1	1.8	1.80	1.80	**2.9**		1	2.9	2.90	2.90
1,2,3,7,8-PeCDF	-	-	**5.14**		0.03	0.1542	0.15	0.15	**6.09**		0.03	0.1827	0.18	0.18	**8.53**		0.03	0.2559	0.26	0.26
2,3,4,7,8-PeCDF	-	-	**11.60**		0.3	3.48	3.48	3.48	**6.84**		0.3	2.052	2.05	2.05	**18.5**		0.3	5.55	5.55	5.55
1,2,3,7,8-PeCDD	-	-	**15.2**		1	15.2	15.20	15.20	**14.7**		1	14.7	14.70	14.70	**23.7**		1	23.7	23.70	23.70
1,2,3,4,7,8-HxCDF	-	-	**24.5**		0.1	2.45	2.45	2.45	**26.7**		0.1	2.67	2.67	2.67	**40.2**		0.1	4.02	4.02	4.02
1,2,3,6,7,8-HxCDF	-	-	**23.3**		0.1	2.33	2.33	2.33	**22.4**	EMPC	0.1	2.24	2.24	2.24	**40.8**		0.1	4.08	4.08	4.08
2,3,4,6,7,8-HxCDF	-	-	**34.1**		0.1	3.41	3.41	3.41	**34.1**		0.1	3.41	3.41	3.41	**56.2**		0.1	5.62	5.62	5.62
1,2,3,7,8,9-HxCDF	-	-	< 0.566		0.1	0	0.03	0.06	< 0.979		0.1	0	0.05	0.10	< 0.54		0.1	0	0.03	0.05
1,2,3,4,7,8-HxCDD	-	-	**34.3**		0.1	3.43	3.43	3.43	**32.3**		0.1	3.23	3.23	3.23	**54.4**		0.1	5.44	5.44	5.44
1,2,3,6,7,8-HxCDD	-	-	**100**		0.1	10	10.00	10.00	**105**		0.1	10.5	10.50	10.50	**177**		0.1	17.7	17.70	17.70
1,2,3,7,8,9-HxCDD	-	-	**66.5**		0.1	6.65	6.65	6.65	**62.2**		0.1	6.22	6.22	6.22	**102**		0.1	10.2	10.20	10.20
1,2,3,4,6,7,8-HpCDF	-	-	**554**		0.01	5.54	5.54	5.54	**479**		0.01	4.79	4.79	4.79	**876**		0.01	8.76	8.76	8.76
1,2,3,4,7,8,9-HpCDF	-	-	**30.8**		0.01	0.308	0.31	0.31	**32.4**		0.01	0.324	0.32	0.32	**57.5**		0.01	0.575	0.58	0.58
1,2,3,4,6,7,8-HpCDD	-	-	**2,620**		0.01	26.2	26.20	26.20	**2,540**		0.01	25.4	25.40	25.40	**4,410**		0.01	44.1	44.10	44.10
OCDF	-	-	**1,210**		0.0003	0.363	0.3630	0.363	**1,180**		0.0003	0.354	0.3540	0.354	**2,090**		0.0003	0.627	0.6270	0.627
OCDD	-	-	**23,700**		0.0003	7.11	7.110	7.110	**25,300**		0.0003	7.59	7.590	7.590	**42,600**		0.0003	12.78	12.780	12.780
TEQ	**5.2**	**13**				**90**	**90**	**90**				**86**	**86**	**86**				**147**	**147**	**147**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P1**						**WL-P1**						**WL-P2**					
Sample ID			WL-P1-1-062124						WL-P1-3-4-062124						WL-P2-1-2-062124					
Sample Depth (feet bgs)			1-2						3-4						1-2					
Sample Date			6/21/2024						6/21/2024						6/21/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.78**	J	0.1	0.078	0.08	0.08	**1.8**		0.1	0.18	0.18	0.18	**1.2**		0.1	0.12	0.12	0.12
2,3,7,8-TCDD	-	-	< 0.15		1	0	0.08	0.15	**0.4**	J	1	0.4	0.40	0.40	**0.62**	J, I	1	0.62	0.62	0.62
1,2,3,7,8-PeCDF	-	-	**0.75**	J	0.03	0.0225	0.02	0.02	**2.4**	J	0.03	0.072	0.07	0.07	**1.7**	J	0.03	0.051	0.05	0.05
2,3,4,7,8-PeCDF	-	-	**1**	J	0.3	0.3	0.30	0.30	**1.4**	J	0.3	0.42	0.42	0.42	**2.7**	J	0.3	0.81	0.81	0.81
1,2,3,7,8-PeCDD	-	-	**0.79**	J	1	0.79	0.79	0.79	< 0.85		1	0	0.43	0.85	**5.6**		1	5.6	5.60	5.60
1,2,3,4,7,8-HxCDF	-	-	**1**	J	0.1	0.1	0.10	0.10	< 0.98		0.1	0	0.05	0.10	**8.4**		0.1	0.84	0.84	0.84
1,2,3,6,7,8-HxCDF	-	-	**3.2**	P, J	0.1	0.32	0.32	0.32	< 1		0.1	0	0.05	0.10	**34**	P, J	0.1	3.4	3.40	3.40
2,3,4,6,7,8-HxCDF	-	-	**0.96**	J	0.1	0.096	0.10	0.10	< 0.92		0.1	0	0.05	0.09	**7.5**	A	0.1	0.75	0.75	0.75
1,2,3,7,8,9-HxCDF	-	-	< 0.31		0.1	0	0.02	0.03	< 0.94		0.1	0	0.05	0.09	**0.74**	J, I, A	0.1	0.074	0.07	0.07
1,2,3,4,7,8-HxCDD	-	-	**1.3**	J	0.1	0.13	0.13	0.13	< 1.6		0.1	0	0.08	0.16	**14**		0.1	1.4	1.40	1.40
1,2,3,6,7,8-HxCDD	-	-	**2.9**	J	0.1	0.29	0.29	0.29	**1.1**	J	0.1	0.11	0.11	0.11	**36**		0.1	3.6	3.60	3.60
1,2,3,7,8,9-HxCDD	-	-	**2.2**	J	0.1	0.22	0.22	0.22	< 1.3		0.1	0	0.07	0.13	**28**		0.1	2.8	2.80	2.80
1,2,3,4,6,7,8-HpCDF	-	-	**18**		0.01	0.18	0.18	0.18	**2.9**	J	0.01	0.029	0.03	0.03	**180**	A	0.01	1.8	1.80	1.80
1,2,3,4,7,8,9-HpCDF	-	-	**1.2**	J	0.01	0.012	0.01	0.01	< 1		0.01	0	0.01	0.01	**13**	A	0.01	0.13	0.13	0.13
1,2,3,4,6,7,8-HpCDD	-	-	**67**	J	0.01	0.67	0.67	0.67	**9.9**		0.01	0.099	0.10	0.10	**1100**		0.01	11	11.00	11.00
OCDF	-	-	**43**		0.0003	0.0129	0.0129	0.013	**5.7**	J	0.0003	0.0017	0.0017	0.002	**400**		0.0003	0.12	0.1200	0.120
OCDD	-	-	**560**	J	0.0003	0.168	0.168	0.168	**76**		0.0003	0.0228	0.023	0.023	**11000**	E	0.0003	3.3	3.300	3.300
TEQ	**5.2**	**13**				**3**	**3**	**4**				**1**	**2**	**3**				**36**	**36**	**36**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P2**						**WL-P3**						**WL-P4**					
Sample ID			WL-P2-3-4-062124						WL-P3-3-4-062124						WL-P4-1-2-062024					
Sample Depth (feet bgs)			3-4						3-4						1-2					
Sample Date			6/21/2024						6/21/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**4.1**		0.1	0.41	0.41	0.41	< 0.33		0.1	0	0.02	0.03	**1.8**		0.1	0.18	0.18	0.18
2,3,7,8-TCDD	-	-	**0.79**		1	0.79	0.79	0.79	< 0.29	A	1	0	0.15	0.29	**0.48**	J	1	0.48	0.48	0.48
1,2,3,7,8-PeCDF	-	-	**1.6**	J	0.03	0.048	0.05	0.05	< 0.34		0.03	0	0.01	0.01	**5.2**		0.03	0.156	0.16	0.16
2,3,4,7,8-PeCDF	-	-	**2.7**	J	0.3	0.81	0.81	0.81	< 0.31		0.3	0	0.05	0.09	**5.4**		0.3	1.62	1.62	1.62
1,2,3,7,8-PeCDD	-	-	**1.6**	J	1	1.6	1.60	1.60	< 0.31		1	0	0.16	0.31	**7.2**		1	7.2	7.20	7.20
1,2,3,4,7,8-HxCDF	-	-	**1**	J	0.1	0.1	0.10	0.10	< 0.59		0.1	0	0.03	0.06	**21**	A	0.1	2.1	2.10	2.10
1,2,3,6,7,8-HxCDF	-	-	**1.3**	J	0.1	0.13	0.13	0.13	< 0.61		0.1	0	0.03	0.06	**140**	P, A, *J*	0.1	14	14.00	14.00
2,3,4,6,7,8-HxCDF	-	-	**1.4**	J	0.1	0.14	0.14	0.14	< 0.52		0.1	0	0.03	0.05	**12**	A	0.1	1.2	1.20	1.20
1,2,3,7,8,9-HxCDF	-	-	< 0.72		0.1	0	0.04	0.07	< 0.58		0.1	0	0.03	0.06	**2.7**	J, A	0.1	0.27	0.27	0.27
1,2,3,4,7,8-HxCDD	-	-	< 1.3		0.1	0	0.07	0.13	< 0.58		0.1	0	0.03	0.06	**22**		0.1	2.2	2.20	2.20
1,2,3,6,7,8-HxCDD	-	-	**1.5**	J, I	0.1	0.15	0.15	0.15	< 0.71		0.1	0	0.04	0.07	**110**		0.1	11	11.00	11.00
1,2,3,7,8,9-HxCDD	-	-	**1.2**	J, I	0.1	0.12	0.12	0.12	< 0.68		0.1	0	0.03	0.07	**41**		0.1	4.1	4.10	4.10
1,2,3,4,6,7,8-HpCDF	-	-	**4.8**		0.01	0.048	0.05	0.05	< 0.53		0.01	0	0.00	0.01	**550**	A	0.01	5.5	5.50	5.50
1,2,3,4,7,8,9-HpCDF	-	-	< 0.8		0.01	0	0.00	0.01	< 0.65		0.01	0	0.00	0.01	**42**	A	0.01	0.42	0.42	0.42
1,2,3,4,6,7,8-HpCDD	-	-	**17**		0.01	0.17	0.17	0.17	**2.1**	J	0.01	0.021	0.02	0.02	**4100**	E, A, *J*	0.01	41	41.00	41.00
OCDF	-	-	**6.8**	J	0.0003	0.002	0.0020	0.002	< 1.6		0.0003	0	0.0002	0.000	**2400**	A	0.0003	0.72	0.7200	0.720
OCDD	-	-	**150.0**		0.0003	0.045	0.045	0.045	**27**		0.0003	0.0081	0.008	0.008	**63000**	E, *J*	0.0003	18.9	18.900	18.900
TEQ	**5.2**	**13**				**5**	**5**	**5**				**0.0**	**0.6**	**1**				**111**	**111**	**111**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P4**						**WL-P5**						**WL-P6**					
Sample ID			WL-P4-3-4-062024						WL-P5-3-4-062024						WL-P6-3-4-062024					
Sample Depth (feet bgs)			3-4						3-4						3-4					
Sample Date			6/20/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.2		0.1	0	0.01	0.02	< 0.2		0.1	0	0.01	0.02	< 0.19		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.19		1	0	0.10	0.19	< 0.18		1	0	0.09	0.18	< 0.17		1	0	0.09	0.17
1,2,3,7,8-PeCDF	-	-	< 0.47		0.03	0	0.01	0.01	< 0.21		0.03	0	0.00	0.01	< 0.2		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	< 0.71		0.3	0	0.11	0.21	< 0.19		0.3	0	0.03	0.06	< 0.18		0.3	0	0.03	0.05
1,2,3,7,8-PeCDD	-	-	< 0.62		1	0	0.31	0.62	< 0.18		1	0	0.09	0.18	< 0.18		1	0	0.09	0.18
1,2,3,4,7,8-HxCDF	-	-	< 0.73		0.1	0	0.04	0.07	< 0.36		0.1	0	0.02	0.04	< 0.34		0.1	0	0.02	0.03
1,2,3,6,7,8-HxCDF	-	-	< 0.77		0.1	0	0.04	0.08	< 0.37		0.1	0	0.02	0.04	< 0.35		0.1	0	0.02	0.04
2,3,4,6,7,8-HxCDF	-	-	< 0.68		0.1	0	0.03	0.07	< 0.32		0.1	0	0.02	0.03	< 0.3		0.1	0	0.02	0.03
1,2,3,7,8,9-HxCDF	-	-	< 0.7		0.1	0	0.04	0.07	< 0.35		0.1	0	0.02	0.04	< 0.34		0.1	0	0.02	0.03
1,2,3,4,7,8-HxCDD	-	-	< 1.2		0.1	0	0.06	0.12	< 0.35		0.1	0	0.02	0.04	< 0.33		0.1	0	0.02	0.03
1,2,3,6,7,8-HxCDD	-	-	< 0.7		0.1	0	0.04	0.07	< 0.43		0.1	0	0.02	0.04	< 0.41		0.1	0	0.02	0.04
1,2,3,7,8,9-HxCDD	-	-	< 0.94		0.1	0	0.05	0.09	< 0.41		0.1	0	0.02	0.04	< 0.39		0.1	0	0.02	0.04
1,2,3,4,6,7,8-HpCDF	-	-	< 0.57		0.01	0	0.00	0.01	< 0.32		0.01	0	0.00	0.00	< 0.3		0.01	0	0.00	0.00
1,2,3,4,7,8,9-HpCDF	-	-	< 0.77		0.01	0	0.00	0.01	< 0.39		0.01	0	0.00	0.00	< 0.38		0.01	0	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**4.7**		0.01	0.047	0.05	0.05	**0.65**	J, I	0.01	0.0065	0.01	0.01	**0.54**	J	0.01	0.0054	0.01	0.01
OCDF	-	-	< 1.7		3E-04	0	0.0003	0.001	< 0.99		0.0003	0	0.0001	0.000	< 0.95		0.0003	0	0.0001	0.000
OCDD	-	-	**45.0**		3E-04	0.0135	0.014	0.014	**5.8**	J	0.0003	0.0017	0.002	0.002	**5.1**	J	0.0003	0.0015	0.002	0.002
TEQ	**5.2**	**13**				**0.1**	**0.9**	**2**				**0.01**	**0.4**	**0.7**				**0.01**	**0.3**	**0.7**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P7**						**WL-P8**						**WL-P9**					
Sample ID			WL-P7-3-4-062124						WL-P8-3-4-062124						WL-P9-1-2-062124					
Sample Depth (feet bgs)			3-4						3-4						1-2					
Sample Date			6/21/2024						6/21/2024						6/21/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**1**	J	0.1	0.1	0.10	0.10	**0.44**	J	0.1	0.044	0.04	0.04	**0.25**	J	0.1	0.025	0.03	0.03
2,3,7,8-TCDD	-	-	< 0.33		1	0	0.17	0.33	< 0.19		1	0	0.10	0.19	< 0.16		1	0	0.08	0.16
1,2,3,7,8-PeCDF	-	-	< 0.39		0.03	0	0.01	0.01	< 0.22		0.03	0	0.00	0.01	< 0.19		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	< 0.35		0.3	0	0.05	0.11	< 0.2		0.3	0	0.03	0.06	**0.24**	J	0.3	0.072	0.07	0.07
1,2,3,7,8-PeCDD	-	-	< 0.34		1	0	0.17	0.34	< 0.2		1	0	0.10	0.20	**0.26**	J, I	1	0.26	0.26	0.26
1,2,3,4,7,8-HxCDF	-	-	< 0.67		0.1	0	0.03	0.07	< 0.39		0.1	0	0.02	0.04	**0.41**	J	0.1	0.041	0.04	0.04
1,2,3,6,7,8-HxCDF	-	-	< 0.69		0.1	0	0.03	0.07	< 0.4		0.1	0	0.02	0.04	**0.58**	J	0.1	0.058	0.06	0.06
2,3,4,6,7,8-HxCDF	-	-	< 0.59		0.1	0	0.03	0.06	< 0.34		0.1	0	0.02	0.03	**0.7**	J	0.1	0.07	0.07	0.07
1,2,3,7,8,9-HxCDF	-	-	< 0.66		0.1	0	0.03	0.07	< 0.38		0.1	0	0.02	0.04	< 0.31		0.1	0	0.02	0.03
1,2,3,4,7,8-HxCDD	-	-	< 0.65		0.1	0	0.03	0.07	< 0.38		0.1	0	0.02	0.04	**1**	J	0.1	0.1	0.10	0.10
1,2,3,6,7,8-HxCDD	-	-	< 0.8		0.1	0	0.04	0.08	< 0.46		0.1	0	0.02	0.05	**2.4**	J	0.1	0.24	0.24	0.24
1,2,3,7,8,9-HxCDD	-	-	< 0.77		0.1	0	0.04	0.08	< 0.44		0.1	0	0.02	0.04	**2**	J	0.1	0.2	0.20	0.20
1,2,3,4,6,7,8-HpCDF	-	-	**0.74**	J	0.01	0.0074	0.01	0.01	< 0.34		0.01	0	0.00	0.00	**11**		0.01	0.11	0.11	0.11
1,2,3,4,7,8,9-HpCDF	-	-	< 0.74		0.01	0	0.00	0.01	< 0.42		0.01	0	0.00	0.00	**0.79**	J	0.01	0.0079	0.01	0.01
1,2,3,4,6,7,8-HpCDD	-	-	**1.9**	J	0.01	0.019	0.02	0.02	**0.72**	J, I	0.01	0.0072	0.01	0.01	**69**		0.01	0.69	0.69	0.69
OCDF	-	-	< 1.9		0.0003	0	0.0003	0.001	< 1.1		0.0003	0	0.0002	0.000	**20**		0.0003	0.006	0.0060	0.006
OCDD	-	-	**18**		0.0003	0.0054	0.005	0.005	**8.7**	J	0.0003	0.0026	0.003	0.003	**890**		0.0003	0.267	0.267	0.267
TEQ	**5.2**	**13**				**0.1**	**0.8**	**1**				**0.1**	**0.4**	**0.8**				**2**	**2**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P9**						**WL-P10**						**WL-P10**					
Sample ID			WL-P9-3-4-062124						WL-P10-1-2-062024						WL-P10-3-4-062024					
Sample Depth (feet bgs)			3-4						1-2						3-4					
Sample Date			6/21/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.26**	J	0.1	0.026	0.03	0.03	**0.56**	J	0.1	0.056	0.06	0.06	< 0.19		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.22		1	0	0.11	0.22	< 0.16		1	0	0.08	0.16	< 0.18		1	0	0.09	0.18
1,2,3,7,8-PeCDF	-	-	< 0.53		0.03	0	0.01	0.02	**0.24**	J	0.03	0.0072	0.01	0.01	< 0.45		0.03	0	0.01	0.01
2,3,4,7,8-PeCDF	-	-	< 0.8		0.3	0	0.12	0.24	**0.63**	J	0.3	0.189	0.19	0.19	< 0.68		0.3	0	0.10	0.20
1,2,3,7,8-PeCDD	-	-	< 0.7		1	0	0.35	0.70	**0.32**	J	1	0.32	0.32	0.32	< 0.6		1	0	0.30	0.60
1,2,3,4,7,8-HxCDF	-	-	< 0.82		0.1	0	0.04	0.08	< 0.32		0.1	0	0.02	0.03	< 0.69		0.1	0	0.03	0.07
1,2,3,6,7,8-HxCDF	-	-	< 0.87		0.1	0	0.04	0.09	< 0.33		0.1	0	0.02	0.03	< 0.74		0.1	0	0.04	0.07
2,3,4,6,7,8-HxCDF	-	-	< 0.76		0.1	0	0.04	0.08	0.32	J	0.1	0.032	0.03	0.03	< 0.65		0.1	0	0.03	0.07
1,2,3,7,8,9-HxCDF	-	-	< 0.79		0.1	0	0.04	0.08	< 0.32		0.1	0	0.02	0.03	< 0.67		0.1	0	0.03	0.07
1,2,3,4,7,8-HxCDD	-	-	< 1.4		0.1	0	0.07	0.14	**0.33**	J	0.1	0.033	0.03	0.03	< 1.2		0.1	0	0.06	0.12
1,2,3,6,7,8-HxCDD	-	-	< 0.79		0.1	0	0.04	0.08	**0.59**	J	0.1	0.059	0.06	0.06	**3.6**	J	0.1	0.36	0.36	0.36
1,2,3,7,8,9-HxCDD	-	-	< 1.1		0.1	0	0.06	0.11	< 0.37		0.1	0	0.02	0.04	< 0.9		0.1	0	0.05	0.09
1,2,3,4,6,7,8-HpCDF	-	-	< 0.64		0.01	0	0.00	0.01	**1.1**	J	0.01	0.011	0.01	0.01	**21**		0.01	0.21	0.21	0.21
1,2,3,4,7,8,9-HpCDF	-	-	< 0.87		0.01	0	0.00	0.01	< 0.35		0.01	0	0.00	0.00	**1.3**	J	0.01	0.013	0.01	0.01
1,2,3,4,6,7,8-HpCDD	-	-	0.8	J	0.01	0.008	0.01	0.01	**9.8**		0.01	0.098	0.10	0.10	**130**		0.01	1.3	1.30	1.30
OCDF	-	-	< 2		0.0003	0	0.0003	0.001	**2.9**	J	0.0003	0.0009	0.0009	0.001	**100**		0.0003	0.03	0.0300	0.030
OCDD	-	-	**8.6**		0.0003	0.0026	0.003	0.003	**94**		0.0003	0.0282	0.028	0.028	**1800**		0.0003	0.54	0.540	0.540
TEQ	**5.2**	**13**				**0.04**	**1**	**2**				**0.8**	**1**	**1**				**2**	**3**	**4**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P11**						**WL-P12**						**WL-P12**					
Sample ID			WL-P11-7-8-062024						WL-P12-5-6-062024						WL-P12-7-8-062024					
Sample Depth (feet bgs)			7-8						5-6						7-8					
Sample Date			6/20/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.18		0.1	0	0.01	0.02	< 0.22		0.1	0	0.01	0.02	< 0.23		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	< 0.19		1	0	0.10	0.19	< 0.22		1	0	0.11	0.22
1,2,3,7,8-PeCDF	-	-	< 0.19		0.03	0	0.00	0.01	< 0.23		0.03	0	0.00	0.01	< 0.55		0.03	0	0.01	0.02
2,3,4,7,8-PeCDF	-	-	< 0.17		0.3	0	0.03	0.05	< 0.21		0.3	0	0.03	0.06	< 0.83		0.3	0	0.12	0.25
1,2,3,7,8-PeCDD	-	-	< 0.17		1	0	0.09	0.17	**0.25**	J	1	0.25	0.25	0.25	< 0.73		1	0	0.37	0.73
1,2,3,4,7,8-HxCDF	-	-	< 0.33		0.1	0	0.02	0.03	< 0.39		0.1	0	0.02	0.04	< 0.85		0.1	0	0.04	0.09
1,2,3,6,7,8-HxCDF	-	-	< 0.33		0.1	0	0.02	0.03	< 0.4		0.1	0	0.02	0.04	< 0.9		0.1	0	0.05	0.09
2,3,4,6,7,8-HxCDF	-	-	< 0.29		0.1	0	0.01	0.03	**0.37**		0.1	0.037	0.04	0.04	< 0.79		0.1	0	0.04	0.08
1,2,3,7,8,9-HxCDF	-	-	< 0.32		0.1	0	0.02	0.03	< 0.39		0.1	0	0.02	0.04	< 0.81		0.1	0	0.04	0.08
1,2,3,4,7,8-HxCDD	-	-	< 0.32		0.1	0	0.02	0.03	**0.44**	J, I	0.1	0.044	0.04	0.04	< 1.4		0.1	0	0.07	0.14
1,2,3,6,7,8-HxCDD	-	-	< 0.39		0.1	0	0.02	0.04	**1**	J	0.1	0.1	0.10	0.10	< 0.82		0.1	0	0.04	0.08
1,2,3,7,8,9-HxCDD	-	-	< 0.38		0.1	0	0.02	0.04	**0.61**	J	0.1	0.061	0.06	0.06	< 1.1		0.1	0	0.06	0.11
1,2,3,4,6,7,8-HpCDF	-	-	**0.87**	J	0.01	0.0087	0.01	0.01	**4.9**	J	0.01	0.049	0.05	0.05	**1.8**	J	0.01	0.018	0.02	0.02
1,2,3,4,7,8,9-HpCDF	-	-	< 0.36		0.01	0	0.00	0.00	< 0.43		0.01	0	0.00	0.00	< 0.9		0.01	0	0.00	0.01
1,2,3,4,6,7,8-HpCDD	-	-	**4.2**		0.01	0.042	0.04	0.04	**21**		0.01	0.21	0.21	0.21	**7.8**		0.01	0.078	0.08	0.08
OCDF	-	-	**3.9**	J	0.0003	0.0012	0.0012	0.001	**13**		0.0003	0.0039	0.0039	0.004	**7.3**	J	0.0003	0.0022	0.0022	0.002
OCDD	-	-	**48**		0.0003	0.0144	0.014	0.014	**220**		0.0003	0.066	0.066	0.066	**91**		0.0003	0.0273	0.027	0.027
TEQ	**5.2**	**13**				**0.1**	**0.4**	**0.7**				**0.8**	**1**	**1**				**0.1**	**1**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P12**						**WL-P13**						**WL-P14**					
Sample ID			WL-P12-9-10-062024						WL-P13-3-4-062024						WL-P14-1-2-062024					
Sample Depth (feet bgs)			9-10						3-4						1-2					
Sample Date			6/20/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.17		0.1	0	0.01	0.02	**0.23**	J	0.1	0.023	0.02	0.02	**3.4**	A	0.1	0.34	0.34	0.34
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	< 0.17		1	0	0.09	0.17	< 0.87	A	1	0	0.44	0.87
1,2,3,7,8-PeCDF	-	-	< 0.4		0.03	0	0.01	0.01	< 0.2		0.03	0	0.00	0.01	**1.9**	J, I, A	0.03	0.057	0.06	0.06
2,3,4,7,8-PeCDF	-	-	< 0.6		0.3	0	0.09	0.18	< 0.18		0.3	0	0.03	0.05	**2.1**	J, A	0.3	0.63	0.63	0.63
1,2,3,7,8-PeCDD	-	-	< 0.53		1	0	0.27	0.53	< 0.18		1	0	0.09	0.18	**2.9**	J, A	1	2.9	2.90	2.90
1,2,3,4,7,8-HxCDF	-	-	**1.3**	J	0.1	0.13	0.13	0.13	< 0.34		0.1	0	0.02	0.03	**1.4**	J	0.1	0.14	0.14	0.14
1,2,3,6,7,8-HxCDF	-	-	**1.4**	J	0.1	0.14	0.14	0.14	< 0.35		0.1	0	0.02	0.04	**1.6**	J	0.1	0.16	0.16	0.16
2,3,4,6,7,8-HxCDF	-	-	**2**	J	0.1	0.2	0.20	0.20	< 0.3		0.1	0	0.02	0.03	**1.7**	J, A	0.1	0.17	0.17	0.17
1,2,3,7,8,9-HxCDF	-	-	< 0.59		0.1	0	0.03	0.06	< 0.34		0.1	0	0.02	0.03	< 0.53	A	0.1	0	0.03	0.05
1,2,3,4,7,8-HxCDD	-	-	**1.1**	J	0.1	0.11	0.11	0.11	< 0.33		0.1	0	0.02	0.03	**3.2**	J	0.1	0.32	0.32	0.32
1,2,3,6,7,8-HxCDD	-	-	**6.6**		0.1	0.66	0.66	0.66	< 0.41		0.1	0	0.02	0.04	**4.9**		0.1	0.49	0.49	0.49
1,2,3,7,8,9-HxCDD	-	-	**1.7**	J	0.1	0.17	0.17	0.17	< 0.4		0.1	0	0.02	0.04	**3.8**	J	0.1	0.38	0.38	0.38
1,2,3,4,6,7,8-HpCDF	-	-	**110**		0.01	1.1	1.10	1.10	**0.77**	J, I	0.01	0.0077	0.01	0.01	**5.2**	J, A	0.01	0.052	0.05	0.05
1,2,3,4,7,8,9-HpCDF	-	-	**4.1**		0.01	0.041	0.04	0.04	< 0.38		0.01	0	0.00	0.00	< 0.37		0.01	0	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**310**		0.01	3.1	3.10	3.10	**4.7**		0.01	0.047	0.05	0.05	**30**	A	0.01	0.3	0.30	0.30
OCDF	-	-	**520**		0.0003	0.156	0.1560	0.156	**4.1**	J	0.0003	0.0012	0.0012	0.001	**8.4**	J	0.0003	0.0025	0.0025	0.003
OCDD	-	-	**4500**		0.0003	1.35	1.350	1.350	**58.0**		0.0003	0.0174	0.017	0.017	**83.0**		0.0003	0.0249	0.025	0.025
TEQ	**5.2**	**13**				**7.2**	**8**	**8**				**0.1**	**0.4**	**0.8**				**6**	**6**	**7**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P14**						**WL-P15**						**WL-P16**					
Sample ID			WL-P14-3-4-062024						WL-P15-1-2-062024						WL-P16-1-2-062024					
Sample Depth (feet bgs)			3-4						1-2						1-2					
Sample Date			6/20/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.16		0.1	0	0.01	0.02	**3**	D	0.1	0.3	0.30	0.30	**0.4**	J	0.1	0.04	0.04	0.04
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	< 1	D	1	0	0.50	1.00	< 0.22		1	0	0.11	0.22
1,2,3,7,8-PeCDF	-	-	< 0.38		0.03	0	0.01	0.01	**1.4**	J,I,D	0.03	0.042	0.04	0.04	**0.55**	J, I	0.03	0.0165	0.02	0.02
2,3,4,7,8-PeCDF	-	-	< 0.58		0.3	0	0.09	0.17	**1.5**	J,I,D	0.3	0.45	0.45	0.45	**0.26**	J	0.3	0.078	0.08	0.08
1,2,3,7,8-PeCDD	-	-	< 0.51		1	0	0.26	0.51	< 1.1	D	1	0	0.55	1.10	< 0.23	J	1	0	0.12	0.23
1,2,3,4,7,8-HxCDF	-	-	< 0.59		0.1	0	0.03	0.06	< 2.1	D	0.1	0	0.11	0.21	< 0.46		0.1	0	0.02	0.05
1,2,3,6,7,8-HxCDF	-	-	< 0.63		0.1	0	0.03	0.06	< 2.1	D	0.1	0	0.11	0.21	< 0.47		0.1	0	0.02	0.05
2,3,4,6,7,8-HxCDF	-	-	< 0.55		0.1	0	0.03	0.06	< 1.8	D	0.1	0	0.09	0.18	< 0.4		0.1	0	0.02	0.04
1,2,3,7,8,9-HxCDF	-	-	< 0.57		0.1	0	0.03	0.06	< 2	D	0.1	0	0.10	0.20	< 0.45		0.1	0	0.02	0.05
1,2,3,4,7,8-HxCDD	-	-	< 0.99		0.1	0	0.05	0.10	< 2	D	0.1	0	0.10	0.20	< 0.44		0.1	0	0.02	0.04
1,2,3,6,7,8-HxCDD	-	-	< 0.57		0.1	0	0.03	0.06	< 2.5	D	0.1	0	0.13	0.25	< 0.54		0.1	0	0.03	0.05
1,2,3,7,8,9-HxCDD	-	-	< 0.76		0.1	0	0.04	0.08	< 2.4	DD	0.1	0	0.12	0.24	< 0.53		0.1	0	0.03	0.05
1,2,3,4,6,7,8-HpCDF	-	-	< 0.46		0.01	0	0.00	0.00	**3.9**	J, D	0.01	0.039	0.04	0.04	**1.2**	J	0.01	0.012	0.01	0.01
1,2,3,4,7,8,9-HpCDF	-	-	< 0.63		0.01	0	0.00	0.01	< 2.9	D	0.01	0	0.01	0.03	< 0.5		0.01	0	0.00	0.01
1,2,3,4,6,7,8-HpCDD	-	-	**1.3**	J, I	0.01	0.013	0.01	0.01	**17**	D	0.01	0.17	0.17	0.17	**5.4**	J	0.01	0.054	0.05	0.05
OCDF	-	-	< 1.4		0.0003	0	0.0002	0.000	< 5.8	D	0.0003	0	0.0009	0.002	**2.4**	J	0.0003	0.0007	0.0007	0.001
OCDD	-	-	**13**		0.0003	0.0039	0.004	0.004	**63.0**	D	0.0003	0.0189	0.019	0.019	**54.0**		0.0003	0.0162	0.016	0.016
TEQ	**5.2**	**13**				**0.02**	**0.7**	**1**				**1**	**3**	**5**				**0.2**	**0.6**	**1**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P17**						**WL-P17**						**WL-P17**					
Sample ID			WL-P17-3-4-062024						WL-P17-5-6-062024						WL-P17-7-8-062024					
Sample Depth (feet bgs)			3-4						5-6						7-8					
Sample Date			6/20/2024						6/20/2024						6/20/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.63**	J	0.1	0.063	0.06	0.06	< 0.16		0.1	0	0.01	0.02	< 0.18		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.18		1	0	0.09	0.18	< 0.15		1	0	0.08	0.15	< 0.17		1	0	0.09	0.17
1,2,3,7,8-PeCDF	-	-	**0.29**	J	0.03	0.0087	0.01	0.01	< 0.37		0.03	0	0.01	0.01	< 0.41		0.03	0	0.01	0.01
2,3,4,7,8-PeCDF	-	-	**0.2**	J, I	0.3	0.06	0.06	0.06	< 0.55		0.3	0	0.08	0.17	< 0.63		0.3	0	0.09	0.19
1,2,3,7,8-PeCDD	-	-	< 0.19		1	0	0.10	0.19	< 0.49		1	0	0.25	0.49	< 0.55		1	0	0.28	0.55
1,2,3,4,7,8-HxCDF	-	-	< 0.36		0.1	0	0.02	0.04	< 0.56		0.1	0	0.03	0.06	< 0.64		0.1	0	0.03	0.06
1,2,3,6,7,8-HxCDF	-	-	< 0.37		0.1	0	0.02	0.04	< 0.6		0.1	0	0.03	0.06	< 0.68		0.1	0	0.03	0.07
2,3,4,6,7,8-HxCDF	-	-	< 0.32		0.1	0	0.02	0.03	< 0.53		0.1	0	0.03	0.05	< 0.6		0.1	0	0.03	0.06
1,2,3,7,8,9-HxCDF	-	-	< 0.35		0.1	0	0.02	0.04	< 0.54		0.1	0	0.03	0.05	< 0.61		0.1	0	0.03	0.06
1,2,3,4,7,8-HxCDD	-	-	< 0.35		0.1	0	0.02	0.04	< 0.95		0.1	0	0.05	0.10	< 1.1		0.1	0	0.06	0.11
1,2,3,6,7,8-HxCDD	-	-	< 0.43		0.1	0	0.02	0.04	< 0.55		0.1	0	0.03	0.06	< 0.62		0.1	0	0.03	0.06
1,2,3,7,8,9-HxCDD	-	-	< 0.42		0.1	0	0.02	0.04	< 0.73		0.1	0	0.04	0.07	< 0.83		0.1	0	0.04	0.08
1,2,3,4,6,7,8-HpCDF	-	-	< 0.32		0.01	0	0.00	0.00	**1.3**	J	0.01	0.013	0.01	0.01	< 0.5	J	0.01	0	0.00	0.01
1,2,3,4,7,8,9-HpCDF	-	-	< 0.4		0.01	0	0.00	0.00	< 0.6		0.01	0	0.00	0.01	< 0.68		0.01	0	0.00	0.01
1,2,3,4,6,7,8-HpCDD	-	-	**1.1**	J	0.01	0.011	0.01	0.01	**6.8**		0.01	0.068	0.07	0.07	< 0.42		0.01	0	0.00	0.00
OCDF	-	-	< 1		0.0003	0	0.0002	0.000	**2.4**	J	0.0003	0.0007	0.0007	0.001	< **1.5**	J	0.0003	0	0.0002	0.000
OCDD	-	-	**13**		0.0003	0.0039	0.004	0.004	**72**		0.0003	0.0216	0.022	0.022	1		0.0003	0.0004	0.000	0.000
TEQ	**5.2**	**13**				**0.1**	**0.5**	**0.8**				**0.1**	**0.7**	**1.4**				**0.0004**	**0.7**	**1.5**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P18**						**WL-P18**						**WL-P18**					
Sample ID			WL-P127-6-7-061924						WL-P18-7-8-061924						WL-P18-9-10-061924					
Sample Depth (feet bgs)			6-7						7-8						9-10					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.18		0.1	0	0.01	0.02	**0.93**		0.1	0.093	0.09	0.09	**12**		0.1	1.2	1.20	1.20
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	< 0.15		1	0	0.08	0.15	< 0.15		1	0	0.08	0.15
1,2,3,7,8-PeCDF	-	-	< 0.18		0.03	0	0.00	0.01	**2.2**	J	0.03	0.066	0.07	0.07	**33**		0.03	0.99	0.99	0.99
2,3,4,7,8-PeCDF	-	-	< 0.17		0.3	0	0.03	0.05	**4.6**		0.3	1.38	1.38	1.38	**70**		0.3	21	21.00	21.00
1,2,3,7,8-PeCDD	-	-	< 0.16		1	0	0.08	0.16	< 0.16		1	0	0.08	0.16	**0.94**	J	1	0.94	0.94	0.94
1,2,3,4,7,8-HxCDF	-	-	< 0.32		0.1	0	0.02	0.03	**8.3**		0.1	0.83	0.83	0.83	**93**		0.1	9.3	9.30	9.30
1,2,3,6,7,8-HxCDF	-	-	< 0.32		0.1	0	0.02	0.03	**1.9**	J	0.1	0.19	0.19	0.19	**28**		0.1	2.8	2.80	2.80
2,3,4,6,7,8-HxCDF	-	-	< 0.28		0.1	0	0.01	0.03	**3.4**	J	0.1	0.34	0.34	0.34	**44**		0.1	4.4	4.40	4.40
1,2,3,7,8,9-HxCDF	-	-	< 0.31		0.1	0	0.02	0.03	**4.2**	I, *J*	0.1	0.42	0.42	0.42	**53**		0.1	5.3	5.30	5.30
1,2,3,4,7,8-HxCDD	-	-	< 0.31		0.1	0	0.02	0.03	< 0.3		0.1	0	0.02	0.03	**2.9**	J	0.1	0.29	0.29	0.29
1,2,3,6,7,8-HxCDD	-	-	< 0.38		0.1	0	0.02	0.04	**17**		0.1	1.7	1.70	1.70	**260**		0.1	26	26.00	26.00
1,2,3,7,8,9-HxCDD	-	-	< 0.36		0.1	0	0.02	0.04	**1.3**	J	0.1	0.13	0.13	0.13	**23**		0.1	2.3	2.30	2.30
1,2,3,4,6,7,8-HpCDF	-	-	**0.35**	J	0.01	0.0035	0.00	0.00	**60**		0.01	0.6	0.60	0.60	**890**	A	0.01	8.9	8.90	8.90
1,2,3,4,7,8,9-HpCDF	-	-	< 0.35		0.01	0	0.00	0.00	**2.9**	J	0.01	0.029	0.03	0.03	**54**	A	0.01	0.54	0.54	0.54
1,2,3,4,6,7,8-HpCDD	-	-	**2.4**	J	0.01	0.024	0.02	0.02	**460**		0.01	4.6	4.60	4.60	**6800**	E, *J*	0.01	68	68.00	68.00
OCDF	-	-	**1**	J, I	0.0003	0.0003	0.0003	0.000	**140**		0.0003	0.042	0.0420	0.042	**1800**		0.0003	0.54	0.5400	0.540
OCDD	-	-	**35**		0.0003	0.0105	0.011	0.011	**5700**		0.0003	1.71	1.710	1.710	**130000**	D, N2	0.0003	39	39.000	39.000
TEQ	**5.2**	**13**				**0.04**	**0**	**1**				**12**	**12**	**12**				**192**	**192**	**192**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P18**						**WL-P19**						**WL-P20**					
Sample ID			WL-P18-12-13-061924						WL-P19-3-4-061924						WL-P20-1-2-061924					
Sample Depth (feet bgs)			12-13						3-4						1-2					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.21		0.1	0	0.01	0.02	**0.24**	P, J	0.1	0.024	0.02	0.02	< 0.19		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.2		1	0	0.10	0.20	< 0.19		1	0	0.10	0.19	< 0.16		1	0	0.08	0.16
1,2,3,7,8-PeCDF	-	-	< 0.49		0.03	0	0.01	0.01	**0.39**	J, I	0.03	0.0117	0.01	0.01	< 0.19		0.03	0	0.00	0.01
2,3,4,7,8-PeCDF	-	-	< 0.74		0.3	0	0.11	0.22	< 0.2		0.3	0	0.03	0.06	< 0.17		0.3	0	0.03	0.05
1,2,3,7,8-PeCDD	-	-	< 0.65		1	0	0.33	0.65	< 0.2		1	0	0.10	0.20	< 0.17		1	0	0.09	0.17
1,2,3,4,7,8-HxCDF	-	-	< 0.76		0.1	0	0.04	0.08	< 0.38		0.1	0	0.02	0.04	< 0.33		0.1	0	0.02	0.03
1,2,3,6,7,8-HxCDF	-	-	< 0.81		0.1	0	0.04	0.08	< 0.39		0.1	0	0.02	0.04	< 0.34		0.1	0	0.02	0.03
2,3,4,6,7,8-HxCDF	-	-	< 0.71		0.1	0	0.04	0.07	< 0.34		0.1	0	0.02	0.03	< 0.29		0.1	0	0.01	0.03
1,2,3,7,8,9-HxCDF	-	-	< 0.73		0.1	0	0.04	0.07	< 0.37		0.1	0	0.02	0.04	< 0.32		0.1	0	0.02	0.03
1,2,3,4,7,8-HxCDD	-	-	< 1.3		0.1	0	0.07	0.13	< 0.37		0.1	0	0.02	0.04	< 0.32		0.1	0	0.02	0.03
1,2,3,6,7,8-HxCDD	-	-	**0.91**	**J**	0.1	0.091	0.09	0.09	< 0.46		0.1	0	0.02	0.05	< 0.39		0.1	0	0.02	0.04
1,2,3,7,8,9-HxCDD	-	-	< 0.98		0.1	0	0.05	0.10	< 0.44		0.1	0	0.02	0.04	< 0.38		0.1	0	0.02	0.04
1,2,3,4,6,7,8-HpCDF	-	-	**3.6**	**J**	0.01	0.036	0.04	0.04	< 0.34		0.01	0	0.00	0.00	**0.51**	J	0.01	0.0051	0.01	0.01
1,2,3,4,7,8,9-HpCDF	-	-	< 0.81		0.01	0	0.00	0.01	< 0.42		0.01	0	0.00	0.00	< 0.36		0.01	0	0.00	0.00
1,2,3,4,6,7,8-HpCDD	-	-	**24**		0.01	0.24	0.24	0.24	**3.2**	J	0.01	0.032	0.03	0.03	< **2**	*UB*	0.01	0	0.01	0.02
OCDF	-	-	**7.2**	J	0.0003	0.0022	0.0022	0.002	< 1.1		0.0003	0	0.0002	0.000	**0.95**	J	0.0003	0.0003	0.0003	0.000
OCDD	-	-	**280.0**		0.0003	0.084	0.084	0.084	**42**		0.0003	0.0126	0.013	0.013	**19**		0.0003	0.0057	0.006	0.006
TEQ	**5.2**	**13**				**0.5**	**1**	**2**				**0.1**	**0.4**	**0.8**				**0.01**	**0.3**	**0.7**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P21**						**WL-P22**						**WL-P22**					
Sample ID			WL-P21-1-2-061924						WL-P22-1-2-061924						WL-P22-3-4-061924					
Sample Depth (feet bgs)			1-2						1-2						3-4					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**0.28**	J, I	0.1	0.028	0.03	0.03	**0.4**	J	0.1	0.04	0.04	0.04	< 0.2		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	**0.25**	J, I	1	0.25	0.25	0.25	< 0.19		1	0	0.10	0.19
1,2,3,7,8-PeCDF	-	-	< 0.19		0.03	0	0.00	0.01	**0.27**	J	0.03	0.0081	0.01	0.01	< 0.47		0.03	0	0.01	0.01
2,3,4,7,8-PeCDF	-	-	< 0.17		0.3	0	0.03	0.05	**0.26**	J, I	0.3	0.078	0.08	0.08	< 0.7		0.3	0	0.11	0.21
1,2,3,7,8-PeCDD	-	-	< 0.17		1	0	0.09	0.17	**0.7**	J	1	0.7	0.70	0.70	< 0.62		1	0	0.31	0.62
1,2,3,4,7,8-HxCDF	-	-	< 0.33		0.1	0	0.02	0.03	< 0.35		0.1	0	0.02	0.04	< 0.72		0.1	0	0.04	0.07
1,2,3,6,7,8-HxCDF	-	-	< 0.34		0.1	0	0.02	0.03	< 0.36		0.1	0	0.02	0.04	< 0.76		0.1	0	0.04	0.08
2,3,4,6,7,8-HxCDF	-	-	< 0.29		0.1	0	0.01	0.03	< 0.31		0.1	0	0.02	0.03	< 0.67		0.1	0	0.03	0.07
1,2,3,7,8,9-HxCDF	-	-	< 0.32		0.1	0	0.02	0.03	< 0.34		0.1	0	0.02	0.03	< 0.69		0.1	0	0.03	0.07
1,2,3,4,7,8-HxCDD	-	-	< 0.32		0.1	0	0.02	0.03	**0.8**	J, I	0.1	0.08	0.08	0.08	< 1.2		0.1	0	0.06	0.12
1,2,3,6,7,8-HxCDD	-	-	< 0.39		0.1	0	0.02	0.04	**1.4**	J	0.1	0.14	0.14	0.14	< 0.7		0.1	0	0.04	0.07
1,2,3,7,8,9-HxCDD	-	-	< 0.38		0.1	0	0.02	0.04	**0.9**	J	0.1	0.09	0.09	0.09	< 0.93		0.1	0	0.05	0.09
1,2,3,4,6,7,8-HpCDF	-	-	**0.31**	J	0.01	0.0031	0.00	0.00	**0.89**	J	0.01	0.0089	0.01	0.01	< 0.56		0.01	0	0.00	0.01
1,2,3,4,7,8,9-HpCDF	-	-	< 0.36		0.01	0	0.00	0.00	< 0.39		0.01	0	0.00	0.00	< 0.76	J, I	0.01	0	0.00	0.01
1,2,3,4,6,7,8-HpCDD	-	-	< **0.94**	*UB*	0.01	0	0.00	0.01	**11**		0.01	0.11	0.11	0.11	**1.5**		0.01	0.015	0.02	0.02
OCDF	-	-	< 0.91		0.0003	0	0.0001	0.000	< 0.98		0.0003	0	0.0001	0.000	< 1.7		0.0003	0	0.0003	0.001
OCDD	-	-	< **5.9**	*UB*	0.0003	0	0.001	0.002	**56.0**		0.0003	0.0168	0.017	0.017	**12.0**		0.0003	0.0036	0.004	0.004
TEQ	**5.2**	**13**				**0.03**	**0.4**	**0.7**				**2**	**2**	**2**				**0.019**	**1**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P22**						**WL-P23**						**WL-P23**					
Sample ID			WL-P22-5-6-061924						WL-P23-5-6-061924						WL-P23-7-8-061924					
Sample Depth (feet bgs)			5-6						5-6						7-8					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.18		0.1	0	0.01	0.02	**2.3**		0.1	0.23	0.23	0.23	< 0.28		0.1	0	0.01	0.03
2,3,7,8-TCDD	-	-	< 0.17		1	0	0.09	0.17	< 0.14		1	0	0.07	0.14	< 0.27		1	0	0.14	0.27
1,2,3,7,8-PeCDF	-	-	**0.47**	J	0.03	0.0141	0.01	0.01	**5.9**	P, *J*	0.03	0.177	0.18	0.18	< 0.65		0.03	0	0.01	0.02
2,3,4,7,8-PeCDF	-	-	**1.7**	J	0.3	0.51	0.51	0.51	**10**		0.3	3	3.00	3.00	< 0.98		0.3	0	0.15	0.29
1,2,3,7,8-PeCDD	-	-	< 0.57		1	0	0.29	0.57	**0.95**	J	1	0.95	0.95	0.95	< 0.87		1	0	0.44	0.87
1,2,3,4,7,8-HxCDF	-	-	**2.6**	J	0.1	0.26	0.26	0.26	**65**		0.1	6.5	6.50	6.50	< 1		0.1	0	0.05	0.10
1,2,3,6,7,8-HxCDF	-	-	< 0.7		0.1	0	0.04	0.07	**9.9**		0.1	0.99	0.99	0.99	< 1.1		0.1	0	0.06	0.11
2,3,4,6,7,8-HxCDF	-	-	**1.1**	J	0.1	0.11	0.11	0.11	**18**		0.1	1.8	1.80	1.80	< 0.94		0.1	0	0.05	0.09
1,2,3,7,8,9-HxCDF	-	-	**1.3**	J	0.1	0.13	0.13	0.13	**8.6**		0.1	0.86	0.86	0.86	< 0.96		0.1	0	0.05	0.10
1,2,3,4,7,8-HxCDD	-	-	< 1.1		0.1	0	0.06	0.11	**12**		0.1	1.2	1.20	1.20	< 1.7		0.1	0	0.09	0.17
1,2,3,6,7,8-HxCDD	-	-	**4.7**		0.1	0.47	0.47	0.47	**270**		0.1	27	27.00	27.00	< 0.98		0.1	0	0.05	0.10
1,2,3,7,8,9-HxCDD	-	-	< 0.85		0.1	0	0.04	0.09	**28**		0.1	2.8	2.80	2.80	< 1.3		0.1	0	0.07	0.13
1,2,3,4,6,7,8-HpCDF	-	-	**26**		0.01	0.26	0.26	0.26	**1600**	A	0.01	16	16.00	16.00	< 0.78		0.01	0	0.00	0.01
1,2,3,4,7,8,9-HpCDF	-	-	**1.6**	J	0.01	0.016	0.02	0.02	**93**	A	0.01	0.93	0.93	0.93	< 1.1		0.01	0	0.01	0.01
1,2,3,4,6,7,8-HpCDD	-	-	**200**		0.01	2	2.00	2.00	**9100**	E, A, *J*	0.01	91	91.00	91.00	< 0.65		0.01	0	0.00	0.01
OCDF	-	-	**94**		0.0003	0.0282	0.0282	0.028	**12000**	E, A, *J*	0.0003	3.6	3.6000	3.600	< 2.4		0.0003	0	0.0004	0.001
OCDD	-	-	**3500**		0.0003	1.05	1.050	1.050	**220000**	E, A, N2, *J*	0.0003	66	66.000	66.000	**6.3**		0.0003	0.0019	0.002	0.002
TEQ	**5.2**	**13**				**5**	**5**	**6**				**223**	**223**	**223**				**0.002**	**1**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P23**						**WL-P24**						**WL-P24**					
Sample ID			WL-P23-9-10-061924						WL-P24-1-2-061924						WL-P24-3-4-061924					
Sample Depth (feet bgs)			9-10						1-2						3-4					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.17		0.1	0	0.01	0.02	**1.4**		0.1	0.14	0.14	0.14	< 0.24		0.1	0	0.01	0.02
2,3,7,8-TCDD	-	-	< 0.17		1	0	0.09	0.17	< 0.16		1	0	0.08	0.16	< 0.23		1	0	0.12	0.23
1,2,3,7,8-PeCDF	-	-	< 0.41		0.03	0	0.01	0.01	**1.7**	P, J	0.03	0.051	0.05	0.05	< 0.56		0.03	0	0.01	0.02
2,3,4,7,8-PeCDF	-	-	< 0.61		0.3	0	0.09	0.18	**0.67**	J	0.3	0.201	0.20	0.20	< 0.85		0.3	0	0.13	0.26
1,2,3,7,8-PeCDD	-	-	< 0.54		1	0	0.27	0.54	**0.67**	J	1	0.67	0.67	0.67	< 0.75		1	0	0.38	0.75
1,2,3,4,7,8-HxCDF	-	-	< 0.63		0.1	0	0.03	0.06	**0.47**	J	0.1	0.047	0.05	0.05	< 0.87		0.1	0	0.04	0.09
1,2,3,6,7,8-HxCDF	-	-	< 0.67		0.1	0	0.03	0.07	**0.44**	J	0.1	0.044	0.04	0.04	< 0.92		0.1	0	0.05	0.09
2,3,4,6,7,8-HxCDF	-	-	< 0.58		0.1	0	0.03	0.06	**0.32**	J	0.1	0.032	0.03	0.03	< 0.81		0.1	0	0.04	0.08
1,2,3,7,8,9-HxCDF	-	-	< 0.6		0.1	0	0.03	0.06	< 0.32		0.1	0	0.02	0.03	< 0.83		0.1	0	0.04	0.08
1,2,3,4,7,8-HxCDD	-	-	< 1.1		0.1	0	0.06	0.11	**0.6**	J, I	0.1	0.06	0.06	0.06	< 1.5		0.1	0	0.08	0.15
1,2,3,6,7,8-HxCDD	-	-	< 0.61		0.1	0	0.03	0.06	**0.96**	J	0.1	0.096	0.10	0.10	< 0.84		0.1	0	0.04	0.08
1,2,3,7,8,9-HxCDD	-	-	< 0.81		0.1	0	0.04	0.08	**0.62**	J	0.1	0.062	0.06	0.06	< 1.1		0.1	0	0.06	0.11
1,2,3,4,6,7,8-HpCDF	-	-	< 0.49		0.01	0	0.00	0.00	**3.4**	J	0.01	0.034	0.03	0.03	< 0.68		0.01	0	0.00	0.01
1,2,3,4,7,8,9-HpCDF	-	-	< 0.67		0.01	0	0.00	0.01	< 0.35		0.01	0	0.00	0.00	< 0.92		0.01	0	0.00	0.01
1,2,3,4,6,7,8-HpCDD	-	-	< 0.41		0.01	0	0.00	0.00	**15**		0.01	0.15	0.15	0.15	**2**	J	0.01	0.02	0.02	0.02
OCDF	-	-	< 1.5		0.0003	0	0.0002	0.000	**7.6**	J	0.0003	0.0023	0.0023	0.002	< 2.1		0.0003	0	0.0003	0.001
OCDD	-	-	**6.1**	J	0.0003	0.0018	0.002	0.002	**120**		0.0003	0.036	0.036	0.036	**27**		0.0003	0.0081	0.008	0.008
TEQ	**5.2**	**13**				**0.002**	**1**	**1**				**2**	**2**	**2**				**0.03**	**1**	**2**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P24**						**WL-P25**						**WL-P25**					
Sample ID			WL-P24-5-6-061924						WL-P25-1-2-061924						WL-P25-3-4-061924					
Sample Depth (feet bgs)			5-6						1-2						3-4					
Sample Date			6/19/2024						6/19/2024						6/19/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	**8.4**		0.1	0.84	0.84	0.84	**3.6**	D, A	0.1	0.36	0.36	0.36	< 1	D	0.1	0	0.05	0.10
2,3,7,8-TCDD	-	-	< 0.16		1	0	0.08	0.16	< 0.94	D, A	1	0	0.47	0.94	< 0.99	D	1	0	0.50	0.99
1,2,3,7,8-PeCDF	-	-	**110**		0.03	3.3	3.30	3.30	**1.6**	J, D	0.03	0.048	0.05	0.05	< 2.4	D	0.03	0	0.04	0.07
2,3,4,7,8-PeCDF	-	-	**89**		0.3	26.7	26.70	26.70	**2.6**	J, D	0.3	0.78	0.78	0.78	< 3.6	D	0.3	0	0.54	1.08
1,2,3,7,8-PeCDD	-	-	**1.1**		1	1.1	1.10	1.10	**1.6**	J, D	1	1.6	1.60	1.60	< 3.2	D	1	0	1.60	3.20
1,2,3,4,7,8-HxCDF	-	-	**110**		0.1	11	11.00	11.00	**2.3**	J, D	0.1	0.23	0.23	0.23	< 3.7	D	0.1	0	0.19	0.37
1,2,3,6,7,8-HxCDF	-	-	**26**		0.1	2.6	2.60	2.60	**1.7**	J, D	0.1	0.17	0.17	0.17	< 4	D	0.1	0	0.20	0.40
2,3,4,6,7,8-HxCDF	-	-	**23**		0.1	2.3	2.30	2.30	**1.7**	J, D	0.1	0.17	0.17	0.17	< 3.5	D	0.1	0	0.18	0.35
1,2,3,7,8,9-HxCDF	-	-	**58**		0.1	5.8	5.80	5.80	< 1.5	D	0.1	0	0.08	0.15	< 3.6	D	0.1	0	0.18	0.36
1,2,3,4,7,8-HxCDD	-	-	**3.6**		0.1	0.36	0.36	0.36	< 1.5	D	0.1	0	0.08	0.15	< 6.3	D	0.1	0	0.32	0.63
1,2,3,6,7,8-HxCDD	-	-	**270**		0.1	27	27.00	27.00	**4.4**	D	0.1	0.44	0.44	0.44	< 3.6	D	0.1	0	0.18	0.36
1,2,3,7,8,9-HxCDD	-	-	**23**		0.1	2.3	2.30	2.30	**1.9**	J, D	0.1	0.19	0.19	0.19	< 4.8	D	0.1	0	0.24	0.48
1,2,3,4,6,7,8-HpCDF	-	-	**930**		0.01	9.3	9.30	9.30	**18**	D	0.01	0.18	0.18	0.18	< 2.9	D	0.01	0	0.01	0.03
1,2,3,4,7,8,9-HpCDF	-	-	**42**		0.01	0.42	0.42	0.42	< 1.7	D	0.01	0	0.01	0.02	< 4	D	0.01	0	0.02	0.04
1,2,3,4,6,7,8-HpCDD	-	-	**5700**		0.01	57	57.00	57.00	**75**	D	0.01	0.75	0.75	0.75	**9**	D	0.01	0.09	0.09	0.09
OCDF	-	-	**2300**		0.0003	0.69	0.6900	0.690	**53**	D	0.0003	0.0159	0.0159	0.016	< 8.9	D	0.0003	0	0.0013	0.003
OCDD	-	-	**69000**		0.0003	20.7	20.700	20.700	**1200**	D	0.0003	0.36	0.360	0.360	**66**	D	0.0003	0.0198	0.020	0.020
TEQ	**5.2**	**13**				**171**	**171**	**172**				**5.3**	**6**	**7**				**0.1**	**4**	**9**

Table 1
Woodlife Area Soil Analytical Summary – Dioxins

Project	Cleanup Level (CUL)	Remediation Level (REL)	SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)						SLR Pre-Remedial Design Investigation - Upland Areas (2024)					
Sample Location			**WL-P26**						**WL-P26**						**WL-P27 (Surface Sample)**					
Sample ID			WL-P26-1-2-061924						WL-P26-3-4-061924						WL-P27-1-1.5-111524					
Sample Depth (feet bgs)			1-2						3-4						1-1.5					
Sample Date			6/19/2024						6/19/2024						11/15/2024					
Parameter [A]	Value	Value	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL	Value	Qual	TEF	U=0	U=1/2RL	U=RL
2,3,7,8-TCDF	-	-	< 0.76	A	0.1	0	0.04	0.08	< 1.3	D, A	0.1	0	0.07	0.13	**0.55**	J	0.1	0.055	0.06	0.06
2,3,7,8-TCDD	-	-	< 0.99	A	1	0	0.50	0.99	< 1.1	D, A	1	0	0.55	1.10	< 0.2		1	0	0.10	0.20
1,2,3,7,8-PeCDF	-	-	**1.1**	J, A	0.03	0.033	0.03	0.03	< 2.3	D	0.03	0	0.03	0.07	**26**	P	0.03	0.78	0.78	0.78
2,3,4,7,8-PeCDF	-	-	**1.8**	J	0.3	0.54	0.54	0.54	< 3.4	D	0.3	0	0.51	1.02	**3.1**	P, J	0.3	0.93	0.93	0.93
1,2,3,7,8-PeCDD	-	-	**0.99**	J	1	0.99	0.99	0.99	< 3	D	1	0	1.50	3.00	**1.7**		1	1.7	1.70	1.70
1,2,3,4,7,8-HxCDF	-	-	**4**	J	0.1	0.4	0.40	0.40	< 3.5	D	0.1	0	0.18	0.35	**9**		0.1	0.86	0.86	0.86
1,2,3,6,7,8-HxCDF	-	-	**2**	J	0.1	0.2	0.20	0.20	< 3.7	D	0.1	0	0.19	0.37	**5**		0.1	0.49	0.49	0.49
2,3,4,6,7,8-HxCDF	-	-	**1.1**	J	0.1	0.11	0.11	0.11	< 3.3	D	0.1	0	0.17	0.33	**4.3**		0.1	0.43	0.43	0.43
1,2,3,7,8,9-HxCDF	-	-	**1.1**	J, I	0.1	0.11	0.11	0.11	< 3.4	D	0.1	0	0.17	0.34	**2**	J	0.1	0.2	0.20	0.20
1,2,3,4,7,8-HxCDD	-	-	**1.3**	J, I	0.1	0.13	0.13	0.13	< 5.9	D	0.1	0	0.30	0.59	**6**		0.1	0.6	0.60	0.60
1,2,3,6,7,8-HxCDD	-	-	**5.9**		0.1	0.59	0.59	0.59	< 3.4	D	0.1	0	0.17	0.34	**28**		0.1	2.8	2.80	2.80
1,2,3,7,8,9-HxCDD	-	-	**1.9**	J	0.1	0.19	0.19	0.19	< 4.5	D	0.1	0	0.23	0.45	**10**		0.1	1	1.00	1.00
1,2,3,4,6,7,8-HpCDF	-	-	**43**		0.01	0.43	0.43	0.43	< 2.7	D	0.01	0	0.01	0.03	**160**	A	0.01	1.6	1.60	1.60
1,2,3,4,7,8,9-HpCDF	-	-	**4**	JA	0.01	0.04	0.04	0.04	< 3.7	D	0.01	0	0.02	0.04	**11**	A	0.01	0.11	0.11	0.11
1,2,3,4,6,7,8-HpCDD	-	-	**120**		0.01	1.2	1.20	1.20	< 2.3	D, A	0.01	0	0.01	0.02	**1,200**		0.01	12	12.00	12.00
OCDF	-	-	**130**		0.0003	0.039	0.0390	0.039	< 8.4	D	0.0003	0	0.0013	0.003	**610**		0.0003	0.183	0.1830	0.183
OCDD	-	-	**1600**		0.0003	0.48	0.480	0.480	**25**	D	0.0003	0.0075	0.008	0.008	**19,000**	E	0.0003	5.7	5.700	5.700
TEQ	**5.2**	**13**				**5.5**	**6**	**7**				**0.01**	**4**	**8**				**29**	**30**	**30**

Notes
All values shown as Picograms per gram (pg/g) or parts per trillion (ppt)
- indicates data not available
<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X
BOLD indicates detected above the laboratory PQL
Gray shading indicates measured above CUL or REL
A - Dioxins and Furans per EPA Method 1613
TEQ U=0 indicates Toxic Equivalency Quotient (TEQ) using Toxicity Equivalency Factors (TEFs) per MTCA Table 708-1
TEQ U=1/2 indicates TEQ using TEFs per MTCA Table 708-1 assuming Non-Detect values as 1/2 detection limit
TEQ U=RL indicates TEQ using MTCA Table 708-1 assuming non-detect values as equal to the detection limit.
Cleanup Level (CUL) and Remediation Level (REL) presented in the 2023 Cleanup Action Plan (CAP)
CUL applies for soils 0 to 5 feet; REL applies to soils >5 feet

Laboratory Qualifiers
A - Reporting Limit based on signal to noise (EDL)
B - Less than 10x higher than method blank level
D - Result obtained from analysis of diluted sample
E - Exceeds calibration range
EMPC - Estimated Maximum Possible Concentration
I - Isotope ratio out of specification
J - Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.
K - Result is estimated due to ion ratio failure in High Resolution PCB Analysis
N2 - Value obtained from additional analysis
P - PCDE Interference
S - Peak Saturated
Italics indicates sample results modified based on Data Validation (see Attachment 11)

Table 2
Woodlife Area Soil Analytical Summary – VOCs

Sample ID	WL-P10		WL-P11		WL-P18			
Depth	5 to 6		0 to 1		4.5 to 5.5		6 to 7	
Collect Date	6/20/2024		6/20/2024		6/19/2024		6/19/2024	
Parameter	Value	Qual	Value	Qual	Value	Qual	Value	Qual
Field Measurements								
PID (ppm)	**178**		**182**		**1,307**		**184**	
Volatile Organic Compounds (VOCs) by EPA Method 8260D								
CFC-12	<0.5		<0.5		<0.5		<0.5	
1,3-Dichloropropane	<0.05		<0.05		<0.05		<0.05	
Chloromethane	<0.5		<0.5		<0.5		<0.5	
Tetrachloroethene	<0.002		<0.002		<0.002		<0.002	
Vinyl chloride	<0.002		<0.002		<0.002		<0.002	
Dibromochloromethane	<0.05		<0.05		<0.05		<0.05	
Bromomethane	<0.5		<0.5		<0.5		<0.5	
1,2-Dibromoethane	<0.005		<0.005		<0.005		<0.005	
Chloroethane	<0.1		<0.1		<0.1		<0.1	
Chlorobenzene	<0.05		<0.05		<0.05		<0.05	
CFC-11	<0.5		<0.5		<0.5		<0.5	
Ethylbenzene	**0.015**		**1.5**		**0.18**		**0.45**	
Acetone	<5		<5		<5		<5	
1,1,1,2-Tetrachloroethane	<0.05		<0.05		<0.05		<0.05	
1,1-Dichloroethene	<0.002		<0.002		<0.002		<0.002	
m, p-Xylene	**0.086**		**14**		**2.2**		**6.1**	
Hexane	<0.25		<0.25		**0.48**		<0.25	
o-Xylene	**0.0038**		**0.59**		**0.48**		**0.13**	
Methylene chloride	<0.4		<0.4		<0.4		<0.4	
Styrene	<0.05		<0.05		<0.05		<0.05	
Methyl t-butyl ether	<0.002		<0.002		<0.002		<0.002	
Isopropylbenzene (Cumene)	<0.05		**0.27**		**2.9**		**0.42**	
trans-1,2-Dichloroethene	<0.002		<0.002		<0.002		<0.002	
Bromoform	<0.05		<0.05		<0.05		<0.05	
1,1-Dichloroethane	<0.002		<0.002		<0.002		<0.002	
n-Propylbenzene	<0.05		<0.05		**5.1**		**0.93**	
2,2-Dichloropropane	<0.05		<0.05		<0.05		<0.05	
Bromobenzene	<0.05		<0.05		<0.05		<0.05	
cis-1,2-Dichloroethene	<0.002		<0.002		<0.002		<0.002	
1,3,5-Trimethylbenzene	<0.05		**2.8**		**5.9**		**0.82**	
Chloroform	<0.05		<0.05		<0.05		<0.05	
1,1,2,2-Tetrachloroethane	<0.05		<0.05		<0.05		<0.05	
2-Butanone	<1		<1		<1		<1	
1,2,3-Trichloropropane	<0.05		<0.05		<0.05		<0.05	
1,2-Dichloroethane	<0.003		<0.003		<0.003		<0.003	
2-Chlorotoluene	<0.05		<0.05		<0.05		<0.05	
1,1,1-Trichloroethane	<0.002		<0.002		<0.002		<0.002	
4-Chlorotoluene	<0.05		<0.05		<0.05		<0.05	
1,1-Dichloropropene	<0.05		<0.05		<0.05		<0.05	
tert-Butylbenzene	<0.05		**0.074**		**0.53**		**0.056**	

Table 2
Woodlife Area Soil Analytical Summary – VOCs

Sample ID	WL-P10		WL-P11		WL-P18			
Depth	5 to 6		0 to 1		4.5 to 5.5		6 to 7	
Collect Date	6/20/2024		6/20/2024		6/19/2024		6/19/2024	
Parameter	Value	Qual	Value	Qual	Value	Qual	Value	Qual
Carbon tetrachloride	<0.05		<0.05		<0.05		<0.05	
1,2,4-Trimethylbenzene	<0.05		**6.6**		**23**		**4.4**	
Benzene	<0.002		**0.012**		<0.002		<0.002	
sec-Butylbenzene	<0.05		**1**		**7.1**		**0.69**	
Trichloroethene	<0.002		<0.002		<0.002		<0.002	
p-Isopropyltoluene	<0.05		**1.2**		**7.8**		**0.93**	
1,2-Dichloropropane	<0.05		<0.05		<0.05		<0.05	
1,3-Dichlorobenzene	<0.05		<0.05		<0.05		<0.05	
Dichlorobromomethane	<0.05		<0.05		<0.05		<0.05	
1,4-Dichlorobenzene	<0.05		<0.05		<0.05		<0.05	
Dibromomethane	<0.05		<0.05		<0.05		<0.05	
1,2-Dichlorobenzene	<0.05		<0.05		<0.05		<0.05	
Methyl isobutyl ketone	<1		<1		<1		<1	
1,2-Dibromo-3-chloropropane	<0.5		<0.5		<0.5		<0.5	
cis-1,3-Dichloropropene	<0.05		<0.05		<0.05		<0.05	
1,2,4-Trichlorobenzene	<0.25		<0.25		<0.25		<0.25	
Toluene	**0.11**		**0.59**		**0.34**		**0.033**	
Hexachlorobutadiene	<0.25		<0.25		<0.25		<0.25	
trans-1,3-Dichloropropene	<0.05		<0.05		<0.05		<0.05	
Naphthalene	<0.01		**0.53**		**0.13**		**0.27**	
1,1,2-Trichloroethane	<0.05		<0.05		<0.05		<0.05	
1,2,3-Trichlorobenzene	<0.25		<0.25		<0.25		<0.25	
2-Hexanone	<1		<1		<1		<1	

Notes
All Values in miligrams per kilogram (mg/kg) or parts per million (ppm)
- indicates data not available
<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X
BOLD indicates detected above the laboratory PQL

Laboratory Qualifiers
None

Table 3
Creosote/Fuel Oil Area Soil Analytical Summary - cPAHs

Sample Location	Sample Label	Sample Depth (feet)	Sample Date	Carcinogenic Polynuclear Aromatic Hydrocarbons [A] (PAHs) (mg/Kg)														TEQ U = 0	TEQ U = 1/2
				Benzo(a) anthracene		Benzo(a) pyrene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Chrysene		Dibenzo(a,h) anthracene		Indeno (1,2,3-cd) pyrene			
				Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual		
GP-9	GP9-6	6.0	5/1/2006	**137**		<88.8		<88.8		<88.8		**201**		<88.8		<88.8		**16**	**78**
GP-9	GP9-12	12.0	5/1/2006	**40.1**		**26.3**		**30.6**		**17.7**		**30.2**		<6		**10.1**		**36**	**37**
GP-10	GP10-3	3.0	5/1/2006	**18.7**		**48.5**		**53.2**		**40.8**		**59.1**		<15.3		**30.0**		**63**	**64**
GP-10	GP10-11	11.0	5/1/2006	**34.5**		**20.9**		**25.0**		**13.8**		**35.4**		<7		**7.14**		**29**	**30**
GP-11	GP11-12	12.0	5/4/2006	**33.6**		**20.2**		**20.2**		**17.9**		**27.0**		<8		<8		**28**	**28**
GP-12	GP12-8	8.0	5/2/2006	**152**		**104**		**92.8**		**102**		**261**		<84.2		<84.2		**158**	**158**
GP-13	GP13-11.5	11.5	5/1/2006	<0.404		<0.404		<0.404		<0.404		<0.404		<0.404		<0.404		ND	0.31
GP-14	GP14-6	6.0	5/1/2006	**6.77**		<4.25		<4.25		<4.25		**7.83**		<4.25		<4.25		**0.76**	**3.7**
GP-15	GP15-10	10.0	5/1/2006	<0.388		<0.388		<0.388		<0.388		<0.388		<0.388		<0.388		ND	0.29
GP-16	GP16-8	8.0	5/1/2006	<0.823		<0.823		<0.823		<0.823		<0.823		<0.823		<0.823		ND	0.62
GP-17	GP17-5	5.0	5/1/2006	<0.734		<0.734		<0.734		<0.734		<0.734		<0.734		<0.734		ND	0.55
GP-18	GP18-8	8.0	5/1/2006	<0.0162		<0.0162		**0.0250**		<0.0162		**0.0164**		<0.0162		<0.0162		**0.003**	**0.014**
GP-202	GP202-7.5	7.5	9/11/2006	**299**		**177**		**176**		**173**		**661**		**33.4**		**64.7**		**258**	**258**
GP206	GP206-4.5	4.5	9/12/2006	<0.350		<0.350		<0.350		<0.350		<0.350		<0.350		<0.350		ND	0.27
GP206	GP206-8.5	8.5	9/12/2006	**453**		**237**		**229**		**172**		**411**		<47.9		**83.1**		**335**	**337**
GP213	GP213-3	3.0	9/12/2006	**5.24**		**6.96**		**5.07**		**4.3**		**14.8**		**3.34**		**6.0**		**9.5**	**9.5**
GP214	GP214-6	6.0	9/12/2006	**5.57**		**4.27**		**4.13**		**2.70**		**4.74**		**0.689**		**1.71**		**5.8**	**5.8**
MW5	MW5-8.5	8.5	10/2/2006	**0.625**		<0.394		**0.394**		<0.394		**0.603**		<0.394		<0.394		**0.11**	**0.36**
HA-322	HA-322 1 FT 2	1	9/23/2009	**0.13**		**0.2**		**0.18**		**0.059**		**0.13**		**0.039**		**0.15**		**0.26**	**0.26**
HA-322	HA-322-2 1.5 FT	1.5	9/23/2009	**0.024**		**0.023**		**0.051**		**0.0091**	J	**0.027**		**0.011**	J	**0.028**		**0.036**	**0.036**
HA-323	HA-323 1 FT2	1	9/23/2009	**0.094**		**0.12**		**0.16**		**0.036**		**0.087**		**0.031**		**0.087**		**0.16**	**0.16**
HA-326	HA-326 2 FT2	2	9/24/2009	**0.049**		**0.059**		**0.081**		**0.021**		**0.04**		**0.018**		**0.045**		**0.081**	**0.081**
HA-326	HA-326-2 2.5 FT2	2.5	9/24/2009	**0.058**		**0.054**		**0.084**		**0.022**		**0.067**		**0.014**		**0.037**		**0.076**	**0.076**
HA-327	HA-327-1.5 FT 2	1.5	10/12/2009	**0.014**		**0.017**		**0.022**	J, J8	**0.007**		**0.014**		**0.0025**		**0.0058**	J, J8	**0.022**	**0.022**
HA-327	HA-327-2.5 FT 2	2.5	10/12/2009	**0.014**		**0.016**		**0.023**	J, J8	**0.008**		**0.016**		**0.0024**		**0.006**	J, J8	**0.022**	**0.022**
HA-328	HA-328-1 FT 2	1	10/12/2009	**0.034**		**0.03**	J8	**0.049**	J8	**0.02**	J8	**0.044**		**0.0046**	J,J8	**0.013**	J8	**0.043**	**0.043**
HA-328	HA-328-2.5 FT 2	2.5	10/12/2009	**0.023**		**0.025**	J8	**0.045**	J, J8	**0.012**	J,J8	**0.027**		**0.0047**	J,J8	**0.012**	J, J8	**0.035**	**0.035**
HA-329	HA-329-1 FT 2	1	10/12/2009	**66**		**87**		**100**		**42**		**110**		**16**		**34**		**114**	**114**
HA-330	HA-330-1 FT 2	1	10/13/2009	**0.38**		**0.42**		**1.1**	J, J8	**0.36**		**0.46**		**0.08**		**0.2**	J, J8	**0.64**	**0.64**
HA-331	HA-331-2 FT 2	2	10/13/2009	**0.017**		**0.023**		**0.032**	J, J8	**0.013**		**0.015**		**0.0035**		**0.008**	J, J8	**0.031**	**0.031**
HA-332	HA-332-1 FT 2	1	10/13/2009	**0.14**		**0.17**		**0.32**		**0.094**		**0.18**		**0.013**		**0.047**		**0.23**	**0.23**
HA-333	HA-333-3FT	3	10/13/2009	**0.017**		**0.026**		**0.054**		**0.012**		**0.026**		**0.0026**		**0.011**	J	**0.036**	**0.036**
GP-605	GP-605-13.5	13.5	12/18/2013	**5.4**		**2.6**		**3.3**		**0.92**		**6.4**		**0.25**		**0.69**		**3.7**	**3.7**
GP-605	GP-605-34.5	34.5	12/18/2013	**0.0071**	J	**0.0032**	J	**0.0042**	J	**0.0012**	J	**0.013**		<0.0071		**0.00082**	J	**0.005**	**0.005**
GP-607	GP-607-24.5	24.5	12/18/2013	**0.016**		**0.023**		**0.031**		**0.0083**		**0.026**		**0.0038**	J	**0.0097**		**0.030**	**0.030**
GP-701	GP-701-5	5.0	7/9/2015	**0.0017**	J	**0.0029**	J	**0.0034**	J	<0.0064		**0.0031**	J	<0.0064		**0.0008**	J	**0.004**	**0.004**
GP-702	GP-702-4	4.0	7/9/2015	**0.058**	J	**0.085**	J	**0.13**		<0.13		**0.055**	J	**0.025**	J	**0.030**	J	**0.11**	**0.12**
GP-702	GP-702-14.5	14.5	7/9/2015	**34**		**17**		**22**		**7.0**		**26**		**1.9**		**6.2**		**24**	**24**
GP-703	703-P-8.5-9	8.5	7/21/2015	**22**		**12**		**14**		**4.8**		**24**		**1.3**		**3.5**		**17**	**17**
GP-704	704-P-13.5-14	13.5	7/21/2015	**38**		**23**		**27**		**8.6**		**35**		**2.7**		**7.2**		**32**	**32**
GP-705	GP-705-5	5.0	7/9/2015	**0.0020**	J	**0.0013**	J	**0.0016**	J	<0.0070		**0.0014**	J	<0.0070		<0.0070		**0.002**	**0.003**
GP-706	GP-706-4	4	7/8/2015	**0.0055**	J	**0.0077**	J	**0.0084**		**0.0042**	J	**0.018**		<0.0077		**0.0048**	J	**0.010**	**0.011**

Table 3
Creosote/Fuel Oil Area Soil Analytical Summary - cPAHs

Sample Location	Sample Label	Sample Depth (feet)	Sample Date	Carcinogenic Polynuclear Aromatic Hydrocarbons [A] (PAHs) (mg/Kg)															
				Benzo(a) anthracene		Benzo(a) pyrene		Benzo(b) fluoranthene		Benzo(k) fluoranthene		Chrysene		Dibenzo(a,h) anthracene		Indeno (1,2,3-cd) pyrene		TEQ U = 0	TEQ U = 1/2
				Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual	Value	Qual		
GP-707	GP-707-4	4	7/6/2015	<0.0064		<0.0064		<0.0064		<0.0064		<0.0064		<0.0064		<0.0064		ND	**0.005**
GP-708	GP-708-4	4	7/8/2015	**0.017**		**0.066**		**0.081**		**0.021**		**0.027**		**0.0037**	J	**0.050**		**0.084**	**0.084**
GP-708	GP-708-6	6	7/8/2015	**0.73**	E	**5.3**	E	<0.0085		**0.51**		**0.77**	E	**0.066**		**1.8**	E	**5.6**	**5.6**
GP-709	GP-709-5	5.0	7/7/2015	**430**		**230**		**330**		**87**		**980**		**42**		**94**		**338**	**338**
GP-709	GP-709-42	42.0	7/7/2015	**180**		**110**		**140**		**41**		**130**		**15**		**38**		**153**	**153**
GP-710	GP-710-4	4.0	7/8/2015	<0.0073		<0.0073		<0.0073		<0.0073		<0.0073		<0.0073		<0.0073		ND	**0.006**
GP-710	GP-710-35	35.0	7/8/2015	<0.0072		<0.0072		<0.0072		<0.0072		<0.0072		<0.0072		<0.0072		ND	**0.005**
GP-711	GP-711-3	3.0	7/8/2015	**0.025**		**0.034**		<0.0071		<0.0071		**0.020**		<0.0071		**0.0099**		**0.038**	**0.039**
GP-711	GP-711-6	6.0	7/8/2015	**0.014**		**0.021**		**0.020**		<0.0085		**0.014**		<0.0085		**0.0074**	J	**0.043**	**0.044**
GP-712	GP-712-5	5.0	7/7/2015	**9.4**		**5.3**		**6.7**		**2.8**		**5.9**		**0.59**		**2.2**		**7.5**	**7.5**
GP-712	GP-712-8	8.0	7/7/2015	**6.1**		**3.4**		**6.2**		**5.2**		**4.2**		**0.35**		**1.2**		**5.3**	**5.3**
MW-8B	MW8B-54	54.0	8/12/2015	**0.0125**		**0.00609**	J	**0.00737**		**0.00379**	J	**0.0124**		<0.0073		**0.00187**	J	**0.009**	**0.009**
MW-9B	MW9B-35.5	35.5	8/14/2015	<0.0373		<0.0373		<0.0373		<0.0373		**0.00519**	J	<0.0373		<0.0373		**0.0001**	**0.028**
MW-10B	MW10B-35	35.0	8/13/2015	**0.00419**	J	**0.0023**	J	**0.00309**	J	**0.00115**	J	**0.0055**	J	<0.0070		**0.00082**	J	**0.003**	**0.004**
SLR Pre-Remedial Design Investigation - Upland Areas of Jeld Wen Site (2024)																			
CF-P2	CF-P2-9-10-061724	9	6/17/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P8	CF-P8-7-8-061724	7	6/17/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P9	CF-P9-1-2-061724	1	6/17/2024	**180**		**210**		**270**		**90**		**480**		**38**		**130**		**286**	**286**
CF-P12	CF-P12-6.5-7.5-061724	6.5	6/17/2024	**140**		**74**		**93**		**30**		**130**		**8.8**		**32**		**106**	**106**
CF-P13	CF-P13-8-9-061724	8	6/17/2024	**0.074**		**0.032**		**0.046**		**0.015**		**0.056**		<0.005		**0.011**		**0.047**	**0.047**
CF-P14	CF-P14-1-2-061824	1	6/18/2024	**7.4**		**16**		**21**		**6.1**		**16**		**3.6**		**15**		**21**	**21**
CF-P15	CF-P15-5.5-6.5-061824	5.5	6/18/2024	**0.072**		**0.03**		**0.037**		**0.019**		**0.55**		<0.005		**0.012**		**0.05**	**0.05**
CF-P18	CF-P18-6-7-061824	6	6/18/2024	<0.005		<0.005		<0.005		**0.011**		**0.0074**		<0.005		<0.005		**0.001**	**0.005**
CF-P19	CF-P19-5.5-6.5-061824	5.5	6/18/2024	<0.005		**0.009**		**0.011**		<0.005		**0.0059**		<0.005		**0.0068**		**0.011**	**0.012**
CF-P20	CF-P20-5.5-6.5-061824	5.5	6/18/2024	**0.009**		**0.017**		**0.021**		<0.005		**0.020**		<0.005		**0.02**		**0.022**	**0.022**
CF-P21	CF-P21-8-9-061824	8	6/18/2024	<0.005		<0.005		<0.005		<0.005		**0.0052**		<0.005		<0.005		**0.0001**	**0.004**
CF-P22	CF-P22-8.5-9.5-061824	8.5	6/18/2024	<0.005		<0.005		<0.005		<0.005		**0.0081**		<0.005		<0.005		**0.0001**	**0.004**
CF-P28	CF-P28-9-10-061824	9	6/18/2024	<0.005		<0.005		<0.005		<0.005		**0.0071**		<0.005		<0.005		**0.0001**	**0.004**
CF-P31	CF-P31-9-10-061924	9	6/19/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P35	CF-P35-8.5-9.5-061924	8.5	6/19/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P36	CF-P36-8.5-9.5-061924	8.5	6/19/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P37	CF-P37-8-9-061924	8	6/19/2024	<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		<0.005		**0**	**0.004**
CF-P38	CF-P38-7-8-062024	7	6/20/2024	**29**		**15**		**20**		**6.9**		**26**		**2.1**		**7.1**		**22**	**22**
CF-P39	CF-P39-9-10-062024	9	6/20/2024	<0.005		<0.005		<0.005		<0.005		**0.0085**		<0.005		<0.005		**0**	**0.004**
CF-P40	CF-P40-6.5-7.5-062024	6.5	6/20/2024	**67**		**35**		**48**		**15**		**44**		**5.2**		**17**		**51**	**51**
CF-P41	CF-P41-7.5-8.5-062024	7.5	6/20/2024	**0.012**		<0.005		**0.0074**		<0.005		**0.0082**		<0.005		<0.005		**0.002**	**0.005**
CF-P42	CF-P42-9-10-062024	9	6/20/2024	**0.17**		**0.035**		**0.055**		**0.012**		**0.048**		<0.005		**0.0059**		**0.06**	**0.06**
CF-P44	CF-P44-8-9-062024	8	6/20/2024	**0.019**		**0.012**		**0.016**		**0.0055**		**0.034**		<0.005		**0.0059**		**0.017**	**0.017**
Cleanup Level (CUL)				-		-		-		-		-		-		-		0.19	0.19
Remediation Level (REL)				-		-		-		-		-		-		-		NA	NA

Notes

All values shown as milligrams per kilogram (mg/kg) or parts per million (ppm)

- indicates data not available

<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X

BOLD indicates detected above the laboratory PQL

Gray shading indicates measured above CUL or REL

A - Carcinogenic Polynuclear Aromatic Compounds (cPAHs) per EPA Method 8270-SIM, 8270C, or 8270E

TEQ U=0 indicates Toxic Equivalency Quotient (TEQ) using Toxicity Equivalency Factors (TEFs) per MTCA Table 708-2

TEQ U=1/2 indicates TEQ using TEFs MTCA Table 708-2 assuming Non-Detect values as 1/2 detection limit

Cleanup Level (CUL) and Remediation Level (REL) presented in the 2023 Cleanup Action Plan (CAP); REL is qualitative (removal of visible NAPL)

Laboratory Qualifiers

E- Exceeds calibration range

J - Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.

Table 4
Well Construction Details

Well-ID	Date Installed	Date Developed	WCS North Zone NAD 83(2011)[1]		Ground Elevation[1]	Top of PVC Elevation[1]	Casing Size (inch diameter)	Depth to bottom of casing (ft bgs from TOC)	Well Screen Interval (ft)	Top of Well Screen (ft bgs from TOC)	Bottom of Well Screen (ft bgs from TOC)	Well Sump Interval (ft)[2]
			Northing	Easting								
MW-22D	7/8/2024	7/18/2024	372786.9	1303461	12.71	12.27	2	45.02	10	32.82	42.82	2
MW-23S	7/8/2024	7/18/2024	372780.1	1303472	12.69	12.3	2	13.20	10	3.00	13.00	N/A
MW-24S	7/8/2024	7/18/2024 - 7/19/2024	372884.2	1303446	12.70	12.37	2	12.64	10	2.44	12.44	N/A
MW-25D	7/11/2024	7/18/2024 - 7/19/2024	372901.1	1303552	11.97	11.58	2	49.30	10	37.10	47.10	2
MW-26D	7/9/2024	7/18/2024 - 7/19/2024	373061	1303694	11.82	11.43	2	49.36	10	37.16	47.16	2
MW-27S	7/9/2024	7/18/2024 - 7/19/2024	373107.1	1303622	11.60	11.24	2	13.08	10	2.88	12.88	N/A
MW-28D	7/9/2024	7/18/2024 - 7/19/2024	373089.2	1303661	11.64	11.36	2	49.66	10	37.46	47.46	2
MW-29S	7/10/2024	7/18/2024 - 7/19/2024	373088.1	1303643	11.82	11.49	2	12.82	10	2.62	12.62	N/A
MW-30M	7/10/2024	7/18/2024 - 7/19/2024	373078.2	1303633	11.77	11.44	2	29.20	5	24.00	29.00	N/A
MW-31S	7/10/2024	7/18/2024 - 7/19/2024	373072.9	1303645	11.78	11.34	2	12.48	10	2.28	12.28	N/A
MW-32D	7/9/2024	7/18/2024 - 7/19/2024	373069	1303641	11.81	11.47	2	49.68	10	37.48	47.48	2
MW-33D	7/10/2024	7/18/2024 - 7/19/2024	372971.9	1303571	11.91	11.48	2	54.02	10	41.82	51.82	2
AS-S	7/12/2024	10/24/24 & 11/05/24	373095.3	1303625	11.67	11.33	1	19.02	2	16.82	18.82	N/A
AS-D	7/12/2024	10/24/24 & 11/05/24	373079.1	1303652	11.80	11.41	1	43.20	2	36.00	38.00	N/A

Notes
1 = Surveyed by Duane Hartman & Associates in September 2024. Elevation shown in feet above mean sea level (aMSL)
2 = Sumps only installed in Deep Zone wells
N/A = Not Applicable
Ft bgs from TOC = Feet below the ground surface from top of casing.

Table 5
Groundwater Elevations

Monitoring Well	TOC Elevations (Feet Above MSL)	Depth to Water (Feet Below TOC)	Groundwater Elevation (Feet Above MSL)
Shallow Groundwater Zone Wells			
MW-23S	12.30	4.37	7.93
MW-24S	12.37	4.59	7.78
MW-27S	11.24	3.58	7.66
MW-29S	11.49	3.69	7.80
MW-31S	11.34	3.53	7.81
Deep Groundwater Zone Wells			
MW-22D	12.27	4.29	7.98
MW-25D	11.58	4.38	7.20
MW-26D	11.43	4.02	7.41
MW-28D	11.36	3.83	7.53
MW-30M	11.44	3.83	7.61
MW-32D	11.47	3.94	7.53
MW-33D	11.48	3.85	7.63

Notes

Top of Casing (TOC) elevations surveyed by Duane Hartman & Associates in September 2024.

Measurements from August 27, 2024

Table 6
Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment - Field Parameters

Well ID	Sample Date	Temperature (°C)	Conductivity (mS/cm)	TDS (mg/L)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTUs)
MW-23S	8/28/2024	15.25	0.371	226	1.45	6.35	-21.3	3.35
MW-24S	8/28/2024	13.69	0.897	453	1.00	6.35	-16.2	1.39
MW-27S	8/29/2024	12.91	0.733	374	1.19	6.61	50.3	3.72
MW-29S	8/29/2024	13.15	0.322	150	1.54	6.60	-36.5	2.29
MW-30M	8/29/2024	12.03	0.449	302	0.44	7.51	-135.3	49.9
MW-31S	8/29/2024	14.57	0.295	160	1.55	6.31	46.0	23.3

Notes

Parameters collected with a calibrated YSI Multi Meter, with exception of TDS which was analyzed at laboratory by SM 2540C Method

Table 7

Creosote/Fuel Oil Area Shallow Groundwater Zone Assessment Analytical Summary - cPAHs

Lab Sample ID	Cleanup Level (CUL) [a]	Remediation Level (REL) [b]	408562-02	408562-03	408562-06	408562-08	408562-10
Field Sample ID			MW-23S-082824	MW-24S-082824	MW-27S-082924	MW-29S-082924	MW-31S-082924
Date Collected			8/28/2024	8/28/2024	8/29/2024	8/29/2024	8/29/2024
Parameter			Value	Value	Value	Value	Value
Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs) per 8270E							
Benzo[a]anthracene	-	-	**1.8**	**0.042**	**0.066**	**0.19**	**0.10**
Benzo[a]pyrene	-	-	**0.85**	<0.02	**0.028**	**0.10**	**0.051**
Benzo[b]fluoranthene	-	-	**1.4**	**0.023**	**0.037**	**0.14**	**0.073**
Benzo[k]fluoranthene	-	-	**0.42**	<0.02	<0.02	**0.05**	**0.025**
Chrysene	-	-	**1.2**	**0.025**	**0.038**	**0.15**	**0.065**
Dibenzo[a,h]anthracene	-	-	**0.078**	<0.02	<0.02	<0.02	<0.02
Indeno[1,2,3-cd]pyrene	-	-	**0.31**	<0.02	<0.02	**0.037**	<0.02
TEQ U=0 [c]	**0.015**	**NA**	**1.3**	**0.007**	**0.039**	**0.14**	**0.071**
TEQ U=1/2RL [d]			**1.3**	**0.033**	**0.045**	**0.15**	**0.075**
TEQ U=RL [e]			**1.3**	**0.033**	**0.045**	**0.15**	**0.075**

Notes

All Values in micrograms per liter (µg/L) or parts per billion (ppb)

- indicates data not available

<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X

BOLD indicates detected above the laboratory PQL

Gray shading indicates measured above CUL or REL

Cleanup Level (CUL) and Remediation Level (REL) presented in the 2023 Cleanup Action Plan (CAP); REL defaults to co-located naphthalene impacts (see Table 8)

TEQ U=0 indicates Toxic Equivalency Quotient (TEQ) using Toxicity Equivalency Factors (TEFs) per MTCA Table 708-2

TEQ U=1/2 indicates TEQ using TEFs per MTCA Table 708-2 assuming Non-Detect values as 1/2 detection limit

TEQ U=RL indicates TEQ using MTCA Table 708-2 assuming non-detect values as equal to the detection limit.

Laboratory Qualifiers

None

Table 8
Creosote/Fuel Oil Area Shallow Groundwater Assessment Analytical Results - Naphthalene

Sample Location	Sample Label	Sample Date	Naphthalene [A]	
			Value	Qual
GP-9	GP9-GW	5/1/2006	**17,400**	
GP-10	GP10-GW	5/1/2006	**13,800**	
GP-12	GP12-GW	5/2/2006	<2.00	
GP-13	GP13-GW	5/1/2006	<2.00	
GP-14	GP14-GW	5/1/2006	**800**	
GP-201	GP201-GW	9/11/2006	<2.00	
GP-202	GP202-P	9/11/2006	**11,500**	
GP-204	GP204-GW	9/11/2006	<2.00	
GP-205	GP205-GW	9/12/2006	<2.00	
GP-207	GP207-GW	9/12/2006	**12,800**	
GP-208	GP208-GW	9/12/2006	**11,400**	
GP-209	GP209-GW	9/12/2006	<2.00	
GP-211	GP211-GW	9/12/2006	<2.00	
GP-214	GP214-GW	9/12/2006	**7,140**	
GP-215	GP215-GW	9/12/2006	**474**	
MW-5	MW5-1106	11/14/2006	**11.1**	
MW-5	MW5-407	4/19/2007	**7.92**	
HA-328	HA-328-GW	10/12/2009	**0.035**	J
HA-329	HA-329-GW	10/13/2009	**4,200**	
GP-705	GP-705-GW	7/9/2015	**4.2**	
GP-706	GP-706-GW	7/8/2015	**1.9**	
GP-707	GP-707-GW	7/6/2015	<0.50	
GP-711	GP-711-GW	7/8/2015	**7,700**	
GP-712	GP-712-GW	7/7/2015	**2,100**	J4
SLR Quarterly Monitoring Well Sampling (Highest Measured Value Shown)				
MW-5	MW-5-GW	6/29/2017	**1,100**	
MW-8A	MW-8A-GW	10/24/2018	**14,400**	
MW-9A	MW-9A-GW	9/10/2015	**4.52**	
MW-10A	MW-10A-GW	1/17/2019	**9,900**	
SLR Pre-Remedial Design Investigation - Upland Areas of Jeld Wen Site (2024)				
MW-23S	MW-23S-082824	8/28/2024	**140**	
MW-24S	MW-24S-082824	8/28/2024	**1.1**	
MW-27S	MW-27S-082924	8/29/2024	**220**	
MW-29S	MW-29S-082924	8/29/2024	**6.5**	
MW-31S	MW-31S-082924	8/29/2024	**1.8**	
Cleanup Level (CUL)			**8.9**	
Remediation Level (REL)			**500**	

Notes

All Values in micrograms per liter (µg/L) or parts per billion (ppb)

- indicates data not available

<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X

BOLD indicates detected above the laboratory PQL

Gray shading indicates measured above CUL or REL

Cleanup Level (CUL) and Remediation Level (REL) presented in the 2023 Cleanup Action Plan (CAP)

A - Naphthalene per EPA 8260D method

Laboratory Qualifiers

J - Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.

J4 - The associated batch QC was outside the established quality control range for accuracy

Table 9

Creosote/Fuel Oil Area Deep Groundwater Zone Assessment - Field Parameters

Sample ID	Sample Date	Temperature (°C)	Conductivity (mS/cm)	TDS (mg/L)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTUs)
MW-22D	8/28/2024	12.60	0.827	450	0.52	8.08	-157.8	42.8
MW-25D*	8/30/2024	-	-	2910	-	-	-	-
MW-26D	8/29/2024	12.74	0.652	527	0.36	8.23	-111.8	216
MW-28D	8/29/2024	11.53	0.667	540	0.61	8.30	-166.1	117
MW-32D	8/29/2024	11.53	1.069	769	0.39	8.16	-163.6	190
MW-33D*	8/30/2024	-	-	4600	-	-	-	-

Notes

Parameters collected with a calibrated YSI Multi Meter, with exception of TDS which was analyzed at laboratory by SM 2540C Method

*No parameters collected with a calibrated YSI Multi Meter given visible NAPL in purged water.

Table 10
Creosote/Fuel Oil Area Deep Groundwater Assessment Analytical Results - Naphthalene

Sample Location	Sample Label	Sample Date	Naphthalene [A]	
			Value	Qual
GP-701	GP-701-GW	7/9/2015	0.35	J
GP-702	GP-702-GW	7/9/2015	63	
GP-703	GP-703-P-W	7/21/2015	140	B
GP-708	GP-708-GW	7/8/2015	7,000	
GP-709	GP-709-GW	7/7/2015	8,400	J4
GP-710	GP-710-GW	7/8/2015	6,600	
GP-704	GP-704-P-W	7/21/2015	6,900	
SLR Quarterly Monitoring Well Sampling (Highest Measured Value Shown)				
MW-8B	MW-8B-GW	10/24/2018	15,900	
MW-9B	MW-9B-GW	9/10/2015	0.811	
MW-10B	MW-10B-GW	6/18/2017	1,880	
MW-11B	MW-11B-0519	5/3/2019	<2.5	
SLR Pre-Remedial Design Investigation - Upland Areas of Jeld Wen Site (2024)				
MW-22D	MW-22D-082824	8/28/2024	28	
MW-25D	MW-25D-083024	8/30/2024	13,000	
MW-26D	MW-26D-082924	8/29/2024	190	
MW-30M	MW-30M-082924	8/29/2024	3,500	
MW-32D	MW-32D-082924	8/29/2024	12,000	
MW-33D	MW-33D-083024	8/30/2024	13,000	
Cleanup Level (CUL)			8.9	
Remediation Level (REL)			500	

Notes

All Values in micrograms per liter (µg/L) or parts per billion (ppb)

- indicates data not available

<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X

BOLD indicates detected above the laboratory PQL

Gray shading indicates measured above CUL or REL

Cleanup Level (CUL) and Remediation Level (REL) presented in the 2023 Cleanup Action Plan (CAP)

A - Naphthalene per EPA 8260D method

Laboratory Qualifiers

B - The same analyte is found in the associated blank.

J - Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve) and is an estimated value.

J4 - The associated batch QC was outside the established quality control range for accuracy

Table 11

Creosote/Fuel Oil Area Deep Groundwater Assessment - Sump Check Log

Date	Thickness of DNAPL (Inches in bailer)[1]							
	MW-22D	**MW-25D**	**MW-26D**	**MW-28D**	**MW-30M**	**MW-32D**	**MW-33D**	**AS-D**
7/25/2024	NP	**11**	NP	NP	NP	NP	**36**	-
8/28/2024	NP	**10**	NP	NP	NP	NP	**33**	NP
9/30/2024	NP	**12**	NP	NP	NP	NP	**24**	-
10/24/2024	NP	**8**	NP	NP	NP	NP	**30**	NP
11/21/2024	NP	<1	NP	NP	NP	NP	**36**	-

Notes

1 - Product thickness measured off of first bailer dropped to the bottom of the well sump

NP indicates no DNAPL was observed in the bailer

(-) indicates no measurement taken

Table 12
SVE Pilot Test Effluent Analytical Summary - VOCs

Lab Sample ID	411152-01 1/5.6	411152-02 1/8.1	411182-01	411182-02
Field Sample ID	SVE-101624-EFF	SVE-101724-EFF	SVE-110724-EFF	SVE-110824-EFF
Date Collected	10/16/2024	10/17/2024	11/7/2024	11/8/2024
Parameter	Value	Value	Value	Value
Sample Collection Info	SVE Step test and 3 hours of long term SVE test	SVE Step test and 2 hours of long term AS-S test	6 hours of long term AS-D test	6 hours of long term AS-S test and AS-S step test
Volatile Compounds By Method TO-15				
Propene	-	-	**120**	**61**
Butane	-	-	**68**	<37
Toluene	<42	**170**	<60	<59
Ethylbenzene	<2.4	**37**	<3.5	<3.4
Chloroform	-	-	**0.7**	**0.91**
Tetrahydrofuran	-	-	**570**	**580**
Benzene	<1.8	**5.4**	<2.6	**3.6**
Naphthalene	<1.5	<2.1	<2.1	<2
Xylenes, total	**12.4**	**227**	<10.4	<11.7

Notes

All Values in micrograms per cubic meters ($\mu g/m^3$)

- indicates data not available

<X.X indicates not detected above the laboratory practical quantitation limit (PQL) of X.X

BOLD indicates detected above the laboratory PQL

Table 13

SVE Pilot Test - Vapor Pin Vacuum Measurements

Date	Time	Applied Vacuum (in. H2O)	Air Flow Rate (fpm)	PID Reading (ppm)	Vacuum Measurements (in. H2O)							
					VP-10	VP-20	VP-30	VP-40	VP-50	VP-60	VP-80	VP-100
10/16/2024	1230	10	590	0.1	-	-	-	-	-	-	-	-
	1238	10	700	0.0	0.28	0.04	0.06	0.01	0.004	0.0	0.0	0.0
	1253	10	723	0.0	0.28	0.035	0.05	0.015	0.005	0.0	0.0	0.0
	1311	20	1600	0.0	-	-	-	-	-	-	-	-
	1325	20	1474	0.0	0.6	0.08	0.125	0.03	0.005	0.0	0.0	0.0
	1340	20	1645	0.0	0.6	0.08	0.13	0.025	0.005	0.0	0.0	0.0
	1348	30	2475	0.0	-	-	-	-	-	-	-	-
	1403	30	2360	0.0	0.9	0.1	0.15	0.04	0.01	0.005	0.0	0.0
	1418	30	2369	0.0	0.9	0.12	0.17	0.05	0.01	0.005	0.0	0.0
	1424	20	1534	0.0	-	-	-	-	-	-	-	-
	1524	20	1602	0.0	0.65	0.08	0.115	0.03	0.005	0.005	0.0	0.005
	1624	20	1596	0.0	0.6	0.085	0.105	0.03	0.005	0.005	0.0	0.005
10/17/2024	1300	15	1355	0.0	-	-	-	-	-	-	-	-
	1315	15	1184	0.0	0.47	0.07	0.13	0.035	0.01	0.001	0.0	0.0
	1330	15	1121	0.0	0.47	0.07	0.12	0.035	0.01	0	0.0	0.01
	1345	25	1637	0.0	0.75	0.115	0.185	0.05	0.015	0.01	0.0	0.005
	1400	25	1385	0.0	0.75	0.1	0.195	0.05	0.015	0.01	0.0	0.005
	1622	20	1300	0.0	0.6	0.09	0.145	0.035	0.01	0.005	0.0	0.005

Notes

- indicates data not available

PID Readings of the extracted vapor from the influent of vacuum pump

Magnehelic pressure gauges used to colelct induced vacuum measurements from vapor pins

VP-XX indicates Vapor Pin located approximately XX feet away from SVE well

Table 14
Shallow Air Sparge Pilot Test Measurements

Date	Time	Applied Pressure (psi)	Applied Vacuum (in. H2O)	Air Flow Rate (fpm)	PID Readings (ppm)			Water Levels (ft bgs from TOC)			Temperature (degrees C)			Oxygen-Reduction Potential (mV)			Dissolved Oxygen (mg/L)			Vacuum Measurements (in. H2O)								Bubbling Intensity		
					MW-27S	MW-29S	MW-31S	MW-27S	MW-29S	MW-31S	MW-27S	MW-29S	MW-31S	MW-27S	MW-29S	MW-31S	MW-27S	MW-29S	MW-31S	VP-10	VP-20	VP-30	VP-40	VP-50	VP-60	VP-80	VP-100	MW-27S	MW-29S	MW-31S
10/17/2024	9:55	-	20	-	-	-	-	4.07	4.14	4.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:23	8	20	1345	22.2	0	0	4.02	4.07	3.95	14.9	15.18	14.85	90.7	277.5	-13.3	0.19	0.31	1.58	-	-	-	-	-	-	-	-	-	-	-
	10:49	11	20	-	-	-	-	3.71	3.88	3.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:03		20	-	-	-	-	3.82	3.84	3.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:29	10	20	1234	3.7	0.5	0.1	2.22	2.97	2.97	14.7	14.76	11.06	139.3	282.3	130.5	7.34	0.31	12.05	-	-	-	-	-	-	-	-	-	-	-
	12:04	-	-	-	-	-	-	1.81	2.4	2.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Bubbles	-	-
11/8/2024	8:48	-	-	-	-	-	-	3.85	3.94	3.8	14.27	14.29	14.3	261	269.8	112	0.44	0.25	3.5	-	-	-	-	-	-	-	-	-	-	-
	10:27	1.0	20	1351	-	0.8	0.2	-	0.77	1.35	-	14.22	14.4	-	254.6	65.5	-	5.2	0.94	0.5	0.06	0.025	0.015	0.005	0.01	0.0	0.0	Capped	Roaring	Moderate
	11:27	1.0	20	1511	-	0.8	0.3	-	1.43	1.76	-	14.21	14.4	-	258.8	62.6	-	5.83	0.74	0.45	0.05	0.02	0.01	0.005	0.005	0.0	0.0	-	Roaring	Moderate
	12:27	1.0	20	1474	-	1.1	0.5	-	1.87	2.24	-	14.22	14.2	-	262.7	64.3	-	6.55	0.56	0.45	0.045	0.02	0.01	0.0	0.005	0.0	0.0	-	Roaring	Moderate
	13:27	1.0	20	1534	-	0.9	0.3	-	2.13	2.5	-	14.24	14.1	-	263.8	62.9	-	4.94	0.67	0.48	0.04	0.025	0.01	0.0	0.005	0.0	0.0	-	Roaring	Moderate
	14:27	1.0	20	1600	-	0.3	0.2	-	2.74	2.96	-	14.33	14.1	-	267.8	70.1	-	1.31	0.87	0.41	0.045	0.02	0.01	0.0	0.005	0.0	0.005	-	Roaring	Roaring
	15:27	1.0	20	1728	-	0.9	0.2	-	2.4	2.75	-	14.24	14.2	-	263.9	75.6	-	6.19	0.76	0.4	0.04	0.02	0.01	0.0	0.005	0.005	0.0	-	Roaring	Roaring

Notes
- indicates data not available
Air flow rate measured from an in-line rotameter at the air injection manifold
PID readings are measurements of headspace hydrocarbon vapor concentrations
Water levels were monitored with a depth-to-water meter
Temperature (degrees C), dissolved oxygen (DO), and oxygen-reduction potential (ORP) by using a down-hole multi-meter probe
Magnehelic pressure gauges used to collect induced vacuum measurements from vapor pins
Bubbling intensity in the monitoring wells was noted via visual and auditory monitoring.

Table 15
Deep Air Sparge Pilot Test Measurements

Date	Time	Applied Pressure (psi)	Applied Vacuum (in. H2O)	Air Flow Rate (fpm)	PID Readings (ppm)							Water Levels (ft bgs from TOC)							Temperature (degrees C)							Oxygen-Reduction Potential (mV)						
					MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D	MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D	MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D	MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D
11/7/2024	9:17	-	20	1482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:46	-	20	1482	0.0	0	0.0	0	0.3	0	0.8	3.78	3.8	3.79	3.87	3.85	3.69	3.96	14.70	14.10	12.89	14.20	14.50	13.80	12.65	21.4	63	302	48.4	57.3	17.4	-213
	10:45	5.0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:25	5.0	20	1500	0.0	0	-	0.1	0.8	0	1.5	2.02	2.95	-	1.57	1.35	1.01	0.6	12.97	14.30	-	14.20	14.40	14.30	12.55	292	95.7	-	70.7	70.5	76.3	-254
	11:40	5.0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:25	5.0	20	1558	0.1	0.9	-	0.4	2.4	0.3	-	1.55	2.57	-	1.21	1.02	0.79	-	12.97	14.30	-	14.00	12.45	14.20	-	288	152.8	-	135.4	-209	145.1	-
	13:25	5.0	20	1590	0.1	2.2	-	0.7	1.9	0.6	-	2.75	2.44	-	1.42	1.45	1.04	-	12.97	14.20	-	14.10	12.45	14.20	-	288.1	176.1	-	144.3	-193.7	160.2	-
	14:25	5.0	20	1634	0.1	2.8	-	1	2.6	1.1	-	1.84	2.53	-	1.43	1.47	1.04	-	12.98	14.10	-	14.10	12.44	14.10	-	287.6	184	-	155.5	-208.6	164.7	-

Table 15
Deep Air Sparge Pilot Test Measurements

Date	Time	Applied Pressure (psi)	Applied Vacuum (in. H2O)	Air Flow Rate (fpm)	Dissolved Oxygen (mg/L)							Vacuum Measurements (in. H2O)								Bubbling Intensity						
					MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D	VP-10	VP-20	VP-30	VP-40	VP-50	VP-60	VP-80	VP-100	MW-26D	MW-27S	MW-28D	MW-29S	MW-30M	MW-31S	MW-32D
11/7/2024	9:17	-	20	1482	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:46	-	20	1482	0.8	0.5	0.32	0.29	0.21	0.61	0.26	0.5	0.015	0.035	0.02	0.01	0.01	0.0	0.005	-		Roaring		-	-	-
	10:45	5.0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Minor	None	Capped	Moderate	Minor	Moderate	Moderate
	11:25	5.0	20	1500	0.19	0.19	-	0.4	0.18	7.55	0.22	-	-	-	-	-	-	-	-	Minor	Minor	-	Roaring	Minor	Roaring	Roaring
	11:40	5.0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Minor	Minor	-	Roaring	Minor	Roaring	Capped
	12:25	5.0	20	1558	0.18	0.43	-	2.07	0.2	8.16	-	0.5	-	-	-	-	-	-	-	Minor	Minor	-	Roaring	Minor	Roaring	-
	13:25	5.0	20	1590	0.17	0.6	-	2.19	0.2	8.27	-	0.5	-	-	-	-	-	-	-	Minor	Minor	-	Roaring	Minor	Roaring	-
	14:25	5.0	20	1634	0.16	2.65	-	2.87	0.2	7.75	-	0.5	0.01	0.03	0.02	0.01	0.01	0.01	0.005	Minor	Minor	-	Roaring	Minor	Roaring	-

Notes
- indicates data not available
Air flow rate measured from an in-line rotameter at the air injection manifold
PID readings are measurements of headspace hydrocarbon vapor concentrations
Water levels were monitored with a depth-to-water meter
Temperature (degrees C), dissolved oxygen (DO), and oxygen-reduction potential (ORP) by using a down-hole multi-meter probe
Magnehelic pressure gauges used to colelct induced vacuum measurements from vapor pins
Bubbling intensity in the monitoring wells was noted via visual and auditory monitoring.

Attachment 1 BIO Deferral Letter

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

February 23, 2024

Eric Rapp
Director Environmental Compliance
JELD-WEN, Inc
500 JELD-WEN Road
Craigsville, WV 26205

Re: Clarification on Creosote Area Cleanup Plans at the Jeld Wen Site

- **Site Name:** Jeld Wen
- **Site Address:** 300 W Marine View Drive, Everett, WA 98201-1030
- **Facility/Site No.:** 2757
- **Cleanup Site No.:** 4402
- **Agreed Order No.:** DE 5095

Dear Eric Rapp:

As we have discussed, the Washington State Department of Ecology (Ecology) has suggested a modification in the approach of developing and implementing the Step 2 pre-remedial design investigation (PRDI) for the Creosote Area. The Step 2 investigations are intended to gather data to support design of the remedial systems defined within the Cleanup Action Plan (CAP), dated August 2023. Components of the selected cleanup alternative for the Creosote Area portion of the Site detailed within the CAP are as follows:

1. Shallow Soil Excavation and Offsite Disposal
2. Enhanced In-Situ Bioremediation (BIO)
    a. Air Sparge (As) and Soil Vapor Extraction (SVE)
    b. Nitrate, Nutrients, and Surfactant (NNS) Recirculation
3. Monitored Natural Attenuation (MNA)
4. Contingency Measures (Thermal Treatment)

Success of the remedial measures implemented in the Creosote Area will be ultimately determined through performance and compliance monitoring activities.

Ecology has determined that there is a reasonable likelihood of achieving the cleanup objectives stated within the CAP by implementation of components 1, 2a, and 3. Hence, Ecology is suggesting that component 2b, NNS recirculation can be considered a contingency measure in case components 1, 2a, and 3 do not result in cleanup objectives being met.

Therefore, the collection of data to support design of NNS recirculation can be deferred until such time that Ecology has made a determination that components 1, 2a, and 3 are unlikely to result in achieving cleanup objectives. Such a determination could be made following either 1) review of data following implementation of Step 2 PRDI work plan activities, or 2) following implementation of CAP cleanup components. The timeframe for such a determination would solely be at Ecology's discretion; however, Ecology is optimistic that the execution of cleanup components 1, 2a, and 3 will result in cleanup objectives being met, and no need for NNS being identified. Ecology notes that the existing contingency measure within the CAP of thermal treatment is unchanged; however, thermal treatment essentially becomes a second contingency measure should a primary contingency measure of NNS recirculation (if needed) fail to result in achieving cleanup objectives.

The above change is not considered to be a significant change to the CAP, but rather primarily results in a modification of the sequencing of the cleanup components specified within the CAP. No modification to Agreed Order DE 5095 appears to be warranted at this time.

Please contact me at (509) 424-0543 or frank.winslow@ecy.wa.gov with any questions regarding this letter.

Sincerely,



Frank P. Winslow, LHG
Cleanup Site Manager
Toxics Cleanup Program
Headquarters Cleanup Section

fpw: af

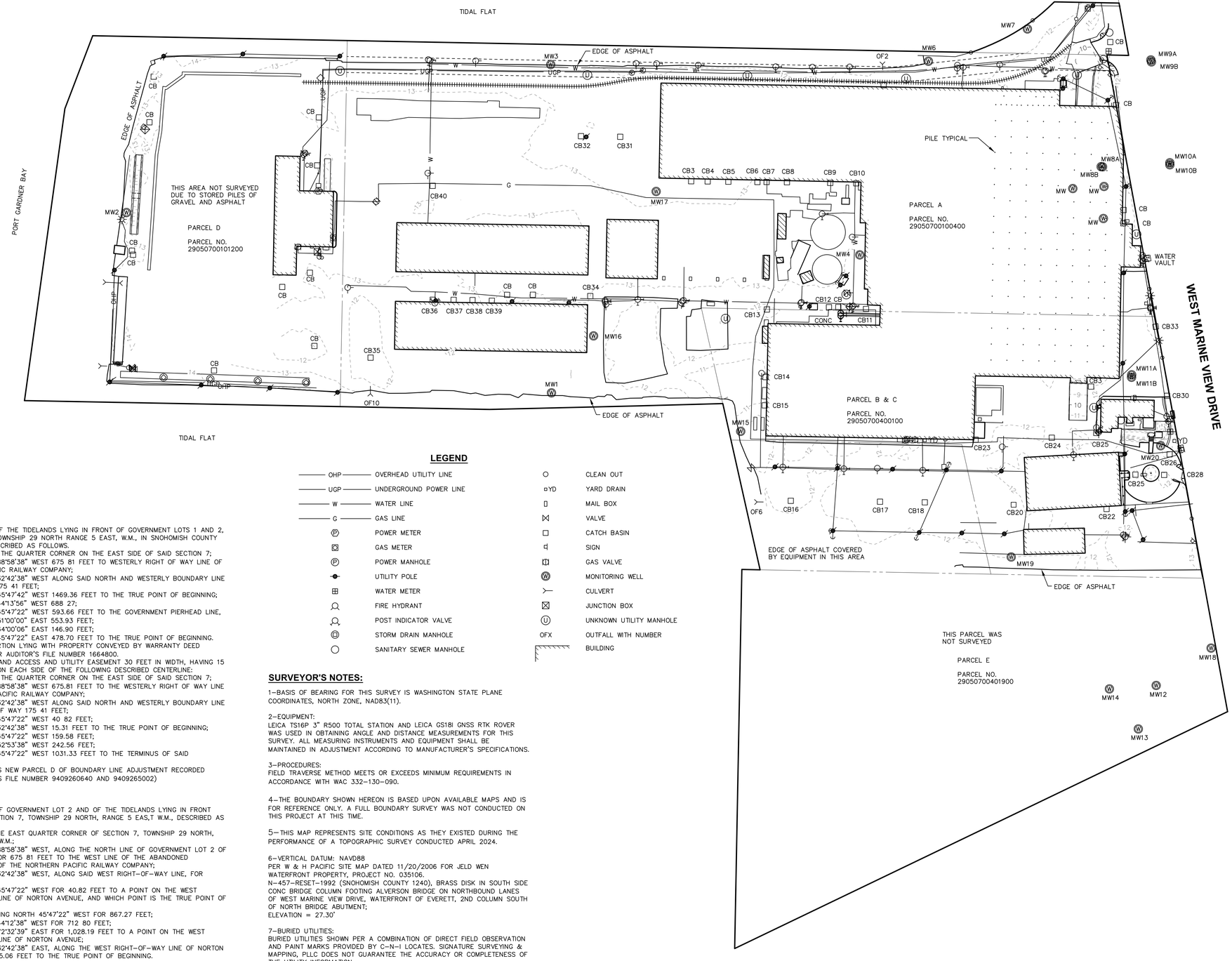
Attachment 2 Site Survey Documents

EAST 1/2, SEC. 7, TWP. 29 N., RGE. 5 E., W.M.

GRAPHIC SCALE

100 0 50 100

1" = 100'



LEGAL DESCRIPTION:

PER DEED OF TRUST RECORDED UNDER AUDITOR'S FILE NUMBER 201706300855 RECORDS OF SNOHOMISH COUNTY, WASHINGTON. (INCLUSIVE OF ERRORS AND OMISSIONS).

THAT PORTION OF GOVERNMENT LOTS 1 AND 2, AND OF THE TIDELANDS LYING IN FRONT THEREOF IN SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST W.M., IN SNOHOMISH COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:
COMMENCING AT THE QUARTER CORNER ON THE EAST SIDE OF SAID SECTION 7;
THENCE SOUTH, 88°58'38" WEST 675 81 FEET TO THE WESTERLY RIGHT OF WAY LINE OF NORTHERN PACIFIC RAILWAY COMPANY,
THENCE SOUTH 32°42'38" WEST ALONG SAID NORTH AND WESTERLY BOUNDARY LINE OF SAID RIGHT OF WAY 175.41 FEET;
THENCE NORTH 45°47'22" WEST 40 82 FEET TO THE TRUE POINT OF BEGINNING;
THENCE CONTINUING ON THE SAME STRAIGHT LINE 1428 54 FEET;
THENCE SOUTH 44°13'56" WEST 688 27 FEET;
THENCE SOUTH 45°47'22" EAST 281.04 FEET,
THENCE SOUTH 48°15'22" EAST 282 50 FEET;
THENCE SOUTH 48°26'22" EAST 156.03 FEET,
THENCE NORTH 30°28'38" EAST 184.21 FEET;
THENCE SOUTH 45°47'22" EAST 853.08 FEET TO A POINT ON THE NORTHWESTERLY RIGHT OF WAY LINE OF WEST MARINE DRIVE,
THENCE NORTH 32°42'38" EAST 500 00 FEET TO THE TRUE POINT OF BEGINNING TOGETHER WITH THE FOLLOWING
THAT PORTION OF GOVERNMENT LOTS 1 AND 2 AND TIDELANDS LYING IN FRONT THEREOF, IN SECTION 7, TOWNSHIP 29 NORTH, RAGE 5 EAST W.M. IN SNOHOMISH COUNTY WASHINGTON, DESCRIBED AS FOLLOWS:
BEGINNING AT THE QUARTER CORNER ON THE EAST LINE OF SAID SECTION 7;
THENCE WESTERLY ALONG THE CENTERLINE OF SAID SECTION FOR A DISTANCE OF 675.81 FEET TO THE NORTH AND WESTERLY BOUNDARY LINE OF NORTHERN PACIFIC RAILWAY COMPANY'S RIGHT OF WAY;
THENCE ANGLE TO THE LEFT 56°16' ALONG SAID RIGHT OF WAY LINE FOR A DISTANCE OF 75.41 FEET;
THENCE ANGLE TO THE RIGHT 101°30' FOR 40 82 FEET TO THE TRUE POINT OF BEGINNING;
THENCE ANGLE TO THE LEFT 101°30' ON A BEARING OF SOUTH 32°42'38" WEST FOR 100.00 FEET,
THENCE ANGLE TO THE RIGHT 101°30' FOR 255.00 FEET MORE OR LESS TO A POINT ON A COMPOUND CURVE BEING 8 FEET NORTHERLY OF AND PARALLEL WITH THE CENTERLINE OF SPUR TRACK AS DESCRIBED IN DEED RECORDED UNDER AUDITOR'S FILE NUMBER 1664800, RECORDS OF SAID COUNTY,
THENCE SOUTHEASTERLY ALONG SAID COMPOUND CURVE TO A POINT DISTANT 80 88 FEET FROM THE TRUE POINT OF BEGINNING,
THENCE SOUTH 45°47'22" EAST 80.88 FEET TO THE TRUE POINT OF BEGINNING
(ALSO KNOWN AS NEW PARCEL A OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9409260640 AND 9409265002)
EXCEPT ANY PORTION LYING WITH THAT PROPERTY CONVEYED BY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 1664800.

PARCEL B.

ALL THAT PORTION OF GOVERNMENT LOTS 1 AND 2, AND OF THE TIDELANDS LYING IN FRONT THEREOF IN SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST W.M., DESCRIBED AS FOLLOWS
BEGINNING AT THE QUARTER CORNER ON THE EAST SIDE OF SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST, W.M.;
THENCE WESTERLY ALONG THE CENTER LINE OF SAID SECTION A DISTANCE OF 675.81 FEET TO THE NORTH AND WESTERLY BOUNDARY LINE OF THE NORTHERN PACIFIC RAILWAY COMPANY'S RIGHT OF WAY;
THENCE ANGLE TO THE LEFT OF 56°16' FOLLOWING THE NORTH AND WESTERLY BOUNDARY LINE OF SAID NORTHERN PACIFIC RAILWAY COMPANY'S RIGHT OF WAY A DISTANCE OF 675 47 FEET TO TRUE POINT OF BEGINNING,
THENCE CONTINUING IN THE SAME DIRECTION ALONG THE NORTH AND WESTERLY BOUNDARY OF SAID RAILWAY RIGHT OF WAY A DISTANCE OF 500 FEET;
THENCE ANGLE TO THE RIGHT 101°30' A DISTANCE OF 439.77 FEET;
THENCE ANGLE TO THE RIGHT 76°16' A DISTANCE OF 250 FEET;
THENCE ANGLE TO THE LEFT 76°16' A DISTANCE OF 434.07 FEET;
THENCE ANGLE TO THE RIGHT 76°16' A DISTANCE OF 254.38 FEET;
THENCE ANGLE TO THE RIGHT 103°44' FOR 893.90 FEET TO TRUE POINT OF BEGINNING;
EXCEPTING A STRIP DEEDED TO CITY OF EVERETT BY DEED RECORDED IN VOLUME 176 OF DEEDS, PAGE 161, UNDER AUDITOR'S FILE NO. 232937.

PARCEL C.

THAT PORTION OF GOVERNMENT LOT 2, AND OF THE TIDELANDS LYING IN FRONT THEREOF, IN SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST W.M., DESCRIBED AS FOLLOWS;
BEGINNING ON THE QUARTER CORNER ON THE EAST SIDE OF SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST, W.M.;
THENCE WESTERLY ALONG THE CENTER LINE OF SAID SECTION 7, A DISTANCE OF 675 81 FEET TO THE NORTH AND WESTERLY BOUNDARIES OF THE NORTHERN PACIFIC RIGHT OF WAY;
THENCE ANGLE TO THE LEFT OF 56°16' FOLLOWING THE NORTHWESTERLY BOUNDARY LINE OF SAID NORTHERN PACIFIC RIGHT OF WAY A DISTANCE OF 1175 41 FEET TO A POINT;
THENCE ANGLE TO THE RIGHT 101°30' A DISTANCE OF 439 77 FEET TO THE TRUE POINT OF BEGINNING;
THENCE CONTINUE ON THE SAME STRAIGHT LINE FOR 434 07 FEET;
THENCE ANGLE TO THE RIGHT 76°16' FOR 250 FEET;
THENCE ANGLE TO THE RIGHT 103°44' FOR 434.07 FEET;
THENCE ANGLE TO THE RIGHT 76°16' FOR 250 FEET TO THE TRUE POINT OF BEGINNING

PARCEL D

THAT PORTION OF THE TIDELANDS LYING IN FRONT OF GOVERNMENT LOTS 1 AND 2, IN SECTION 7, TOWNSHIP 29 NORTH RANGE 5 EAST, W.M., IN SNOHOMISH COUNTY WASHINGTON DESCRIBED AS FOLLOWS.
COMMENCING AT THE QUARTER CORNER ON THE EAST SIDE OF SAID SECTION 7;
THENCE SOUTH 88°58'38" WEST 675 81 FEET TO WESTERLY RIGHT OF WAY LINE OF NORTHERN PACIFIC RAILWAY COMPANY;
THENCE SOUTH 32°42'38" WEST ALONG SAID NORTH AND WESTERLY BOUNDARY LINE OF SAID RIGHT 175 41 FEET;
THENCE NORTH 45°47'42" WEST 1469.36 FEET TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 44°13'56" WEST 688 27;
THENCE NORTH 45°47'22" WEST 593.66 FEET TO THE GOVERNMENT PIERHEAD LINE,
THENCE NORTH 51°00'00" EAST 553.93 FEET;
THENCE NORTH 64°00'06" EAST 146.90 FEET;
THENCE SOUTH 45°47'22" EAST 478.70 FEET TO THE TRUE POINT OF BEGINNING.
EXCEPT ANY PORTION LYING WITH PROPERTY CONVEYED BY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 1664800.
TOGETHER WITH AND ACCESS AND UTILITY EASEMENT 30 FEET IN WIDTH, HAVING 15 FEET OF WIDTH ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:
COMMENCING AT THE QUARTER CORNER ON THE EAST SIDE OF SAID SECTION 7;
THENCE SOUTH 88°58'38" WEST 675.81 FEET TO THE WESTERLY RIGHT OF WAY LINE OF NORTHERN PACIFIC RAILWAY COMPANY;
THENCE SOUTH 32°42'38" WEST ALONG SAID NORTH AND WESTERLY BOUNDARY LINE OF SAID RIGHT OF WAY 175 41 FEET;
THENCE NORTH 45°47'22" WEST 40 82 FEET;
THENCE SOUTH 32°42'38" WEST 15.31 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 45°47'22" WEST 159.58 FEET;
THENCE NORTH 52°53'38" WEST 242.56 FEET;
THENCE NORTH 45°47'22" WEST 1031.33 FEET TO THE TERMINUS OF SAID CENTERLINE.
(ALSO KNOWN AS NEW PARCEL D OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9409260640 AND 9409265002)

PARCEL E

THAT PORTION OF GOVERNMENT LOT 2 AND OF THE TIDELANDS LYING IN FRONT THEREOF, IN SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAS,T W.M., DESCRIBED AS FOLLOWS.
BEGINNING AT THE EAST QUARTER CORNER OF SECTION 7, TOWNSHIP 29 NORTH, RANGE 5 EAST, W.M.;
THENCE SOUTH 88°58'38" WEST, ALONG THE NORTH LINE OF GOVERNMENT LOT 2 OF SAID SECTION, FOR 675 81 FEET TO THE WEST LINE OF THE ABANDONED RIGHT-OF-WAY OF THE NORTHERN PACIFIC RAILWAY COMPANY;
THENCE SOUTH 32°42'38" WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, FOR 1,175.47 FEET,
THENCE NORTH 45°47'22" WEST FOR 40.82 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTON AVENUE, AND WHICH POINT IS THE TRUE POINT OF BEGINNING;
THENCE CONTINUING NORTH 45°47'22" WEST FOR 867.27 FEET;
THENCE SOUTH 44°12'38" WEST FOR 712 80 FEET;
THENCE SOUTH 72°32'39" EAST FOR 1,028.19 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTON AVENUE;
THENCE NORTH 32°42'38" EAST, ALONG THE WEST RIGHT-OF-WAY LINE OF NORTON AVENUE, FOR 255.06 FEET TO THE TRUE POINT OF BEGINNING.

LEGEND

OHP	OVERHEAD UTILITY LINE	○	CLEAN OUT
UGP	UNDERGROUND POWER LINE	▫YD	YARD DRAIN
W	WATER LINE	▯	MAIL BOX
G	GAS LINE	⋈	VALVE
Ⓟ	POWER METER	□	CATCH BASIN
⧇	GAS METER	⊲	SIGN
Ⓟ	POWER MANHOLE	⧈	GAS VALVE
⊸	UTILITY POLE	Ⓜ	MONITORING WELL
⊞	WATER METER	⊱	CULVERT
⍾	FIRE HYDRANT	⊠	JUNCTION BOX
⍾	POST INDICATOR VALVE	Ⓤ	UNKNOWN UTILITY MANHOLE
Ⓢ	STORM DRAIN MANHOLE	OFX	OUTFALL WITH NUMBER
○	SANITARY SEWER MANHOLE		BUILDING

SURVEYOR'S NOTES:

1–BASIS OF BEARING FOR THIS SURVEY IS WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD83(11).

2–EQUIPMENT:
LEICA TS16P 3" R500 TOTAL STATION AND LEICA GS18I GNSS RTK ROVER WAS USED IN OBTAINING ANGLE AND DISTANCE MEASUREMENTS FOR THIS SURVEY. ALL MEASURING INSTRUMENTS AND EQUIPMENT SHALL BE MAINTAINED IN ADJUSTMENT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

3–PROCEDURES:
FIELD TRAVERSE METHOD MEETS OR EXCEEDS MINIMUM REQUIREMENTS IN ACCORDANCE WITH WAC 332–130–090.

4–THE BOUNDARY SHOWN HEREON IS BASED UPON AVAILABLE MAPS AND IS FOR REFERENCE ONLY. A FULL BOUNDARY SURVEY WAS NOT CONDUCTED ON THIS PROJECT AT THIS TIME.

5–THIS MAP REPRESENTS SITE CONDITIONS AS THEY EXISTED DURING THE PERFORMANCE OF A TOPOGRAPHIC SURVEY CONDUCTED APRIL 2024.

6–VERTICAL DATUM: NAVD88
PER W & H PACIFIC SITE MAP DATED 11/20/2006 FOR JELD WEN WATERFRONT PROPERTY, PROJECT NO. 035106.
N–457–RESET–1992 (SNOHOMISH COUNTY 1240), BRASS DISK IN SOUTH SIDE CONC BRIDGE COLUMN FOOTING ALVERSON BRIDGE ON NORTHBOUND LANES OF WEST MARINE VIEW DRIVE, WATERFRONT OF EVERETT, 2ND COLUMN SOUTH OF NORTH BRIDGE ABUTMENT;
ELEVATION = 27.30'

7–BURIED UTILITIES:
BURIED UTILITIES SHOWN PER A COMBINATION OF DIRECT FIELD OBSERVATION AND PAINT MARKS PROVIDED BY C–N–I LOCATES. SIGNATURE SURVEYING & MAPPING, PLLC DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE UTILITY INFORMATION.

NO.	DATE	REVISION	BY

TOPOGRAPHIC SURVEY

FOR

SLR INTERNATIONAL CORP
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

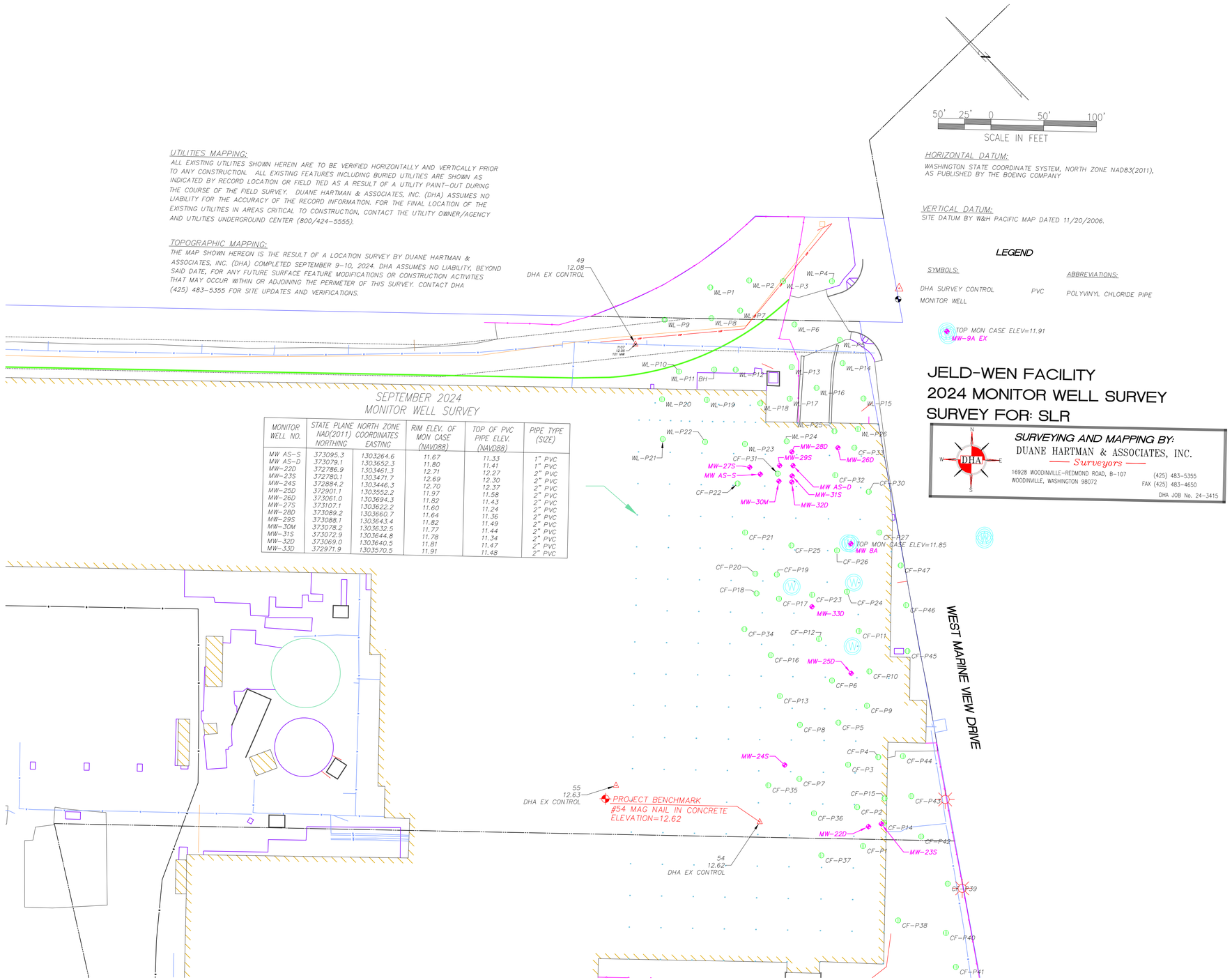
Signature
Surveying & Mapping, PLLC
P.O. Box 55487
Shoreline, WA 98155
Tel. (206) 947-4975
Fax (206) 364-3032

DENISE PEARL HOLCOMB — STATE OF WASHINGTON — 53612 — REGISTERED PROFESSIONAL LAND SURVEYOR

DRAWN BY:	DPH
CHECKED BY:	PLS
SCALE:	1" = 100'
DATE:	5/21/2024
FIELD BOOK:	124–126

JOB NUMBER 24011

PAGE 1 OF 1



UTILITIES MAPPING:

ALL EXISTING UTILITIES SHOWN HEREIN ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED BY RECORD LOCATION OR FIELD TIED AS A RESULT OF A UTILITY PAINT-OUT DURING THE COURSE OF THE FIELD SURVEY. DUANE HARTMAN & ASSOCIATES, INC. (DHA) ASSUMES NO LIABILITY FOR THE ACCURACY OF THE RECORD INFORMATION. FOR THE FINAL LOCATION OF THE EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION, CONTACT THE UTILITY OWNER/AGENCY AND UTILITIES UNDERGROUND CENTER (800/424-5555).

TOPOGRAPHIC MAPPING:

THE MAP SHOWN HEREON IS THE RESULT OF A LOCATION SURVEY BY DUANE HARTMAN & ASSOCIATES, INC. (DHA) COMPLETED SEPTEMBER 9-10, 2024. DHA ASSUMES NO LIABILITY, BEYOND SAID DATE, FOR ANY FUTURE SURFACE FEATURE MODIFICATIONS OR CONSTRUCTION ACTIVITIES THAT MAY OCCUR WITHIN OR ADJOINING THE PERIMETER OF THIS SURVEY. CONTACT DHA (425) 483-5355 FOR SITE UPDATES AND VERIFICATIONS.

HORIZONTAL DATUM:

WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(2011), AS PUBLISHED BY THE BOEING COMPANY

VERTICAL DATUM:

SITE DATUM BY W&H PACIFIC MAP DATED 11/20/2006.

LEGEND

SYMBOLS:

DHA SURVEY CONTROL

MONITOR WELL

TOP MON CASE ELEV=11.91
MW-9A EX

ABBREVIATIONS:

PVC POLYVINYL CHLORIDE PIPE

SEPTEMBER 2024
MONITOR WELL SURVEY

MONITOR WELL NO.	STATE PLANE NORTH ZONE NAD(2011) COORDINATES NORTHING	EASTING	RIM ELEV. OF MON CASE (NAVD88)	TOP OF PVC PIPE ELEV. (NAVD88)	PIPE TYPE (SIZE)
MW AS-S	373095.3	1303264.6	11.67	11.33	1" PVC
MW AS-D	373079.1	1303652.3	11.80	11.41	1" PVC
MW-22D	372786.9	1303461.3	12.71	12.27	2" PVC
MW-23S	372780.1	1303471.7	12.69	12.30	2" PVC
MW-24S	372884.2	1303446.3	12.70	12.37	2" PVC
MW-25D	372901.1	1303552.2	11.97	11.58	2" PVC
MW-26D	373061.0	1303694.3	11.82	11.43	2" PVC
MW-27S	373107.1	1303622.2	11.60	11.24	2" PVC
MW-28D	373089.2	1303660.7	11.64	11.36	2" PVC
MW-29S	373088.1	1303643.4	11.82	11.49	2" PVC
MW-30M	373078.2	1303632.5	11.77	11.44	2" PVC
MW-31S	373072.9	1303644.8	11.78	11.34	2" PVC
MW-32D	373069.0	1303640.5	11.81	11.47	2" PVC
MW-33D	372971.9	1303570.5	11.91	11.48	2" PVC

JELD-WEN FACILITY
2024 MONITOR WELL SURVEY
SURVEY FOR: SLR

SURVEYING AND MAPPING BY:
DUANE HARTMAN & ASSOCIATES, INC.
Surveyors
16928 WOODINVILLE-REDMOND ROAD, B-107
WOODINVILLE, WASHINGTON 98072
(425) 483-5355
FAX (425) 483-4650
DHA JOB No. 24-3415

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1001	372988.2	1303638.8	11.85	950 MW 8A EX
1002	373061.0	1303694.3	11.82	950 MW-26D
1003	373089.2	1303660.7	11.64	950 MW-28D
1004	373088.1	1303643.4	11.82	950 MW-29S
1005	373078.2	1303632.5	11.77	950 MW-30M
1006	373069.0	1303640.5	11.81	950 MW-32D
1007	373072.9	1303644.8	11.78	950 MW-31S
1008	373079.1	1303652.3	11.80	950 MW AS-D
1009	373095.3	1303624.6	11.67	950 MW AS-S
1010	373107.1	1303622.2	11.60	950 MW-27S
1011	372971.9	1303570.5	11.91	950 MW-33D
1012	372901.1	1303552.2	11.97	950 MW-25D
1013	372884.2	1303446.3	12.70	950 MW-24S
1014	372786.9	1303461.3	12.71	950 MW-22D
1015	372780.1	1303471.7	12.69	950 MW-23S
1016	372777.5	1303444.6	12.57	209 CF-P1
1017	372807.5	1303466.7	12.61	209 CF-P2
1018	372842.0	1303489.1	12.68	209 CF-P3
1019	372826.9	1303514.3	12.58	209 CF-P4
1020	372876.6	1303510.7	11.83	209 CF-P5
1021	372901.0	1303483.4	11.93	209 CF-P8
1022	372865.0	1303446.9	12.61	209 CF-P7
1023	372832.3	1303433.6	12.63	209 CF-P36
1024	372799.2	1303410.4	12.62	209 CF-P37
1025	372881.6	1303421.8	12.57	209 CF-P35
1026	372778.9	1303474.4	12.53	209 CF-P14
1029	372868.9	1303541.1	12.40	209 CF-P9
1032	372924.4	1303585.6	11.87	209 CF-P11
1033	372909.1	1303534.6	11.92	209 CF-P6
1034	372933.7	1303489.2	12.00	209 CF-P13
1035	372967.1	1303510.5	11.88	209 CF-P16
1036	372945.7	1303553.7	12.01	209 CF-P12
1037	373002.2	1303510.3	11.97	209 CF-P34
1038	373018.0	1303542.3	11.83	209 CF-P18
1039	373031.9	1303554.8	11.50	209 CF-P20
1040	372999.4	1303553.8	11.90	209 CF-P17
1041	372979.8	1303578.6	11.80	209 CF-P23
1044	373017.1	1303568.5	11.15	209 CF-P19
1045	373026.8	1303597.8	11.74	209 CF-P25
1046	372992.9	1303625.0	11.90	209 CF-P26
1047	372976.6	1303665.4	11.73	209 CF-P27
1103	373253.8	1303716.2	12.28	209 WL-P1
1098	373218.6	1303638.8	11.87	209 WL-P10
1097	373196.2	1303663.8	11.96	209 WL-P11
1056	373024.9	1303650.8	11.88	104 CF-P29
1057	373053.3	1303616.9	11.75	104 CF-P28

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1060	373104.3	1303603.2	11.55	209 CF-P22
1096	373181.8	1303678.0	11.74	209 WL-P12
1093	373146.0	1303717.3	10.88	209 WL-P13
1088	373114.5	1303754.1	10.77	209 WL-P14
1074	372909.9	1303634.7	11.88	209 CF-P46
1075	372940.2	1303657.6	11.62	209 CF-P47
1076	372878.3	1303604.9	11.80	209 CF-P45
1077	372634.5	1303425.9	12.37	209 CF-P41
1078	372663.8	1303442.0	12.24	209 CF-P40
1079	372704.2	1303418.4	12.34	209 CF-P38
1080	372695.6	1303476.1	12.09	209 CF-P39
1081	372744.9	1303490.0	12.43	209 CF-P42
1082	372778.6	1303510.4	12.64	209 CF-P43
1083	372811.1	1303531.5	12.64	209 CF-P44
1087	373076.9	1303744.5	11.53	209 WL-P15
1089	373115.5	1303720.1	8.49	209 WL-P16
1112	373126.2	1303694.9	11.36	209 WL-P17
1066	373142.8	1303672.2	11.79	209 WL-P18
1067	373180.9	1303638.5	11.62	209 WL-P19
1104	373232.5	1303746.9	11.91	209 WL-P2
1120	373211.2	1303609.0	11.64	209 WL-P20
1121	373184.2	1303582.8	11.74	209 WL-P21
1111	373153.9	1303609.3	11.74	209 WL-P22
1065	373125.8	1303634.6	11.64	209 WL-P23
1053	373099.7	1303664.3	11.71	209 WL-P24
1052	373074.4	1303703.1	11.71	209 WL-P25
1051	373060.1	1303720.3	11.86	209 WL-P26
1105	373209.3	1303769.1	11.50	209 WL-P3
1110	373084.0	1303636.6	11.95	209 CF-P31
1091	373176.6	1303801.7	11.15	209 WL-P4
1090	373132.0	1303767.7	9.55	209 WL-P5
1092	373172.7	1303747.8	10.39	209 WL-P6
1106	373218.2	1303720.7	11.39	209 WL-P7
1115	372890.2	1303565.7	11.93	209 CF-P10
1116	373066.4	1303575.4	11.74	209 CF-P21
1117	372795.0	1303490.9	12.60	209 CF-P15
1118	373011.0	1303685.5	11.65	209 CF-P30
1119	373044.5	1303674.2	11.68	209 CF-P32
1113	373232.5	1303696.4	11.65	209 WL-P8
1114	373262.8	1303663.8	11.65	209 WL-P9

Attachment 3 Laboratory Analytical Reports

Woodlife Area Soil Removal Delineation Assessment: Laboratory Analytical Reports

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Chris Kramer
SLR International Corporation
1800 Blankenship Road
Suite 440
West Linn OR 97068

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Information:

Pace Project #: 10697605
Sample Receipt Date: 06/22/2024
Client Project #: 108.V20689.00001 Nord Woodli
Client Sub PO #: N/A
State Cert #: C486

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kirsten Hogberg, your Pace Project Manager.

This report has been reviewed by:

October 28, 2024

Kirsten Hogberg, Project Manager
(612) 607-6407
(612) 607-6444 (fax)
kirsten.hogberg@pacelabs.com

Report Prepared Date:

October 21, 2024

Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on forty-seven samples submitted by a representative of SLR International Corporation. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were set to statistically-derived method detection limits (MDLs) and were adjusted for sample extraction amount and dilution. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations. The samples were received above the recommended temperature range of 0-6 degrees Celsius. This report was revised to provide results for an additional twelve samples.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 20-120%. Except for two values, which were flagged "R" on the results table, the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained or "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. Concentrations above the calibration range were flagged "E" and should also be regarded as estimates. Values obtained from analyses of diluted extracts were flagged "D". Values obtained from separate analyses were flagged "N2". In cases where the estimated detection limit (EDL) values were above the method detection limits, the EDLs were provided and flagged "A".

A laboratory method blank was prepared and analyzed with each sample batch as part of our routine quality control procedures. The results show two of the five blanks to contain trace levels of selected congeners. These levels were below the calibration range of the method. Sample concentrations similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background.

Laboratory and matrix spike samples were also prepared using clean reference matrix or sample matrix hat had been fortified with native standard materials. The results show that the spiked native compounds in the laboratory spike samples were recovered at 84-129%. These results were within the target ranges for the method. The background-subtracted recovery values obtained for OCDD in the matrix spike sample analyses prepared using sample "WL-P1-1-062124" were outside the target range and flagged "R" on the results tables. Also, two RPD values were above the 20% target upper limit. These deviations may be due to the levels of the affected congeners in the sample materials and/or sample inhomogeneity. Matrix spikes were prepared with the 08/13/2024 extraction batch using sample material from a separate project; results from these analyses will be provided upon request.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444
www.pacelabs.com

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-DW	27700
California	2929	North Carolina-WW	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (1700)	CL101
Georgia	959	Ohio-VAP (1800)	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon-Primary	MN300001
Illinois	200011	Oregon-Secondary	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-DEP	382
Minnesota	027-053-137	West Virginia-DW	9952C
Minnesota-Ag	via MN 027-053-137	Wisconsin	999407970
Minnesota-Petrofund	1240	Wyoming-UST	via A2LA 2926.01
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
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Minneapolis, MN 55414
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www.pacelabs.com

Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

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Report No:.....10697605_10135FC_L2_R1_UH

Revision 1

Page 5 of 85

WO# : 10697605

10697605

Scan QR Code for instructions

Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20TH AVE SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@sircconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20089.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@sirconsulting.com; ap-us@sirconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA

Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD

Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM — Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____

Date Results Requested:

DW PWSID # or WW Permit # as applicable:

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	1613B Dioxin/Furan 17 Congener	Sample Comment	Preservation non-conformance identified for sample.
WL-P1-1-2-062124	Soil	Grab	6/21/24	1025						X		CW1
WL-P1-3-4-062124				1025						X	Hold	CW2
WL-P1-5-6-062124				1025						X	Hold	CW3
WL-P2-1-2-062124				952						X		CW4
WL-P2-3-4-062124				952						X	Hold	CW5
WL-P2-5-6-062124				952						X	Hold	CW6
WL-P3-3-4-062124				935						X		CW7
WL-P3-5-6-062124				935						X	Hold	CW8
WL-P3-7-8-062124			↓	935						X	Hold	CW9
WL-P4-1-2-062024	↓	↓	06/20/24	1421						X		CW10

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Additional Instructions from Pace®: Expect 2 coolers

Collected By: Printed Name: Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: 2 | Thermometer ID: T1 | Correction Factor (°C): TRUE/-0.4 | Obs. Temp. (°C): 17.4/23.6 | Corrected Temp. (°C): 17.4/23.2 | [ ] On Ice: Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	06/21/24 1430	Melissa/Pace	6/22/24 9:00
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

EZ 3123568

Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G200 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsultant.com
	Cc E-Mail:
Customer Project #: 108.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@slrconsulting.com; ap-us@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County/WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM
	Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____
	Date Results Requested:
	DW PWSID # or WW Permit # as applicable:
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	1613B Dioxin/Furan 17 Congeners	Sample Comment
WL-P4-3-4-062024	Soil	Grab	6/20/24	1421						X	Hold 01
WL-P4-5-6-062024				1421						X	Hold 02
WL-P5-3-4-062024				1336						X	03
WL-P5-5-6-062024				1336						X	Hold 04
WL-P5-7-8-062024				1336						X	Hold 05
WL-P6-3-4-062024				1436						X	06
WL-P6-5-6-062024				1436						X	Hold 07
WL-P6-7-8-062024				1436						X	Hold 08
WL-P7-3-4-062124			6/21/24	905						X	09
WL-P7-5-6-062124			6/21/24	905						X	Hold 10

Additional Instructions from Pace® :

Collected By: Printed Name / Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Relinquished by/Company: (Signature) — Date/Time: 06/21/24 1430

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Report No.....1069605_1613BFC_L2_R1_dir

Revision 1

Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@slrconsulting.com; ap-us@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____ Date Results Requested:
	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	1613B Dioxin/Furan 17 Congener	Sample Comment
WL-P7-7-8-062124	Soil	Grab	6/21/24	905						X	Hold 021
WL-P8-3-4-062124				845						X	022
WL-P8-5-6-062124				845						X	Hold 023
WL-P8-7-8-062124				845						X	Hold 024
WL-P9-1-2-062124				822						X	025
WL-P9-3-4-062124				822						X	Hold 026
WL-P9-5-6-062124				822						X	Hold 027
WL-P10-1-2-062024			6/20/24	1714						X	028
WL-P10-3-4-062024				1714						X	Hold 029
WL-P10-5-6-062024				1714						X	Hold 030

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C): [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Steve Markel	06/21/24 1430			
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Wildlife Area	Invoice E-mail: ckramer@slrconsulting.com; ap-us@slrconsulting
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDP	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____
	Date Results Requested:
	DW PWSID # or WW Permit # as applicable:
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	PCBs Dioxin/Furan by EPA 1613 Congener	Sample Comment
WL-P11-7-8-0e2024	Soil	Grab	0e/20/24	1645						X	031
WL-P11-9-10-0e2024				1645						X →	Hold 032
WL-P11-12-13-0e2024				1645						X →	Hold 033
WL-P12-5-6-0e2024				1615						X	034
WL-P12-7-8-0e2024				1615						X →	Hold 035
WL-P12-9-10-0e2024				1615						X →	Hold 036
WL-P13-3-4-0e2024				1456						X	037
WL-P13-5-6-0e2024				1456						X →	Hold 038
WL-P13-7-8-0e2024				1456						X →	Hold 039
WL-P14-1-2-0e2024	↓	↓	↓	1316						X	040

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time: 00/21/24 1430	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 105.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Wood life Area	Invoice E-mail: ckramer@slrconsulting.com ap-vs@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____ Date Results Requested:
	DW PWSID # or WW Permit # as applicable:
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	1613B Dioxins Furans 17 Congeners	Sample Comment
WL-P14-3-4-062024	Soil	Grab	06/20/24	1316							Hold 041
WL-P14-5-6-062024				1316							Hold 042
WL-P15-1-2-062024				1250						X	043
WL-P15-3-4-062024				1250							Hold 044
WL-P15-5-6-062024				1250							Hold 045
WL-P16-1-2-062024				1357						X	046
WL-P16-3-4-062024				1357							Hold 047
WL-P16-5-6-062024				1357							Hold 048
WL-P17-3-4-062024				1527						X	049
WL-P17-5-6-062024	↓	↓	↓	1527							Hold 050

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time: 06/21/24 1430	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

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Report No.: 100970005_101SDF_L2_R1_01

Revision 1

Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@slrconsulting.com ap-us@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County/WA

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Data Deliverables:
[ ] Level II [ ] Level III [X] Level IV
[ ] EQUIS
[X] Other Ecology EIMEDD

Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM
Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____
Date Results Requested:

DW PWSID # or WW Permit # as applicable:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	16138 Disinfluent 17 Container	Sample Comment
WL-P17-7-8-062024	soil	Grab	06/20/24	1527							Hold 051
WL-P18-7-8-061924			06/19/24	1555						X	052
WL-P18-9-10-061924				1555							Hold 053
WL-P18-12-13-061924				1555							Hold 054
WL-P19-3-4-061924				1519						X	055
WL-P19-5-6-061924				1519							Hold 056
WL-P19-7-8-061924				1519							Hold 057
WL-P20-1-2-061924				1650						X	058
WL-P20-3-4-061924				1650							Hold 059
WL-P20-5-6-061924				1650							Hold 060

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
	06/21/24 1430			
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

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Report No.....10697605_1613BFC_L2_R1_dfr

Revision 1

Page 1 of 1

Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

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Scan QR Code for instructions

Company Name: SLR	Contact/Report To: ~~SM~~ Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20689.00001	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@slrconsulting.com; ap-us@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____
	Date Results Requested:
	DW PWSID # or WW Permit # as applicable:
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

1613B Dixon/Evans 17 Container

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units		Sample Comment
WL-P21-1-2-061924	Soil	Grab	06/19/24	1431						X	061
WL-P21-3-4-061924				1431							Hold 062
WL-P21-5-6-061924				1431							Hold 063
WL-P22-1-2-061924				1416						X	064
WL-P22-3-4-061924				1416							Hold 065
WL-P22-5-6-061924				1416							Hold 066
WL-P23-5-6-061924				1405						X	067
WL-P23-7-8-061924				1405							Hold 068
WL-P23-9-10-061924				1405							Hold 069
WL-P24-1-2-061924				1344						X	070

Additional Instructions from Pace® :

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

06/21/24 1430

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

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LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: ckramer@slrconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20689	Invoice to: Chris Kramer & AP
Project Name: Nord Woodlife Area	Invoice E-mail: ckramer@slrconsulting.com ap-us@slrconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County/WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIMEDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____ Date Results Requested:
	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

16133 Diesel/Heavy 17 Carrier

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	Sample Comment
WL-P24-3-4-060924	Soil	Grab	06/19/24	1344						Hold 071
WL-P24-5-6-060924				1344						Hold 072
WL-P25-1-2-060924				1323						073
WL-P25-3-4-060924				1323						Hold 074
WL-P25-5-6-060924				1323						Hold 075
WL-P26-1-2-060924				1300						076
WL-P26-3-4-060924				1300						Hold 077
WL-P26-5-6-060924				1300						Hold 078
WL-P27-6-7-060924	↓	↓	↓	1519						079

Additional Instructions from Pace®:

Collected By:
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C): | Corrected Temp. (°C): | [ ] On Ice

Relinquished by/Company: (Signature)	Date/Time: 06/21/24 1430	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: SLR **PROJECT #:**

WO#: 10697605

PM: KNH **Due Date: 07/16/24**

CLIENT: SLR

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: _____ ☑ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☐ YES ☑ NO **Seals Intact:** ☐ YES ☑ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☑ Bubble Bags ☐ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☑ Melted ☐ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: True -0.1 **Cooler Temp Read w/Temp Blank:** 17.4 / 23.6c **Cooler Temp Corrected w/Temp Blank:** 17.4 / 23.2c	**Average Corrected Temp (no Temp Blank Only):** _____ °C
***NOTE:** Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** EC 6-24-24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO EC 6-24-24	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☑	☑	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used?	☑	☐	☐	8.
– Pace Containers Used?	☑	☐		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☑ Soil ☐ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☑	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: Kirsten Hogberg **Date:** 6/25/2024

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: _____ **Line:** _____

Workorder #: 10697605

No Temp Blank		
Read Temp	Corrected Temp	Average temp

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO
If yes, indicate who was contacted, date and time. If no, indicate reason why.
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
776995307295	17.4
776995307284	23.2

Out of Temp Sample ID	Container Type	# of Containers
all samples		

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition? YES	In Compliance After Addition? NO	Initials
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:
Inadequate ice

Pace Analytical Services, LLC
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Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P1-1-062124		
Lab Sample ID	10697605001		
Filename	Y240706A_14		
Injected By	JRH		
Total Amount Extracted	13.7 g	Matrix	SOLID
% Moisture	8.8	Dilution	NA
Dry Weight Extracted	12.5 g	Collected	06/21/2024 10:25
ICAL ID	Y240308	Received	06/22/2024 09:00
CCal Filename(s)	Y240706A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 12:32

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.78	-----	0.18	J	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	11	-----	0.18		2,3,7,8-TCDD-13C	2.00	66
					1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	ND	-----	0.15		2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	11	-----	0.15		1,2,3,7,8-PeCDD-13C	2.00	68
					1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,7,8-PeCDF	0.75	-----	0.18	J	1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	1.00	-----	0.16	J	2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	14	-----	0.16		1,2,3,7,8,9-HxCDF-13C	2.00	87
					1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	0.79	-----	0.16	J	1,2,3,6,7,8-HxCDD-13C	2.00	87
Total PeCDD	6.9	-----	0.16		1,2,3,4,6,7,8-HpCDF-13C	2.00	71
					1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,7,8-HxCDF	1.0	-----	0.31	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	-----	3.2	0.32	PJ	OCDD-13C	4.00	57
2,3,4,6,7,8-HxCDF	0.96	-----	0.28	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.31		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	23	-----	0.28		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.3	-----	0.31	J	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	2.9	-----	0.38	J			
1,2,3,7,8,9-HxCDD	2.2	-----	0.36	J			
Total HxCDD	25	-----	0.31				
1,2,3,4,6,7,8-HpCDF	18	-----	0.28		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	1.2	-----	0.34	J	Equivalence: 3.4 ng/Kg		
Total HpCDF	47	-----	0.28		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	67	-----	0.27				
Total HpCDD	120	-----	0.27				
OCDF	43	-----	0.87				
OCDD	560	-----	0.76				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
P = PCDE Interference

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P1-3-4-062124		
Lab Sample ID	10697605002		
Filename	L241016A_12		
Injected By	JF		
Total Amount Extracted	12.7 g	Matrix	SOLID
% Moisture	23.2	Dilution	NA
Dry Weight Extracted	9.77 g	Collected	06/21/2024 10:25
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_02	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/16/2024 19:37

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.8	-----	0.27		2,3,7,8-TCDF-13C	2.00	68
Total TCDF	33	-----	0.27		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	59
2,3,7,8-TCDD	0.40	-----	0.26	J	2,3,4,7,8-PeCDF-13C	2.00	55
Total TCDD	21	-----	0.26		1,2,3,7,8-PeCDD-13C	2.00	59
					1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	2.4	-----	0.64	J	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	1.4	-----	0.96	J	2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	17	-----	0.64		1,2,3,7,8,9-HxCDF-13C	2.00	51
					1,2,3,4,7,8-HxCDD-13C	2.00	67
1,2,3,7,8-PeCDD	ND	-----	0.85		1,2,3,6,7,8-HxCDD-13C	2.00	71
Total PeCDD	19	-----	0.85		1,2,3,4,6,7,8-HpCDF-13C	2.00	47
					1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	ND	-----	0.98		1,2,3,4,6,7,8-HpCDD-13C	2.00	51
1,2,3,6,7,8-HxCDF	ND	-----	1.0		OCDD-13C	4.00	27
2,3,4,6,7,8-HxCDF	ND	-----	0.92				
1,2,3,7,8,9-HxCDF	ND	-----	0.94		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	5.8	-----	0.92		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.6		2,3,7,8-TCDD-37Cl4	0.20	66
1,2,3,6,7,8-HxCDD	1.1	-----	0.95	J			
1,2,3,7,8,9-HxCDD	ND	-----	1.3				
Total HxCDD	17	-----	0.95				
1,2,3,4,6,7,8-HpCDF	2.9	-----	0.76	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	1.0		Equivalence: 1.3 ng/Kg		
Total HpCDF	7.5	-----	0.76		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	9.9	-----	0.64				
Total HpCDD	22	-----	0.64				
OCDF	5.7	-----	2.4	J			
OCDD	76	-----	2.0				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P2-1-2-062124		
Lab Sample ID	10697605004		
Filename	Y240706A_15		
Injected By	JRH		
Total Amount Extracted	14.6 g	Matrix	SOLID
% Moisture	8.8	Dilution	NA
Dry Weight Extracted	13.3 g	Collected	06/21/2024 09:52
ICAL ID	Y240308	Received	06/22/2024 09:00
CCal Filename(s)	Y240706A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 13:16

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.2	-----	0.17		2,3,7,8-TCDF-13C	2.00	84
Total TCDF	22	-----	0.17		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	-----	0.62	0.14	JI	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	17	-----	0.14		1,2,3,7,8-PeCDD-13C	2.00	60
					1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	1.7	-----	0.17	J	1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	2.7	-----	0.15	J	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	83	-----	0.15		1,2,3,7,8,9-HxCDF-13C	2.00	85
					1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	5.6	-----	0.15		1,2,3,6,7,8-HxCDD-13C	2.00	84
Total PeCDD	58	-----	0.15		1,2,3,4,6,7,8-HpCDF-13C	2.00	62
					1,2,3,4,7,8,9-HpCDF-13C	2.00	63
1,2,3,4,7,8-HxCDF	8.4	-----	0.29	A	1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	-----	34	0.30	P	OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	7.5	-----	0.28	A			
1,2,3,7,8,9-HxCDF	-----	0.74	0.31	JIA	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	97	-----	0.28		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	14	-----	0.29		2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	36	-----	0.35				
1,2,3,7,8,9-HxCDD	28	-----	0.34				
Total HxCDD	300	-----	0.29				
1,2,3,4,6,7,8-HpCDF	180	-----	0.71	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	13	-----	1.1	A	Equivalence: 36 ng/Kg		
Total HpCDF	440	-----	0.71		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	1100	-----	0.25				
Total HpCDD	1900	-----	0.25				
OCDF	400	-----	0.82				
OCDD	11000	-----	0.72	E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
P = PCDE Interference
E = Exceeds calibration range
I = Isotope ratio out of specification

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P2-3-4-062124		
Lab Sample ID	10697605005		
Filename	U240730B_06		
Injected By	SMT		
Total Amount Extracted	16.1 g	Matrix	SOLID
% Moisture	20.8	Dilution	NA
Dry Weight Extracted	12.7 g	Collected	06/21/2024 09:52
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240730B_02	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 01:50

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	4.1	-----	0.21		2,3,7,8-TCDF-13C	2.00	93
Total TCDF	84	-----	0.21		2,3,7,8-TCDD-13C	2.00	97
					1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	0.79	-----	0.20		2,3,4,7,8-PeCDF-13C	2.00	99
Total TCDD	47	-----	0.20		1,2,3,7,8-PeCDD-13C	2.00	102
					1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	1.6	-----	0.49	J	1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	2.7	-----	0.74	J	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	25	-----	0.49		1,2,3,7,8,9-HxCDF-13C	2.00	80
					1,2,3,4,7,8-HxCDD-13C	2.00	81
1,2,3,7,8-PeCDD	1.6	-----	0.65	J	1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	36	-----	0.65		1,2,3,4,6,7,8-HpCDF-13C	2.00	61
					1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	1.0	-----	0.75	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	65
1,2,3,6,7,8-HxCDF	1.3	-----	0.80	J	OCDD-13C	4.00	43
2,3,4,6,7,8-HxCDF	1.4	-----	0.70	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.72		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	12	-----	0.70		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.3		2,3,7,8-TCDD-37Cl4	0.20	105
1,2,3,6,7,8-HxCDD	-----	1.5	0.73	JI			
1,2,3,7,8,9-HxCDD	-----	1.2	0.97	JI			
Total HxCDD	42	-----	0.73				
1,2,3,4,6,7,8-HpCDF	4.8	-----	0.59		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.80		Equivalence: 4.5 ng/Kg		
Total HpCDF	9.8	-----	0.59		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	17	-----	0.49				
Total HpCDD	36	-----	0.49				
OCDF	6.8	-----	1.8	J			
OCDD	150	-----	1.6				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P3-3-4-062124		
Lab Sample ID	10697605007		
Filename	Y240706A_16		
Injected By	JRH		
Total Amount Extracted	12.9 g	Matrix	SOLID
% Moisture	48.6	Dilution	NA
Dry Weight Extracted	6.62 g	Collected	06/21/2024 09:35
ICAL ID	Y240308	Received	06/22/2024 09:00
CCal Filename(s)	Y240706A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 14:00

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.33		2,3,7,8-TCDF-13C	2.00	94
Total TCDF	0.60	-----	0.33	J	2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	0.29	A	2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	1.2	-----	0.29	BJ	1,2,3,7,8-PeCDD-13C	2.00	72
					1,2,3,4,7,8-HxCDF-13C	2.00	79
1,2,3,7,8-PeCDF	ND	-----	0.34		1,2,3,6,7,8-HxCDF-13C	2.00	95
2,3,4,7,8-PeCDF	ND	-----	0.31		2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	ND	-----	0.31		1,2,3,7,8,9-HxCDF-13C	2.00	86
					1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	ND	-----	0.31		1,2,3,6,7,8-HxCDD-13C	2.00	90
Total PeCDD	ND	-----	0.31		1,2,3,4,6,7,8-HpCDF-13C	2.00	71
					1,2,3,4,7,8,9-HpCDF-13C	2.00	72
1,2,3,4,7,8-HxCDF	ND	-----	0.59		1,2,3,4,6,7,8-HpCDD-13C	2.00	72
1,2,3,6,7,8-HxCDF	ND	-----	0.61		OCDD-13C	4.00	43
2,3,4,6,7,8-HxCDF	ND	-----	0.52				
1,2,3,7,8,9-HxCDF	ND	-----	0.58		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.52		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.58		2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	ND	-----	0.71				
1,2,3,7,8,9-HxCDD	ND	-----	0.68				
Total HxCDD	0.91	-----	0.58	J			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.53		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.65		Equivalence: 0.029 ng/Kg		
Total HpCDF	ND	-----	0.53		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	2.1	-----	0.51	J			
Total HpCDD	5.5	-----	0.51	J			
OCDF	ND	-----	1.6				
OCDD	27	-----	1.4				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
A = Reporting Limit based on signal to noise (EDL)

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P4-1-2-062024		
Lab Sample ID	10697605010		
Filename	Y240706A_17		
Injected By	JRH		
Total Amount Extracted	13.4 g	Matrix	SOLID
% Moisture	6.7	Dilution	NA
Dry Weight Extracted	12.5 g	Collected	06/20/2024 14:21
ICAL ID	Y240308	Received	06/22/2024 09:00
CCal Filename(s)	Y240706A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 14:43

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.8	-----	0.18		2,3,7,8-TCDF-13C	2.00	98
Total TCDF	26	-----	0.18		2,3,7,8-TCDD-13C	2.00	116
					1,2,3,7,8-PeCDF-13C	2.00	120
2,3,7,8-TCDD	0.48	-----	0.15	J	2,3,4,7,8-PeCDF-13C	2.00	110
Total TCDD	11	-----	0.15		1,2,3,7,8-PeCDD-13C	2.00	107
					1,2,3,4,7,8-HxCDF-13C	2.00	98
1,2,3,7,8-PeCDF	5.2	-----	0.18		1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,7,8-PeCDF	5.4	-----	0.17		2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	73	-----	0.17		1,2,3,7,8,9-HxCDF-13C	2.00	84
					1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	7.2	-----	0.16		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	48	-----	0.16		1,2,3,4,6,7,8-HpCDF-13C	2.00	51
					1,2,3,4,7,8,9-HpCDF-13C	2.00	48
1,2,3,4,7,8-HxCDF	21	-----	0.47	A	1,2,3,4,6,7,8-HpCDD-13C	2.00	53
1,2,3,6,7,8-HxCDF	-----	140	0.45	PA	OCDD-13C	4.00	34
2,3,4,6,7,8-HxCDF	12	-----	0.57	A			
1,2,3,7,8,9-HxCDF	2.7	-----	0.57	JA	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	430	-----	0.45		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	22	-----	0.31		2,3,7,8-TCDD-37Cl4	0.20	121
1,2,3,6,7,8-HxCDD	110	-----	0.38				
1,2,3,7,8,9-HxCDD	41	-----	0.36				
Total HxCDD	900	-----	0.31				
1,2,3,4,6,7,8-HpCDF	550	-----	0.75	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	42	-----	1.2	A	Equivalence: 110 ng/Kg		
Total HpCDF	2000	-----	0.75		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	4100	-----	0.43	EA			
Total HpCDD	9200	-----	0.43	E			
OCDF	2400	-----	0.90	A			
OCDD	63000	-----	0.77	E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
P = PCDE Interference
E = Exceeds calibration range

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P4-3-4-062024		
Lab Sample ID	10697605011		
Filename	U240730B_07		
Injected By	SMT		
Total Amount Extracted	15.1 g	Matrix	SOLID
% Moisture	12.6	Dilution	NA
Dry Weight Extracted	13.2 g	Collected	06/20/2024 14:21
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240730B_02	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 02:37

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.20		2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	-----	0.20		2,3,7,8-TCDD-13C	2.00	80
					1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	86
Total TCDD	ND	-----	0.19		1,2,3,7,8-PeCDD-13C	2.00	88
					1,2,3,4,7,8-HxCDF-13C	2.00	95
1,2,3,7,8-PeCDF	ND	-----	0.47		1,2,3,6,7,8-HxCDF-13C	2.00	91
2,3,4,7,8-PeCDF	ND	-----	0.71		2,3,4,6,7,8-HxCDF-13C	2.00	90
Total PeCDF	ND	-----	0.47		1,2,3,7,8,9-HxCDF-13C	2.00	82
					1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	-----	0.62		1,2,3,6,7,8-HxCDD-13C	2.00	89
Total PeCDD	ND	-----	0.62		1,2,3,4,6,7,8-HpCDF-13C	2.00	67
					1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	-----	0.73		1,2,3,4,6,7,8-HpCDD-13C	2.00	77
1,2,3,6,7,8-HxCDF	ND	-----	0.77		OCDD-13C	4.00	49
2,3,4,6,7,8-HxCDF	ND	-----	0.68				
1,2,3,7,8,9-HxCDF	ND	-----	0.70		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.68		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.2		2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	-----	0.70				
1,2,3,7,8,9-HxCDD	ND	-----	0.94				
Total HxCDD	2.5	-----	0.70	J			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.57		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.77		Equivalence: 0.061 ng/Kg		
Total HpCDF	ND	-----	0.57		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	4.7	-----	0.47				
Total HpCDD	11	-----	0.47				
OCDF	ND	-----	1.7				
OCDD	45	-----	1.5				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P5-3-4-062024		
Lab Sample ID	10697605013		
Filename	U240706A_09		
Injected By	JRH		
Total Amount Extracted	12.6 g	Matrix	SOLID
% Moisture	13.0	Dilution	NA
Dry Weight Extracted	11.0 g	Collected	06/20/2024 13:36
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 17:53

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.20		2,3,7,8-TCDF-13C	2.00	85
Total TCDF	0.20	-----	0.20	J	2,3,7,8-TCDD-13C	2.00	71
					1,2,3,7,8-PeCDF-13C	2.00	90
2,3,7,8-TCDD	ND	-----	0.18		2,3,4,7,8-PeCDF-13C	2.00	91
Total TCDD	ND	-----	0.18		1,2,3,7,8-PeCDD-13C	2.00	89
					1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	ND	-----	0.21		1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	ND	-----	0.19		2,3,4,6,7,8-HxCDF-13C	2.00	78
Total PeCDF	ND	-----	0.19		1,2,3,7,8,9-HxCDF-13C	2.00	78
					1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	-----	0.18		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	0.18		1,2,3,4,6,7,8-HpCDF-13C	2.00	63
					1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	-----	0.36		1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	ND	-----	0.37		OCDD-13C	4.00	65
2,3,4,6,7,8-HxCDF	ND	-----	0.32				
1,2,3,7,8,9-HxCDF	ND	-----	0.35		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.32		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.35		2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	-----	0.43				
1,2,3,7,8,9-HxCDD	ND	-----	0.41				
Total HxCDD	ND	-----	0.35				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.32		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.39		Equivalence: 0.0083 ng/Kg		
Total HpCDF	0.34	-----	0.32	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	0.65	0.31	JI			
Total HpCDD	ND	-----	0.31				
OCDF	ND	-----	0.99				
OCDD	5.8	-----	0.87	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P6-3-4-062024		
Lab Sample ID	10697605016		
Filename	U240706A_10		
Injected By	JRH		
Total Amount Extracted	13.8 g	Matrix	SOLID
% Moisture	16.9	Dilution	NA
Dry Weight Extracted	11.5 g	Collected	06/20/2024 14:36
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 18:41

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.19		2,3,7,8-TCDF-13C	2.00	91
Total TCDF	ND	-----	0.19		2,3,7,8-TCDD-13C	2.00	70
					1,2,3,7,8-PeCDF-13C	2.00	96
2,3,7,8-TCDD	ND	-----	0.17		2,3,4,7,8-PeCDF-13C	2.00	104
Total TCDD	ND	-----	0.17		1,2,3,7,8-PeCDD-13C	2.00	100
					1,2,3,4,7,8-HxCDF-13C	2.00	89
1,2,3,7,8-PeCDF	ND	-----	0.20		1,2,3,6,7,8-HxCDF-13C	2.00	87
2,3,4,7,8-PeCDF	ND	-----	0.18		2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	-----	0.18		1,2,3,7,8,9-HxCDF-13C	2.00	82
					1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	ND	-----	0.18		1,2,3,6,7,8-HxCDD-13C	2.00	82
Total PeCDD	ND	-----	0.18		1,2,3,4,6,7,8-HpCDF-13C	2.00	71
					1,2,3,4,7,8,9-HpCDF-13C	2.00	69
1,2,3,4,7,8-HxCDF	ND	-----	0.34		1,2,3,4,6,7,8-HpCDD-13C	2.00	80
1,2,3,6,7,8-HxCDF	ND	-----	0.35		OCDD-13C	4.00	71
2,3,4,6,7,8-HxCDF	ND	-----	0.30				
1,2,3,7,8,9-HxCDF	ND	-----	0.34		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.30		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.33		2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	ND	-----	0.41				
1,2,3,7,8,9-HxCDD	ND	-----	0.39				
Total HxCDD	ND	-----	0.33				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.30		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.38		Equivalence: 0.0069 ng/Kg		
Total HpCDF	ND	-----	0.30		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	0.54	-----	0.29	J			
Total HpCDD	1.1	-----	0.29	J			
OCDF	ND	-----	0.95				
OCDD	5.1	-----	0.83	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P7-3-4-062124		
Lab Sample ID	10697605019		
Filename	U240706A_11		
Injected By	JRH		
Total Amount Extracted	13.0 g	Matrix	SOLID
% Moisture	54.8	Dilution	NA
Dry Weight Extracted	5.86 g	Collected	06/21/2024 09:05
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 19:29

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.0	-----	0.38	J	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	13	-----	0.38		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.33		2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	2.6	-----	0.33	B	1,2,3,7,8-PeCDD-13C	2.00	73
					1,2,3,4,7,8-HxCDF-13C	2.00	68
1,2,3,7,8-PeCDF	ND	-----	0.39		1,2,3,6,7,8-HxCDF-13C	2.00	66
2,3,4,7,8-PeCDF	ND	-----	0.35		2,3,4,6,7,8-HxCDF-13C	2.00	62
Total PeCDF	1.6	-----	0.35	J	1,2,3,7,8,9-HxCDF-13C	2.00	66
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	ND	-----	0.34		1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	0.89	-----	0.34	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	53
					1,2,3,4,7,8,9-HpCDF-13C	2.00	56
1,2,3,4,7,8-HxCDF	ND	-----	0.67		1,2,3,4,6,7,8-HpCDD-13C	2.00	62
1,2,3,6,7,8-HxCDF	ND	-----	0.69		OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	-----	0.59				
1,2,3,7,8,9-HxCDF	ND	-----	0.66		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.59		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.65		2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	-----	0.80				
1,2,3,7,8,9-HxCDD	ND	-----	0.77				
Total HxCDD	1.9	-----	0.65	J			
1,2,3,4,6,7,8-HpCDF	0.74	-----	0.60	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.74		Equivalence: 0.14 ng/Kg		
Total HpCDF	0.74	-----	0.60	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	1.9	-----	0.58	J			
Total HpCDD	3.7	-----	0.58	J			
OCDF	ND	-----	1.9				
OCDD	18	-----	1.6				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P8-3-4-062124		
Lab Sample ID	10697605022		
Filename	U240706A_12		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	SOLID
% Moisture	25.5	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	06/21/2024 08:45
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 20:16

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.44	-----	0.22	J	2,3,7,8-TCDF-13C	2.00	97
Total TCDF	6.1	-----	0.22		2,3,7,8-TCDD-13C	2.00	84
					1,2,3,7,8-PeCDF-13C	2.00	101
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	108
Total TCDD	1.2	-----	0.19	B	1,2,3,7,8-PeCDD-13C	2.00	103
					1,2,3,4,7,8-HxCDF-13C	2.00	93
1,2,3,7,8-PeCDF	ND	-----	0.22		1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	0.20		2,3,4,6,7,8-HxCDF-13C	2.00	90
Total PeCDF	0.43	-----	0.20	J	1,2,3,7,8,9-HxCDF-13C	2.00	93
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.20		1,2,3,6,7,8-HxCDD-13C	2.00	87
Total PeCDD	0.63	-----	0.20	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
					1,2,3,4,7,8,9-HpCDF-13C	2.00	85
1,2,3,4,7,8-HxCDF	ND	-----	0.39		1,2,3,4,6,7,8-HpCDD-13C	2.00	92
1,2,3,6,7,8-HxCDF	ND	-----	0.40		OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	-----	0.34				
1,2,3,7,8,9-HxCDF	ND	-----	0.38		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.34		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.38		2,3,7,8-TCDD-37Cl4	0.20	91
1,2,3,6,7,8-HxCDD	ND	-----	0.46				
1,2,3,7,8,9-HxCDD	ND	-----	0.44				
Total HxCDD	0.91	-----	0.38	J			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.34		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.42		Equivalence: 0.054 ng/Kg		
Total HpCDF	ND	-----	0.34		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	0.72	0.33	JI			
Total HpCDD	ND	-----	0.33				
OCDF	ND	-----	1.1				
OCDD	8.7	-----	0.94	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P9-1-2-062124		
Lab Sample ID	10697605025		
Filename	U240706A_13		
Injected By	JRH		
Total Amount Extracted	13.1 g	Matrix	SOLID
% Moisture	6.6	Dilution	NA
Dry Weight Extracted	12.3 g	Collected	06/21/2024 08:22
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 21:04

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.25	-----	0.18	J	2,3,7,8-TCDF-13C	2.00	92
Total TCDF	2.9	-----	0.18		2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	91
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	98
Total TCDD	3.0	-----	0.16	B	1,2,3,7,8-PeCDD-13C	2.00	97
					1,2,3,4,7,8-HxCDF-13C	2.00	87
1,2,3,7,8-PeCDF	ND	-----	0.19		1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	0.24	-----	0.17	J	2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF	3.9	-----	0.17	J	1,2,3,7,8,9-HxCDF-13C	2.00	84
					1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	-----	0.26	0.16	JI	1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	2.6	-----	0.16	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	73
					1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	0.41	-----	0.32	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	84
1,2,3,6,7,8-HxCDF	0.58	-----	0.33	J	OCDD-13C	4.00	74
2,3,4,6,7,8-HxCDF	0.70	-----	0.28	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.31		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	11	-----	0.28		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.0	-----	0.31	J	2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	2.4	-----	0.38	J			
1,2,3,7,8,9-HxCDD	2.0	-----	0.37	J			
Total HxCDD	18	-----	0.31				
1,2,3,4,6,7,8-HpCDF	11	-----	0.29		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.79	-----	0.35	J	Equivalence: 2.2 ng/Kg		
Total HpCDF	25	-----	0.29		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	69	-----	0.28				
Total HpCDD	120	-----	0.28				
OCDF	20	-----	0.89				
OCDD	890	-----	0.78				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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B = Less than 10x higher than method blank level
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Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P9-3-4-062124		
Lab Sample ID	10697605026		
Filename	L241016A_13		
Injected By	JF		
Total Amount Extracted	12.8 g	Matrix	SOLID
% Moisture	8.7	Dilution	NA
Dry Weight Extracted	11.7 g	Collected	06/21/2024 08:22
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_02	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/16/2024 20:23

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.26	-----	0.23	J	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	1.8	-----	0.23		2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	ND	-----	0.22		2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	0.77	-----	0.22	J	1,2,3,7,8-PeCDD-13C	2.00	83
					1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,7,8-PeCDF	ND	-----	0.53		1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	-----	0.80		2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	-----	0.53		1,2,3,7,8,9-HxCDF-13C	2.00	70
					1,2,3,4,7,8-HxCDD-13C	2.00	74
1,2,3,7,8-PeCDD	ND	-----	0.70		1,2,3,6,7,8-HxCDD-13C	2.00	82
Total PeCDD	ND	-----	0.70		1,2,3,4,6,7,8-HpCDF-13C	2.00	62
					1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	-----	0.82		1,2,3,4,6,7,8-HpCDD-13C	2.00	66
1,2,3,6,7,8-HxCDF	ND	-----	0.87		OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	ND	-----	0.76				
1,2,3,7,8,9-HxCDF	ND	-----	0.79		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.76		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.4		2,3,7,8-TCDD-37Cl4	0.20	73
1,2,3,6,7,8-HxCDD	ND	-----	0.79				
1,2,3,7,8,9-HxCDD	ND	-----	1.1				
Total HxCDD	ND	-----	0.79				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.64		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.87		Equivalence: 0.037 ng/Kg		
Total HpCDF	ND	-----	0.64		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	0.80	-----	0.53	J			
Total HpCDD	0.80	-----	0.53	J			
OCDF	ND	-----	2.0				
OCDD	8.6	-----	1.7				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P10-1-2-062024		
Lab Sample ID	10697605028		
Filename	U240706A_14		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	SOLID
% Moisture	10.5	Dilution	NA
Dry Weight Extracted	12.2 g	Collected	06/20/2024 17:14
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 21:52

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.56	-----	0.18	J	2,3,7,8-TCDF-13C	2.00	75
Total TCDF	12	-----	0.18		2,3,7,8-TCDD-13C	2.00	64
					1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	7.8	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	79
					1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,7,8-PeCDF	0.24	-----	0.19	J	1,2,3,6,7,8-HxCDF-13C	2.00	69
2,3,4,7,8-PeCDF	0.63	-----	0.17	J	2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	8.4	-----	0.17		1,2,3,7,8,9-HxCDF-13C	2.00	71
					1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	0.32	-----	0.17	J	1,2,3,6,7,8-HxCDD-13C	2.00	65
Total PeCDD	3.9	-----	0.17	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
					1,2,3,4,7,8,9-HpCDF-13C	2.00	64
1,2,3,4,7,8-HxCDF	ND	-----	0.32		1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	-----	0.33		OCDD-13C	4.00	60
2,3,4,6,7,8-HxCDF	0.32	-----	0.29	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.32		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	3.1	-----	0.29	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.33	-----	0.31	J	2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	0.59	-----	0.39	J			
1,2,3,7,8,9-HxCDD	ND	-----	0.37				
Total HxCDD	9.2	-----	0.31				
1,2,3,4,6,7,8-HpCDF	1.1	-----	0.29	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.35		Equivalence: 0.84 ng/Kg		
Total HpCDF	3.1	-----	0.29	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	9.8	-----	0.28				
Total HpCDD	21	-----	0.28				
OCDF	2.9	-----	0.90	J			
OCDD	94	-----	0.79				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P10-3-4-062024		
Lab Sample ID	10697605029		
Filename	L241016A_14		
Injected By	JF		
Total Amount Extracted	15.3 g	Matrix	SOLID
% Moisture	10.0	Dilution	NA
Dry Weight Extracted	13.8 g	Collected	06/20/2024 17:14
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_02	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/16/2024 21:08

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.19		2,3,7,8-TCDF-13C	2.00	78
Total TCDF	0.19	-----	0.19	J	2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	ND	-----	0.18		2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	-----	0.18		1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	ND	-----	0.45		1,2,3,6,7,8-HxCDF-13C	2.00	73
2,3,4,7,8-PeCDF	ND	-----	0.68		2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	1.5	-----	0.45	J	1,2,3,7,8,9-HxCDF-13C	2.00	70
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.60		1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD	1.7	-----	0.60	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	54
					1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	-----	0.69		1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	-----	0.74		OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	ND	-----	0.65				
1,2,3,7,8,9-HxCDF	ND	-----	0.67		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	8.5	-----	0.65		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.2		2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	3.6	-----	0.67	J			
1,2,3,7,8,9-HxCDD	ND	-----	0.90				
Total HxCDD	31	-----	0.67				
1,2,3,4,6,7,8-HpCDF	21	-----	0.54		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	1.3	-----	0.74	J	Equivalence: 2.5 ng/Kg		
Total HpCDF	85	-----	0.54		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	130	-----	0.45				
Total HpCDD	270	-----	0.45				
OCDF	100	-----	1.7				
OCDD	1800	-----	1.4				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P11-7-8-062024		
Lab Sample ID	10697605031		
Filename	U240706A_15		
Injected By	JRH		
Total Amount Extracted	15.0 g	Matrix	SOLID
% Moisture	19.7	Dilution	NA
Dry Weight Extracted	12.0 g	Collected	06/20/2024 16:45
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 22:39

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.18		2,3,7,8-TCDF-13C	2.00	82
Total TCDF	ND	-----	0.18		2,3,7,8-TCDD-13C	2.00	74
					1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	90
Total TCDD	ND	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	85
					1,2,3,4,7,8-HxCDF-13C	2.00	78
1,2,3,7,8-PeCDF	ND	-----	0.19		1,2,3,6,7,8-HxCDF-13C	2.00	79
2,3,4,7,8-PeCDF	ND	-----	0.17		2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	0.23	-----	0.17	J	1,2,3,7,8,9-HxCDF-13C	2.00	81
					1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	-----	0.17		1,2,3,6,7,8-HxCDD-13C	2.00	76
Total PeCDD	ND	-----	0.17		1,2,3,4,6,7,8-HpCDF-13C	2.00	70
					1,2,3,4,7,8,9-HpCDF-13C	2.00	74
1,2,3,4,7,8-HxCDF	ND	-----	0.33		1,2,3,4,6,7,8-HpCDD-13C	2.00	82
1,2,3,6,7,8-HxCDF	ND	-----	0.33		OCDD-13C	4.00	73
2,3,4,6,7,8-HxCDF	ND	-----	0.29				
1,2,3,7,8,9-HxCDF	ND	-----	0.32		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.39	-----	0.29	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.32		2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	ND	-----	0.39				
1,2,3,7,8,9-HxCDD	ND	-----	0.38				
Total HxCDD	ND	-----	0.32				
1,2,3,4,6,7,8-HpCDF	0.87	-----	0.29	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.36		Equivalence: 0.067 ng/Kg		
Total HpCDF	3.0	-----	0.29	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	4.2	-----	0.28				
Total HpCDD	7.1	-----	0.28				
OCDF	3.9	-----	0.91	J			
OCDD	48	-----	0.80				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Minneapolis, MN 55414

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Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P12-5-6-062024		
Lab Sample ID	10697605034		
Filename	U240706A_16		
Injected By	JRH		
Total Amount Extracted	12.4 g	Matrix	SOLID
% Moisture	19.3	Dilution	NA
Dry Weight Extracted	9.97 g	Collected	06/20/2024 16:15
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240706A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 23:27

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.22		2,3,7,8-TCDF-13C	2.00	69
Total TCDF	0.51	-----	0.22	J	2,3,7,8-TCDD-13C	2.00	56
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	0.36	-----	0.19	BJ	1,2,3,7,8-PeCDD-13C	2.00	73
					1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	ND	-----	0.23		1,2,3,6,7,8-HxCDF-13C	2.00	62
2,3,4,7,8-PeCDF	ND	-----	0.21		2,3,4,6,7,8-HxCDF-13C	2.00	62
Total PeCDF	1.7	-----	0.21	J	1,2,3,7,8,9-HxCDF-13C	2.00	63
					1,2,3,4,7,8-HxCDD-13C	2.00	51
1,2,3,7,8-PeCDD	0.25	-----	0.20	J	1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	0.49	-----	0.20	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	52
					1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	-----	0.39		1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	-----	0.40		OCDD-13C	4.00	52
2,3,4,6,7,8-HxCDF	0.37	-----	0.35	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.39		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	6.2	-----	0.35		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	-----	0.44	0.38	JI	2,3,7,8-TCDD-37Cl4	0.20	62
1,2,3,6,7,8-HxCDD	1.0	-----	0.47	J			
1,2,3,7,8,9-HxCDD	0.61	-----	0.45	J			
Total HxCDD	8.2	-----	0.38				
1,2,3,4,6,7,8-HpCDF	4.9	-----	0.35	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.43		Equivalence: 0.82 ng/Kg		
Total HpCDF	14	-----	0.35		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	21	-----	0.34				
Total HpCDD	40	-----	0.34				
OCDF	13	-----	1.1				
OCDD	220	-----	0.96				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value
B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P12-7-8-062024		
Lab Sample ID	10697605035		
Filename	L241016A_15		
Injected By	JF		
Total Amount Extracted	13.7 g	Matrix	SOLID
% Moisture	17.4	Dilution	NA
Dry Weight Extracted	11.3 g	Collected	06/20/2024 16:15
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_02	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/16/2024 21:54

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.23		2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	-----	0.23		2,3,7,8-TCDD-13C	2.00	66
					1,2,3,7,8-PeCDF-13C	2.00	71
2,3,7,8-TCDD	ND	-----	0.22		2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	0.24	-----	0.22	J	1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	ND	-----	0.55		1,2,3,6,7,8-HxCDF-13C	2.00	73
2,3,4,7,8-PeCDF	ND	-----	0.83		2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	-----	0.55		1,2,3,7,8,9-HxCDF-13C	2.00	66
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.73		1,2,3,6,7,8-HxCDD-13C	2.00	80
Total PeCDD	ND	-----	0.73		1,2,3,4,6,7,8-HpCDF-13C	2.00	55
					1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	ND	-----	0.85		1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	-----	0.90		OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	ND	-----	0.79				
1,2,3,7,8,9-HxCDF	ND	-----	0.81		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.79		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.4		2,3,7,8-TCDD-37Cl4	0.20	67
1,2,3,6,7,8-HxCDD	ND	-----	0.82				
1,2,3,7,8,9-HxCDD	ND	-----	1.1				
Total HxCDD	2.5	-----	0.82	J			
1,2,3,4,6,7,8-HpCDF	1.8	-----	0.66	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.90		Equivalence: 0.13 ng/Kg		
Total HpCDF	1.8	-----	0.66	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	7.8	-----	0.55				
Total HpCDD	15	-----	0.55				
OCDF	7.3	-----	2.0	J			
OCDD	91	-----	1.8				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P12-9-10-062024		
Lab Sample ID	10697605036		
Filename	L241016A_16		
Injected By	JF		
Total Amount Extracted	19.7 g	Matrix	SOLID
% Moisture	20.2	Dilution	NA
Dry Weight Extracted	15.7 g	Collected	06/20/2024 16:15
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_02	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/16/2024 22:39

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.17		2,3,7,8-TCDF-13C	2.00	73
Total TCDF	3.7	-----	0.17		2,3,7,8-TCDD-13C	2.00	66
					1,2,3,7,8-PeCDF-13C	2.00	70
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	4.1	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	75
					1,2,3,4,7,8-HxCDF-13C	2.00	71
1,2,3,7,8-PeCDF	ND	-----	0.40		1,2,3,6,7,8-HxCDF-13C	2.00	73
2,3,4,7,8-PeCDF	ND	-----	0.60		2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	32	-----	0.40		1,2,3,7,8,9-HxCDF-13C	2.00	66
					1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	-----	0.53		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	28	-----	0.53		1,2,3,4,6,7,8-HpCDF-13C	2.00	49
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49
1,2,3,4,7,8-HxCDF	1.3	-----	0.61	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	1.4	-----	0.65	J	OCDD-13C	4.00	31
2,3,4,6,7,8-HxCDF	2.0	-----	0.57	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.59		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	42	-----	0.57		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.1	-----	1.0	J	2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	6.6	-----	0.59				
1,2,3,7,8,9-HxCDD	1.7	-----	0.79	J			
Total HxCDD	170	-----	0.59				
1,2,3,4,6,7,8-HpCDF	110	-----	0.48		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	4.1	-----	0.65		Equivalence: 7.2 ng/Kg		
Total HpCDF	370	-----	0.48		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	310	-----	0.40				
Total HpCDD	620	-----	0.40				
OCDF	520	-----	1.5				
OCDD	4500	-----	1.3				

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P13-3-4-062024		
Lab Sample ID	10697605037		
Filename	L240706A_05		
Injected By	JRH		
Total Amount Extracted	13.3 g	Matrix	SOLID
% Moisture	14.0	Dilution	NA
Dry Weight Extracted	11.4 g	Collected	06/20/2024 14:56
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240705B_15	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 14:28

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.23	-----	0.19	J	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	3.0	-----	0.19		2,3,7,8-TCDD-13C	2.00	66
					1,2,3,7,8-PeCDF-13C	2.00	70
2,3,7,8-TCDD	ND	-----	0.17		2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	0.25	-----	0.17	BJ	1,2,3,7,8-PeCDD-13C	2.00	74
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	-----	0.20		1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	ND	-----	0.18		2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	0.72	-----	0.18	J	1,2,3,7,8,9-HxCDF-13C	2.00	71
					1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	ND	-----	0.18		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	0.18		1,2,3,4,6,7,8-HpCDF-13C	2.00	69
					1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	-----	0.34		1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	-----	0.35		OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	ND	-----	0.30				
1,2,3,7,8,9-HxCDF	ND	-----	0.34		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.30		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.33		2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	ND	-----	0.41				
1,2,3,7,8,9-HxCDD	ND	-----	0.40				
Total HxCDD	0.54	-----	0.33	J			
1,2,3,4,6,7,8-HpCDF	-----	0.77	0.31	JI	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.38		Equivalence: 0.096 ng/Kg		
Total HpCDF	1.9	-----	0.31	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	4.7	-----	0.30				
Total HpCDD	8.8	-----	0.30				
OCDF	4.1	-----	0.95	J			
OCDD	58	-----	0.84				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P14-1-2-062024		
Lab Sample ID	10697605040		
Filename	L240715A_03		
Injected By	JF		
Total Amount Extracted	13.4 g	Matrix	SOLID
% Moisture	13.4	Dilution	NA
Dry Weight Extracted	11.6 g	Collected	06/20/2024 13:16
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240714A_18	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/15/2024 03:04

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	3.4	-----	0.72	A	2,3,7,8-TCDF-13C	2.00	26	
Total TCDF	9.9	-----	0.72		2,3,7,8-TCDD-13C	2.00	25	
					1,2,3,7,8-PeCDF-13C	2.00	34	
2,3,7,8-TCDD	ND	-----	0.87	A	2,3,4,7,8-PeCDF-13C	2.00	34	
Total TCDD	24	-----	0.87		1,2,3,7,8-PeCDD-13C	2.00	37	
					1,2,3,4,7,8-HxCDF-13C	2.00	37	
1,2,3,7,8-PeCDF	-----	1.9	0.53	JIA	1,2,3,6,7,8-HxCDF-13C	2.00	30	
2,3,4,7,8-PeCDF	2.1	-----	0.44	JA	2,3,4,6,7,8-HxCDF-13C	2.00	26	R
Total PeCDF	7.0	-----	0.44		1,2,3,7,8,9-HxCDF-13C	2.00	29	
					1,2,3,4,7,8-HxCDD-13C	2.00	36	
1,2,3,7,8-PeCDD	2.9	-----	0.34	JA	1,2,3,6,7,8-HxCDD-13C	2.00	29	
Total PeCDD	72	-----	0.34		1,2,3,4,6,7,8-HpCDF-13C	2.00	24	R
					1,2,3,4,7,8,9-HpCDF-13C	2.00	48	
1,2,3,4,7,8-HxCDF	1.4	-----	0.34	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	40	
1,2,3,6,7,8-HxCDF	1.6	-----	0.35	J	OCDD-13C	4.00	22	
2,3,4,6,7,8-HxCDF	1.7	-----	0.43	JA				
1,2,3,7,8,9-HxCDF	ND	-----	0.53	A	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	14	-----	0.34		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	3.2	-----	0.33	J	2,3,7,8-TCDD-37Cl4	0.20	43	
1,2,3,6,7,8-HxCDD	4.9	-----	0.41					
1,2,3,7,8,9-HxCDD	3.8	-----	0.39	J				
Total HxCDD	140	-----	0.33					
1,2,3,4,6,7,8-HpCDF	5.2	-----	0.50	A	Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	0.37		Equivalence: 6.0 ng/Kg			
Total HpCDF	7.7	-----	0.37		(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	30	-----	0.38	A				
Total HpCDD	59	-----	0.38					
OCDF	8.4	-----	0.94	J				
OCDD	83	-----	0.83					

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
R = Recovery outside target range
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P14-3-4-062024		
Lab Sample ID	10697605041		
Filename	U240730B_08		
Injected By	SMT		
Total Amount Extracted	20.8 g	Matrix	SOLID
% Moisture	22.1	Dilution	NA
Dry Weight Extracted	16.2 g	Collected	06/20/2024 13:16
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240730B_02	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 03:25

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.16		2,3,7,8-TCDF-13C	2.00	80
Total TCDF	ND	-----	0.16		2,3,7,8-TCDD-13C	2.00	70
					1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	73
Total TCDD	ND	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	76
					1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,7,8-PeCDF	ND	-----	0.38		1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	ND	-----	0.58		2,3,4,6,7,8-HxCDF-13C	2.00	74
Total PeCDF	ND	-----	0.38		1,2,3,7,8,9-HxCDF-13C	2.00	68
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.51		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	0.51		1,2,3,4,6,7,8-HpCDF-13C	2.00	55
					1,2,3,4,7,8,9-HpCDF-13C	2.00	53
1,2,3,4,7,8-HxCDF	ND	-----	0.59		1,2,3,4,6,7,8-HpCDD-13C	2.00	62
1,2,3,6,7,8-HxCDF	ND	-----	0.63		OCDD-13C	4.00	42
2,3,4,6,7,8-HxCDF	ND	-----	0.55				
1,2,3,7,8,9-HxCDF	ND	-----	0.57		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.55		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.99		2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	-----	0.57				
1,2,3,7,8,9-HxCDD	ND	-----	0.76				
Total HxCDD	ND	-----	0.57				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.46		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.63		Equivalence: 0.016 ng/Kg		
Total HpCDF	ND	-----	0.46		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	1.3	0.38	JI			
Total HpCDD	1.6	-----	0.38	J			
OCDF	ND	-----	1.4				
OCDD	13	-----	1.2				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value
I = Isotope ratio out of specification

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Tel: 612-607-1700
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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P15-1-2-062024		
Lab Sample ID	10697605043		
Filename	L240709A_10		
Injected By	SMT		
Total Amount Extracted	11.2 g	Matrix	SOLID
% Moisture	15.7	Dilution	5
Dry Weight Extracted	9.40 g	Collected	06/20/2024 12:50
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240708A_19	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/09/2024 08:32

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	3.0	-----	1.2	D	2,3,7,8-TCDF-13C	2.00	58	D
Total TCDF	70	-----	1.2	D	2,3,7,8-TCDD-13C	2.00	60	D
					1,2,3,7,8-PeCDF-13C	2.00	64	D
2,3,7,8-TCDD	ND	-----	1.0	D	2,3,4,7,8-PeCDF-13C	2.00	57	D
Total TCDD	68	-----	1.0	D	1,2,3,7,8-PeCDD-13C	2.00	65	D
					1,2,3,4,7,8-HxCDF-13C	2.00	69	D
1,2,3,7,8-PeCDF	-----	1.4	1.2	JID	1,2,3,6,7,8-HxCDF-13C	2.00	64	D
2,3,4,7,8-PeCDF	-----	1.5	1.1	JID	2,3,4,6,7,8-HxCDF-13C	2.00	47	D
Total PeCDF	9.7	-----	1.1	JD	1,2,3,7,8,9-HxCDF-13C	2.00	29	D
					1,2,3,4,7,8-HxCDD-13C	2.00	45	D
1,2,3,7,8-PeCDD	ND	-----	1.1	D	1,2,3,6,7,8-HxCDD-13C	2.00	58	D
Total PeCDD	37	-----	1.1	D	1,2,3,4,6,7,8-HpCDF-13C	2.00	44	D
					1,2,3,4,7,8,9-HpCDF-13C	2.00	45	D
1,2,3,4,7,8-HxCDF	ND	-----	2.1	D	1,2,3,4,6,7,8-HpCDD-13C	2.00	44	D
1,2,3,6,7,8-HxCDF	ND	-----	2.1	D	OCDD-13C	4.00	22	D
2,3,4,6,7,8-HxCDF	ND	-----	1.8	D				
1,2,3,7,8,9-HxCDF	ND	-----	2.0	D	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	7.8	-----	1.8	JD	1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	2.0	D	2,3,7,8-TCDD-37Cl4	0.20	78	D
1,2,3,6,7,8-HxCDD	ND	-----	2.5	D				
1,2,3,7,8,9-HxCDD	ND	-----	2.4	D				
Total HxCDD	60	-----	2.0	D				
1,2,3,4,6,7,8-HpCDF	3.9	-----	1.9	JD	Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	2.3	D	Equivalence: 1.0 ng/Kg			
Total HpCDF	3.9	-----	1.9	JD	(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	17	-----	1.8	D				
Total HpCDD	66	-----	1.8	D				
OCDF	ND	-----	5.8	D				
OCDD	63	-----	5.1	D				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification
D = Result obtained from analysis of diluted sample

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P16-1-2-062024		
Lab Sample ID	10697605046		
Filename	L240706A_06		
Injected By	JRH		
Total Amount Extracted	13.8 g	Matrix	SOLID
% Moisture	37.8	Dilution	NA
Dry Weight Extracted	8.61 g	Collected	06/20/2024 13:57
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240705B_15	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 15:13

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.40	-----	0.26	J	2,3,7,8-TCDF-13C	2.00	81
Total TCDF	5.8	-----	0.26		2,3,7,8-TCDD-13C	2.00	78
					1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	0.22		2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	3.9	-----	0.22		1,2,3,7,8-PeCDD-13C	2.00	83
					1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	-----	0.55	0.26	JI	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	0.26	-----	0.24	J	2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	0.67	-----	0.24	J	1,2,3,7,8,9-HxCDF-13C	2.00	58
					1,2,3,4,7,8-HxCDD-13C	2.00	68
1,2,3,7,8-PeCDD	ND	-----	0.23		1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	1.9	-----	0.23	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	68
					1,2,3,4,7,8,9-HpCDF-13C	2.00	78
1,2,3,4,7,8-HxCDF	ND	-----	0.46		1,2,3,4,6,7,8-HpCDD-13C	2.00	72
1,2,3,6,7,8-HxCDF	ND	-----	0.47		OCDD-13C	4.00	48
2,3,4,6,7,8-HxCDF	ND	-----	0.40				
1,2,3,7,8,9-HxCDF	ND	-----	0.45		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.40		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.44		2,3,7,8-TCDD-37Cl4	0.20	77
1,2,3,6,7,8-HxCDD	ND	-----	0.54				
1,2,3,7,8,9-HxCDD	ND	-----	0.53				
Total HxCDD	2.5	-----	0.44	J			
1,2,3,4,6,7,8-HpCDF	1.2	-----	0.41	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.50		Equivalence: 0.22 ng/Kg		
Total HpCDF	2.8	-----	0.41	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	5.4	-----	0.39	J			
Total HpCDD	10	-----	0.39				
OCDF	2.4	-----	1.3	J			
OCDD	54	-----	1.1				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P17-3-4-062024		
Lab Sample ID	10697605049		
Filename	L240709A_09		
Injected By	SMT		
Total Amount Extracted	13.8 g	Matrix	SOLID
% Moisture	21.3	Dilution	NA
Dry Weight Extracted	10.8 g	Collected	06/20/2024 15:27
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240708A_19	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/09/2024 07:47

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.63	-----	0.20	J	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	10	-----	0.20		2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	ND	-----	0.18		2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	2.6	-----	0.18	B	1,2,3,7,8-PeCDD-13C	2.00	70
					1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	0.29	-----	0.21	J	1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	-----	0.20	0.19	JI	2,3,4,6,7,8-HxCDF-13C	2.00	80
Total PeCDF	1.8	-----	0.19	J	1,2,3,7,8,9-HxCDF-13C	2.00	74
					1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	-----	0.19		1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	1.3	-----	0.19	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	63
					1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	-----	0.36		1,2,3,4,6,7,8-HpCDD-13C	2.00	60
1,2,3,6,7,8-HxCDF	ND	-----	0.37		OCDD-13C	4.00	37
2,3,4,6,7,8-HxCDF	ND	-----	0.32				
1,2,3,7,8,9-HxCDF	ND	-----	0.35		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.33	-----	0.32	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.35		2,3,7,8-TCDD-37Cl4	0.20	66
1,2,3,6,7,8-HxCDD	ND	-----	0.43				
1,2,3,7,8,9-HxCDD	ND	-----	0.42				
Total HxCDD	ND	-----	0.35				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.32		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.40		Equivalence: 0.15 ng/Kg		
Total HpCDF	ND	-----	0.32		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	1.1	-----	0.31	J			
Total HpCDD	1.1	-----	0.31	J			
OCDF	ND	-----	1.0				
OCDD	13	-----	0.88				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P17-5-6-062024		
Lab Sample ID	10697605050		
Filename	L241016B_03		
Injected By	JF		
Total Amount Extracted	20.3 g	Matrix	SOLID
% Moisture	16.5	Dilution	NA
Dry Weight Extracted	17.0 g	Collected	06/20/2024 15:27
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 02:26

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.16		2,3,7,8-TCDF-13C	2.00	57
Total TCDF	0.43	-----	0.16	J	2,3,7,8-TCDD-13C	2.00	50
					1,2,3,7,8-PeCDF-13C	2.00	54
2,3,7,8-TCDD	ND	-----	0.15		2,3,4,7,8-PeCDF-13C	2.00	54
Total TCDD	0.25	-----	0.15	J	1,2,3,7,8-PeCDD-13C	2.00	58
					1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	ND	-----	0.37		1,2,3,6,7,8-HxCDF-13C	2.00	56
2,3,4,7,8-PeCDF	ND	-----	0.55		2,3,4,6,7,8-HxCDF-13C	2.00	52
Total PeCDF	0.68	-----	0.37	J	1,2,3,7,8,9-HxCDF-13C	2.00	50
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	ND	-----	0.49		1,2,3,6,7,8-HxCDD-13C	2.00	59
Total PeCDD	ND	-----	0.49		1,2,3,4,6,7,8-HpCDF-13C	2.00	40
					1,2,3,4,7,8,9-HpCDF-13C	2.00	37
1,2,3,4,7,8-HxCDF	ND	-----	0.56		1,2,3,4,6,7,8-HpCDD-13C	2.00	42
1,2,3,6,7,8-HxCDF	ND	-----	0.60		OCDD-13C	4.00	22
2,3,4,6,7,8-HxCDF	ND	-----	0.53				
1,2,3,7,8,9-HxCDF	ND	-----	0.54		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1.1	-----	0.53	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.95		2,3,7,8-TCDD-37Cl4	0.20	53
1,2,3,6,7,8-HxCDD	ND	-----	0.55				
1,2,3,7,8,9-HxCDD	ND	-----	0.73				
Total HxCDD	0.85	-----	0.55	J			
1,2,3,4,6,7,8-HpCDF	1.3	-----	0.44	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.60		Equivalence: 0.10 ng/Kg		
Total HpCDF	3.7	-----	0.44		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	6.8	-----	0.37				
Total HpCDD	13	-----	0.37				
OCDF	2.4	-----	1.4	J			
OCDD	72	-----	1.2				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P17-7-8-062024		
Lab Sample ID	10697605051		
Filename	L241016B_04		
Injected By	JF		
Total Amount Extracted	18.4 g	Matrix	SOLID
% Moisture	18.8	Dilution	NA
Dry Weight Extracted	15.0 g	Collected	06/20/2024 15:27
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 03:12

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.18		2,3,7,8-TCDF-13C	2.00	92
Total TCDF	ND	-----	0.18		2,3,7,8-TCDD-13C	2.00	81
					1,2,3,7,8-PeCDF-13C	2.00	88
2,3,7,8-TCDD	ND	-----	0.17		2,3,4,7,8-PeCDF-13C	2.00	89
Total TCDD	ND	-----	0.17		1,2,3,7,8-PeCDD-13C	2.00	96
					1,2,3,4,7,8-HxCDF-13C	2.00	90
1,2,3,7,8-PeCDF	ND	-----	0.41		1,2,3,6,7,8-HxCDF-13C	2.00	90
2,3,4,7,8-PeCDF	ND	-----	0.63		2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	-----	0.41		1,2,3,7,8,9-HxCDF-13C	2.00	83
					1,2,3,4,7,8-HxCDD-13C	2.00	83
1,2,3,7,8-PeCDD	ND	-----	0.55		1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	ND	-----	0.55		1,2,3,4,6,7,8-HpCDF-13C	2.00	66
					1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	-----	0.64		1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	-----	0.68		OCDD-13C	4.00	37
2,3,4,6,7,8-HxCDF	ND	-----	0.60				
1,2,3,7,8,9-HxCDF	ND	-----	0.61		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.60		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.1		2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	-----	0.62				
1,2,3,7,8,9-HxCDD	ND	-----	0.83				
Total HxCDD	ND	-----	0.62				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.50		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.68		Equivalence: 0.00039 ng/Kg		
Total HpCDF	ND	-----	0.50		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.42				
Total HpCDD	ND	-----	0.42				
OCDF	ND	-----	1.5				
OCDD	1.3	-----	1.3	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P18-7-8-061924		
Lab Sample ID	10697605052		
Filename	L240706A_08		
Injected By	JRH		
Total Amount Extracted	16.9 g	Matrix	SOLID
% Moisture	24.8	Dilution	NA
Dry Weight Extracted	12.7 g	Collected	06/19/2024 15:55
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240705B_15	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 16:43

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.93	-----	0.17		2,3,7,8-TCDF-13C	2.00	60
Total TCDF	5.6	-----	0.17		2,3,7,8-TCDD-13C	2.00	49
					1,2,3,7,8-PeCDF-13C	2.00	55
2,3,7,8-TCDD	ND	-----	0.15		2,3,4,7,8-PeCDF-13C	2.00	59
Total TCDD	ND	-----	0.15		1,2,3,7,8-PeCDD-13C	2.00	60
					1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	2.2	-----	0.18	J	1,2,3,6,7,8-HxCDF-13C	2.00	61
2,3,4,7,8-PeCDF	4.6	-----	0.16		2,3,4,6,7,8-HxCDF-13C	2.00	59
Total PeCDF	41	-----	0.16		1,2,3,7,8,9-HxCDF-13C	2.00	56
					1,2,3,4,7,8-HxCDD-13C	2.00	54
1,2,3,7,8-PeCDD	ND	-----	0.16		1,2,3,6,7,8-HxCDD-13C	2.00	63
Total PeCDD	0.50	-----	0.16	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	58
					1,2,3,4,7,8,9-HpCDF-13C	2.00	61
1,2,3,4,7,8-HxCDF	8.3	-----	0.31		1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	1.9	-----	0.32	J	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	3.4	-----	0.27	J			
1,2,3,7,8,9-HxCDF	-----	4.2	0.30	I	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	76	-----	0.27		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.30		2,3,7,8-TCDD-37Cl4	0.20	55
1,2,3,6,7,8-HxCDD	17	-----	0.37				
1,2,3,7,8,9-HxCDD	1.3	-----	0.35	J			
Total HxCDD	50	-----	0.30				
1,2,3,4,6,7,8-HpCDF	60	-----	0.27		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	2.9	-----	0.34	J	Equivalence: 12 ng/Kg		
Total HpCDF	63	-----	0.27		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	460	-----	0.27				
Total HpCDD	690	-----	0.27				
OCDF	140	-----	0.86				
OCDD	5700	-----	0.75				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P18-9-10-061924		
Lab Sample ID	10697605053		
Filename	U240730B_09		
Injected By	SMT		
Total Amount Extracted	21.8 g	Matrix	SOLID
% Moisture	22.2	Dilution	NA
Dry Weight Extracted	16.9 g	Collected	06/19/2024 15:55
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240730B_02	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 04:13

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	12	-----	0.16		2,3,7,8-TCDF-13C	2.00	92
Total TCDF	69	-----	0.16		2,3,7,8-TCDD-13C	2.00	82
					1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	-----	0.15		2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	5.2	-----	0.15		1,2,3,7,8-PeCDD-13C	2.00	88
					1,2,3,4,7,8-HxCDF-13C	2.00	96
1,2,3,7,8-PeCDF	33	-----	0.37		1,2,3,6,7,8-HxCDF-13C	2.00	95
2,3,4,7,8-PeCDF	70	-----	0.55		2,3,4,6,7,8-HxCDF-13C	2.00	93
Total PeCDF	660	-----	0.37		1,2,3,7,8,9-HxCDF-13C	2.00	85
					1,2,3,4,7,8-HxCDD-13C	2.00	85
1,2,3,7,8-PeCDD	0.94	-----	0.49	J	1,2,3,6,7,8-HxCDD-13C	2.00	95
Total PeCDD	13	-----	0.49		1,2,3,4,6,7,8-HpCDF-13C	2.00	68
					1,2,3,4,7,8,9-HpCDF-13C	2.00	70
1,2,3,4,7,8-HxCDF	93	-----	0.57		1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	28	-----	0.60		OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	44	-----	0.53				
1,2,3,7,8,9-HxCDF	53	-----	0.54		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2200	-----	0.53		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	2.9	-----	0.95	J	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	260	-----	0.55				
1,2,3,7,8,9-HxCDD	23	-----	0.73				
Total HxCDD	810	-----	0.55				
1,2,3,4,6,7,8-HpCDF	890	-----	0.75	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	54	-----	0.95	A	Equivalence: 190 ng/Kg		
Total HpCDF	3000	-----	0.75	E	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	6800	-----	0.37	E			
Total HpCDD	12000	-----	0.37	E			
OCDF	1800	-----	1.4				
OCDD	130000	-----	24	DN2			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
E = Exceeds calibration range
D = Result obtained from analysis of diluted sample
Nn = Value obtained from additional analysis

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P18-12-13-061924		
Lab Sample ID	10697605054		
Filename	U240818A_08		
Injected By	JRH		
Total Amount Extracted	16.3 g	Matrix	SOLID
% Moisture	22.4	Dilution	NA
Dry Weight Extracted	12.7 g	Collected	06/19/2024 15:55
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240817A_18	Extracted	08/13/2024 14:00
Method Blank ID	BLANK-114231	Analyzed	08/18/2024 06:03

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.21		2,3,7,8-TCDF-13C	2.00	44
Total TCDF	ND	-----	0.21		2,3,7,8-TCDD-13C	2.00	41
					1,2,3,7,8-PeCDF-13C	2.00	46
2,3,7,8-TCDD	ND	-----	0.20		2,3,4,7,8-PeCDF-13C	2.00	49
Total TCDD	ND	-----	0.20		1,2,3,7,8-PeCDD-13C	2.00	51
					1,2,3,4,7,8-HxCDF-13C	2.00	40
1,2,3,7,8-PeCDF	ND	-----	0.49		1,2,3,6,7,8-HxCDF-13C	2.00	43
2,3,4,7,8-PeCDF	ND	-----	0.74		2,3,4,6,7,8-HxCDF-13C	2.00	41
Total PeCDF	2.0	-----	0.49	J	1,2,3,7,8,9-HxCDF-13C	2.00	40
					1,2,3,4,7,8-HxCDD-13C	2.00	37
1,2,3,7,8-PeCDD	ND	-----	0.65		1,2,3,6,7,8-HxCDD-13C	2.00	43
Total PeCDD	ND	-----	0.65		1,2,3,4,6,7,8-HpCDF-13C	2.00	33
					1,2,3,4,7,8,9-HpCDF-13C	2.00	35
1,2,3,4,7,8-HxCDF	ND	-----	0.76		1,2,3,4,6,7,8-HpCDD-13C	2.00	42
1,2,3,6,7,8-HxCDF	ND	-----	0.81		OCDD-13C	4.00	29
2,3,4,6,7,8-HxCDF	ND	-----	0.71				
1,2,3,7,8,9-HxCDF	ND	-----	0.73		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1.9	-----	0.71	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.3		2,3,7,8-TCDD-37Cl4	0.20	69
1,2,3,6,7,8-HxCDD	0.91	-----	0.74	J			
1,2,3,7,8,9-HxCDD	ND	-----	0.98				
Total HxCDD	0.91	-----	0.74	J			
1,2,3,4,6,7,8-HpCDF	3.6	-----	0.59	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.81		Equivalence: 0.45 ng/Kg		
Total HpCDF	13	-----	0.59		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	24	-----	0.49				
Total HpCDD	40	-----	0.49				
OCDF	7.2	-----	1.8	J			
OCDD	280	-----	1.6				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P19-3-4-061924		
Lab Sample ID	10697605055		
Filename	L240706A_09		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	SOLID
% Moisture	24.7	Dilution	NA
Dry Weight Extracted	10.3 g	Collected	06/19/2024 15:19
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240705B_15	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113598	Analyzed	07/06/2024 17:28

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	-----	0.24	0.22	PJ	2,3,7,8-TCDF-13C	2.00	82
Total TCDF	1.6	-----	0.22		2,3,7,8-TCDD-13C	2.00	73
					1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	0.55	-----	0.19	BJ	1,2,3,7,8-PeCDD-13C	2.00	83
					1,2,3,4,7,8-HxCDF-13C	2.00	89
1,2,3,7,8-PeCDF	-----	0.39	0.22	JI	1,2,3,6,7,8-HxCDF-13C	2.00	89
2,3,4,7,8-PeCDF	ND	-----	0.20		2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF	ND	-----	0.20		1,2,3,7,8,9-HxCDF-13C	2.00	83
					1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	ND	-----	0.20		1,2,3,6,7,8-HxCDD-13C	2.00	92
Total PeCDD	ND	-----	0.20		1,2,3,4,6,7,8-HpCDF-13C	2.00	84
					1,2,3,4,7,8,9-HpCDF-13C	2.00	95
1,2,3,4,7,8-HxCDF	ND	-----	0.38		1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	-----	0.39		OCDD-13C	4.00	61
2,3,4,6,7,8-HxCDF	ND	-----	0.34				
1,2,3,7,8,9-HxCDF	ND	-----	0.37		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.34		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.37		2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	ND	-----	0.46				
1,2,3,7,8,9-HxCDD	ND	-----	0.44				
Total HxCDD	ND	-----	0.37				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.34		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.42		Equivalence: 0.080 ng/Kg		
Total HpCDF	0.35	-----	0.34	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	3.2	-----	0.33	J			
Total HpCDD	7.3	-----	0.33				
OCDF	ND	-----	1.1				
OCDD	43	-----	0.93				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
B = Less than 10x higher than method blank level
P = PCDE Interference
I = Isotope ratio out of specification

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Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P20-1-2-061924		
Lab Sample ID	10697605058		
Filename	U240708A_10		
Injected By	SMT		
Total Amount Extracted	12.5 g	Matrix	SOLID
% Moisture	5.2	Dilution	NA
Dry Weight Extracted	11.9 g	Collected	06/19/2024 16:50
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240708A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/08/2024 18:03

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.19		2,3,7,8-TCDF-13C	2.00	86
Total TCDF	2.0	-----	0.19		2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	95
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	95
Total TCDD	1.0	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	92
					1,2,3,4,7,8-HxCDF-13C	2.00	93
1,2,3,7,8-PeCDF	ND	-----	0.19		1,2,3,6,7,8-HxCDF-13C	2.00	89
2,3,4,7,8-PeCDF	ND	-----	0.17		2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	0.31	-----	0.17	J	1,2,3,7,8,9-HxCDF-13C	2.00	81
					1,2,3,4,7,8-HxCDD-13C	2.00	53
1,2,3,7,8-PeCDD	ND	-----	0.17		1,2,3,6,7,8-HxCDD-13C	2.00	80
Total PeCDD	0.53	-----	0.17	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	67
					1,2,3,4,7,8,9-HpCDF-13C	2.00	62
1,2,3,4,7,8-HxCDF	ND	-----	0.33		1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	ND	-----	0.34		OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	ND	-----	0.29				
1,2,3,7,8,9-HxCDF	ND	-----	0.32		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.33	-----	0.29	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.32		2,3,7,8-TCDD-37Cl4	0.20	77
1,2,3,6,7,8-HxCDD	ND	-----	0.39				
1,2,3,7,8,9-HxCDD	ND	-----	0.38				
Total HxCDD	0.93	-----	0.32	J			
1,2,3,4,6,7,8-HpCDF	0.51	-----	0.29	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.36		Equivalence: 0.031 ng/Kg		
Total HpCDF	1.3	-----	0.29	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	2.0	-----	0.28	J			
Total HpCDD	3.4	-----	0.28	J			
OCDF	0.95	-----	0.92	J			
OCDD	19	-----	0.80				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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NC = Not Calculated

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P21-1-2-061924		
Lab Sample ID	10697605061		
Filename	U240708A_11		
Injected By	SMT		
Total Amount Extracted	12.6 g	Matrix	SOLID
% Moisture	5.0	Dilution	NA
Dry Weight Extracted	12.0 g	Collected	06/19/2024 14:31
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240708A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/08/2024 18:51

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	-----	0.28	0.18	JI	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	2.9	-----	0.18		2,3,7,8-TCDD-13C	2.00	67
					1,2,3,7,8-PeCDF-13C	2.00	85
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	1.7	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	-----	0.19		1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	ND	-----	0.17		2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	0.85	-----	0.17	J	1,2,3,7,8,9-HxCDF-13C	2.00	69
					1,2,3,4,7,8-HxCDD-13C	2.00	47
1,2,3,7,8-PeCDD	ND	-----	0.17		1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	2.4	-----	0.17	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	56
					1,2,3,4,7,8,9-HpCDF-13C	2.00	56
1,2,3,4,7,8-HxCDF	ND	-----	0.33		1,2,3,4,6,7,8-HpCDD-13C	2.00	54
1,2,3,6,7,8-HxCDF	ND	-----	0.34		OCDD-13C	4.00	56
2,3,4,6,7,8-HxCDF	ND	-----	0.29				
1,2,3,7,8,9-HxCDF	ND	-----	0.32		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.34	-----	0.29	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.32		2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	ND	-----	0.39				
1,2,3,7,8,9-HxCDD	ND	-----	0.38				
Total HxCDD	1.7	-----	0.32	J			
1,2,3,4,6,7,8-HpCDF	0.31	-----	0.29	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.36		Equivalence: 0.042 ng/Kg		
Total HpCDF	0.31	-----	0.29	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	0.94	-----	0.28	J			
Total HpCDD	0.94	-----	0.28	J			
OCDF	ND	-----	0.91				
OCDD	5.9	-----	0.80	BJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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B = Less than 10x higher than method blank level
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P22-1-2-061924		
Lab Sample ID	10697605064		
Filename	U240708A_12		
Injected By	SMT		
Total Amount Extracted	14.0 g	Matrix	SOLID
% Moisture	20.4	Dilution	NA
Dry Weight Extracted	11.2 g	Collected	06/19/2024 14:16
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240708A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/08/2024 19:39

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.40	-----	0.20	J	2,3,7,8-TCDF-13C	2.00	78
Total TCDF	7.5	-----	0.20		2,3,7,8-TCDD-13C	2.00	64
					1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	-----	0.25	0.17	JI	2,3,4,7,8-PeCDF-13C	2.00	77
Total TCDD	18	-----	0.17		1,2,3,7,8-PeCDD-13C	2.00	76
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	0.27	-----	0.20	J	1,2,3,6,7,8-HxCDF-13C	2.00	76
2,3,4,7,8-PeCDF	-----	0.26	0.18	JI	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	3.2	-----	0.18	J	1,2,3,7,8,9-HxCDF-13C	2.00	63
					1,2,3,4,7,8-HxCDD-13C	2.00	52
1,2,3,7,8-PeCDD	0.70	-----	0.18	J	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	22	-----	0.18		1,2,3,4,6,7,8-HpCDF-13C	2.00	55
					1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	-----	0.35		1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	-----	0.36		OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	-----	0.31				
1,2,3,7,8,9-HxCDF	ND	-----	0.34		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1.3	-----	0.31	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	-----	0.80	0.34	JI	2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	1.4	-----	0.42	J			
1,2,3,7,8,9-HxCDD	0.90	-----	0.40	J			
Total HxCDD	25	-----	0.34				
1,2,3,4,6,7,8-HpCDF	0.89	-----	0.31	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.39		Equivalence: 1.5 ng/Kg		
Total HpCDF	1.6	-----	0.31	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	11	-----	0.30				
Total HpCDD	21	-----	0.30				
OCDF	ND	-----	0.98				
OCDD	56	-----	0.86				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
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J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P22-3-4-061924		
Lab Sample ID	10697605065		
Filename	L241016B_05		
Injected By	JF		
Total Amount Extracted	17.6 g	Matrix	SOLID
% Moisture	24.3	Dilution	NA
Dry Weight Extracted	13.3 g	Collected	06/19/2024 14:16
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 03:57

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.20		2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	-----	0.20		2,3,7,8-TCDD-13C	2.00	75
					1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	-----	0.19		1,2,3,7,8-PeCDD-13C	2.00	89
					1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	-----	0.47		1,2,3,6,7,8-HxCDF-13C	2.00	86
2,3,4,7,8-PeCDF	ND	-----	0.70		2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	ND	-----	0.47		1,2,3,7,8,9-HxCDF-13C	2.00	72
					1,2,3,4,7,8-HxCDD-13C	2.00	79
1,2,3,7,8-PeCDD	ND	-----	0.62		1,2,3,6,7,8-HxCDD-13C	2.00	87
Total PeCDD	ND	-----	0.62		1,2,3,4,6,7,8-HpCDF-13C	2.00	63
					1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	-----	0.72		1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	ND	-----	0.76		OCDD-13C	4.00	38
2,3,4,6,7,8-HxCDF	ND	-----	0.67				
1,2,3,7,8,9-HxCDF	ND	-----	0.69		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.67		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.2		2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	ND	-----	0.70				
1,2,3,7,8,9-HxCDD	ND	-----	0.93				
Total HxCDD	ND	-----	0.70				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.56		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.76		Equivalence: 0.018 ng/Kg		
Total HpCDF	0.83	-----	0.56	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	1.5	0.47	JI			
Total HpCDD	1.4	-----	0.47	J			
OCDF	ND	-----	1.7				
OCDD	12	-----	1.5				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P22-5-6-061924		
Lab Sample ID	10697605066		
Filename	L241016B_06		
Injected By	JF		
Total Amount Extracted	18.7 g	Matrix	SOLID
% Moisture	22.4	Dilution	NA
Dry Weight Extracted	14.5 g	Collected	06/19/2024 14:16
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 04:42

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.18		2,3,7,8-TCDF-13C	2.00	72
Total TCDF	0.98	-----	0.18		2,3,7,8-TCDD-13C	2.00	64
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.17		2,3,4,7,8-PeCDF-13C	2.00	69
Total TCDD	0.24	-----	0.17	J	1,2,3,7,8-PeCDD-13C	2.00	74
					1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	0.47	-----	0.43	J	1,2,3,6,7,8-HxCDF-13C	2.00	73
2,3,4,7,8-PeCDF	1.7	-----	0.65	J	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	9.1	-----	0.43		1,2,3,7,8,9-HxCDF-13C	2.00	65
					1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	-----	0.57		1,2,3,6,7,8-HxCDD-13C	2.00	73
Total PeCDD	ND	-----	0.57		1,2,3,4,6,7,8-HpCDF-13C	2.00	53
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49
1,2,3,4,7,8-HxCDF	2.6	-----	0.66	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	-----	0.70		OCDD-13C	4.00	33
2,3,4,6,7,8-HxCDF	1.1	-----	0.62	J			
1,2,3,7,8,9-HxCDF	1.3	-----	0.63	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	22	-----	0.62		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.1		2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	4.7	-----	0.64				
1,2,3,7,8,9-HxCDD	ND	-----	0.85				
Total HxCDD	17	-----	0.64				
1,2,3,4,6,7,8-HpCDF	26	-----	0.51		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	1.6	-----	0.70	J	Equivalence: 4.9 ng/Kg		
Total HpCDF	110	-----	0.51		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	200	-----	0.43				
Total HpCDD	380	-----	0.43				
OCDF	94	-----	1.6				
OCDD	3500	-----	1.4				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P23-5-6-061924		
Lab Sample ID	10697605067		
Filename	U240708A_13		
Injected By	SMT		
Total Amount Extracted	17.3 g	Matrix	SOLID
% Moisture	18.0	Dilution	NA
Dry Weight Extracted	14.2 g	Collected	06/19/2024 14:05
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240708A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/08/2024 20:26

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.3	-----	0.16		2,3,7,8-TCDF-13C	2.00	72
Total TCDF	34	-----	0.16		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.14		2,3,4,7,8-PeCDF-13C	2.00	50
Total TCDD	4.6	-----	0.14		1,2,3,7,8-PeCDD-13C	2.00	48
					1,2,3,4,7,8-HxCDF-13C	2.00	87
1,2,3,7,8-PeCDF	-----	5.9	0.16	P	1,2,3,6,7,8-HxCDF-13C	2.00	74
2,3,4,7,8-PeCDF	10	-----	0.15		2,3,4,6,7,8-HxCDF-13C	2.00	61
Total PeCDF	120	-----	0.15		1,2,3,7,8,9-HxCDF-13C	2.00	61
					1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	0.95	-----	0.14	J	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	15	-----	0.14		1,2,3,4,6,7,8-HpCDF-13C	2.00	48
					1,2,3,4,7,8,9-HpCDF-13C	2.00	34
1,2,3,4,7,8-HxCDF	65	-----	0.28		1,2,3,4,6,7,8-HpCDD-13C	2.00	46
1,2,3,6,7,8-HxCDF	9.9	-----	0.28		OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	18	-----	0.24				
1,2,3,7,8,9-HxCDF	8.6	-----	0.27		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	490	-----	0.24		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	12	-----	0.27		2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	270	-----	0.33				
1,2,3,7,8,9-HxCDD	28	-----	0.32				
Total HxCDD	1000	-----	0.27				
1,2,3,4,6,7,8-HpCDF	1600	-----	0.44	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	93	-----	0.80	A	Equivalence: 220 ng/Kg		
Total HpCDF	1800	-----	0.44		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	9100	-----	0.36	EA			
Total HpCDD	21000	-----	0.36	E			
OCDF	12000	-----	2.3	EA			
OCDD	220000	-----	6.7	EDN2			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
P = PCDE Interference
E = Exceeds calibration range
D = Result obtained from analysis of diluted sample
Nn = Value obtained from additional analysis

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Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P23-7-8-061924		
Lab Sample ID	10697605068		
Filename	L240731A_10		
Injected By	JF		
Total Amount Extracted	16.2 g	Matrix	SOLID
% Moisture	41.2	Dilution	NA
Dry Weight Extracted	9.55 g	Collected	06/19/2024 14:05
ICAL ID	L240716	Received	06/22/2024 09:00
CCal Filename(s)	L240730B_10	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 16:27

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.28		2,3,7,8-TCDF-13C	2.00	86
Total TCDF	ND	-----	0.28		2,3,7,8-TCDD-13C	2.00	86
					1,2,3,7,8-PeCDF-13C	2.00	92
2,3,7,8-TCDD	ND	-----	0.27		2,3,4,7,8-PeCDF-13C	2.00	92
Total TCDD	ND	-----	0.27		1,2,3,7,8-PeCDD-13C	2.00	112
					1,2,3,4,7,8-HxCDF-13C	2.00	97
1,2,3,7,8-PeCDF	ND	-----	0.65		1,2,3,6,7,8-HxCDF-13C	2.00	83
2,3,4,7,8-PeCDF	ND	-----	0.98		2,3,4,6,7,8-HxCDF-13C	2.00	87
Total PeCDF	ND	-----	0.65		1,2,3,7,8,9-HxCDF-13C	2.00	74
					1,2,3,4,7,8-HxCDD-13C	2.00	88
1,2,3,7,8-PeCDD	ND	-----	0.87		1,2,3,6,7,8-HxCDD-13C	2.00	85
Total PeCDD	ND	-----	0.87		1,2,3,4,6,7,8-HpCDF-13C	2.00	66
					1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	-----	1.0		1,2,3,4,6,7,8-HpCDD-13C	2.00	67
1,2,3,6,7,8-HxCDF	ND	-----	1.1		OCDD-13C	4.00	30
2,3,4,6,7,8-HxCDF	ND	-----	0.94				
1,2,3,7,8,9-HxCDF	ND	-----	0.96		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.94		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.7		2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	-----	0.98				
1,2,3,7,8,9-HxCDD	ND	-----	1.3				
Total HxCDD	ND	-----	0.98				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.78		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	1.1		Equivalence: 0.0019 ng/Kg		
Total HpCDF	ND	-----	0.78		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.65				
Total HpCDD	0.85	-----	0.65	J			
OCDF	ND	-----	2.4				
OCDD	6.3	-----	2.1	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P23-9-10-061924		
Lab Sample ID	10697605069		
Filename	L241016B_07		
Injected By	JF		
Total Amount Extracted	18.4 g	Matrix	SOLID
% Moisture	16.9	Dilution	NA
Dry Weight Extracted	15.3 g	Collected	06/19/2024 14:05
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 05:28

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.17		2,3,7,8-TCDF-13C	2.00	74
Total TCDF	ND	-----	0.17		2,3,7,8-TCDD-13C	2.00	65
					1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	ND	-----	0.17		2,3,4,7,8-PeCDF-13C	2.00	69
Total TCDD	ND	-----	0.17		1,2,3,7,8-PeCDD-13C	2.00	70
					1,2,3,4,7,8-HxCDF-13C	2.00	69
1,2,3,7,8-PeCDF	ND	-----	0.41		1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	ND	-----	0.61		2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	ND	-----	0.41		1,2,3,7,8,9-HxCDF-13C	2.00	64
					1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	ND	-----	0.54		1,2,3,6,7,8-HxCDD-13C	2.00	75
Total PeCDD	ND	-----	0.54		1,2,3,4,6,7,8-HpCDF-13C	2.00	48
					1,2,3,4,7,8,9-HpCDF-13C	2.00	46
1,2,3,4,7,8-HxCDF	ND	-----	0.63		1,2,3,4,6,7,8-HpCDD-13C	2.00	52
1,2,3,6,7,8-HxCDF	ND	-----	0.67		OCDD-13C	4.00	27
2,3,4,6,7,8-HxCDF	ND	-----	0.58				
1,2,3,7,8,9-HxCDF	ND	-----	0.60		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.58		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.1		2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	ND	-----	0.61				
1,2,3,7,8,9-HxCDD	ND	-----	0.81				
Total HxCDD	ND	-----	0.61				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.49		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.67		Equivalence: 0.0018 ng/Kg		
Total HpCDF	ND	-----	0.49		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.41				
Total HpCDD	ND	-----	0.41				
OCDF	ND	-----	1.5				
OCDD	6.1	-----	1.3	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P24-1-2-061924		
Lab Sample ID	10697605070		
Filename	L240712A_09		
Injected By	JF		
Total Amount Extracted	13.8 g	Matrix	SOLID
% Moisture	11.6	Dilution	NA
Dry Weight Extracted	12.2 g	Collected	06/19/2024 13:44
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240712A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/12/2024 14:35

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.4	-----	0.18		2,3,7,8-TCDF-13C	2.00	79
Total TCDF	20	-----	0.18		2,3,7,8-TCDD-13C	2.00	69
					1,2,3,7,8-PeCDF-13C	2.00	80
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD	16	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	-----	1.7	0.19	PJ	1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	0.67	-----	0.17	J	2,3,4,6,7,8-HxCDF-13C	2.00	72
Total PeCDF	6.3	-----	0.17		1,2,3,7,8,9-HxCDF-13C	2.00	50
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	0.67	-----	0.17	J	1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	10	-----	0.17		1,2,3,4,6,7,8-HpCDF-13C	2.00	64
					1,2,3,4,7,8,9-HpCDF-13C	2.00	79
1,2,3,4,7,8-HxCDF	0.47	-----	0.32	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	0.44	-----	0.33	J	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	0.32	-----	0.28	J			
1,2,3,7,8,9-HxCDF	ND	-----	0.32		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	6.8	-----	0.28		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	-----	0.60	0.31	JI	2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	0.96	-----	0.38	J			
1,2,3,7,8,9-HxCDD	0.62	-----	0.37	J			
Total HxCDD	19	-----	0.31				
1,2,3,4,6,7,8-HpCDF	3.4	-----	0.29	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.35		Equivalence: 1.6 ng/Kg		
Total HpCDF	8.7	-----	0.29		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	15	-----	0.28				
Total HpCDD	29	-----	0.28				
OCDF	7.6	-----	0.89	J			
OCDD	120	-----	0.78				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
P = PCDE Interference
I = Isotope ratio out of specification

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Tel: 612-607-1700
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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P24-3-4-061924		
Lab Sample ID	10697605071		
Filename	L241016B_08		
Injected By	JF		
Total Amount Extracted	16.7 g	Matrix	SOLID
% Moisture	34.0	Dilution	NA
Dry Weight Extracted	11.0 g	Collected	06/19/2024 13:44
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 06:13

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.24		2,3,7,8-TCDF-13C	2.00	79
Total TCDF	0.72	-----	0.24	J	2,3,7,8-TCDD-13C	2.00	71
					1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	-----	0.23		2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	1.2	-----	0.23		1,2,3,7,8-PeCDD-13C	2.00	79
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	-----	0.56		1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	ND	-----	0.85		2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	ND	-----	0.56		1,2,3,7,8,9-HxCDF-13C	2.00	68
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.75		1,2,3,6,7,8-HxCDD-13C	2.00	80
Total PeCDD	ND	-----	0.75		1,2,3,4,6,7,8-HpCDF-13C	2.00	56
					1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	-----	0.87		1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	-----	0.92		OCDD-13C	4.00	34
2,3,4,6,7,8-HxCDF	ND	-----	0.81				
1,2,3,7,8,9-HxCDF	ND	-----	0.83		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.81		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.5		2,3,7,8-TCDD-37Cl4	0.20	74
1,2,3,6,7,8-HxCDD	ND	-----	0.84				
1,2,3,7,8,9-HxCDD	ND	-----	1.1				
Total HxCDD	1.1	-----	0.84	J			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.68		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.92		Equivalence: 0.029 ng/Kg		
Total HpCDF	ND	-----	0.68		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	2.0	-----	0.56	J			
Total HpCDD	5.8	-----	0.56				
OCDF	ND	-----	2.1				
OCDD	27	-----	1.8				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P24-5-6-061924		
Lab Sample ID	10697605072		
Filename	L241016B_09		
Injected By	JF		
Total Amount Extracted	20.0 g	Matrix	SOLID
% Moisture	19.6	Dilution	NA
Dry Weight Extracted	16.1 g	Collected	06/19/2024 13:44
ICAL ID	L240918	Received	06/22/2024 09:00
CCal Filename(s)	L241016A_18	Extracted	10/14/2024 14:00
Method Blank ID	BLANK-115186	Analyzed	10/17/2024 06:59

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	8.4	-----	0.16		2,3,7,8-TCDF-13C	2.00	75
Total TCDF	72	-----	0.16		2,3,7,8-TCDD-13C	2.00	70
					1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	49
Total TCDD	5.5	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	55
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	-----	110	0.39	P	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	-----	89	0.58	P	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	470	-----	0.39		1,2,3,7,8,9-HxCDF-13C	2.00	64
					1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	-----	1.1	0.51	JI	1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD	15	-----	0.51		1,2,3,4,6,7,8-HpCDF-13C	2.00	46
					1,2,3,4,7,8,9-HpCDF-13C	2.00	27
1,2,3,4,7,8-HxCDF	110	-----	0.64	A	1,2,3,4,6,7,8-HpCDD-13C	2.00	50
1,2,3,6,7,8-HxCDF	26	-----	0.63		OCDD-13C	4.00	29
2,3,4,6,7,8-HxCDF	23	-----	0.65	A			
1,2,3,7,8,9-HxCDF	58	-----	1.1	A	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	3000	-----	0.63	E	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	3.6	-----	1.0		2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	270	-----	0.58				
1,2,3,7,8,9-HxCDD	23	-----	0.77				
Total HxCDD	870	-----	0.58				
1,2,3,4,6,7,8-HpCDF	930	-----	2.0	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	42	-----	5.3	A	Equivalence: 170 ng/Kg		
Total HpCDF	4200	-----	2.0	E	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	5700	-----	0.39	E			
Total HpCDD	10000	-----	0.39	E			
OCDF	2300	-----	1.4				
OCDD	69000	-----	1.2	E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
P = PCDE Interference
E = Exceeds calibration range
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P25-1-2-061924		
Lab Sample ID	10697605073		
Filename	L240712A_10		
Injected By	JF		
Total Amount Extracted	13.9 g	Matrix	SOLID
% Moisture	8.4	Dilution	5
Dry Weight Extracted	12.7 g	Collected	06/19/2024 13:23
ICAL ID	L240703	Received	06/22/2024 09:00
CCal Filename(s)	L240712A_01	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/12/2024 15:20

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	3.6	-----	0.88	DA	2,3,7,8-TCDF-13C	2.00	73	D
Total TCDF	31	-----	0.88	D	2,3,7,8-TCDD-13C	2.00	64	D
					1,2,3,7,8-PeCDF-13C	2.00	71	D
2,3,7,8-TCDD	ND	-----	0.94	DA	2,3,4,7,8-PeCDF-13C	2.00	71	D
Total TCDD	25	-----	0.94	D	1,2,3,7,8-PeCDD-13C	2.00	77	D
					1,2,3,4,7,8-HxCDF-13C	2.00	78	D
1,2,3,7,8-PeCDF	1.6	-----	0.89	JD	1,2,3,6,7,8-HxCDF-13C	2.00	74	D
2,3,4,7,8-PeCDF	2.6	-----	0.81	JD	2,3,4,6,7,8-HxCDF-13C	2.00	71	D
Total PeCDF	21	-----	0.81	D	1,2,3,7,8,9-HxCDF-13C	2.00	53	D
					1,2,3,4,7,8-HxCDD-13C	2.00	66	D
1,2,3,7,8-PeCDD	1.6	-----	0.79	JD	1,2,3,6,7,8-HxCDD-13C	2.00	68	D
Total PeCDD	20	-----	0.79	JD	1,2,3,4,6,7,8-HpCDF-13C	2.00	69	D
					1,2,3,4,7,8,9-HpCDF-13C	2.00	76	D
1,2,3,4,7,8-HxCDF	2.3	-----	1.5	JD	1,2,3,4,6,7,8-HpCDD-13C	2.00	71	D
1,2,3,6,7,8-HxCDF	1.7	-----	1.6	JD	OCDD-13C	4.00	45	D
2,3,4,6,7,8-HxCDF	1.7	-----	1.4	JD				
1,2,3,7,8,9-HxCDF	ND	-----	1.5	D	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	36	-----	1.4	D	1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	1.5	D	2,3,7,8-TCDD-37Cl4	0.20	69	D
1,2,3,6,7,8-HxCDD	4.4	-----	1.8	D				
1,2,3,7,8,9-HxCDD	1.9	-----	1.8	JD				
Total HxCDD	38	-----	1.5	D				
1,2,3,4,6,7,8-HpCDF	18	-----	1.4	D	Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	1.7	D	Equivalence: 5.3 ng/Kg			
Total HpCDF	50	-----	1.4	D	(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	75	-----	1.3	D				
Total HpCDD	120	-----	1.3	D				
OCDF	53	-----	4.3	D				
OCDD	1200	-----	3.8	D				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
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D = Result obtained from analysis of diluted sample

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P25-3-4-061924		
Lab Sample ID	10697605074		
Filename	L240731A_11		
Injected By	JF		
Total Amount Extracted	16.4 g	Matrix	SOLID
% Moisture	21.5	Dilution	5
Dry Weight Extracted	12.9 g	Collected	06/19/2024 13:23
ICAL ID	L240716	Received	06/22/2024 09:00
CCal Filename(s)	L240730B_10	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 17:13

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	1.0	D	2,3,7,8-TCDF-13C	2.00	80	D
Total TCDF	ND	-----	1.0	D	2,3,7,8-TCDD-13C	2.00	74	D
					1,2,3,7,8-PeCDF-13C	2.00	59	D
2,3,7,8-TCDD	ND	-----	0.99	D	2,3,4,7,8-PeCDF-13C	2.00	73	D
Total TCDD	ND	-----	0.99	D	1,2,3,7,8-PeCDD-13C	2.00	80	D
					1,2,3,4,7,8-HxCDF-13C	2.00	84	D
1,2,3,7,8-PeCDF	ND	-----	2.4	D	1,2,3,6,7,8-HxCDF-13C	2.00	73	D
2,3,4,7,8-PeCDF	ND	-----	3.6	D	2,3,4,6,7,8-HxCDF-13C	2.00	63	D
Total PeCDF	ND	-----	2.4	D	1,2,3,7,8,9-HxCDF-13C	2.00	66	D
					1,2,3,4,7,8-HxCDD-13C	2.00	79	D
1,2,3,7,8-PeCDD	ND	-----	3.2	D	1,2,3,6,7,8-HxCDD-13C	2.00	66	D
Total PeCDD	ND	-----	3.2	D	1,2,3,4,6,7,8-HpCDF-13C	2.00	52	D
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49	D
1,2,3,4,7,8-HxCDF	ND	-----	3.7	D	1,2,3,4,6,7,8-HpCDD-13C	2.00	55	D
1,2,3,6,7,8-HxCDF	ND	-----	4.0	D	OCDD-13C	4.00	26	D
2,3,4,6,7,8-HxCDF	ND	-----	3.5	D				
1,2,3,7,8,9-HxCDF	ND	-----	3.6	D	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	3.5	D	1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	6.3	D	2,3,7,8-TCDD-37Cl4	0.20	82	D
1,2,3,6,7,8-HxCDD	ND	-----	3.6	D				
1,2,3,7,8,9-HxCDD	ND	-----	4.8	D				
Total HxCDD	ND	-----	3.6	D				
1,2,3,4,6,7,8-HpCDF	ND	-----	2.9	D	Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	4.0	D	Equivalence: 0.11 ng/Kg			
Total HpCDF	ND	-----	2.9	D	(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	9.0	-----	2.4	D				
Total HpCDD	27	-----	2.4	D				
OCDF	ND	-----	8.9	D				
OCDD	66	-----	7.8	D				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
D = Result obtained from analysis of diluted sample

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P26-1-2-061924		
Lab Sample ID	10697605076		
Filename	U240708A_16		
Injected By	SMT		
Total Amount Extracted	13.3 g	Matrix	SOLID
% Moisture	11.1	Dilution	NA
Dry Weight Extracted	11.8 g	Collected	06/19/2024 13:00
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240708A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/08/2024 22:50

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.76	A	2,3,7,8-TCDF-13C	2.00	87
Total TCDF	9.7	-----	0.76		2,3,7,8-TCDD-13C	2.00	71
					1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	ND	-----	0.99	A	2,3,4,7,8-PeCDF-13C	2.00	69
Total TCDD	10.0	-----	0.99		1,2,3,7,8-PeCDD-13C	2.00	74
					1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	1.1	-----	0.20	JA	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	1.8	-----	0.17	J	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	16	-----	0.17		1,2,3,7,8,9-HxCDF-13C	2.00	35
					1,2,3,4,7,8-HxCDD-13C	2.00	58
1,2,3,7,8-PeCDD	0.99	-----	0.17	J	1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD	15	-----	0.17		1,2,3,4,6,7,8-HpCDF-13C	2.00	66
					1,2,3,4,7,8,9-HpCDF-13C	2.00	57
1,2,3,4,7,8-HxCDF	4.0	-----	0.33	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	2.0	-----	0.34	J	OCDD-13C	4.00	62
2,3,4,6,7,8-HxCDF	1.1	-----	0.29	J			
1,2,3,7,8,9-HxCDF	-----	1.1	0.33	JI	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	82	-----	0.29		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	-----	1.3	0.32	JI	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	5.9	-----	0.40				
1,2,3,7,8,9-HxCDD	1.9	-----	0.38	J			
Total HxCDD	47	-----	0.32				
1,2,3,4,6,7,8-HpCDF	43	-----	0.30		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	4.0	-----	0.37	JA	Equivalence: 5.5 ng/Kg		
Total HpCDF	150	-----	0.30		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	120	-----	0.29				
Total HpCDD	270	-----	0.29				
OCDF	130	-----	0.92				
OCDD	1600	-----	0.81				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
I = Isotope ratio out of specification

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P26-3-4-061924		
Lab Sample ID	10697605077		
Filename	L240731A_12		
Injected By	JF		
Total Amount Extracted	16.1 g	Matrix	SOLID
% Moisture	15.3	Dilution	5
Dry Weight Extracted	13.7 g	Collected	06/19/2024 13:00
ICAL ID	L240716	Received	06/22/2024 09:00
CCal Filename(s)	L240730B_10	Extracted	07/25/2024 14:00
Method Blank ID	BLANK-113956	Analyzed	07/31/2024 17:58

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	1.3	DA	2,3,7,8-TCDF-13C	2.00	79	D
Total TCDF	ND	-----	1.3	D	2,3,7,8-TCDD-13C	2.00	79	D
					1,2,3,7,8-PeCDF-13C	2.00	59	D
2,3,7,8-TCDD	ND	-----	1.1	DA	2,3,4,7,8-PeCDF-13C	2.00	70	D
Total TCDD	ND	-----	1.1	D	1,2,3,7,8-PeCDD-13C	2.00	75	D
					1,2,3,4,7,8-HxCDF-13C	2.00	76	D
1,2,3,7,8-PeCDF	ND	-----	2.3	D	1,2,3,6,7,8-HxCDF-13C	2.00	67	D
2,3,4,7,8-PeCDF	ND	-----	3.4	D	2,3,4,6,7,8-HxCDF-13C	2.00	62	D
Total PeCDF	ND	-----	2.3	D	1,2,3,7,8,9-HxCDF-13C	2.00	58	D
					1,2,3,4,7,8-HxCDD-13C	2.00	67	D
1,2,3,7,8-PeCDD	ND	-----	3.0	D	1,2,3,6,7,8-HxCDD-13C	2.00	64	D
Total PeCDD	ND	-----	3.0	D	1,2,3,4,6,7,8-HpCDF-13C	2.00	42	D
					1,2,3,4,7,8,9-HpCDF-13C	2.00	40	D
1,2,3,4,7,8-HxCDF	ND	-----	3.5	D	1,2,3,4,6,7,8-HpCDD-13C	2.00	44	D
1,2,3,6,7,8-HxCDF	ND	-----	3.7	D	OCDD-13C	4.00	20	D
2,3,4,6,7,8-HxCDF	ND	-----	3.3	D				
1,2,3,7,8,9-HxCDF	ND	-----	3.4	D	1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	3.3	D	1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	5.9	D	2,3,7,8-TCDD-37Cl4	0.20	75	D
1,2,3,6,7,8-HxCDD	ND	-----	3.4	D				
1,2,3,7,8,9-HxCDD	ND	-----	4.5	D				
Total HxCDD	ND	-----	3.4	D				
1,2,3,4,6,7,8-HpCDF	ND	-----	2.7	D	Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	3.7	D	Equivalence: 0.0075 ng/Kg			
Total HpCDF	ND	-----	2.7	D	(Lower-bound - Using 2005 WHO Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	2.3	DA				
Total HpCDD	13	-----	2.3	JD				
OCDF	ND	-----	8.4	D				
OCDD	25	-----	7.3	D				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
D = Result obtained from analysis of diluted sample

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Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P127-6-7-061924		
Lab Sample ID	10697605079		
Filename	U240710A_09		
Injected By	SMT		
Total Amount Extracted	15.6 g	Matrix	SOLID
% Moisture	20.5	Dilution	NA
Dry Weight Extracted	12.4 g	Collected	06/19/2024 15:19
ICAL ID	U240423	Received	06/22/2024 09:00
CCal Filename(s)	U240710A_02	Extracted	07/01/2024 14:00
Method Blank ID	BLANK-113600	Analyzed	07/10/2024 14:31

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.18		2,3,7,8-TCDF-13C	2.00	73
Total TCDF	ND	-----	0.18		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	82
2,3,7,8-TCDD	ND	-----	0.16		2,3,4,7,8-PeCDF-13C	2.00	89
Total TCDD	ND	-----	0.16		1,2,3,7,8-PeCDD-13C	2.00	80
					1,2,3,4,7,8-HxCDF-13C	2.00	76
1,2,3,7,8-PeCDF	ND	-----	0.18		1,2,3,6,7,8-HxCDF-13C	2.00	76
2,3,4,7,8-PeCDF	ND	-----	0.17		2,3,4,6,7,8-HxCDF-13C	2.00	74
Total PeCDF	ND	-----	0.17		1,2,3,7,8,9-HxCDF-13C	2.00	79
					1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	ND	-----	0.16		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	-----	0.16		1,2,3,4,6,7,8-HpCDF-13C	2.00	59
					1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	ND	-----	0.32		1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	-----	0.32		OCDD-13C	4.00	40
2,3,4,6,7,8-HxCDF	ND	-----	0.28				
1,2,3,7,8,9-HxCDF	ND	-----	0.31		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.28		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.31		2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	ND	-----	0.38				
1,2,3,7,8,9-HxCDD	ND	-----	0.36				
Total HxCDD	ND	-----	0.31				
1,2,3,4,6,7,8-HpCDF	0.35	-----	0.28	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.35		Equivalence: 0.038 ng/Kg		
Total HpCDF	1.2	-----	0.28	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	2.4	-----	0.27	J			
Total HpCDD	4.3	-----	0.27				
OCDF	-----	1.0	0.88	JI			
OCDD	35	-----	0.77				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKSL		
Lab Sample ID	BLANK-113600	Matrix	Solid
Filename	U240708A_09	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	07/01/2024 14:00
ICAL ID	U240423	Analyzed	07/08/2024 17:16
CCal Filename(s)	U240708A_02	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.22		2,3,7,8-TCDF-13C	2.00	71
Total TCDF	ND	-----	0.22		2,3,7,8-TCDD-13C	2.00	60
					1,2,3,7,8-PeCDF-13C	2.00	86
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	98
Total TCDD	ND	-----	0.19		1,2,3,7,8-PeCDD-13C	2.00	94
					1,2,3,4,7,8-HxCDF-13C	2.00	83
1,2,3,7,8-PeCDF	ND	-----	0.22		1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	ND	-----	0.20		2,3,4,6,7,8-HxCDF-13C	2.00	84
Total PeCDF	ND	-----	0.20		1,2,3,7,8,9-HxCDF-13C	2.00	80
					1,2,3,4,7,8-HxCDD-13C	2.00	49
1,2,3,7,8-PeCDD	ND	-----	0.20		1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD	ND	-----	0.20		1,2,3,4,6,7,8-HpCDF-13C	2.00	67
					1,2,3,4,7,8,9-HpCDF-13C	2.00	66
1,2,3,4,7,8-HxCDF	ND	-----	0.39		1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	ND	-----	0.40		OCDD-13C	4.00	66
2,3,4,6,7,8-HxCDF	ND	-----	0.34				
1,2,3,7,8,9-HxCDF	ND	-----	0.38		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.34		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.38		2,3,7,8-TCDD-37Cl4	0.20	65
1,2,3,6,7,8-HxCDD	ND	-----	0.46				
1,2,3,7,8,9-HxCDD	ND	-----	0.44				
Total HxCDD	ND	-----	0.38				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.34		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.42		Equivalence: 0.0050 ng/Kg		
Total HpCDF	ND	-----	0.34		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	-----	0.44	0.33	JI			
Total HpCDD	ND	-----	0.33				
OCDF	ND	-----	1.1				
OCDD	1.9	-----	0.94	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value
I = Isotope ratio out of specification

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKSK		
Lab Sample ID	BLANK-113598	Matrix	Solid
Filename	L240714A_14	Dilution	NA
Total Amount Extracted	10.2 g	Extracted	07/01/2024 14:00
ICAL ID	L240703	Analyzed	07/14/2024 21:49
CCal Filename(s)	L240714A_02	Injected By	JF

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.22		2,3,7,8-TCDF-13C	2.00	72
Total TCDF	ND	-----	0.22		2,3,7,8-TCDD-13C	2.00	60
					1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	ND	-----	0.19		2,3,4,7,8-PeCDF-13C	2.00	82
Total TCDD	0.36	-----	0.19	J	1,2,3,7,8-PeCDD-13C	2.00	85
					1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	-----	0.22		1,2,3,6,7,8-HxCDF-13C	2.00	71
2,3,4,7,8-PeCDF	ND	-----	0.20		2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	ND	-----	0.20		1,2,3,7,8,9-HxCDF-13C	2.00	72
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.20		1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD	ND	-----	0.20		1,2,3,4,6,7,8-HpCDF-13C	2.00	75
					1,2,3,4,7,8,9-HpCDF-13C	2.00	94
1,2,3,4,7,8-HxCDF	ND	-----	0.38		1,2,3,4,6,7,8-HpCDD-13C	2.00	83
1,2,3,6,7,8-HxCDF	ND	-----	0.39		OCDD-13C	4.00	60
2,3,4,6,7,8-HxCDF	ND	-----	0.34				
1,2,3,7,8,9-HxCDF	ND	-----	0.38		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.34		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.37		2,3,7,8-TCDD-37Cl4	0.20	63
1,2,3,6,7,8-HxCDD	ND	-----	0.46				
1,2,3,7,8,9-HxCDD	ND	-----	0.44				
Total HxCDD	ND	-----	0.37				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.34		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.42		Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	-----	0.34		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.33				
Total HpCDD	ND	-----	0.33				
OCDF	ND	-----	1.1				
OCDD	ND	-----	0.94				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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J = Estimated value

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKWU		
Lab Sample ID	BLANK-113956	Matrix	Solid
Filename	F240731B_11	Dilution	NA
Total Amount Extracted	10.0 g	Extracted	07/25/2024 14:00
ICAL ID	F240604	Analyzed	07/31/2024 20:41
CCal Filename(s)	F240731B_01	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.26	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	ND	-----	0.26	2,3,7,8-TCDD-13C	2.00	57
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	ND	-----	0.25	2,3,4,7,8-PeCDF-13C	2.00	60
Total TCDD	ND	-----	0.25	1,2,3,7,8-PeCDD-13C	2.00	64
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	-----	0.62	1,2,3,6,7,8-HxCDF-13C	2.00	65
2,3,4,7,8-PeCDF	ND	-----	0.94	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	ND	-----	0.62	1,2,3,7,8,9-HxCDF-13C	2.00	63
				1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	ND	-----	0.82	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	ND	-----	0.82	1,2,3,4,6,7,8-HpCDF-13C	2.00	55
				1,2,3,4,7,8,9-HpCDF-13C	2.00	55
1,2,3,4,7,8-HxCDF	ND	-----	0.96	1,2,3,4,6,7,8-HpCDD-13C	2.00	63
1,2,3,6,7,8-HxCDF	ND	-----	1.0	OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	ND	-----	0.89			
1,2,3,7,8,9-HxCDF	ND	-----	0.92	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.89	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	1.6	2,3,7,8-TCDD-37Cl4	0.20	98
1,2,3,6,7,8-HxCDD	ND	-----	0.93			
1,2,3,7,8,9-HxCDD	ND	-----	1.2			
Total HxCDD	ND	-----	0.93			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.75	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	1.0	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	-----	0.75	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.62			
Total HpCDD	ND	-----	0.62			
OCDF	ND	-----	2.3			
OCDD	ND	-----	2.0			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKAU		
Lab Sample ID	BLANK-114231	Matrix	Solid/Wipe
Filename	U240817A_12	Dilution	NA
Total Amount Extracted	20.2 g	Extracted	08/13/2024 14:00
ICAL ID	U240423	Analyzed	08/17/2024 18:56
CCal Filename(s)	U240817A_03	Injected By	JF

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.13	2,3,7,8-TCDF-13C	2.00	89
Total TCDF	ND	-----	0.13	2,3,7,8-TCDD-13C	2.00	80
				1,2,3,7,8-PeCDF-13C	2.00	99
2,3,7,8-TCDD	ND	-----	0.13	2,3,4,7,8-PeCDF-13C	2.00	111
Total TCDD	ND	-----	0.13	1,2,3,7,8-PeCDD-13C	2.00	115
				1,2,3,4,7,8-HxCDF-13C	2.00	77
1,2,3,7,8-PeCDF	ND	-----	0.31	1,2,3,6,7,8-HxCDF-13C	2.00	82
2,3,4,7,8-PeCDF	ND	-----	0.46	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	-----	0.31	1,2,3,7,8,9-HxCDF-13C	2.00	79
				1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	-----	0.41	1,2,3,6,7,8-HxCDD-13C	2.00	81
Total PeCDD	ND	-----	0.41	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	75
1,2,3,4,7,8-HxCDF	ND	-----	0.47	1,2,3,4,6,7,8-HpCDD-13C	2.00	86
1,2,3,6,7,8-HxCDF	ND	-----	0.50	OCDD-13C	4.00	72
2,3,4,6,7,8-HxCDF	ND	-----	0.44			
1,2,3,7,8,9-HxCDF	ND	-----	0.45	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.44	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.80	2,3,7,8-TCDD-37Cl4	0.20	81
1,2,3,6,7,8-HxCDD	ND	-----	0.46			
1,2,3,7,8,9-HxCDD	ND	-----	0.61			
Total HxCDD	ND	-----	0.46			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.37	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.50	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	-----	0.37	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.31			
Total HpCDD	ND	-----	0.31			
OCDF	ND	-----	1.1			
OCDD	ND	-----	0.99			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKOC		
Lab Sample ID	BLANK-115186	Matrix	Solid
Filename	U241016A_06	Dilution	NA
Total Amount Extracted	20.2 g	Extracted	10/14/2024 14:00
ICAL ID	U240423	Analyzed	10/16/2024 11:29
CCal Filename(s)	U241016A_02	Injected By	JF

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.13	2,3,7,8-TCDF-13C	2.00	95
Total TCDF	ND	-----	0.13	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	96
2,3,7,8-TCDD	ND	-----	0.13	2,3,4,7,8-PeCDF-13C	2.00	94
Total TCDD	ND	-----	0.13	1,2,3,7,8-PeCDD-13C	2.00	101
				1,2,3,4,7,8-HxCDF-13C	2.00	92
1,2,3,7,8-PeCDF	ND	-----	0.31	1,2,3,6,7,8-HxCDF-13C	2.00	98
2,3,4,7,8-PeCDF	ND	-----	0.47	2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	-----	0.31	1,2,3,7,8,9-HxCDF-13C	2.00	85
				1,2,3,4,7,8-HxCDD-13C	2.00	60
1,2,3,7,8-PeCDD	ND	-----	0.41	1,2,3,6,7,8-HxCDD-13C	2.00	93
Total PeCDD	ND	-----	0.41	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	73
1,2,3,4,7,8-HxCDF	ND	-----	0.48	1,2,3,4,6,7,8-HpCDD-13C	2.00	68
1,2,3,6,7,8-HxCDF	ND	-----	0.51	OCDD-13C	4.00	79
2,3,4,6,7,8-HxCDF	ND	-----	0.44			
1,2,3,7,8,9-HxCDF	ND	-----	0.46	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.44	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.80	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	ND	-----	0.46			
1,2,3,7,8,9-HxCDD	ND	-----	0.62			
Total HxCDD	ND	-----	0.46			
1,2,3,4,6,7,8-HpCDF	ND	-----	0.37	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.51	Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	-----	0.37	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.31			
Total HpCDD	ND	-----	0.31			
OCDF	ND	-----	1.1			
OCDD	ND	-----	0.99			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-113601		
Filename	U240708A_04	Matrix	Solid
Total Amount Extracted	10.0 g	Dilution	NA
ICAL ID	U240423	Extracted	07/01/2024 14:00
CCal Filename	U240708A_02	Analyzed	07/08/2024 13:17
Method Blank ID	BLANK-113600	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	108
2,3,7,8-TCDD	10	12	6.7	15.8	118
1,2,3,7,8-PeCDF	50	51	40.0	67.0	102
2,3,4,7,8-PeCDF	50	49	34.0	80.0	99
1,2,3,7,8-PeCDD	50	50	35.0	71.0	100
1,2,3,4,7,8-HxCDF	50	53	36.0	67.0	107
1,2,3,6,7,8-HxCDF	50	53	42.0	65.0	107
2,3,4,6,7,8-HxCDF	50	52	35.0	78.0	105
1,2,3,7,8,9-HxCDF	50	51	39.0	65.0	103
1,2,3,4,7,8-HxCDD	50	61	35.0	82.0	122
1,2,3,6,7,8-HxCDD	50	52	38.0	67.0	105
1,2,3,7,8,9-HxCDD	50	60	32.0	81.0	120
1,2,3,4,6,7,8-HpCDF	50	54	41.0	61.0	107
1,2,3,4,7,8,9-HpCDF	50	51	39.0	69.0	103
1,2,3,4,6,7,8-HpCDD	50	47	35.0	70.0	93
OCDF	100	110	63.0	170.0	110
OCDD	100	120	78.0	144.0	115
2,3,7,8-TCDD-37Cl4	10	7.2	3.1	19.1	72
2,3,7,8-TCDF-13C	100	78	22.0	152.0	78
2,3,7,8-TCDD-13C	100	65	20.0	175.0	65
1,2,3,7,8-PeCDF-13C	100	89	21.0	192.0	89
2,3,4,7,8-PeCDF-13C	100	86	13.0	328.0	86
1,2,3,7,8-PeCDD-13C	100	83	21.0	227.0	83
1,2,3,4,7,8-HxCDF-13C	100	87	19.0	202.0	87
1,2,3,6,7,8-HxCDF-13C	100	88	21.0	159.0	88
2,3,4,6,7,8-HxCDF-13C	100	80	22.0	176.0	80
1,2,3,7,8,9-HxCDF-13C	100	79	17.0	205.0	79
1,2,3,4,7,8-HxCDD-13C	100	50	21.0	193.0	50
1,2,3,6,7,8-HxCDD-13C	100	80	25.0	163.0	80
1,2,3,4,6,7,8-HpCDF-13C	100	64	21.0	158.0	64
1,2,3,4,7,8,9-HpCDF-13C	100	64	20.0	186.0	64
1,2,3,4,6,7,8-HpCDD-13C	100	71	26.0	166.0	71
OCDD-13C	200	140	26.0	397.0	68

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Minneapolis, MN 55414

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-113599		
Filename	U240715A_05	Matrix	Solid
Total Amount Extracted	10.1 g	Dilution	NA
ICAL ID	U240423	Extracted	07/01/2024 14:00
CCal Filename	U240715A_02	Analyzed	07/15/2024 12:04
Method Blank ID	BLANK-113598	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	12	7.5	15.8	122
2,3,7,8-TCDD	10	13	6.7	15.8	129
1,2,3,7,8-PeCDF	50	56	40.0	67.0	111
2,3,4,7,8-PeCDF	50	55	34.0	80.0	109
1,2,3,7,8-PeCDD	50	54	35.0	71.0	107
1,2,3,4,7,8-HxCDF	50	57	36.0	67.0	113
1,2,3,6,7,8-HxCDF	50	58	42.0	65.0	115
2,3,4,6,7,8-HxCDF	50	57	35.0	78.0	114
1,2,3,7,8,9-HxCDF	50	56	39.0	65.0	113
1,2,3,4,7,8-HxCDD	50	64	35.0	82.0	128
1,2,3,6,7,8-HxCDD	50	57	38.0	67.0	114
1,2,3,7,8,9-HxCDD	50	62	32.0	81.0	124
1,2,3,4,6,7,8-HpCDF	50	59	41.0	61.0	119
1,2,3,4,7,8,9-HpCDF	50	58	39.0	69.0	116
1,2,3,4,6,7,8-HpCDD	50	51	35.0	70.0	102
OCDF	100	120	63.0	170.0	116
OCDD	100	120	78.0	144.0	123
2,3,7,8-TCDD-37Cl4	10	5.9	3.1	19.1	59
2,3,7,8-TCDF-13C	100	79	22.0	152.0	79
2,3,7,8-TCDD-13C	100	53	20.0	175.0	53
1,2,3,7,8-PeCDF-13C	100	88	21.0	192.0	88
2,3,4,7,8-PeCDF-13C	100	90	13.0	328.0	90
1,2,3,7,8-PeCDD-13C	100	90	21.0	227.0	90
1,2,3,4,7,8-HxCDF-13C	100	83	19.0	202.0	83
1,2,3,6,7,8-HxCDF-13C	100	88	21.0	159.0	88
2,3,4,6,7,8-HxCDF-13C	100	80	22.0	176.0	80
1,2,3,7,8,9-HxCDF-13C	100	73	17.0	205.0	73
1,2,3,4,7,8-HxCDD-13C	100	55	21.0	193.0	55
1,2,3,6,7,8-HxCDD-13C	100	82	25.0	163.0	82
1,2,3,4,6,7,8-HpCDF-13C	100	67	21.0	158.0	67
1,2,3,4,7,8,9-HpCDF-13C	100	70	20.0	186.0	70
1,2,3,4,6,7,8-HpCDD-13C	100	78	26.0	166.0	78
OCDD-13C	200	140	26.0	397.0	70

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-113957		
Filename	L240730A_07	Matrix	Solid
Total Amount Extracted	10.2 g	Dilution	NA
ICAL ID	L240716	Extracted	07/25/2024 14:00
CCal Filename	L240730A_02	Analyzed	07/30/2024 11:52
Method Blank ID	BLANK-113956	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.7	7.5	15.8	97
2,3,7,8-TCDD	10	10	6.7	15.8	105
1,2,3,7,8-PeCDF	50	52	40.0	67.0	103
2,3,4,7,8-PeCDF	50	47	34.0	80.0	93
1,2,3,7,8-PeCDD	50	45	35.0	71.0	90
1,2,3,4,7,8-HxCDF	50	46	36.0	67.0	93
1,2,3,6,7,8-HxCDF	50	48	42.0	65.0	96
2,3,4,6,7,8-HxCDF	50	51	35.0	78.0	101
1,2,3,7,8,9-HxCDF	50	48	39.0	65.0	97
1,2,3,4,7,8-HxCDD	50	53	35.0	82.0	106
1,2,3,6,7,8-HxCDD	50	46	38.0	67.0	92
1,2,3,7,8,9-HxCDD	50	42	32.0	81.0	84
1,2,3,4,6,7,8-HpCDF	50	48	41.0	61.0	96
1,2,3,4,7,8,9-HpCDF	50	42	39.0	69.0	84
1,2,3,4,6,7,8-HpCDD	50	48	35.0	70.0	96
OCDF	100	94	63.0	170.0	94
OCDD	100	110	78.0	144.0	112
2,3,7,8-TCDD-37Cl4	10	7.9	3.1	19.1	79
2,3,7,8-TCDF-13C	100	80	22.0	152.0	80
2,3,7,8-TCDD-13C	100	76	20.0	175.0	76
1,2,3,7,8-PeCDF-13C	100	82	21.0	192.0	82
2,3,4,7,8-PeCDF-13C	100	90	13.0	328.0	90
1,2,3,7,8-PeCDD-13C	100	88	21.0	227.0	88
1,2,3,4,7,8-HxCDF-13C	100	99	19.0	202.0	99
1,2,3,6,7,8-HxCDF-13C	100	84	21.0	159.0	84
2,3,4,6,7,8-HxCDF-13C	100	87	22.0	176.0	87
1,2,3,7,8,9-HxCDF-13C	100	75	17.0	205.0	75
1,2,3,4,7,8-HxCDD-13C	100	95	21.0	193.0	95
1,2,3,6,7,8-HxCDD-13C	100	83	25.0	163.0	83
1,2,3,4,6,7,8-HpCDF-13C	100	74	21.0	158.0	74
1,2,3,4,7,8,9-HpCDF-13C	100	64	20.0	186.0	64
1,2,3,4,6,7,8-HpCDD-13C	100	85	26.0	166.0	85
OCDD-13C	200	130	26.0	397.0	66

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-114232		
Filename	U240817A_08	Matrix	Solid/Wipe
Total Amount Extracted	20.1 g	Dilution	NA
ICAL ID	U240423	Extracted	08/13/2024 14:00
CCal Filename	U240817A_03	Analyzed	08/17/2024 15:45
Method Blank ID	BLANK-114231	Injected By	JF

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.9	7.5	15.8	99
2,3,7,8-TCDD	10	11	6.7	15.8	110
1,2,3,7,8-PeCDF	50	49	40.0	67.0	99
2,3,4,7,8-PeCDF	50	45	34.0	80.0	89
1,2,3,7,8-PeCDD	50	47	35.0	71.0	94
1,2,3,4,7,8-HxCDF	50	46	36.0	67.0	93
1,2,3,6,7,8-HxCDF	50	49	42.0	65.0	97
2,3,4,6,7,8-HxCDF	50	47	35.0	78.0	95
1,2,3,7,8,9-HxCDF	50	47	39.0	65.0	93
1,2,3,4,7,8-HxCDD	50	54	35.0	82.0	108
1,2,3,6,7,8-HxCDD	50	48	38.0	67.0	95
1,2,3,7,8,9-HxCDD	50	51	32.0	81.0	101
1,2,3,4,6,7,8-HpCDF	50	49	41.0	61.0	99
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	91
1,2,3,4,6,7,8-HpCDD	50	44	35.0	70.0	88
OCDF	100	97	63.0	170.0	97
OCDD	100	100	78.0	144.0	104
2,3,7,8-TCDD-37Cl4	10	6.8	3.1	19.1	68
2,3,7,8-TCDF-13C	100	74	22.0	152.0	74
2,3,7,8-TCDD-13C	100	65	20.0	175.0	65
1,2,3,7,8-PeCDF-13C	100	83	21.0	192.0	83
2,3,4,7,8-PeCDF-13C	100	90	13.0	328.0	90
1,2,3,7,8-PeCDD-13C	100	92	21.0	227.0	92
1,2,3,4,7,8-HxCDF-13C	100	68	19.0	202.0	68
1,2,3,6,7,8-HxCDF-13C	100	72	21.0	159.0	72
2,3,4,6,7,8-HxCDF-13C	100	70	22.0	176.0	70
1,2,3,7,8,9-HxCDF-13C	100	70	17.0	205.0	70
1,2,3,4,7,8-HxCDD-13C	100	60	21.0	193.0	60
1,2,3,6,7,8-HxCDD-13C	100	69	25.0	163.0	69
1,2,3,4,6,7,8-HpCDF-13C	100	58	21.0	158.0	58
1,2,3,4,7,8,9-HpCDF-13C	100	64	20.0	186.0	64
1,2,3,4,6,7,8-HpCDD-13C	100	71	26.0	166.0	71
OCDD-13C	200	120	26.0	397.0	62

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-115187		
Filename	L241016A_03	Matrix	Solid
Total Amount Extracted	20.2 g	Dilution	NA
ICAL ID	L240918	Extracted	10/14/2024 14:00
CCal Filename	L241016A_02	Analyzed	10/16/2024 12:49
Method Blank ID	BLANK-115186	Injected By	JF

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.7	7.5	15.8	97
2,3,7,8-TCDD	10	11	6.7	15.8	109
1,2,3,7,8-PeCDF	50	53	40.0	67.0	106
2,3,4,7,8-PeCDF	50	51	34.0	80.0	102
1,2,3,7,8-PeCDD	50	47	35.0	71.0	95
1,2,3,4,7,8-HxCDF	50	50	36.0	67.0	99
1,2,3,6,7,8-HxCDF	50	50	42.0	65.0	100
2,3,4,6,7,8-HxCDF	50	53	35.0	78.0	105
1,2,3,7,8,9-HxCDF	50	52	39.0	65.0	104
1,2,3,4,7,8-HxCDD	50	55	35.0	82.0	109
1,2,3,6,7,8-HxCDD	50	50	38.0	67.0	100
1,2,3,7,8,9-HxCDD	50	51	32.0	81.0	102
1,2,3,4,6,7,8-HpCDF	50	52	41.0	61.0	104
1,2,3,4,7,8,9-HpCDF	50	47	39.0	69.0	94
1,2,3,4,6,7,8-HpCDD	50	50	35.0	70.0	100
OCDF	100	110	63.0	170.0	110
OCDD	100	110	78.0	144.0	113
2,3,7,8-TCDD-37Cl4	10	7.7	3.1	19.1	77
2,3,7,8-TCDF-13C	100	85	22.0	152.0	85
2,3,7,8-TCDD-13C	100	74	20.0	175.0	74
1,2,3,7,8-PeCDF-13C	100	87	21.0	192.0	87
2,3,4,7,8-PeCDF-13C	100	86	13.0	328.0	86
1,2,3,7,8-PeCDD-13C	100	98	21.0	227.0	98
1,2,3,4,7,8-HxCDF-13C	100	82	19.0	202.0	82
1,2,3,6,7,8-HxCDF-13C	100	85	21.0	159.0	85
2,3,4,6,7,8-HxCDF-13C	100	81	22.0	176.0	81
1,2,3,7,8,9-HxCDF-13C	100	77	17.0	205.0	77
1,2,3,4,7,8-HxCDD-13C	100	77	21.0	193.0	77
1,2,3,6,7,8-HxCDD-13C	100	86	25.0	163.0	86
1,2,3,4,6,7,8-HpCDF-13C	100	69	21.0	158.0	69
1,2,3,4,7,8,9-HpCDF-13C	100	64	20.0	186.0	64
1,2,3,4,6,7,8-HpCDD-13C	100	71	26.0	166.0	71
OCDD-13C	200	85	26.0	397.0	42

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P1-1-062124-MS		
Lab Sample ID	10697605001-MS		
Filename	Y240706A_11	Matrix	SOLID
Total Amount Extracted	13.6 g	Dilution	NA
ICAL ID	Y240308	Extracted	07/01/2024 14:00
CCal Filename(s)	Y240706A_01	Analyzed	07/06/2024 10:22
Method Blank ID	BLANK-113598	Injected By	JRH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.24	113		2,3,7,8-TCDF-13C	2.00	98
Total TCDF					2,3,7,8-TCDD-13C	2.00	73
					1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	0.20	0.26	128		2,3,4,7,8-PeCDF-13C	2.00	78
Total TCDD					1,2,3,7,8-PeCDD-13C	2.00	75
					1,2,3,4,7,8-HxCDF-13C	2.00	85
1,2,3,7,8-PeCDF	1.00	1.11	110		1,2,3,6,7,8-HxCDF-13C	2.00	94
2,3,4,7,8-PeCDF	1.00	1.10	108		2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF					1,2,3,7,8,9-HxCDF-13C	2.00	89
					1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	1.00	1.07	106		1,2,3,6,7,8-HxCDD-13C	2.00	97
Total PeCDD					1,2,3,4,6,7,8-HpCDF-13C	2.00	69
					1,2,3,4,7,8,9-HpCDF-13C	2.00	71
1,2,3,4,7,8-HxCDF	1.00	1.09	108		1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	1.00	1.18	114	P	OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	1.00	1.17	115				
1,2,3,7,8,9-HxCDF	1.00	1.10	110		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF					1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.20	119		2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	1.00	1.12	109				
1,2,3,7,8,9-HxCDD	1.00	1.14	112				
Total HxCDD							
1,2,3,4,6,7,8-HpCDF	1.00	1.29	107				
1,2,3,4,7,8,9-HpCDF	1.00	1.09	108				
Total HpCDF							
1,2,3,4,6,7,8-HpCDD	1.00	2.10	126				
Total HpCDD							
OCDF	2.00	3.19	133				
OCDD	2.00	11.70	237	R			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P1-1-062124-MSD		
Lab Sample ID	10697605001-MSD		
Filename	Y240706A_12	Matrix	SOLID
Total Amount Extracted	13.7 g	Dilution	NA
ICAL ID	Y240308	Extracted	07/01/2024 14:00
CCal Filename(s)	Y240706A_01	Analyzed	07/06/2024 11:05
Method Blank ID	BLANK-113598	Injected By	JRH

Native Isomers	Qs (ng)	Qm (ng)	% Rec.		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.24	115		2,3,7,8-TCDF-13C	2.00	81
Total TCDF					2,3,7,8-TCDD-13C	2.00	52
					1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	0.20	0.26	129		2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD					1,2,3,7,8-PeCDD-13C	2.00	61
					1,2,3,4,7,8-HxCDF-13C	2.00	72
1,2,3,7,8-PeCDF	1.00	1.16	115		1,2,3,6,7,8-HxCDF-13C	2.00	79
2,3,4,7,8-PeCDF	1.00	1.12	110		2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF					1,2,3,7,8,9-HxCDF-13C	2.00	74
					1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	1.00	1.07	106		1,2,3,6,7,8-HxCDD-13C	2.00	78
Total PeCDD					1,2,3,4,6,7,8-HpCDF-13C	2.00	60
					1,2,3,4,7,8,9-HpCDF-13C	2.00	59
1,2,3,4,7,8-HxCDF	1.00	1.14	112		1,2,3,4,6,7,8-HpCDD-13C	2.00	62
1,2,3,6,7,8-HxCDF	1.00	1.11	107	P	OCDD-13C	4.00	37
2,3,4,6,7,8-HxCDF	1.00	1.14	113				
1,2,3,7,8,9-HxCDF	1.00	1.11	111		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF					1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.24	122		2,3,7,8-TCDD-37Cl4	0.20	59
1,2,3,6,7,8-HxCDD	1.00	1.15	111				
1,2,3,7,8,9-HxCDD	1.00	1.20	117				
Total HxCDD							
1,2,3,4,6,7,8-HpCDF	1.00	1.18	96				
1,2,3,4,7,8,9-HpCDF	1.00	1.15	114				
Total HpCDF							
1,2,3,4,6,7,8-HpCDD	1.00	1.64	80				
Total HpCDD							
OCDF	2.00	3.34	140				
OCDD	2.00	7.37	20	R			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)

Results reported on a total weight basis and are valid to no more than 2 significant figures.

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P1-3-4-062124-MS		
Lab Sample ID	10697605002-MS		
Filename	L241016A_17	Matrix	SOLID
Total Amount Extracted	12.4 g	Dilution	NA
ICAL ID	L240918	Extracted	10/14/2024 14:00
CCal Filename(s)	L241016A_02	Analyzed	10/16/2024 23:25
Method Blank ID	BLANK-115186	Injected By	JF

Native Isomers	**Qs** (ng)	**Qm** (ng)	% Rec.	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	0.20	0.22	99	2,3,7,8-TCDF-13C	2.00	71
Total TCDF				2,3,7,8-TCDD-13C	2.00	64
				1,2,3,7,8-PeCDF-13C	2.00	67
2,3,7,8-TCDD	0.20	0.22	106	2,3,4,7,8-PeCDF-13C	2.00	64
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	72
				1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	1.00	1.06	104	1,2,3,6,7,8-HxCDF-13C	2.00	69
2,3,4,7,8-PeCDF	1.00	1.01	99	2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	52
				1,2,3,4,7,8-HxCDD-13C	2.00	65
1,2,3,7,8-PeCDD	1.00	0.97	97	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	49
				1,2,3,4,7,8,9-HpCDF-13C	2.00	47
1,2,3,4,7,8-HxCDF	1.00	0.99	99	1,2,3,4,6,7,8-HpCDD-13C	2.00	53
1,2,3,6,7,8-HxCDF	1.00	1.05	105	OCDD-13C	4.00	30
2,3,4,6,7,8-HxCDF	1.00	1.04	104			
1,2,3,7,8,9-HxCDF	1.00	1.05	105	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.15	115	2,3,7,8-TCDD-37Cl4	0.20	69
1,2,3,6,7,8-HxCDD	1.00	0.99	98			
1,2,3,7,8,9-HxCDD	1.00	1.02	102			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.08	106			
1,2,3,4,7,8,9-HpCDF	1.00	0.97	97			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	1.06	97			
Total HpCDD						
OCDF	2.00	2.47	121			
OCDD	2.00	2.94	111			

Qs = Quantity Spiked Qm = Quantity Measured Rec. = Recovery (Expressed as Percent)

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P1-3-4-062124-MSD		
Lab Sample ID	10697605002-MSD		
Filename	L241016B_01	Matrix	SOLID
Total Amount Extracted	12.5 g	Dilution	NA
ICAL ID	L240918	Extracted	10/14/2024 14:00
CCal Filename(s)	L241016A_18	Analyzed	10/17/2024 00:55
Method Blank ID	BLANK-115186	Injected By	JF

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.22	99	2,3,7,8-TCDF-13C	2.00	74
Total TCDF				2,3,7,8-TCDD-13C	2.00	66
				1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	0.20	0.22	106	2,3,4,7,8-PeCDF-13C	2.00	61
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	69
				1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	1.00	0.94	91	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	1.00	1.02	100	2,3,4,6,7,8-HxCDF-13C	2.00	71
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	62
				1,2,3,4,7,8-HxCDD-13C	2.00	69
1,2,3,7,8-PeCDD	1.00	0.94	94	1,2,3,6,7,8-HxCDD-13C	2.00	74
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	48
				1,2,3,4,7,8,9-HpCDF-13C	2.00	47
1,2,3,4,7,8-HxCDF	1.00	0.98	98	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	1.00	1.03	103	OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	1.00	1.02	102			
1,2,3,7,8,9-HxCDF	1.00	1.02	102	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.13	113	2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	1.00	0.98	97			
1,2,3,7,8,9-HxCDD	1.00	1.00	100			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.04	102			
1,2,3,4,7,8,9-HpCDF	1.00	0.96	96			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	1.05	95			
Total HpCDD						
OCDF	2.00	2.52	123			
OCDD	2.00	2.90	109			

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P4-3-4-062024-MS		
Lab Sample ID	10697605011-MS		
Filename	U240730B_13	Matrix	SOLID
Total Amount Extracted	14.7 g	Dilution	NA
ICAL ID	U240423	Extracted	07/25/2024 14:00
CCal Filename(s)	U240730B_02	Analyzed	07/31/2024 07:24
Method Blank ID	BLANK-113956	Injected By	SMT

Native Isomers	**Qs** (ng)	**Qm** (ng)	% Rec.	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	0.20	0.20	98	2,3,7,8-TCDF-13C	2.00	80
Total TCDF				2,3,7,8-TCDD-13C	2.00	73
				1,2,3,7,8-PeCDF-13C	2.00	76
2,3,7,8-TCDD	0.20	0.22	109	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	76
				1,2,3,4,7,8-HxCDF-13C	2.00	86
1,2,3,7,8-PeCDF	1.00	0.98	98	1,2,3,6,7,8-HxCDF-13C	2.00	85
2,3,4,7,8-PeCDF	1.00	0.92	92	2,3,4,6,7,8-HxCDF-13C	2.00	79
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	68
				1,2,3,4,7,8-HxCDD-13C	2.00	75
1,2,3,7,8-PeCDD	1.00	0.95	95	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	50
				1,2,3,4,7,8,9-HpCDF-13C	2.00	48
1,2,3,4,7,8-HxCDF	1.00	0.97	97	1,2,3,4,6,7,8-HpCDD-13C	2.00	55
1,2,3,6,7,8-HxCDF	1.00	0.98	98	OCDD-13C	4.00	39
2,3,4,6,7,8-HxCDF	1.00	0.98	98			
1,2,3,7,8,9-HxCDF	1.00	0.95	95	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.06	106	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	1.00	0.96	96			
1,2,3,7,8,9-HxCDD	1.00	0.89	89			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.00	100			
1,2,3,4,7,8,9-HpCDF	1.00	0.96	96			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	0.94	88			
Total HpCDD						
OCDF	2.00	1.87	94			
OCDD	2.00	2.59	101			

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P4-3-4-062024-MSD		
Lab Sample ID	10697605011-MSD		
Filename	U240730B_14	Matrix	SOLID
Total Amount Extracted	14.7 g	Dilution	NA
ICAL ID	U240423	Extracted	07/25/2024 14:00
CCal Filename(s)	U240730B_02	Analyzed	07/31/2024 08:11
Method Blank ID	BLANK-113956	Injected By	SMT

Native Isomers	**Qs** (ng)	**Qm** (ng)	% Rec.	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	0.20	0.22	108	2,3,7,8-TCDF-13C	2.00	78
Total TCDF				2,3,7,8-TCDD-13C	2.00	70
				1,2,3,7,8-PeCDF-13C	2.00	73
2,3,7,8-TCDD	0.20	0.24	119	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	73
				1,2,3,4,7,8-HxCDF-13C	2.00	82
1,2,3,7,8-PeCDF	1.00	1.06	106	1,2,3,6,7,8-HxCDF-13C	2.00	77
2,3,4,7,8-PeCDF	1.00	1.01	101	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	66
				1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	1.00	1.03	103	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	51
				1,2,3,4,7,8,9-HpCDF-13C	2.00	49
1,2,3,4,7,8-HxCDF	1.00	1.05	105	1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	1.00	1.15	115	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	1.00	1.11	111			
1,2,3,7,8,9-HxCDF	1.00	1.11	111	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.16	116	2,3,7,8-TCDD-37Cl4	0.20	80
1,2,3,6,7,8-HxCDD	1.00	1.06	106			
1,2,3,7,8,9-HxCDD	1.00	0.99	99			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.13	113			
1,2,3,4,7,8,9-HpCDF	1.00	1.08	108			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	1.14	108			
Total HpCDD						
OCDF	2.00	1.98	99			
OCDD	2.00	3.09	126			

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P20-1-2-061924-MS		
Lab Sample ID	10697605058-MS		
Filename	U240708A_05	Matrix	SOLID
Total Amount Extracted	12.6 g	Dilution	NA
ICAL ID	U240423	Extracted	07/01/2024 14:00
CCal Filename(s)	U240708A_02	Analyzed	07/08/2024 14:05
Method Blank ID	BLANK-113600	Injected By	SMT

Native Isomers	**Qs** (ng)	**Qm** (ng)	% Rec.	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	0.20	0.23	117	2,3,7,8-TCDF-13C	2.00	75
Total TCDF				2,3,7,8-TCDD-13C	2.00	61
				1,2,3,7,8-PeCDF-13C	2.00	91
2,3,7,8-TCDD	0.20	0.25	125	2,3,4,7,8-PeCDF-13C	2.00	101
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	99
				1,2,3,4,7,8-HxCDF-13C	2.00	89
1,2,3,7,8-PeCDF	1.00	1.08	108	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	1.00	1.06	106	2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	81
				1,2,3,4,7,8-HxCDD-13C	2.00	44
1,2,3,7,8-PeCDD	1.00	1.06	106	1,2,3,6,7,8-HxCDD-13C	2.00	79
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	71
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	1.00	1.12	112	1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	1.00	1.12	112	OCDD-13C	4.00	77
2,3,4,6,7,8-HxCDF	1.00	1.11	111			
1,2,3,7,8,9-HxCDF	1.00	1.12	112	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.36	136	2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	1.00	1.12	112			
1,2,3,7,8,9-HxCDD	1.00	1.39	139			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.14	113			
1,2,3,4,7,8,9-HpCDF	1.00	1.13	113			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	1.04	101			
Total HpCDD						
OCDF	2.00	2.43	121			
OCDD	2.00	2.73	125			

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Method 1613B Spiked Sample Report

Client - SLR International Corporation

Client's Sample ID	WL-P20-1-2-061924-MSD		
Lab Sample ID	10697605058-MSD		
Filename	U240708A_06	Matrix	SOLID
Total Amount Extracted	12.5 g	Dilution	NA
ICAL ID	U240423	Extracted	07/01/2024 14:00
CCal Filename(s)	U240708A_02	Analyzed	07/08/2024 14:52
Method Blank ID	BLANK-113600	Injected By	SMT

Native Isomers	**Qs** (ng)	**Qm** (ng)	% Rec.	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDF	0.20	0.22	110	2,3,7,8-TCDF-13C	2.00	86
Total TCDF				2,3,7,8-TCDD-13C	2.00	69
				1,2,3,7,8-PeCDF-13C	2.00	86
2,3,7,8-TCDD	0.20	0.24	122	2,3,4,7,8-PeCDF-13C	2.00	74
Total TCDD				1,2,3,7,8-PeCDD-13C	2.00	71
				1,2,3,4,7,8-HxCDF-13C	2.00	96
1,2,3,7,8-PeCDF	1.00	1.06	106	1,2,3,6,7,8-HxCDF-13C	2.00	95
2,3,4,7,8-PeCDF	1.00	1.03	103	2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.00	84
				1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	1.00	1.02	102	1,2,3,6,7,8-HxCDD-13C	2.00	86
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.00	65
				1,2,3,4,7,8,9-HpCDF-13C	2.00	67
1,2,3,4,7,8-HxCDF	1.00	1.07	107	1,2,3,4,6,7,8-HpCDD-13C	2.00	71
1,2,3,6,7,8-HxCDF	1.00	1.09	109	OCDD-13C	4.00	69
2,3,4,6,7,8-HxCDF	1.00	1.06	106			
1,2,3,7,8,9-HxCDF	1.00	1.03	103	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.25	125	2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	1.00	1.08	108			
1,2,3,7,8,9-HxCDD	1.00	1.19	119			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.00	1.13	112			
1,2,3,4,7,8,9-HpCDF	1.00	1.04	104			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.00	1.00	98			
Total HpCDD						
OCDF	2.00	2.31	115			
OCDD	2.00	2.59	118			

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Method 1613 Spike Sample Results

Client - SLR International Corporation

Client Sample ID	WL-P1-1-062124		
Lab Sample ID	10697605001	Sample Filename	Y240706A_14
MS ID	10697605001-MS	MS Filename	Y240706A_11
MSD ID	10697605001-MSD	MSD Filename	Y240706A_12

	Quantity	Unspiked Sample Contribution		Quantity Measured			Subtracted Recovery	
	Spiked	to MS	to MSD	MS	MSD		MS	MSD
Analyte	(ng)	(ng)	(ng)	(ng)	(ng)	RPD	(%)	(%)
2,3,7,8-TCDF	0.20	0.00969	0.00971	0.24	0.24	1.3	113	115
2,3,7,8-TCDD	0.20	ND	ND	0.26	0.26	1.0	128	129
1,2,3,7,8-PeCDF	1.00	0.00939	0.00941	1.11	1.16	4.5	110	115
2,3,4,7,8-PeCDF	1.00	0.0124	0.0124	1.10	1.12	1.8	108	110
1,2,3,7,8-PeCDD	1.00	0.00979	0.00981	1.07	1.07	0.1	106	106
1,2,3,4,7,8-HxCDF	1.00	0.0125	0.0125	1.09	1.14	4.4	108	112
1,2,3,6,7,8-HxCDF	1.00	0.0402	0.0403	1.18	1.11	5.6	114	107
2,3,4,6,7,8-HxCDF	1.00	0.0119	0.0119	1.17	1.14	2.2	115	113
1,2,3,7,8,9-HxCDF	1.00	ND	ND	1.10	1.11	0.3	110	111
1,2,3,4,7,8-HxCDD	1.00	0.0159	0.0159	1.20	1.24	3.1	119	122
1,2,3,6,7,8-HxCDD	1.00	0.0363	0.0364	1.12	1.15	2.5	109	111
1,2,3,7,8,9-HxCDD	1.00	0.0279	0.0279	1.14	1.20	4.9	112	117
1,2,3,4,6,7,8-HpCDF	1.00	0.220	0.220	1.29	1.18	9.0	107	96
1,2,3,4,7,8,9-HpCDF	1.00	0.0148	0.0148	1.09	1.15	5.0	108	114
1,2,3,4,6,7,8-HpCDD	1.00	0.836	0.838	2.10	1.64	24.7	126	80
OCDF	2.00	0.532	0.534	3.19	3.34	4.5	133	140
OCDD	2.00	6.96	6.97	11.70	7.37	45.4	237	20

Quantity Spiked - the amount of analyte spiked into the spiked samples
Unspiked Sample Contribution - calculated based on the amount found in the sample and the extracted amounts of the spiked and unspiked samples
Quantity Measured - the total amount of analyte measured in the spiked samples
RPD - the Relative Percent Difference of the spiked sample Quantity Measured values
Subtracted Recovery - calculated after subtracting the unspiked sample contribution

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Method 1613 Spike Sample Results

Client - SLR International Corporation

Client Sample ID	WL-P1-3-4-062124		
Lab Sample ID	10697605002	Sample Filename	L241016A_12
MS ID	10697605002-MS	MS Filename	L241016A_17
MSD ID	10697605002-MSD	MSD Filename	L241016B_01

	Quantity	Unspiked Sample Contribution		Quantity Measured			Subtracted Recovery	
	Spiked	to MS	to MSD	MS	MSD		MS	MSD
Analyte	(ng)	(ng)	(ng)	(ng)	(ng)	RPD	(%)	(%)
2,3,7,8-TCDF	0.20	0.0169	0.0170	0.22	0.22	0.0	99	99
2,3,7,8-TCDD	0.20	0.00382	0.00385	0.22	0.22	0.3	106	106
1,2,3,7,8-PeCDF	1.00	0.0230	0.0231	1.06	0.94	12.5	104	91
2,3,4,7,8-PeCDF	1.00	0.0133	0.0134	1.01	1.02	0.9	99	100
1,2,3,7,8-PeCDD	1.00	ND	ND	0.97	0.94	2.9	97	94
1,2,3,4,7,8-HxCDF	1.00	ND	ND	0.99	0.98	1.2	99	98
1,2,3,6,7,8-HxCDF	1.00	ND	ND	1.05	1.03	1.5	105	103
2,3,4,6,7,8-HxCDF	1.00	ND	ND	1.04	1.02	1.7	104	102
1,2,3,7,8,9-HxCDF	1.00	ND	ND	1.05	1.02	3.6	105	102
1,2,3,4,7,8-HxCDD	1.00	ND	ND	1.15	1.13	1.6	115	113
1,2,3,6,7,8-HxCDD	1.00	0.0103	0.0104	0.99	0.98	1.0	98	97
1,2,3,7,8,9-HxCDD	1.00	ND	ND	1.02	1.00	2.2	102	100
1,2,3,4,6,7,8-HpCDF	1.00	0.0280	0.0282	1.08	1.04	3.6	106	102
1,2,3,4,7,8,9-HpCDF	1.00	ND	ND	0.97	0.96	0.9	97	96
1,2,3,4,6,7,8-HpCDD	1.00	0.0945	0.0952	1.06	1.05	1.3	97	95
OCDF	2.00	0.0543	0.0547	2.47	2.52	2.2	121	123
OCDD	2.00	0.719	0.725	2.94	2.90	1.3	111	109

Quantity Spiked - the amount of analyte spiked into the spiked samples
Unspiked Sample Contribution - calculated based on the amount found in the sample and the extracted amounts of the spiked and unspiked samples
Quantity Measured - the total amount of analyte measured in the spiked samples
RPD - the Relative Percent Difference of the spiked sample Quantity Measured values
Subtracted Recovery - calculated after subtracting the unspiked sample contribution

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Method 1613 Spike Sample Results

Client - SLR International Corporation

Client Sample ID	WL-P4-3-4-062024		
Lab Sample ID	10697605011	Sample Filename	U240730B_07
MS ID	10697605011-MS	MS Filename	U240730B_13
MSD ID	10697605011-MSD	MSD Filename	U240730B_14

	Quantity	Unspiked Sample Contribution		Quantity Measured			Subtracted Recovery	
	Spiked	to MS	to MSD	MS	MSD		MS	MSD
Analyte	(ng)	(ng)	(ng)	(ng)	(ng)	RPD	(%)	(%)
2,3,7,8-TCDF	0.20	ND	ND	0.20	0.22	9.8	98	108
2,3,7,8-TCDD	0.20	ND	ND	0.22	0.24	9.4	109	119
1,2,3,7,8-PeCDF	1.00	ND	ND	0.98	1.06	8.0	98	106
2,3,4,7,8-PeCDF	1.00	ND	ND	0.92	1.01	8.6	92	101
1,2,3,7,8-PeCDD	1.00	ND	ND	0.95	1.03	8.3	95	103
1,2,3,4,7,8-HxCDF	1.00	ND	ND	0.97	1.05	7.8	97	105
1,2,3,6,7,8-HxCDF	1.00	ND	ND	0.98	1.15	16.0	98	115
2,3,4,6,7,8-HxCDF	1.00	ND	ND	0.98	1.11	12.4	98	111
1,2,3,7,8,9-HxCDF	1.00	ND	ND	0.95	1.11	15.5	95	111
1,2,3,4,7,8-HxCDD	1.00	ND	ND	1.06	1.16	9.4	106	116
1,2,3,6,7,8-HxCDD	1.00	ND	ND	0.96	1.06	10.3	96	106
1,2,3,7,8,9-HxCDD	1.00	ND	ND	0.89	0.99	10.9	89	99
1,2,3,4,6,7,8-HpCDF	1.00	ND	ND	1.00	1.13	12.3	100	113
1,2,3,4,7,8,9-HpCDF	1.00	ND	ND	0.96	1.08	12.6	96	108
1,2,3,4,6,7,8-HpCDD	1.00	0.0604	0.0604	0.94	1.14	19.0	88	108
OCDF	2.00	ND	ND	1.87	1.98	5.6	94	99
OCDD	2.00	0.577	0.576	2.59	3.09	17.6	101	126

Quantity Spiked - the amount of analyte spiked into the spiked samples
Unspiked Sample Contribution - calculated based on the amount found in the sample and the extracted amounts of the spiked and unspiked samples
Quantity Measured - the total amount of analyte measured in the spiked samples
RPD - the Relative Percent Difference of the spiked sample Quantity Measured values
Subtracted Recovery - calculated after subtracting the unspiked sample contribution

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Method 1613 Spike Sample Results

Client - SLR International Corporation

Client Sample ID	WL-P20-1-2-061924		
Lab Sample ID	10697605058	Sample Filename	U240708A_10
MS ID	10697605058-MS	MS Filename	U240708A_05
MSD ID	10697605058-MSD	MSD Filename	U240708A_06

	Quantity	Unspiked Sample Contribution		Quantity Measured			Subtracted Recovery	
	Spiked	to MS	to MSD	MS	MSD		MS	MSD
Analyte	(ng)	(ng)	(ng)	(ng)	(ng)	RPD	(%)	(%)
2,3,7,8-TCDF	0.20	ND	ND	0.23	0.22	5.8	117	110
2,3,7,8-TCDD	0.20	ND	ND	0.25	0.24	2.3	125	122
1,2,3,7,8-PeCDF	1.00	ND	ND	1.08	1.06	1.4	108	106
2,3,4,7,8-PeCDF	1.00	ND	ND	1.06	1.03	2.9	106	103
1,2,3,7,8-PeCDD	1.00	ND	ND	1.06	1.02	3.5	106	102
1,2,3,4,7,8-HxCDF	1.00	ND	ND	1.12	1.07	4.5	112	107
1,2,3,6,7,8-HxCDF	1.00	ND	ND	1.12	1.09	3.5	112	109
2,3,4,6,7,8-HxCDF	1.00	ND	ND	1.11	1.06	4.0	111	106
1,2,3,7,8,9-HxCDF	1.00	ND	ND	1.12	1.03	8.4	112	103
1,2,3,4,7,8-HxCDD	1.00	ND	ND	1.36	1.25	8.5	136	125
1,2,3,6,7,8-HxCDD	1.00	ND	ND	1.12	1.08	3.4	112	108
1,2,3,7,8,9-HxCDD	1.00	ND	ND	1.39	1.19	15.2	139	119
1,2,3,4,6,7,8-HpCDF	1.00	0.00613	0.00608	1.14	1.13	1.1	113	112
1,2,3,4,7,8,9-HpCDF	1.00	ND	ND	1.13	1.04	8.5	113	104
1,2,3,4,6,7,8-HpCDD	1.00	0.0233	0.0231	1.04	1.00	3.7	101	98
OCDF	2.00	0.0114	0.0113	2.43	2.31	4.9	121	115
OCDD	2.00	0.226	0.224	2.73	2.59	5.2	125	118

Quantity Spiked - the amount of analyte spiked into the spiked samples
Unspiked Sample Contribution - calculated based on the amount found in the sample and the extracted amounts of the spiked and unspiked samples
Quantity Measured - the total amount of analyte measured in the spiked samples
RPD - the Relative Percent Difference of the spiked sample Quantity Measured values
Subtracted Recovery - calculated after subtracting the unspiked sample contribution

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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June 28, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

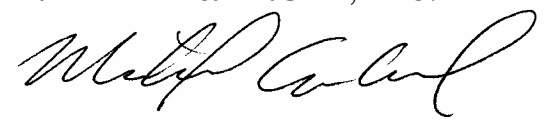
Dear Mr Kramer:

Included are the results from the testing of material submitted on June 21, 2024 from the Nord Woodlife Area 108.V20689.00001, F&BI 406328 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR0628R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 21, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Nord Woodlife Area 108.V20689.00001, F&BI 406328 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
406328 -01	WL-P10-5-6-062024
406328 -02	WL-P11-0-1-062024
406328 -03	WL-P18-4.5-5.5-061924
406328 -04	WL-P18-6-7-061924

The 8260D calibration standard exceeded the acceptance criteria for several compounds. The compounds were not detected, therefore this did not represent an out of control condition, and the results are not considered estimates.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	WL-P10-5-6-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Woodlife Area
Date Extracted:	06/26/24	Lab ID:	406328-01 1/0.5
Date Analyzed:	06/26/24	Data File:	062611.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	84	120
Toluene-d8	96	73	128
4-Bromofluorobenzene	96	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.015
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	0.086
Hexane	<0.25	o-Xylene	0.0038
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 k	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.11	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	WL-P11-0-1-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Woodlife Area
Date Extracted:	06/26/24	Lab ID:	406328-02 1/0.5
Date Analyzed:	06/26/24	Data File:	062612.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	84	120
Toluene-d8	121	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	1.5
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	14
Hexane	<0.25	o-Xylene	0.59
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	0.27
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	0.55
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	2.8
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 k	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	0.074
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	6.6
Benzene	0.012	sec-Butylbenzene	1.0
Trichloroethene	<0.002	p-Isopropyltoluene	1.2
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.59	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.53
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	WL-P18-4.5-5.5-061924	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Woodlife Area
Date Extracted:	06/26/24	Lab ID:	406328-03 1/0.5
Date Analyzed:	06/26/24	Data File:	062613.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	84	120
Toluene-d8	97	73	128
4-Bromofluorobenzene	204	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.18
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	2.2
Hexane	0.48	o-Xylene	0.48
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	2.9
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	5.1
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	5.9
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 k	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	0.53
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	23 ve
Benzene	<0.002	sec-Butylbenzene	7.1
Trichloroethene	<0.002	p-Isopropyltoluene	7.8
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.34	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.13
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	WL-P18-6-7-061924	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Woodlife Area
Date Extracted:	06/26/24	Lab ID:	406328-04 1/0.5
Date Analyzed:	06/26/24	Data File:	062614.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	84	120
Toluene-d8	97	73	128
4-Bromofluorobenzene	95	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.45
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	6.1
Hexane	<0.25	o-Xylene	0.13
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	0.42
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	0.93
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	0.82
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 k	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	0.056
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	4.4
Benzene	<0.002	sec-Butylbenzene	0.69
Trichloroethene	<0.002	p-Isopropyltoluene	0.93
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.033	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.27
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Nord Woodlife Area
Date Extracted:	06/26/24	Lab ID:	04-1332 mb 1/0.5
Date Analyzed:	06/26/24	Data File:	062606.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.002
Vinyl chloride	<0.002	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1 k	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.002
Acetone	<5 k	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.002	m,p-Xylene	<0.004
Hexane	<0.25 k	o-Xylene	<0.002
Methylene chloride	<0.4	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.002	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05 k	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.002	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1 k	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.003	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.002	sec-Butylbenzene	<0.05
Trichloroethene	<0.002	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.002	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.01
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1 k		

Date of Report: 06/28/24
Date Received: 06/21/24
Project: Nord Woodlife Area 108.V20689.00001, F&BI 406328

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 406004-10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	43	39	10-142	10
Chloromethane	mg/kg (ppm)	2	<0.5	71	69	10-126	3
Vinyl chloride	mg/kg (ppm)	2	<0.05	80	77	10-138	4
Bromomethane	mg/kg (ppm)	2	<0.5	73	73	10-163	0
Chloroethane	mg/kg (ppm)	2	<0.5	78	73	10-176	7
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	80	77	10-176	4
Acetone	mg/kg (ppm)	10	<5	82	83	10-163	1
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	84	78	10-160	7
Hexane	mg/kg (ppm)	2	<0.25	92	86	10-137	7
Methylene chloride	mg/kg (ppm)	2	<0.5	98	95	10-156	3
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	91	88	21-145	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	94	85	14-137	10
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	91	89	19-140	2
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	104	100	10-158	4
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	93	91	25-135	2
Chloroform	mg/kg (ppm)	2	<0.05	88	91	21-145	3
2-Butanone (MEK)	mg/kg (ppm)	10	<1	88	88	19-147	0
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	90	84	12-160	7
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	89	85	10-156	5
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	94	85	17-140	10
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	95	91	9-164	4
Benzene	mg/kg (ppm)	2	<0.03	88	86	29-129	2
Trichloroethene	mg/kg (ppm)	2	<0.02	119	118	21-139	1
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	92	94	30-135	2
Bromodichloromethane	mg/kg (ppm)	2	<0.05	87	94	23-155	8
Dibromomethane	mg/kg (ppm)	2	<0.05	91	91	23-145	0
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	92	92	24-155	0
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	88	88	28-144	0
Toluene	mg/kg (ppm)	2	<0.05	91	91	35-130	0
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	88	82	26-149	7
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	88	89	10-205	1
2-Hexanone	mg/kg (ppm)	10	<1	90	88	15-166	2
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	91	86	31-137	6
Tetrachloroethene	mg/kg (ppm)	2	<0.025	90	93	20-133	3
Dibromochloromethane	mg/kg (ppm)	2	<0.05	89	89	28-150	0
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	93	96	28-142	3
Chlorobenzene	mg/kg (ppm)	2	<0.05	95	91	32-129	4
Ethylbenzene	mg/kg (ppm)	2	<0.05	97	93	32-137	4
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	97	94	31-143	3
m,p-Xylene	mg/kg (ppm)	4	<0.1	96	92	34-136	4
o-Xylene	mg/kg (ppm)	2	<0.05	97	90	33-134	7
Styrene	mg/kg (ppm)	2	<0.05	95	92	35-137	3
Isopropylbenzene	mg/kg (ppm)	2	<0.05	94	93	31-142	1
Bromoform	mg/kg (ppm)	2	<0.05	95	91	21-156	4
n-Propylbenzene	mg/kg (ppm)	2	<0.05	102	101	23-146	1
Bromobenzene	mg/kg (ppm)	2	<0.05	91	88	34-130	3
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	97	101	18-149	4
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	59	58	28-140	2
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	89	96	25-144	8
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	99	100	31-134	1
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	97	97	31-136	0
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	101	102	30-137	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	97	98	10-182	1
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	99	101	23-145	2
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	100	100	21-149	0
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	93	96	30-131	3
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	93	96	29-129	3
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	94	95	31-132	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	88	89	11-161	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	94	97	22-142	3
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	98	103	10-142	5
Naphthalene	mg/kg (ppm)	2	<0.05	90	94	14-157	4
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	94	92	20-144	2

Date of Report: 06/28/24
Date Received: 06/21/24
Project: Nord Woodlife Area 108.V20689.00001, F&BI 406328

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	61	10-146
Chloromethane	mg/kg (ppm)	2	86	27-133
Vinyl chloride	mg/kg (ppm)	2	90	22-139
Bromomethane	mg/kg (ppm)	2	86	10-201
Chloroethane	mg/kg (ppm)	2	88	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	79	10-196
Acetone	mg/kg (ppm)	10	59	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	82	47-128
Hexane	mg/kg (ppm)	2	108	43-142
Methylene chloride	mg/kg (ppm)	2	95	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	86	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	92	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	92	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	98	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	95	64-135
Chloroform	mg/kg (ppm)	2	90	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	79	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	85	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	90	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	94	64-136
Carbon tetrachloride	mg/kg (ppm)	2	92	60-139
Benzene	mg/kg (ppm)	2	90	65-136
Trichloroethene	mg/kg (ppm)	2	92	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	91	61-145
Bromodichloromethane	mg/kg (ppm)	2	89	57-126
Dibromomethane	mg/kg (ppm)	2	98	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	92	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	90	65-143
Toluene	mg/kg (ppm)	2	91	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	88	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	88	62-131
2-Hexanone	mg/kg (ppm)	10	94	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	86	67-128
Tetrachloroethene	mg/kg (ppm)	2	91	68-128
Dibromochloromethane	mg/kg (ppm)	2	90	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	91	66-129
Chlorobenzene	mg/kg (ppm)	2	93	67-128
Ethylbenzene	mg/kg (ppm)	2	94	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	101	64-121
m,p-Xylene	mg/kg (ppm)	4	96	68-128
o-Xylene	mg/kg (ppm)	2	96	67-129
Styrene	mg/kg (ppm)	2	98	67-129
Isopropylbenzene	mg/kg (ppm)	2	95	68-128
Bromoform	mg/kg (ppm)	2	96	56-132
n-Propylbenzene	mg/kg (ppm)	2	108	68-129
Bromobenzene	mg/kg (ppm)	2	97	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	107	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	99	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	103	61-137
2-Chlorotoluene	mg/kg (ppm)	2	109	69-128
4-Chlorotoluene	mg/kg (ppm)	2	99	67-127
tert-Butylbenzene	mg/kg (ppm)	2	109	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	108	69-128
sec-Butylbenzene	mg/kg (ppm)	2	108	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	105	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	102	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	98	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	96	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	98	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	98	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	101	50-153
Naphthalene	mg/kg (ppm)	2	99	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	101	61-126

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

406328

SAMPLE CHAIN OF CUSTODY

06/21/24 N1

Page # 1 of 1

[redacted] Report To Chris Kramer

Company SLR Consulting

Address 1800 Blankenship Rd #440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Nora Woodlife Area

PO #: 108.V20689-00001

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: Chris Kramer & ap-us@slrconsulting.com

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
WL-P10-5-6-062024	01 A-D		1720	Soil	4					X							
WL-P11-0-1-062024	02		1651	↓	↓					X							
WL-P18-4.5-5.5-061924	03		1545							X							
WL-P18-6-7-061924	04		1545							X							
									Samples received at 2 °C								

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Stone Mader	SLR	06/21/24	1636
Received by:	ANH PHAN	FBI	06/21/24	16:36
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 406328 CLIENT SLR INITIALS/ DATE: AP 06/21/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: (NP) 6/24/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No		☐ Not on COC/label
Date Sampled	☐ Yes ☑ No	no date sampled on COC.	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No		☐ Not on COC/label
# of Containers	☑ Yes ☐ No		
Relinquished	☑ Yes ☐ No		
Requested analysis	☑ Yes ☐ On Hold		

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Chris Kramer
SLR International Corporation
1800 Blankenship Road
Suite 440
West Linn OR 97068

REPORT OF LABORATORY ANALYSIS FOR PCDD/PCDF

Report Prepared Date:
December 17, 2024

Report Information:

Pace Project #: 10716364
Sample Receipt Date: 11/20/2024
Client Project #: 108.V20689.00001 Nord Woodli
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kirsten Hogberg, your Pace Project Manager.

This report has been reviewed by:

January 08, 2025

KirstenJohnson, Project Manager
(612) 607-6407
(612) 607-6444 (fax)
kirsten.johnson@pacelabs.com

Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of SLR International Corporation. The sample was analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The reporting limits were set to statistically-derived method detection limits (MDLs) and were adjusted for sample extraction amount and dilution. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extract ranged from 47-77%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for variation in recovery and accurate values were obtained.

Values were flagged "P" where polychlorinated diphenyl ethers were present. Concentrations below the calibration range were flagged "J" and should be regarded as estimates. Concentrations above the calibration range were flagged "E" and should also be regarded as estimates. In cases where the estimated detection limit (EDL) values were above the method detection limits, the EDLs were provided and flagged "A".

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of PCDDs and PCDFs at the reporting limits.

Laboratory spike samples were also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results showed that the spiked native compounds were recovered at 94-123% with relative percent differences of 0.0-12.6%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

REPORT OF LABORATORY ANALYSIS

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1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612.607.1700
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Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
		Missouri	10100
A2LA	2926.01	Montana	CERT0092
Alabama	40770	Nebraska	NE-OS-18-06
Alaska-DW	MN00064	Nevada	MN00064
Alaska-UST	17-009	New Hampshire	2081
Arizona	AZ0014	New Jersey	MN002
Arkansas - WW	88-0680	New York	11647
Arkansas-DW	MN00064	North Carolina-DW	27700
California	2929	North Carolina-WW	530
Colorado	MN00064	North Dakota	R-036
Connecticut	PH-0256	Ohio-DW	41244
Florida	E87605	Ohio-VAP (1700)	CL101
Georgia	959	Ohio-VAP (1800)	CL110
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon-Primary	MN300001
Illinois	200011	Oregon-Secondary	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky-DW	90062	Tennessee	TN02818
Kentucky-WW	90062	Texas	T104704192
Louisiana-DEQ	AI-84596	Utah	MN00064
Louisiana-DW	MN00064	Vermont	VT-027053137
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Michigan	9909	West Virginia-DEP	382
Minnesota	027-053-137	West Virginia-DW	9952C
Minnesota-Ag	via MN 027-053-137	Wisconsin	999407970
Minnesota-Petrofund	1240	Wyoming-UST	via A2LA 2926.01
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

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Appendix A

Sample Management

REPORT OF LABORATORY ANALYSIS

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 10716364

10716364

Company Name: SLR	Contact/Report To: Chris Kramer
Street Address: 22118 20th Ave SE Ste. G202 Bothell, WA 98021	Phone #: (503) 723-4423
	E-Mail: Ckramer@sircconsulting.com
	Cc E-Mail:
Customer Project #: 108.V20289.00001	Invoice to: Chris Kramer + AP
Project Name: Nord Woodlife Area	Invoice E-mail: Ckramer@sircconsulting.com ap-us@sircconsulting.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): Snohomish County / WA
Data Deliverables: [ ] Level II [ ] Level III [X] Level IV [ ] EQUIS [X] Other Ecology EIM EDD	Regulatory Program (DW, RCRA, etc.) as applicable: Ecology EIM Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other _____ Date Results Requested:
	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	1613B Dioxin Furan 17 Congener	Sample Comment	Preservation non-conformance identified for sample.
WL-P27-1-1.5-111524	Soil	Grab			11/15/24	947	1			X	01	
WL-P28-0.75-1.25-111524	↓	↓			↓	1033	↓				Hold 02	
WL-P29-0.5-0.75-111524						1110					Hold 03	
WL-P30-0.5-0.75-111524	↓	↓			↓	1122	↓				Hold 04	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID:

Additional Instructions from Pace® :

Collected By: Printed Name: Emily Hernandez Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: 1 | Thermometer ID: T9 | Correction Factor (°C): -0.4 | Obs. Temp. (°C): 1.1 | Corrected Temp. (°C): 0.7 | [ ] On Ice: Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
SLR	11/18/24 1500		11/20/24 900	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier [ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: SLR **PROJECT #:** WO#: 10716364

PM: KNH Due Date: 12/13/24

CLIENT: SLR

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 7151 6115 7097 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☐ Bubble Bags ☑ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☑ YES ☐ NO **Type of Ice:** ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☑ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: -0.4 **Cooler Temp Read w/Temp Blank:** 1.1 °C **Cooler Temp Corrected w/Temp Blank:** 0.7 °C	**Average Corrected Temp (no Temp Blank Only):** ____ °C
***NOTE:** Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☐ N/A – Water Sample/Other (describe): ____	**Initials & Date of Person Examining Contents:** JMW 11/20/24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☑ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☑ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☑	☐	☐	3.
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: ____
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☑ Soil ☐ Water ☐ Other	☑	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☑	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☑	☐	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): ____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: Kirsten Hogberg **Date:** 11/21/2024

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: JMW **Line:** 5

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Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

H2 = Extracted outside of holding time

I = Isotope ratio out of specification

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

REPORT OF LABORATORY ANALYSIS

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Appendix B

Sample Analysis Summary

REPORT OF LABORATORY ANALYSIS

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Method 1613B Sample Analysis Results

Client - SLR International Corporation

Client's Sample ID	WL-P27-1-1.5-111524		
Lab Sample ID	10716364001		
Filename	L241215A_17		
Injected By	JRH		
Total Amount Extracted	14.1 g	Matrix	SOLID
% Moisture	11.2	Dilution	NA
Dry Weight Extracted	12.5 g	Collected	11/15/2024 09:47
ICAL ID	L240918	Received	11/20/2024 09:00
CCal Filename(s)	L241215A_02	Extracted	11/27/2024 14:00
Method Blank ID	BLANK-115815	Analyzed	12/15/2024 23:34

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.55	-----	0.21	J	2,3,7,8-TCDF-13C	2.00	72
Total TCDF	8.2	-----	0.21		2,3,7,8-TCDD-13C	2.00	67
					1,2,3,7,8-PeCDF-13C	2.00	72
2,3,7,8-TCDD	ND	-----	0.20		2,3,4,7,8-PeCDF-13C	2.00	72
Total TCDD	16	-----	0.20		1,2,3,7,8-PeCDD-13C	2.00	73
					1,2,3,4,7,8-HxCDF-13C	2.00	74
1,2,3,7,8-PeCDF	-----	26	0.50	P	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	-----	3.1	0.75	PJ	2,3,4,6,7,8-HxCDF-13C	2.00	67
Total PeCDF	23	-----	0.50		1,2,3,7,8,9-HxCDF-13C	2.00	71
					1,2,3,4,7,8-HxCDD-13C	2.00	64
1,2,3,7,8-PeCDD	1.7	-----	0.66	J	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	20	-----	0.66		1,2,3,4,6,7,8-HpCDF-13C	2.00	52
					1,2,3,4,7,8,9-HpCDF-13C	2.00	49
1,2,3,4,7,8-HxCDF	8.6	-----	0.77		1,2,3,4,6,7,8-HpCDD-13C	2.00	57
1,2,3,6,7,8-HxCDF	4.9	-----	0.81		OCDD-13C	4.00	47
2,3,4,6,7,8-HxCDF	4.3	-----	0.71				
1,2,3,7,8,9-HxCDF	2.0	-----	0.73	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	190	-----	0.71		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	6.0	-----	1.3		2,3,7,8-TCDD-37Cl4	0.20	70
1,2,3,6,7,8-HxCDD	28	-----	0.74				
1,2,3,7,8,9-HxCDD	10	-----	0.99				
Total HxCDD	150	-----	0.74				
1,2,3,4,6,7,8-HpCDF	160	-----	1.2	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	11	-----	1.7	A	Equivalence: 29 ng/Kg		
Total HpCDF	530	-----	1.2		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	1200	-----	0.50				
Total HpCDD	2100	-----	0.50				
OCDF	610	-----	1.8				
OCDD	19000	-----	1.6	E			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value
A = Reporting Limit based on signal to noise (EDL)
P = PCDE Interference
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

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Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKWS		
Lab Sample ID	BLANK-115815	Matrix	Solid
Filename	F241210B_08	Dilution	NA
Total Amount Extracted	21.5 g	Extracted	11/27/2024 14:00
ICAL ID	F241015	Analyzed	12/10/2024 19:16
CCal Filename(s)	F241210B_01	Injected By	SMT

Native Isomers	Conc ng/Kg	EMPC ng/Kg	MDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.12		2,3,7,8-TCDF-13C	2.00	80
Total TCDF	ND	-----	0.12		2,3,7,8-TCDD-13C	2.00	71
					1,2,3,7,8-PeCDF-13C	2.00	80
2,3,7,8-TCDD	ND	-----	0.12		2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	ND	-----	0.12		1,2,3,7,8-PeCDD-13C	2.00	77
					1,2,3,4,7,8-HxCDF-13C	2.00	98
1,2,3,7,8-PeCDF	ND	-----	0.29		1,2,3,6,7,8-HxCDF-13C	2.00	99
2,3,4,7,8-PeCDF	ND	-----	0.44		2,3,4,6,7,8-HxCDF-13C	2.00	92
Total PeCDF	ND	-----	0.29		1,2,3,7,8,9-HxCDF-13C	2.00	68
					1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	ND	-----	0.38		1,2,3,6,7,8-HxCDD-13C	2.00	89
Total PeCDD	ND	-----	0.38		1,2,3,4,6,7,8-HpCDF-13C	2.00	50
					1,2,3,4,7,8,9-HpCDF-13C	2.00	50
1,2,3,4,7,8-HxCDF	ND	-----	0.45		1,2,3,4,6,7,8-HpCDD-13C	2.00	52
1,2,3,6,7,8-HxCDF	ND	-----	0.47		OCDD-13C	4.00	46
2,3,4,6,7,8-HxCDF	ND	-----	0.42				
1,2,3,7,8,9-HxCDF	ND	-----	0.43		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.42		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.75		2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	ND	-----	0.43				
1,2,3,7,8,9-HxCDD	ND	-----	0.58				
Total HxCDD	ND	-----	0.43				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.38	A	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.47		Equivalence: 0.00 ng/Kg		
Total HpCDF	ND	-----	0.38		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.40	A			
Total HpCDD	ND	-----	0.40				
OCDF	ND	-----	1.1				
OCDD	ND	-----	0.93				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
MDL = Method Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.
A = Reporting Limit based on signal to noise (EDL)

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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-115816		
Filename	F241210B_02	Matrix	Solid
Total Amount Extracted	20.8 g	Dilution	NA
ICAL ID	F241015	Extracted	11/27/2024 14:00
CCal Filename	F241210B_01	Analyzed	12/10/2024 14:46
Method Blank ID	BLANK-115815	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	10	7.5	15.8	104
2,3,7,8-TCDD	10	12	6.7	15.8	115
1,2,3,7,8-PeCDF	50	51	40.0	67.0	102
2,3,4,7,8-PeCDF	50	48	34.0	80.0	96
1,2,3,7,8-PeCDD	50	47	35.0	71.0	94
1,2,3,4,7,8-HxCDF	50	50	36.0	67.0	99
1,2,3,6,7,8-HxCDF	50	52	42.0	65.0	104
2,3,4,6,7,8-HxCDF	50	51	35.0	78.0	102
1,2,3,7,8,9-HxCDF	50	51	39.0	65.0	102
1,2,3,4,7,8-HxCDD	50	52	35.0	82.0	104
1,2,3,6,7,8-HxCDD	50	51	38.0	67.0	103
1,2,3,7,8,9-HxCDD	50	52	32.0	81.0	103
1,2,3,4,6,7,8-HpCDF	50	53	41.0	61.0	105
1,2,3,4,7,8,9-HpCDF	50	48	39.0	69.0	97
1,2,3,4,6,7,8-HpCDD	50	51	35.0	70.0	101
OCDF	100	100	63.0	170.0	100
OCDD	100	110	78.0	144.0	115
2,3,7,8-TCDD-37Cl4	10	8.3	3.1	19.1	83
2,3,7,8-TCDF-13C	100	83	22.0	152.0	83
2,3,7,8-TCDD-13C	100	72	20.0	175.0	72
1,2,3,7,8-PeCDF-13C	100	82	21.0	192.0	82
2,3,4,7,8-PeCDF-13C	100	77	13.0	328.0	77
1,2,3,7,8-PeCDD-13C	100	81	21.0	227.0	81
1,2,3,4,7,8-HxCDF-13C	100	90	19.0	202.0	90
1,2,3,6,7,8-HxCDF-13C	100	92	21.0	159.0	92
2,3,4,6,7,8-HxCDF-13C	100	89	22.0	176.0	89
1,2,3,7,8,9-HxCDF-13C	100	68	17.0	205.0	68
1,2,3,4,7,8-HxCDD-13C	100	69	21.0	193.0	69
1,2,3,6,7,8-HxCDD-13C	100	88	25.0	163.0	88
1,2,3,4,6,7,8-HpCDF-13C	100	50	21.0	158.0	50
1,2,3,4,7,8,9-HpCDF-13C	100	55	20.0	186.0	55
1,2,3,4,6,7,8-HpCDD-13C	100	55	26.0	166.0	55
OCDD-13C	200	100	26.0	397.0	52

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-115836		
Filename	F241211B_03	Matrix	Solid
Total Amount Extracted	20.3 g	Dilution	NA
ICAL ID	F241015	Extracted	11/27/2024 14:00
CCal Filename	F241211B_02	Analyzed	12/11/2024 17:35
Method Blank ID	BLANK-115815	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	111
2,3,7,8-TCDD	10	12	6.7	15.8	122
1,2,3,7,8-PeCDF	50	55	40.0	67.0	110
2,3,4,7,8-PeCDF	50	53	34.0	80.0	106
1,2,3,7,8-PeCDD	50	52	35.0	71.0	103
1,2,3,4,7,8-HxCDF	50	51	36.0	67.0	103
1,2,3,6,7,8-HxCDF	50	53	42.0	65.0	107
2,3,4,6,7,8-HxCDF	50	53	35.0	78.0	106
1,2,3,7,8,9-HxCDF	50	53	39.0	65.0	106
1,2,3,4,7,8-HxCDD	50	59	35.0	82.0	118
1,2,3,6,7,8-HxCDD	50	51	38.0	67.0	103
1,2,3,7,8,9-HxCDD	50	51	32.0	81.0	102
1,2,3,4,6,7,8-HpCDF	50	58	41.0	61.0	116
1,2,3,4,7,8,9-HpCDF	50	53	39.0	69.0	106
1,2,3,4,6,7,8-HpCDD	50	53	35.0	70.0	107
OCDF	100	110	63.0	170.0	106
OCDD	100	120	78.0	144.0	123
2,3,7,8-TCDD-37Cl4	10	7.3	3.1	19.1	73
2,3,7,8-TCDF-13C	100	78	22.0	152.0	78
2,3,7,8-TCDD-13C	100	69	20.0	175.0	69
1,2,3,7,8-PeCDF-13C	100	74	21.0	192.0	74
2,3,4,7,8-PeCDF-13C	100	97	13.0	328.0	97
1,2,3,7,8-PeCDD-13C	100	100	21.0	227.0	104
1,2,3,4,7,8-HxCDF-13C	100	89	19.0	202.0	89
1,2,3,6,7,8-HxCDF-13C	100	100	21.0	159.0	102
2,3,4,6,7,8-HxCDF-13C	100	90	22.0	176.0	90
1,2,3,7,8,9-HxCDF-13C	100	68	17.0	205.0	68
1,2,3,4,7,8-HxCDD-13C	100	74	21.0	193.0	74
1,2,3,6,7,8-HxCDD-13C	100	110	25.0	163.0	109
1,2,3,4,6,7,8-HpCDF-13C	100	67	21.0	158.0	67
1,2,3,4,7,8,9-HpCDF-13C	100	63	20.0	186.0	63
1,2,3,4,6,7,8-HpCDD-13C	100	70	26.0	166.0	70
OCDD-13C	200	110	26.0	397.0	54

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

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Minneapolis, MN 55414

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Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client SLR International Corporation

Spike 1 ID LCS-115816 Spike 2 ID LCSD-115836
Spike 1 Filename F241210B_02 Spike 2 Filename F241211B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	104	111	6.5
2,3,7,8-TCDD	115	122	5.9
1,2,3,7,8-PeCDF	102	110	7.5
2,3,4,7,8-PeCDF	96	106	9.9
1,2,3,7,8-PeCDD	94	103	9.1
1,2,3,4,7,8-HxCDF	99	103	4.0
1,2,3,6,7,8-HxCDF	104	107	2.8
2,3,4,6,7,8-HxCDF	102	106	3.8
1,2,3,7,8,9-HxCDF	102	106	3.8
1,2,3,4,7,8-HxCDD	104	118	12.6
1,2,3,6,7,8-HxCDD	103	103	0.0
1,2,3,7,8,9-HxCDD	103	102	1.0
1,2,3,4,6,7,8-HpCDF	105	116	10.0
1,2,3,4,7,8,9-HpCDF	97	106	8.9
1,2,3,4,6,7,8-HpCDD	101	107	5.8
OCDF	100	106	5.8
OCDD	115	123	6.7

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

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Creosote/Fuel Oil Area Hot Spot Soil Removal Delineation Assessment: Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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June 28, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

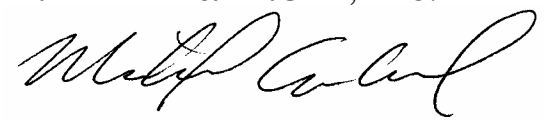
Dear Mr Kramer:

Included are the results from the testing of material submitted on June 19, 2024 from the Nord Creosote Area 108.V20689.00001, F&BI 406268 project. There are 21 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR0628R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 19, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Nord Creosote Area 108.V20689.00001, F&BI 406268 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
406268 -01	CF-P2-9-10-061724
406268 -02	CF-P8-7-8-061724
406268 -03	CF-P9-1-2-061724
406268 -04	CF-P12-6.5-7.5-061724
406268 -05	CF-P13-8-9-061724
406268 -06	CF-P14-1-2-061824
406268 -07	CF-P15-5.5-6.5-061824
406268 -08	CF-P18-6-7-061824
406268 -09	CF-P19-5.5-6.5-061824
406268 -10	CF-P20-5.5-6.5-061824
406268 -11	CF-P21-8-9-061824
406268 -12	CF-P22-8.5-9.5-061824
406268 -13	CF-P28-9-10-061824
406268 -14	CF-P31-9-10-061924
406268 -15	CF-P35-8.5-9.5-061924
406268 -16	CF-P36-8.5-9.5-061924
406268 -17	CF-P37-8-9-061924

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P2-9-10-061724	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-01
Date Analyzed:	6/20/2024	Data File:	062037.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	90	50	150
Benz(a)anthracene-d12	107	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P8-7-8-061724	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-02
Date Analyzed:	6/20/2024	Data File:	062038.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	78	50	150
Benz(a)anthracene-d12	101	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P9-1-2-061724	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-03 1/100
Date Analyzed:	6/26/2024	Data File:	062634.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	161 d	50	150
Benz(a)anthracene-d12	127 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	180
Chrysene	480
Benzo(b)fluoranthene	270
Benzo(k)fluoranthene	90
Benzo(a)pyrene	210
Indeno(1,2,3-cd)pyrene	130
Dibenz(a,h)anthracene	38

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P12-6.5-7.5-061724	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-04 1/100
Date Analyzed:	6/26/2024	Data File:	062635.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	147 d	50	150
Benz(a)anthracene-d12	110 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	140
Chrysene	130
Benzo(b)fluoranthene	93
Benzo(k)fluoranthene	30
Benzo(a)pyrene	74
Indeno(1,2,3-cd)pyrene	32
Dibenz(a,h)anthracene	8.8

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P13-8-9-061724	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-05
Date Analyzed:	6/21/2024	Data File:	062111.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	88	50	150
Benz(a)anthracene-d12	111	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.074
Chrysene	0.056
Benzo(b)fluoranthene	0.046
Benzo(k)fluoranthene	0.015
Benzo(a)pyrene	0.032
Indeno(1,2,3-cd)pyrene	0.011
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P14-1-2-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-06 1/10
Date Analyzed:	6/26/2024	Data File:	062636.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	87 d	50	150
Benz(a)anthracene-d12	87 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	7.4
Chrysene	16
Benzo(b)fluoranthene	21
Benzo(k)fluoranthene	6.1
Benzo(a)pyrene	16
Indeno(1,2,3-cd)pyrene	15
Dibenz(a,h)anthracene	3.6

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P15-5.5-6.5-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-07
Date Analyzed:	6/21/2024	Data File:	062112.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	91	50	150
Benz(a)anthracene-d12	102	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.072
Chrysene	0.55
Benzo(b)fluoranthene	0.037
Benzo(k)fluoranthene	0.019
Benzo(a)pyrene	0.030
Indeno(1,2,3-cd)pyrene	0.012
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P18-6-7-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-08
Date Analyzed:	6/21/2024	Data File:	062113.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	50	150
Benz(a)anthracene-d12	110	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0074
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	0.011
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P19-5.5-6.5-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-09
Date Analyzed:	6/21/2024	Data File:	062044.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	79	50	150
Benz(a)anthracene-d12	100	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0059
Benzo(b)fluoranthene	0.011
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	0.0090
Indeno(1,2,3-cd)pyrene	0.0068
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P20-5.5-6.5-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-10
Date Analyzed:	6/21/2024	Data File:	062045.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benz(a)anthracene-d12	107	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.0090
Chrysene	0.020
Benzo(b)fluoranthene	0.021
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	0.017
Indeno(1,2,3-cd)pyrene	0.017
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P21-8-9-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-11
Date Analyzed:	6/21/2024	Data File:	062046.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benz(a)anthracene-d12	106	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0052
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P22-8.5-9.5-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-12
Date Analyzed:	6/21/2024	Data File:	062047.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	82	50	150
Benz(a)anthracene-d12	112	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0081
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P28-9-10-061824	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-13
Date Analyzed:	6/21/2024	Data File:	062048.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	85	50	150
Benz(a)anthracene-d12	109	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0071
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P31-9-10-061924	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-14
Date Analyzed:	6/21/2024	Data File:	062049.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	80	50	150
Benz(a)anthracene-d12	99	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P35-8.5-9.5-061924	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-15
Date Analyzed:	6/21/2024	Data File:	062050.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	83	50	150
Benz(a)anthracene-d12	105	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P36-8.5-9.5-061924	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-16
Date Analyzed:	6/21/2024	Data File:	062051.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	74	50	150
Benz(a)anthracene-d12	89	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	CF-P37-8-9-061924	Client:	SLR International Corp.
Date Received:	06/19/24	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	406268-17
Date Analyzed:	6/21/2024	Data File:	062052.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benz(a)anthracene-d12	110	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270E SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Nord Creosote Area
Date Extracted:	06/20/24	Lab ID:	04-1431 mb
Date Analyzed:	6/20/2024	Data File:	062029.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	ya

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89	50	150
Benz(a)anthracene-d12	107	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Date of Report: 06/28/24
Date Received: 06/19/24
Project: Nord Creosote Area 108.V20689.00001, F&BI 406268

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270E SIM

Laboratory Code: 406224-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.5	<0.005	92	89	70-130	3
Chrysene	mg/kg (ppm)	0.5	<0.005	87	84	70-130	4
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	<0.005	90	86	70-130	5
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	<0.005	82	82	70-130	0
Benzo(a)pyrene	mg/kg (ppm)	0.5	<0.005	85	86	70-130	1
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	<0.005	75	80	70-130	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	<0.005	70	77	70-130	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.5	105	70-130
Chrysene	mg/kg (ppm)	0.5	98	70-130
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	100	70-130
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	94	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.5	98	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	87	70-130
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	83	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

06/19/24 G4

406268

Page # 1 of 2

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Rd #440,

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (*signature*) Stone Machel

PROJECT NAME: Nord Creosote Area

PO #: 108.V20689.00001

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: Chris Kramer & ap-us@slrconsulting.com

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cPAHs EPA 8270E				Notes
CF-P2-9-10-061724	01	06/17/24	1100	Soil	1								X				
CF-P8-7-8-061724	02		1423										X				
CF-P9-1-2-061724	03		1440										X				
CF-P12-6.5-7.5-061724	04		1552										X				
CF-P13-8-9-061724	05		1606										X				
CF-P14-1-2-061824	06	06/18/24	926										X				
CF-P15-5.5-6.5-061824	07		930										X				
CF-P18-6-7-061824	08		1058										X				
CF-P19-5.5-6.5-061824	09		1123										X				
CF-P20-5.5-6.5-061824	10		1136										X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Stone Machel	SLR	06/19/24	1737
Received by:	JOE MOHAMMED	FBI	06/19/24	1737
Relinquished by:		Samples received at 1		
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SAMPLE CHAIN OF CUSTODY

06/19/24 G4

406268

Report To Chris Kramer

Company SLR Consulting

Address 1800 Blankenship Rd #440,

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (*signature*) Stave Mackel

PROJECT NAME	PO #
Nord Creosote Area	108.V20689.00001
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	Chris Kramer & ap-us@slrconsulting.com

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	ePAHs EPA 8270E				Notes
CF-P21-8-9-061824	11	06/18/24	1240	Soil	1								X				
CF-P22-8.5-9.5-061824	12	↓	1257	↓	↓								X				
CF-P28-9-10-061824	13	↓	1534	↓	↓								X				
CF-P31-9-10-061924	14	06/19/24	901	↓	↓								X				
CF-P35-8.5-9.5-061924	15	↓	1004	↓	↓								X				
CF-P36-8.5-9.5-061924	16	↓	1017	↓	↓								X				
CF-P37-8-9-061924	17	↓	1020	↓	↓								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Stave Mackel	Stave Mackel	SLR	06/19/24	1737
Received by:	JOE MOHAMMED	FBT	06/19/24	1737
Relinquished by:		Samples received at 1 °C		
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 406263 CLIENT SLR INITIALS/ DATE: 06/19/24 GM

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 1 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 06/20/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0-2 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

June 28, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

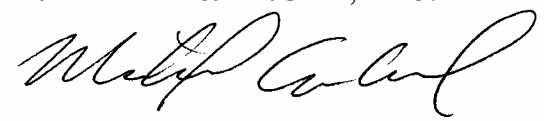
Dear Mr Kramer:

Included are the results from the testing of material submitted on June 21, 2024 from the Nord Creosote Area 108.V20689.00001, F&BI 406327 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR0628R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 21, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Nord Creosote Area 108.V20689.00001, F&BI 406327 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
406327 -01	CF-P38-7-8-062024
406327 -02	CF-P39-9-10-062024
406327 -03	CF-P40-6.5-7.5-062024
406327 -04	CF-P41-7.5-8.5-062024
406327 -05	CF-P42-9-10-062024
406327 -06	CF-P44-8-9-062024
406327 -07	CF-P128-9-10-062024

All quality control requirements were acceptable.

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P38-7-8-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-01 1/100
Date Analyzed:	6/26/2024	Data File:	062632.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	160 d	50	150
Benz(a)anthracene-d12	89 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	29
Chrysene	26
Benzo(b)fluoranthene	20
Benzo(k)fluoranthene	6.9
Benzo(a)pyrene	15
Indeno(1,2,3-cd)pyrene	7.1
Dibenz(a,h)anthracene	2.1

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P39-9-10-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-02
Date Analyzed:	6/26/2024	Data File:	062631.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	50	150
Benz(a)anthracene-d12	108	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	0.0085
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P40-6.5-7.5-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-03 1/1000
Date Analyzed:	6/26/2024	Data File:	062637.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	800 d	50	150
Benz(a)anthracene-d12	140 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	67
Chrysene	44
Benzo(b)fluoranthene	48
Benzo(k)fluoranthene	15
Benzo(a)pyrene	35
Indeno(1,2,3-cd)pyrene	17
Dibenz(a,h)anthracene	5.2

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P41-7.5-8.5-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-04
Date Analyzed:	6/25/2024	Data File:	062531.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	75	50	150
Benz(a)anthracene-d12	82	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.012
Chrysene	0.0082
Benzo(b)fluoranthene	0.0074
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P42-9-10-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-05
Date Analyzed:	6/25/2024	Data File:	062532.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	86	50	150
Benz(a)anthracene-d12	91	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.17
Chrysene	0.048
Benzo(b)fluoranthene	0.055
Benzo(k)fluoranthene	0.012
Benzo(a)pyrene	0.035
Indeno(1,2,3-cd)pyrene	0.0051
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P44-8-9-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-06
Date Analyzed:	6/25/2024	Data File:	062533.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	92	50	150
Benz(a)anthracene-d12	96	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.019
Chrysene	0.034
Benzo(b)fluoranthene	0.016
Benzo(k)fluoranthene	0.0055
Benzo(a)pyrene	0.012
Indeno(1,2,3-cd)pyrene	0.0059
Dibenz(a,h)anthracene	<0.005

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	CF-P128-9-10-062024	Client:	SLR International Corp.
Date Received:	06/21/24	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	406327-07 1/10
Date Analyzed:	6/26/2024	Data File:	062633.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	89 d	50	150
Benz(a)anthracene-d12	98 d	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	0.54
Chrysene	0.61
Benzo(b)fluoranthene	0.86
Benzo(k)fluoranthene	0.23
Benzo(a)pyrene	0.56
Indeno(1,2,3-cd)pyrene	0.43
Dibenz(a,h)anthracene	0.14

Analysis For Semivolatile Compounds By EPA Method 8270D SIM

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Nord Creosote Area
Date Extracted:	06/24/24	Lab ID:	04-1448 mb
Date Analyzed:	6/25/2024	Data File:	062438.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Anthracene-d10	93	50	150
Benz(a)anthracene-d12	97	50	150

Compounds:	Concentration mg/kg (ppm)
Benz(a)anthracene	<0.005
Chrysene	<0.005
Benzo(b)fluoranthene	<0.005
Benzo(k)fluoranthene	<0.005
Benzo(a)pyrene	<0.005
Indeno(1,2,3-cd)pyrene	<0.005
Dibenz(a,h)anthracene	<0.005

Date of Report: 06/28/24
Date Received: 06/21/24
Project: Nord Creosote Area 108.V20689.00001, F&BI 406327

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR PAHS BY EPA METHOD 8270E SIM

Laboratory Code: 406269-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.5	<0.005	69	72	50-150	4
Chrysene	mg/kg (ppm)	0.5	<0.005	63	66	50-150	5
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	<0.005	71	72	50-150	1
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	<0.005	63	64	50-150	2
Benzo(a)pyrene	mg/kg (ppm)	0.5	<0.005	70	68	50-150	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	<0.005	68	59	50-150	14
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	<0.005	63	59	50-150	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.5	87	70-130
Chrysene	mg/kg (ppm)	0.5	80	70-130
Benzo(b)fluoranthene	mg/kg (ppm)	0.5	90	70-130
Benzo(k)fluoranthene	mg/kg (ppm)	0.5	86	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.5	91	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.5	82	70-130
Dibenz(a,h)anthracene	mg/kg (ppm)	0.5	78	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

406327

SAMPLE CHAIN OF CUSTODY

06/21/24 #2

Page # 1 of 1

Report To Chris Kramer

Company SLR Consulting

Address 1800 Blankenship Rd #440

City, State, ZIP West Linn, OR, 97068

Phone (503) 723-4423 Email ckramer@slrconsulting.com

SAMPLERS (signature)

PROJECT NAME: Nord Creosote Area

PO #: 108.V20689.00001

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: Chris Kramer & ap-us@slrconsulting.com

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cPAHs EPA 8270E				Notes
CF-P38-7-8-062024	01	06/20/24	843	Soil	1								X				
CF-P39-9-10-062024	02		858										X				
CF-P40-6.5-7.5-062024	03		914										X				
CF-P41-7.5-8.5-062024	04		925										X				
CF-P42-9-10-062024	05		950										X				
CF-P44-8-9-062024	06		1034										X				
CF-P128-9-10-062024	07		956										X				
																	Samples received at 2 °C

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Stone Mackel	SLR	06/21/24	1636
Received by:	ANH PHAN	FBI	06/21/24	16:36
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 406327 CLIENT SLR INITIALS/ DATE: AP 06/21/24

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: (NP) 06/24/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No	☐ Not on COC/label
Time Sampled	☒ Yes ☐ No	☐ Not on COC/label
# of Containers	☒ Yes ☐ No	
Relinquished	☐ Yes ☐ No	
Requested analysis	☒ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

Creosote/Fuel Oil Area Hot Spot Shallow and Deep Groundwater Zone: Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

September 11, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

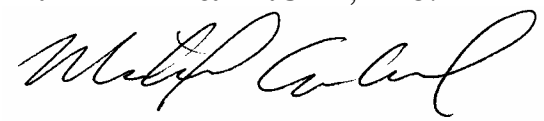
Dear Mr Kramer:

Included are the results from the testing of material submitted on August 30, 2024 from the Former Nord Door 108.V20689.00001, F&BI 408562 project. There are 33 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR0911R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 30, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Former Nord Door 108.V20689.00001, F&BI 408562 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
408562 -01	MW-22D-082824
408562 -02	MW-23S-082824
408562 -03	MW-24S-082824
408562 -04	MW-25D-083024
408562 -05	MW-26D-082924
408562 -06	MW-27S-082924
408562 -07	MW-28D-082924
408562 -08	MW-29S-082924
408562 -09	MW-30M-082924
408562 -10	MW-31S-082924
408562 -11	MW-32D-082924
408562 -12	MW-33D-083024
408562 -13	MW-97-083024
408562 -14	TB1-083024

The samples marked for TDS analysis were sent to Alliance Technical. The report is enclosed.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-22D-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-01
Date Analyzed:	09/05/24	Data File:	090524.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	86	113
Toluene-d8	95	88	114
4-Bromofluorobenzene	91	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	28

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-23S-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-02
Date Analyzed:	09/06/24	Data File:	090645.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	104	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	140

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-24S-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-03
Date Analyzed:	09/05/24	Data File:	090541.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	114	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	1.1

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-25D-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-04 1/200
Date Analyzed:	09/05/24	Data File:	090530.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	86	113
Toluene-d8	96	88	114
4-Bromofluorobenzene	88	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	13,000

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-26D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-05 1/5
Date Analyzed:	09/05/24	Data File:	090528.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	111	86	113
Toluene-d8	99	88	114
4-Bromofluorobenzene	90	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	190

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-27S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-06 1/10
Date Analyzed:	09/06/24	Data File:	090640.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	94	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	220

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-28D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-07 1/10
Date Analyzed:	09/06/24	Data File:	090641.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	107	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	430

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-29S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-08
Date Analyzed:	09/06/24	Data File:	090639.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	107	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	6.5

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-30M-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-09 1/20
Date Analyzed:	09/06/24	Data File:	090644.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	95	84	115
4-Bromofluorobenzene	107	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	3,500

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-31S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-10
Date Analyzed:	09/05/24	Data File:	090526.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	86	113
Toluene-d8	99	88	114
4-Bromofluorobenzene	89	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	1.8

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-32D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-11 1/200
Date Analyzed:	09/05/24	Data File:	090531.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	113	86	113
Toluene-d8	96	88	114
4-Bromofluorobenzene	94	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	12,000

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-33D-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-12 1/200
Date Analyzed:	09/06/24	Data File:	090643.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	110	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	13,000

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-97-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-13 1/200
Date Analyzed:	09/05/24	Data File:	090532.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	86	113
Toluene-d8	98	88	114
4-Bromofluorobenzene	94	88	112

Compounds:	Concentration ug/L (ppb)
Naphthalene	13,000

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	TB1-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	408562-14
Date Analyzed:	09/05/24	Data File:	090512.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	95	84	115
4-Bromofluorobenzene	97	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Former Nord Door
Date Extracted:	09/05/24	Lab ID:	04-2114 mb
Date Analyzed:	09/05/24	Data File:	090509.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	78	126
Toluene-d8	93	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Naphthalene	<1

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-22D-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-01
Date Analyzed:	09/04/24	Data File:	090410.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	82	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	0.19
Chrysene	0.14
Benzo(a)pyrene	0.074
Benzo(b)fluoranthene	0.12
Benzo(k)fluoranthene	0.044
Indeno(1,2,3-cd)pyrene	0.025
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-23S-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-02
Date Analyzed:	09/04/24	Data File:	090411.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	92	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	1.8
Chrysene	1.2
Benzo(a)pyrene	0.85
Benzo(b)fluoranthene	1.4
Benzo(k)fluoranthene	0.42
Indeno(1,2,3-cd)pyrene	0.31
Dibenz(a,h)anthracene	0.078

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-24S-082824	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-03
Date Analyzed:	09/04/24	Data File:	090412.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	94	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	0.042
Chrysene	0.025
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	0.023
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-25D-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-04 1/500
Date Analyzed:	09/05/24	Data File:	090515.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	100 d	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	130
Chrysene	100
Benzo(a)pyrene	63
Benzo(b)fluoranthene	95
Benzo(k)fluoranthene	32
Indeno(1,2,3-cd)pyrene	20
Dibenz(a,h)anthracene	<10

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-26D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-05
Date Analyzed:	09/05/24	Data File:	090511.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	29 ip	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	1.6
Chrysene	1.1
Benzo(a)pyrene	0.97
Benzo(b)fluoranthene	1.5
Benzo(k)fluoranthene	0.45
Indeno(1,2,3-cd)pyrene	0.25
Dibenz(a,h)anthracene	0.060

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-27S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-06
Date Analyzed:	09/05/24	Data File:	090512.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	94	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	0.066
Chrysene	0.038
Benzo(a)pyrene	0.028
Benzo(b)fluoranthene	0.037
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-28D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-07
Date Analyzed:	09/04/24	Data File:	090416.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	41	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	1.7
Chrysene	1.2
Benzo(a)pyrene	0.92
Benzo(b)fluoranthene	1.2
Benzo(k)fluoranthene	0.40
Indeno(1,2,3-cd)pyrene	0.26
Dibenz(a,h)anthracene	0.070

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-29S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-08
Date Analyzed:	09/04/24	Data File:	090417.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	89	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	0.19
Chrysene	0.15
Benzo(a)pyrene	0.10
Benzo(b)fluoranthene	0.14
Benzo(k)fluoranthene	0.050
Indeno(1,2,3-cd)pyrene	0.037
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-30M-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-09
Date Analyzed:	09/04/24	Data File:	090418.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	57	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	1.2
Chrysene	0.81
Benzo(a)pyrene	0.53
Benzo(b)fluoranthene	0.72
Benzo(k)fluoranthene	0.24
Indeno(1,2,3-cd)pyrene	0.13
Dibenz(a,h)anthracene	0.035

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-31S-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-10
Date Analyzed:	09/04/24	Data File:	090419.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	98	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	0.10
Chrysene	0.065
Benzo(a)pyrene	0.051
Benzo(b)fluoranthene	0.073
Benzo(k)fluoranthene	0.025
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-32D-082924	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-11
Date Analyzed:	09/04/24	Data File:	090420.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	18 ip	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	4.2
Chrysene	3.4
Benzo(a)pyrene	2.6
Benzo(b)fluoranthene	3.6
Benzo(k)fluoranthene	1.0
Indeno(1,2,3-cd)pyrene	0.79
Dibenz(a,h)anthracene	0.23

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-33D-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-12 1/1000
Date Analyzed:	09/05/24	Data File:	090514.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	0 d	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	820
Chrysene	710
Benzo(a)pyrene	470
Benzo(b)fluoranthene	680
Benzo(k)fluoranthene	230
Indeno(1,2,3-cd)pyrene	140
Dibenz(a,h)anthracene	44

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	MW-97-083024	Client:	SLR International Corp.
Date Received:	08/30/24	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	408562-13 1/100
Date Analyzed:	09/05/24	Data File:	090513.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	80 d	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	120
Chrysene	98
Benzo(a)pyrene	64
Benzo(b)fluoranthene	97
Benzo(k)fluoranthene	32
Indeno(1,2,3-cd)pyrene	19
Dibenz(a,h)anthracene	6.1

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Former Nord Door
Date Extracted:	09/04/24	Lab ID:	04-2145 mb2
Date Analyzed:	09/04/24	Data File:	090407.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	88	41	138

Compounds:	Concentration ug/L (ppb)
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02

Date of Report: 09/11/24
Date Received: 08/30/24
Project: Former Nord Door 108.V20689.00001, F&BI 408562

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 408562-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Naphthalene	ug/L (ppb)	10	1.1	99	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	10	99	92	70-130	7

Date of Report: 09/11/24
Date Received: 08/30/24
Project: Former Nord Door 108.V20689.00001, F&BI 408562

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	ug/L (ppb)	10	81	88	66-131	8
Chrysene	ug/L (ppb)	10	80	88	66-129	10
Benzo(a)pyrene	ug/L (ppb)	10	81	89	66-129	9
Benzo(b)fluoranthene	ug/L (ppb)	10	81	85	55-144	5
Benzo(k)fluoranthene	ug/L (ppb)	10	81	89	58-139	9
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	78	89	62-136	13
Dibenz(a,h)anthracene	ug/L (ppb)	10	80	90	55-146	12

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

408562

SAMPLE CHAIN OF CUSTODY

08/30/24

F4 | VW4

Page # 1 of 2

Report To Chris Kramer

Company SLR

Address 1500 Blankenship Road ste 440

City, State, ZIP West Linn, OR, 97068

Phone 503-905-3205 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Former Nord Door

PO # 108.V20859.00001

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cPAHs by EPA 8270E	Naphthalene EPA 8260D	TDS		Notes
MW-22D-082824	01 A-E	8/28/24	1505	water	5								X	X	X		
MW-23S-082824	02	8/28/24	1402										X	X	X		
MW-24S-082824	03	8/28/24	1605										X	X	X		
MW-25D-083024	04	8/30/24	925										X	X	X		
MW-26D-082924	05	8/29/24	1810										X	X	X		
MW-27S-082924	06	8/29/24	1700										X	X	X		
MW-28D-082924	07	8/29/24	1045										X	X	X		
MW-29S-082924	08	8/29/24	915										X	X	X		
MW-30M-082924	09	8/29/24	1538										X	X	X		1543
MW-31S-082924	10	8/29/24	1342										X	X	X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
~~Relinquished by:~~	Emily Hernandez	SLR	8/30/24	~~1405~~ 1435
Received by:	Anh Phan	FBI	08/30/24	14:35
Relinquished by:		Samples received at 0 °C		
Received by:				

Friedman & Bruya, Inc
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

408562

SAMPLE CHAIN OF CUSTODY

08/30/24

F4/VW4

Page # 2 of 2

Report To Chris Kramer

Company SLR

Address 1800 Blankenship Road ste 440

City, State, ZIP West Linn, OR 97068

Phone 503-905-3205 Email ckramer@slrconsulting.com

SAMPLERS (signature)

PROJECT NAME: Former Nord Door

PO # 108.V20089.00001

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cPAHs by EPA 8270E	Naphthalene EPA 8260D	TDS		Notes
MW-32D-082924	11 A-E	8/29/24	1220	water	5								X	X	X		
MW-33D-083024	12 ↓	8/30/24	1045	↓	5								X	X	X		
MW-97-083024	13 A-D	8/30/24	1015	↓	4								X	X			1025
TB-083024	14 A-B	~~8/30/24~~	~~1120~~	↓	1									X			2 VOA's need

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
~~Relinquished by:~~	Emily Hernandez	SLR	8/30/24	~~1405~~ 1435
Received by:	Anh Phan	FBI	08/30/24	14:35
Relinquished by:		Samples received at 0 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408562 CLIENT SLR INITIALS/ DATE: AP 08/30/24

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature Ø °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 09/03/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory Ø-2 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☐ NA ~~☒ YES~~ AP ☒ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No	☐ Not on COC/label
Time Sampled	☐ Yes ☒ No label 15:43 (09A-E), 10:25 (13A-D)	☐ Not on COC/label
# of Containers	☐ Yes ☒ No Rec 2 VOAs for TB1-083024 (14A-B)	
Relinquished	☒ Yes ☐ No	
Requested analysis	☒ Yes ☐ On Hold	

Other comments (use a separate page if needed)
There are headspace on 2 VOAs -07D and -11D

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 408562,
Work Order Number: 2409009

September 09, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 12 sample(s) on 9/3/2024 for the analyses presented in the following report.

Total Dissolved Solids by SM 2540C

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *09/09/2024*

CLIENT: Friedman & Bruya
Project: 408562
Work Order: 2409009

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2409009-001	MW-22D-082824	08/28/2024 3:05 PM	09/03/2024 12:50 PM
2409009-002	MW-23S-082824	08/28/2024 2:02 PM	09/03/2024 12:50 PM
2409009-003	MW-24S-082824	08/28/2024 4:05 PM	09/03/2024 12:50 PM
2409009-004	MW-25D-083024	08/30/2024 9:25 AM	09/03/2024 12:50 PM
2409009-005	MW-26D-082924	08/29/2024 6:10 PM	09/03/2024 12:50 PM
2409009-006	MW-27S-082924	08/29/2024 5:00 PM	09/03/2024 12:50 PM
2409009-007	MW-28D-082924	08/29/2024 10:45 AM	09/03/2024 12:50 PM
2409009-008	MW-29S-082924	08/29/2024 9:15 AM	09/03/2024 12:50 PM
2409009-009	MW-30M-082924	08/29/2024 3:38 PM	09/03/2024 12:50 PM
2409009-010	MW-31S-082924	08/29/2024 1:42 PM	09/03/2024 12:50 PM
2409009-011	MW-32D-082924	08/29/2024 12:20 PM	09/03/2024 12:50 PM
2409009-012	MW-33D-083024	08/30/2024 10:45 AM	09/03/2024 12:50 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2409009**

Date: **9/9/2024**

CLIENT: Friedman & Bruya
Project: 408562

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 408562

Lab ID: 2409009-001 **Collection Date:** 8/28/2024 3:05:00 PM
Client Sample ID: **MW-22D-082824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	450	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-002 **Collection Date:** 8/28/2024 2:02:00 PM
Client Sample ID: **MW-23S-082824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	226	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-003 **Collection Date:** 8/28/2024 4:05:00 PM
Client Sample ID: **MW-24S-082824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	453	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-004 **Collection Date:** 8/30/2024 9:25:00 AM
Client Sample ID: **MW-25D-083024** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	2,910	5.00		mg/L	1	9/3/2024 4:21:07 PM

CLIENT: Friedman & Bruya
Project: 408562

Lab ID: 2409009-005 **Collection Date:** 8/29/2024 6:10:00 PM
Client Sample ID: **MW-26D-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	527	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-006 **Collection Date:** 8/29/2024 5:00:00 PM
Client Sample ID: **MW-27S-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	374	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-007 **Collection Date:** 8/29/2024 10:45:00 AM
Client Sample ID: **MW-28D-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	540	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-008 **Collection Date:** 8/29/2024 9:15:00 AM
Client Sample ID: **MW-29S-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	150	5.00		mg/L	1	9/3/2024 4:21:07 PM

CLIENT: Friedman & Bruya
Project: 408562

Lab ID: 2409009-009 **Collection Date:** 8/29/2024 3:38:00 PM
Client Sample ID: **MW-30M-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	302	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-010 **Collection Date:** 8/29/2024 1:42:00 PM
Client Sample ID: **MW-31S-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	160	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-011 **Collection Date:** 8/29/2024 12:20:00 PM
Client Sample ID: **MW-32D-082924** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	769	5.00		mg/L	1	9/3/2024 4:21:07 PM

Lab ID: 2409009-012 **Collection Date:** 8/30/2024 10:45:00 AM
Client Sample ID: **MW-33D-083024** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Dissolved Solids by SM 2540C				Batch ID: R94087		Analyst: BB
Total Dissolved Solids	4,600	5.00		mg/L	1	9/3/2024 4:21:07 PM

Work Order: 2409009
CLIENT: Friedman & Bruya
Project: 408562

QC SUMMARY REPORT

Total Dissolved Solids by SM 2540C

Sample ID: **MB-R94087**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **9/3/2024**	RunNo: **94087**
Client ID: **MBLKW**	Batch ID: **R94087**		Analysis Date: **9/3/2024**	SeqNo: **1965048**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	5.00									

Sample ID: **LCS-R94087**	SampType: **LCS**	Units: **mg/L**	Prep Date: **9/3/2024**	RunNo: **94087**
Client ID: **LCSW**	Batch ID: **R94087**		Analysis Date: **9/3/2024**	SeqNo: **1965049**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	208	5.00	300.0	0	69.3	65	135				

Sample ID: **2409009-001ADUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **9/3/2024**	RunNo: **94087**
Client ID: **MW-22D-082824**	Batch ID: **R94087**		Analysis Date: **9/3/2024**	SeqNo: **1965051**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	447	5.00						450.0	0.669	30	

Sample ID: **2409009-007ADUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **9/3/2024**	RunNo: **94087**
Client ID: **MW-28D-082924**	Batch ID: **R94087**		Analysis Date: **9/3/2024**	SeqNo: **1965058**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	547	5.00						540.0	1.29	30	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2409009
Logged by:	Morgan Wilson	Date Received:	9/3/2024 12:50:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	3.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2409009

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER
Alliance Technical Group

PROJECT NAME/NO.	PO #
408562	E-384

REMARKS
EIM

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	TDS										Notes
MW-22D-082824		8/28/2024	1505	water	1	x										
MW-23S-082824		8/28/2024	1402	water	1	x										
MW-24S-082824		8/28/2024	1605	water	1	x										
MW-25D-083024		8/30/2024	925	water	1	x										
MW-26D-082924		8/29/2024	1810	water	1	x										
MW-27S-082924		8/29/2024	1700	water	1	x										
MW-28D-082924		8/29/2024	1045	water	1	x										
MW-29S-082924		8/29/2024	915	water	1	x										
MW-30M-082924		8/29/2024	1538	water	1	x										
MW-31S-082924		8/29/2024	1342	water	1	x										
MW-32D-082924		8/29/2024	1220	water	1	x										
MW-33D-083024		8/30/2024	1045	water	1	x										

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	9/2/24	0903
Received by:		Nathan Wolfe	ATC	9/3/24	1250
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

September 12, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

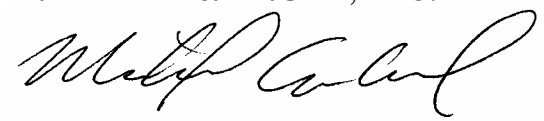
Dear Mr Kramer:

Included are the results from the testing of material submitted on August 30, 2024 from the Former Nord Door 108.V20689.00001, F&BI 408560 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR0912R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 30, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Former Nord Door 108.V20689.00001, F&BI 408560 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
408560 -01	MW-33D-082924-product

All quality control requirements were acceptable.

Date of Report: 09/12/24
Date Received: 08/30/24
Project: Former Nord Door 108.V20689.00001, F&BI 408560
Date Extracted: 09/09/24
Date Analyzed: 09/09/24

RESULTS FROM THE ANALYSIS OF PRODUCT SAMPLES FOR SPECIFIC GRAVITY @ 15.56 °C

Sample ID Laboratory ID	Specific Gravity
MW-33D-082924-product 408560-01	1.10

Note: The third significant digit is an estimate

Date of Report: 09/12/24
Date Received: 08/30/24
Project: Former Nord Door 108.V20689.00001, F&BI 408560

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF PRODUCT SAMPLES FOR SPECIFIC GRAVITY @ 15.56 °C

Laboratory Code: 408560-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Specific Gravity	1.10	1.10	0	0-2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

408560

SAMPLE CHAIN OF CUSTODY

ME 08-30-24

Page # 1 of 1 P

~~Report To~~ Chris Kramer

Company SLR

Address 1800 Blankenship Road ste 440

City, State, ZIP West Linn, OR, 97068

Phone 503-905-3205 Email ckramer@slrconsulting.com

SAMPLERS (signature)	
PROJECT NAME: Former Naval Door	PO #: 108.V20689.0000
REMARKS: Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Density	Specific gravity			Notes
~~MW-33D-082924-product~~		~~8/29/24~~		~~Product~~									~~X~~	~~X~~			
MW-33D-082924-product	01A-B	8/29/24	1300	Product	2								X	X			
									Samples received at 0 °C								

EA

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
~~Relinquished by:~~	Emily Hernandez	SLR	~~8/30~~/24	1405
Received by:				1435
Relinquished by:				
Received by:	Anh Phan	FBI	08/30/24	14:35

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408560 CLIENT SLR INITIALS/ DATE: AP 08/30/24

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature Ø °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: EMB 8/30
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No	☐ Not on COC/label
Time Sampled	☒ Yes ☐ No	☐ Not on COC/label
# of Containers	☒ Yes ☐ No	
Relinquished	☐ Yes ☐ No	
Requested analysis	☒ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

Creosote/Fuel Oil Area Hot Spot BIO System Pilot Test: Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

November 19, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on November 8, 2024 from the Former Nord Door 108.V20689.00001, F&BI 411152 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR1119R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 8, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Former Nord Door 108.V20689.00001, F&BI 411152 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
411152 -01	SVE-101624-EFF
411152 -02	SVE-101724-EFF

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVE-101624-EFF	Client:	SLR International Corp.
Date Received:	11/08/24	Project:	Former Nord Door 108.V20689.00001
Date Collected:	11/16/24	Lab ID:	411152-01 1/5.6
Date Analyzed:	11/13/24	Data File:	111313.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	<1.8	<0.56
Toluene	<42	<11
Ethylbenzene	<2.4	<0.56
m,p-Xylene	9.3	2.1
o-Xylene	3.1	0.72
Naphthalene	<1.5	<0.28

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVE-101724-EFF	Client:	SLR International Corp.
Date Received:	11/08/24	Project:	Former Nord Door 108.V20689.00001
Date Collected:	11/16/24	Lab ID:	411152-02 1/8.1
Date Analyzed:	11/13/24	Data File:	111314.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	5.4	1.7
Toluene	170	46
Ethylbenzene	37	8.5
m,p-Xylene	170	39
o-Xylene	57	13
Naphthalene	<2.1	<0.4

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Former Nord Door 108.V20689.00001
Date Collected:	Not Applicable	Lab ID:	04-2768 mb
Date Analyzed:	11/13/24	Data File:	111312.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.26	<0.05

Date of Report: 11/19/24
Date Received: 11/08/24
Project: Former Nord Door 108.V20689.00001, F&BI 411152

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 411133-03 1/7.5 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	12	13	8
Toluene	ug/m3	57	<57	nm
Ethylbenzene	ug/m3	3.8	3.7	3
m,p-Xylene	ug/m3	8.7	8.6	1
o-Xylene	ug/m3	3.5	3.4	3
Naphthalene	ug/m3	<2	2.0	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	115	70-130
Toluene	ug/m3	51	112	70-130
Ethylbenzene	ug/m3	59	109	70-130
m,p-Xylene	ug/m3	120	104	70-130
o-Xylene	ug/m3	59	112	70-130
Naphthalene	ug/m3	71	82	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

411152

SAMPLE CHAIN OF CUSTODY

11-08-24

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 22118 20th Ave SE Ste G202

City, State, ZIP Bothell, WA 98021

Phone (425) 402-8800 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Former ~~Nord Door~~

PO # 108.V20089.0001

NOTES:

INVOICE TO

TURNAROUND TIME
X Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

Lab ID	Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
		Flow control CNP															
01	SVE-101624-EFF	02	2305		IA / (SG)	10/16/24	29.5	1048	5	1056		X					SG = from SVE system
02	SVE-101724-EFF	74	3230		IA / (SG)	10/17/24	30	1548	5	1553		X					SG = from SVE system
					IA / SG												
					IA / SG												
					IA / SG												
					IA / SG							Samples received at 20 °C					
					IA / SG												
					IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Emily Hernandez	SLR	11/08/24	1255
Received by:	VINH	FBI	11-8-24	1255
Relinquished by:				
Received by:				

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411152 CLIENT SLR INITIALS/ DATE: AP 11/08/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 20 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☑ NO

How did samples arrive?
☐ Over the Counter ☑ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: NP 11/08
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 21 > 22 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes	☐ No	☐ Not on COC/label
Date Sampled	☑ Yes	☐ No	☐ Not on COC/label
Time Sampled	☑ Yes	☐ No	☐ Not on COC/label
# of Containers	☑ Yes	☐ No	
Relinquished	☑ Yes	☐ No	
Requested analysis	☑ Yes	☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

November 22, 2024

Chris Kramer, Project Manager
SLR International Corp.
22118 20th Ave. SE, G-202
Bothell, WA 98021

Dear Mr Kramer:

Included are the results from the testing of material submitted on November 12, 2024 from the Former Nord Door 2024 108.V20689.0001, F&BI 411182 project. There are 9 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SLR1122R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 12, 2024 by Friedman & Bruya, Inc. from the SLR International Corp. Former Nord Door 2024 108.V20689.0001, F&BI 411182 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SLR International Corp.
411182 -01	SVE-110724-EFF
411182 -02	SVE-110824-EFF

The TO-15 calibration standard for several compounds exceeded the acceptance criteria. The compounds were not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier.

The tetrahydrofuran concentration in the samples exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVE-110724-EFF	Client:	SLR International Corp.
Date Received:	11/12/24	Project:	Former Nord Door, F&BI 411182
Date Collected:	11/07/24	Lab ID:	411182-01 1/8.0
Date Analyzed:	11/14/24	Data File:	111419.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	120	70	1,2-Dichloropropane	<1.8 k	<0.4 k
Dichlorodifluoromethane	<7.9	<1.6	1,4-Dioxane	<2.9	<0.8
Chloromethane	<30	<14	2,2,4-Trimethylpentane	<37	<8
F-114	<17	<2.4	Methyl methacrylate	<33	<8
Vinyl chloride	<2 k	<0.8 k	Heptane	<33	<8
1,3-Butadiene	<0.35	<0.16	Bromodichloromethane	<0.54 k	<0.08 k
Butane	68	29	Trichloroethene	<0.86	<0.16
Bromomethane	<31	<8	cis-1,3-Dichloropropene	<7.3	<1.6
Chloroethane	<21	<8	4-Methyl-2-pentanone	<66	<16
Vinyl bromide	<3.5	<0.8	trans-1,3-Dichloropropene	<3.6	<0.8
Ethanol	<60	<32	Toluene	<60	<16
Acrolein	<0.92	<0.4	1,1,2-Trichloroethane	<0.44 k	<0.08 k
Pentane	<47	<16	2-Hexanone	<33	<8
Trichlorofluoromethane	<18	<3.2	Tetrachloroethene	<54	<8
Acetone	<38	<16	Dibromochloromethane	<0.68 k	<0.08 k
2-Propanol	<69	<28	1,2-Dibromoethane (EDB)	<0.61	<0.08
1,1-Dichloroethene	<3.2	<0.8	Chlorobenzene	<3.7	<0.8
trans-1,2-Dichloroethene	<3.2	<0.8	Ethylbenzene	<3.5	<0.8
Methylene chloride	<280	<80	1,1,2,2-Tetrachloroethane	<1.1 k	<0.16 k
t-Butyl alcohol (TBA)	<97	<32	Nonane	<42	<8
3-Chloropropene	<25	<8	Isopropylbenzene	<79	<16
CFC-113	<12	<1.6	2-Chlorotoluene	<41	<8
Carbon disulfide	<50	<16	Propylbenzene	<39	<8
Methyl t-butyl ether (MTBE)	<58	<16	4-Ethyltoluene	<39	<8
Vinyl acetate	<56	<16	m,p-Xylene	<6.9	<1.6
1,1-Dichloroethane	<3.2	<0.8	o-Xylene	<3.5	<0.8
cis-1,2-Dichloroethene	<3.2	<0.8	Styrene	<6.8	<1.6
Hexane	<28	<8	Bromoform	<17 k	<1.6 k
Chloroform	0.70	0.14	Benzyl chloride	<0.41 k	<0.08 k
Ethyl acetate	<58	<16	1,3,5-Trimethylbenzene	<39	<8
Tetrahydrofuran	570 ve	190 ve	1,2,4-Trimethylbenzene	<39	<8
2-Butanone (MEK)	<47	<16	1,3-Dichlorobenzene	<4.8	<0.8
1,2-Dichloroethane (EDC)	<0.32	<0.08	1,4-Dichlorobenzene	<1.8	<0.3
1,1,1-Trichloroethane	<4.4	<0.8	1,2-Dichlorobenzene	<4.8	<0.8
Carbon tetrachloride	<2.5	<0.4	1,2,4-Trichlorobenzene	<5.9	<0.8
Benzene	<2.6	<0.8	Naphthalene	<2.1	<0.4
Cyclohexane	<55	<16	Hexachlorobutadiene	<1.7	<0.16

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SVE-110824-EFF	Client:	SLR International Corp.
Date Received:	11/12/24	Project:	Former Nord Door, F&BI 411182
Date Collected:	11/08/24	Lab ID:	411182-02 1/7.8
Date Analyzed:	11/14/24	Data File:	111420.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	61	36	1,2-Dichloropropane	<1.8 k	<0.39 k
Dichlorodifluoromethane	<7.7	<1.6	1,4-Dioxane	<2.8	<0.78
Chloromethane	<29	<14	2,2,4-Trimethylpentane	<36	<7.8
F-114	<16	<2.3	Methyl methacrylate	<32	<7.8
Vinyl chloride	<2 k	<0.78 k	Heptane	<32	<7.8
1,3-Butadiene	<0.35	<0.16	Bromodichloromethane	<0.52 k	<0.078 k
Butane	<37	<16	Trichloroethene	<0.84	<0.16
Bromomethane	<30	<7.8	cis-1,3-Dichloropropene	<7.1	<1.6
Chloroethane	<21	<7.8	4-Methyl-2-pentanone	<64	<16
Vinyl bromide	<3.4	<0.78	trans-1,3-Dichloropropene	<3.5	<0.78
Ethanol	<59	<31	Toluene	<59	<16
Acrolein	<0.89	<0.39	1,1,2-Trichloroethane	<0.43 k	<0.078 k
Pentane	<46	<16	2-Hexanone	<32	<7.8
Trichlorofluoromethane	<18	<3.1	Tetrachloroethene	<53	<7.8
Acetone	<37	<16	Dibromochloromethane	<0.66 k	<0.078 k
2-Propanol	<67	<27	1,2-Dibromoethane (EDB)	<0.6	<0.078
1,1-Dichloroethene	<3.1	<0.78	Chlorobenzene	<3.6	<0.78
trans-1,2-Dichloroethene	<3.1	<0.78	Ethylbenzene	<3.4	<0.78
Methylene chloride	<270	<78	1,1,2,2-Tetrachloroethane	<1.1 k	<0.16 k
t-Butyl alcohol (TBA)	<95	<31	Nonane	<41	<7.8
3-Chloropropene	<24	<7.8	Isopropylbenzene	<77	<16
CFC-113	<12	<1.6	2-Chlorotoluene	<40	<7.8
Carbon disulfide	<49	<16	Propylbenzene	<38	<7.8
Methyl t-butyl ether (MTBE)	<56	<16	4-Ethyltoluene	<38	<7.8
Vinyl acetate	<55	<16	m,p-Xylene	8.3	1.9
1,1-Dichloroethane	<3.2	<0.78	o-Xylene	<3.4	<0.78
cis-1,2-Dichloroethene	<3.1	<0.78	Styrene	<6.6	<1.6
Hexane	<27	<7.8	Bromoform	<16 k	<1.6 k
Chloroform	0.91	0.19	Benzyl chloride	<0.4 k	<0.078 k
Ethyl acetate	<56	<16	1,3,5-Trimethylbenzene	<38	<7.8
Tetrahydrofuran	580 ve	200 ve	1,2,4-Trimethylbenzene	<38	<7.8
2-Butanone (MEK)	<46	<16	1,3-Dichlorobenzene	<4.7	<0.78
1,2-Dichloroethane (EDC)	<0.32	<0.078	1,4-Dichlorobenzene	<1.8	<0.3
1,1,1-Trichloroethane	<4.3	<0.78	1,2-Dichlorobenzene	<4.7	<0.78
Carbon tetrachloride	<2.5	<0.39	1,2,4-Trichlorobenzene	<5.8	<0.78
Benzene	3.6	1.1	Naphthalene	<2	<0.39
Cyclohexane	<54	<16	Hexachlorobutadiene	<1.7	<0.16

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	SLR International Corp.
Date Received:	Not Applicable	Project:	Former Nord Door, F&BI 411182
Date Collected:	Not Applicable	Lab ID:	04-2784 mb
Date Analyzed:	11/14/24	Data File:	111412.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.4	<0.8	1,2-Dichloropropane	<0.23 k	<0.05 k
Dichlorodifluoromethane	<0.99	<0.2	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26 k	<0.1 k	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067 k	<0.01 k
Butane	<4.8	<2	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9	<1	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<7.5	<2
Acrolein	<0.11	<0.05	1,1,2-Trichloroethane	<0.055 k	<0.01 k
Pentane	<5.9	<2	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085 k	<0.01 k
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14 k	<0.02 k
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1 k	<0.2 k
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02

Date of Report: 11/22/24
Date Received: 11/12/24
Project: Former Nord Door 2024 108.V20689.0001, F&BI 411182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 411172-01 1/7.9 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<11	<11	nm
Dichlorodifluoromethane	ug/m3	<7.8	<7.8	nm
Chloromethane	ug/m3	<29	<29	nm
F-114	ug/m3	<17	<17	nm
Vinyl chloride	ug/m3	<2	<2	nm
1,3-Butadiene	ug/m3	<0.35	<0.35	nm
Butane	ug/m3	<38	<38	nm
Bromomethane	ug/m3	<31	<31	nm
Chloroethane	ug/m3	<21	<21	nm
Vinyl bromide	ug/m3	<3.5	<3.5	nm
Ethanol	ug/m3	<60	<60	nm
Acrolein	ug/m3	<0.91	<0.91	nm
Pentane	ug/m3	<47	<47	nm
Trichlorofluoromethane	ug/m3	<18	<18	nm
Acetone	ug/m3	91	91	0
2-Propanol	ug/m3	<68	<68	nm
1,1-Dichloroethene	ug/m3	<3.1	<3.1	nm
trans-1,2-Dichloroethene	ug/m3	<3.1	<3.1	nm
Methylene chloride	ug/m3	<270	<270	nm
t-Butyl alcohol (TBA)	ug/m3	<96	<96	nm
3-Chloropropene	ug/m3	<25	<25	nm
CFC-113	ug/m3	<12	<12	nm
Carbon disulfide	ug/m3	<49	<49	nm
Methyl t-butyl ether (MTBE)	ug/m3	<57	<57	nm
Vinyl acetate	ug/m3	<56	<56	nm
1,1-Dichloroethane	ug/m3	<3.2	<3.2	nm
cis-1,2-Dichloroethene	ug/m3	<3.1	<3.1	nm
Hexane	ug/m3	<28	<28	nm
Chloroform	ug/m3	<0.39	<0.39	nm
Ethyl acetate	ug/m3	<57	<57	nm
Tetrahydrofuran	ug/m3	<7	<7	nm
2-Butanone (MEK)	ug/m3	<47	<47	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.32	<0.32	nm
1,1,1-Trichloroethane	ug/m3	<4.3	<4.3	nm
Carbon tetrachloride	ug/m3	<2.5	<2.5	nm
Benzene	ug/m3	<2.5	<2.5	nm
Cyclohexane	ug/m3	<54	<54	nm
1,2-Dichloropropane	ug/m3	<1.8	<1.8	nm
1,4-Dioxane	ug/m3	<2.8	<2.8	nm
2,2,4-Trimethylpentane	ug/m3	<37	<37	nm

Date of Report: 11/22/24
Date Received: 11/12/24
Project: Former Nord Door 2024 108.V20689.0001, F&BI 411182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 411172-01 1/7.9 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<32	<32	nm
Heptane	ug/m3	<32	<32	nm
Bromodichloromethane	ug/m3	<0.53	<0.53	nm
Trichloroethene	ug/m3	<0.85	<0.85	nm
cis-1,3-Dichloropropene	ug/m3	<7.2	<7.2	nm
4-Methyl-2-pentanone	ug/m3	<65	<65	nm
trans-1,3-Dichloropropene	ug/m3	<3.6	<3.6	nm
Toluene	ug/m3	<60	<60	nm
1,1,2-Trichloroethane	ug/m3	<0.43	<0.43	nm
2-Hexanone	ug/m3	<32	<32	nm
Tetrachloroethene	ug/m3	<54	<54	nm
Dibromochloromethane	ug/m3	<0.67	<0.67	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.61	<0.61	nm
Chlorobenzene	ug/m3	<3.6	<3.6	nm
Ethylbenzene	ug/m3	<3.4	<3.4	nm
1,1,2,2-Tetrachloroethane	ug/m3	<1.1	<1.1	nm
Nonane	ug/m3	<41	<41	nm
Isopropylbenzene	ug/m3	<78	<78	nm
2-Chlorotoluene	ug/m3	<41	<41	nm
Propylbenzene	ug/m3	<39	<39	nm
4-Ethyltoluene	ug/m3	<39	<39	nm
m,p-Xylene	ug/m3	<6.9	<6.9	nm
o-Xylene	ug/m3	<3.4	<3.4	nm
Styrene	ug/m3	<6.7	<6.7	nm
Bromoform	ug/m3	<16	<16	nm
Benzyl chloride	ug/m3	<0.41	<0.41	nm
1,3,5-Trimethylbenzene	ug/m3	<39	<39	nm
1,2,4-Trimethylbenzene	ug/m3	<39	<39	nm
1,3-Dichlorobenzene	ug/m3	<4.7	<4.7	nm
1,4-Dichlorobenzene	ug/m3	<1.8	<1.8	nm
1,2-Dichlorobenzene	ug/m3	<4.7	<4.7	nm
1,2,4-Trichlorobenzene	ug/m3	<5.9	<5.9	nm
Naphthalene	ug/m3	<2.1	<2.1	nm
Hexachlorobutadiene	ug/m3	<1.7	<1.7	nm

Date of Report: 11/22/24
Date Received: 11/12/24
Project: Former Nord Door 2024 108.V20689.0001, F&BI 411182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ug/m3	23	110	70-130
Dichlorodifluoromethane	ug/m3	67	100	70-130
Chloromethane	ug/m3	28	90	70-130
F-114	ug/m3	94	90	70-130
Vinyl chloride	ug/m3	35	132 vo	70-130
1,3-Butadiene	ug/m3	30	105	70-130
Butane	ug/m3	32	117	70-130
Bromomethane	ug/m3	52	117	70-130
Chloroethane	ug/m3	36	115	70-130
Vinyl bromide	ug/m3	59	114	70-130
Ethanol	ug/m3	25	113	70-130
Acrolein	ug/m3	31	110	70-130
Pentane	ug/m3	40	120	70-130
Trichlorofluoromethane	ug/m3	76	98	70-130
Acetone	ug/m3	32	112	70-130
2-Propanol	ug/m3	33	100	70-130
1,1-Dichloroethene	ug/m3	54	110	70-130
trans-1,2-Dichloroethene	ug/m3	54	108	70-130
Methylene chloride	ug/m3	94	108	70-130
t-Butyl alcohol (TBA)	ug/m3	41	96	70-130
3-Chloropropene	ug/m3	42	113	70-130
CFC-113	ug/m3	100	103	70-130
Carbon disulfide	ug/m3	42	110	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	87	70-130
Vinyl acetate	ug/m3	48	121	70-130
1,1-Dichloroethane	ug/m3	55	119	70-130
cis-1,2-Dichloroethene	ug/m3	54	110	70-130
Hexane	ug/m3	48	103	70-130
Chloroform	ug/m3	66	115	70-130
Ethyl acetate	ug/m3	49	121	70-130
Tetrahydrofuran	ug/m3	40	93	70-130
2-Butanone (MEK)	ug/m3	40	104	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	113	70-130
1,1,1-Trichloroethane	ug/m3	74	110	70-130
Carbon tetrachloride	ug/m3	85	121	70-130
Benzene	ug/m3	43	104	70-130
Cyclohexane	ug/m3	46	87	70-130
1,2-Dichloropropane	ug/m3	62	139 vo	70-130
1,4-Dioxane	ug/m3	49	119	70-130
2,2,4-Trimethylpentane	ug/m3	63	120	70-130

Date of Report: 11/22/24
Date Received: 11/12/24
Project: Former Nord Door 2024 108.V20689.0001, F&BI 411182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	125	70-130
Heptane	ug/m3	55	129	70-130
Bromodichloromethane	ug/m3	90	141 vo	70-130
Trichloroethene	ug/m3	73	122	70-130
cis-1,3-Dichloropropene	ug/m3	61	127	70-130
4-Methyl-2-pentanone	ug/m3	55	108	70-130
trans-1,3-Dichloropropene	ug/m3	61	129	70-130
Toluene	ug/m3	51	111	70-130
1,1,2-Trichloroethane	ug/m3	74	136 vo	70-130
2-Hexanone	ug/m3	55	130	70-130
Tetrachloroethene	ug/m3	92	128	70-130
Dibromochloromethane	ug/m3	120	150 vo	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	129	70-130
Chlorobenzene	ug/m3	62	114	70-130
Ethylbenzene	ug/m3	59	106	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	136 vo	70-130
Nonane	ug/m3	71	121	70-130
Isopropylbenzene	ug/m3	66	109	70-130
2-Chlorotoluene	ug/m3	70	104	70-130
Propylbenzene	ug/m3	66	108	70-130
4-Ethyltoluene	ug/m3	66	104	70-130
m,p-Xylene	ug/m3	120	102	70-130
o-Xylene	ug/m3	59	110	70-130
Styrene	ug/m3	58	108	70-130
Bromoform	ug/m3	140	143 vo	70-130
Benzyl chloride	ug/m3	70	157 vo	70-130
1,3,5-Trimethylbenzene	ug/m3	66	109	70-130
1,2,4-Trimethylbenzene	ug/m3	66	97	70-130
1,3-Dichlorobenzene	ug/m3	81	117	70-130
1,4-Dichlorobenzene	ug/m3	81	113	70-130
1,2-Dichlorobenzene	ug/m3	81	115	70-130
1,2,4-Trichlorobenzene	ug/m3	100	86	70-130
Naphthalene	ug/m3	71	81	70-130
Hexachlorobutadiene	ug/m3	140	117	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

411182

SAMPLE CHAIN OF CUSTODY

11/12/24

Page # 1 of 1

Report To Chris Kramer

Company SLR

Address 22118 20th Ave SE ste g202

City, State, ZIP Bothell, WA 98021

Phone (425) 402-8800 Email ckramer@slrconsulting.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Former Nord Door - 2024

PO #: 108.V02689.00001

NOTES:

INVOICE TO

TURNAROUND TIME
X Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Lab ID / Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
01 SVE-110724-EFF	68	1068		IA / (SG)	11/07/24	30	1520	5	1528	X		[redacted]				SG = From SVE System; [redacted]
02 SVE-110824-EFF	204			IA / (SG)	11/08/24	30	1540	5	1557	X		[redacted]				SG = From SVE System
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG							Samples received at 19 °C					
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Stone Macleod	SLR	11/12/24	~~1400~~ 1200
Received by:		VINH	FB1	11-12-24	12:00
Relinquished by:					
Received by:					

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 411182 CLIENT SLR INITIALS/ DATE: AP 11/12/24

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 19 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☒ NO

How did samples arrive?
☐ Over the Counter ☒ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 11/12/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 4-5 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No	☐ Not on COC/label
Time Sampled	☒ Yes ☐ No	☐ Not on COC/label
# of Containers	☒ Yes ☐ No	
Relinquished	☒ Yes ☐ No	
Requested analysis	☒ Yes ☐ On Hold	

Other comments (use a separate page if needed)
No canister ID on COC.

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☒ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

Attachment 4 Boring Logs

Woodlife Area Soil Removal Delineation Assessment: Boring Logs

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P1

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/21/24 **COMPLETED** 6/21/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					0.0					SWG		**GRAVELLY SAND,**, light brown, fine to medium sand, some fine to medium gravel, dry, no odor.
											1.0	
											1.2	**CONCRETE**
		WL-P1-1-2-062124			0.0					SWG	1.5	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, dry, no odor.
										MLG		**GRAVELLY SILT,** gray, fine to medium gravel, few fine to medium sand, moist, no odor.
2.5			Direct Push	60	0.0						2.8	
		WL-P1-3-4-062124										**WOODY DEBRIS,** sawdust-line woody debris coated in silt, moist.
5.0											5.0	
		WL-P1-5-6-062124			0.0					MLG	5.3	**GRAVELLY SILT,** gray, fine to medium gravel, few fine to medium sand, moist, no odor.
					0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor. @5.5 ft: 3" sawdust-like woody debris lens. @6.0 ft: 1" silt layer.
											6.8	
7.5			Direct Push	90	0.0					ML		**SILT,** gray to brown, trace fine sand, moist, no odor, some woody debris fibers.
					0.0						8.5	
					0.0					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, dry, no odor.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR
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Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P2

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/21/24 **COMPLETED** 6/21/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
											0.4	**ASPHALT**
					0.0					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravels, no odor.
											1.0	
		WL-P2-1-2-062124			0.0					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravels, no odor. @1.0 ft: 2" diameter woody debris chunks @1.5 ft: 3" sand layer, gray, fine to medium sands, no odor.
2.5			Direct Push	50	0.0						2.3	
		WL-P2-3-4-062124								MLG		**GRAVELLY SILT,** brown, some fine to coare gravels, moist, no odor.
5.0											5.0	
		WL-P2-5-6-062124			0.0					MLG		**GRAVELLY SILT,** gray, some fine to medium gravels, wet, no odor, woody debris fibers.
					0.0							
7.5			Direct Push	20								
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P3

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/21/24 **COMPLETED** 6/21/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					0.0					SWG	0.9	**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor.
					0.1					SWG	1.5	**GRAVELLY SAND,** gray, some fine to coarse gravel, no odor. @1.5 ft: 2" woody debris.
										SM	2.0	**SILTY SAND,** gray, fine to medium sand, no odor, woody debris.
										SM	2.3	
2.5			Direct Push	70	0.0					ML	2.7	**SILTY SAND,** gray, fine to medium sand, few fine to medium gravel, no odor.
										SW	3.0	**SILT,** gray, no odor.
		WL-P3-3-4-062124			0.0						3.3	**SAND,** gray, fine to medium sand, no odor.
												WOODY DEBRIS
										ML		**SILT,** gray, no odor, woody debris.
5.0											5.0	
		WL-P3-5-6-062124			0.0					MLG	5.5	**GRAVELLY SILT,** brown, some fine to medium gravel, few fine sand, no odor, woody debris.
					0.0					ML		**SILT,** gray, no odor, woody debris.
											7.0	
7.5		WL-P3-7-8-062124	Direct Push	90	0.0					SW	8.0	**SAND,** gray, fine to medium sand, trace fine gravel, no odor. @7.25 ft: 1" silt layer.
											8.3	**WOODY DEBRIS,** coated in silt.
					0.0					SW		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to coarse gravel, moist, no odor.
					0.0							
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P4

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/20/24 **COMPLETED** 6/20/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.4	**TOPSOIL**
					0.0					GWS		**SANDY GRAVEL,** gray, fine to medium gravel, some fine to medium sand, no odor.
		WL-P4-1-2-062024			0.0						1.5	
											2.0	**WOODY DEBRIS,** shredded pieces, strong dioxin odor on ends of layer.
2.5			Direct Push	70	0.0					GM	2.5	**SILTY GRAVEL,** light gray, fine to medium gravel, some silt, no odor.
		WL-P4-3-4-062024			0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, no odor.
5.0											5.0	
		WL-P4-5-6-062024			0.0					SM	5.5	**SILTY SAND,** brown, fine to medium sand, some silt, trace fine gravel, no odor, woody debris.
					0.0					SW		**SAND,** gray, fine to coarse sand, trace fine to medium gravel, wet, no odors.
7.5			Direct Push	100	0.0							
					0.0							@8.5 ft: 1" silt layer.
					0.0						9.0	@8.75 ft: 3" sawdust-like woody debris lens.
										SWG	9.5	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, no odor.
10.0										SW	10.0	**SAND,** gray, fine to coarse sand, no odor, trace woody debris strips.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P5

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												**ASPHALT** 0.5
					0.0					GWS		0.8 **SANDY GRAVEL,** gray, fine to medium gravel, some fine to medium sand, no odor.
										SWG		**GRAVELLY SAND,** brown to gray, fine to medium sand, some fine to medium gravel, no odor.
					0.0							1.5
										SW		1.8 **SAND,** brown, fine to medium sand, moist, no odor.
2.5			Direct Push	60	0.0							**SAND,** gray, fine to medium sand, moist, no odor.
		WL-P5-3-4-062024										
5.0										SW		
		WL-P5-5-6-062024			0.0							
					0.0							
7.5		WL-P4-5-6-062024	Direct Push	100	0.0							@7.5 ft: 2" thick woody debris chunks. 8.0
					0.0					ML		**SILT,** gray, moist, no odor.
												@9.0 ft: 3" sand layer, gray, ~1" of woody debris chunks in center.
					0.0							@9.5 ft: 2" woody debris chunks.
10.0												10.0 @9.75 ft: 1" woody debris chunks.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P6

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/20/24 **COMPLETED** 6/20/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							**ASPHALT** 0.5
					0.0					SWG		**GRAVELLY SAND,** light gray, fine to medium sand, some fine to coarse gravel, no odor. 1.5 @1.5 ft: 1" silty sand layer, black.
2.5			Direct Push	70	0.0					MLG		**GRAVELLY SAND,** brown, fine to medium sands, some fine to medium gravel, no odor. 2.5
		WL-P6-3-4-062024			0.0							**SILTY SAND,** gray, fine to medium sand, some silt, no odor.
5.0												
		WL-P6-5-6-062024			0.0					SM		@6.0 ft: 2" silt layer.
					0.0							
7.5		WL-P6-5-6-062024	Direct Push	100	0.0							@7.0 ft: 3" sawdust-like woody debris lens.
					0.0							@8.5 ft: 1" sawdust-like woody debris lens.
					0.0							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P7

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/21/24 **COMPLETED** 6/21/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					SWG		0.8 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					0.4					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, no odor.
2.5			Direct Push	60	1.8							2.5
		WL-P7-3-4-062124								SW		**SAND AND WOODY DEBRIS,** gray, fine to medium sands, sand and woody debris distributed evenly, no odor.
5.0												5.0
		WL-P7-5-6-062124			0.9					MLG		5.3 **GRAVELLY SILT,** gray, some fine to medium gravel, moist, no odor. @5.25 ft: 2" woody debris in silt.
					0.0					ML		**SILT,** gray, few fine to medium sand, moist, no odor.
7.5		WL-P7-7-8-062124	Direct Push	80	0.0							
					0.0							8.5
										SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P8

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/21/24 **COMPLETED** 6/21/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					SWG		**GRAVELLY SAND,** light bown, fine to medium sand, some fine to medium gravel, moist, no odor. 0.8
					0.0					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, moist, no odor. 1.5
										SM		**SILTY SAND,** brown, fine to medium sand, some silt, moist, no odor. 1.8
2.5			Direct Push	60	0.0					SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, moist, no odor. @2.75 ft: 1" woody debris lens.
		WL-P8-3-4-062124										
5.0												5.0
		WL-P8-5-6-062124			0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, wet, no odor. 6.0
					0.0					ML		**SILT AND SAWDUST-LIKE WOODY DEBRIS,** gray, some sawdust, moist, no odor. 6.5
7.5		WL-P8-7-8-062124	Direct Push	90	0.0					ML		**SILT,** gray, moist, no odor, few plant debris. 8.0
					0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, no odor. 8.8
					0.0					SWG		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P9

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/21/24 **COMPLETED** 6/21/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					MLG		**GRAVELLY SILT,** light brown, some fine to coarse gravel, moist, no odor. 1.0
		WL-P9-1-2-062124			0.0					MLG		**GRAVELLY SILT,** gray, some fine to coarse gravel, moist, no odor. 1.8
										SW		**SAND,** brown, fine to medium sand, trace medium gravel, no odor. 2.3
2.5			Direct Push	60	0.0							**SAND,** dark brown, fine to medium sand, no odor.
		WL-P9-3-4-062124								SW		
5.0												5.0
										SM		5.3 **SILTY SAND,** dark brown, fine to coarse sand, some silt,
		WL-P9-5-6-062124			0.0					MLG		no odor. 5.6
										SM		**GRAVELLY SILT,** gray to brown, some fine to medium gravel, no odor. 6.0
												SAND, brown, fine to medium sand, moist, no odor.
					59.5							**SAND,** gray, fine to coarse sand, moist, no odor.
7.5			Direct Push	90	38.0							
										SM		
					0.0							
					0.0							@9.0 ft: 1" silt layer. @9.25 ft: 1" silt layer.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P10

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												**ASPHALT** 0.5
					0.0					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravels, no odor. 0.8 / 1.0
		WL-P10-1-2-062024			0.0					ML		**CONCRETE** **SILT,** gray, trace medium gravel, moist, no odor. @1.25 ft: 2" silt layer, brown. 2.0
												2.3 **CONCRETE**
2.5			Direct Push	70	0.0					SM		2.5 **SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
										SW		3.0 **SAND,** light gray, fine to medium sand, moist, no odor.
		WL-P10-3-4-062024								SW		**SAND,** gray, fine to medium sand, moist, no odor.
5.0												5.0
		WL-P10-5-6-062024			179.7					MLS		**SANDY SILT,** gray, fine to medium sand, moist, no odor. 5.5
					46.2					SW		**SAND,** gray, fine to coarse sand, few fine gravel, wet, no odor.
7.5			Direct Push	90	0.1							
					0.0							8.5 @8.5 ft: 2" woody debris.
					0.0					MLS		**SANDY SILT,** gray, some fine to medium sand, wet, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P11

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0												0.2 **ASPHALT**
		WL-P11-0-1-062024	Direct Push	60	182.2					MLG		0.8 **GRAVELLY SILT,** brown, some fine to coarse gravel, no odor.
					1.7							1.0
										MLG		1.5 **WOODY DEBRIS,** woody debris chips, wood odor.
												GRAVELLY SILT, gray, fine to coarse gravel, no odor.
					3.1					SM		**SILTY SAND,** gray, fine to medium sand, some silt, no odor.
												2.5
												2.8 **WOODY DEBRIS,** woody debris chips, coated in brown silt, woody odor.
5										ML		**SILT,** gray, no odor, plant debris. 5.0
					0.5					MLG		5.5 **GRAVELLY SILT,** gray, some fine to medium gravel, moist, no odor.
					0.0							**SILTY SAND,** gray, fine to coarse sand, some silt, trace fine to medium gravel, wet, no odor.
		WL-P11-7-8-062024	Direct Push	90	0.0					SM		@7.0 ft: 2" woody debris.
					0.0							@8.5 ft: 1" woody debris.
		WL-P11-9-10-062024			0.0							
10												10.0
					0.0							**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, wet, no odor.
					0.0					SM		
		WL-P11-12-13-062024	Direct Push	100	0.0							
					0.0							13.5 @13.5 ft: 1" woody debris.
										ML		14.0 **SILT,** gray, moist, no odor.
					0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
15												15.0 @14.75 ft: 1" silt layer, gray.

BORING COMPLETION DETAILS:

Boring completed at 15.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P12

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							0.5 **ASPHALT**
					0.0					SM		1.5 **SILTY SAND,** brown, fine to medium sand, some silt, few fine to medium gravel, moist, no odor. @1.25 ft: 1" asphalt layer.
2.5			Direct Push	60	0.0					SW		**SAND,** gray, fine to medium sand, moist, no odor.
5.0												5.0
		WL-P12-5-6-062024			0.0							**SAND,** gray, fine to medium sand, few fine to medium gravel, moist, no odor.
					0.0					SW		
7.5		WL-P12-7-8-062024	Direct Push	90	0.0							
					0.0							9.0
		WL-P12-9-10-062024			0.0					SM		**SILTY SAND,** gray, fine to medium sand, some silt, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P13

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/20/24 **COMPLETED** 6/20/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.8						0.4	**ASPHALT**
										MLG		**GRAVELLY SILT,** brown, some fine to medium gravels, no odor.
					0.0					SM	1.0	**SILTY SAND,** brown, fine to medium sand, some silt, no odor.
2.5			Direct Push	70	0.0					SM	1.3	**SILTY SAND,** gray, fine to medium sand, some silt, no odor. @1.25 ft: 2" sand layer, black.
		WL-P13-3-4-062024			0.0						3.0	**SAWDUST-LIKE WOODY DEBRIS W/ SILT,** mostly sawdust-like woody debris, some silt.
5.0											5.0	
		WL-P13-5-6-062024			0.0					SM	5.5	**SILTY SAND,** gray, fine to medium sand, some silt, wet, no odor.
					0.0					ML	7.0	**SILT,** brown, moist, no odor, few woody debris fibers.
7.5		WL-P13-7-8-062024	Direct Push	80	0.0					SM		**SILTY SAND,** gray, fine to medium sands, some silt, little fine to coarse gravels, no odor.
					0.0							
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER WL-P14

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval) Product Saturated	NAPL (Interval) Some Product Saturated Soil (blebs)	NAPL (Interval) Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval) Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							**TOPSOIL** 0.5
										MLS		**SANDY SILT,** gray, some fine to medium sand, few fine to medium gravel, no odor.
		WL-P14-1-2-062024			0.0							1.5
										MLS		1.8 **SILT W/ SAND,** gray, little fine to medium sand, no odor.
										SW		**SAND,** brown, fine to medium sand, moist, no odor.
2.5			Direct Push	60	0.0							2.5 @2.25 ft: 2" sandy slit layer, black.
		WL-P14-3-4-062024										**SAND,** gray, fine to medium sand, trace fine to coarse gravel, moist, no odor.
5.0												
		WL-P14-5-6-062024			0.0					SW		
					0.0							
7.5			Direct Push	100	0.0							
					0.0							@8.25 ft: 1" woody debris chunks. @8.5 ft: 1" gravelly silt layer, gray.
					0.0							9.5
10.0										MLS		10.0 **SANDY SILT,** gray, some fine to medium sand, moist, no odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER WL-P15

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/20/24 **COMPLETED** 6/20/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.3 **TOPSOIL**
					0.1					MLG		0.5 **GRAVELLY SILT,** gray, some fine to medium gravel, no odor.
										SW		**SAND,** gray to brown, fine to medium sand, trace fine to medium gravel, no odor.
		WL-P15-1-2-062024			0.1							1.5
										ML		**SILT,** brown, moist, no odor.
												2.0
										ML		**SILT,** gray, moist, no odor.
2.5			Direct Push	80	0.1							2.5
										MLS		2.8 **SANDY SILT,** black, some fine to medium sand, no odor.
												SAND, brown, fine to medium sand, trace fine to medium gravel, moist, no odor.
		WL-P15-3-4-062024			0.1					SW		
5.0												5.0
												SAND, gray, fine to coarse sand, moist, no odor.
		WL-P15-5-6-062024			0.0					SW		
					0.0							
7.5			Direct Push	100	0.0							7.5
										ML		**SILT,** gray, moist, no odor.
												8.0 @7.75 ft: 2" sawdust-like woody debris.
					0.0					SW		**SAND,** gray, fine to coarse sand, trace fine gravel, no odor.
												8.5 @8.25 ft: 1" silt layer.
					0.0					ML		**SILT,** gray, moist, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P16

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0										ML		0.2	**SILT,** dark brown, few fine to medium sand, no odor.
					0.0							1.0	**ASPHALT,** gray, part of loading dock ramp.
		WL-P16-1-2-062024			0.0					SWG		1.5	**GRAVELLY SAND,** gray, very fine to fine sands, some fine to coarse gravel, moist, no odor.
2.5			Direct Push	70	0.0					ML			**SILT,** gray, moist, no odor, woody debris. @2.0 ft: 2" sawdust-like woody debris. @2.25 ft: 2" silty sand layer, gray. @2.5 ft: 1" woody debris chunks.
		WL-P16-3-4-062024											
5.0												5.0	
		WL-P16-5-6-062024			0.0					MLG		5.5	**SILT W/ GRAVEL,** gray, little fine to coarse gravels, moist, no odor.
										MLS		6.0	**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
					0.0					SWG			**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to coarse gravel, no odor.
7.5			Direct Push	90	0.1								
					0.0							8.0	
										ML		8.3	**SILT,** brown to gray, trace fine sand, no odor.
										SW			**SAND,** gray, fine to medium sand, moist, no odor.
10.0												10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER WL-P17

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/20/24 **COMPLETED** 6/20/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							**CONCRETE**
												0.5
					0.0					SM		**SILTY SAND,** brown, fine to medium sand, some silt, few fine to medium gravels, no odor.
												1.5 @1.25 ft: 1" diameter sawdust-like woody debris clump.
2.5			Direct Push	80	0.0					SM		**SILTY SAND,** gray to brown, fine to medium sand, some silt, no odor. @1.5 ft: 2" silt layer, gray to brown, no odor.
												3.0
		WL-P17-3-4-062024			0.0					SM		**SILTY SAND,** gray, very fine to fine sand, moist, no odor.
5.0												@3.75 ft: 3" sawdust-like woody debris lense.
		WL-P17-5-6-062024			0.0							6.0
					0.0					ML		**SILT,** gray, moist, no odor, few woody debris fibers.
7.5		WL-P17-7-8-062024	Direct Push	100	0.0							7.5 @7.5 ft: 2" sawdust-like woody debris lens.
					0.0					SM		**SILTY SAND,** gray, fine to coarse sand, some silt, no odor.
					0.0							@8.75 ft: 3" silt layer.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P18

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0												
					6.1						0.5	**CONCRETE**
											0.8	**ASPHALT**
					51.7					MLS		@0.8 ft: 1" silt layer, gray.
											1.5	**SANDY SILT,** light gray, some fine to medium sand, moist, no odor.
										ML		
			Direct Push	60	341.2						2.3	**SILT,** light gray, moist, no odor.
										SW		**SAND,** gray, fine to medium sand, moist, woody debris odor. @2.5 ft: 2" sawdust-like woody debris lens.
5		WL-P18-4.5-5.5-061924									5.0	
					1307					SM	5.5	**SILTY SAND,** gray, wet, no odor. @5.5 ft: 2" sawdust-like woody debris lens.
		WL-P18-6-7-061924			183.6					ML		**SILT,** gray, moist, strong solvent-like odor.
		WL-P18-7-8-061924	Direct Push	80	10.9						7.0	@6.5 ft: 1" woody debris chunks.
					1.0					SW		**SAND,** gray, fine to medium sand, moist, strong solvent-like odor.
10		WL-P18-9-10-061924									10.0	
					10.9					SM		**SILTY SAND,** gray, fine to medium sand, wet, strong solvent-like odor.
					3.1						11.5	
										SM	12.0	**SILTY SAND,** gray, fine to medium sand, some silt, few fine to coarse gravels, wet, strong solvent-like odor.
		WL-P18-12-13-061924	Direct Push	90	4.4					ML	12.5	**SILT,** gray, moist, strong solvent-like odor.
					0.7					SM		**SILTY SAND,** gray, fine to medium sand, some silt, wet, moderate solvent-like odor.
15											14.0	
										ML		**SILT,** gray, moist, no odor.
											15.0	

BORING COMPLETION DETAILS:

Boring completed at 15.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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BORING NUMBER WL-P19

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **CONCRETE**
					0.2					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
												1.0 **ASPHALT,** black.
					0.1							**SANDY SILT,** gray, some fine to medium sand, no odor. @1.25 ft: 1" sand layer, gray, fine to medium grains. @1.75 ft: 2" sawdust-like woody debris lens.
2.5			Direct Push	40						MLS		
		WL-P19-3-4-061924										
5.0												5.0
										SW		5.3 **SAND,** brown, fine to medium grains, no odor.
		WL-P19-5-6-061924			0.3							**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
		WL-P19-6-7-061924			0.3							
7.5		WL-P19-7-8-061924	Direct Push	80	0.2					SM		
					0.1							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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Fax: 425.402.8488

BORING NUMBER WL-P20

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.4						0.4	**CONCRETE**
										SM	0.8	**SILTY SAND,** brown, fine sand, some silt, no odor.
											1.0	**ORGANIC FILL**
		WL-P20-1-2-061924			0.5							**SAND,** brown, fine sand, dry, no odor.
2.5			Direct Push	70	0.3							
		WL-P20-3-4-061924								SP		
5.0												
		WL-P20-5-6-061924			18.6						5.5	
											5.9	**CONCRETE**
					0.5							**SAND,** gray, fine to medium sand, moist, no odor.
7.5			Direct Push	90	0.3							
					0.4					SW		
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P21

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.2					SWG		0.8 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor.
		WL-P21-1-2-061924			0.2					SW		**SAND,** brown, fine to medium sand, moist, no odor. @1.0 ft: 1" organic fill. 2.0
2.5			Direct Push	70	0.3					SW		**SAND,** brown, fine to medium sand, moist, no odor.
		WL-P21-3-4-061924										
5.0												5.3
		WL-P21-5-6-061924			0.3					SW		**SAND,** gray, fine to medium sand, moist, no odor.
					0.3							
7.5			Direct Push	90	0.3							
					0.3							
10.0												10.0 @9.75 ft: 1" sawdust-like woody debris lense.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P22

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.1					SWG		0.4 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor. 0.6
										SW		1.0 **CONCRETE**
										SM		1.3 **SAND,** brown, fine to medium sand, moist, no odor. 1.5
		WL-P22-1-2-061924			0.2							**SILTY SAND,** dark brown, fine to medium sand, some silt, moist, no odor.
					0.1							**SAWDUST-LIKE WOODY DEBRIS**
2.5			Direct Push	50								**SANDY SILT,** gray, some fine to medium sand, moist, no odor.
		WL-P22-3-4-061924								MLS		
5.0												5.0
		WL-P22-5-6-061924			0.1					SW		5.3 **SAND,** brown, fine to medium sand, moist, no odor.
					0.1							**SILTY SAND,** gray, fine to medium sand, some silt, no odor, woody debris.
7.5			Direct Push	80	0.5					SM		
					0.7							@8.0 ft: 2" sawdust-like woody debris lens.
												@8.5 ft: 1" woody debris.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P23

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saurated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.2					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
										MLS		0.6
										SW		0.8
					0.2					SM		1.0 **SANDY SILT,** brown, some fine to medium sand, no odor.
										SW		1.5 **SAND W/ SAWDUST-LIKE WOODY DEBRIS,** brown.
										ML		1.9 **SILTY SAND,** gray, fine to medium sand, some silt, no odor.
2.5			Direct Push	50	0.3							**SAND,** gray, fine to medium sand, moist, no odor.
												SILT, brown, no odor, trace woody debris fibers.
										SW		**SAND,** gray, fine to medium sand, moist, no odor. @2.5 ft: 3" sawdust-like woody debris lens.
5.0												5.0
		WL-P23-5-6-061924			0.3					SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, no odor.
					0.6							6.5 @6.5 ft: 1" silt layer, sawdust-like woody debris.
7.5		WL-P23-7-8-061924	Direct Push	100	0.3					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, no odor. @7.5 ft: 2" silt layer, woody debris.
												8.0 @8.0 ft: 2" woody debris.
					0.4					SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, black.
		WL-P23-9-10-061924			0.3							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P24

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.3 **ASPHALT**
					0.2					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
		WL-P24-1-2-061924			0.2					SW-SM		**SAND W/ SILT,** brown, fine to medium sand, little silt, few medium gravel, moist, no odor. 1.5 @0.75 ft: 1" diameter woody chunk.
2.5			Direct Push	60	0.5					SM		**SILTY SAND,** brown, fine to medium sand, some silt, few fine to medium gravel, moist, no odor. 2.5
		WL-P24-3-4-061924								SW		2.8 **SAND,** black, fine to medium sand, faint creosote-like odor.
5.0										ML		**SILT,** gray, no odor, plant debris. 5.0
		WL-P24-5-6-061924			0.3					SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, moist, no odor.
					0.2							
7.5			Direct Push	90	0.2							@7.0 ft: 2" silt layer. 7.5
										ML		**SILT,** gray, no odor, little woody debris fibers. 8.0
					0.7					SW		**SAND,** black, fine to medium sand, faint creosote-like odor.
					0.5							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P25

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					1.2					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
											1.0	
		WL-P25-1-2-061924			0.2					SM		**SILTY SAND,** dark brown, fine to medium sand, some silt, no odor. @1.5 ft: 2" sawdust-like woody debris lens.
											2.0	
2.5			Direct Push	60	36.7					SM	2.5	**SILTY SAND,** gray, fine to medium sand, some silt, faint creosote-like odor.
		WL-P25-3-4-061924								SM		**SILTY SAND,** black, fine to medium sand, some silt, strong creosote-like odor, visible product. @2.75 ft: 2" woody debris strips, product coated, strong creosote-like odor.
5.0											5.0	
		WL-P25-5-6-061924			1.3					SM		**SILTY SAND,** black, fine to medium sand, some silt, few fine to medium gravel, strong creosote-like odor.
											6.5	
					61.4					ML		**SILT,** gray, moist, strong creosote-like odor, visible product, woody debris.
7.5			Direct Push	90	18.8						8.0	
					5.2					SW		**SAND,** black, fine to medium sand, strong creosote-like odor.
					2.1							@9.0 ft: 2" silt layer.
10.0											10.0	@9.5 ft: 2" silt layer.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

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22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P26

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in product)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in product)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.1					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
										MLS		1.0 **SANDY SILT,** dark brown, some fine to medium sand, no odor.
	X	WL-P26-1-2-061924			0.3					ML		1.5 **SILT,** gray, moist, no odor, sawdust-like woody debris.
										SM		2.0 **SILTY SAND,** black, fine to medium sand, some silt, faint creosote-like odor, woody debris fibers.
2.5			Direct Push	60	23.4				X	SW		2.5 **SAND,** brown, fine to medium sand, no odor.
	X	WL-P26-3-4-061924								SW		**SAND,** gray, fine to medium sand, faint creosote-like odor. @2.5 ft: 2" woody debris lens, strong creosote-like odor.
5.0												5.0
	X	WL-P26-5-6-061924			8.7				X	SW		**SAND,** gray, fine to medium sand, moist, strong creosote-like odor.
					3.9							
7.5			Direct Push	100	17.3							7.5
										ML		8.0 **SILT,** gray, moist, strong creosote-like odor.
					51.2	X				SW		8.5 **SAND,** black, fine to medium sand, moist, strong creosote-like odor, visible product. @8.5 ft: 2" woody debris.
										ML		**SILT,** gray, moist, strong creosote-like odor, visible product from 8.5' to 9.25'.
					6.6			X				9.8
10.0										SW		10.0 **SAND,** black, fine to medium sand, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 6/26/24

22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P27

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING _____
LOGGED BY E. Hernandez **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
					0.2	**TOPSOIL**
				SPG		**GRAVELLY SAND,** gray, fine sand, dry, no odor.
					1.0	
		Grab Sample	*WL-P27-1.0-1.5	SM		**SILTY SAND,** gray, little coarse gravel.
					1.5	

BORING COMPLETION DETAILS:

Boring complete at 1.5 ft bgs.

SLR MW LOG WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 12/5/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER WL-P28

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING _____
LOGGED BY E. Hernandez **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
					0.2	**TOPSOIL**
		Grab Sample	*WL-P28-0.75-1.25	SPG	1.3	**GRAVELLY SAND,** gray, large cobbles, roots, dry.

BORING COMPLETION DETAILS:

Boring complete at 1.25 ft bgs.

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Telephone: 425.402.8800
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BORING NUMBER WL-P29

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 11/15/24 **COMPLETED** 11/15/24
GROUND ELEVATION _____ **HOLE SIZE** _____
DRILLING CONTRACTOR _____
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger
AT TIME OF DRILLING _____
LOGGED BY E. Hernandez **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0						
					0.2	**TOPSOIL**
		Grab Sample	*WL-29-0.5-0.75	SPG	0.8	**GRAVELLY SAND,** gray, fine sand, dry, no odor.

BORING COMPLETION DETAILS:

Boring complete at 0.75 ft bgs.

Creosote/Fuel Oil Area Hot Spot Soil Removal Delineation Assessment: Boring Logs

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P1

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.1					SWG		0.5 **GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, dry, no odor.
										SWG		1.0 **GRAVELLY SAND,** light brown fine to medium sand, some fine to medium gravel, dry, no odor.
					0.1					SM		**SILTY SAND,** light brown, very fine to medium sand, some silt, few fine to medium gravel, no odor.
2.5			Direct Push	70	0.2				X			2.5
					0.5				X	SWG		**GRAVELLY SAND,** black, fine to medium sand, some fine to medium gravel, faint creosote-like odor.
5.0												5.0
					0.4		X			SWG		**GRAVELLY SAND,** black, fine to medium sand, some fine to medium gravel, wet, strong creosote-like odor, green sheen.
							X			SWG		@6.5 ft: cresote-like odor becomes stronger.
7.5			Direct Push	95	12.4		X					
	X	CF-P1-8-9-061724 (Held)			2.0		X					8.5
					1.1		X			SM		**SILTY SAND,** black, fine to medium sand, some silt, wet, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P2

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.4					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
												1.0 @0.8 ft: 2" asphalt layer, black.
					0.2					SW-SM		**SAND W/ SILT,** light brown, fine to medium sand, little silt, no odor.
												2.0
2.5			Direct Push	50	0.2							**SAND W/ SILT,** black, fine to medium sand, little silt, moist, faint creosote-like odor.
										SW-SM		
5.0												5.0
					0.3							**SILTY SAND,** dark brown, fine to medium sand, some silt, wet, faint creosote-like odor.
					0.2					SM		
7.5			Direct Push	100	0.2							
					0.3							8.5
										ML		**SILT,** gray, moist, faint creosote-like odor.
												9.0
		CF-P2-9-10-061724			0.3					SM		**SILTY SAND,** black, fine to medium sand, some silt, wet, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P3

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.3	**ASPHALT**
					1.0						1.0	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, few silt, moist, no odor. @1.0 ft: 2" asphalt layer, black.
					0.3					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
2.5			Direct Push	70	0.1						3.0	
					0.2				X	SW-SM		**SAND W/ SILT,** black, fine to coarse sand, little silt, moist, faint creosote-like odor.
5.0											5.0	
					4.6				X	SM	5.5	**SILTY SAND,** black, fine to medium sand, some silt, wet, faint creosote-like odor.
										ML	6.0	**SILT,** gray, moist, strong creosote-like odor.
	X	CF-P3-6-7-061724 (Held)			32.8	X	X			SW-SM		**SAND W/ SILT,** black, fine to coarse sand, little silt, wet, strong creosote-like odor, green sheen.
7.5			Direct Push	100	14.8							
	X	CF-P3-8.5-9.5-061724 (Held)			64.2			X		ML	8.5	**SILT,** gray, moist, strong creosote-like odor.
					17.0	X	X		X	SM	9.0	**SILTY SAND,** black, wet, strong creosote-like odor.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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Fax: 425.402.8488

BORING NUMBER CF-P4

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.5							0.4 **ASPHALT** @0.0 ft: 1" rubber debris.
										SWG		0.7 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor.
					0.5					SWG		**GRAVELLY SAND,** brown, fine to coarse sand, some fine to medium sand, moist, no odor. @1.5 ft: 2" brick debris lens.
2.5			Direct Push	65	0.6							2.3 **SAND W/ SILT,** black, fine to medium sand, little silt, moist, faint creosote-like odor.
					0.6					SW-SM		@3.0 ft: 1" woody debris lens.
5.0												5.0
					1.0							**SAND W/ GRAVEL,** black, fine to coarse sand, little fine to medium gravel, wet, strong creosote-like odor.
					0.7							
7.5			Direct Push	100						SWG		
		CF-P3-8-9-061724 (Held)			5.1							@8.0 ft: 1' green sheen, blebs of product.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P5

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT,** rubber debris.
					1.5					SWG		**SAND W/ GRAVEL,** light brown, fine to medium sand, little fine to medium gravel, moist, no odor.
					1.2							1.5
										SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, moist, faint creosote-like odor. @1.75 ft: 1" diameter gray cobble.
2.5			Direct Push	70	1.1							@2.25 ft: 1" woody debris. 2.5
										SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor. 3.0
					1.1					ML		**SILT,** dark brown, moist, strong creosote-like odor.
5.0												4.5
					34.7					SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor. @5.25 ft: 1" silt layer.
					34.1							6.5
										ML		6.8 **SILT,** gray, moist, strong creosote-like odor.
7.5		CF-P5-7-8-061724 (Held)	Direct Push	100	72.1					SW-SM		**SAND W/ SILT,** black, fine to coarse sand, little silt, wet, strong creosote-like odor, green sheen, plant fibers,
					42.7							
					6.8							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P6

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					1.1					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, moist, no odor. 1.0
					1.3					SWG		**SAND W/ GRAVEL,** brown, fine to medium sand, some fine to medium gravel, moist, no odor.
2.5			Direct Push	70	2.5							2.5
										ML		**SILT,** gray, moist, no odor. 3.0
					3.0				X			
										SW		**SAND,** black, fine to medium sand, faint creosote-like odor.
5.0												5.0
					1.1		X			SW		**SAND,** black, fine to coarse sand, wet, strong creosote-like odor, green sheen.
					22.6							
7.5	X	CF-P6-7-8-061724 (Held)	Direct Push	100	26.0							
					23.7				X	ML		**SILT,** gray, moist, moderate creosote-like odor. 8.8
								X		SW		**SAND,** black, fine medium sand, trace coarse gravel, wet, strong creosote-like odor. @9.25 ft: 1" woody debris.
					4.8							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P7

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					1.3					SWG		**GRAVELLY SAND,** light borwn, fine to medium sand, some fine to medium gravel, moist, no odor.
					1.8							1.5
										SW		**SAND,** dark brown, fine to medium sand, moist, faint creosote-like odor.
2.5			Direct Push	70	1.8							2.5 **CONCRETE** 3.0
					1.7				X	SWG		**SAND W/ GRAVEL,** black, fine to medium sand, little coarse gravel, faint creosote-like odor.
5.0												5.0
					3.3		X			SWG		5.3 **GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, moist, no odor.
					8.0					SW		**SAND,** black, fine to coarse sand, wet, strong creosote-like odor, green sheen, blebs of product.
7.5	X	CF-P7-6.5-7.5-061724 (Held)	Direct Push	100	13.4							@7.5 ft: 1" silt layer. 8.0
					5.5			X		ML		**SILT,** gray, moist, strong creosote-like odor. 8.5
					5.1					SW		**SAND,** black, fine to coarse, wet, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P8

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					2.2							**ASPHALT**
											0.5	
										GW		**GRAVEL,** fine to coarse gravel, light gray, dry, no odor.
					1.5						1.0	**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
2.5			Direct Push	60	1.3							
										SWG		
5.0												
					1.7						5.5	**SAND,** black, fine to medium sand, wet, strong creosote-like odor.
					2.6					SW		
7.5		CF-P8-7-8-061724	Direct Push	100	2.8						7.5	**SILT,** gray, moist, strong creosote-like odor.
										ML	8.0	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, moist, strong creosote-like odor.
					2.5					SWG	9.0	**SILT,** gray, moist, strong creosote-like odor.
					2.6					ML	9.5	**SAND,** black, fine to medium sand, moist, strong creosote-like odor.
10.0										SW	10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P9

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					2.7					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor.
											1.0	
		CF-P9-1-2-061724			4.6					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, faint creosote-like odor.
2.5			Direct Push	70	45.6							@2.0 ft: 1" woody debris lens.
										ML	2.5	**SILT,** gray, trace fine sand, faint creosote-like odor.
					74.5						3.0	
										SW		**SAND,** black, fine to coarse sand, moist, faint creosote-like odor.
5.0												
					73.7						6.0	
					85.0					MLS		**SANDY SILT,** brown, some fine to medium sand, moist, strong creosote-like odor, plant debris. @6.5 ft: 1" plant debris.
7.5			Direct Push	95	94.0							
					68.5						8.5	
					52.8					SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor. @8.75 ft: 1" woody debris lens.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P10

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					2.2					GWS		**SANDY GRAVEL,** light brown, fine to coarse gravel, some fine to medium sand, moist, no odor. 1.0
					2.2							**GRAVELLY SAND,** black, fine to medium sand, some fine to coarse gravel, no odor. @1.5 ft: 1" woody debris lens.
2.5			Direct Push	30						SWG		
5.0												5.0
					91.6		X			SM		**SILTY SAND,** black, fine to medium sand, some silt, few fine to medium gravel, wet, strong creosote-like odor, blebs of product. 6.0
					110.4			X				**SILTY SAND,** gray, fine to medium sand, wet, strong creosote-like odor. @6.0 ft: 1" woody debris lens.
7.5			Direct Push	40						SM		
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P11

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.1 **ASPHALT**
					6.0					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, faint creosote-like odor.
					5.0							1.6
												SILT, gray, moist, strong creosote-like odor.
2.5			Direct Push	70	25.0					ML		@2.0 ft: 2" woody debris, coated in product, strong creosote-like odor.
					25.0							
5.0												5.0
					50.6					SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor, visual product.
												6.0
					36.8							**SILT,** brown, moist, strong creosote-like odor, visual product.
7.5			Direct Push	95	35.3					ML		@6.5 ft: 3" woody debris, coated in product, strong creosote-like odor.
					73.9							8.5
										SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor.
					54.3							@9.25 ft: 2" woody debris.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P12

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												**ASPHALT** 0.5
					3.3					SWG		0.8 **GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor.
					3.5					MLS		**SANDY SILT,** gray, very fine to fine sand, moist, faint creosote-like odor.
2.5			Direct Push	70	3.5							2.8
					8.2					MLG		**GRAVELLY SILT,** black, some fine to medium gravel, wet, faint creosote-like odor.
5.0												5.0
					3.5					SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor.
		CF-P12-6.5-7.5-061724			29.3							7.0 @7.0 ft: 1" woody debris lens.
7.5			Direct Push	95	48.0					ML		7.5 **SILT,** gray, moist, strong creosote-like odor, little woody debris.
					27.6					SW		**SAND,** gray, fine to medium sand, moist, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P13

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/17/24 **COMPLETED** 6/17/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					3.2					SWG		0.7 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, dry, no odor.
					3.3							**SAND,** brown, fine to medium sand, trace fine gravel, no odor.
2.5			Direct Push	60	3.2							@2.0 ft: 1" woody debris.
5.0										SW		5.0 **SAND,** gray, fine to coarse sand, trace fine gravels, moist, no odor, trace plant debris.
					3.0							
					3.1							@6.0 ft: 1" silt layer.
7.5			Direct Push	100	2.8							
		CF-P13-8-9-061724			2.9							9.3
					4.2					ML		**SILT,** gray, moist, no odor, few plant debris.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P14

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					0.0					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
		CF-P14-1-2-061824			2.1				X		1.3	@1.0 ft: 2" asphalt layer, black. **SILTY SAND,** gray to black, fine to medium sand, some silt, few fine to coarse gravel, moist, faint creosote-like odor.
2.5			Direct Push	50						SM		
5.0											5.0	
								X		GM	5.3	**SILTY GRAVEL,** black, fine to medium gravel, some silt, wet, strong creosote-like odor.
					5.4		X					**SAND W/ GRAVEL,** black, fine to coarse sand, little fine to medium gravel, wet, strong creosote-like odor, green sheen, blebs of product.
					5.1							
7.5			Direct Push	95	4.3					SWG		
					4.5							@8.0 ft: 1" wood debris.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P15

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.1 **ASPHALT**
					1.3					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
												1.0 @1.0 ft: 2' asphalt layer, black.
					49.2					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, few silt, faint creosote-like odor.
2.5			Direct Push	60	0.1							2.8
										SW		**SAND,** black, fine to coarse sand, moist, strong creosote-like odor.
5.0												
		CF-P15-5.5-6.5-061824			1.2							
					0.0							
7.5			Direct Push	95	0.0							
					4.9					SWG		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to medium gravel, moist, strong creosote-like odor.
					0.6							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P16

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.4	**ASPHALT**
					0.1					SW		**SAND,** dark brown, fine to medium sand, moist, no odor.
											0.9	
										SW		**SAND,** brown, fine to medium sand, moist, no odor.
					0.1						1.4	@1.0 ft: 2" silt layer.
										SW		**SAND,** brown to gray, fine to medium sand, moist, no odor.
2.5			Direct Push	70							2.4	
					3.8					SW		**SAND,** dark brown, fine to medium sand, moist, faint creosote-like odor.
											3.3	
										SW		**SAND,** black, fine to medium sand, moist, faint creosote-like odor.
5.0											5.0	
										SW	5.4	**SAND,** dark brown, fine to medium sand, moist, faint creosote-like odor.
					6.2					MLS		**SANDY SILT,** gray, some fine to medium sand, moist, strong creosote-like odor, visual product at bottom of layer.
					23.6						6.5	@6.5 ft: 1" woody debris, coated in product, strong creosote-like odor.
										SW		**SAND,** gray, fine to medium sand, moist, strong creosote-like odor.
7.5			Direct Push	95	6.7						7.5	
										ML		**SILT,** gray, moist, strong creosote-like odor.
					5.9						8.0	
										SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P17

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.3	**ASPHALT**
					0.1					SWG			**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, moist, no odor.
												1.0	
					3.4								**TOPSOIL,** dark brown, plant debris.
												2.0	
												2.3	**ASPHALT**
2.5			Direct Push	60	2.5	X				SW			**SAND,** black, fine to medium sand, wet, strong creosote-like odor, visual product.
5.0												5.0	
					1.2	X				SWG			**GRAVELLY SAND,** black, fine to medium sand, some fine to medium gravel, wet, strong creosote-like odor, visual product.
												6.0	
					1.1					ML		6.5	**SILT,** gray to black, moist, strong creosote-like odor, visual product, woody debris.
													WOODY DEBRIS
7.5			Direct Push	80	1.2			X		SW		7.2	**SAND,** gray, fine to medium sand, strong creosote-like odor.
													@8.0 ft: 2" silt layer, gray.
					3.2							8.5	
										ML		8.8	**SILT,** gray, moist, strong creosote-like odor.
										SW			**SAND,** gray, fine to medium sand, strong creosote-like odor.
10.0												10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P18

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.1					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, moist, no odor. 1.0
					0.0					SWG		**SAND W/ GRAVEL,** dark brown, fine to medium sand, little fine to medium gravel, no odor. 1.5
										SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, some fine to medium gravel, no odor. 2.0
2.5			Direct Push	60	0.0							@2.0 ft: 2" silt layer, woody debris. **SAND,** brown to gray, fine to medium sand, moist, no odor.
										SW		
5.0					0.0							6.0 @6.0 ft: 1" woody debris.
		CF-P18-6-7-061824			0.0					ML		**SILT,** gray, moist, faint creosote-like odor.
7.5			Direct Push	90	1.4							8.0 @6.0 ft: 2" woody debris lens.
					2.3					SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P19

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT,** gray.
					0.3					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
												1.0 **ASPHALT,** black.
					0.0					SW		**SAND,** brown, fine to medium sand, no odor.
												2.0 @2.0 ft: 2" silt layer.
										ML		2.2 **SILT,** gray, faint creosote-like odor.
2.5			Direct Push	60	0.0					SW		**SAND,** black, fine to medium sand, faint creosote-like odor.
												2.8 **SILT,** gray, faint creosote-like odor.
										ML		
5.0												5.0
					1.7					SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor.
		CF-P19-5.5-6.5-061824										6.0
					2.2					ML		**SILT,** gray, moist, strong creosote-like odor.
7.5			Direct Push	100	2.4							
												8.0
					2.3					SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor.
					5.9							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P20

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.7					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor.
					0.0					SW		**SAND,** dark brown, fine to medium sand, trace fine to medium gravels, moist, no odor. 1.5
										SW		**SAND,** brown to gray, fine to medium sand, no odor. 2.0
										ML		2.3 **SILT,** gray, no odor.
2.5			Direct Push	50						SW		**SAND,** gray, fine to medium sand, moist, faint creosote-like odor.
5.0												
		CF-P20-5.5-6.5-061824			0.0							6.5
										ML		**SILT,** gray, moist, no odor, woody debris.
7.5			Direct Push	100	0.0							
					4.2							@8.0 ft: 1" woody debris. 8.5
										SM		**SILTY SAND,** black, fine to medium sand, some silt, strong creosote-like odor.
10.0					4.6							10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P21

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.1					SWG		0.5 **GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, moist, no odor.
					0.0					SW		**SAND,** brown to gray, fine to medium sand, no odor. 1.8
2.5			Direct Push	70	0.0					MLS		**SANDY SILT,** gray, some fine sand, no odor. 3.0
									X	SW		**SAND,** black, fine to medium sand, faint creosote-like odor, plant debris.
5.0					0.0				X	SW		5.0 **SAND,** brown, fine to medium sand, moist, no odor.
					0.0				X	ML		6.0 @5.75 ft: 3" sand layer, dark brown, faint creosote-like odor. **SILT,** gray, moist, no odor, plant debris, woody debris.
7.5			Direct Push	90	1.3				X	SW		7.5 **SAND,** black, fine to medium sand, faint creosote-like odor.
	X	CF-P21-8-9-061824			3.9				X			
					2.1				X			
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P22

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					0.0					SW		**SAND,** brown, fine to medium sand, moist, no odor.
												1.5 @1.5 ft: 1" sawdust-like woody debris lens.
2.5			Direct Push	60	0.0					ML		**SILT,** gray, moist, no odor. 2.5
										SW		**SAND,** gray, fine to medium sand, no odor.
5.0												5.0
					0.0					SW		**SAND,** brown, fine to medium sand, wet, no odor, little sawdust-like woody debris. 6.0
					0.0					ML		**SILT,** gray, moist, no odor, few woody debris.
7.5			Direct Push	95	0.0							8.0
		CF-P22-8.5-9.5-061824								SWG		**SAND W/ GRAVEL,** black, fine to medium sand, little fine to medium gravel, no odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P23

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
												0.4 **ASPHALT,** black.
					0.0					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor, shell pieces. 1.0
					0.0					MLS		**SANDY SILT,** brown, some fine to medium sand, no odor. 2.0
2.5			Direct Push	60	0.0					ML		**SILT,** gray, no odor. 2.8
										SW		**SAND,** gray, fine to medium sand, moist, no odor.
5.0												5.3
					55.8					MLS		**SANDY SILT,** gray, some fine to medium sand, no odor.
												6.0 @6.0 ft: 2" silty sand layer, brown.
					65.7					SW		**SAND,** black, fine to medium sand, moist, faint creosote-like odor. 6.8
7.5			Direct Push	90	54.3					SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor. 7.5
										ML		**SILT,** gray, strong creosote-like odor, blebs of product. 8.0
					22.1					SW		**SAND,** black, fine to coarse sand, strong creosote-like odor, blebs of product.
					11.7							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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Telephone: 425.402.8800
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BORING NUMBER CF-P24

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.3	**ASPHALT**
					3.2					SWG		1.0	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					2.3					SW		1.6	**SAND,** brown, fine to medium sand, trace medium gravel, no odor.
										ML		2.0	**SILT,** gray, no odor.
2.5			Direct Push	70	46.8				X	ML		3.0	**SILT,** gray, faint creosote-like odor.
								X		SW		5.0	**SAND,** black, fine to medium sand, strong creosote-like odor.
					30.3		X			SW		7.5	**SAND,** black, fine to medium sand, strong creosote-like odor, blebs of product.
					36.9								
7.5			Direct Push	100	44.4					ML		8.5	**SILT,** black, moist, strong creosote-like odor, blebs of product, few woody debris.
					28.8					SW		10.0	**SAND,** black, fine to coarse sand, strong creosote-like odor, blebs of product. @9.0 ft: 2" sawdust-like woody debris lens.
10.0					13.5								

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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Bothell, Washington 98021
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BORING NUMBER CF-P25

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					2.7					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, no odor.
					1.7							1.5
										MLG		1.8 **GRAVELLY SILT,** gray, some fine to medium gravel, no odor.
2.5			Direct Push	40						SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, no odor. @2.0 ft: 1" woody debris, faint creosote-like odor.
5.0												5.0
					5.0		X			MLS		**SANDY SILT,** black, some fine to medium sand, strong creosote-like odor, blebs of product.
					20.8		X					6.0 @6.0 ft: 3" woody debris lens.
										ML		6.5 **SILT,** black, moist, strong creosote-like odor, blebs of product.
										SW		7.0 **SAND,** black, fine to medium sand, strong creosote-like odor, blebs of product.
7.5			Direct Push	50	47.5	X						**SAND,** black, fine to medium sand, strong creosote-like odor, visual product, woody debris.
										SW		@8.0 ft: Drillers broke through something hard, low core recovery.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P26

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					2.9					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					0.6					SW		**SAND,** brown, fine to medium sand, moist, no odor. 1.5
										SW		**SAND,** dark brown, fine to medium sand, moist, no odor. 2.0
2.5			Direct Push	50								**CONCRETE** 2.5
												Recovery lost past 2.5 to 5.0 ft bgs.
5.0												5.0
					29.9					SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor, blebs of product.
					38.6							
7.5			Direct Push	100	46.6							7.5 @7.25 ft: 2" silt layer.
										ML		**SILT,** gray, moist, strong creosote-like odor, woody debris fibers.
					34.2							8.8 @8.75 ft: 2" sawdust-like woody debris lens.
					37.6					SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P27

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.2	**ASPHALT**
					4.1					SWG		0.5	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
										SW		1.5	**SAND,** brown, fine to medium sand, moist, no odor.
												1.8	**CONCRETE**
2.5			Direct Push	80								3.0	**WOODY DEBRIS**
					15.3	X				SW		3.8	**SAND,** black, fine to medium sand, strong creosote-like odor, visible product, woody debris.
5.0										ML		5.0	**SILT,** black, strong creosote-like odor, visible product.
					34.8	X				SW		6.0	**SAND,** black, fine to medium sand, wet, strong creosote-like odor, visible product.
					44.7			X		ML		7.0	**SILT,** gray, moist, strong creosote-like odor, woody fibers.
7.5			Direct Push	100	30.5					SW		7.8	**SAND,** black, fine to coarse sand, strong creosote-like odor.
					13.3					ML		8.8	**SILT,** gray, moist, strong creosote-like odor.
10.0										SW		10.0	**SAND,** black, fine to medium sand, moist, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P28

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.3 **ASPHALT**
					3.3					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
										SM		1.0 **SILTY SAND,** brown, fine to medium sand, some silt, no odor.
					0.0					MLS		1.5 **SANDY SILT,** brown, some fine sand, no odor @1.5 ft: 2" asphalt, black.
										SM		**SILTY SAND,** brown, fine to medium sand, no odor.
2.5			Direct Push	70								2.5
										SM		**SILTY SAND,** gray, fine to medium sand, moist, no odor. 3.0
									X	SW		**SAND,** black, fine to medium sand, moist, faint creosote-like odor.
5.0												5.0
					0.0				X	SW		**SAND,** gray, fine to medium sand, trace coarse gravel, moist, faint creosote-like odor.
					0.0				X			@6.25 ft: 1" woody debris, covered in brown silt.
									X			7.0
7.5			Direct Push	100	0.0					ML		**SILT,** gray, moist, no odor.
												8.0 @7.75 ft: 1" woody debris.
					0.0				X	SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, faint creosote-like odor.
	X	CF-P28-9-10-061824			0.7				X			
10.0												10.0 @10.0 ft: 1" woody debris lens.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P29

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.3	**ASPHALT**
					2.4					SWG		0.8	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
													WOODY DEBRIS, wood stick along core, coated in silt.
2.5			Direct Push	30									
5.0												5.0	
													WOODY DEBRIS, ~3 stick along core covered in silty sand, gray, fine to medium sand, some silt, wet, strong creosote-like odor.
7.5			Direct Push	70									
					24.3								@8.0 ft: blebs of product observed from 8.0' to 9.5' bgs.
												9.5	
10.0										MLS		10.0	**SANDY SILT,** black, some fine to medium sand, strong creosote-like odor, visible product.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P30

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					0.0					SW		**SAND,** brown, fine to medium sand, moist, no odor. @1.0 ft: 0.5" sawdust-like woody debris lens.
												2.0
2.5			Direct Push	60	9.3				X	MLS		**SANDY SILT,** gray, some fine to medium sand, strong creosote-like odor. @2.5 ft: 1" sawdust-like woody debris lens, black, strong creosote-like odor.
5.0												5.0
					6.9		X			SM		**SILTY SAND,** black, fine to medium sand, some silt, wet, strong creosote-like odor, blebs of product.
					5.6							6.5
7.5			Direct Push	100				X		SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor.
					25.2							8.0
										ML		**SILT,** gray, moist, strong creosote-like odor. @9.0 ft: 2" woody debris.
					12.3							9.5
10.0										SM		10.0 **SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P31

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.0					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
					0.2					SWG		**SAND W/ GRAVEL,** brown, fine to medium sand, little fine to medium gravel, moist, no odor. 1.5
										SM		**SILTY SAND,** brown, fine to medium sand, some silt, no odor. 2.0
2.5			Direct Push	70	0.1					MLS		**SANDY SILT,** gray, some fine to medium sand, moist, no odor.
					0.2							3.3 @3.0 ft: 2" sand layer, gray, fine to medium, no odor, well graded.
5.0										SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor. 5.0
					0.2					SW		**SAND,** gray, fine to medium sand, wet, no odor.
					0.1							
7.5			Direct Push	100	0.1							@7.5 ft: 2" silt layer.
					0.2							8.5
												WOODY DEBRIS, sawdust. 9.0
10.0	X	CF-P31-9-10-061924			0.4				X	SW		**SAND,** gray, fine to medium sand, wet, faint creosote-like odor. 10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P32

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					0.1					SWG	1.0	**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, no odor.
					0.1					SW		**SAND,** gray, fine to medium sand, no odor.
2.5			Direct Push	70	11.9				X	SW	2.5	@2.0 ft: 1" silt layer.
					33.4				X		3.0	**SAND,** black, fine to medium sand, strong creosote-like odor.
5.0										ML	5.0	**SILT,** black, strong creosote-like odor, woody fibers.
					44.8		X			SW	6.0	**SAND,** black, fine to medium sand, moist, strong creosote-like odor, blebs of product.
										ML	6.3	**SILT,** gray, strong creosote-like odor, blebs of product.
					18.4			X		SW		**SAND,** black, fine to medium sand, moist strong creosote-like odor.
7.5			Direct Push	100	6.1							@7.0 ft: 2" silt layer, gray, strong creosote-like odor.
					3.5							@7.75 ft: 1" silt layer, gray, strong creosote-like odor.
					9.8						9.4	
										MLS	9.7	**SANDY SILT,** gray, some fine to medium sand, moist, strong creosote-like odor.
10.0										SW	10.0	**SAND,** black, fine to medium sand, moist, strong creosote-like odor. @9.8 ft: 2" silt layer, gray, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P33

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.3					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
										SM		1.0 **SILTY SAND,** brown, very fine to fine sand, some silt, trace medium gravel, no odor.
					4.5				X	SM		**SILTY SAND,** gray, very fine to fine sand, some silt, moist, faint creosote-like odor. 2.0 @1.75 ft: 1" silt layer.
2.5			Direct Push	70	64.7			X		SW		**SAND,** black, fine to medium sand, trace medium gravel, moist, strong creosote-like odor. @2.0 ft: 2" woody debris, coated in product.
5.0												5.0
					57.5		X			SW		**SAND,** black, fine to coarse sand, wet, strong creosote-like odor, blebs of product.
					22.2							
7.5			Direct Push	100	30.8							@7.0 ft: sand gets blacker, more blebs of product. @7.5 ft: 2" silt layer, gray, strong creosote-like odor.
					15.2			X				8.5 @8.5 ft: 2" woody debris, coated in silt, strong creosote-like odor.
										ML		**SILT,** gray, strong creosote-like odor. @9.0 ft: 2" sand layer, black, fine to medium sand, strong creosote-like odor.
					36.2							9.5
10.0										SW		10.0 **SAND,** black, fine to medium sand, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P34

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.4					SWG		0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor.
					0.3					MLS		**SANDY SILT,** brown, some fine to medium sand, trace fine to medium gravel, moist, no odor. 2.0
2.5			Direct Push	80	0.4					SW		**SAND,** brown, fine to medium sand, moist, no odor. 3.8
5.0										SW		**SAND,** black, fine to medium sand, moist, faint creosote-like odor. 5.0
					5.8					SW		**SAND,** gray, fine to medium sand, moist, no odor. 5.5
										SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor. 6.3
					59.0					SW		6.5 **SAND,** black, fine to medium sand, moist, strong creosote-like odor, blebs of product.
7.5			Direct Push	90	86.8					ML		**SILT,** gray, moist, strong creosote-like odor. @8.0 ft: 1" woody debris. 8.5
					8.1					SW		**SAND,** gray, fine to medium sand, faint creosote-like odor.
					4.2							
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P35

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.2 **ASPHALT**
					0.4					SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
												1.0 @0.5 ft: 3" asphalt layer, black.
					0.3					SW		**SAND,** brown, fine to medium sand, trace fine to medium gravel, moist, no odor.
												2.0
												2.3 **CONCRETE**
2.5			Direct Push	60	0.4							**SAND,** gray, fine to medium sand, moist, no odor.
										SW		
5.0												5.0
					0.4					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, wet, no odor.
												5.8
										ML		6.0 **SILT,** gray, moist, no odor.
					0.4							**SAND,** gray, fine to medium sand, moist, no odor.
7.5			Direct Push	100	0.4							
					0.4					SW		
		CF-P35-8.5-9.5-061924			0.4							
10.0												@9.5 ft: 1" sawdust-like woody debris lens. 10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P36

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/18/24 **COMPLETED** 6/18/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.2	**ASPHALT**
					0.3					SWG		1.0	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, no odor.
					0.7					MLG		2.3	**GRAVELLY SILT,** gray, some fine to medium gravel, moist, no odor.
2.5			Direct Push	80	0.8					SWG		2.5	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, moist, no odor.
					0.4					SW			**SAND,** brown, fine to medium sand, moist, no odor.
5.0												5.0	
					1.1					SWG		5.3	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, moist, no odor.
										SW		6.0	**SAND,** gray, fine to medium sand, moist, no odor.
					0.7					ML		6.5	**SILT,** gray, moist, no odor.
7.5			Direct Push	90	0.5					SW			**SAND,** gray, fine to medium sand, moist, no odor.
		CF-P36-8.5-9.5-061924			0.5					ML		8.5	**SILT,** gray, moist, no odor.
					0.6					SW		9.1	**SAND,** gray, fine to medium sand, moist, no odor.
10.0												10.0	@9.75 ft: 1" sawdust-like woody debris.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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Fax: 425.402.8488

BORING NUMBER CF-P37

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/18/24 **COMPLETED** 6/18/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0											0.2	**ASPHALT**
					0.3					SWG	1.0	**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, moist, no odor. @0.75 ft: 2" gravelly sand layer, dark brown.
					0.6					MLG		**GRAVELLY SILT,** brown, some fine to medium gravel, moist, no odor. 1.5 ft: 3" woody debris.
2.5			Direct Push	80	2.5							@2.75 ft: 1" silt layer.
					0.4						3.2	
										SW		**SAND,** brown, fine to medium sand, moist, no odor.
5.0											5.0	
										MLS	5.3	**SANDY SILT,** gray, some fine to medium sand, trace fine gravel, no odor, woody debris.
					0.8					SW	6.0	**SAND,** gray, fine to coarse sand, moist, no odor.
					0.4					ML	6.4	**SILT,** gray, moist, no odor.
7.5			Direct Push	100	0.3					SW		**SAND,** gray, fine to coarse sand, moist, no odor.
		CF-P37-8-9-061924			0.3						8.5	
					0.3					SW		**SAND,** gray, fine to coarse sand, moist, faint creosote-like odor.
10.0											10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P38

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.4							**ASPHALT,** gray.
												0.5 **ASPHALT,** black. 1.0
					0.0							**GRAVELLY SILT,** gray, some fine to coarse gravel, moist, no odor.
2.5			Direct Push	80	0.1							
					0.1					MLG		
5.0												
					18.4							5.8 @5.75 ft: 2" silty sand layer, black, fine to medium sand, some silt, faint creosote-like odor.
					16.5					SM		**SILTY SAND,** gray, fine to medium sand, some silt, faint creosote-like odor. 7.0
7.5	X	CF-P38-7-8-062024	Direct Push	80	29.6					ML		**SILT,** gray to brown, moist, faint creosote-like odor, trace woody debris fibers. 8.3
					5.8			X				**WOODY DEBRIS,** sawdust-like woody debris. 8.7
										SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor, sheen.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P39

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.3					SWG		0.1 **ASPHALT**
												0.5 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.
												0.8
					0.7							1.0 **ASPHALT,** gray.
										SWG		**ASPHALT,** black.
												1.5 **SAND W/ GRAVEL,** gray, fine to medium sand, little fine to mediun gravel, no odor.
2.5			Direct Push	80	0.6							**SAND,** gray, fine to medium sand, moist, no odor.
					0.3							@2.5 ft: 2" silt layer.
5.0										SW		
					0.2							6.3
					0.1					ML		6.8 **SILT,** gray to brown, moist, no odor, few woody debris fibers.
7.5			Direct Push	100	0.0					SW		**SAND,** gray, fine to medium sand, moist, no odor. @7.0 ft: 2" silt layer.
					0.2					ML		7.8 **SILT,** gray, moist, no odor.
												9.0
10.0		CF-P39-9-10-062024			0.1					SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor.
												10.0 @10.0 ft: 1" diameter woody debris.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

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BORING NUMBER CF-P40

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.1							0.5 **ASPHALT,** gray.
												1.0 **ASPHALT,** black.
					0.0					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, moist, no odor.
2.5			Direct Push	70	0.1							
					0.0							
5.0												
					18.4					SM		5.5 **SILTY SAND,** gray, fine to medium sand, some silt, moist, faint creosote-like odor. 6.0
					16.5					ML		**SILT,** gray to brown, moist, no odor. 6.5
7.5		CF-P40-6.5-7.5-062024	Direct Push	90	29.6					SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, moist, strong creosote-like odor.
					5.8							9.0
10.0										SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, moist, faint creosote-like odor. @9.5 ft: 2" sawdust-like woody debris lens. 10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P41

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.3 **ASPHALT**
					0.8					SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, no odor.
					0.1							1.5
2.5			Direct Push	70	0.1					SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, no odor.
5.0												5.5
					0.7					SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, no odor.
					0.1					ML		6.0 **SILT,** gray to brown, moist, no odor. 6.3
7.5		CF-P41-7.5-8.5-062024	Direct Push	70	0.2					SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor. @8.0 ft: 2" silt layer.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P42

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 6/19/24 **COMPLETED** 6/19/24 **GROUND ELEVATION** _____ **HOLE SIZE** 2"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC

DRILLING METHOD Direct Push

DRILLING RIG Geoprobe 7822DT

LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG		MATERIAL DESCRIPTION
0.0												0.3	**ASPHALT,** gray.
					0.1							0.5	**ASPHALT,** black.
										SWG			**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, no odor.
					0.0							1.5	
										SW		1.8	**SAND,** gray, fine to medium sand, no odor.
					0.5					SWG		2.4	**GRAVELLY SAND,** gray, fine to medium sand, some fine to medium gravel, no odor, woody debris.
2.5			Direct Push	50									@2.2 ft: 3" long woody debris strip.
										SW			**SAND,** gray, fine to medium sand, moist, no odor.
5.0												5.3	
					0.2					ML		5.5	**SILT,** brown, moist, no odor.
										SW			**SAND,** gray, fine to medium sand, moist, no odor.
					0.0								
7.5			Direct Push	100	0.2								@8.0 ft: 2" silt layer.
					0.1							8.5	
										ML		8.8	**SILT,** gray, moist, no odor.
		CF-P42-9-10-062024											**SAND,** gray, fine to medium sand, moist, no odor.
					0.2					SW			
10.0		CF-P128-9-10-062024										10.0	

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER CF-P43

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval)				GRAPHIC LOG	MATERIAL DESCRIPTION
						Product Saturated Soil	Some Product Saurated Soil (blebs)	Significant Grain Staining (<50% soil particles coated in produt)	Significant Grain Staining (>50% soil particles coated in produt)		
0.0				0							**CONCRETE** Boring not completed Driller hit refusual at ~1.5' bgs on 3 seperate borings. 1.5

BORING COMPLETION DETAILS:

Boring completed at 1.5ft bgs.
Refusal past 1.5ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P44

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												0.3 **ASPHALT,** gray.
					0.0							0.5 **ASPHALT,** black.
										SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor. 1.0
					0.0							@0.75 ft: 2" asphalt layer, black. 1.5
										SWG		**ORGANIC FILL** 1.6
												GRAVELLY SAND, brown, fine to medium sand, some fine to medium gravel, no odor. 2.0
2.5			Direct Push	60	0.0			X		SWG		**BRICK DEBRIS,** bright orange. 2.5
										SW		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor. 2.8
												SAND, black, fine to medium sand, strong creosote-like odor.
										ML		**SILT,** brown, no odor, straw plant debris.
5.0												5.0 @ 2" brick chunks lens, bright orange.
					47.9					SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, wet, no odor. 5.5
										ML		**SILT,** gray, moist, no odor. 6.0
					54.8				X	SW		**SAND,** black, fine to medium sand, faint creosote-like odor. 7.0
7.5			Direct Push	80	4.2			X				**SAND,** black, fine to medium sand, strong creosote-like odor.
	X	CF-P44-8-9-062024			9.4			X		SW		@8.0 ft: 2" silt layer, gray.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P45

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							0.5 **TOPSOIL**
										SWG		1.0 **GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor.
					0.5							1.5 **CONCRETE**
										MLS		1.8 **SANDY SILT,** black, some fine to medium sand, moist, no odor.
										MLS		2.0 **SANDY SILT,** light brown, some fine to medium sand, moist, no odor.
2.5			Direct Push	50								**GRAVELLY SILT,** gray, some fine to medium gravel, moist, no odor.
										MLG		
5.0												5.0
					1.9					GM		5.3 **SILTY GRAVEL,** brown, fine to medium gravel, some silt, wet, faint creosote-like odor.
										SM		6.0 **SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor, blebs of product.
					60.9					SM		6.5 **SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor, visible product.
										MLS		**SILT W/ SAND,** gray, little fine to medium sand, moist, strong creosote-like odor, visible product.
7.5			Direct Push	60	10.8							7.5
										SW		**SAND,** black, fine to medium sand, moist, strong creosote-like odor, blebs of product.
												@8.75 ft: 1" silt layer, gray.
10.0												10.0

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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22118 20th Ave. SE, Suite G-202
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BORING NUMBER CF-P46

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							0.6 **TOPSOIL**
										SW		1.0 **SAND,** brown, very fine to fine sand, no odor.
												1.3 **BRICK DEBRIS,** bright orange, little concrete debris, little silty sand.
					0.0					MLG		**GRAVELLY SILT,** brown, some fine to coarse gravel, few fine to medium sand, wet, no odor.
2.5			Direct Push	60	0.0							2.8
										SM		**SILTY SAND,** brown, fine to medium sand, some silt, moist, no odor.
5.0												5.0
										ML		5.3 **SILT,** gray, moist, faint creosote-like odor.
					2.2					MLS		5.5 **SANDY SILT,** brown, some fine to medium sand, wet, strong creosote-like odor.
					12.4					SM		**SILTY SAND,** black, fine to medium sand, some silt, wet, strong creosote-like odor, visible product, blebs of product.
7.5			Direct Push	100	20.2							
					103.8							8.8
										SM		9.0 **SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor.

BORING COMPLETION DETAILS:

Boring completed at 9.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 6/28/24

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BORING NUMBER CF-P47

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 6/19/24 **COMPLETED** 6/19/24
GROUND ELEVATION _____ **HOLE SIZE** 2"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
DRILLING METHOD Direct Push
DRILLING RIG Geoprobe 7822DT
LOGGED BY S. Machel **CHECKED BY** C. Kramer

DEPTH (ft)	INTERVAL	SAMPLE NAME	TYPE	RECOVERY %	PID (ppm)	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0												
					0.0							**TOPSOIL**
												0.5
										MLS		**GRAVELLY SILT,** brown, some fine to coarse gravel, no odor.
					0.0							1.3 @1.0 ft: 1" brick debris layer, bright orange.
												ASPHALT, black, some geotextile lining.
												1.8
										ML		2.0 **SILT,** brown, moist, no odor.
					0.0							**GRAVELLY SILT,** brown, some fine to medium gravel,
2.5			Direct Push	50								wet, no odor.
										MLS		
5.0												5.0
										MLS		5.3 **GRAVELLY SILT,** brown, some fine to medium gravel,
					0.0					SM		wet, strong creosote-like odor.
												5.8 **SILTY SAND,** black, fine to medium sand, some silt,
					0.0					SM		strong creosote-like odor.
												SILTY SAND, black, fine to medium sand, some silt,
												strong creosote-like odor, blebs of product.
												6.8
7.5			Direct Push	100	0.0					SM		**SILTY SAND,** black, fine to medium sand, some silt, strong creosote-like odor, visible product.
												8.0
					0.0					MLS		**SILT W/ SAND,** gray, little fine to medium sand, moist, strong creosote-like odor, visible product.
												9.0
					0.1					SM		**SILTY SAND,** black, fine to medium sand, some silt, strong creosote-like odor, visible product.
												9.8
10.0										ML		10.0 **SILT,** gray, moist, strong creosote-like odor, visible product.

BORING COMPLETION DETAILS:

Boring completed at 10.0ft bgs.
Backfilled with hydrated bentonite chips.

SLR SB LOG NAPL CREOSOTE AREA LOGS 1-47.GPJ GINT US.GDT 7/1/24

Creosote/Fuel Oil Area Shallow and Deep Groundwater Zone Assessment: Boring Logs

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MW-22D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/8/24 **COMPLETED** 7/8/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0									
						SWG		0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		1.0 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to medium gravel, no odor.	
						SWG		2.0 **SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, faint creosote-like odor.	
						SM		3.0 **SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, strong creosote-like odor. **SILTY SAND,** black, fine to medium sand, some silt, strong creosote-lik odor, visible product.	
5						SW		4.5 **SAND,** gray, fine to medium sand, trace fine to medium gravel, faint creosote-like odor.	
10								@10.0 ft: ~2" diameter silt nodules, compacted during drilling.	
15									2" Sch 40 PVC riser (0.0' to 32.82' bgs)
20									3/8" bentonite chips (1.0' to 31.82' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024.

(Continued Next Page)

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CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DATE STARTED 7/8/24 **COMPLETED** 7/8/24 **GROUND ELEVATION** _____ **HOLE SIZE** 6"

DRILLING CONTRACTOR Anderson Environmental Contracting, LLC **GROUND WATER LEVELS:**

DRILLING METHOD Sonic Core **AT TIME OF DRILLING** N/A

LOGGED BY S. Machel **CHECKED BY** C. Kramer **AFTER DRILLING** N/A

NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						SW		**SAND,** gray, fine to medium sand, trace fine to medium gravel, faint creosote-like odor. *(continued)*	
								24.0	
25						SW		**SAND,** black, fine to medium sand, wet, strong creosote-like odor, blebs of product.	2" Sch 40 PVC riser (0.0' to 32.82' bgs)
								25.0	
						SWG		**SAND W/ GRAVEL,** black, fine to coarse sand, little fine to coarse gravel, moist, strong creosote-like odor.	
								26.0	3/8" bentonite chips (1.0' to 31.82' bgs)
						SWG		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, moist, faint creosote-like odor.	
30								30.0	
						SW		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, moist, no odor.	12/20 Silica Sand (31.82' to 50.0' bgs)
35									
								37.0	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, no odor.	2" Sch 40 PVC 0.020 slotted screen (32.82' to 42.82' bgs)
40									

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/8/24 **COMPLETED** 7/8/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40						SM		**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, no odor. *(continued)*	12/20 Silica Sand (31.82' to 50.0' bgs)
									2" Sch 40 PVC 0.020 slotted screen (32.82' to 42.82' bgs)
								43.0	
								SILT, gray, moist, no odor, trace shell fragments.	2" Sch 40 PVC Sump (42.82' to 44.82' bgs)
45									Endcap (44.82' to 45.02' bgs)
						ML			
50								50.0	

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-23S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/8/24 **COMPLETED** 7/8/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, no odor.	3/8" bentonite chips (1.0' to 2.0' bgs)
								3.0	2" Sch 40 PVC riser (0.0' to 3.0' bgs)
						SM		**SILTY SAND,** black, fine to medium sand, some silt, few coarse gravel, moist, strong creosote-like odor.	
5								5.0	12/20 silica sand (2.0' to 13.2' bgs)
						ML		5.5 **SILT,** gray, moist, strong creosote-like odor, few plant debris.	
						SW-SM		**SAND W/ SILT,** black, fine to medium sand, little silt, moist, strong creosote-like odor.	
								7.5	2" Sch 40 PVC 0.020" slotted screen (3.0' to 13.0' bgs)
10						SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, moist, strong creosote-like odor.	
								13.2	Endcap (13.0' to 13.2' bgs)

REMARKS

Boring completed at 13.2 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024.

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MW-24S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/8/24 **COMPLETED** 7/8/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0							0.2	**ASPHALT**
						SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to coarse gravel, few silt, moist, no odor.
							3.0	
						SWG		**GRAVELLY SAND,** gray, fine to coarse sand, some fine to coarse gravel, few silt, moist, no odor. @4.5 ft: ~2" woody debris. @4.75 ft: ~2" silt layer, gray.
5							8.0	
						SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, few fine to medium gravel, faint creosote-like odor. @8.0 ft: ~3" diameter woody debris chunk.
10							13.0	

WELL DIAGRAM:
- Concrete (0.0' to 1.0' bgs)
- 3/8" bentonite chips (1.0' to 1.44' bgs)
- 2-inch Sch 40 PVC riser (0.0' to 2.44' bgs)
- 12/20 Silica Sand (1.44' to 13.0' bgs)
- 2-inch Sch 40 PVC 0.020 slotted screen (2.44' to 12.44 bgs)
- Endcap (12.44' to 12.64' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-25D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/11/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		**GRAVELLY SAND,** light brown, fine to medium sand, fine to coarse gravel, moist, no odor.	
								2.0	
						MLG		**GRAVELLY SILT,** gray, some fine to coarse gravel, few fine to medium sand, no odor.	
								4.0	
						MLS		4.5 **SANDY SILT,** gray, some fine to medium sand, moderate creosote-like odor.	
5						SM		**SILTY SAND,** black, fine to medium sand, some silt, moist, strong creosote-like odor.	
								6.5	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, strong creosote-like odor.	
10								10.0	
								Recovery Lost from ~ 10.0' to 13.0' bgs	
								13.0	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor, blebs of product.	
15								15.5	2" Sch 40 PVC riser (0.0' to 37.1' bgs)
						MLS		16.0 **SILT W/ SAND,** gray, little fine to medium sand, strong creosote-like odor, blebs of product.	
						SWG		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, few silt, strong creosote-like odor.	3/8" bentonite chips (1.0' to 36.1' bgs)
20								20.0	

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/11/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20						MLS		20.5 **SILT W/ SAND,** gray, little fine to medium sand, faint creosote-like odor.	
						SWG		21.5 **SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, faint creosote-like odor.	
						SW		**SAND,** gray, fine to coarse sand, few silt, trace fine to medium gravel, faint creosote-like odor.	2" Sch 40 PVC riser (0.0' to 37.1' bgs)
25								25.0	
						SW		**SAND,** gray, fine to coarse sand, few silt, trace fine to coarse gravel, moderate creosote-like odor.	3/8" bentonite chips (1.0' to 36.1' bgs)
						SW		28.0 **SAND,** gray, fine to coarse sand, few silt, trace fine to medium gravel, faint creosote-like odor.	
30								30.0	
						SW		**SAND,** gray, fine to coarse sand, trace fine to coarse gravel, moderate creosote-like odor.	
35									12/20 Silica Sand (36.1' to 50.0' bgs)
								37.0	
						SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, moderate creosote-like odor, trace woody debris.	2" Sch 40 PVC 0.020 slotted screen (37.1' to 47.1' bgs)
40								40.0	

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/11/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40						SW		**SAND,** gray, fine to medium sand, trace fine to medium gravel, strong creosote-like odor.	
								42.0	
						SW		**SAND,** gray, fine to medium sand, trace fine to medium gravel, strong creosote-like odor, visible product.	2" Sch 40 PVC 0.020 slotted screen (37.1' to 47.1' bgs)
								43.5	
45						ML		**SILT,** gray, trace fine gravel, strong creosote-like odor.	12/20 Silica Sand (36.1' to 50.0' bgs)
								48.0	
						ML		**SILT,** gray, moderate creosote-like odor, little shell fragments.	2" Sch 40 PVC Sump (47.1' to 49.1' bgs)
50								50.0	Endcap (49.1' to 49.3' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-26D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, trace fine to medium gravel, faint creosote-like odor.	
								3.5 **SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, few silt, moist, no odor.	
5						SWG		@7.75 ft: ~2" diameter woody debris chunks.	
10								10.0 Recovery Lost from ~ 10.0' to 20.0' bgs	
15									2" Sch 40 PVC riser (0.0' to 37.16' bgs)
20								20.0	3/8" bentonite chips (1.0' to 36.16' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20					X	SW		**SAND,** gray, fine to coarse sand, trace fine gravel moist, faint creosote-like odor. @20.5 ft: ~1" diameter woody debris chunk.	
								24.0	
25						SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, trace fine gravel, moist, no odor.	
								27.0	
					X	SM		**SILTY SAND,** gray, fine to medium sand, some silt, wet, faint creosote-like odor.	
30								30.0	2" Sch 40 PVC riser (0.0' to 37.16' bgs)
						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, moist, no odor. @30.5 ft: ~3" long woody debris chunk, black.	
								32.0 @31.5 ft: ~5" long woody debris chunk.	
						MLS		**SANDY SILT,** gray, fine to medium sand, trace fine to medium gravel, no odor.	3/8" bentonite chips (1.0' to 36.16' bgs)
35									12/20 Silica Sand (36.16' to 50.0' bgs)
									2" Sch 40 PVC 0.020 slotted screen (37.16' to 47.16' bgs)
								39.0	
40						MLS		**SILT W/ SAND,** gray, little fine to medium sand, moist, no odor.	
								40.0	

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40								**SANDY SILT,** gray, fine to coarse sand, strong creosote-like odor.	2" Sch 40 PVC 0.020 slotted screen (37.16' to 47.16' bgs)
						MLS			
45								45.0 **SANDY SILT,** gray, fine to medium sand, no odor.	12/20 Silica Sand (36.16' to 50.0' bgs)
						MLS		47.5 **SILT W/ SAND,** gray, little fine to medium sand, no odor, little shell fragments, ~2" long, full crab shell, no odor.	2" Sch 40 PVC Sump (47.16' to 49.16' bgs)
						MLS			Endcap (49.16' to 49.36' bgs)
50								50.0	

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

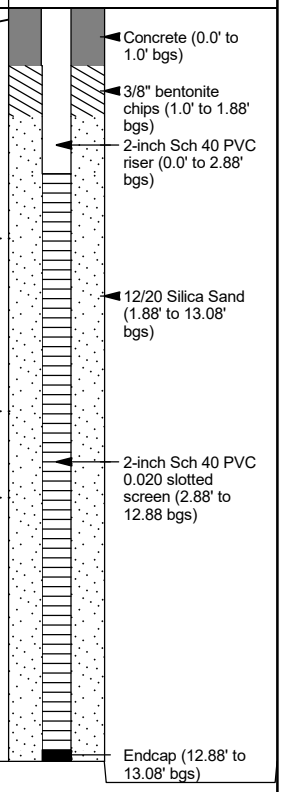
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MW-27S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0								0.2 **ASPHALT**
						SWG		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to medium gravel, moist, no odor.
								4.0
5						SWG		**GRAVELLY SAND,** gray to brown, fine to coarse sand, some fine to medium gravel, no odor.
								7.0
						SM		**SILTY SAND.** gray, fine to medium sand, some silt, few fine to medium gravel, wet, no odor.
								8.5
10						SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, moist, no odor, silt nodules throughout. @10.5 ft: ~2" silt layer, gray, no odor. @10.75 ft: straw/woody debris, ~3" long, ~0.5" thick.
								13.1

WELL DIAGRAM



REMARKS

Boring completed at 13.08 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-28D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						MLG		0.2 **ASPHALT** 1.0 **GRAVELLY SILT,** brown, some fine to coarse gravel, moist, no odor, sawdust-like woody debris nodules.	Concrete (0.0' to 1.0' bgs)
						MLS		**SANDY SILT,** brown, some fine to medium sand, no odor. 3.0	
						MLS		**SILT W/ SAND,** brown, little fine to medium sand, no odor. 4.0	
5						SM		**SILTY SAND,** brown, fine to medium sand, some silt, no odor. 6.0	
						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, few medium to coarse gravel, faint creosote-like odor, sawdust and wood debris throughout. @7.0 ft: ~0.75' silty sawdust layer. @8.25 ft: ~0.25' silty woody debris. 10.0	
10						SW		**SAND,** gray, fine to coarse sand, faint creosote-like odor. 12.0	
						MLS		**SILT W/ SAND,** gray, little fine to medium sand, faint creosote-like odor. 13.0	
						SM		**SILTY SAND,** brown, fine to medium sand, faint creosote-like odor. 15.0	
15						SWG		**SAND W/ GRAVEL,** gray, fine to coarse sand, little fine to coarse gravel, faint creosote-like odor.	2" Sch 40 PVC riser (0.0' to 37.46' bgs)
20								20.0	3/8" bentonite chips (1.0' to 36.46' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
20								
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine gravels, moist, faint creosote-like odor.
25								25.5
						MLS		**SANDY SILT,** gray, some fine to medium sand, moist, strong odor.
								27.0
						SW		**SAND,** gray, fine to coarse sand, trace coarse gravel, moist, strong creosote-like odor, trace woody debris.
30								30.0
						SW		**SAND,** gray, fine to coarse sand, trace fine gravel, moist, faint creosote-like odor.
35								35.0
						MLS		**SANDY SILT,** gray, some fine to medium sand, moist, no odor.
								39.0
40						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, few fine to medium gravel, moist, no odor.
								40.0

WELL DIAGRAM:
- 2" Sch 40 PVC riser (0.0' to 37.46' bgs)
- 3/8" bentonite chips (1.0' to 36.46' bgs)
- 12/20 Silica Sand (36.46' to 50.0' bgs)
- 2" Sch 40 PVC 0.020 slotted screen (37.46' to 47.46' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-28D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/9/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40						MLS		**SANDY SILT,** gray, some fine to medium sand, moist, no odor.	
								41.0	
								SILT, gray, trace fine sand, moist, no odor, little shell fragments.	2" Sch 40 PVC 0.020 slotted screen (37.46' to 47.46' bgs)
						ML			
45									12/20 Silica Sand (36.46' to 50.0' bgs)
								47.0	
								SANDY SILT, gray, some fine to medium sand, few coarse gravel, no odor, few shell fragments.	
						MLS			2" Sch 40 PVC Sump (47.46' to 49.46' bgs)
50								50.0	Endcap (49.46' to 49.66' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-29S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		**GRAVELLY SAND,** light brown to brown, fine to medium sand, some fine to coarse gravel, moist, no odor.	3/8" bentonite chips (1.0' to 1.62' bgs)
								2.0	
						MLG		**GRAVELLY SILT,** brown, some fine to medium gravel, few fine sand, moist, no odor.	2-inch Sch 40 PVC riser (0.0' to 2.62' bgs)
								3.0	
						MLS		**SANDY SILT,** gray, some fine to medium sand, moist, no odor, woody debris throughout.	
5								5.0	12/20 Silica Sand (2.62' to 13.0' bgs)
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine to medium gravel, moist, no odor, trace woody debris.	
								6.5	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine to medium gravel, moist, faint creosote-like odor, woody debris.	2-inch Sch 40 PVC 0.020 slotted screen (2.62' to 12.62 bgs)
								@6.5 ft: ~2" sawdust-like woody debris layer, silt.	
10									
								13.0	Endcap (12.62' to 12.82' bgs)

REMARKS

Boring completed at 13.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-30M

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT** Recovery Lost from ~ 0.2' to 7.5' bgs	Concrete (0.0' to 1.0' bgs)
5									
10						SM		7.5 **SILTY SAND,** gray, fine to medium sand, some silt, little fine to coarse gravel, no odor. @9.5 ft: ~4" long screw. @9.75 ft: ~3" woody debris lens. @10.5 ft: ~2" sawdust-like woody debris lens, silt.	2" Sch 40 PVC riser (0.0' to 24.0' bgs)
15						SM		10.5 **SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, moist, faint creosote-like odor.	3/8" bentonite chips (1.0' to 22.0' bgs)
20									

REMARKS

Boring completed at 30.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20									
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, moist, faint creosote-like odor. *(continued)*	2" Sch 40 PVC riser (0.0' to 24.0' bgs)
									3/8" bentonite chips (1.0' to 22.0' bgs)
									12/20 Silica Sand (22.0' to 24.0' bgs)
25								25.0	
						MLS		**SANDY SILT,** gray, some fine to medium sand, few fine to coarse gravel, moist, no odor.	2" Sch 40 PVC 0.020 slotted screen (24.0' to 29.0' bgs)
								29.0	
30						SM		**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, moist, moderate creosote-like odor.	Endcap (29.0' to 29.2' bgs)
								30.0	

REMARKS

Boring completed at 30.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

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MW-31S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		1.0 **GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, little silt, no odor.	3/8" bentonite chips (1.0' to 1.28' bgs)
						MLG		1.5 **GRAVELLY SILT,** brown, some fine to coarse gravel, little fine sand, no odor.	2-inch Sch 40 PVC riser (0.0' to 2.28' bgs)
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, no odor, little woody debris.	
								3.0 @2.25 ft: ~2" sawdust-like woody debris layer, silt.	
						MLS		4.0 **SILT W/ SAND,** gray, little fine to medium sand, moist, no odor.	
5						SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor, few woody debris.	12/20 Silica Sand (2.28' to 13.0' bgs)
								6.0 @6.0 ft: ~2" sawdust-like woody debris layer, silt.	
						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, few fine to coarse gravel, moist, faint creosote-like odor.	2-inch Sch 40 PVC 0.020 slotted screen (2.28' to 12.28 bgs)
10								@10.0 ft: ~3" woody debris chunks.	
								11.0	
						SM		**SILTY SAND,** gray, fine to coarse sand, some silt, few fine to coarse gravel, moist, faint creosote-like odor.	Endcap (12.28' to 12.48' bgs)
								13.0	

REMARKS

Boring completed at 13.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

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MW-32D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		**GRAVELLY SAND,** brown, fine to medium sand, some fine to medium gravel, no odor.	
								1.5	
						SM		**SILTY SAND,** brown, fine to medium sand, some silt, no odor.	
								3.0	
						ML		3.5 **SILT,** gray, no odor, woody debris.	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine gravel, no odor.	
5									
								7.0	
								7.5 **WOODY DEBRIS,** silt, gray.	
						SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, faint creosote-like odor.	
10								10.0	
						SW		**SAND,** gray, fine to coarse sand, few silt, faint creosote-like odor.	
15									2" Sch 40 PVC riser (0.0' to 37.46' bgs)
								17.0 Recovery Lost from ~ 17.0' to 20.0' bgs	
									3/8" bentonite chips (1.0' to 36.48' bgs)
20								20.0	

REMARKS

Boring completed at 55.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

(Continued Next Page)

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

SLR
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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
20					X	SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, trace medium gravel, moist, faint creosote-like odor, trace woody debris.
								23.0
						MLS		**SANDY SILT,** gray, some fine to medium sand, trace fine gravel, moist, no odor.
25								25.0
						MLS		**SILT W/ SAND,** gray, little fine to medium sand, few coarse gravel, moist, no odor.
								27.5
					X	SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, moist, faint creosote-like odor.
30								30.0
				X		SW		**SAND,** gray, fine to coarse sand, strong creosote-like odor.
								34.5
35						SM		**SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor.
								39.0
40			X			SM		**SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor, blebs of product.
								40.0

WELL DIAGRAM:
- 2" Sch 40 PVC riser (0.0' to 37.46' bgs)
- 3/8" bentonite chips (1.0' to 36.48' bgs)
- 12/20 Silica Sand (36.48' to 50.0' bgs)
- 2" Sch 40 PVC 0.020 slotted screen (37.48' to 47.48' bgs)

REMARKS

Boring completed at 55.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-32D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/9/24 **COMPLETED** 7/10/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40		X				SM		**SILTY SAND,** gray, fine to medium sand, some silt, strong creosote-like odor, visible product.	
								41.0 **SILT,** gray, no odor, shell fragments.	2" Sch 40 PVC 0.020 slotted screen (37.48' to 47.48' bgs)
						ML			12/20 Silica Sand (36.48' to 50.0' bgs)
45								46.0	
						MLS		**SANDY SILT,** gray, fine to medium sand, no odor, shell fragments.	
								49.0	2" Sch 40 PVC Sump (47.48' to 49.48' bgs)
50						MLS		**SILT W/ SAND,** gray, fine to medium sand, no odor, shell fragments. 50.0	Endcap (49.48' to 49.68' bgs)

REMARKS

Boring completed at 50.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

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MW-33D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0								0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						SWG		**GRAVELLY SAND,** light brown, fine to medium sand, some fine to coarse gravel, moist, no odor.	
								2.0	
						MLS		**SANDY SILT,** gray, some fine to medium sand, moist.	
								3.0	
						SM		**SILTY SAND,** brown, fine to medium sand, some silt, moist, no odor.	
								4.0	
5						SWG		**GRAVELLY SAND,** gray, fine to medium sand, some fine to coarse gravel, faint creosote-like odor.	
								5.0	
						SWg		**SAND W/ GRAVEL,** gray, fine to medium sand, little fine to coarse gravel, few silt, strong creosote-like odor.	3/8" bentonite chips (1.0' to 40.82' bgs)
								8.0	
						MLS		8.5 **SANDY SILT,** gray, some fine to medium sand, strong creosote-like odor, woody debris.	
						SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, strong creosote-like odor.	
10								10.0	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, strong creosote-like odor.	
15								15.0	2" Sch 40 PVC riser (0.0' to 40.82' bgs)
						SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, few fine to coarse gravel, moist, strong creosote-like odor.	
20								20.0	

REMARKS

Boring completed at 55.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20			X			SW-SM		**SAND W/ SILT,** gray, fine to medium sand, little silt, moist, strong creosote-like odor, blebs of product.	3/8" bentonite chips (1.0' to 40.82' bgs)
								21.5 **SILTY SAND,** gray, fine to medium sand, some silt, few fine to medium gravel, strong creosote-like odor.	
25				X		SM			
30								30.0 Recovery Lost from ~ 30.0' to 37.5' bgs	
35								37.5 **SILTY SAND,** gray, fine to medium sand, some silt, moist, strong creosote-like odor.	2" Sch 40 PVC riser (0.0' to 40.82' bgs)
40				X		SM		40.0	

REMARKS

Boring completed at 55.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

(Continued Next Page)

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CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/10/24 **COMPLETED** 7/11/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	NAPL (Interval): Product Saturated Soil	NAPL (Interval): Some Product Saturated Soil (blebs)	NAPL (Interval): Significant Grain Staining (<50% soil particles coated in produt)	NAPL (Interval): Significant Grain Staining (>50% soil particles coated in produt)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40								Recovery Lost from ~ 40.0' to 42.0' bgs	12/20 Silica Sand (40.82' to 55.0' bgs)
								42.0	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, strong creosote-like odor, blebs of product.	
								44.0	
45						SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine to medium gravel, moist, strong creosote-like odor.	2" Sch 40 PVC 0.020 slotted screen (41.82' to 51.82' bgs)
								48.5	
						SM		**SILTY SAND,** gray, fine to medium sand, some silt, little fine to coarse gravel, moist, strong creosote-like odor.	
50								50.0	
								Recovery Lost from ~ 50.0' to 55.0' bgs	2" Sch 40 PVC Sump (51.82' to 53.82' bgs)
									Endcap (53.82' to 54.02' bgs)
55								55.0	

REMARKS

Boring completed at 55.0 ft bgs.
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 7/18/2024 - 7/19/2024.

SLR MW LOG NAPL CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 7/23/24

Creosote/Fuel Oil Area Geotechnical Investigation Activities: Boring Logs

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BORING NUMBER GT

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 8/23/24 **COMPLETED** 8/23/24
GROUND ELEVATION _____ **HOLE SIZE** 10"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
▼ **AT TIME OF DRILLING** 8.5 ft
LOGGED BY C. Blackburn **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	TYPE	NAME	RECOVERY %	BLOW COUNTS PER FOOT (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
0								0.2 **ASPHALT,** at surface.
		Modified California Sampler	*GT-1.0-1.5-082324	100	10/10/8	SM		**SILTY SAND,** brown, mostly very fine to coarse sand, some silt, little fine to coarse subrounded gravel, loose, moist.
		Split Spoon	*GT-1.5-3.0-082324	60	4/4/3			
		Modified California Sampler	*GT-4.0-4.5-082324	100	3/5/8			4.5
5		Split Spoon	*GT-4.5-6.0-082324	60	7/4/3	SP-SM		**SAND W/ SILT,** dark brown to black, mostly fine sand, little silt, loose, moist.
				30	2/3/1			7.0
		Modified California Sampler	*GT-7.0-7.5-082324			SM		**SILTY SAND,** dark brown to black, mostly fine to medium sand, some silt, loose, moist, strong creosote-like odor, visible product at 7.25 ft bgs, blebs of product on free water. 8.0
		Split Spoon	*GT-7.5-9.0-082324	85	0/2/3	ML		8.3 **SILT,** brown, somewhat stiff, wet, faint creosote-like odor, trace organic material.
						SM		9.0 **SILTY SAND,** brown to black, mostly fine to medium sand, some silt, loose, wet, strong creosote-like odor.
10		Modified California Sampler	*GT-10.0-10.5-082324	50	4/4/8	SW-SM		**SAND W/ SILT,** brown to gray, mostly fine to coarse sand, little silt, loose, wet, faint creosote-like odor.
15								15.0
		Split Spoon	*GT-15.0-16.5-082324	85	4/7/11	SW-SM		**SAND W/ SILT,** dark gray, mostly fine to coarse sand, little silt, trace fine to medium subangular gravel, loose, wet, no odor.
20								20.0

REMARKS

*=Soil sample analyzed by lab.

▽ Water level at time of drilling.

(Continued Next Page)

SLR SB LOG NORD_GEOTECH-2024.GPJ GINT US.GDT 8/26/24

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BORING NUMBER GT

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DEPTH (ft)	INTERVAL	TYPE	NAME	RECOVERY %	BLOW COUNTS PER FOOT (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
20								
		Modified California Sampler	*GT-21.0-21.5-082324	60	9/20/24	SW		**SAND,** dark gray, mostly fine to coarse sand, few silt, loose, wet, no odor.
								21.3
						SW		**SAND W/ GRAVEL,** dark gray, mostly fine to coarse sand, little fine subangular gravel, few silt, loose, wet, no odor. @21.5 ft: Drillers began pumping water into drill rods to equalize hydrostatic pressure.
25								
		Split Spoon	*GT-25.0-26.5-082324	90	10/10/43			@25.0 ft: Drillers noted heaving sands in last blow count (43).
								25.8
						SW		**SAND W/ GRAVEL,** dark gray, mostly fine to medium sand, little fine subangular gravel, few silt, loose, wet, no odor.
30								
								30.0
		Modified California Sampler	*GT-31.0-31.5-082324	80	13/16/18	SW-SM		**SAND W/ SILT,** gray, mostly fine to coarse sand fining downward, little silt, loose, wet, no odor.
35								
								35.0
		Split Spoon	*GT-35.0-36.5-082324	50	1/6/6	SW-SM		**SAND W/ SILT,** gray, mostly fine to coarse sand, little silt, trace fine subangular gravel, loose, wet, no odor.
40								
								40.0
		Modified California Sampler	*GT-41.0-41.5-082324	60	13/17/22	MLS		**SANDY SILT,** gray, mostly silt, some very fine to fine sand, somewhat loose, wet, no odor.

REMARKS

*=Soil sample analyzed by lab.

▽ Water level at time of drilling.

(Continued Next Page)

SLR SB LOG NORD_GEOTECH-2024.GPJ GINT US.GDT 8/26/24

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BORING NUMBER GT

CLIENT JELD-WEN, Inc. **PROJECT NAME** Upland PRDI

PROJECT NUMBER 108.V20689.00001 **PROJECT LOCATION** Jeld Wen Site, Everett, WA

DEPTH (ft)	INTERVAL	TYPE	NAME	RECOVERY %	BLOW COUNTS PER FOOT (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
45						MLS		**SANDY SILT,** gray, mostly silt, some very fine to fine sand, somewhat loose, wet, no odor. *(continued)*
								45.0
		Split Spoon	*GT-45.0-46.5-082324	80	2/4/3	MLS		**SANDY SILT,** gray, mostly silt, some very fine to fine sand, somewhat loose, wet, no odor, few bivalve shell fragments, few wood fibers (organic material).
50								50.0
		Modified California Sampler	*GT-51.0-51.5-082324	100	3/4/4	ML		**SILT W/ SAND,** gray, mostly silt, little fine sand, stiff, wet, no odor.
								51.5

BORING COMPLETION DETAILS:

Boring complete at 51.5 ft bgs.

REMARKS

*=Soil sample analyzed by lab.

▽ Water level at time of drilling.

SLR SB LOG NORD_GEOTECH-2024.GPJ GINT US.GDT 8/26/24

Creosote/Fuel Oil Area BIO System Pilot Test:

Boring Logs

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BORING NUMBER AS-S

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/11/24 **COMPLETED** 7/12/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES _____

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0							
				SWG		0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						GRAVELLY SAND, light brown, fine to medium sand, some fine to coarse gravel, no odor. 1.3	
				SW		1.5 **SAND,** brown, fine to medium sand, moist, no odor.	
				MLS		2.0 **SANDY SILT,** brown, fine to medium sand, moist, no odor.	
				MLS		**SANDY SILT,** gray, fine to medium sand, moist, no odor.	
						4.0	
5		Sonic Core				Recovery Lost from ~ 17.0' to 20.0' bgs	
							Bentonite grout (1.0' to 14.82' bgs)
10						10.0	
				MLS		**SANDY SILT,** gray, fine to medium sand, no odor.	
						@13.5 ft: ~2" woody debris.	
						14.5	
15		Sonic Core		SM		**SILTY SAND,** gray, fine to coarse sand, some silt, few fine to coarse gravel, no odor.	3/8" bentonite chips (14.82' to 15.82' bgs)
							12/20 Silica Sand (15.82' to 16.82' bgs)
						17.5	1" Sch 40 PVC 0.020 slotted screen (16.82' to 18.82' bgs)
						Recovery Lost from ~ 17.5' to 20.0' bgs	
20						20.0	Endcap (18.82' to 19.02')

REMARKS

Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 10/24/24 and 11/05/24.

BORING COMPLETION DETAILS:

Boring completed to 20.0 ft bgs.

(Continued Next Page)

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BORING NUMBER AS-D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/12/24 **COMPLETED** 7/12/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						0.2 **ASPHALT**	Concrete (0.0' to 1.0' bgs)
						Recovery Lost from ~ 0.25' to 4.0' bgs	
						4.0	
5		Sonic Core		MLG		**GRAVELLY SILT,** brown, some fine to coarse silt, few fine to medium sand, no odor. 5.0 @4.5 ft: ~1" thick, ~5" long metal screw.	
				ML		**SILT,** gray, few fine to medium sand, moist, no odor. 6.0	
				ML		**SILT W/ SAND,** gray, little fine to medium sand, no odor, trace woody debris. 7.0	
				SW-SM		7.5 **SAND W/ SILT,** gray, fine to medium sand, little silt, moist, no odor, trace woody debris.	
				SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine to medium gravel, moist, faint creosote-like odor. 8.5 8.9	
						WOODY DEBRIS, silty sand.	
10				SM		**SILTY SAND,** gray, fine to medium sand, some silt, trace fine to medium gravel, moist, faint creosote-like odor. 10.0	
						Recovery Lost from ~ 10.0' to 12.5 ' bgs	
						12.5	
				SW		**SAND,** gray, fine to coarse sand, few siltm moist, no odor. 14.5	
15		Sonic Core		SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, no odor. 17.0	
				SM		**SILTY SAND,** gray, fine to medium sand, some silt, moist, faint creosote-like odor.	Bentonite grout (1.0' to 34.0' bgs)
20						20.0	

REMARKS
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 10/24/24 and 11/05/24.

SLR MW LOG CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 12/5/24

(Continued Next Page)

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BORING NUMBER AS-D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/12/24 **COMPLETED** 7/12/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20							
25		Sonic Core		SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, few fine to medium gravel, faint creosote-like odor.	
						27.0	
				ML		**SILT W/ SAND,** gray, little fine to medium sand, moist, no odor.	
						28.0	
30				SW-SM		**SAND W/ SILT,** gray, fine to coarse sand, little silt, moist, faint creosote-like odor.	
						30.0	
				SW		**SAND,** gray, fine to coarse sand, few silt, moist, faint creosote-like odor.	
						33.5	
				ML		**SILT W/ SAND,** gray, fine to medium sand, faint creosote-like odor.	
35		Sonic Core					◄3/8" bentonite chips (34.0' to 35.0' bgs)
						35.5	
				MLS		**SANDY SILT,** gray, some fine to medium sand, trace fine to medium gravel, moist, faint creosote-like odor.	◄12/20 Silica Sand (35.0' to 36.0' bgs)
						39.0	◄2" Sch 40 PVC 0.020 slotted screen (36.0' to 38.0' bgs)
40				ML		**SILT W/SAND,** gray, little fine to medium sand, moist, faint creosote-like odor.	
						40.0	

REMARKS
Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 10/24/24 and 11/05/24.

SLR MW LOG CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 12/5/24

(Continued Next Page)

SLR
22118 20th Ave. SE, Suite G-202
Bothell, Washington 98021
Telephone: 425.402.8800
Fax: 425.402.8488

BORING NUMBER AS-D

CLIENT JELD-WEN, Inc.
PROJECT NAME Upland PRDI
PROJECT NUMBER 108.V20689.00001
PROJECT LOCATION Jeld Wen Site, Everett, WA
DATE STARTED 7/12/24 **COMPLETED** 7/12/24
GROUND ELEVATION _____ **HOLE SIZE** 6"
DRILLING CONTRACTOR Anderson Environmental Contracting, LLC
GROUND WATER LEVELS:
DRILLING METHOD Sonic Core
AT TIME OF DRILLING N/A
LOGGED BY S. Machel **CHECKED BY** C. Kramer
AFTER DRILLING N/A
NOTES

DEPTH (ft)	INTERVAL	TYPE	NAME	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
40						Recovery Lost from ~ 40.0' to 42.0' bgs	1" Sch 40 PVC Sump (38.0' to 43.0' bgs)
						42.0	
				SM		**SILTY SAND,** gray, fine to medium sand, moist, no odor, trace shell fragments.	Endcap (43.0' to 43.2' bgs)
45		Sonic Core				45.5	
				SM		**SILTY SAND,** gray, fine to coarse sand, moist, no odor.	
						49.0	
50				ML		**SILT W/ SAND,** gray, little fine to medium sand, moist, no odor, few shell fragments.	
						50.0	

BORING COMPLETION DETAILS:

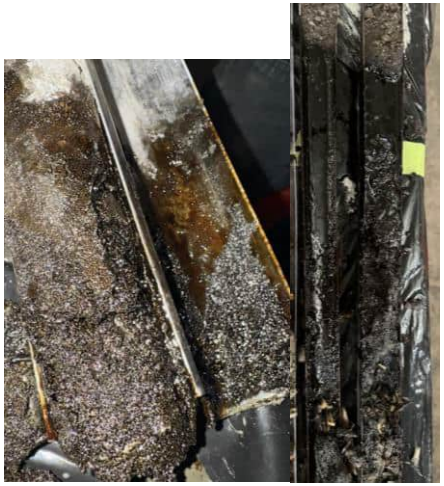
Boring completed to 50.0 ft bgs.

REMARKS

Sonic coring utilized potable water.
All bentonite grout and chips hydrated by potable water.
Well Developed on 10/24/24 and 11/05/24.

SLR MW LOG CREOSOTE WELL INSTALLS.GPJ GINT US.GDT 12/5/24

Attachment 5 NAPL Observation Guidance

Non-Aqueous Phase Liquid (NAPL) Prescence Classification			
I. Product Saturated Soil	II. Some Product Saturated Soil (blebs)	III. Significant Grain Staining (>50% soil particles coated in product)	IV. Significant Grain Staining (<50% soil particles coated in product)
 (from CF-P17)	 (from CF-P14)  (from CF-P26)	 (from MW-32D)	 (from MW-26D)  (from MW-30M)
Visible saturation of dense product; Black to gray w/ green sheen Strong creosote-like odor Found more in silty sands before a silty layer.	Visible “blebs” of product; Black to gray w/ green sheen Strong creosote-like odor	No visible product or “blebs”; >50% of soil particles coated in product (dark gray to gray); Moderate to strong creosote-like odor	No visible product or “blebs”; <50% of soil particles coated in product (gray); Faint to moderate creosote-like odor Found more sandy silts (less porous)

Attachment 6 Geotechnical Laboratory Report

HWA GeoSciences Inc.
DBE/MWBE

December 12, 2024
HWA Project No. 2012-071-23 Task 300

SLR International Corporation
22118 20th Ave SE, G202
Bothell, Washington 98021

Attention: Mr. John Halseth

Subject: **Materials Laboratory Report**
Index and Direct Shear Strength Testing
Nord Door Facility
Client Project No. 108.V20689.00001

Dear Mr. Halseth;

In accordance with your request, HWA GeoSciences Inc. (HWA) performed laboratory testing for the above referenced project. Herein we present the results of our laboratory analyses, which are summarized on the attached reports. The laboratory testing program was performed in general accordance with your instructions and appropriate ASTM Standards as outlined below.

SAMPLE DESCRIPTION: The subject samples were delivered to our laboratory on October 8, 2024 by SLR personnel. The samples were delivered in resealable plastic bags and 6-inch Cal-Mod tubes and were designated with borehole and sample depth. The soils were classified for engineering purposes using visual-manual methods in accordance with ASTM D2488 (Standard Practice for Description and Identification of Soils [Visual-Manual Procedures]). Descriptions of soils observed in this sample may be found on the attached Figures.

PARTICLE SIZE ANALYSIS OF SOILS (SIEVE AND HYDROMETER): Selected samples were tested to determine the particle distribution in general accordance with ASTM D6913 and D7928. The results are summarized on the attached Particle-Size Analysis reports, Figures 2 through 4, which also provide information regarding the classification of the sample and the moisture content at the time of testing.

PERCENTAGE FINER THAN #200 SIEVE: The percentage of material finer than the #200 sieve was determined for select samples in general accordance with ASTM D1140. The soil was oven dried and washed over a #200 sieve to determine the percentage of fines. The results are shown on Figures 2 through 4.

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS (ATTERBERG LIMITS): Selected samples were tested using method ASTM D 4318, multi-point method. An oven-dried liquid limit test was performed on the sample if it was suspected of being organic. The soil was classified as organic if the oven-dried liquid limit was less than 75% of the original liquid limit

before oven drying. The results are reported on the attached Liquid Limit, Plastic Limit, and Plasticity Index report, Figure 5.

UNIT WEIGHT OF SOIL: The wet and dry densities of soil for selected samples were measured in general accordance with ASTM D7263, Method B. Each sample was weighed and measurements were taken of sample lengths and diameters using calipers. The moisture content of each sample was then determined and used to calculate the dry density of the soil samples. The results are presented in the table below.

Unit Weight of Soil (ASTM D7263)				
Sample	**Depth (ft)**	**Moisture Content (%)**	**Wet Density (pcf)**	**Dry Density (pcf)**
GT-1	4.0-4.5	9.1	108.4	99.4
GT-1	31.0-31.5	12.2	142.4	126.8

SHEAR STRENGTH PARAMETERS OF SOIL: Direct shear testing was conducted on the selected samples in general accordance with ASTM D3080. The undisturbed samples were cut into 2.4-inch brass rings and then extruded directly into the shear box. Three trials were run for the selected samples at normal loads specified by the client. The results of these tests are presented on Figures 6 through 8. The indicated shear stress at each point represents the maximum value obtained for that specimen. The apparent cohesion and friction angle of the soil for the peak are inferred from a least-squares linear regression of the test points, as indicated on the attached Figures

CLOSURE: Experience has shown that test values on soil and other natural materials vary with each representative sample. As such, HWA has no knowledge as to the extent and quantity of material the tested samples may represent. HWA also makes no warranty as to how representative either the samples tested or the test results obtained are to actual field conditions. It is a well-established fact that sampling methods present varying degrees of disturbance that affect sample representativeness.

No copy should be made of this report except in its entirety.

We appreciate the opportunity to provide laboratory testing services on this project. Should you have any questions or comments, or if we may be of further service, please call.

HWA GEOSCIENCES INC.

Alex Hodges
Materials Laboratory Supervisor

Chad McMullen, P.E.
Quality Assurance Manager

Attachments:

Figure 1	Summary of Material Properties
Figures 2-4	Particle-Size Analysis of Soils
Figure 5	Liquid Limit, Plastic Limit and Plasticity Index of Soils
Figures 6-8	Direct Shear Test of Soils

EXPLORATION DESIGNATION	TOP DEPTH (feet)	BOTTOM DEPTH (feet)	MOISTURE CONTENT (%)	ORGANIC CONTENT (%)	SPECIFIC GRAVITY	ATTERBERG LIMITS (%)			% GRAVEL	% SAND	% FINES	ASTM SOIL CLASSIFICATION	SAMPLE DESCRIPTION
						LL	PL	PI					
GT-1,Composite	1.0	10.0	8.1						18.7	77.4	3.9	SP	Dark gray, poorly graded SAND with gravel
GT-1,	1.5	3.0	3.3								3.0	SP	Dark gray, poorly graded SAND
GT-1,	4.0	4.5	9.1									SM	Very dark grayish-brown, silty SAND
GT-1,	4.5	6.0	17.9								0.6	SP	Very dark gray, poorly graded SAND
GT-1,	15.0	16.5	17.5						21.5	75.9	2.6	SP	Very dark gray, poorly graded SAND with gravel
GT-1,	25.0	26.5	18.9						1.4	87.5	11.2	SP-SM	Very dark gray, poorly graded SAND with silt
GT-1,	31.0	31.5	12.2									SM	Very dark gray, silty SAND
GT-1,	35.0	36.5	20.1						1.0	95.0	4.0	SP	Very dark gray, poorly graded SAND
GT-1,	45.0	46.5	23.2			20	18	2	0.7	64.4	34.9	SM	Dark gray, silty SAND with trace shells

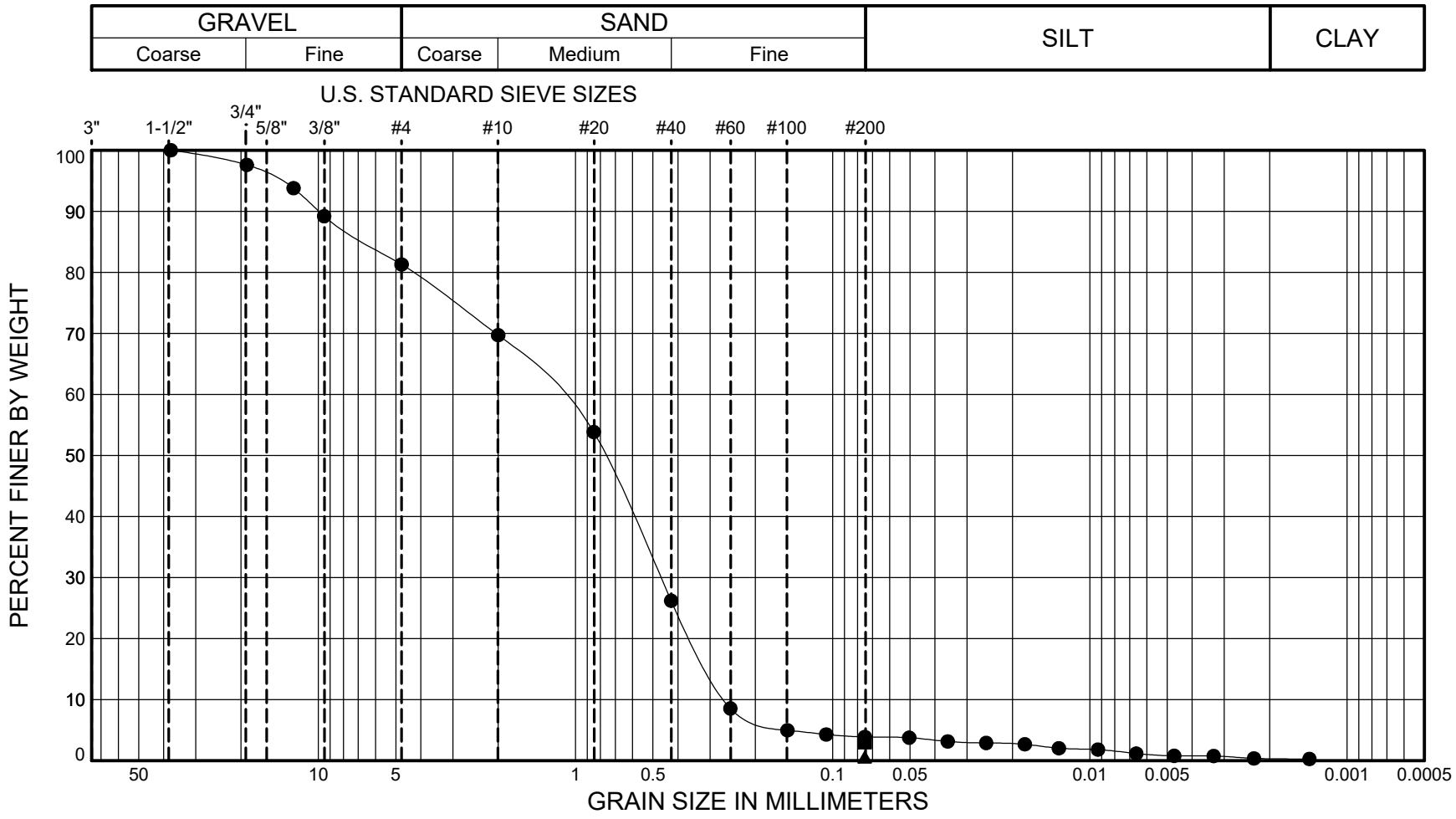
Notes: 1. This table summarizes information presented elsewhere in the report and should be used in conjunction with the report test, other graphs and tables, and the exploration logs.
2. The soil classifications in this table are based on ASTM D2487 and D2488 as applicable.

GeoSciences Inc.

Laboratory Testing for SLR International
Former Nord Door Facility Env. Remediation
Client Project No.: 108.V20689.00001

SUMMARY OF
MATERIAL PROPERTIES

PROJECT NO.: 2012-071 T300 FIGURE: 1



SYMBOL	SAMPLE		DEPTH (ft.)	ASTM SOIL CLASSIFICATION	% MC	LL	PL	PI	Gravel %	Sand %	Silt %	Clay %	Fines %
●	GT-1	Composite	1.0 - 10.0	(SP) Dark gray, poorly graded SAND with gravel	8				18.7	77.4	3.6	0.3	
■	GT-1		1.5 - 3.0	(SP) Dark gray, poorly graded SAND	3								3.0
▲	GT-1		4.5 - 6.0	(SP) Very dark gray, poorly graded SAND	18								0.6

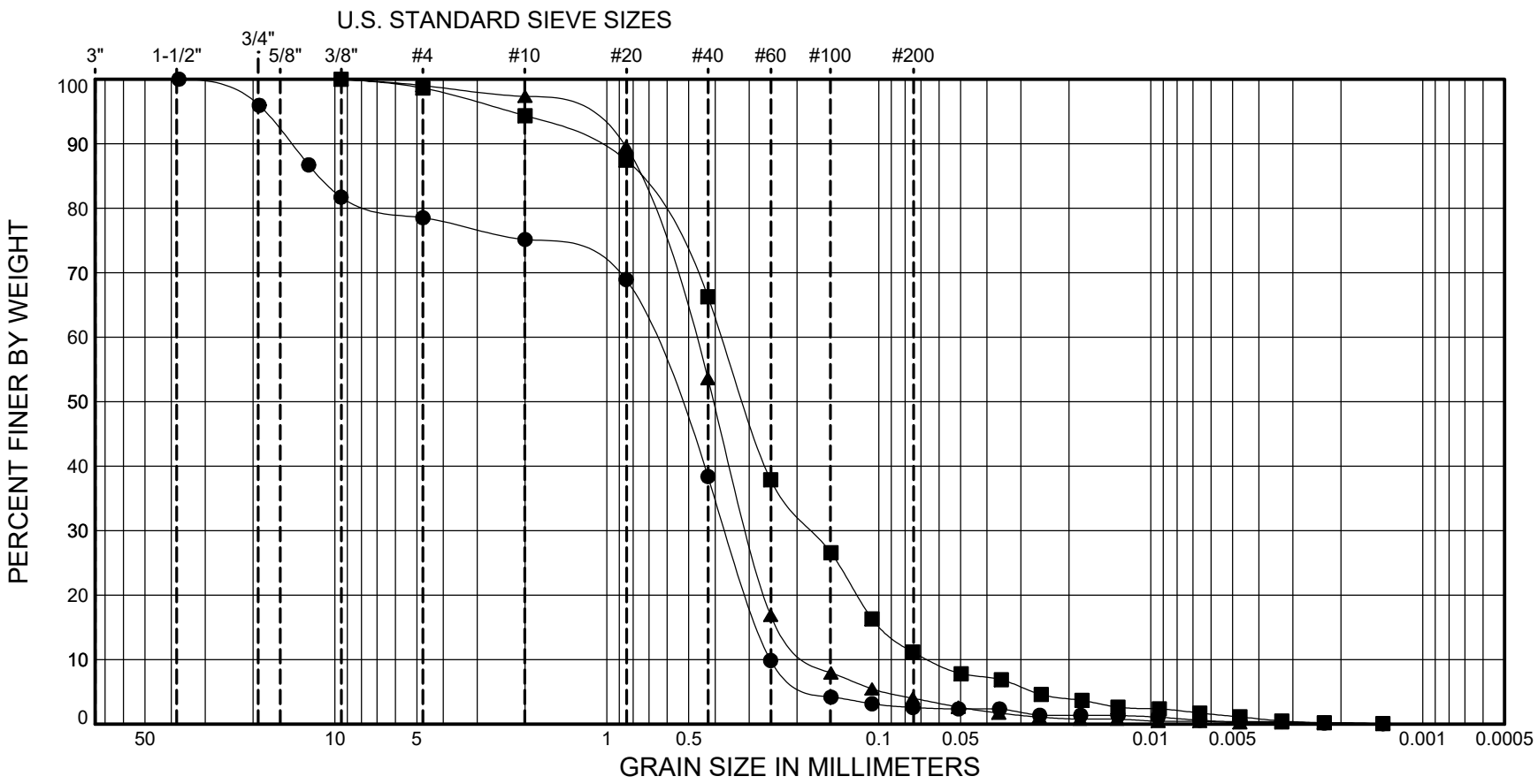
HWA GeoSciences Inc.

Laboratory Testing for SLR International
Former Nord Door Facility Env. Remediation
Client Project No.: 108.V20689.00001

PARTICLE-SIZE ANALYSIS
OF SOILS
METHODS ASTM D6913/D7928/D1140

PROJECT NO.: 2012-071 T300 FIGURE: 2

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



SYMBOL	SAMPLE		DEPTH (ft.)	ASTM SOIL CLASSIFICATION	% MC	LL	PL	PI	Gravel %	Sand %	Silt %	Clay %	Fines %
●	GT-1		15.0 - 16.5	(SP) Very dark gray, poorly graded SAND with gravel	18				21.5	75.9	2.4	0.1	
■	GT-1		25.0 - 26.5	(SP-SM) Very dark gray, poorly graded SAND with silt	19				1.4	87.5	11.0	0.2	
▲	GT-1		35.0 - 36.5	(SP) Very dark gray, poorly graded SAND	20				1.0	95.0	3.8	0.2	

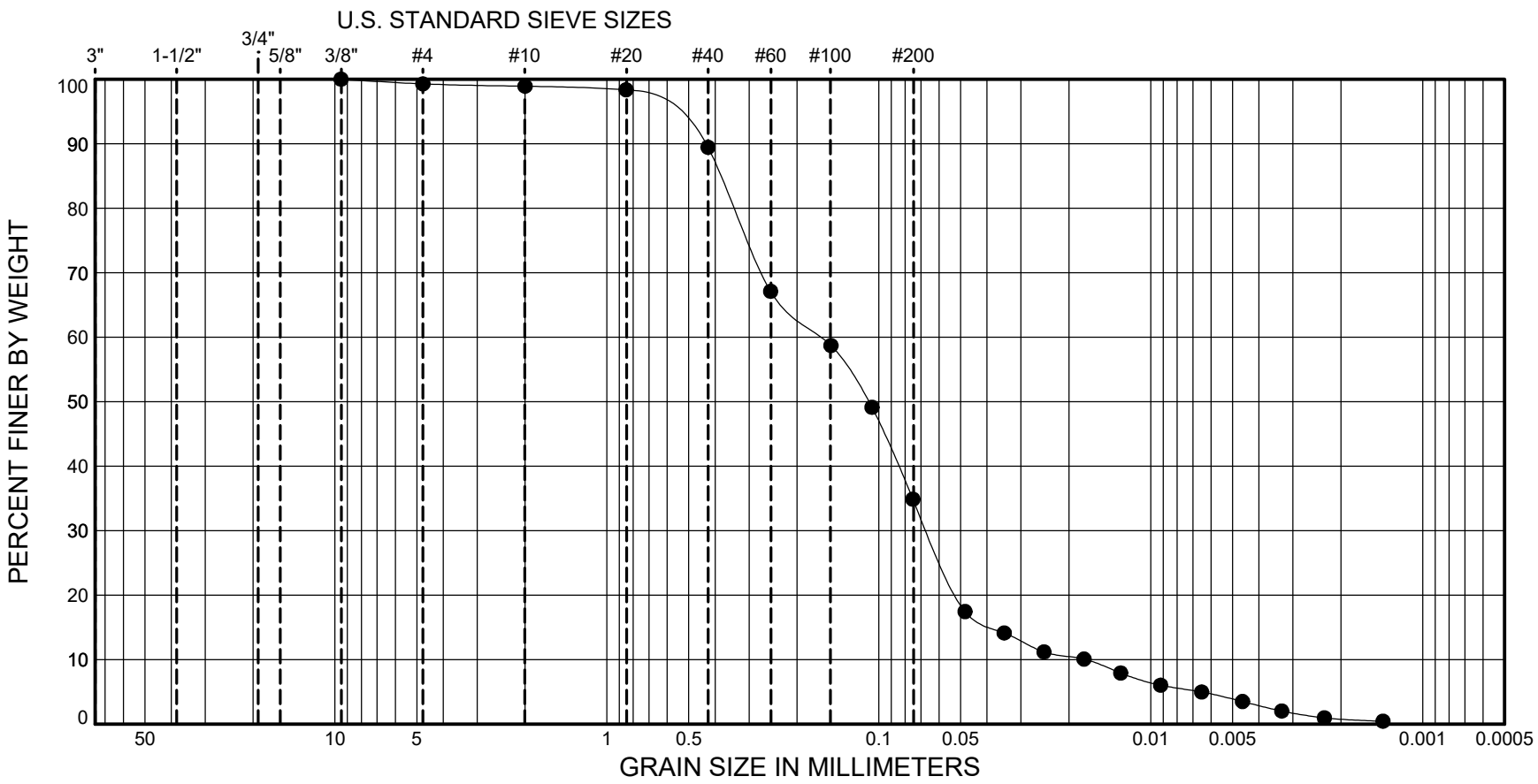
HWA GeoSciences Inc.

Laboratory Testing for SLR International
Former Nord Door Facility Env. Remediation
Client Project No.: 108.V20689.00001

PARTICLE-SIZE ANALYSIS
OF SOILS
METHODS ASTM D6913/D7928/D1140

PROJECT NO.: 2012-071 T300 FIGURE: 3

GRAVEL		SAND			SILT	CLAY
Coarse	Fine	Coarse	Medium	Fine		



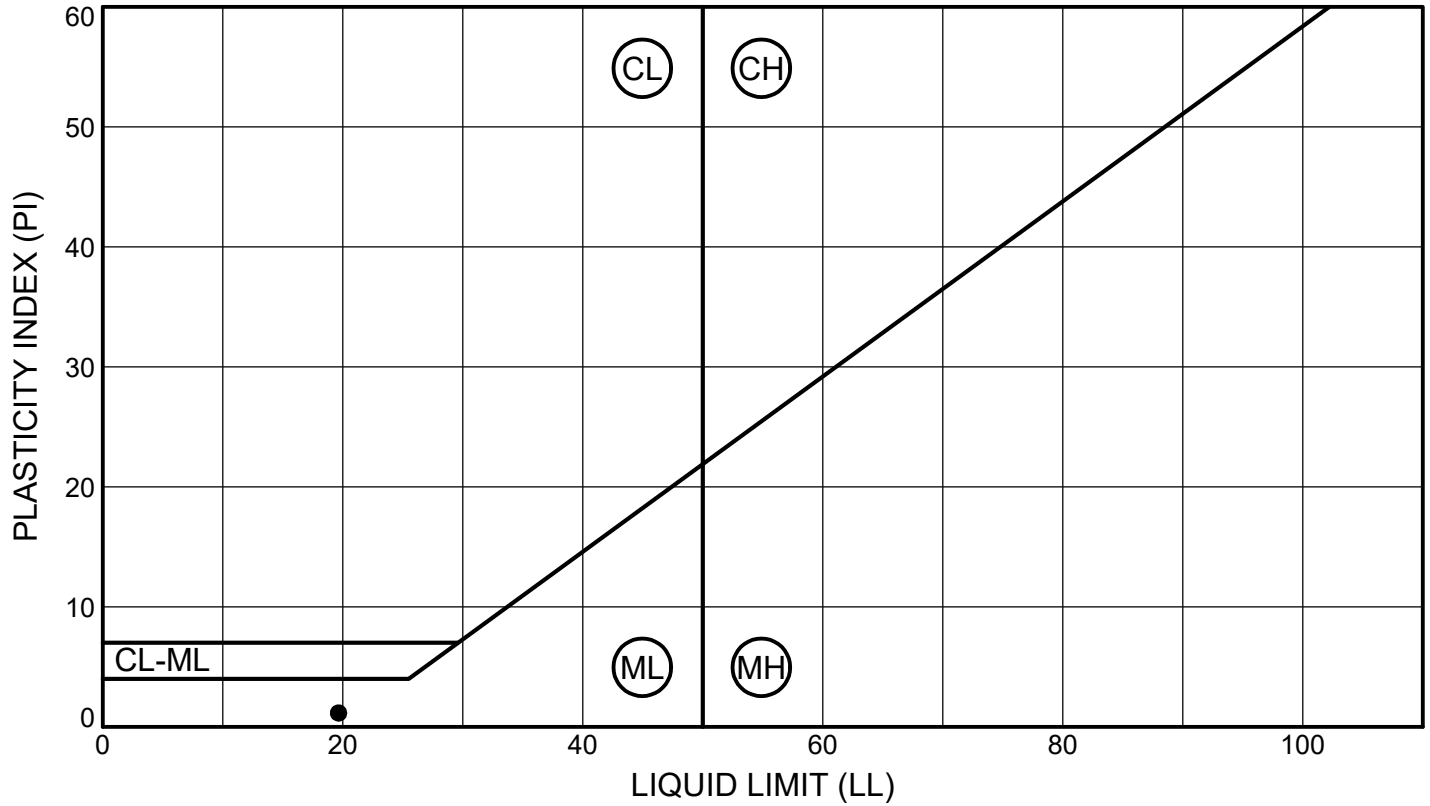
SYMBOL	SAMPLE		DEPTH (ft.)	ASTM SOIL CLASSIFICATION	% MC	LL	PL	PI	Gravel %	Sand %	Silt %	Clay %	Fines %
●	GT-1		45.0 - 46.5	(SM) Dark gray, silty SAND with trace shells	23	20	18	2	0.7	64.4	34.0	0.8	

HWA GeoSciences Inc.

Laboratory Testing for SLR International
Former Nord Door Facility Env. Remediation
Client Project No.: 108.V20689.00001

PARTICLE-SIZE ANALYSIS
OF SOILS
METHODS ASTM D6913/D7928/D1140

PROJECT NO.: 2012-071 T300 FIGURE: 4



SYMBOL	SAMPLE		DEPTH (ft)	CLASSIFICATION	% MC	LL	PL	PI	% Fines
●	GT-1		45.0 - 46.5	(SM) Dark gray, silty SAND with trace shells	23	20	18	2	34.9

HWA GeoSciences Inc.

Laboratory Testing for SLR International
Former Nord Door Facility Env. Remediation
Client Project No.: 108.V20689.00001

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS
METHOD ASTM D4318

PROJECT NO.: 2012-071 T300 FIGURE: 5

HWA GeoSciences Inc. Materials Testing Laboratory

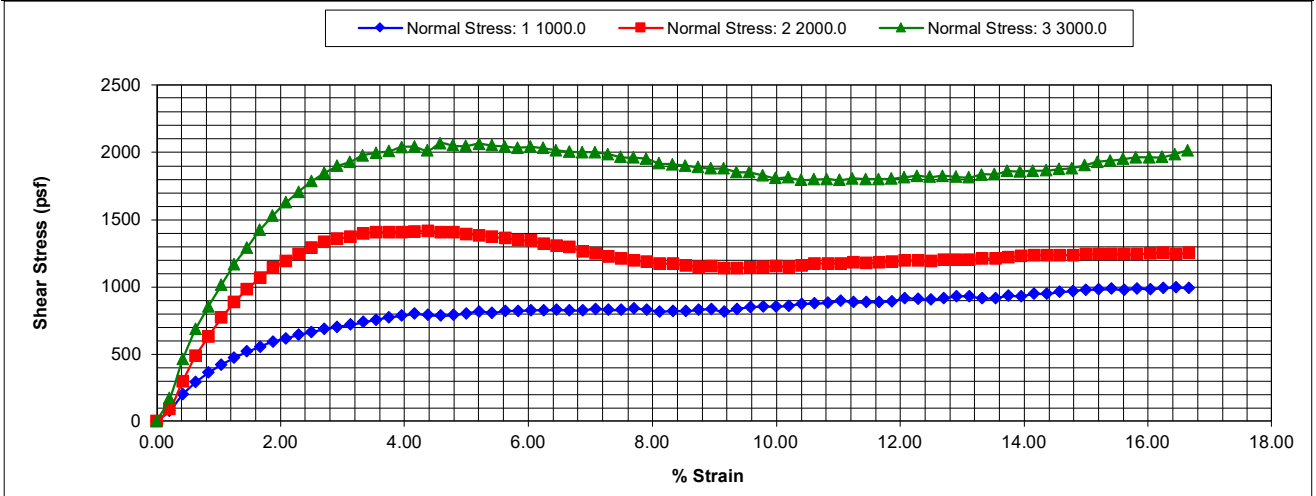
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

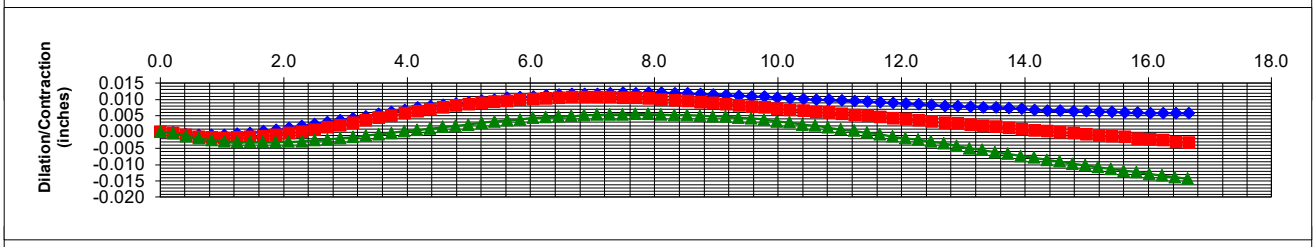
Project Name:	Nord Door Facility	**Project Number:**	2012-071 T300
Sample Point:	GT-1 **Sample No.:** 0	**Sample Depth:**	4.0-4.5 ft.
Soil Description:	Very dark gray, poorly graded SAND with silt		
Soil Color:	Very dark gray	Average Strain Rate:	0.31 % per min.
Soil Group Symbol:	SP-SM	Soil Specific Gravity:	2.65 (assumed)

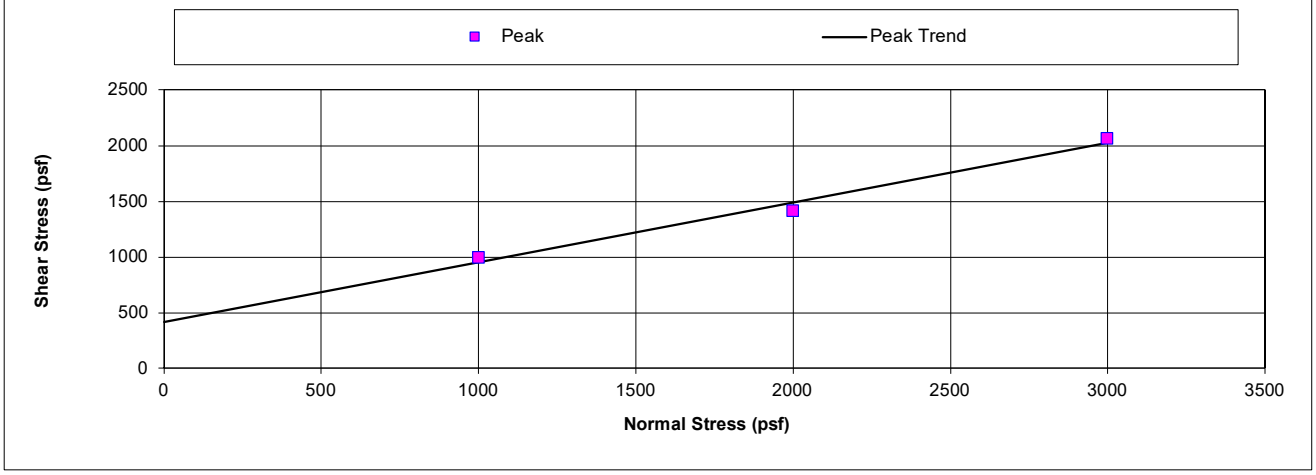
Normal Stress (psf)	1000	2000	3000	**Average**
Peak Stress (psf)	992	1414	2065	
Initial Moisture Content (%):	17.8	17.8	17.8	17.8
Wet Unit Weight (pcf):	131.7	130.4	127.0	129.7
Dry Unit Weight (pcf):	111.8	110.7	107.8	110.1
Calculated Void Ratio	0.479	0.494	0.534	0.502
Calculated Porosity	0.324	0.331	0.348	0.334
Calculated Saturation (%)	98.6	95.6	88.4	94.2
Final Moisture Content (%)	20.9	21.6	21.1	21.2

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	417	28.2







Checked By: CM

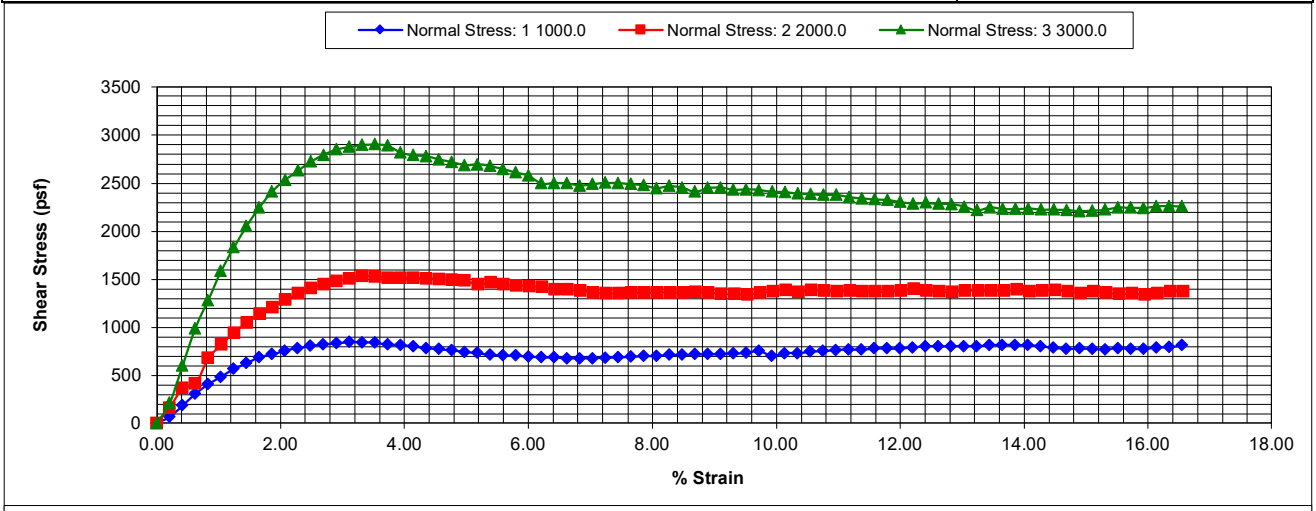
Figure 6

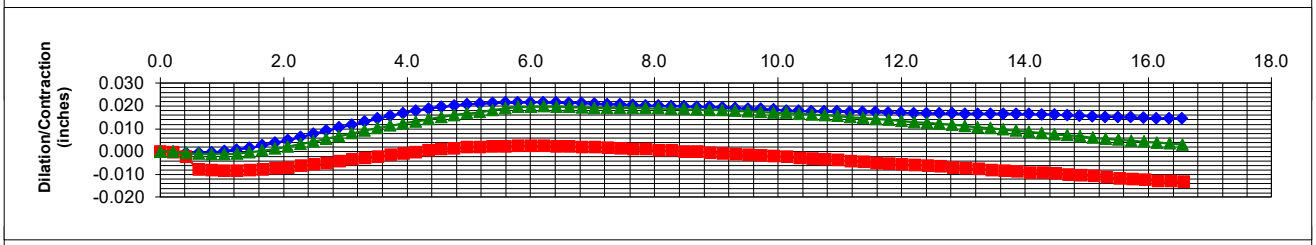
HWA GeoSciences Inc. Materials Testing Laboratory

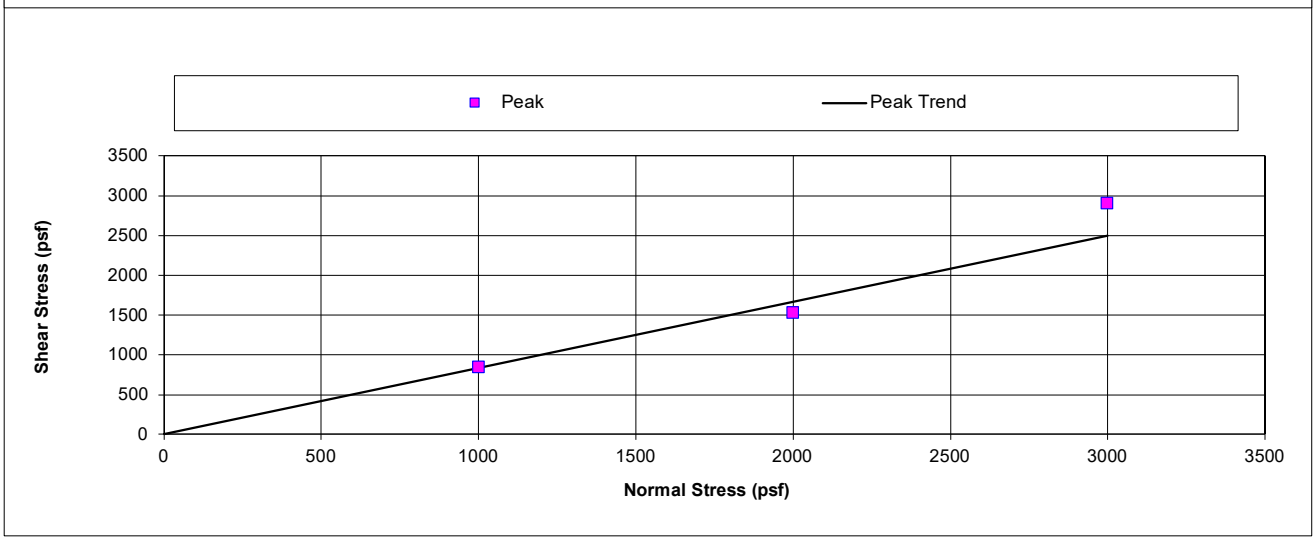
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

Project Name:	Nord Door Facility	**Project Number:**	2012-071 T300
Sample Point:	GT-1 **Sample No.:** 0	**Sample Depth:**	21.0-21.5 ft.
Soil Description:	Very dark gray, silty SAND with gravel		
Soil Color:	Very dark gray	Average Strain Rate:	0.52 % per min.
Soil Group Symbol:	SM	Soil Specific Gravity:	2.65 (assumed)

					Indicated Strength Parameters		
Normal Stress (psf)	1000	2000	3000	**Average**			
Peak Stress (psf)	842	1531	2902			Cohesion psf	phi Angle (degrees)
Initial Moisture Content (%):	11.5	11.5	11.5	11.5			
Wet Unit Weight (pcf):	132.6	127.8	137.4	132.6			
Dry Unit Weight (pcf):	118.9	114.6	123.3	118.9	Peak	0.0	38.8
Calculated Void Ratio	0.390	0.443	0.341	0.391			
Calculated Porosity	0.281	0.307	0.254	0.281			
Calculated Saturation (%)	77.8	68.6	89.1	78.5			
Final Moisture Content (%)	19.1	20.2	16.8	18.7			







Checked By: CM

Figure 7

HWA GeoSciences Inc. Materials Testing Laboratory

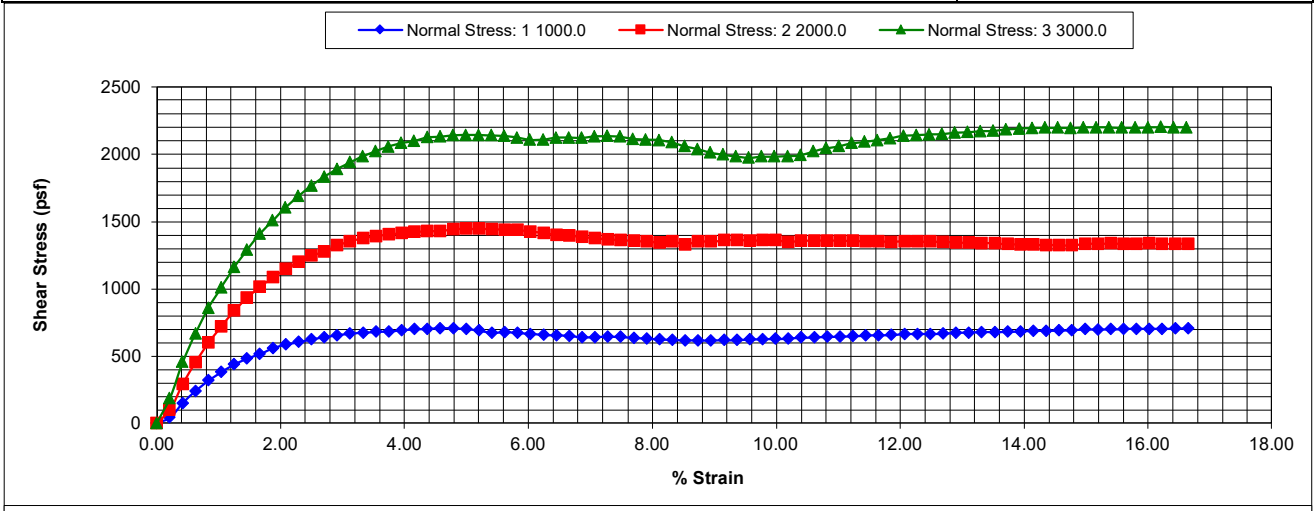
Direct Shear Test of Soils Under Consolidated Drained Conditions (ASTM D 3080)

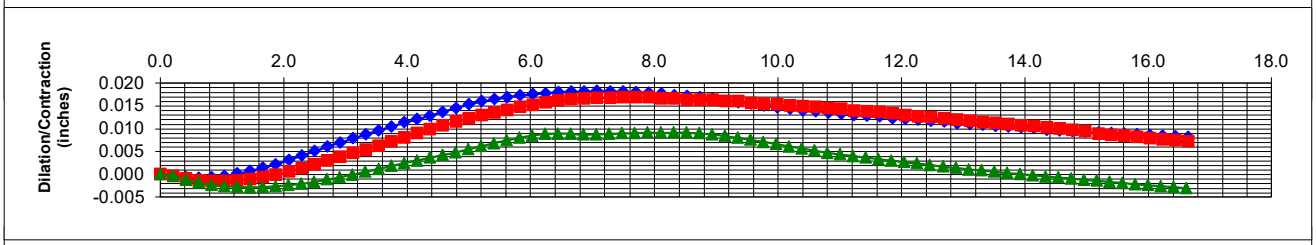
Project Name:	Nord Door Facility	**Project Number:**	2012-071 T300
Sample Point:	GT-1 **Sample No.:** 0	**Sample Depth:**	41.0-41.5 ft.
Soil Description:	Very dark gray, silty SAND		
Soil Color:	Very dark gray	Average Strain Rate:	0.36 % per min.
Soil Group Symbol:	SM	Soil Specific Gravity:	2.65 (assumed)

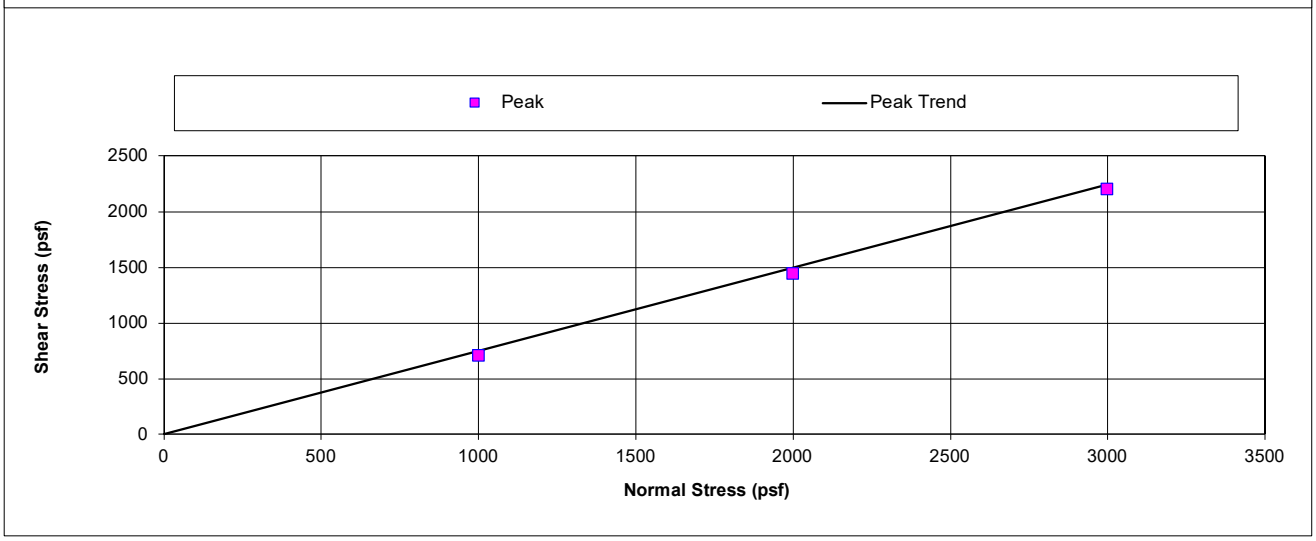
Normal Stress (psf)	1000	2000	3000	**Average**
Peak Stress (psf)	705	1444	2202	
Initial Moisture Content (%):	23.1	23.1	23.1	23.1
Wet Unit Weight (pcf):	130.2	128.7	127.7	128.9
Dry Unit Weight (pcf):	105.8	104.6	103.7	104.7
Calculated Void Ratio	0.563	0.581	0.594	0.579
Calculated Porosity	0.360	0.368	0.373	0.367
Calculated Saturation (%)	108.6	105.1	102.9	105.6
Final Moisture Content (%)	24.4	24.8	24.6	24.6

Indicated Strength Parameters

	Cohesion psf	phi Angle (degrees)
Peak	0.00	35.5







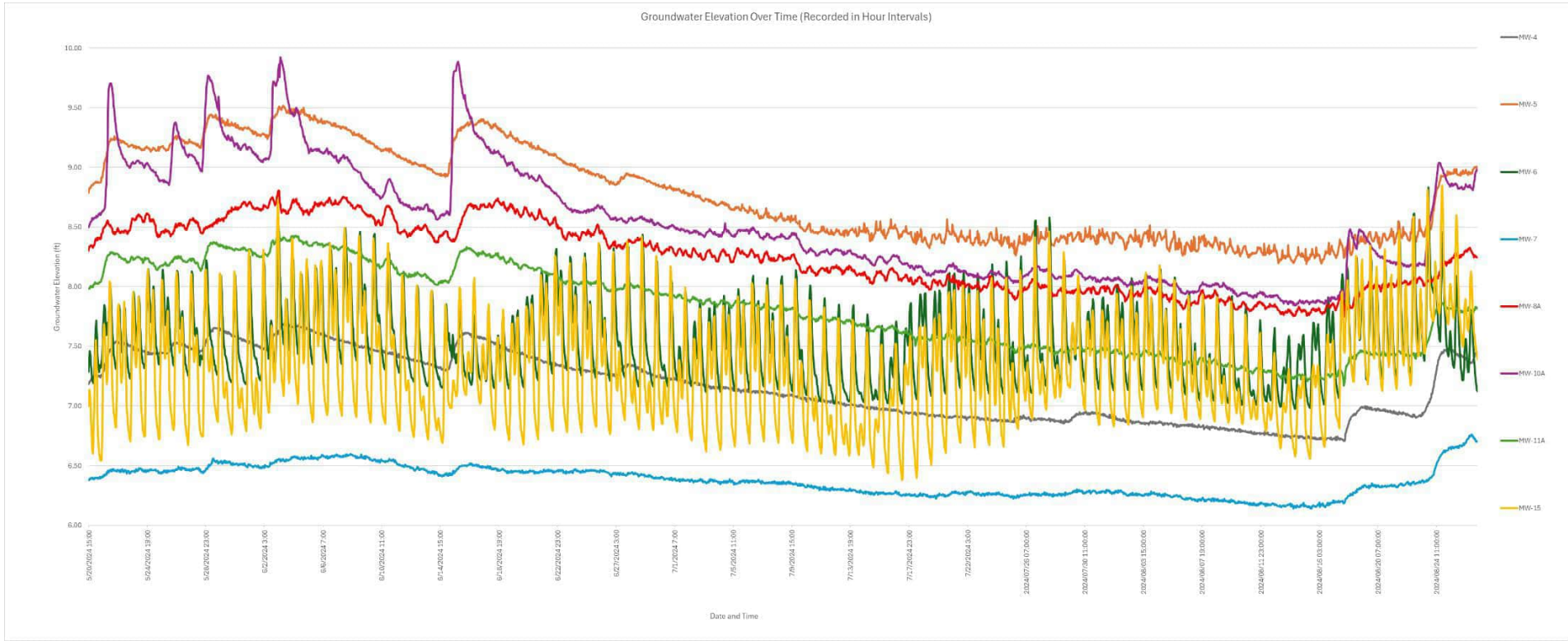
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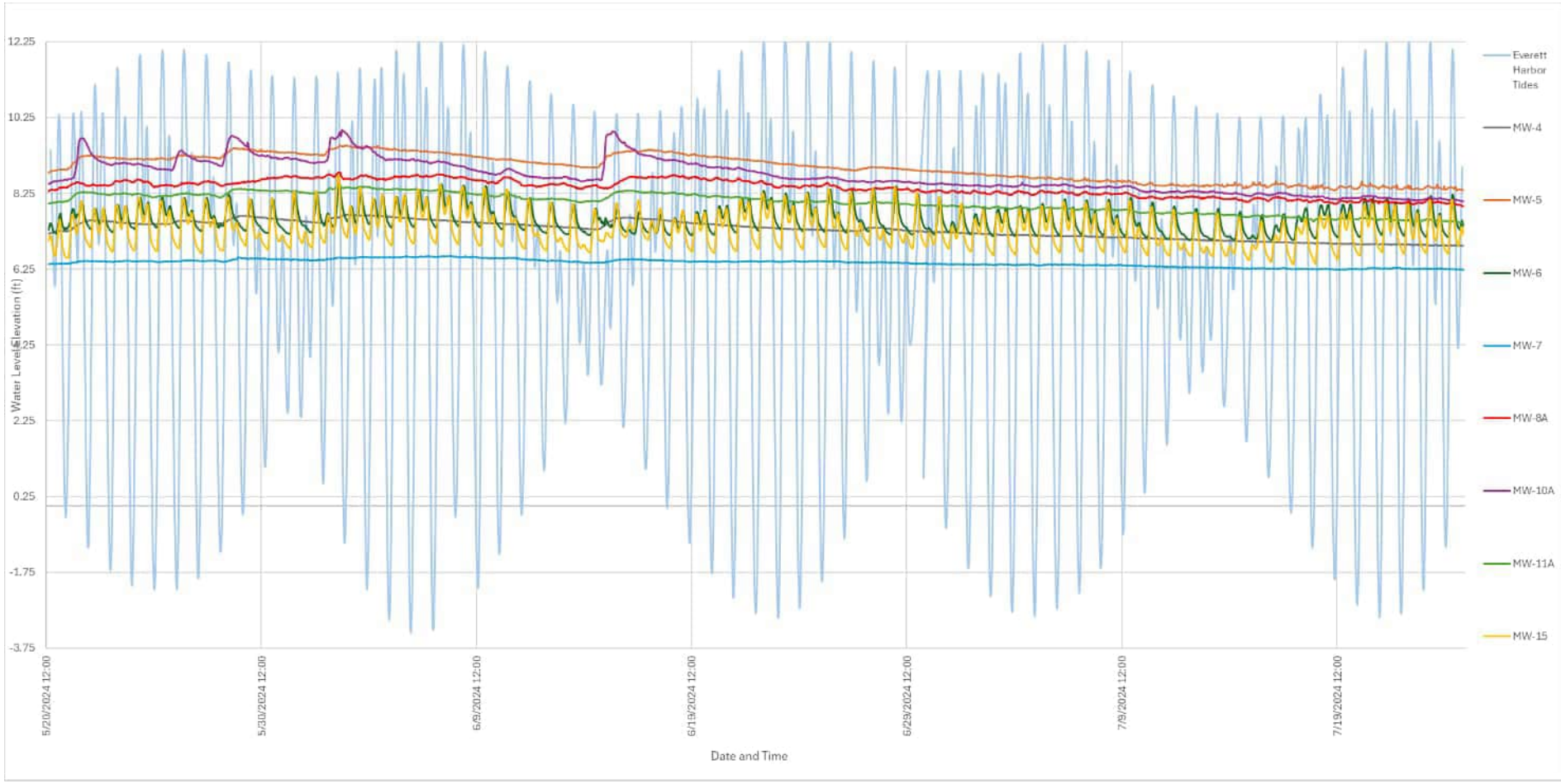
Figure 8

Attachment 7 Aquifer Test Supporting Documents

Attachment 7: Aquifer Test Supporting Documents

Aquifer Test: Transducer Assessment Plots


Groundwater Elevation Over Time (Recorded in Hour Intervals)
Groundwater Elevation (ft)
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
MW-4
MW-5
MW-6
MW-7
MW-8A
MW-10A
MW-11A
MW-15
5/20/2024 15:00
5/24/2024 19:00
5/28/2024 23:00
6/2/2024 3:00
6/6/2024 7:00
6/10/2024 11:00
6/14/2024 15:00
6/18/2024 19:00
6/22/2024 23:00
6/27/2024 3:00
7/1/2024 7:00
7/5/2024 11:00
7/9/2024 15:00
7/13/2024 19:00
7/17/2024 23:00
7/22/2024 3:00
2024/07/26 07:00:00
2024/07/30 11:00:00
2024/08/03 15:00:00
2024/08/07 19:00:00
2024/08/11 23:00:00
2024/08/16 03:00:00
2024/08/20 07:00:00
2024/08/24 11:00:00
Date and Time


12.25
10.25
8.25
6.25
2.25
0.25
-1.75
-3.75
Water Level Elevation (ft)
5/20/2024 12:00
5/30/2024 12:00
6/9/2024 12:00
6/19/2024 12:00
6/29/2024 12:00
7/9/2024 12:00
7/19/2024 12:00
Date and Time
Everett Harbor Tides
MW-4
MW-5
MW-6
MW-7
MW-8A
MW-10A
MW-11A
MW-15

Aquifer Test: Rising Head/Falling Head Slug Test AQTESOLV Analysis Plots

Aquifer Test - Well Information Prepared for AQTESOLV Analyses

Well-ID	MW-7	MW-8A		
Date	10/9/2024	9/12/2024 - 9/13/2024	10/8/2024	10/9/2024
Total Depth (ft TOC)	12.95	13.45	13.45	13.45
Depth to Water (ft TOC)	6.39	3.95	4.01	3.99
H Static Water Column Height (ft)	6.56	9.5	9.44	9.46
b Aquifer Saturated Thickness (ft)	6.56	9.5	9.44	9.46
Kv/Kh Anisotropy Ratio	0.1	0.1	0.1	0.1
Depth to Bottom of Screen (ft BGS)	12.75	13.25	13.25	13.25
Depth to Top of Screen (ft BGS)	2.75	3.25	3.25	3.25
L Length of Well Screen (ft)	10	10	10	10
Transducer Depth from Water Table (ft)	0	9.14	9.19	9.21
Well Casing Diameter (in)	2	2	2	2
r(c) Well Casing Radius (ft)	0.083	0.083	0.083	0.083
Transducer Cable Diameter (in)	0.126	0.126	0.126	0.126
r(eq) Radius of Downhole Equipment (ft)	0.005	0.005	0.005	0.005
r(w) Diameter of Well Screen (in)	2	2	2	2
r(w) Radius of Well Screen (ft)	0.083	0.083	0.083	0.083
Diameter of Well Bore (in)	6.25	6.25	6.25	6.25
r(sk) Outer Radius of Well Skin (ft)	0.260	0.260	0.260	0.260

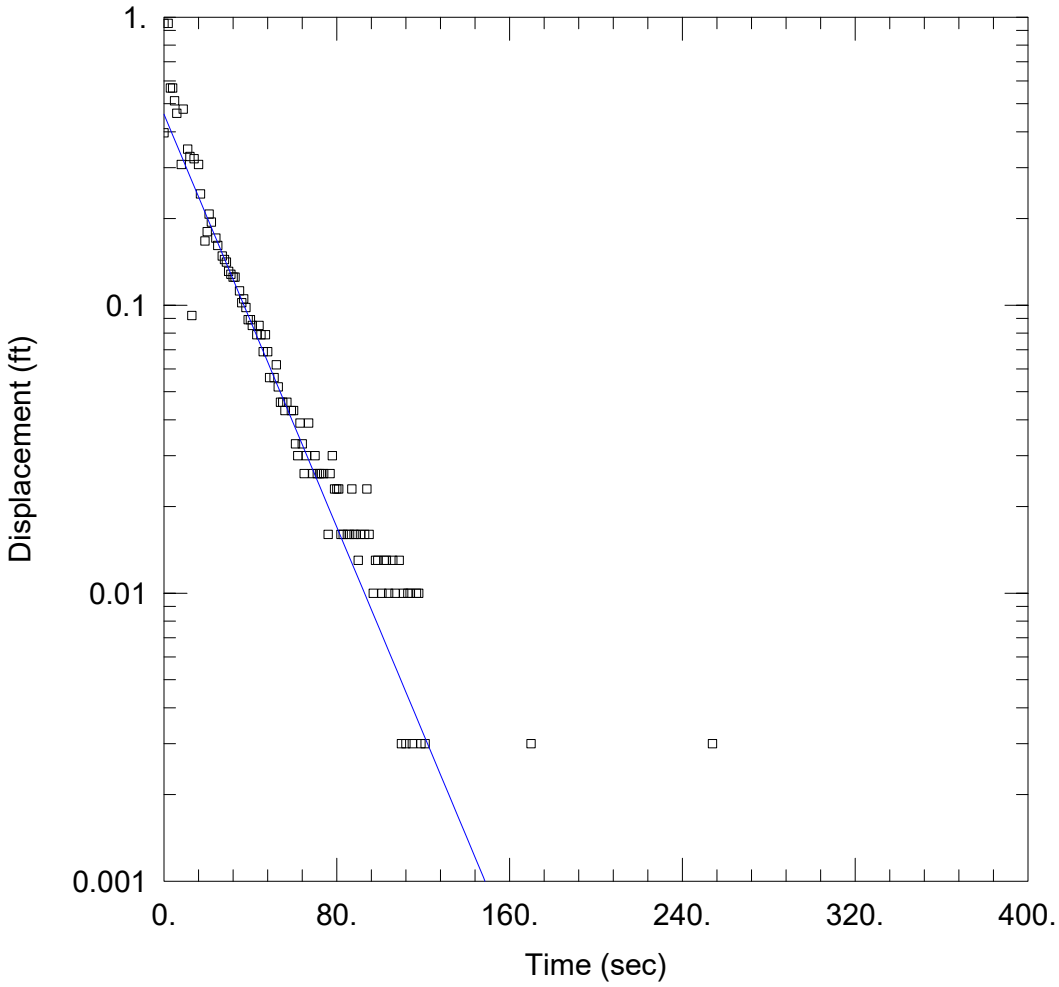
Aquifer Test - Solutions from AQTESOLV Analyses

Well-ID	Date	Test	Solutions								
			Bouwer-Rice (1976)		Hvorslec (1951)		Dagan (1978) partially submerged		KGS Model (1994)		
			K (ft/day)	K (cm/sec)	K (ft/day)	K (cm/sec)	K (ft/day)	K (cm/sec)	K (ft/day)	K (cm/sec)	Ss (ft^-1)
MW-7	10/9/2024	Falling Head Test 1	7.05	2.49E-03	9.10	3.21E-03	7.55	2.66E-03	25.50	8.99E-03	1.06E-04
		Rising Head Test 1	9.66	3.41E-03	15.09	5.32E-03	10.90	3.84E-03	28.98	1.02E-02	1.06E-04
		Falling Head Test 2	8.09	2.85E-03	10.97	3.87E-03	8.65	3.05E-03	21.50	7.58E-03	1.06E-04
		Falling Head Test 3	0.85	2.98E-04	2.26	7.97E-04	1.94	6.85E-04	31.55	1.11E-02	1.06E-04
		Rising Head Test 2	0.27	9.42E-05	0.27	9.42E-05	0.27	9.42E-05	29.92	1.06E-02	1.06E-04
		Falling Head Test 4	1.33	4.71E-04	1.79	6.32E-04	1.42	5.01E-04	33.52	1.18E-02	1.06E-04
		Rising Head Test 3	8.47	2.99E-03	13.32	4.70E-03	8.64	3.05E-03	39.38	1.39E-02	1.06E-04
	All Tests	**Geometric Mean**	**2.82**	**9.94E-04**	**4.16**	**1.47E-03**	**3.33**	**1.17E-03**	**29.58**	**1.04E-02**	**1.06E-04**
		Minimum	**0.27**	**9.42E-05**	**0.27**	**9.42E-05**	**0.27**	**9.42E-05**	**21.50**	**7.58E-03**	**1.06E-04**
		Maximum	**9.66**	**3.41E-03**	**15.09**	**5.32E-03**	**10.90**	**3.84E-03**	**39.38**	**1.39E-02**	**1.06E-04**
MW-8A	9/12/2024	Falling Head Test 1	0.19	6.71E-05	0.26	9.32E-05	0.21	7.47E-05	0.65	2.29E-04	1.05E-04
		Rising Head Test 1	0.42	1.47E-04	0.54	1.89E-04	0.45	1.59E-04	1.07	3.76E-04	1.05E-04
		Falling Head Test 2	0.10	3.41E-05	0.08	2.75E-05	0.09	3.16E-05	0.72	2.53E-04	1.05E-04
	10/8/2024	Falling Head Test 3	0.17	5.84E-05	0.23	7.98E-05	0.19	6.70E-05	0.56	1.96E-04	1.06E-04
		Falling Head Test 4	0.04	1.57E-05	0.13	4.63E-05	0.10	3.70E-05	0.38	1.35E-04	1.06E-04
		Rising Head Test 2	0.22	7.85E-05	0.28	9.99E-05	0.24	8.44E-05	0.64	2.25E-04	1.06E-04
		Falling Head Test 5	0.05	1.73E-05	0.06	2.14E-05	0.06	1.97E-05	0.63	2.22E-04	1.06E-04
		Rising Head Test 3	0.29	1.02E-04	0.37	1.30E-04	0.30	1.07E-04	0.79	2.79E-04	1.06E-04
		Falling Head Test 6	0.10	3.45E-05	0.14	4.85E-05	0.07	2.33E-05	0.33	1.15E-04	1.06E-04
	10/9/2024	Falling Head Test 7	0.16	5.54E-05	0.22	7.71E-05	0.20	7.13E-05	0.48	1.70E-04	1.06E-04
		Rising Head Test 4	0.23	8.19E-05	0.31	1.11E-04	0.26	9.13E-05	1.02	3.58E-04	1.06E-04
		Falling Head Test 8	0.02	6.70E-06	0.02	7.54E-06	0.02	5.57E-06	0.53	1.88E-04	1.06E-04
		Rising Head Test 5	0.15	5.18E-05	0.21	7.29E-05	0.18	6.21E-05	0.53	1.86E-04	1.06E-04
		Falling Head Test 9	0.02	8.78E-06	0.04	1.41E-05	0.03	1.00E-05	0.48	1.70E-04	1.06E-04
		Rising Head Test 6	0.16	5.52E-05	0.22	7.84E-05	0.19	6.53E-05	0.61	2.14E-04	1.06E-04
	All Tests	**Geometric Mean**	**0.11**	**4.01E-05**	**0.16**	**5.49E-05**	**0.13**	**4.47E-05**	**0.60**	**2.11E-04**	**1.06E-04**
		Minimum	**0.02**	**6.70E-06**	**0.02**	**7.54E-06**	**0.02**	**5.57E-06**	**0.33**	**1.15E-04**	**1.05E-04**
		Maximum	**0.42**	**1.47E-04**	**0.54**	**1.89E-04**	**0.45**	**1.59E-04**	**1.07**	**3.76E-04**	**1.06E-04**

Notes

- Bouwer-Rice Solution: determining hydraulic conductivity of an unconfined aquifer from an overdamped slug test. Overdamped tests occur in aquifers with low to moderate K.
- Hvorslec Solution: detereming hydraulic conductivity of nonleaky confined aquifers.
- Dagan Solution: determining hydraulic conductivity of unconfined aquifers when the control well is screened across the water table.
- KGS Solution: determining hydraulic conductivity of unconfined and nonleaky confired aquifers. Nonleaky confined aquifers are aquifers that are bound above and below by impermeable layers (silt, other fine particle layers, etc.:); layers above and below where the aquifer aquicludes.

MW-7 - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-R1-BR_100924.aqt
Date: 03/03/25 Time: 13:36:59

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

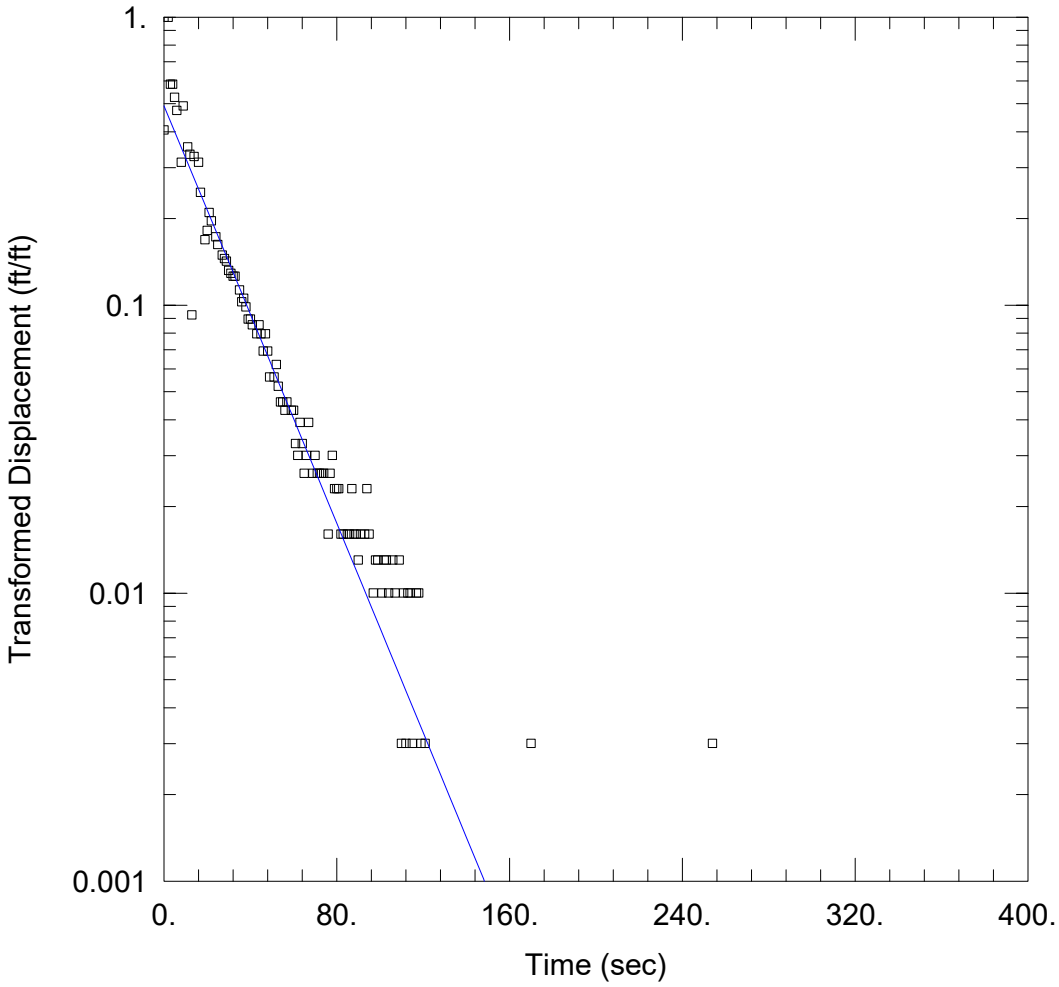
WELL DATA (MW-7)

Initial Displacement: 0.951 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 8.154E-5 ft/sec y0 = 0.4595 ft

MW-7 - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-R1-D_100924.aqt
Date: 03/03/25 Time: 13:38:08

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

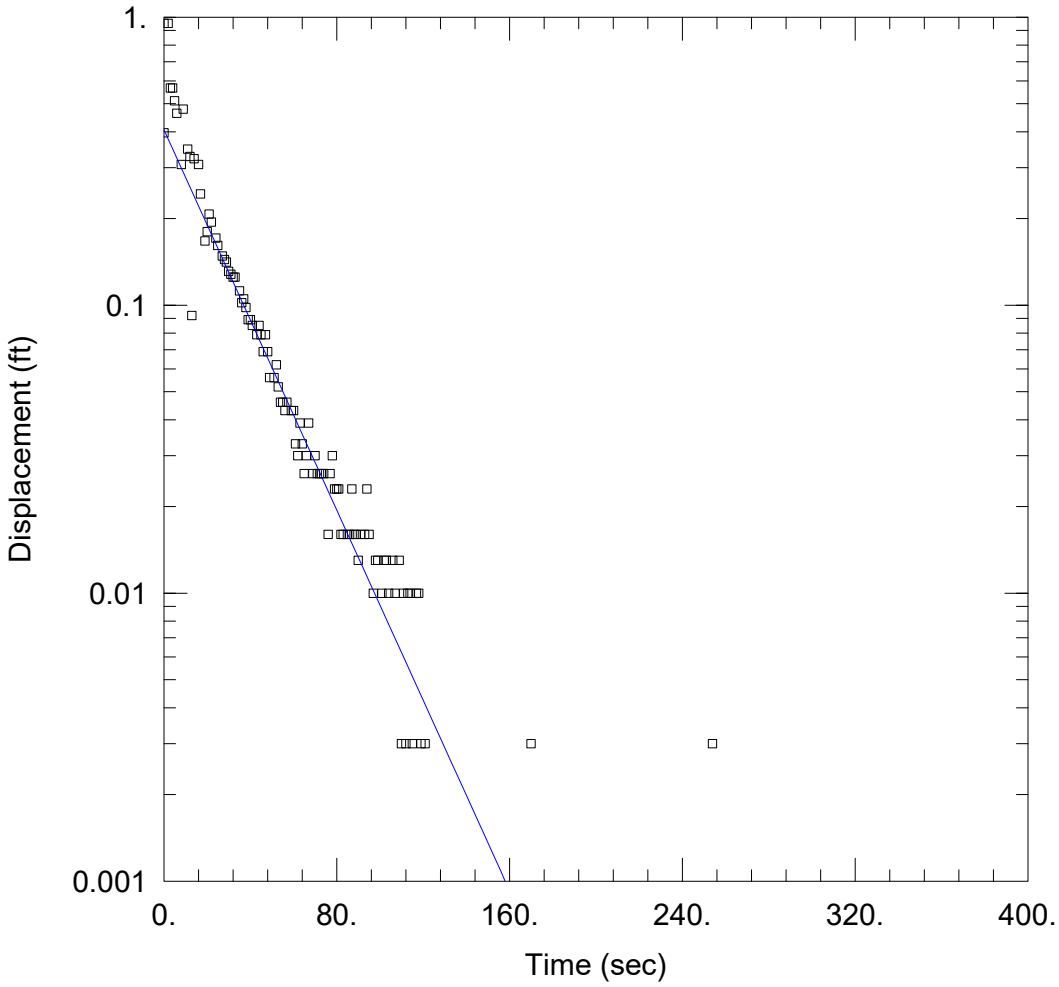
Initial Displacement: 0.951 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 8.735E-5 ft/sec y0 = 0.4787 ft

MW-7 - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-R1-H_100924.aqt
Date: 03/03/25 Time: 13:38:40

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

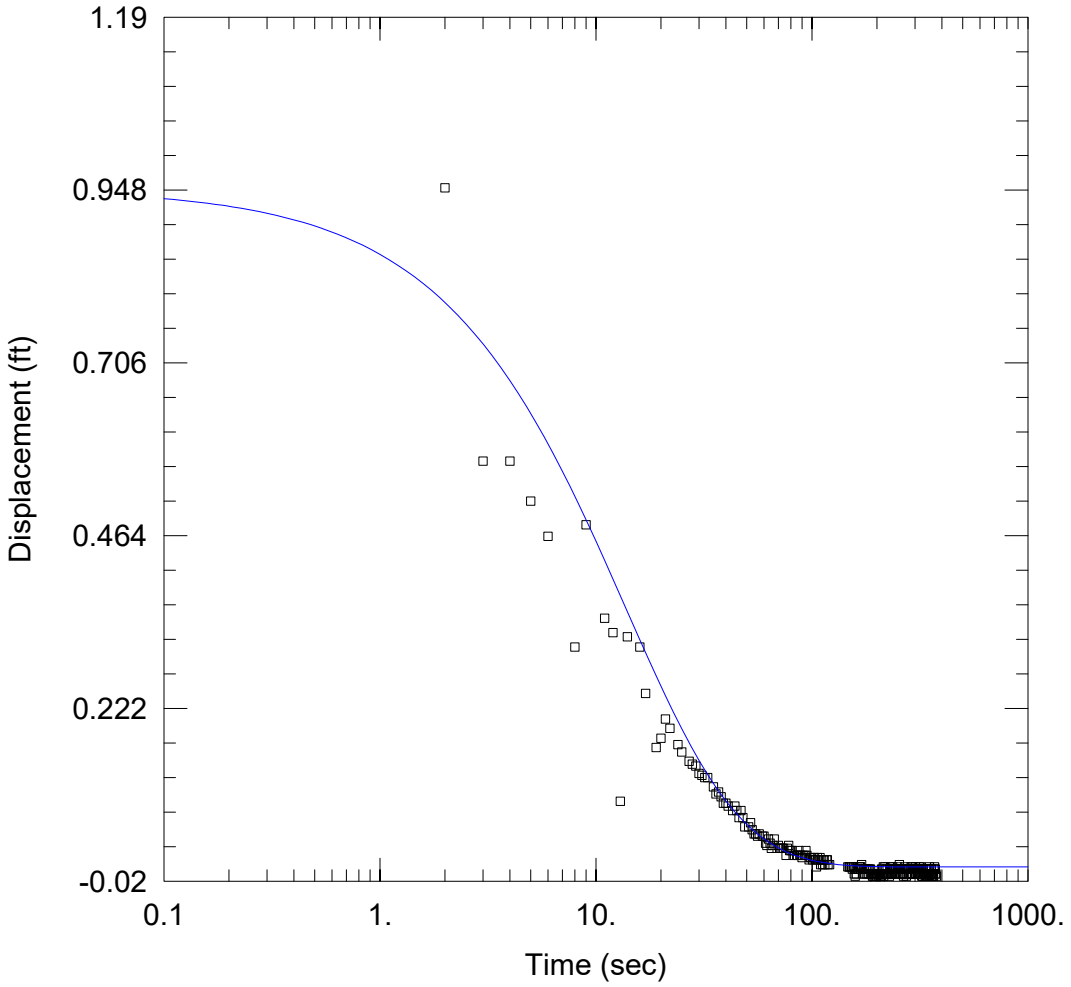
WELL DATA (MW-7)

Initial Displacement: 0.951 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 0.0001053 ft/sec
y0 = 0.4058 ft

MW-7 - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-R1-KGS_100924.aqt
Date: 03/03/25 Time: 13:39:02

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

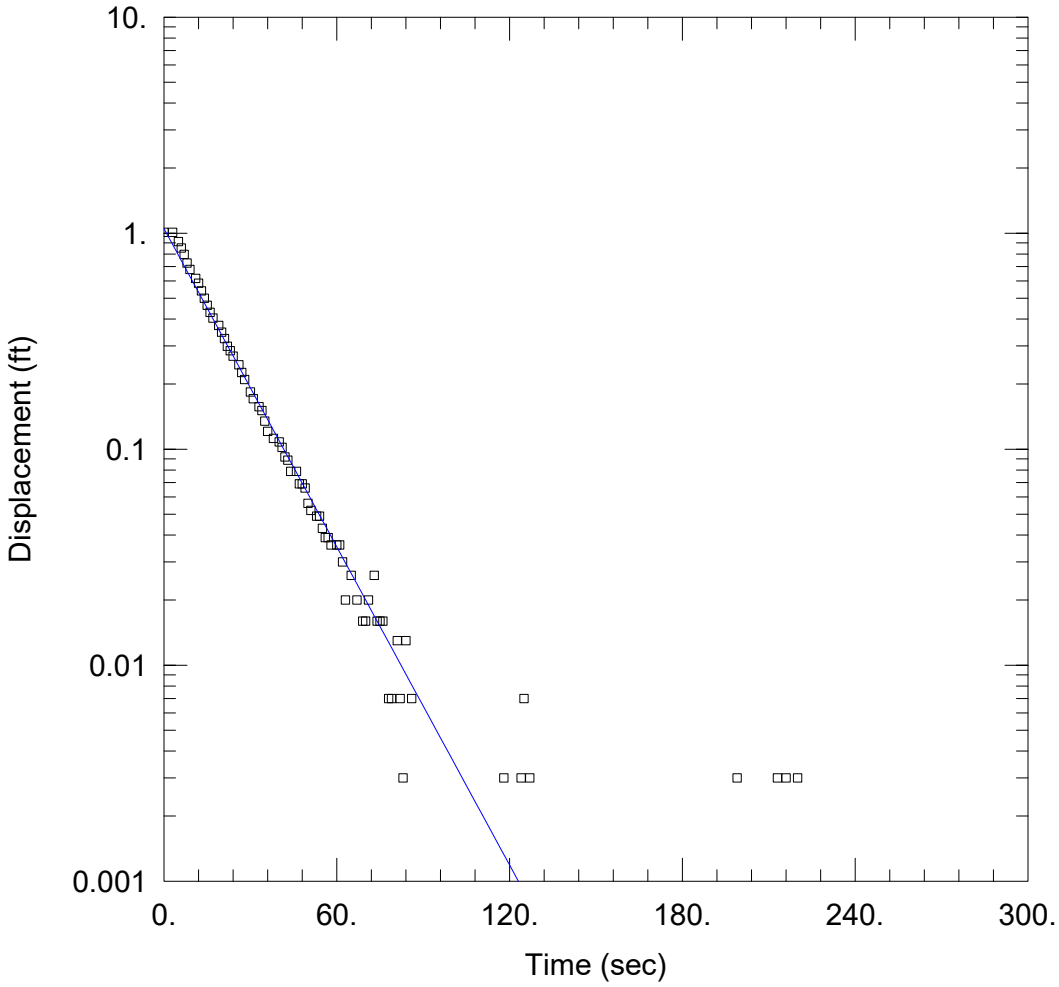
Initial Displacement: 0.951 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0002951 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-F1-BR_100924.aqt
Date: 03/03/25 Time: 13:45:03

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

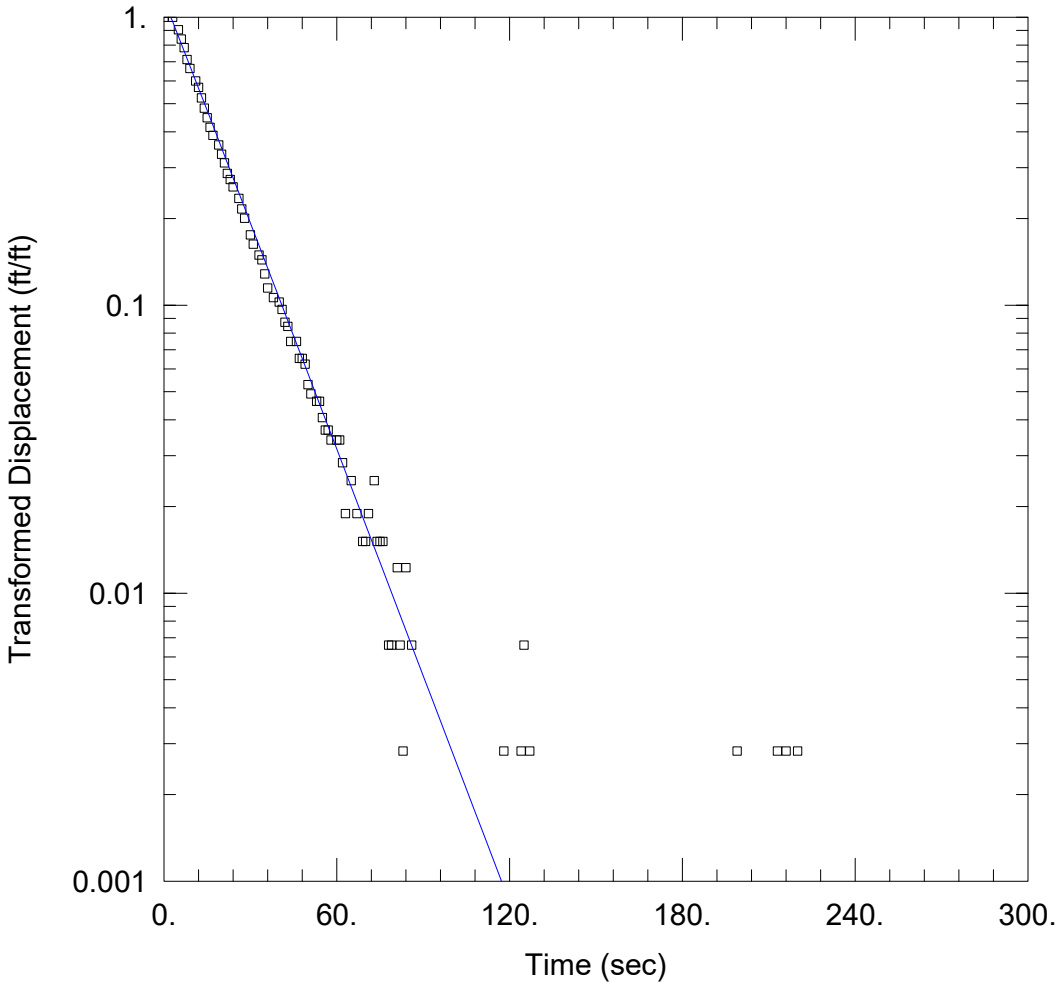
Initial Displacement: 1.007 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001118 ft/sec y0 = 1.049 ft

MW-7 - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-F1-D_100924.aqt
Date: 03/03/25 Time: 13:45:34

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

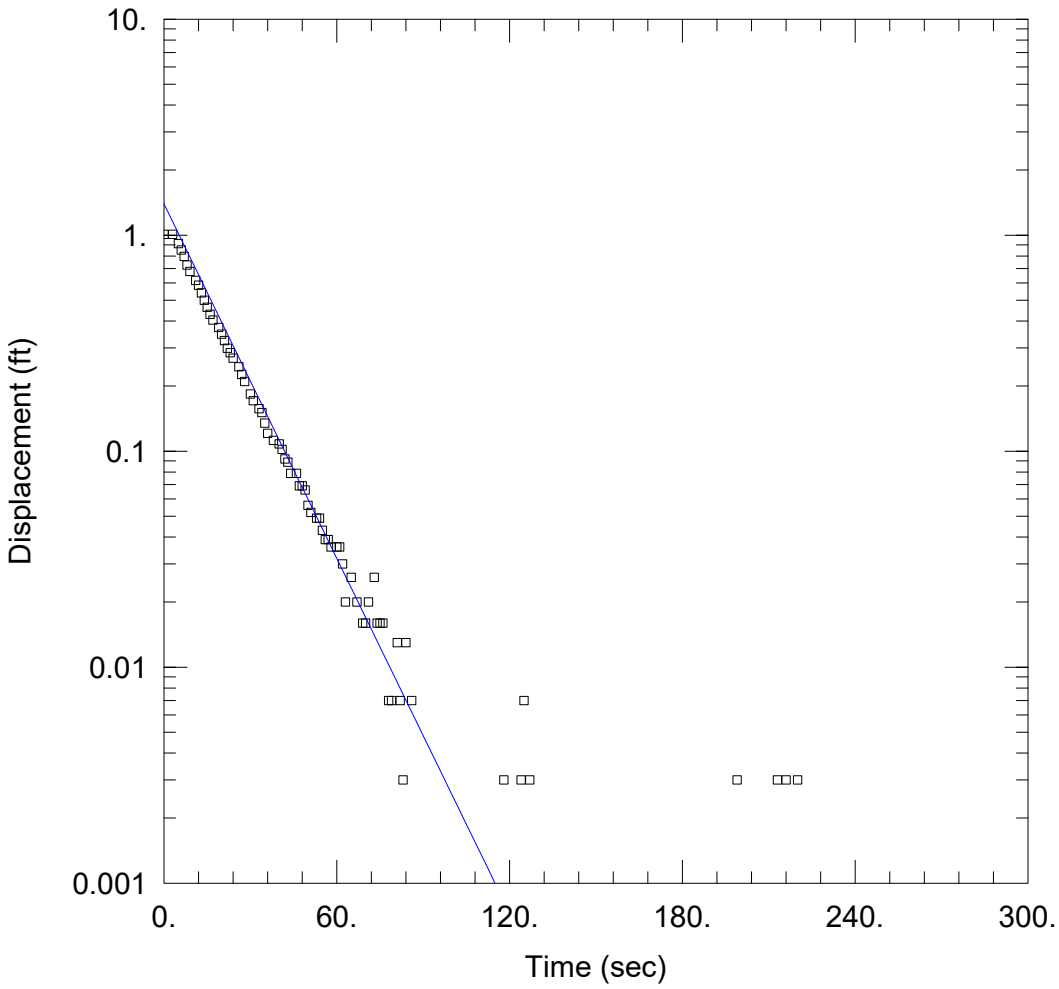
Initial Displacement: 1.007 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 0.0001261 ft/sec y0 = 1.15 ft

MW-7 - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-F1-H_100924.aqt
Date: 03/03/25 Time: 13:45:54

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

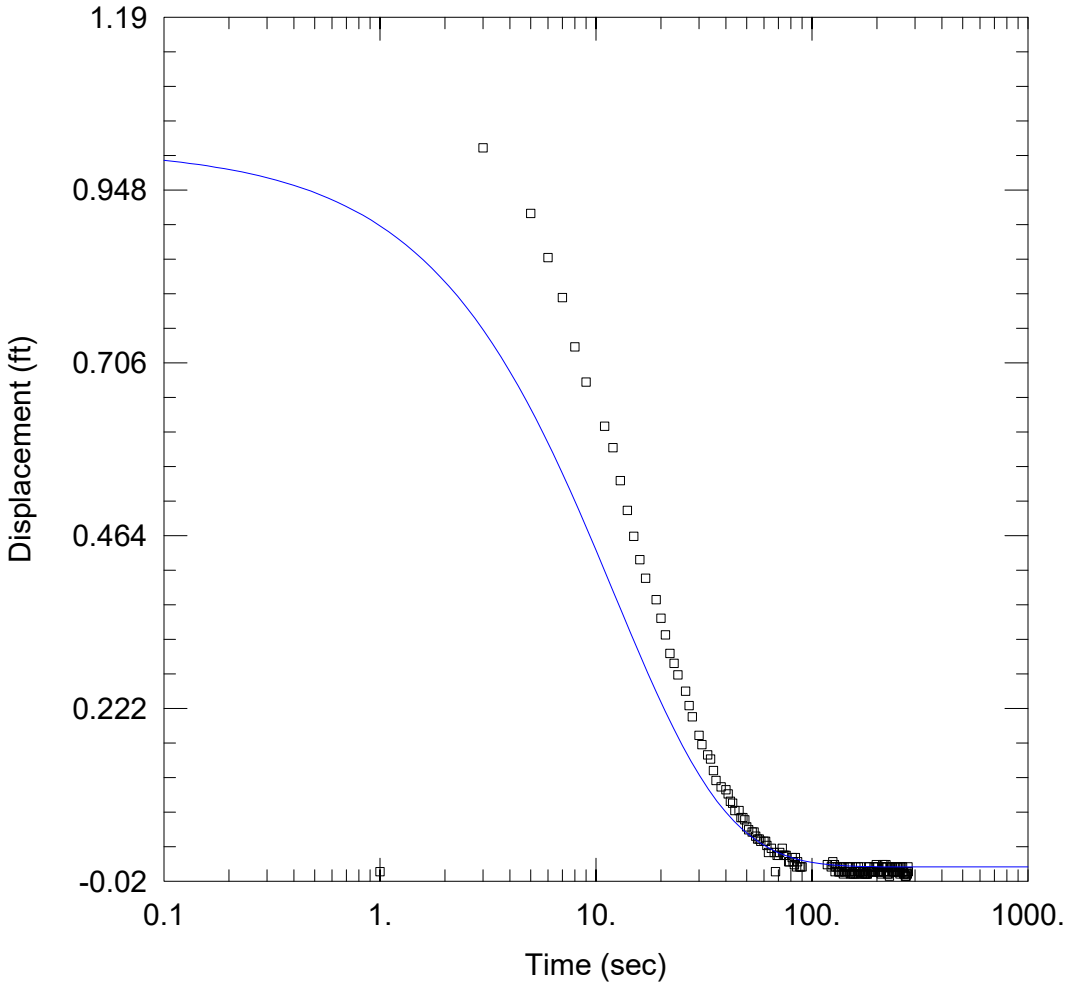
Initial Displacement: 1.007 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 0.0001746 ft/sec y0 = 1.396 ft

MW-7 - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-7-F1-KGS_100924.aqt
Date: 03/03/25 Time: 13:46:18

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

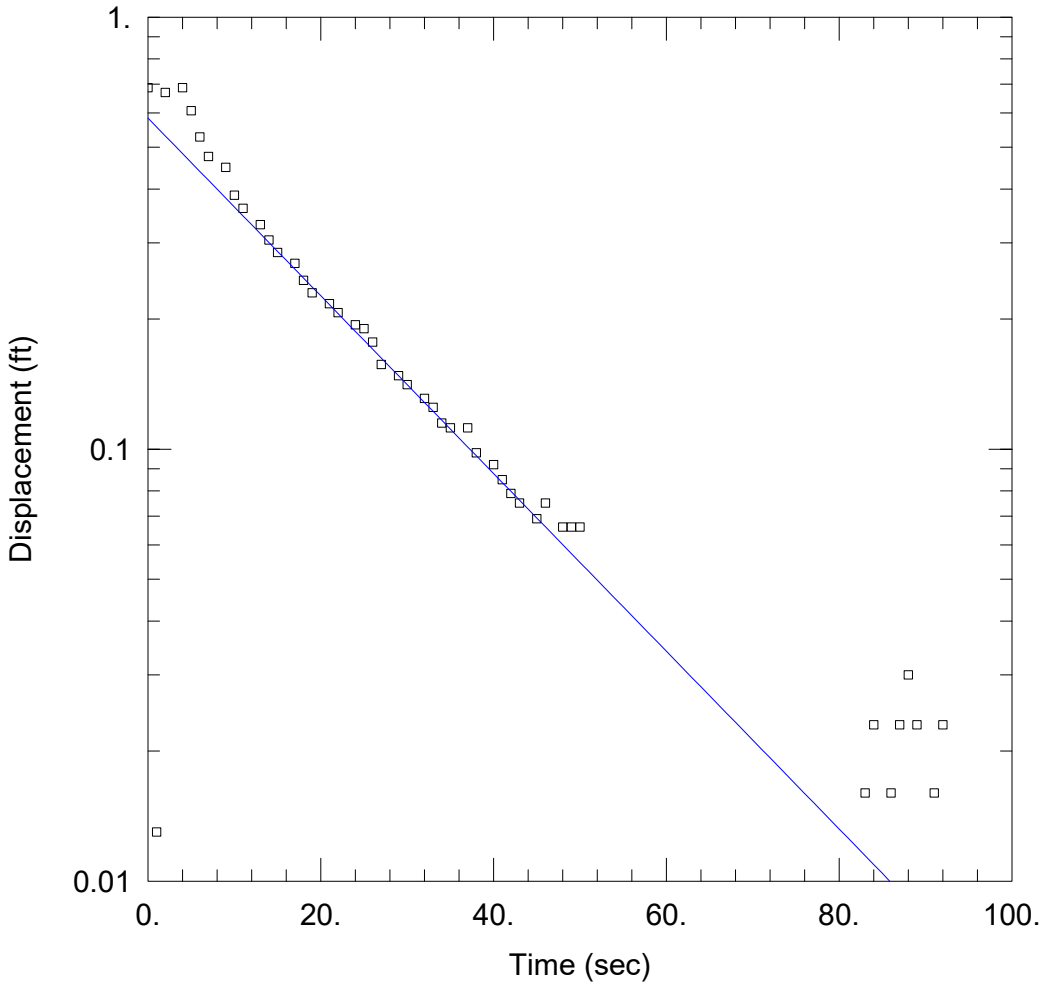
Initial Displacement: 1.007 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0003354 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-R2-BR_100924.aqt
Date: 03/03/25 Time: 13:47:07

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

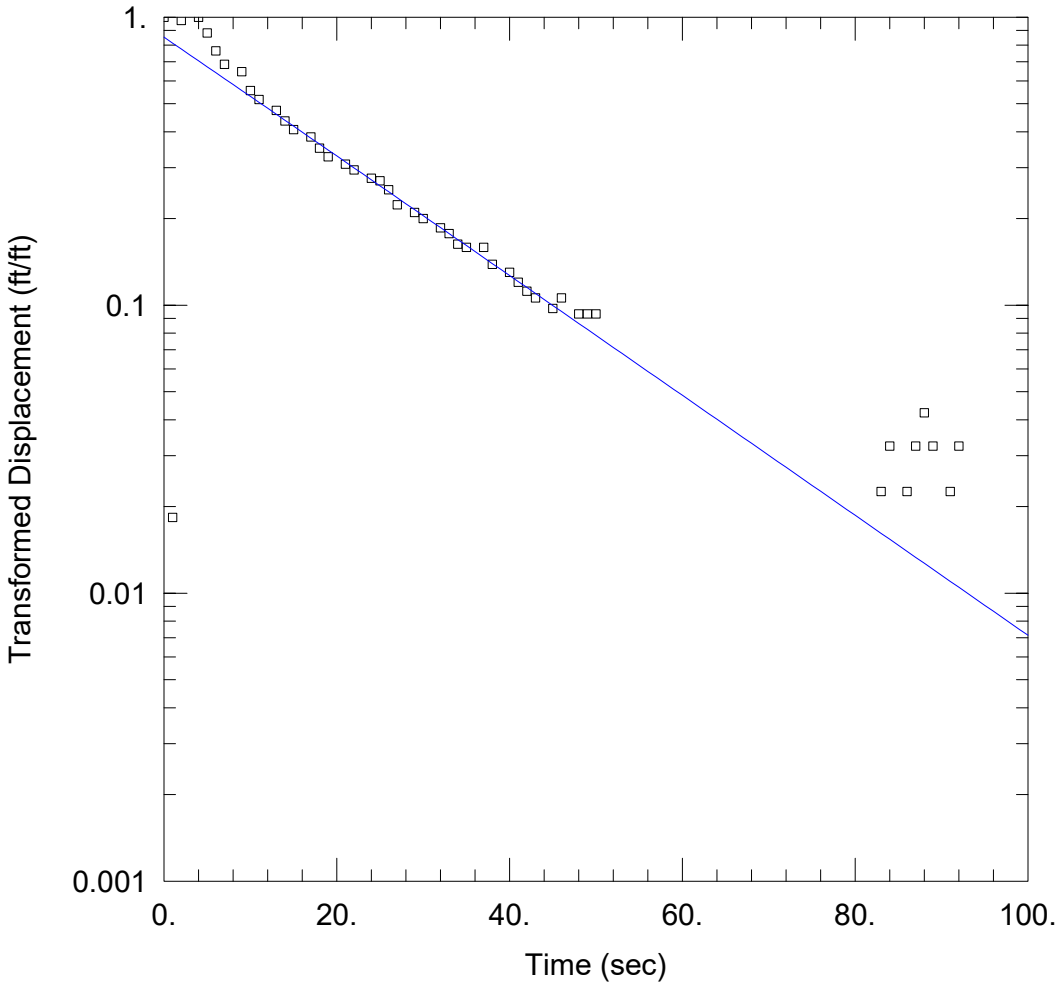
WELL DATA (MW-7)

Initial Displacement: 0.686 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 9.364E-5 ft/sec y0 = 0.5838 ft

MW-7 - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-R2-D_100924.aqt
Date: 03/03/25 Time: 13:49:29

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

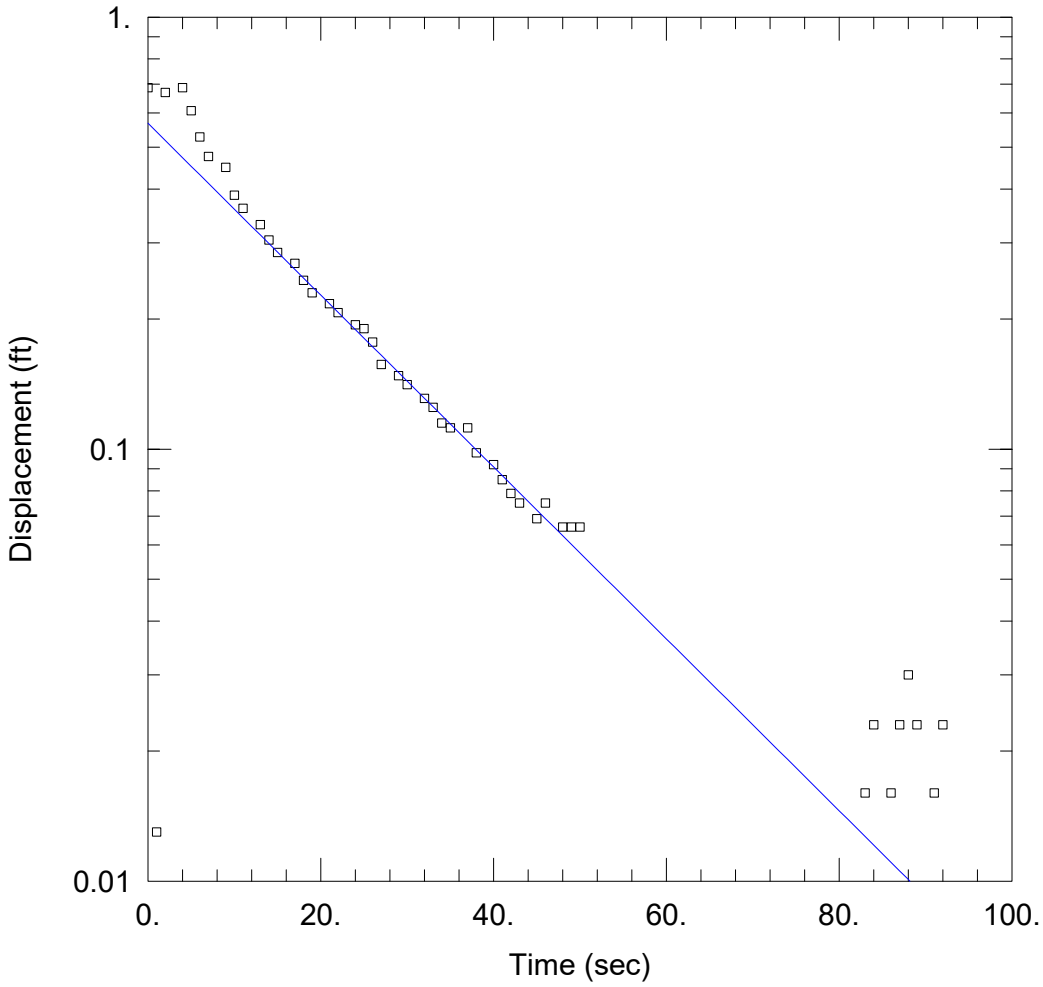
Initial Displacement: 0.686 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 0.0001001 ft/sec y0 = 0.5874 ft

MW-7 - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-R2-H_100924.aqt
Date: 03/03/25 Time: 13:49:45

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

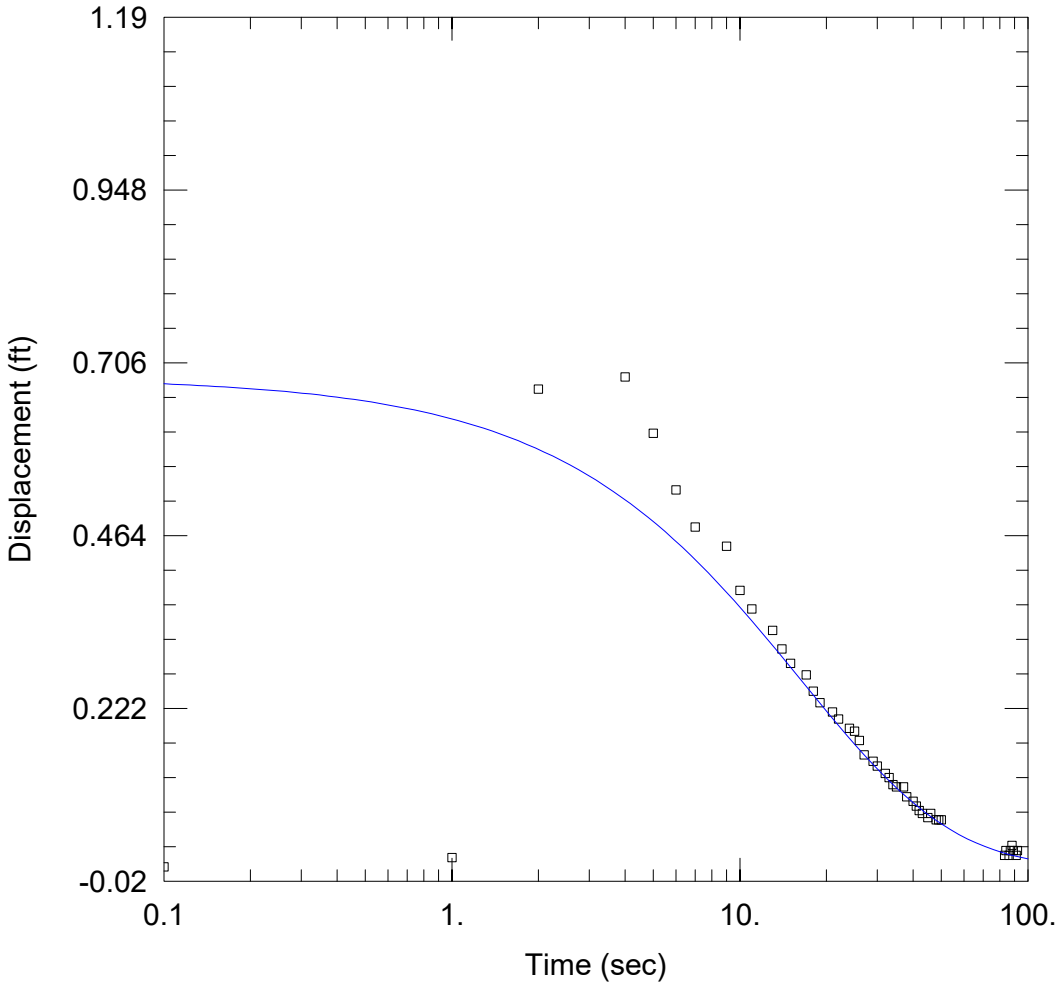
WELL DATA (MW-7)

Initial Displacement: 0.686 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 0.000127 ft/sec y0 = 0.5678 ft

MW-7 - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-R2-KGS_100924.aqt
Date: 03/03/25 Time: 13:50:05

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

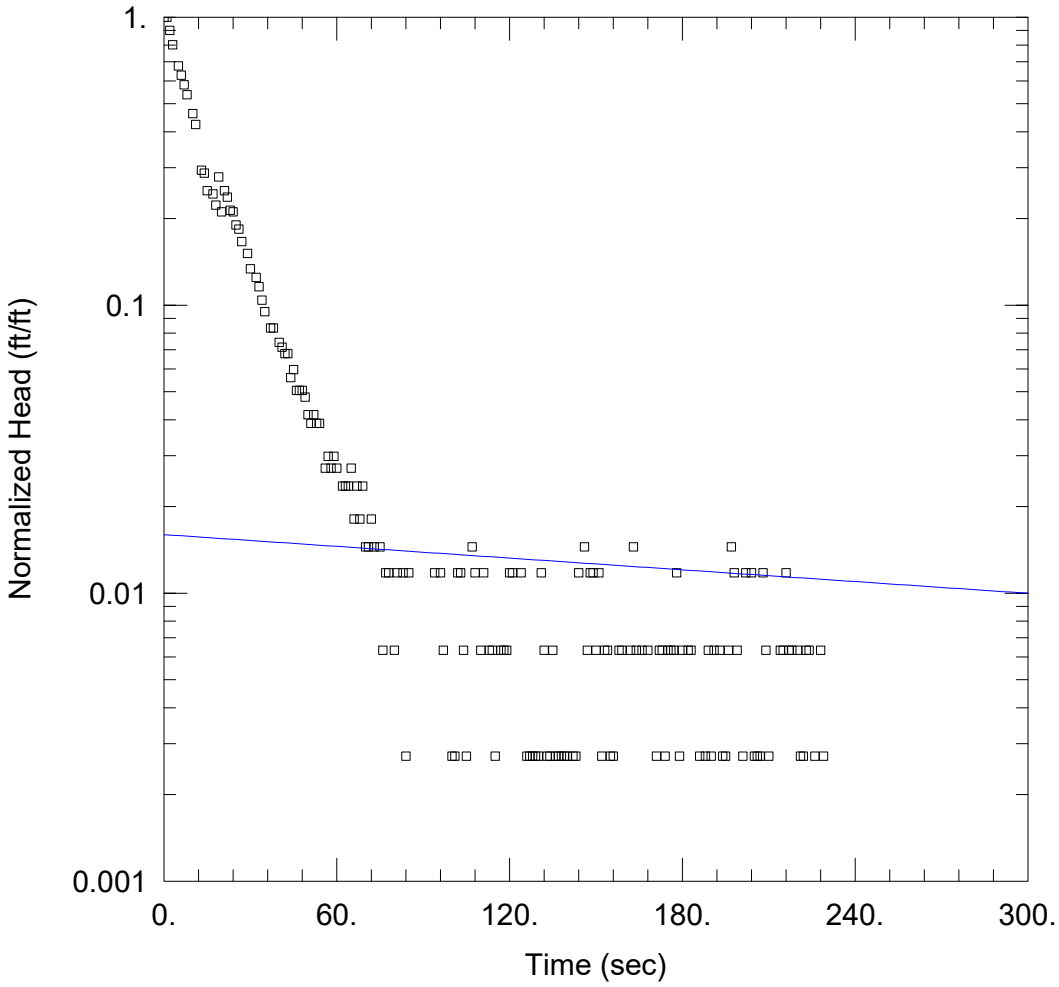
Initial Displacement: 0.686 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0002488 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-F2-BR_100924.aqt
Date: 03/03/25 Time: 13:52:59

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

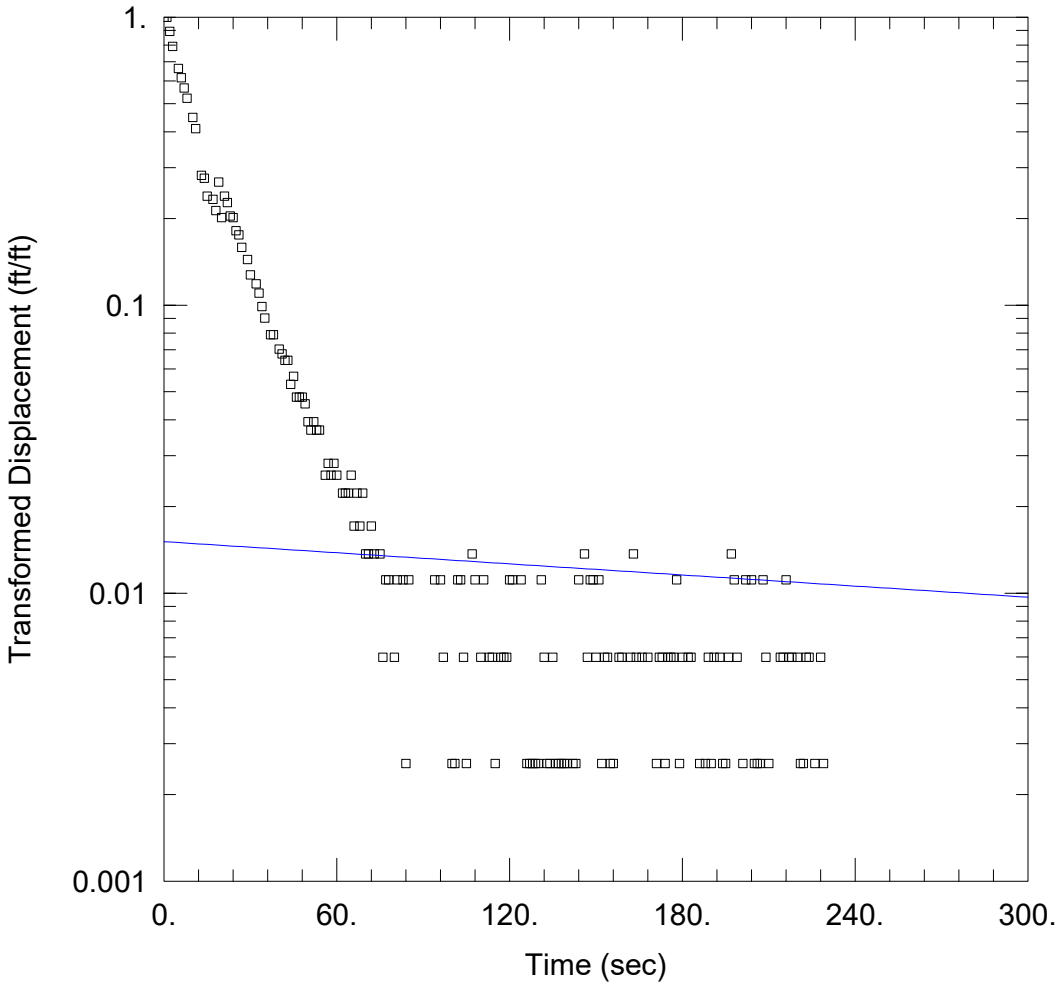
Initial Displacement: 1.106 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.091E-6 ft/sec y0 = 0.01765 ft

MW-7 - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-F2-D_100924.aqt
Date: 03/03/25 Time: 13:53:37

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

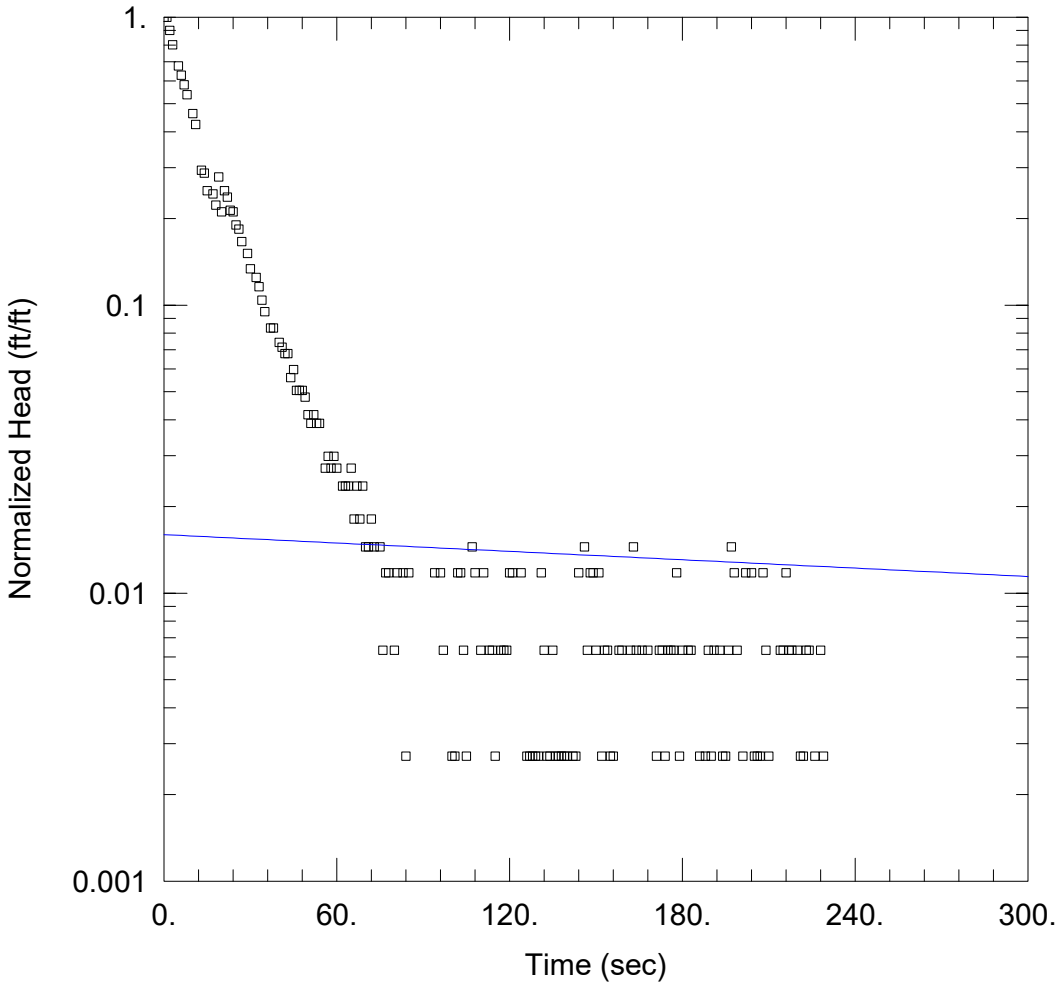
Initial Displacement: 1.106 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 3.091E-6 ft/sec y0 = 0.01765 ft

MW-7 - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-F2-H_100924.aqt
Date: 03/03/25 Time: 13:53:52

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

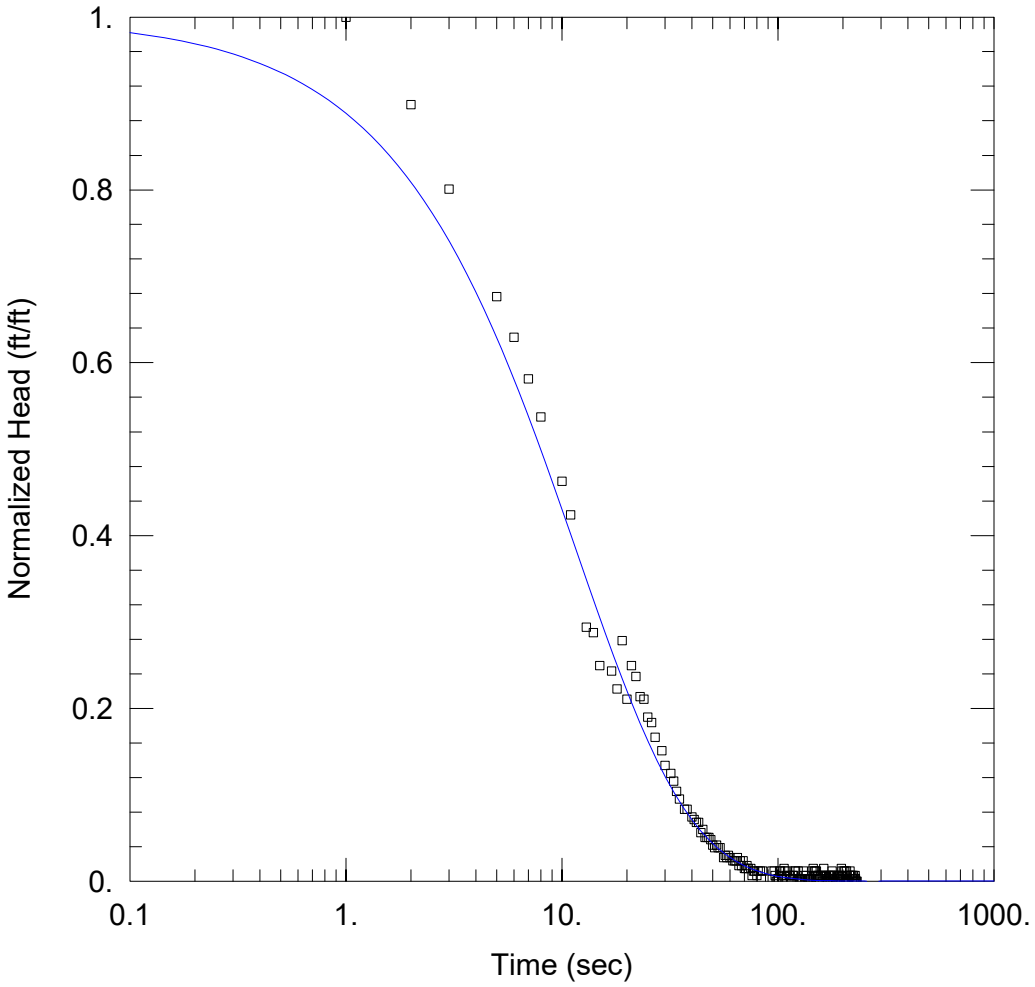
WELL DATA (MW-7)

Initial Displacement: 1.106 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 3.091E-6 ft/sec
y0 = 0.01765 ft

MW-7 - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-7-F2-KGS_100924.aqt
Date: 03/03/25 Time: 13:54:08

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

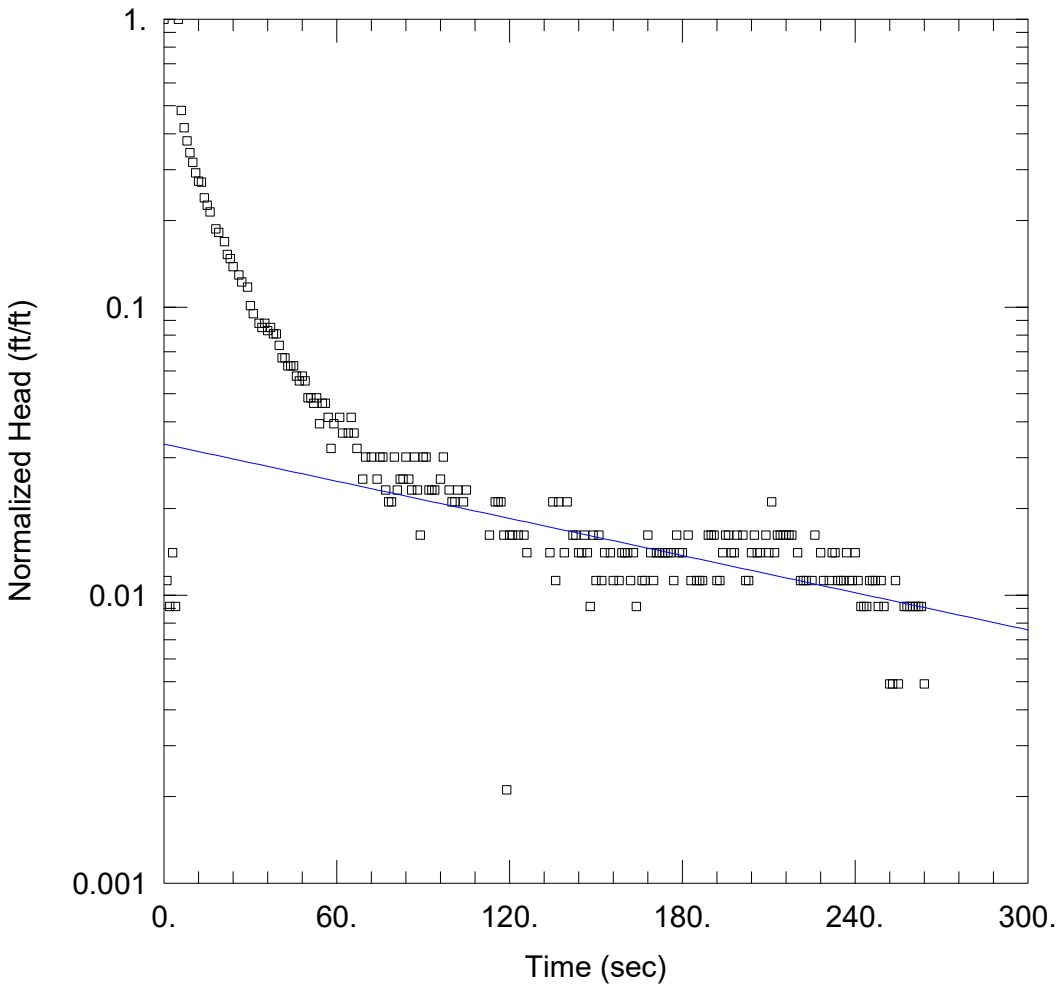
Initial Displacement: 1.106 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0003463 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-R3-BR_100924.aqt
Date: 03/03/25 Time: 13:54:45

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

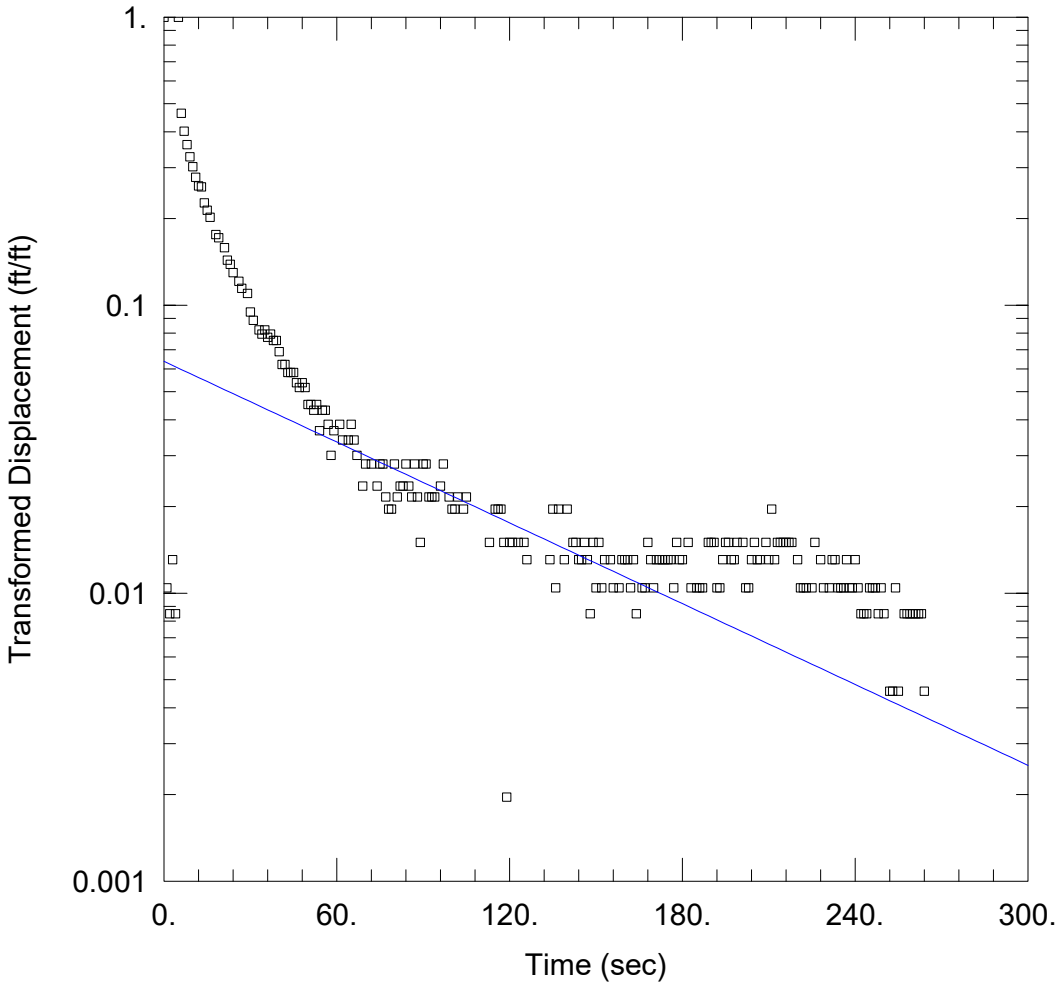
Initial Displacement: 1.424 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 9.79E-6 ft/sec y0 = 0.04764 ft

MW-7 - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-R3-D_100924.aqt
Date: 03/03/25 Time: 13:55:00

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

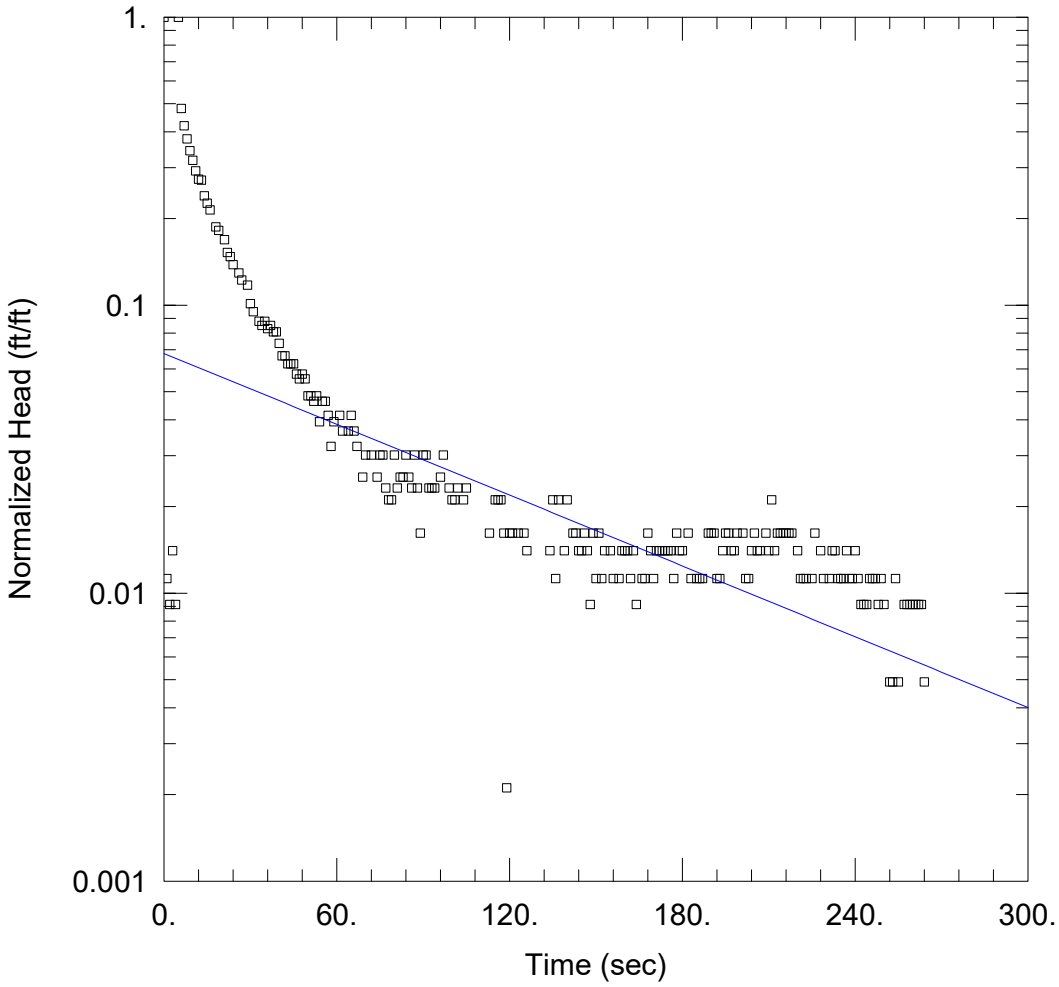
WELL DATA (MW-7)

Initial Displacement: 1.424 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan
K = 2.248E-5 ft/sec y0 = 0.09731 ft

MW-7 - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-R3-H_100924.aqt
Date: 03/03/25 Time: 13:55:18

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

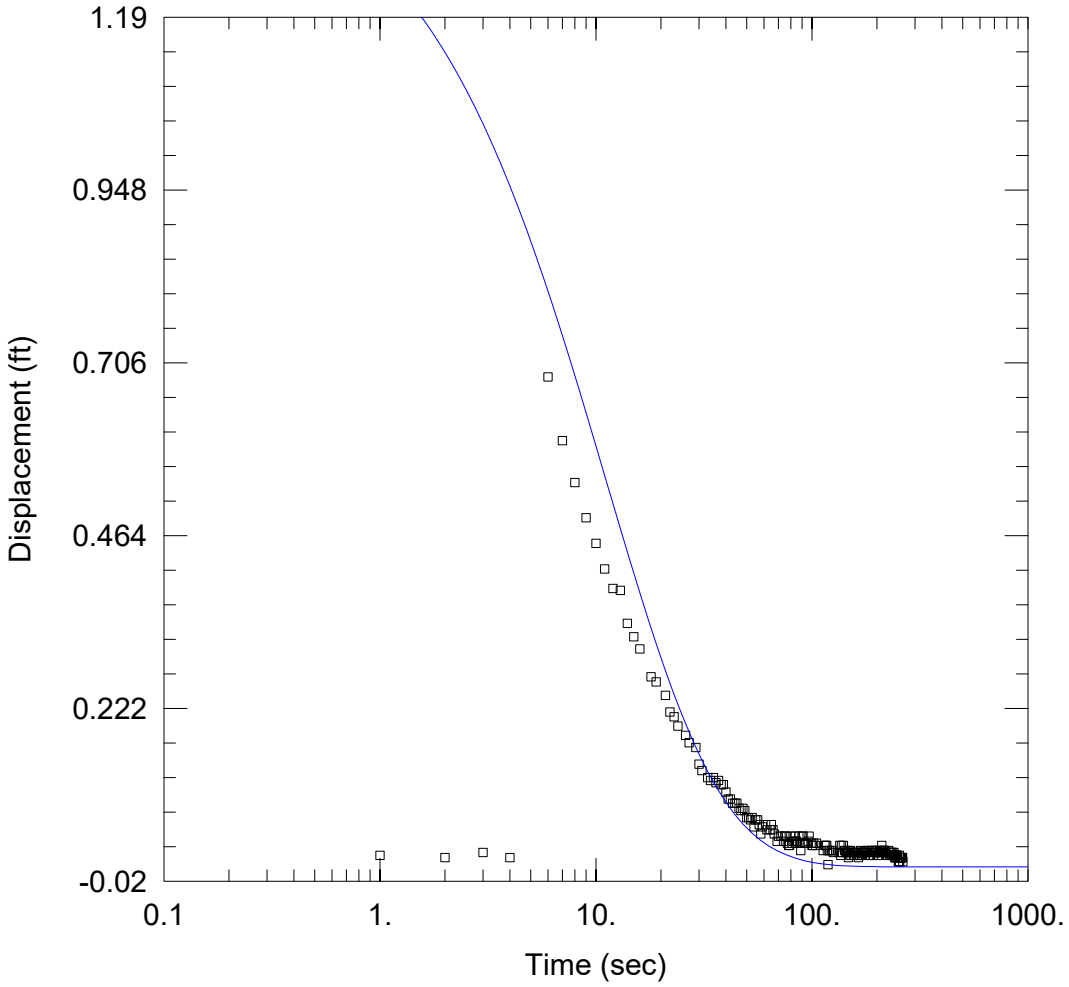
WELL DATA (MW-7)

Initial Displacement: 1.424 ft Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 2.616E-5 ft/sec y0 = 0.09676 ft

MW-7 - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-R3-KGS_100924.aqt
Date: 03/03/25 Time: 14:00:14

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

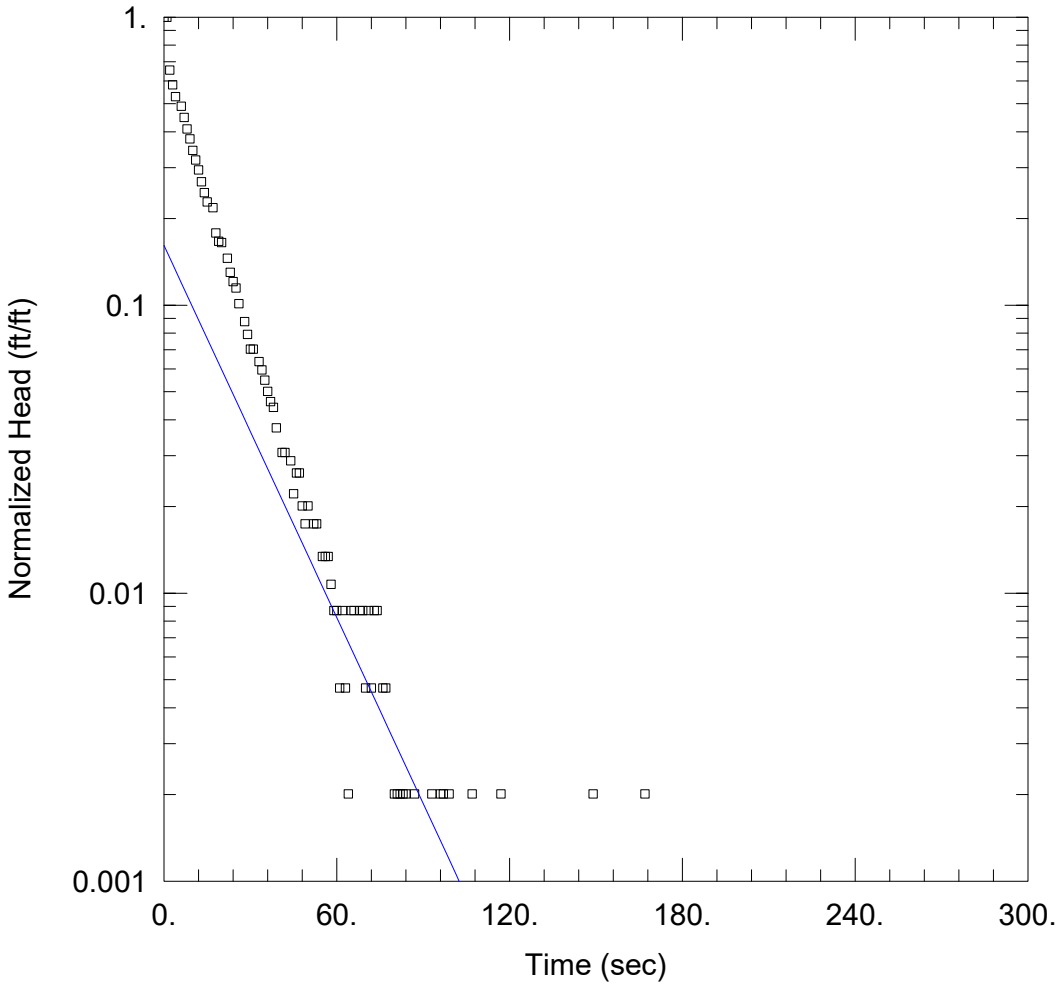
Initial Displacement: 1.424 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0003652 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-F3-BR_100924.aqt
Date: 03/03/25 Time: 14:27:19

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

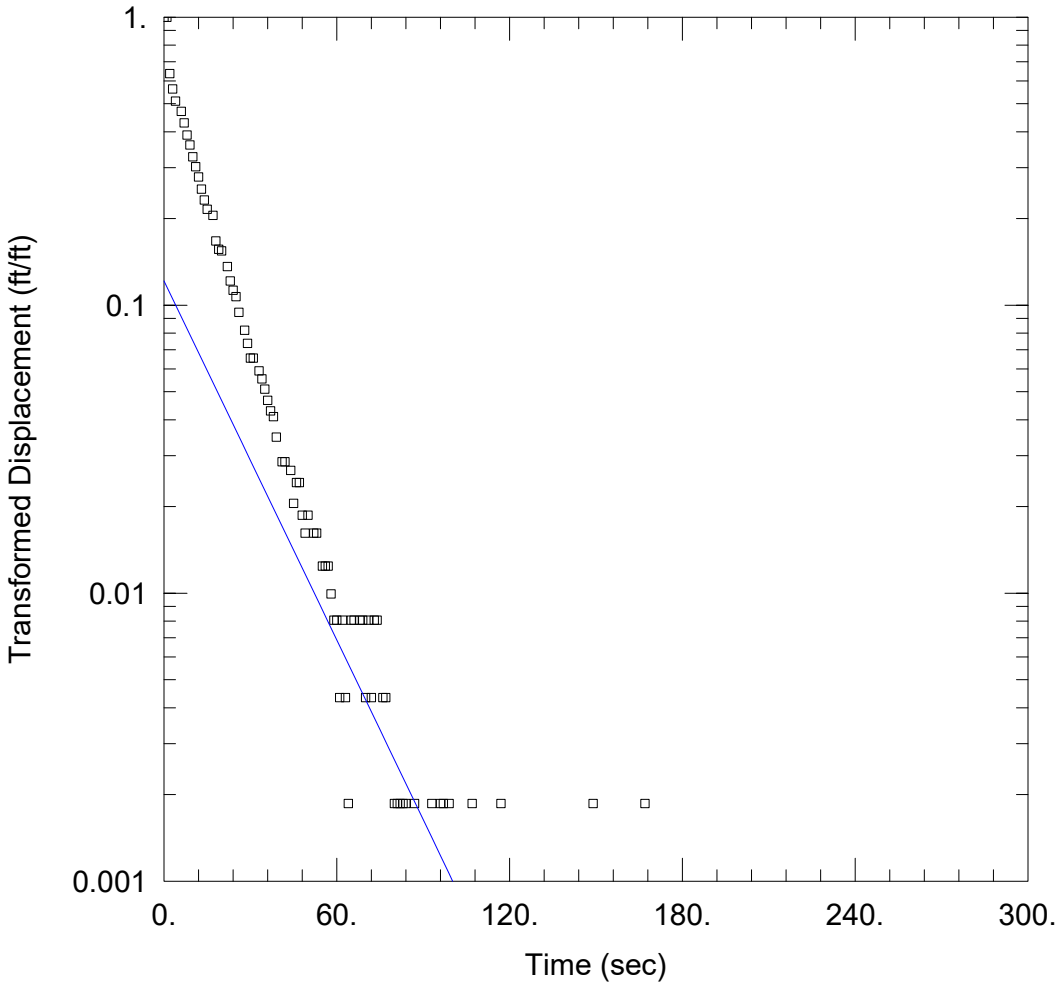
Initial Displacement: 1.493 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 9.801E-5 ft/sec
y0 = 0.2404 ft

MW-7 - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-F3-D_100924.aqt
Date: 03/03/25 Time: 14:27:50

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

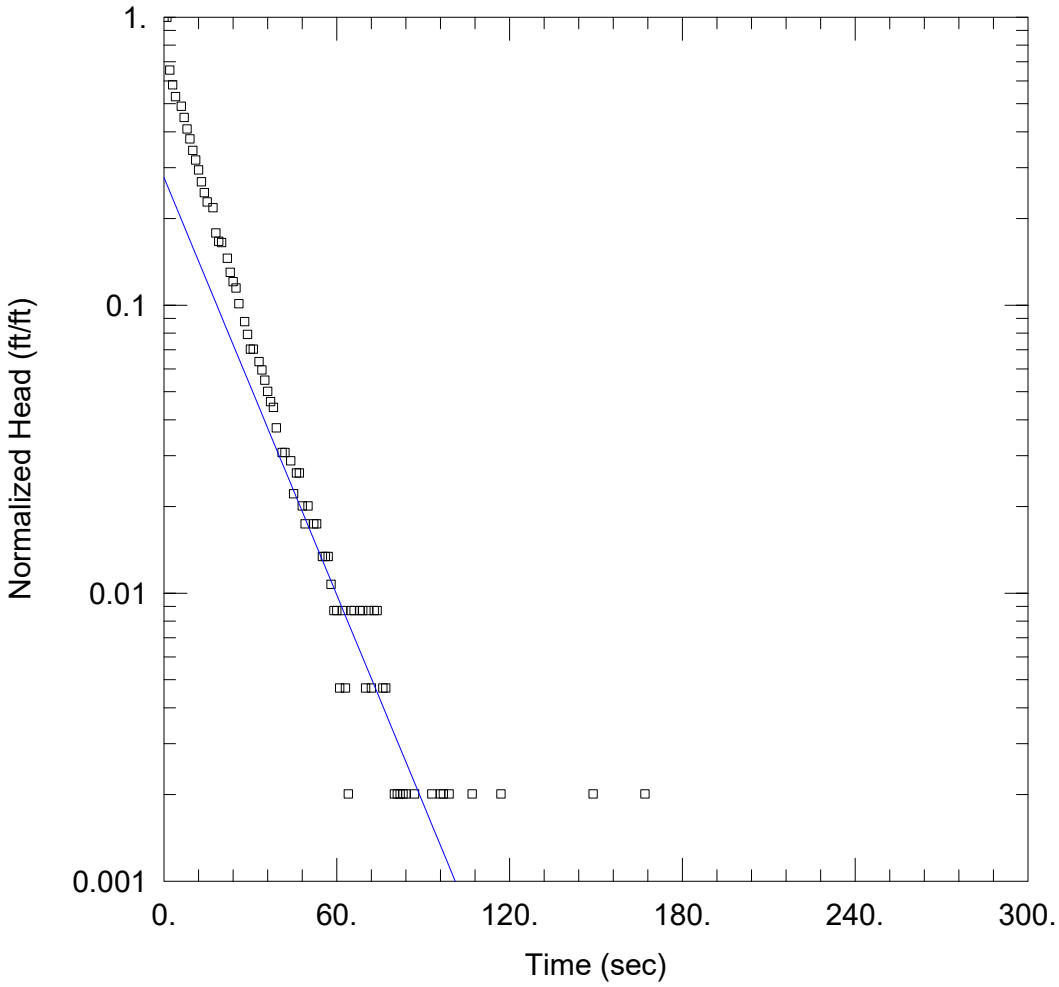
Initial Displacement: 1.493 ft
Static Water Column Height: 6.56 ft
Total Well Penetration Depth: 12.75 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan

K = 9.995E-5 ft/sec
y0 = 0.1936 ft

MW-7 - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-F3-H_100924.aqt
Date: 03/03/25 Time: 14:28:20

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

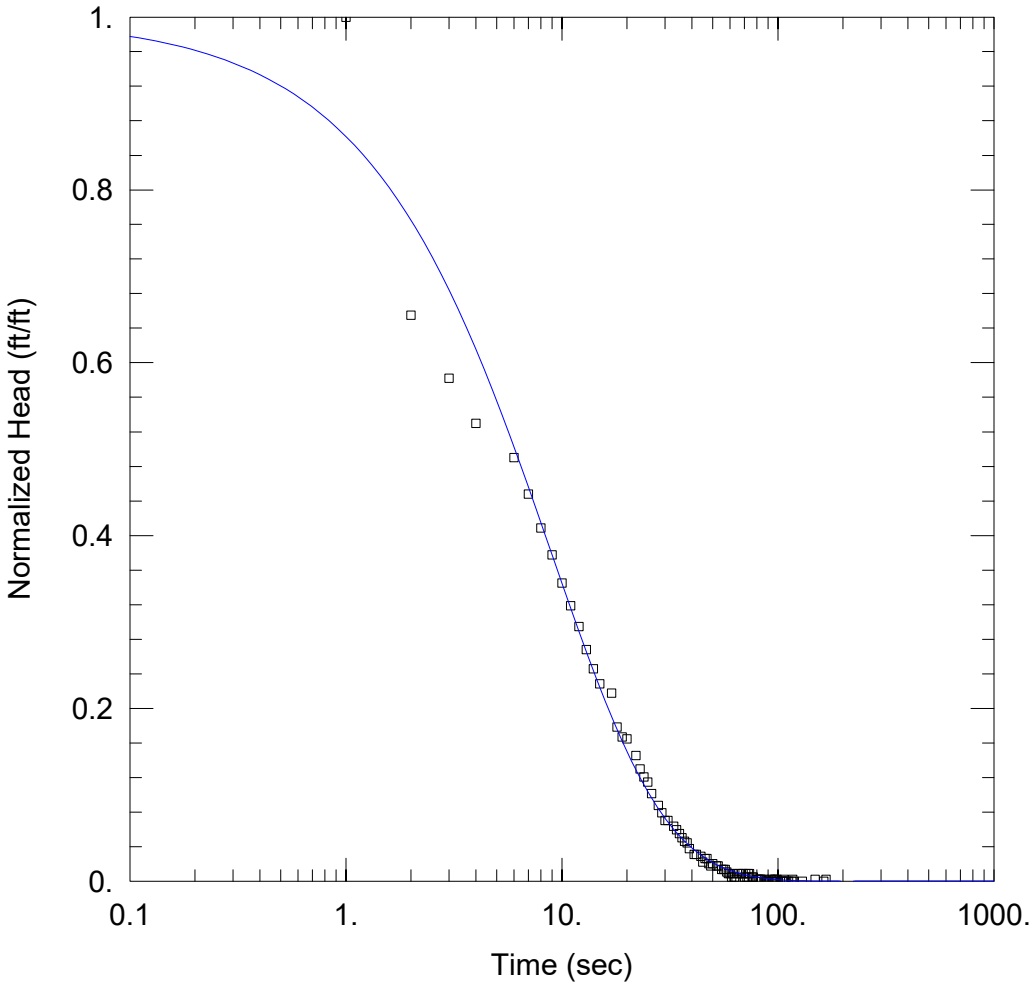
Initial Displacement: 1.493 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 0.0001542 ft/sec y0 = 0.4138 ft

MW-7 - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-7-F3-KGS_100924.aqt
Date: 03/03/25 Time: 14:34:02

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

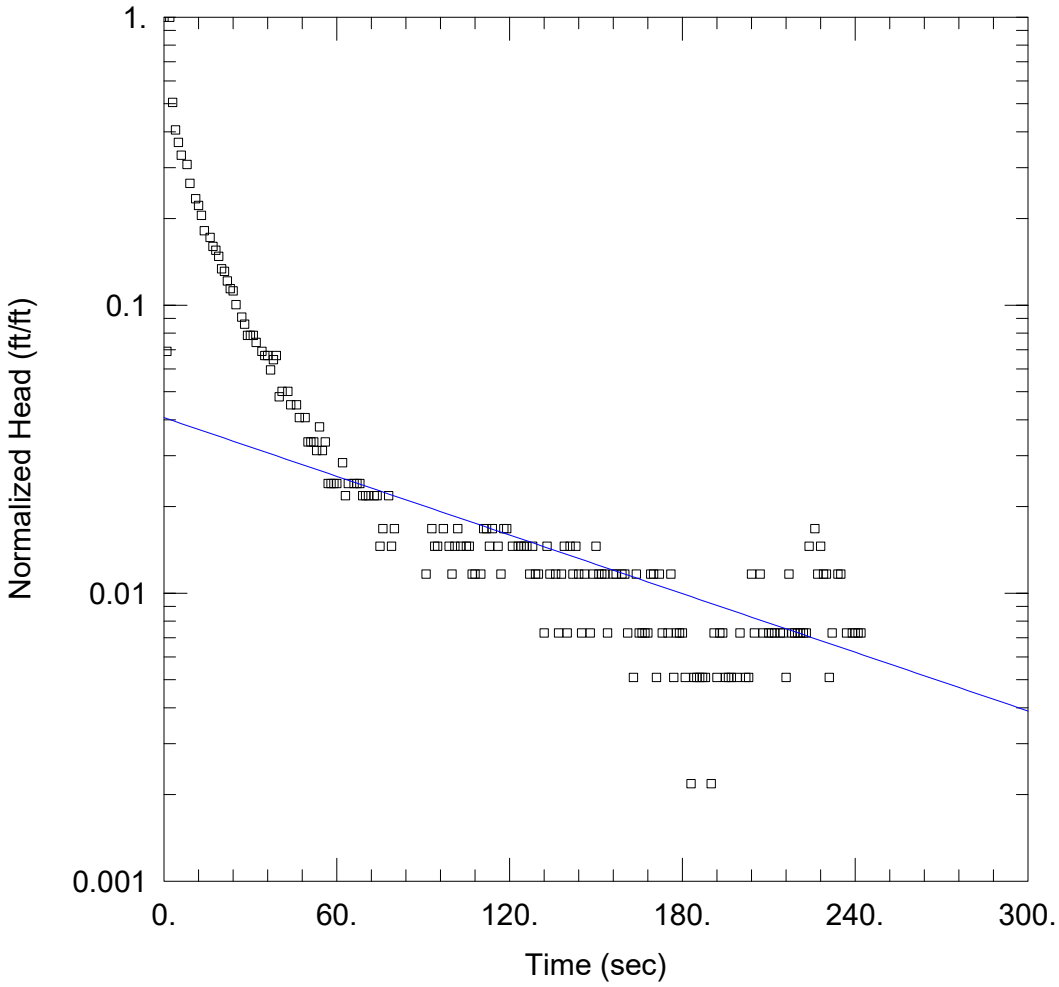
Initial Displacement: 1.493 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0004558 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-7 - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-7-R4-BR_100924.aqt
Date: 03/03/25 Time: 14:34:36

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

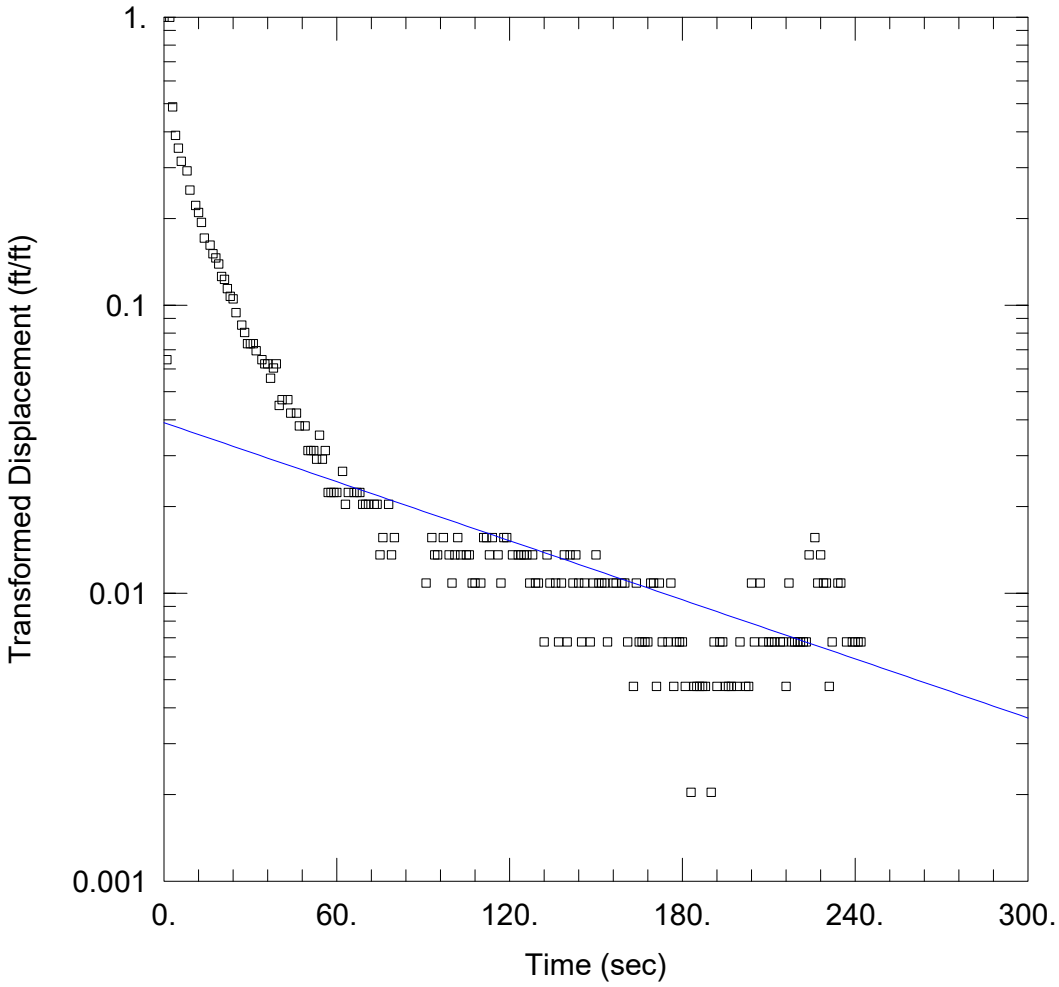
Initial Displacement: 1.375 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.545E-5 ft/sec y0 = 0.05591 ft

MW-7 - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-7-R4-D_100924.aqt
Date: 03/03/25 Time: 14:34:57

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-7)

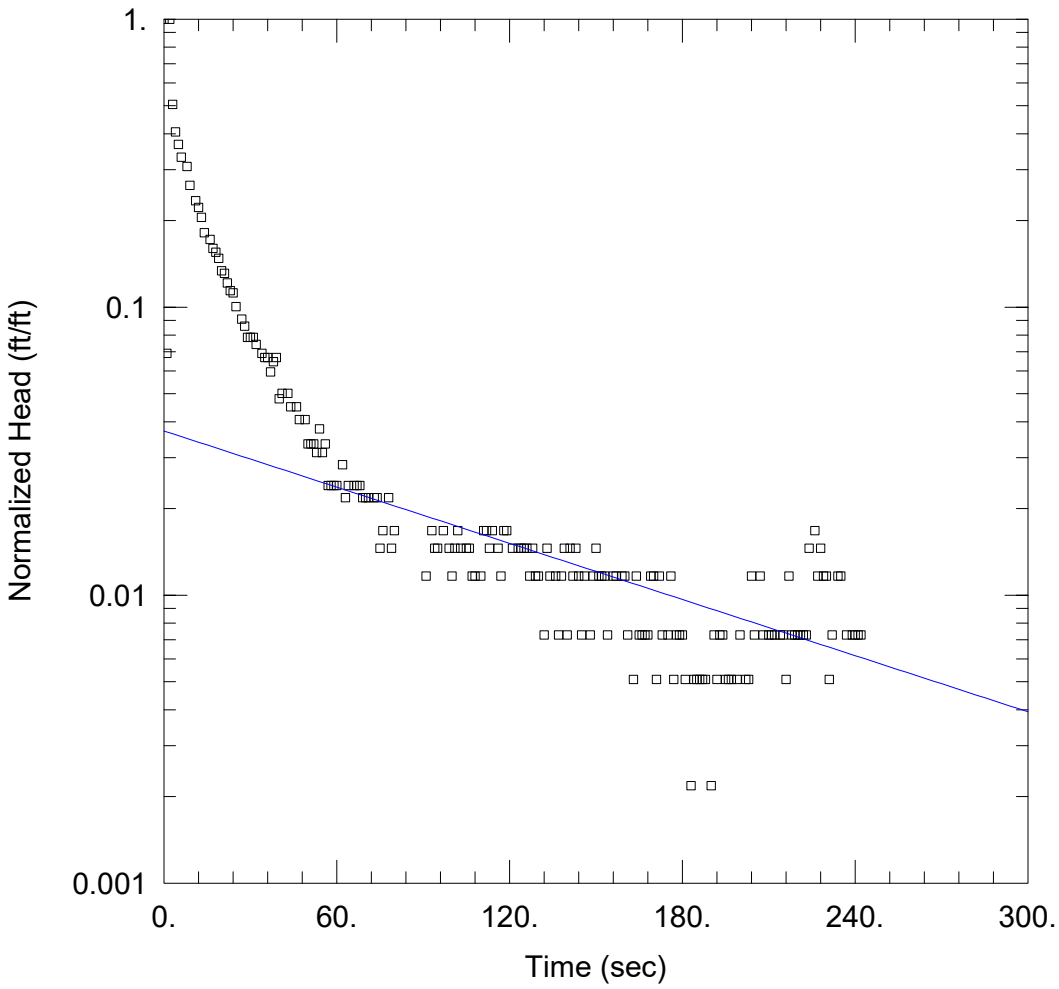
Initial Displacement: 1.375 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 1.643E-5 ft/sec y0 = 0.05751 ft

MW-7 - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-7-R4-H_100924.aqt
Date: 03/03/25 Time: 14:35:25

AQUIFER DATA

Saturated Thickness: 6.56 ft Anisotropy Ratio (Kz/Kr): 0.1

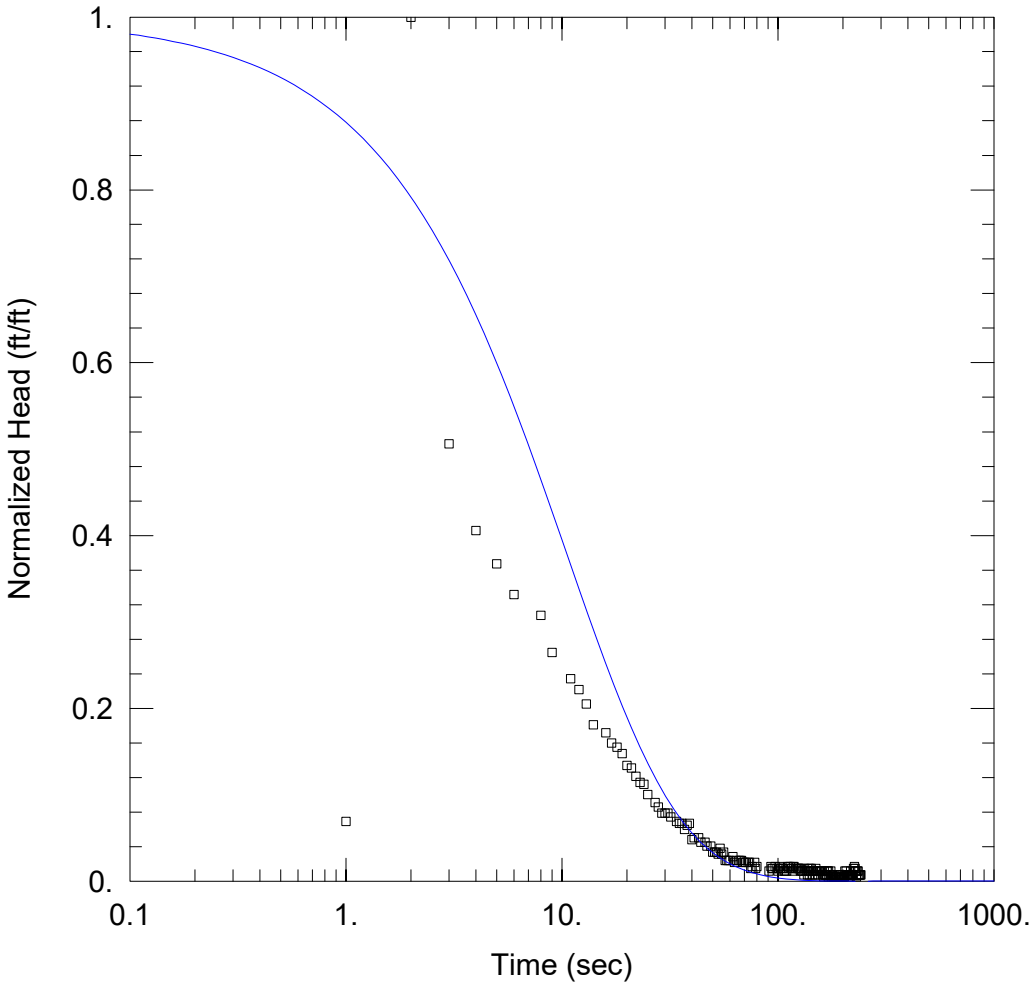
WELL DATA (MW-7)

Initial Displacement: 1.375 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 2.075E-5 ft/sec
y0 = 0.05108 ft

MW-7 - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-7-R4-KGS_100924.aqt
Date: 03/03/25 Time: 14:36:23

AQUIFER DATA

Saturated Thickness: 6.56 ft

WELL DATA (MW-7)

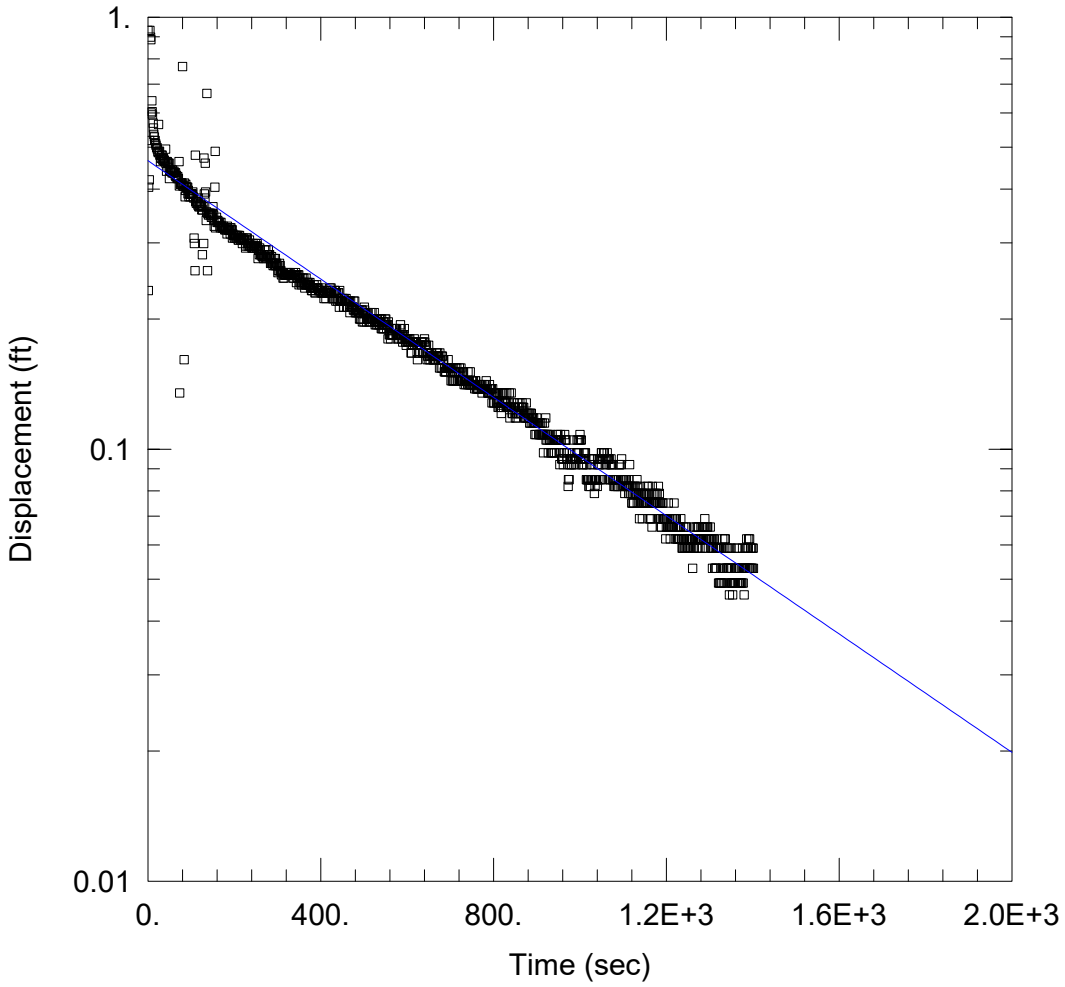
Initial Displacement: 1.375 ft
Total Well Penetration Depth: 12.75 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.56 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.000388 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-BR_091224.aqt
Date: 03/04/25 Time: 09:31:45

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

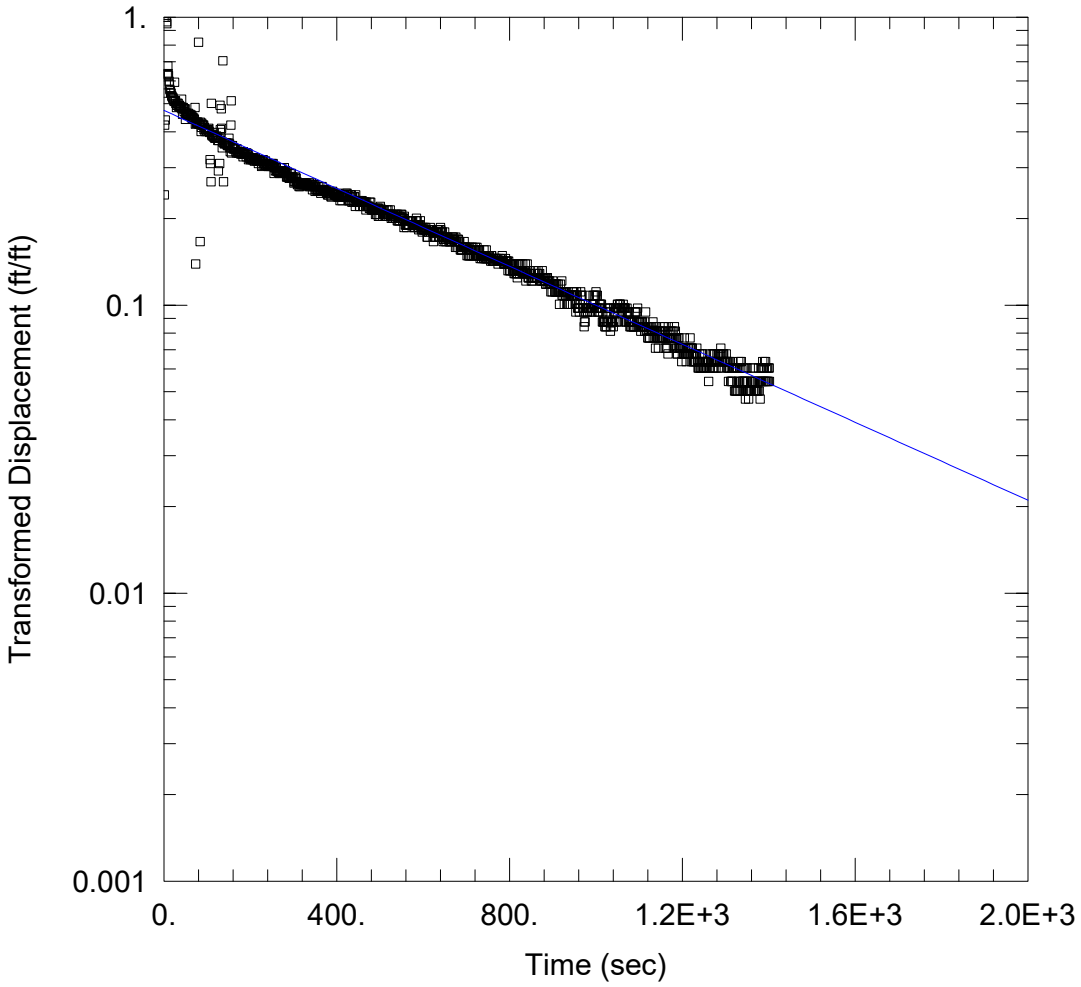
Initial Displacement: 0.932 ft Static Water Column Height: 9.5 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.203E-6 ft/sec y0 = 0.465 ft

MW-8A - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-D_091224.aqt
Date: 03/04/25 Time: 09:30:50

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

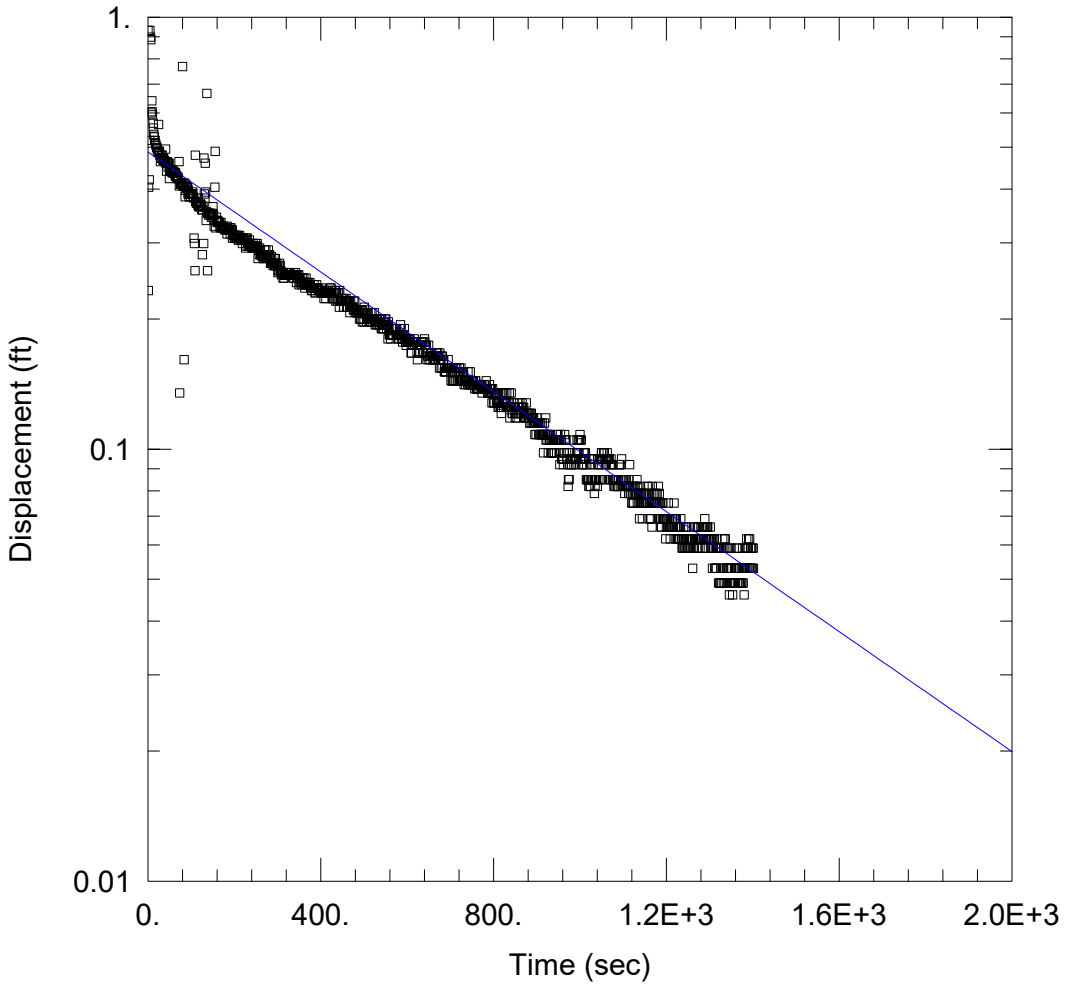
Initial Displacement: 0.932 ft Static Water Column Height: 9.5 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 2.45E-6 ft/sec y0 = 0.4529 ft

MW-8A - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-H_091224.aqt
Date: 03/04/25 Time: 09:30:36

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

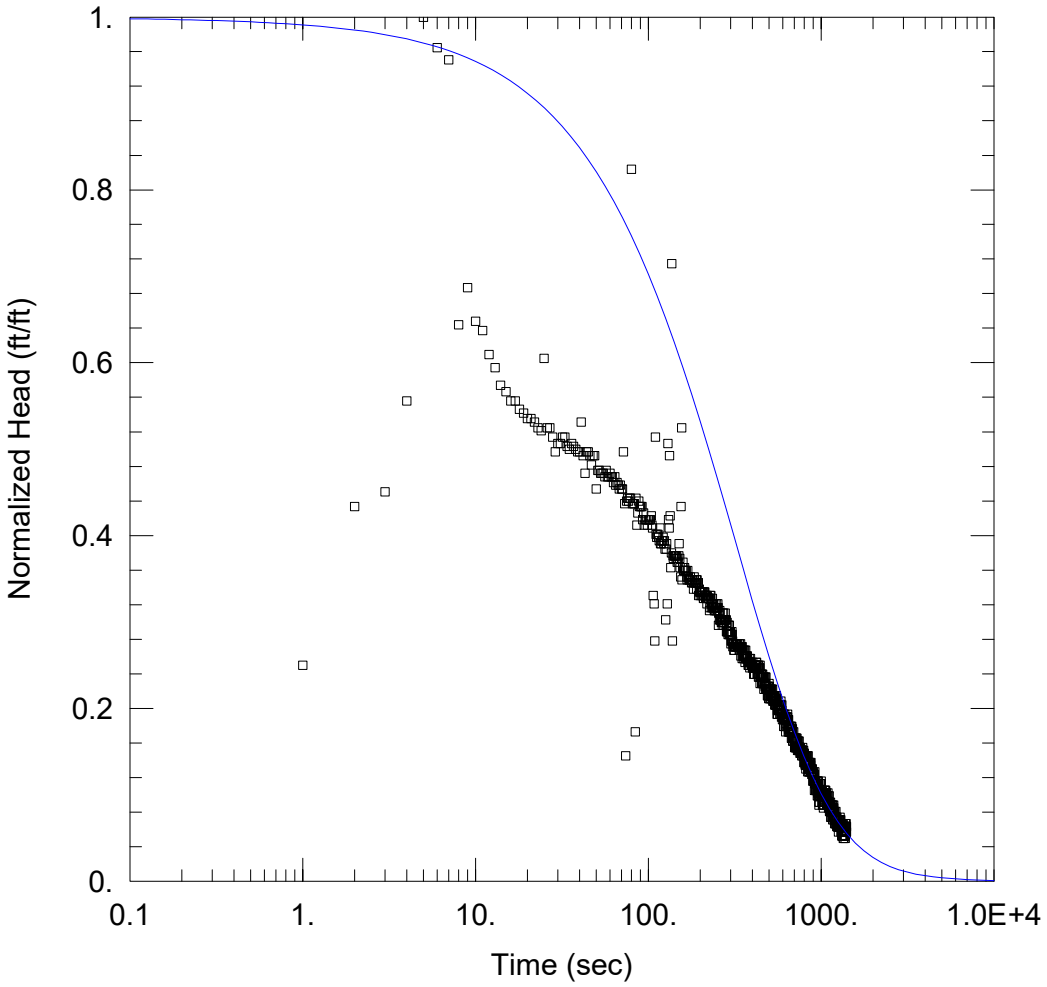
Initial Displacement: 0.932 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 3.058E-6 ft/sec y0 = 0.4872 ft

MW-8A - Falling Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-KGS_091224.aqt
Date: 03/04/25 Time: 09:32:37

AQUIFER DATA

Saturated Thickness: 9.5 ft

WELL DATA (MW-8A)

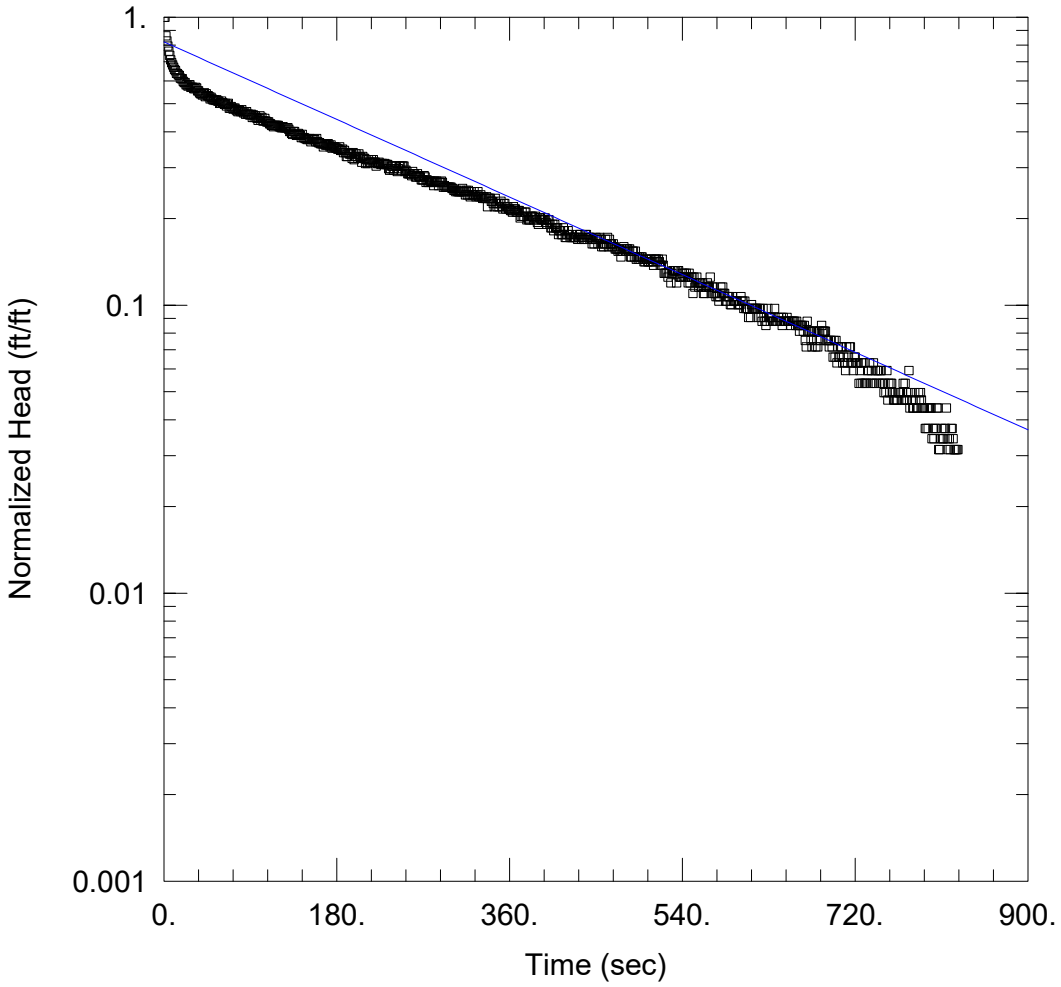
Initial Displacement: 0.932 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 7.505E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.000105 ft^{-1}

MW-8A - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-BR_091224.aqt
Date: 03/04/25 Time: 09:27:11

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

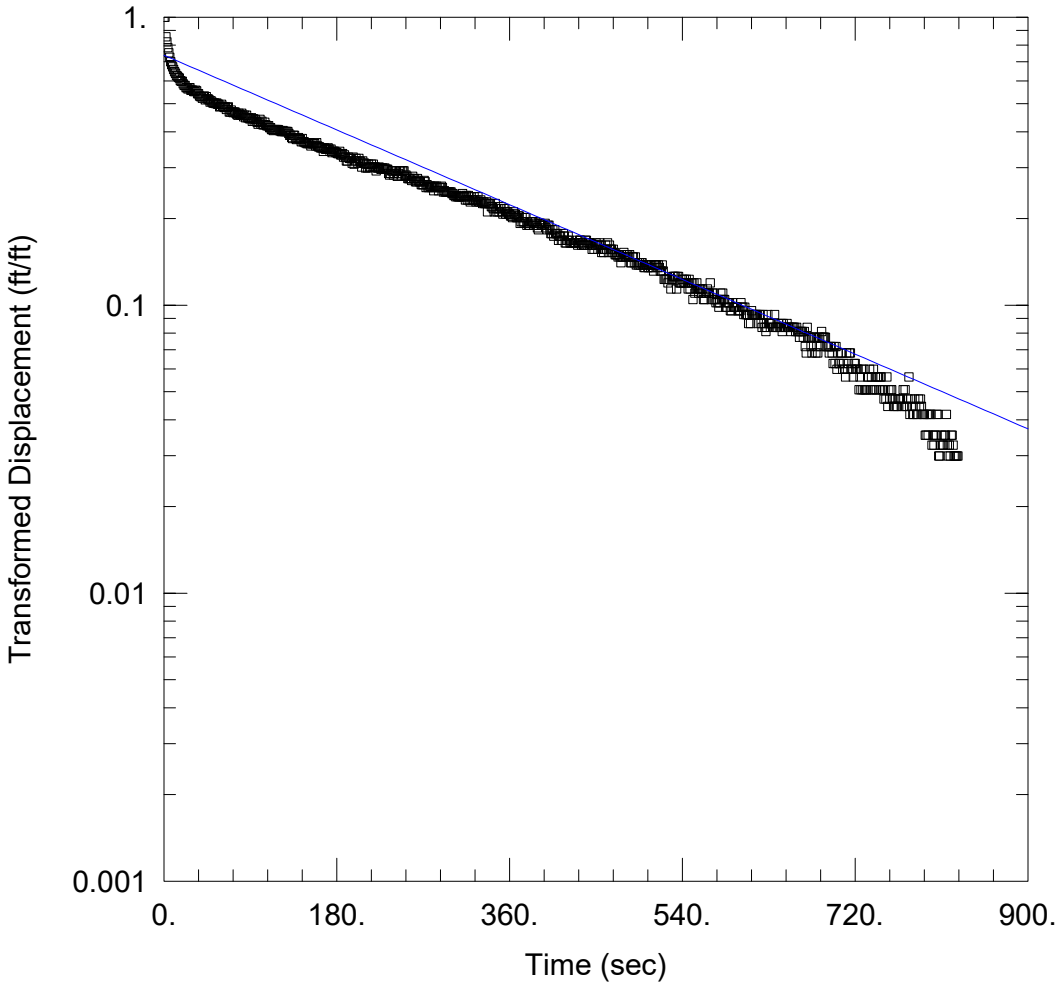
Initial Displacement: 1.047 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 4.816E-6 ft/sec
y0 = 0.8589 ft

MW-8A - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-D_091224.aqt
Date: 03/04/25 Time: 09:24:38

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

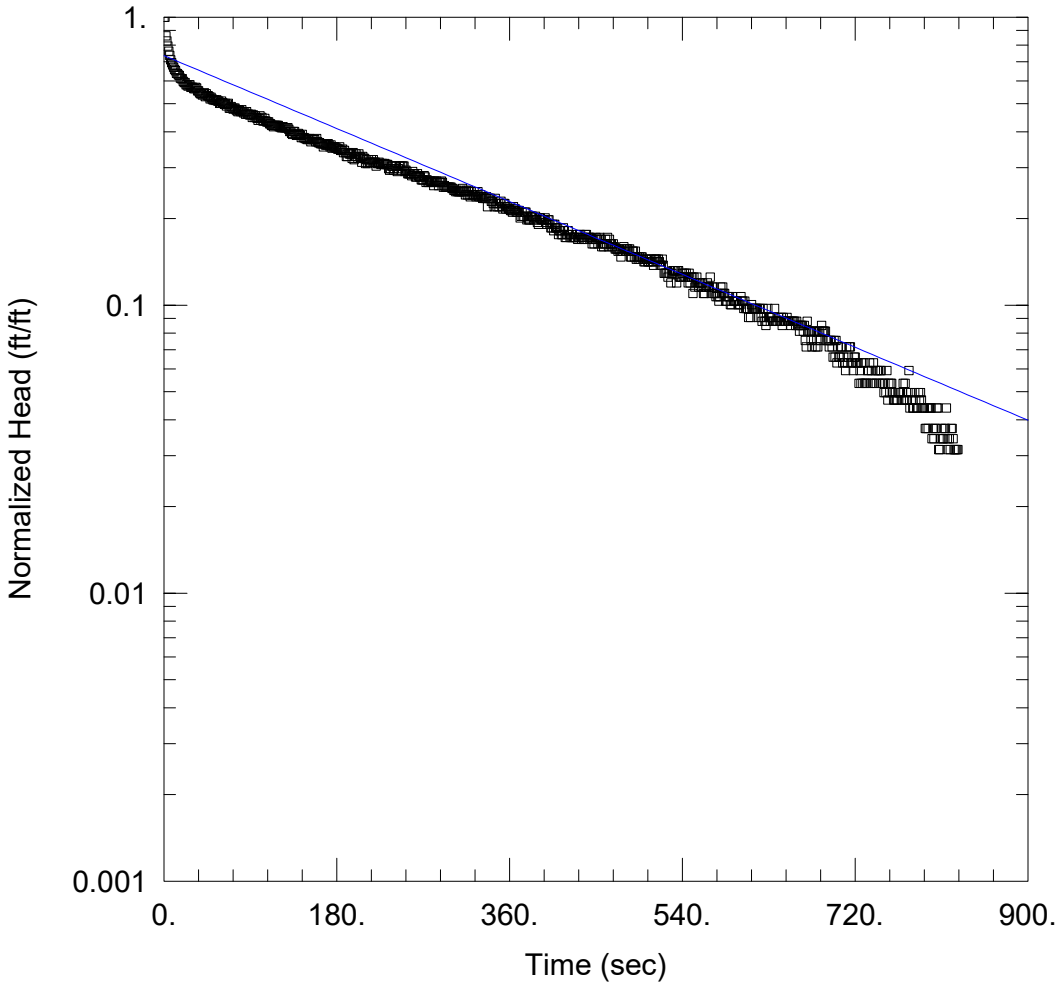
WELL DATA (MW-8A)

Initial Displacement: 1.047 ft Static Water Column Height: 9.5 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan
K = 5.22E-6 ft/sec y0 = 0.7823 ft

MW-8A - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-H_091224.aqt
Date: 03/04/25 Time: 09:26:44

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

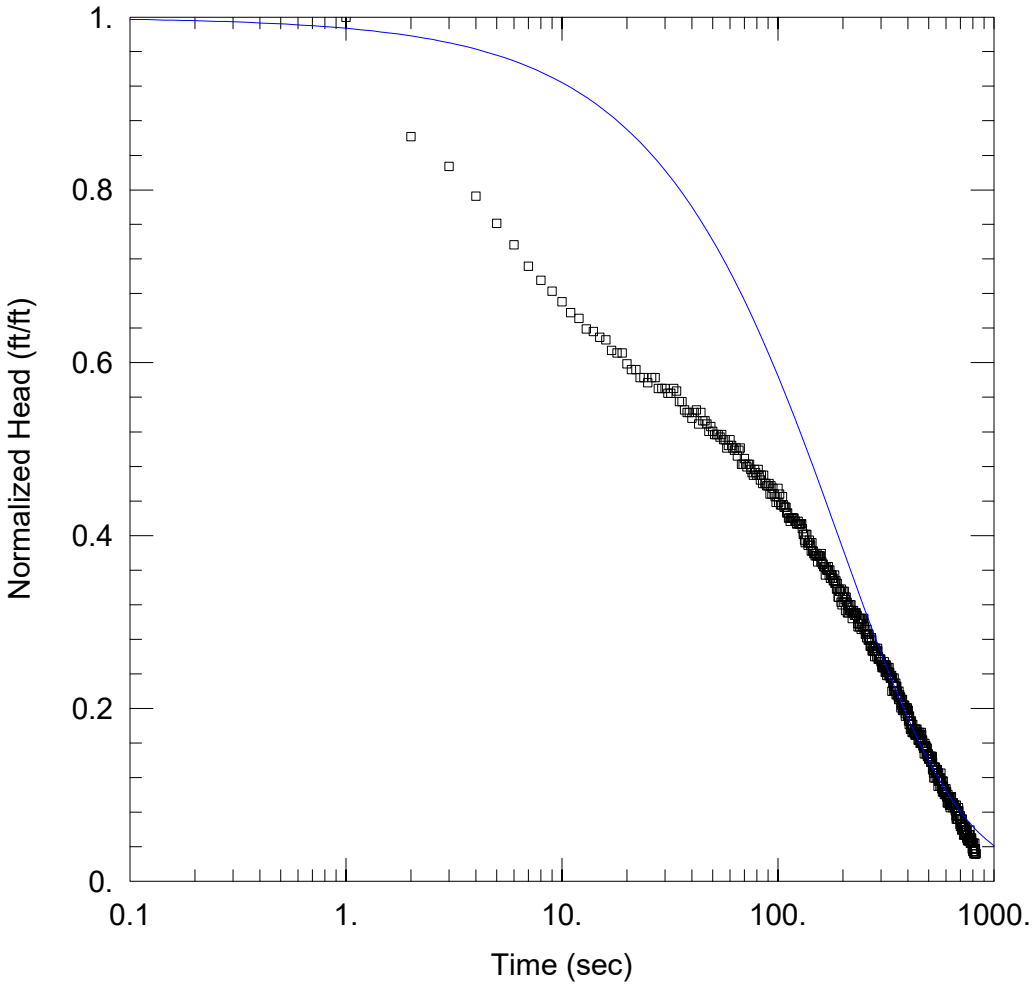
Initial Displacement: 1.047 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 6.2E-6 ft/sec y0 = 0.7697 ft

MW-8A - Rising Head Test 1



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-KGS_091224.aqt
Date: 03/04/25 Time: 09:29:35

AQUIFER DATA

Saturated Thickness: 9.5 ft

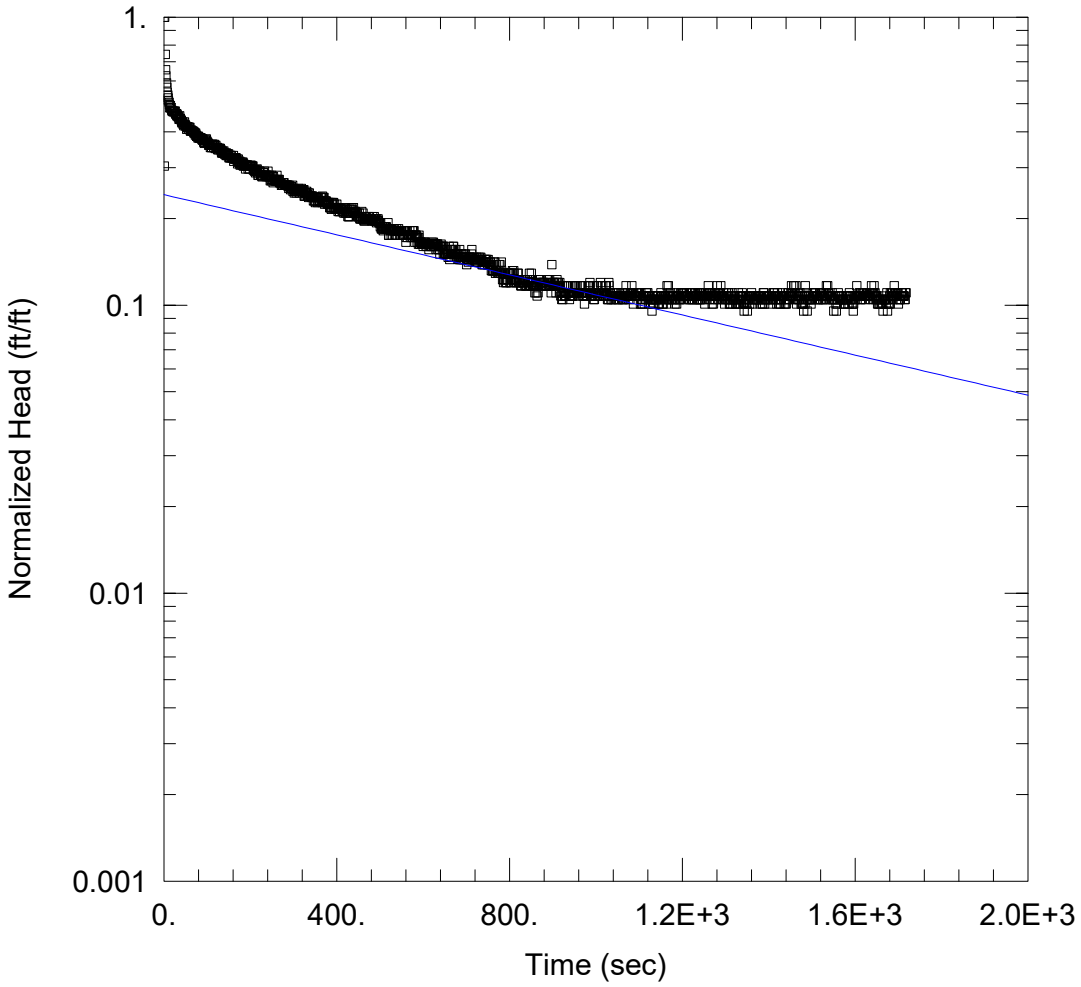
WELL DATA (MW-8A)

Initial Displacement: 1.047 ft
Static Water Column Height: 9.5 ft
Total Well Penetration Depth: 13.25 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model
Kr = 1.234E-5 ft/sec
Ss = 0.000105 ft^{-1}
Kz/Kr = 0.1

MW-8A - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-BR_091224.aqt
Date: 03/04/25 Time: 09:33:05

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

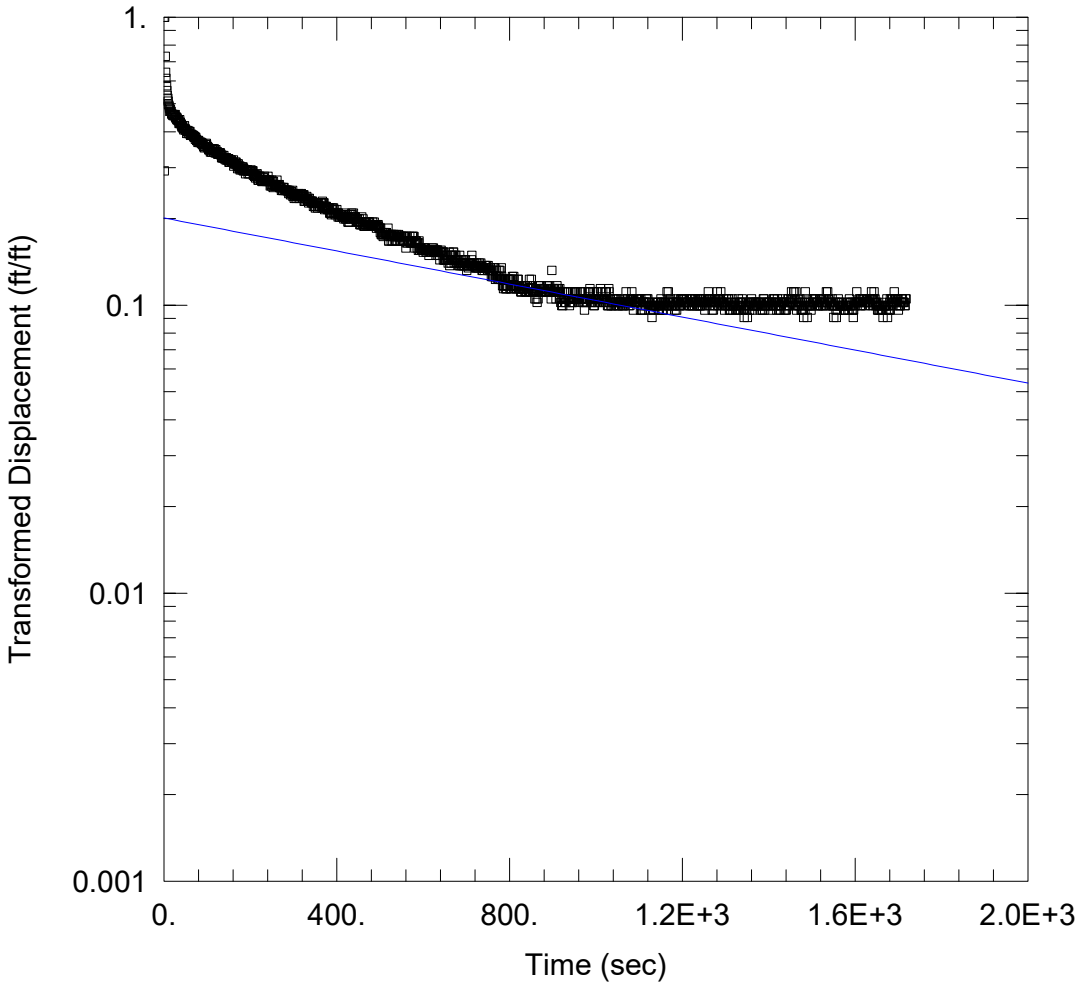
Initial Displacement: 1.07 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.12E-6 ft/sec y0 = 0.2587 ft

MW-8A - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-D_091224.aqt
Date: 03/04/25 Time: 09:33:53

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

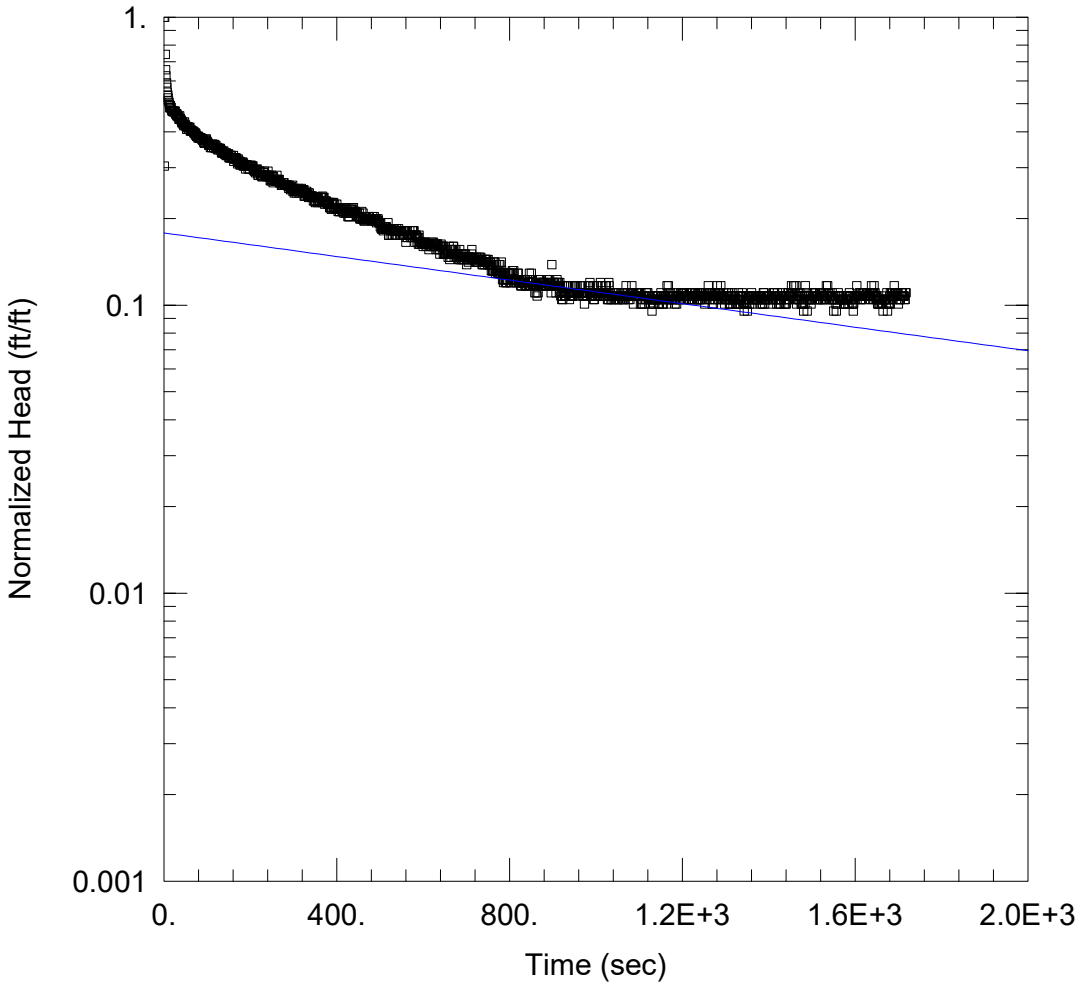
Initial Displacement: 1.07 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 1.038E-6 ft/sec y0 = 0.2243 ft

MW-8A - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-H_091224.aqt
Date: 03/04/25 Time: 09:33:39

AQUIFER DATA

Saturated Thickness: 9.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

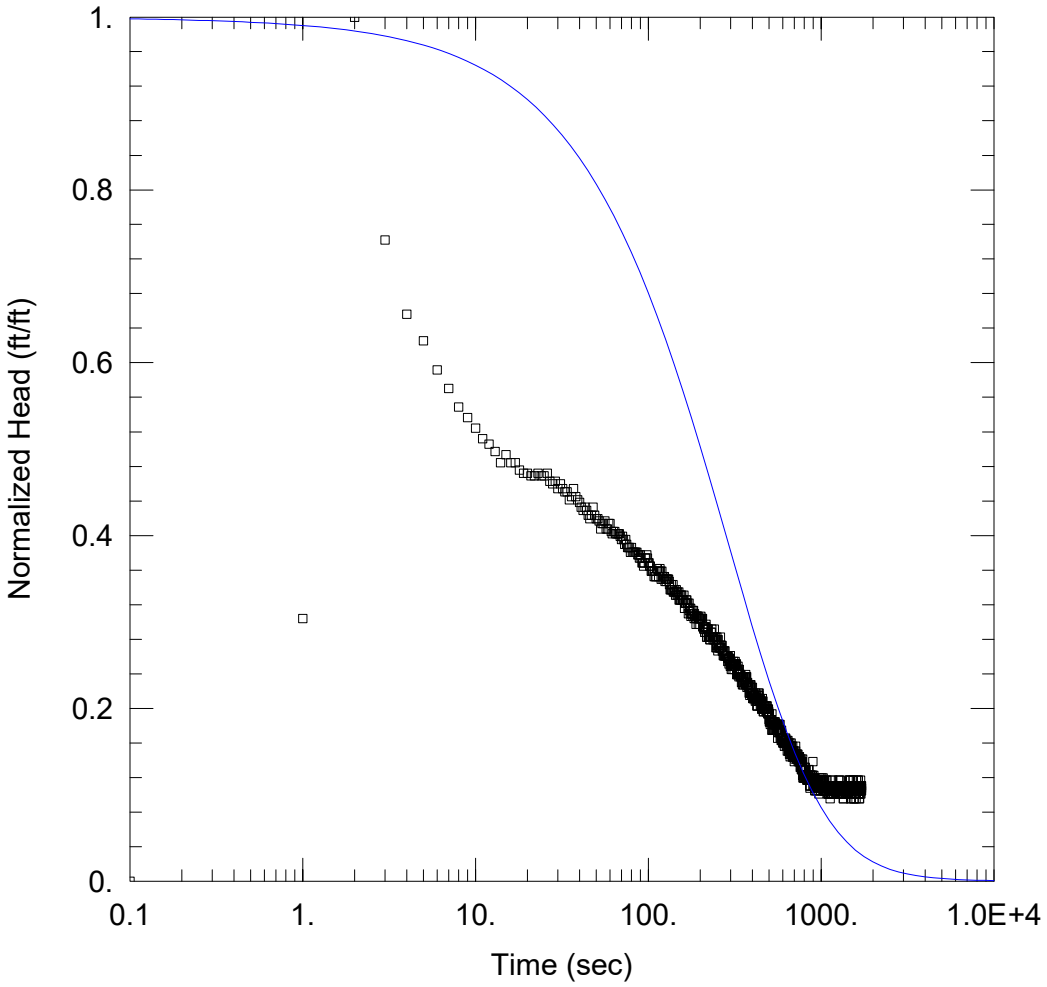
Initial Displacement: 1.07 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 9.017E-7 ft/sec y0 = 0.1906 ft

MW-8A - Falling Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-KGS_091224.aqt
Date: 03/04/25 Time: 09:33:23

AQUIFER DATA

Saturated Thickness: 9.5 ft

WELL DATA (MW-8A)

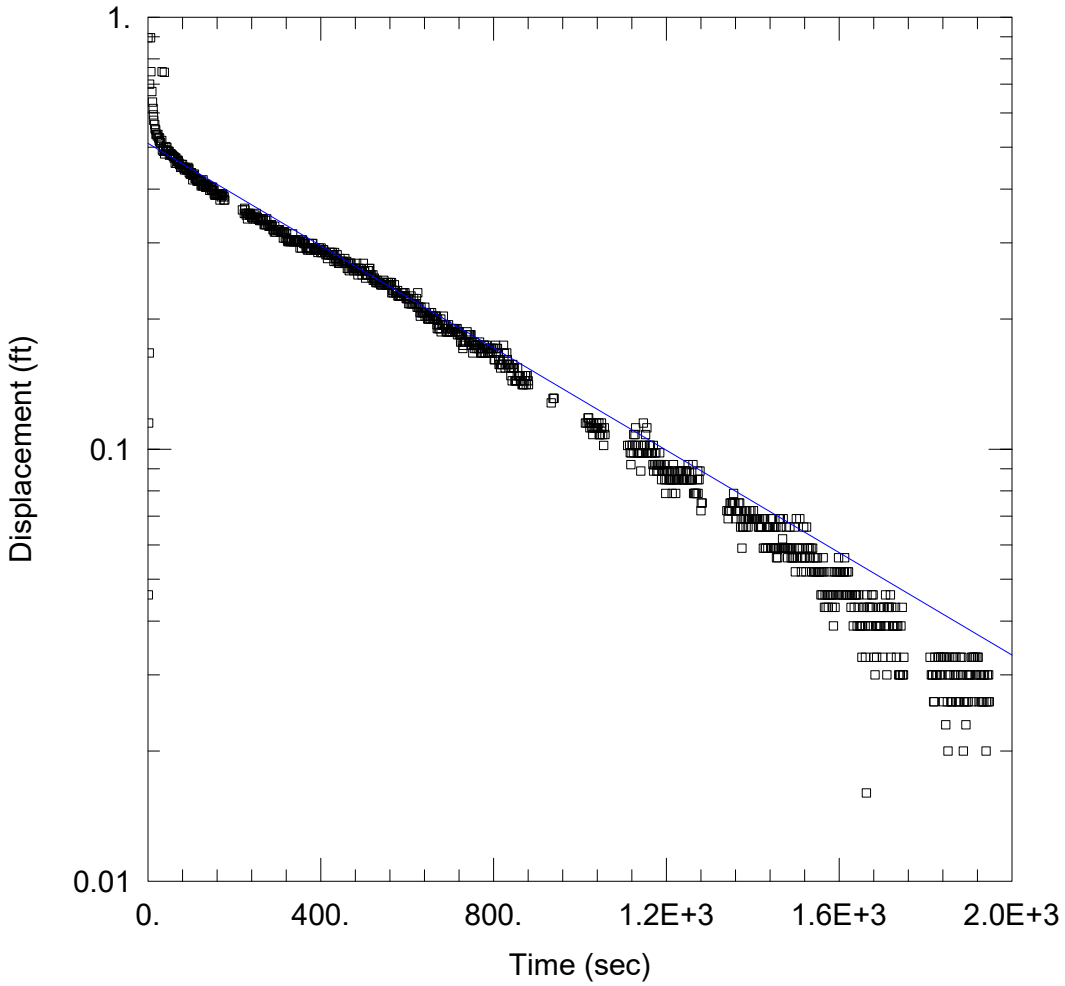
Initial Displacement: 1.07 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.5 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 8.309E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.000105 ft^{-1}

MW-8A - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-B-R_100824.aqt
Date: 03/04/25 Time: 13:07:52

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

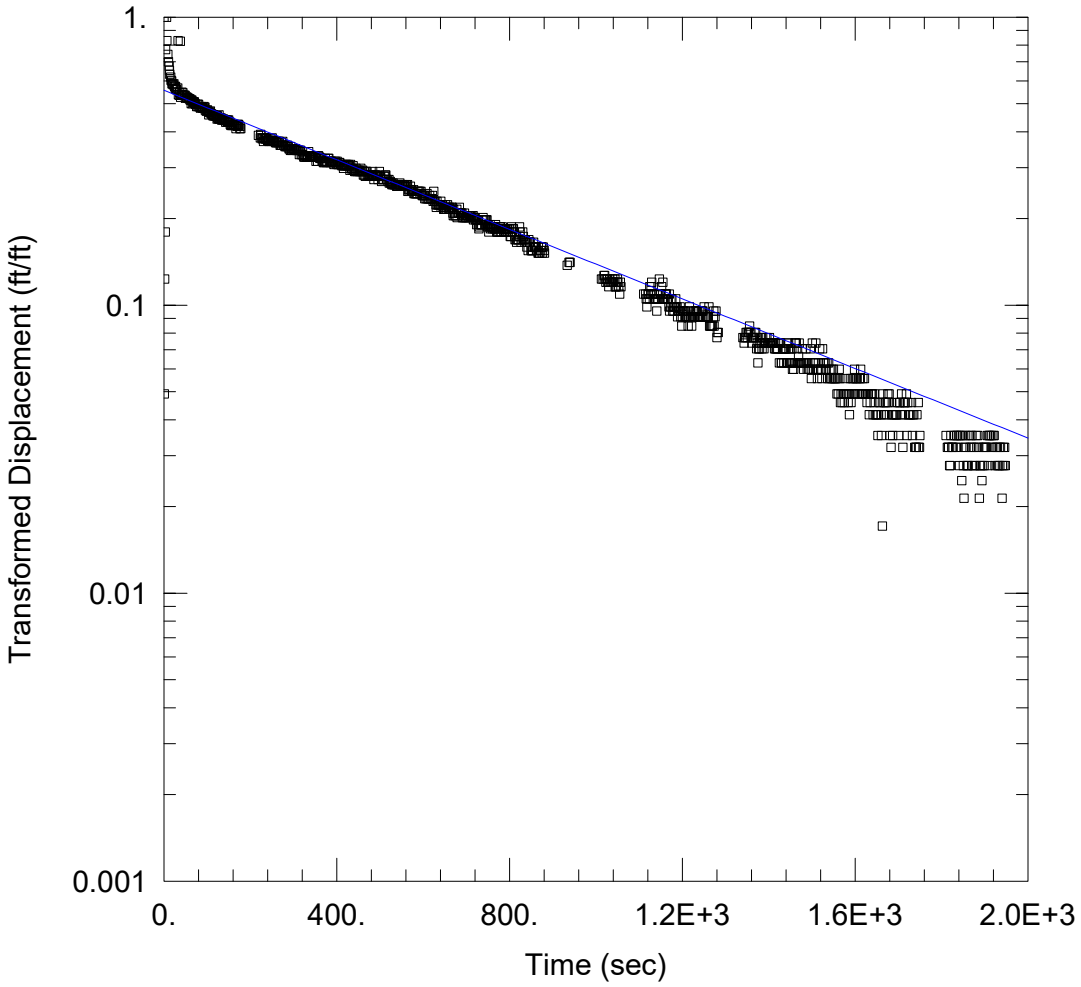
WELL DATA (MW-8A)

Initial Displacement: 0.896 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 1.917E-6 ft/sec y0 = 0.5104 ft

MW-8A - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-Dagan_100824.aqt
Date: 03/04/25 Time: 13:07:38

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

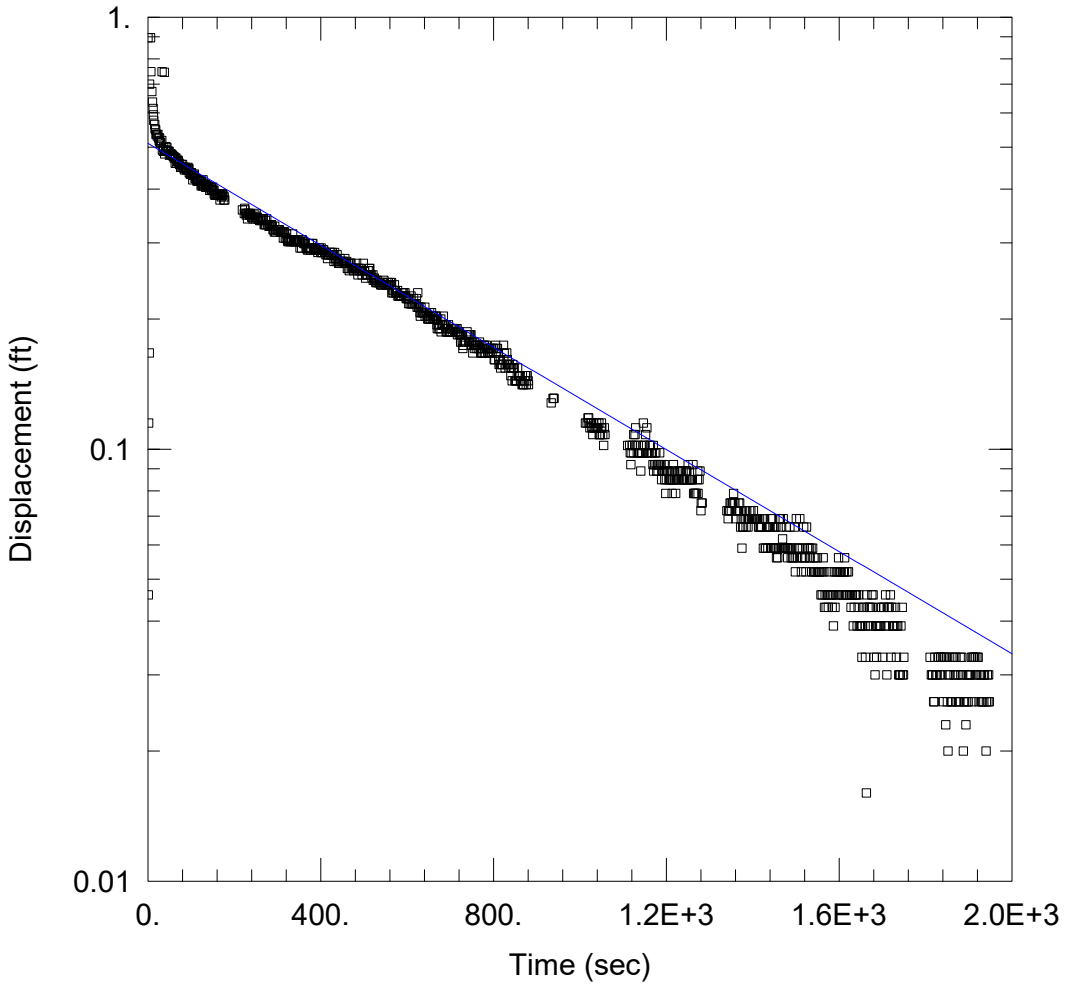
WELL DATA (MW-8A)

Initial Displacement: 0.896 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan
K = 2.198E-6 ft/sec
y0 = 0.5092 ft

MW-8A - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-Horslev_100824.aqt
Date: 03/04/25 Time: 13:07:23

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

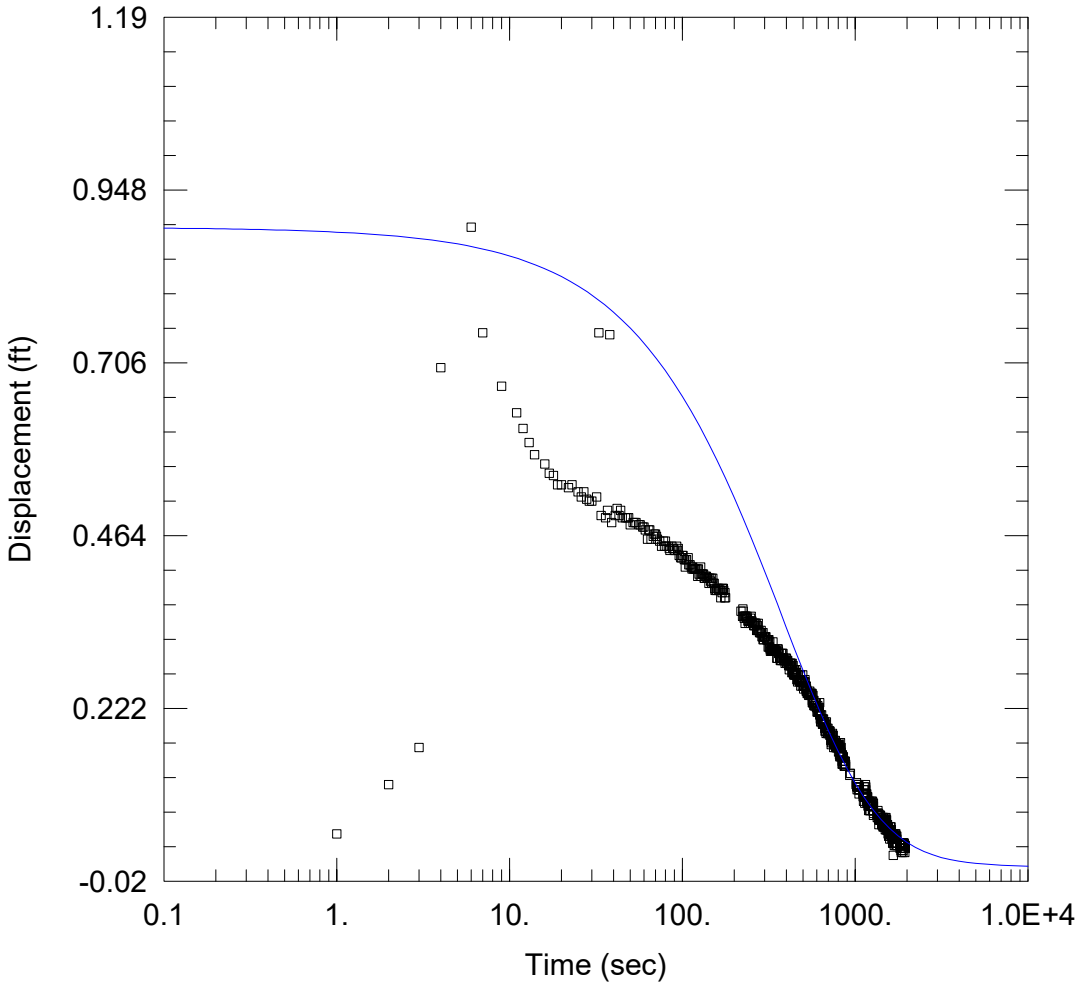
WELL DATA (MW-8A)

Initial Displacement: 0.896 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 2.62E-6 ft/sec y0 = 0.5104 ft

MW-8A - Falling Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-KGS_100824.aqt
Date: 03/04/25 Time: 13:07:09

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

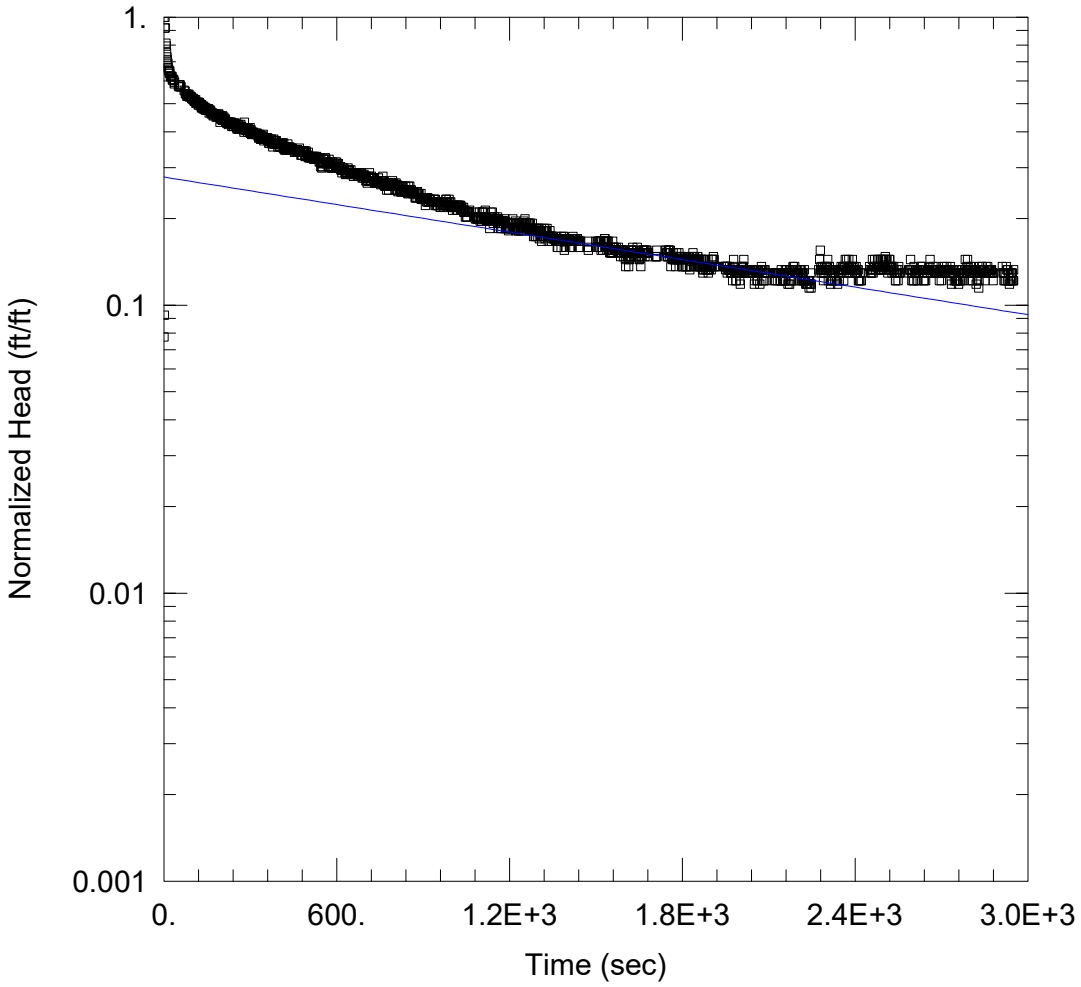
Initial Displacement: 0.896 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.5552 ft/day
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-BR_100824.aqt
Date: 03/04/25 Time: 13:11:45

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

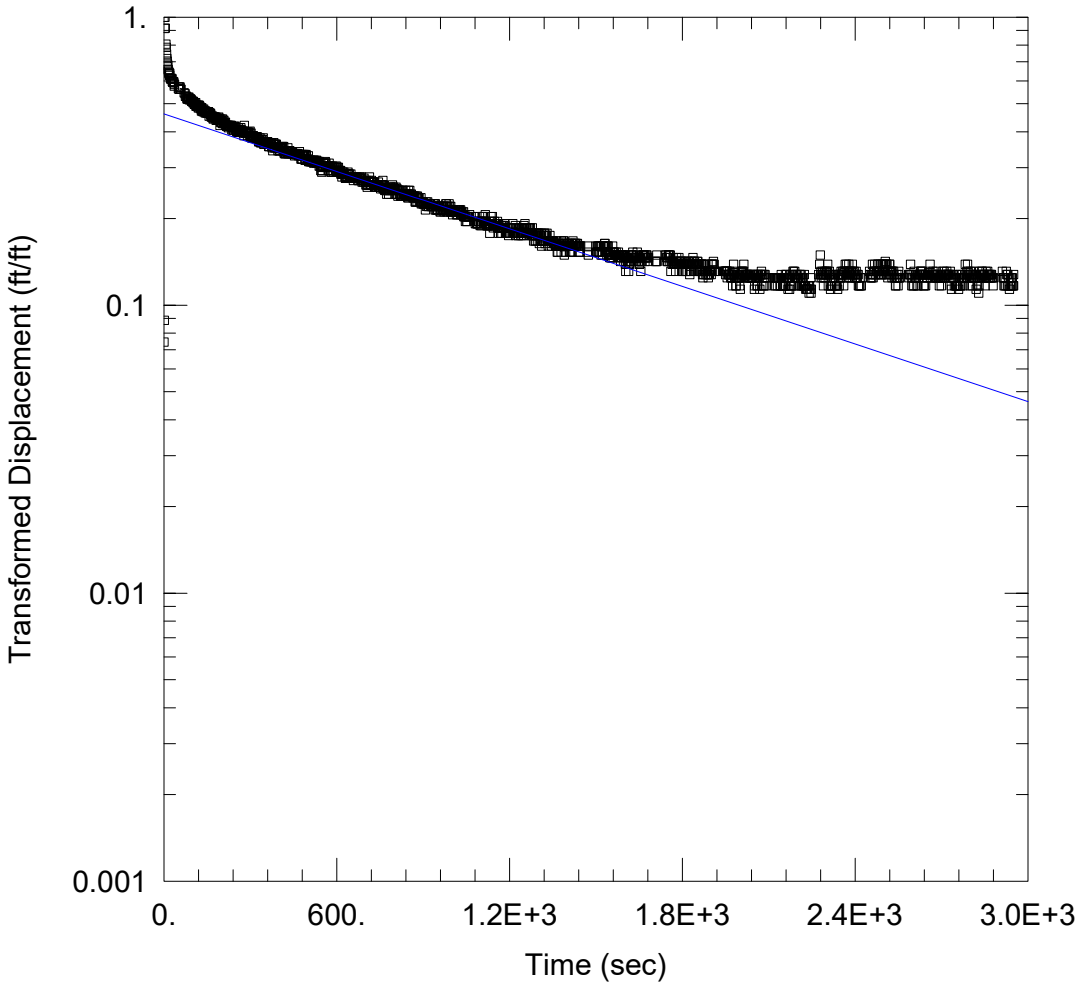
Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 5.156E-7 ft/sec y0 = 0.2475 ft

MW-8A - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-D_100824.aqt
Date: 03/04/25 Time: 13:11:28

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

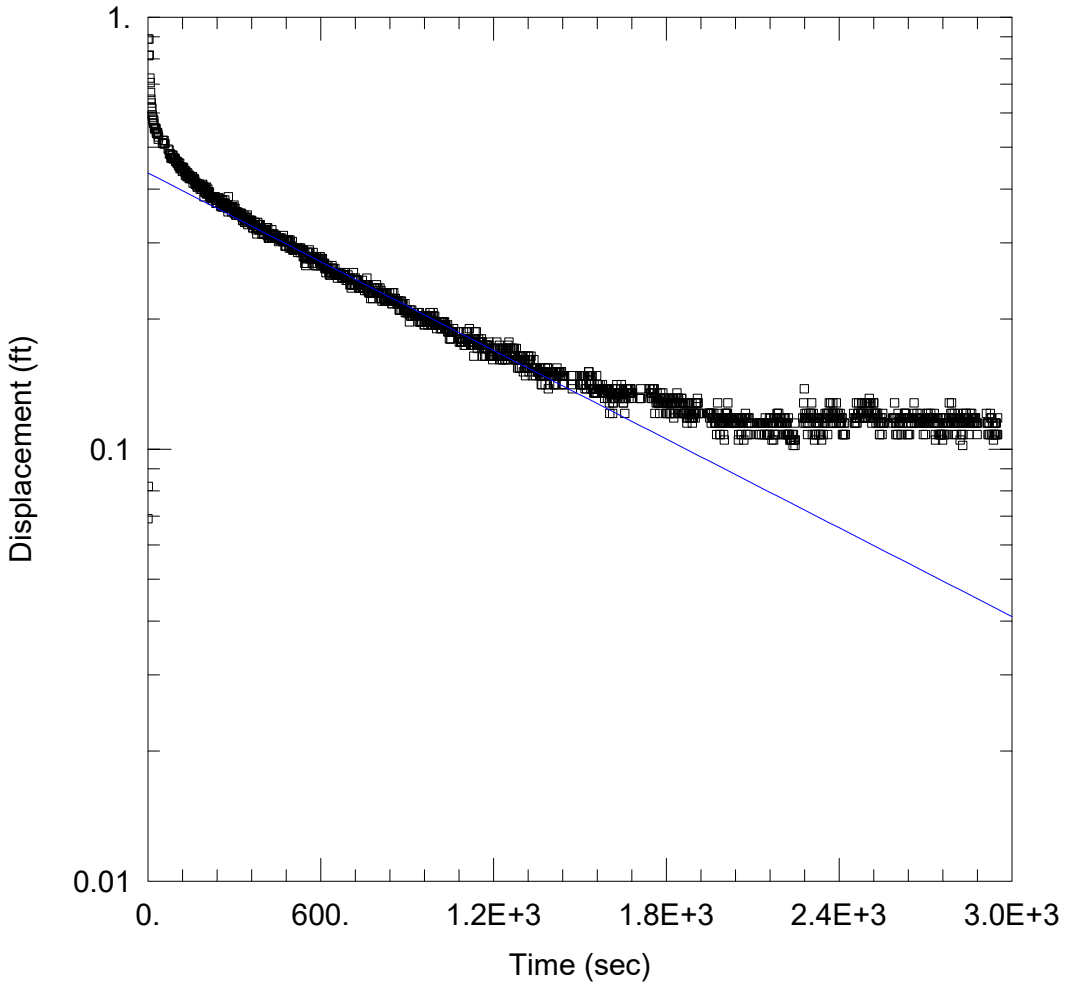
Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 1.213E-6 ft/sec y0 = 0.4204 ft

MW-8A - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-H_100824.aqt
Date: 03/04/25 Time: 13:11:14

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

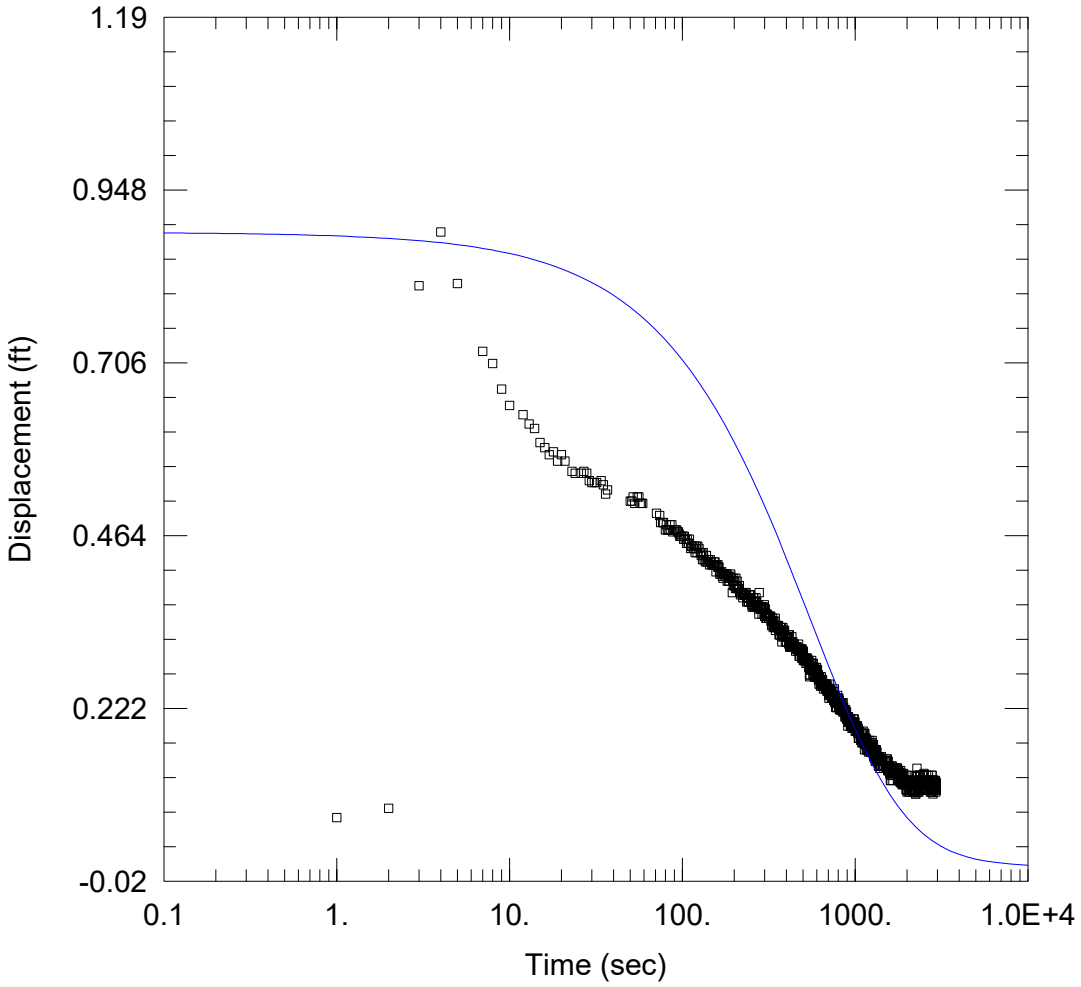
Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 1.518E-6 ft/sec y0 = 0.4358 ft

MW-8A - Falling Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-KGS_100824.aqt
Date: 03/04/25 Time: 13:10:55

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

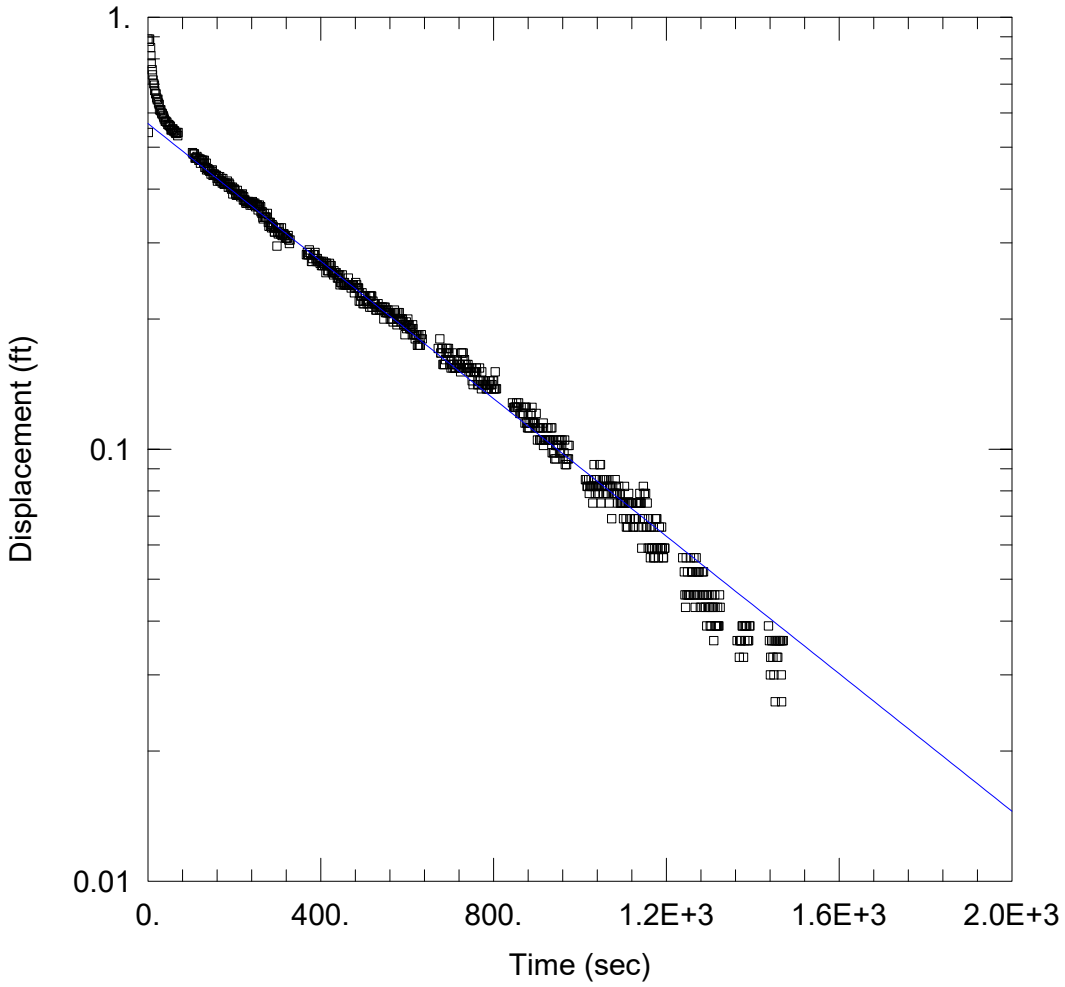
Initial Displacement: 0.889 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 4.425E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-BR_100824.aqt
Date: 03/04/25 Time: 12:57:57

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

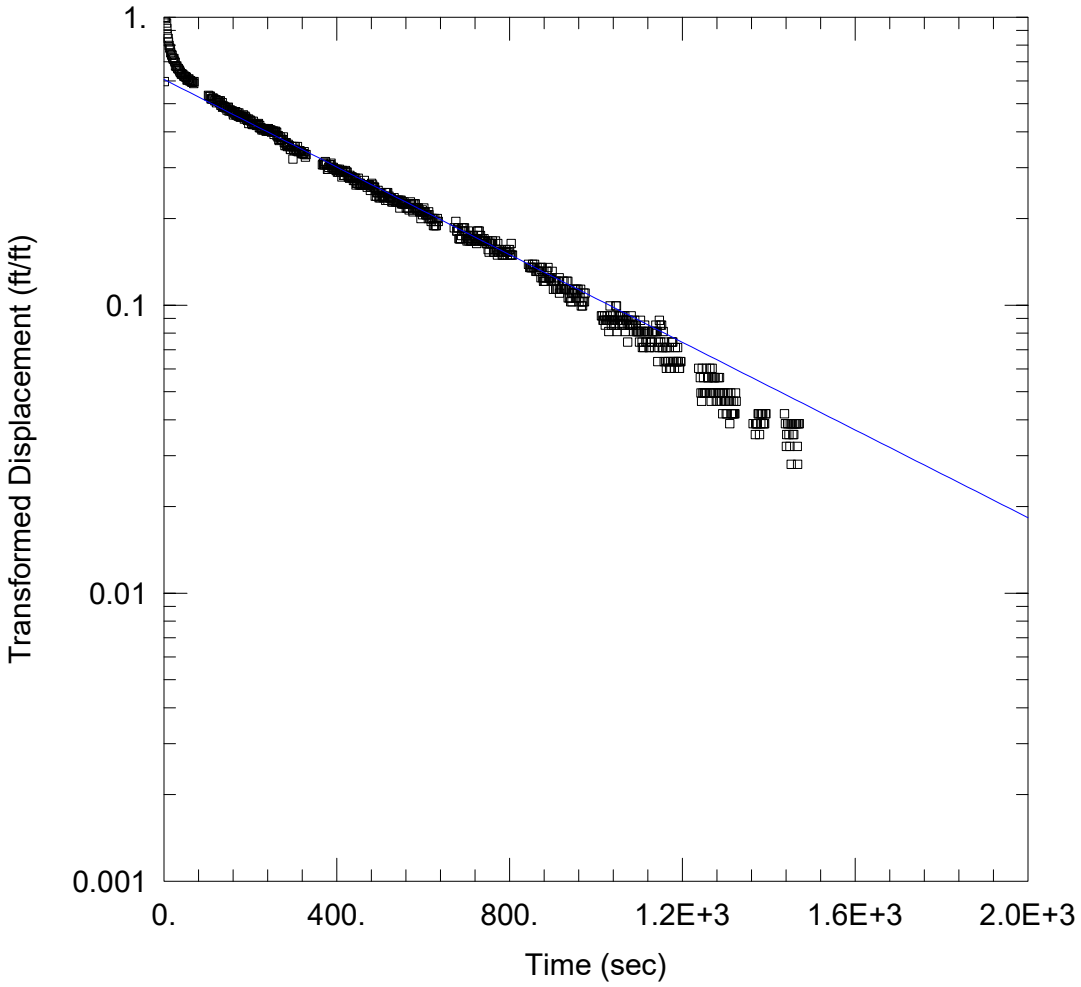
Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.576E-6 ft/sec y0 = 0.5668 ft

MW-8A - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-D_100824.aqt
Date: 03/04/25 Time: 12:59:23

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

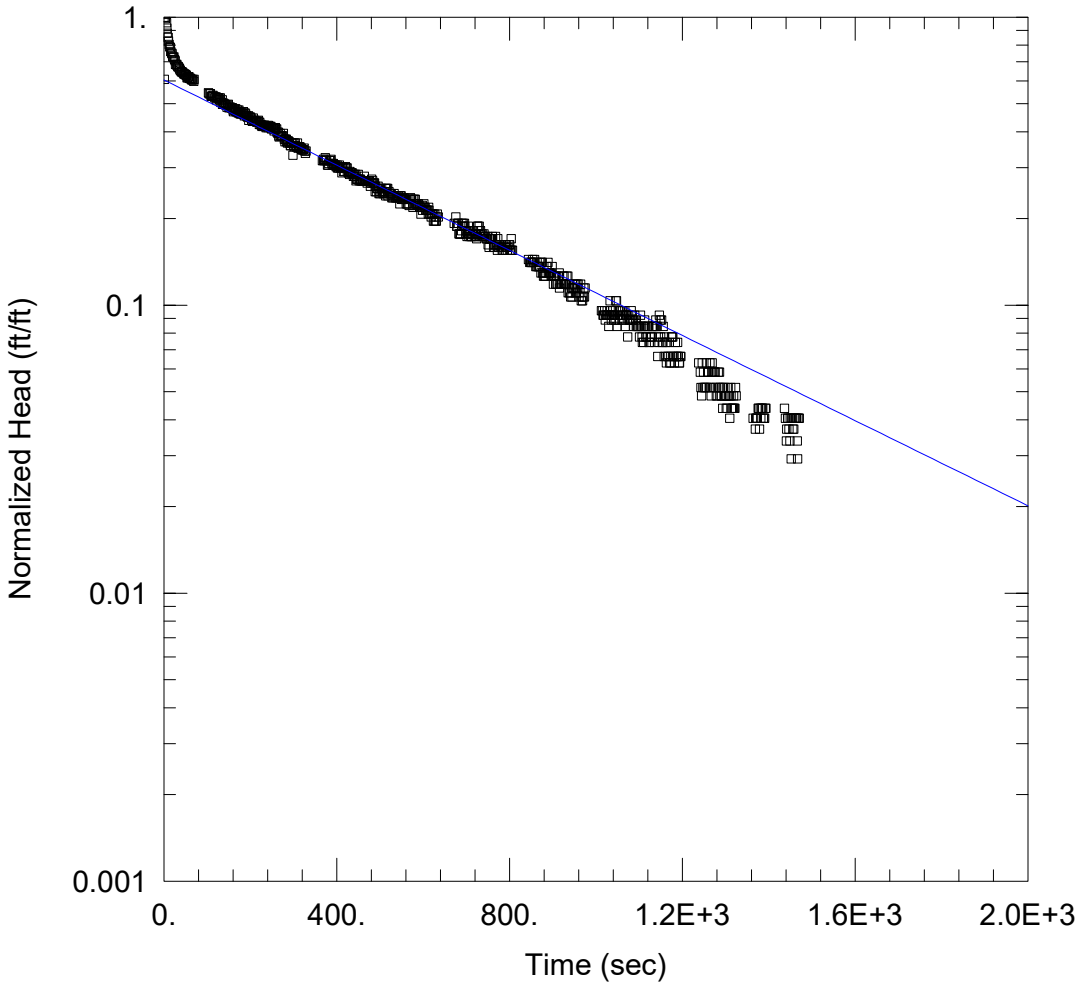
WELL DATA (MW-8A)

Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan
K = 2.77E-6 ft/sec y0 = 0.5498 ft

MW-8A - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-H_100824.aqt
Date: 03/04/25 Time: 12:59:09

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

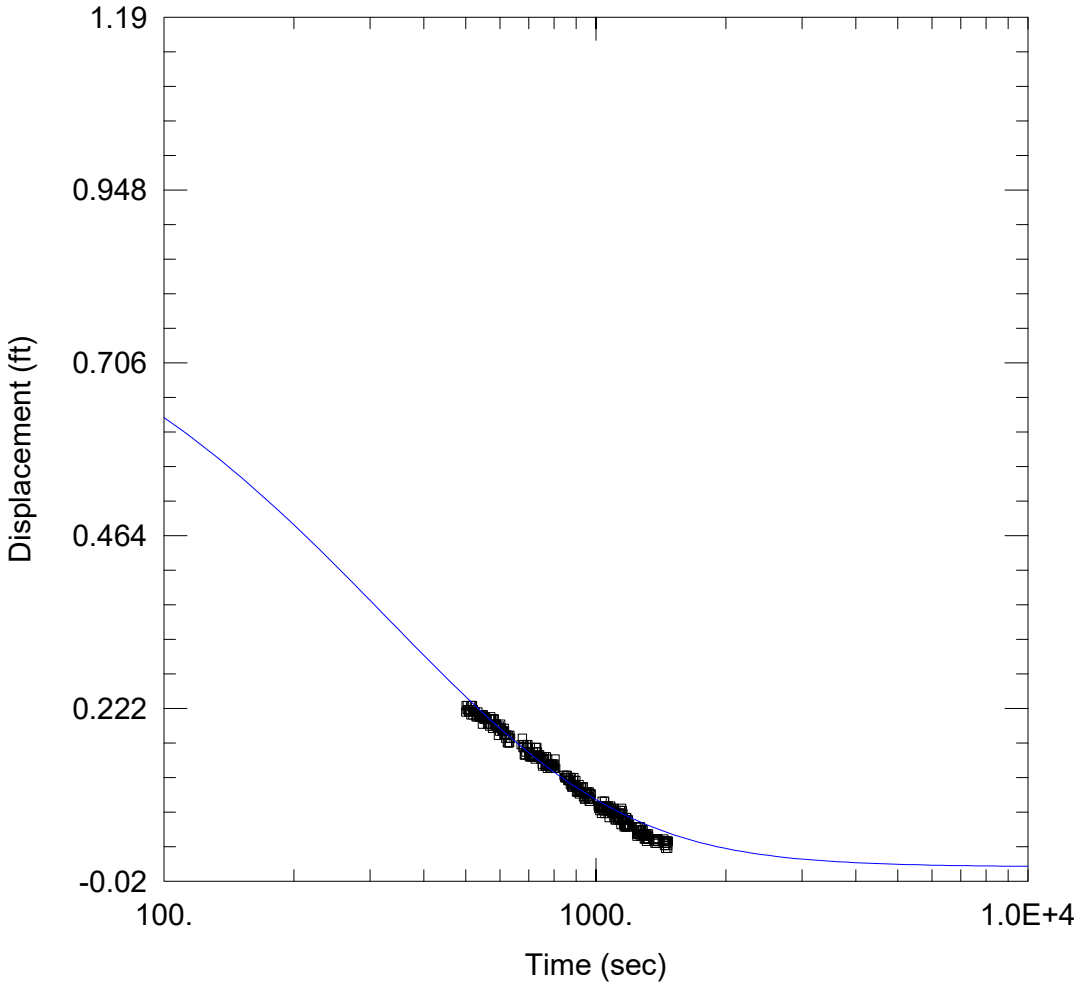
WELL DATA (MW-8A)

Initial Displacement: 0.889 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 3.278E-6 ft/sec y0 = 0.5375 ft

MW-8A - Rising Head Test 2



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-KGS-v2_100824.aqt
Date: 03/04/25 Time: 12:58:41

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

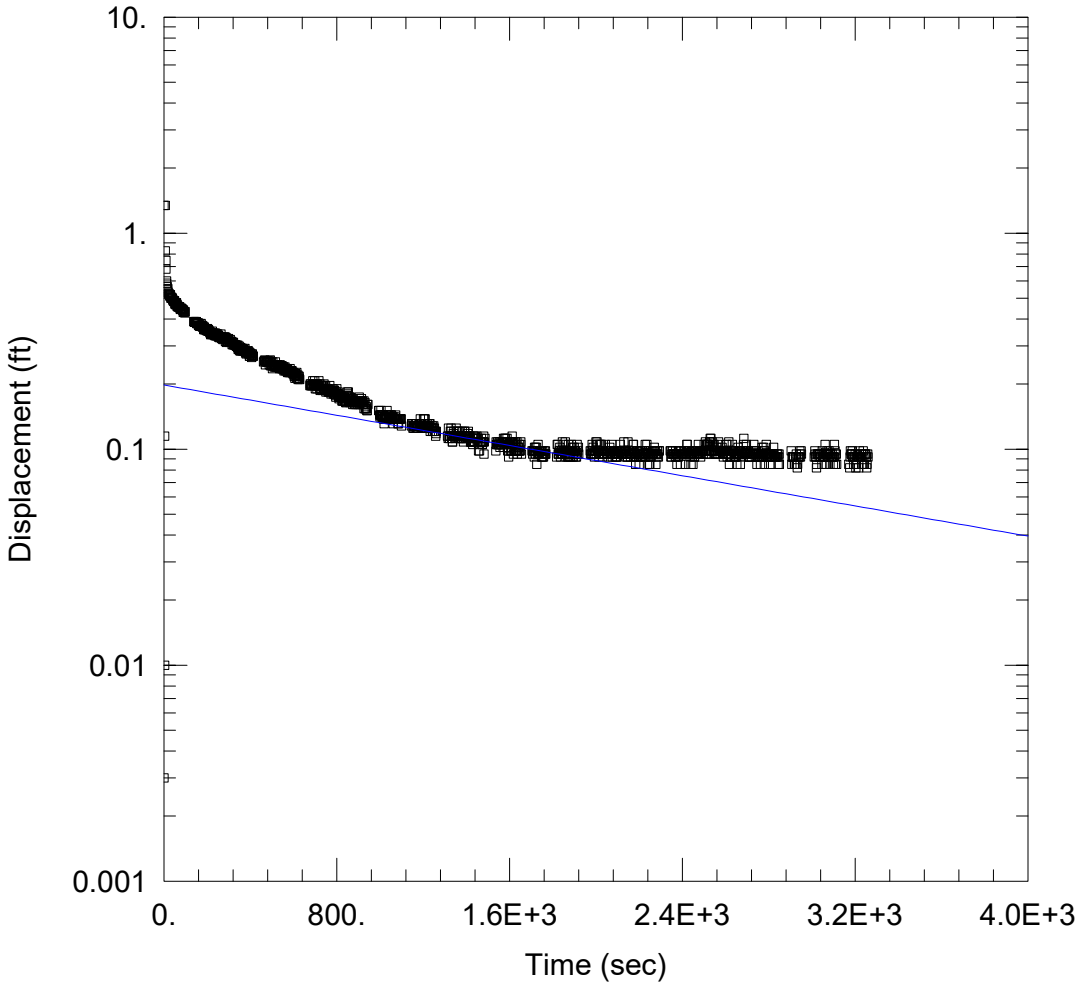
Initial Displacement: 0.889 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 7.381E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Falling Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-BR_100824.aqt
Date: 03/04/25 Time: 13:13:03

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

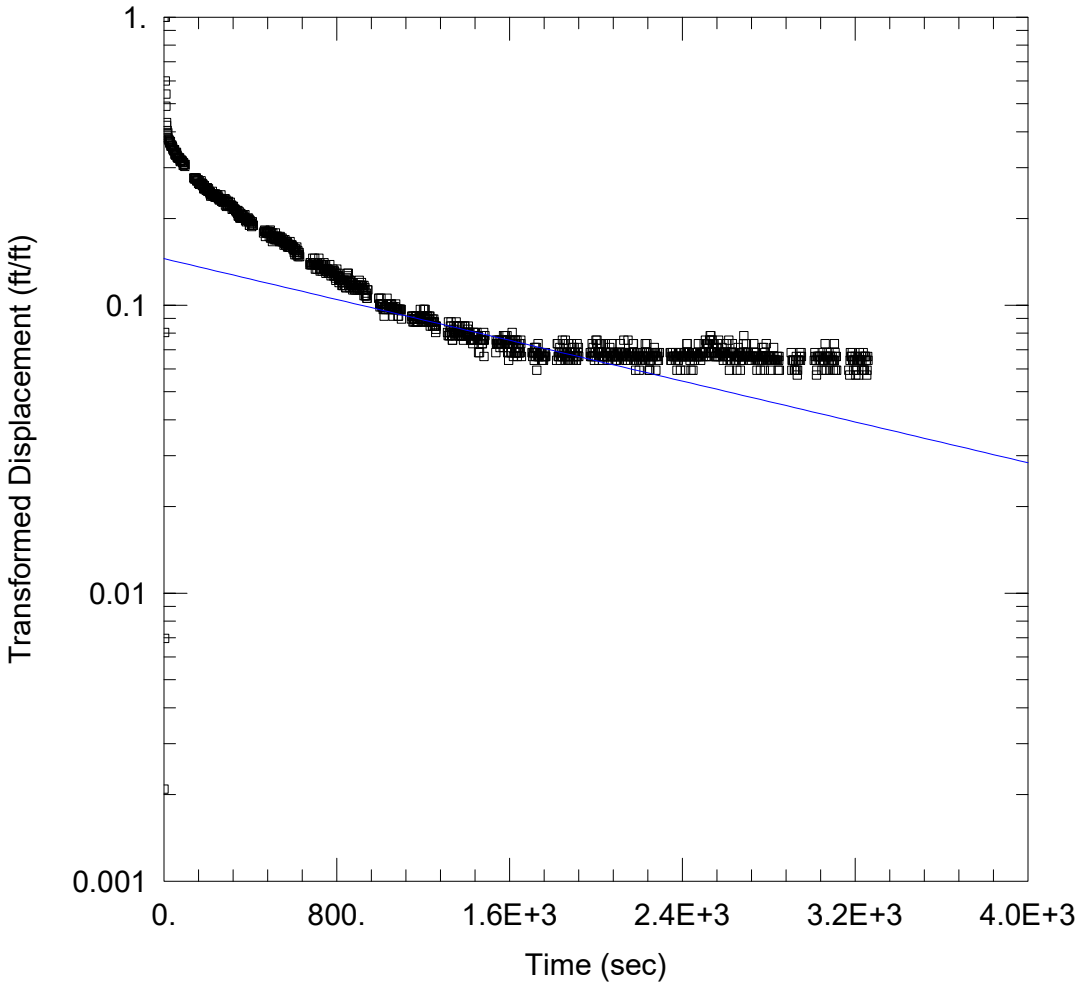
Initial Displacement: 1.342 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 5.662E-7 ft/sec y0 = 0.198 ft

MW-8A - Falling Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-D_100824.aqt
Date: 03/04/25 Time: 13:12:44

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

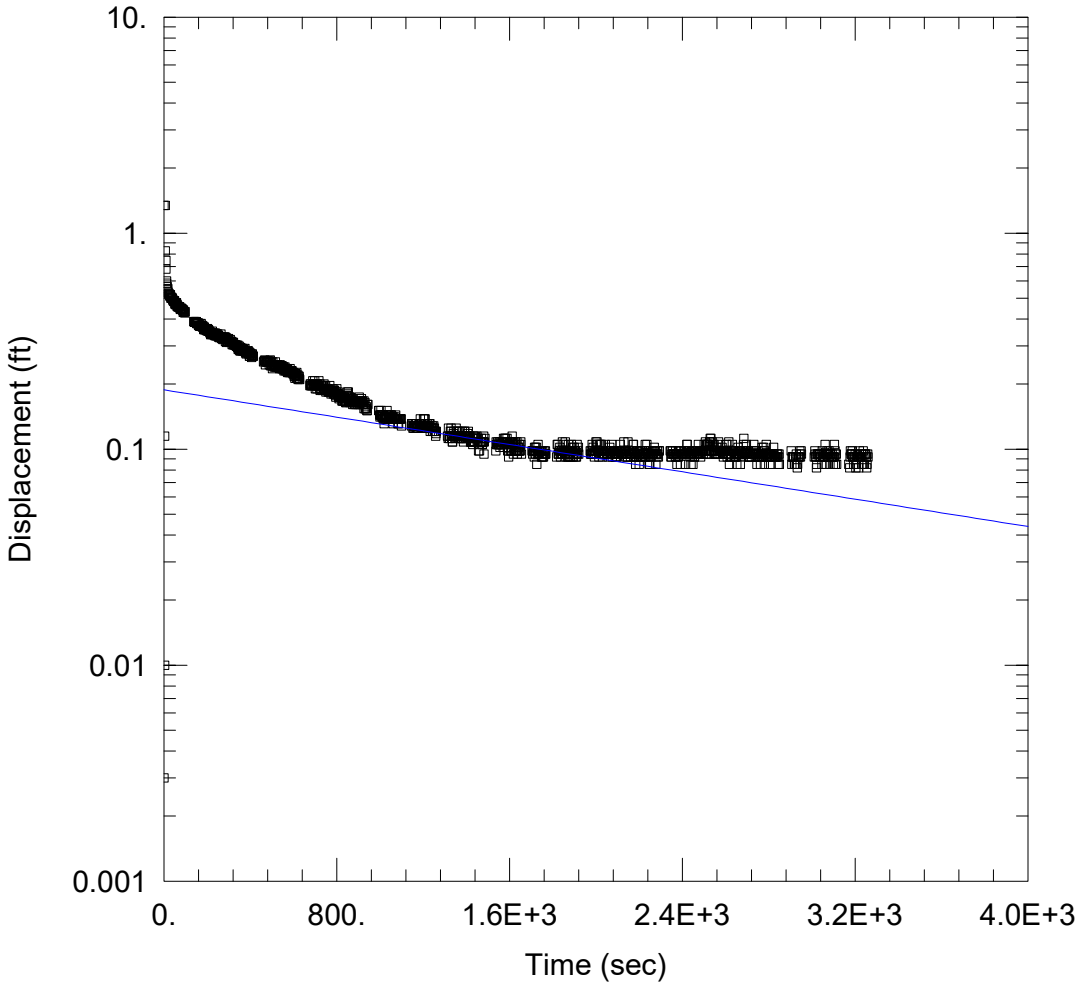
WELL DATA (MW-8A)

Initial Displacement: 1.342 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan
K = 6.448E-7 ft/sec y0 = 0.2064 ft

MW-8A - Falling Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-H_100824.aqt
Date: 03/04/25 Time: 13:12:30

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

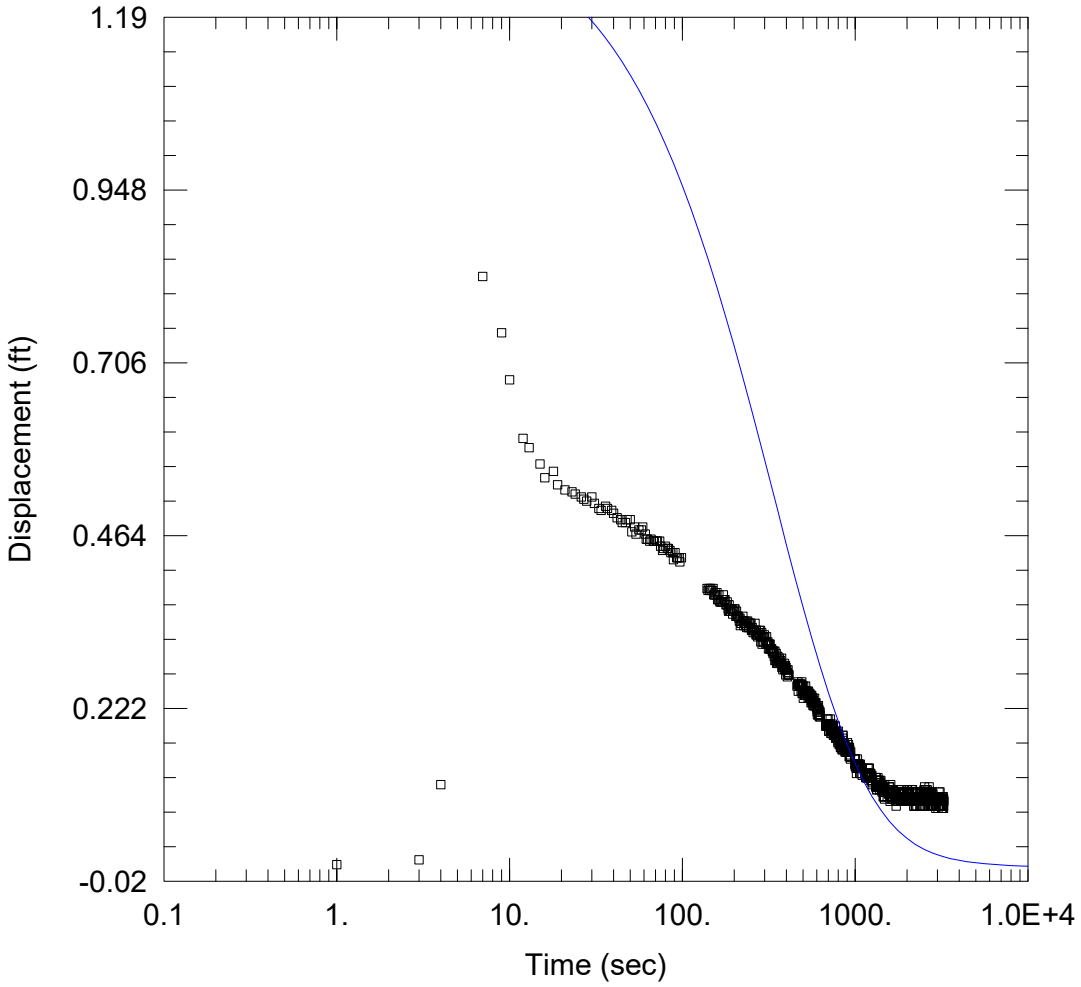
Initial Displacement: 1.342 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 7.015E-7 ft/sec y0 = 0.1881 ft

MW-8A - Falling Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-KGS_100824.aqt
Date: 03/04/25 Time: 13:13:17

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

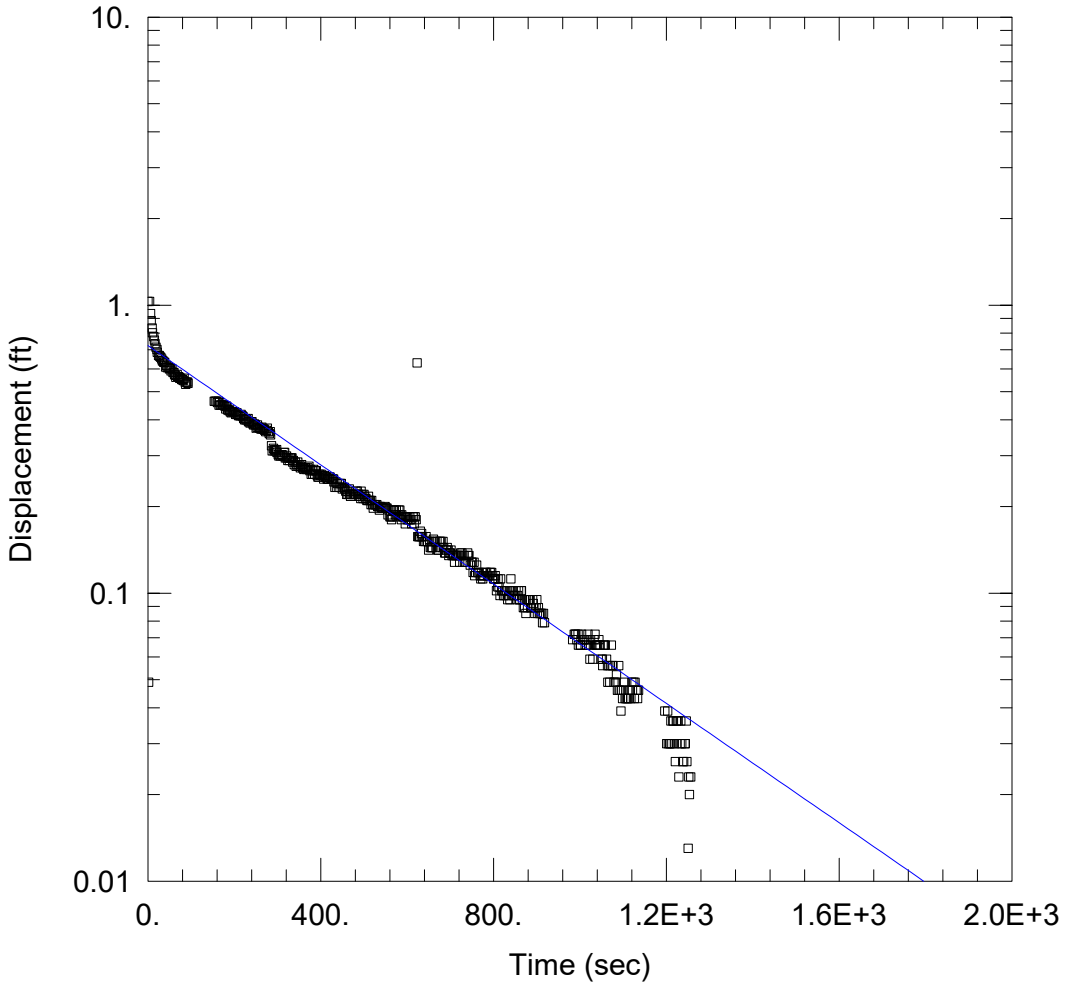
Initial Displacement: 1.342 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 7.277E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-BR_100824.aqt
Date: 03/04/25 Time: 13:01:58

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

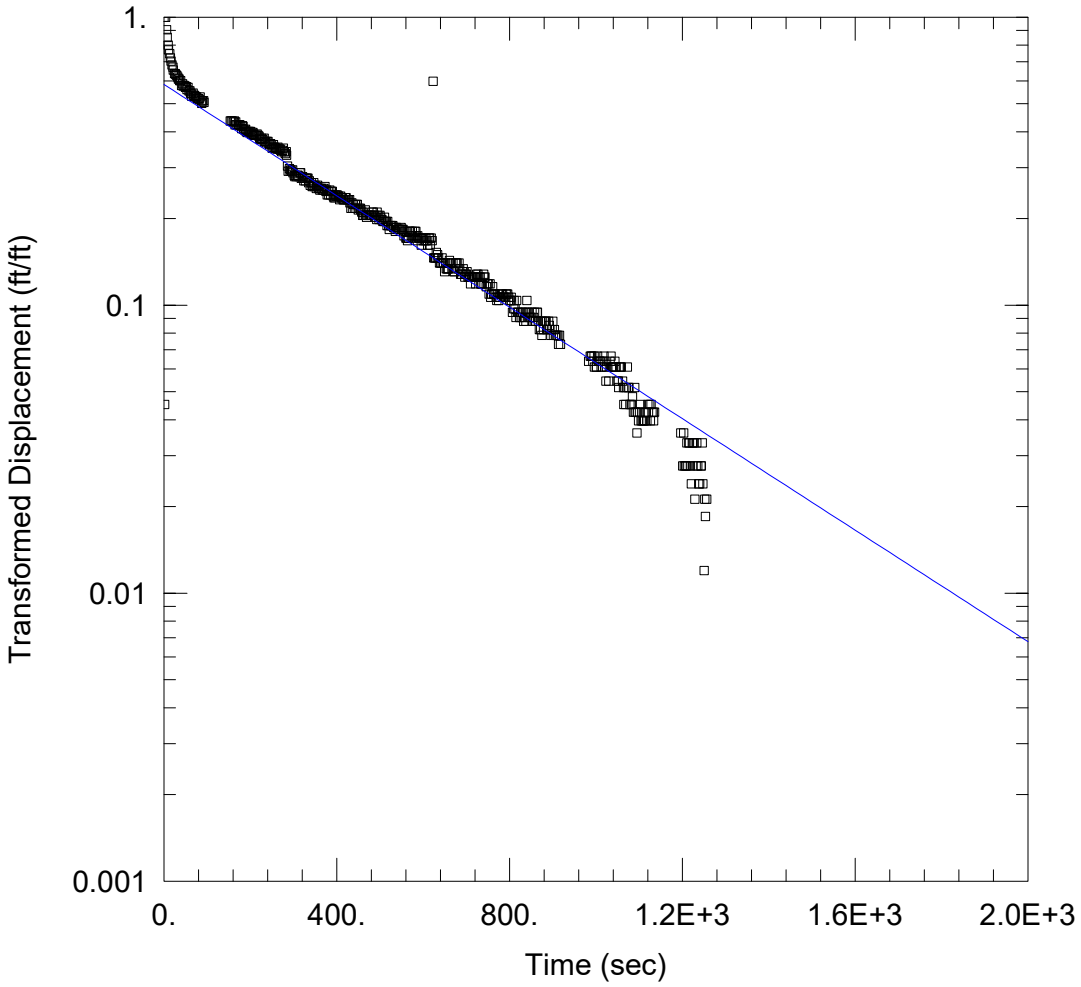
Initial Displacement: 1.03 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.352E-6 ft/sec y0 = 0.7238 ft

MW-8A - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-D_100824.aqt
Date: 03/04/25 Time: 13:00:41

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

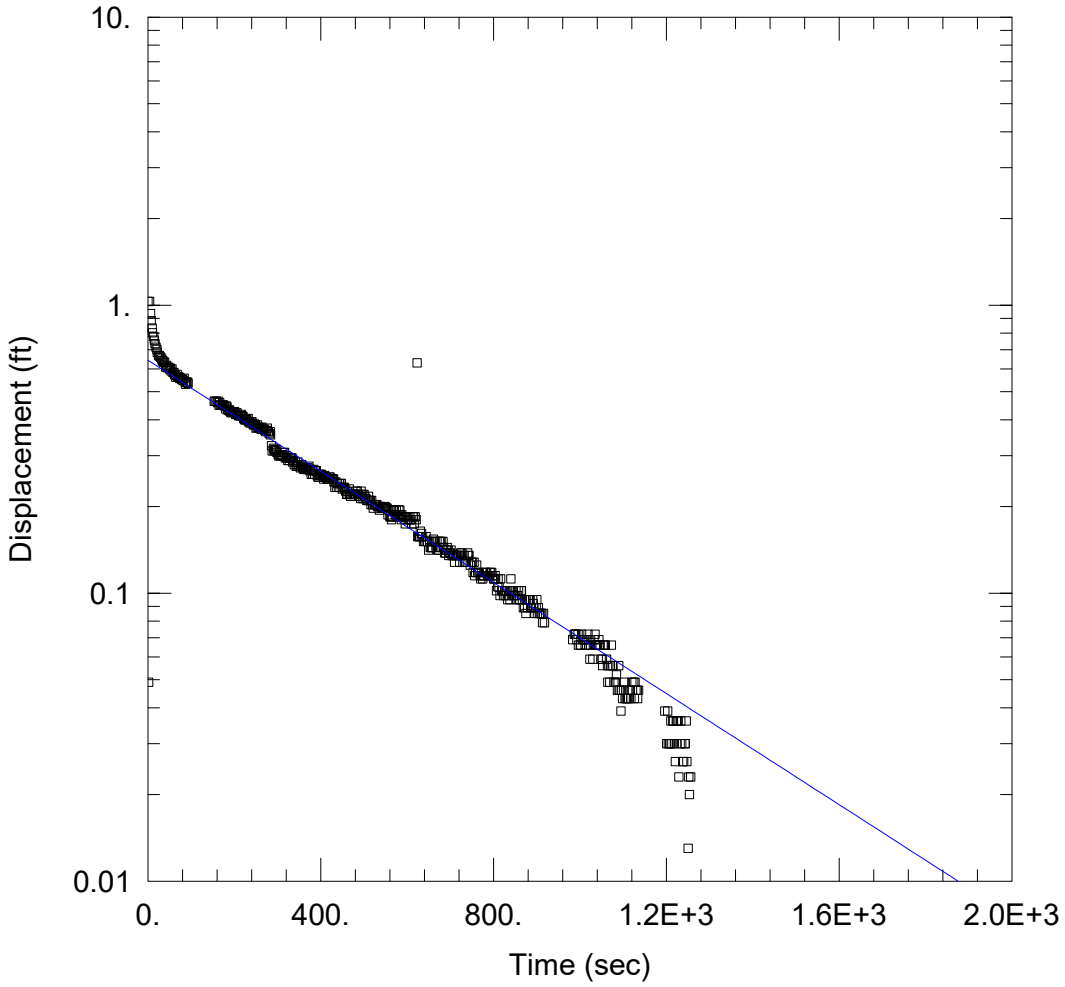
Initial Displacement: 1.03 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 3.522E-6 ft/sec y0 = 0.6147 ft

MW-8A - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-H_100824.aqt
Date: 03/04/25 Time: 13:00:14

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

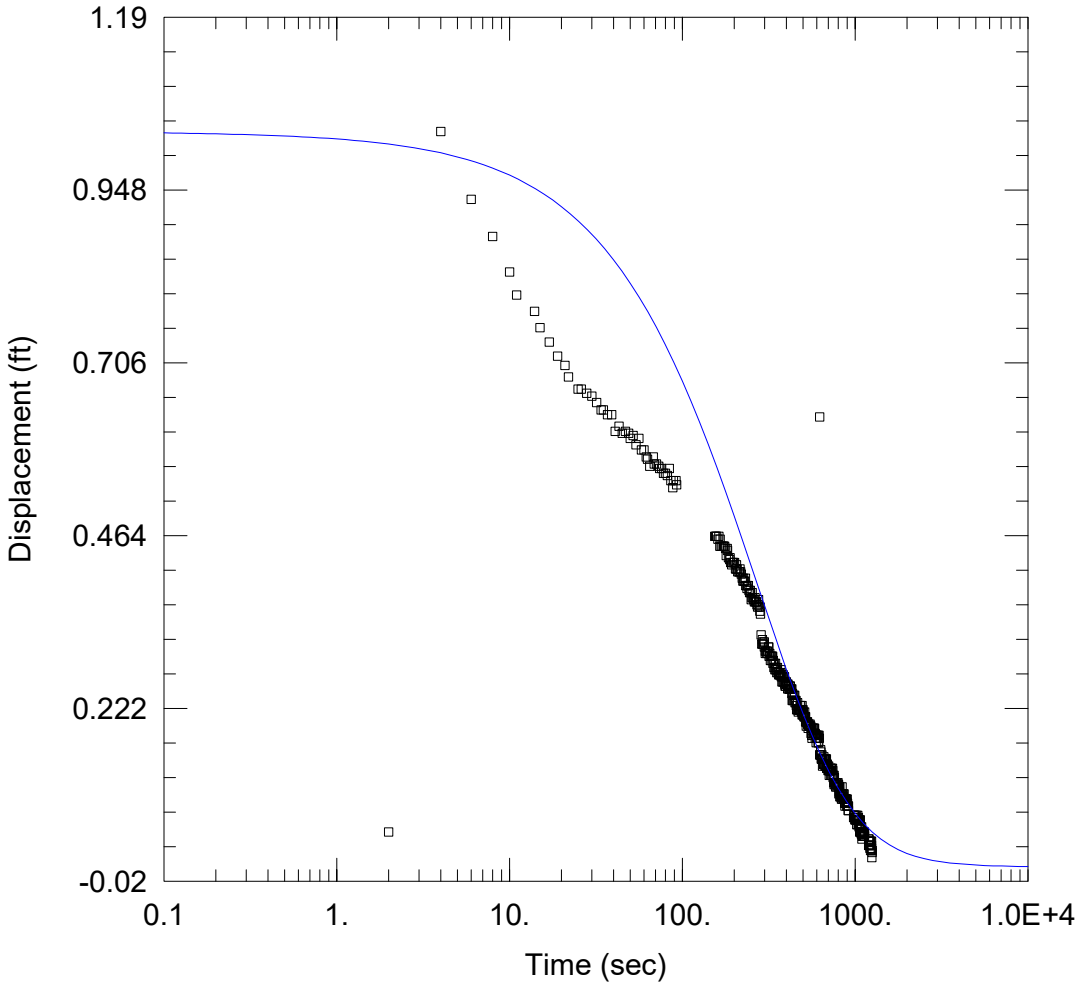
Initial Displacement: 1.03 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 4.278E-6 ft/sec y0 = 0.6435 ft

MW-8A - Rising Head Test 3



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-KGS_100824.aqt
Date: 03/04/25 Time: 13:02:15

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

Initial Displacement: 1.03 ft
Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.083 ft

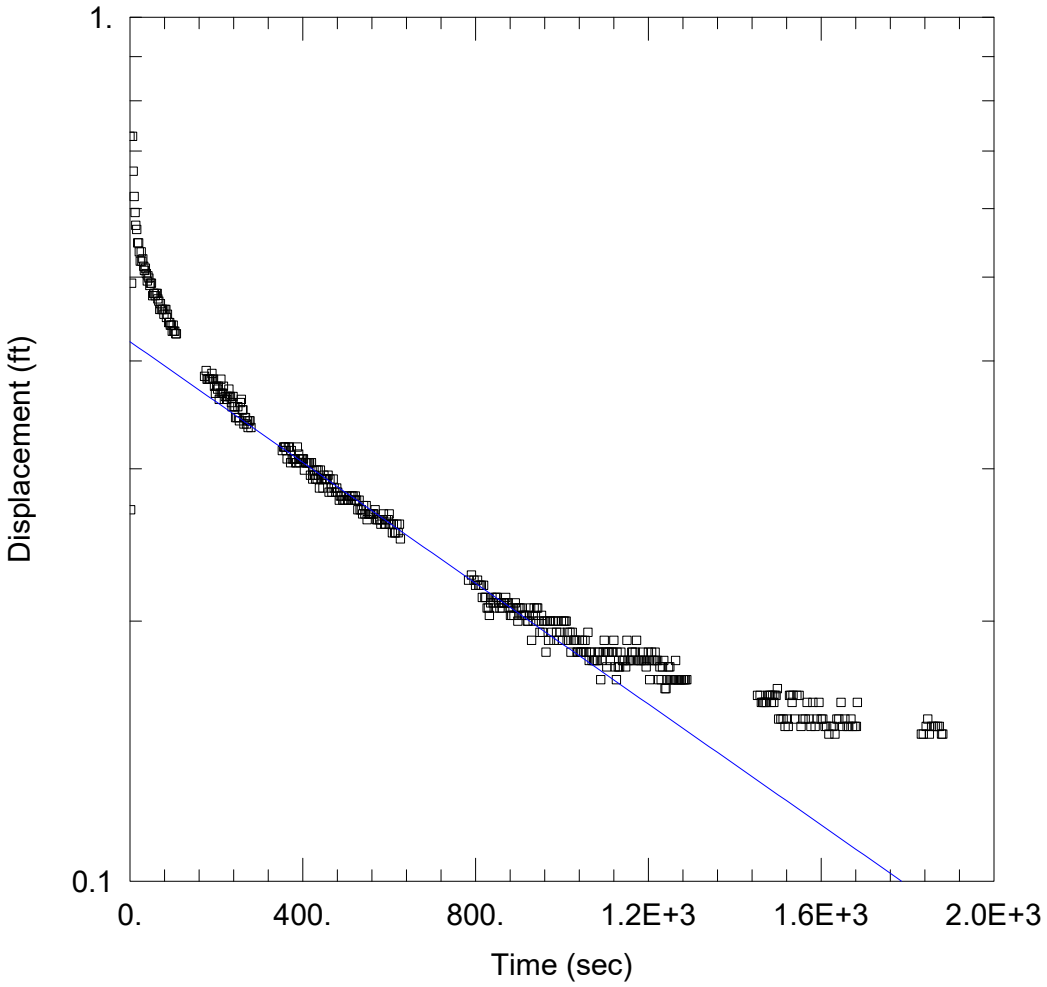
SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 9.167E-6 ft/sec
Ss = 0.0001057 ft^{-1}

Kz/Kr = 0.1

MW-8A - Falling Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R4-BR_100824.aqt
Date: 03/04/25 Time: 13:18:43

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

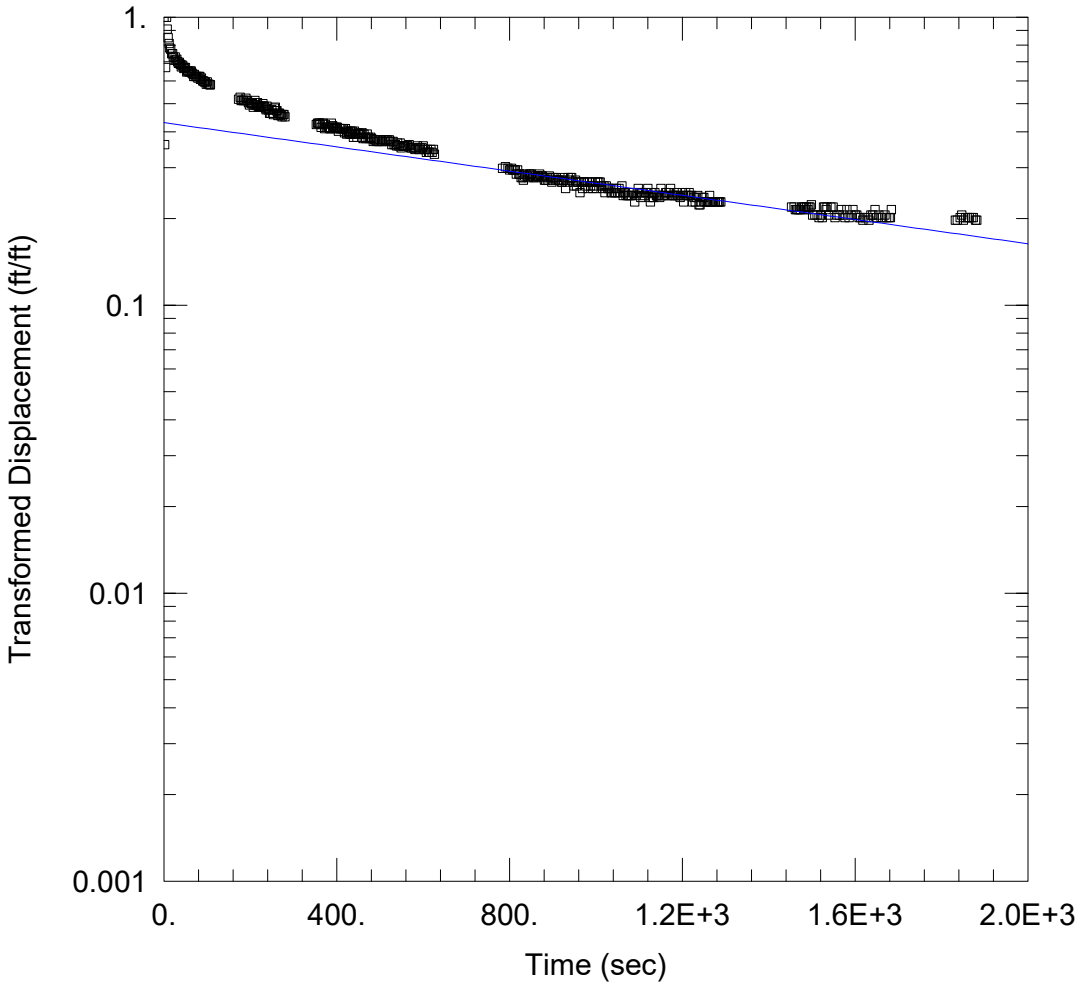
WELL DATA (MW-8A)

Initial Displacement: 0.728 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 1.132E-6 ft/sec y0 = 0.4211 ft

MW-8A - Falling Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R4-D_100824.aqt
Date: 03/04/25 Time: 13:18:29

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

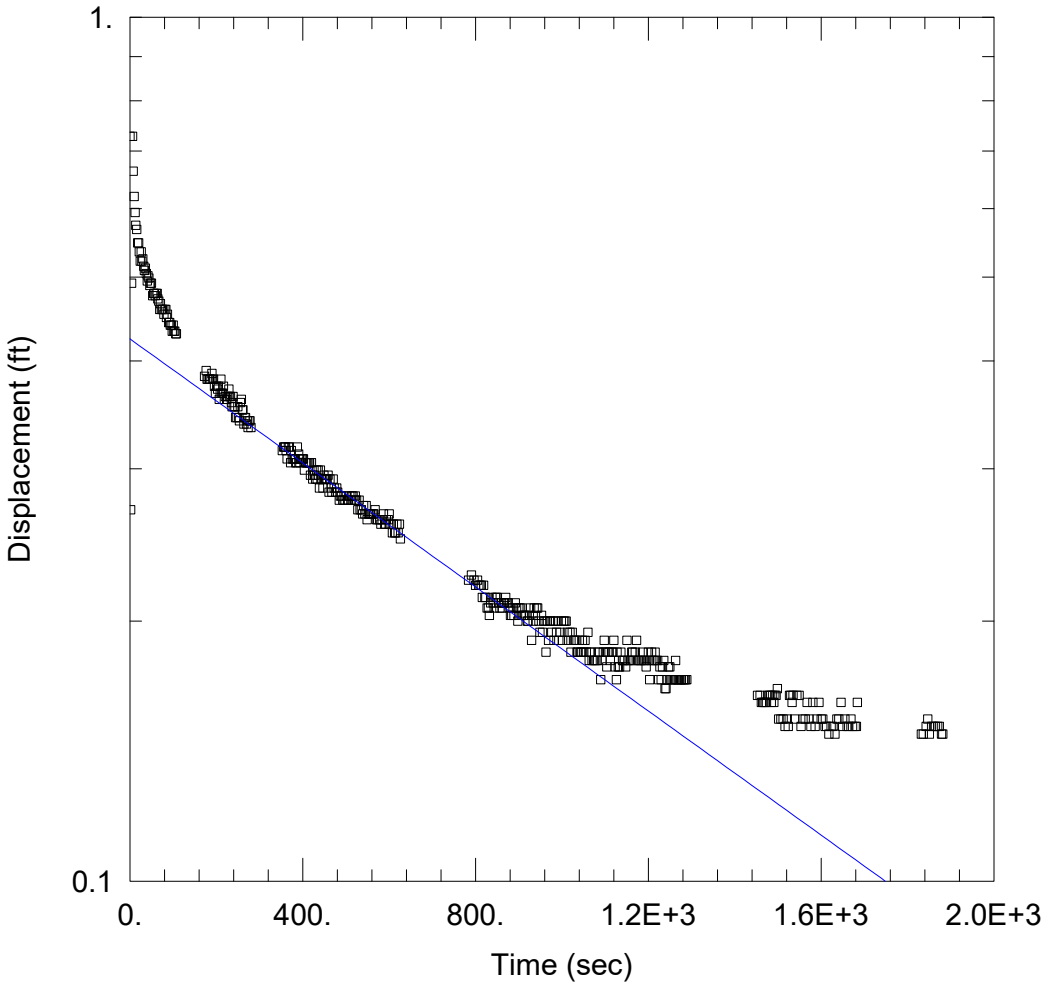
Initial Displacement: 0.728 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 7.653E-7 ft/sec y0 = 0.3196 ft

MW-8A - Falling Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R4-H_100824.aqt
Date: 03/04/25 Time: 13:18:16

AQUIFER DATA

Saturated Thickness: 9.44 ft Anisotropy Ratio (Kz/Kr): 0.1

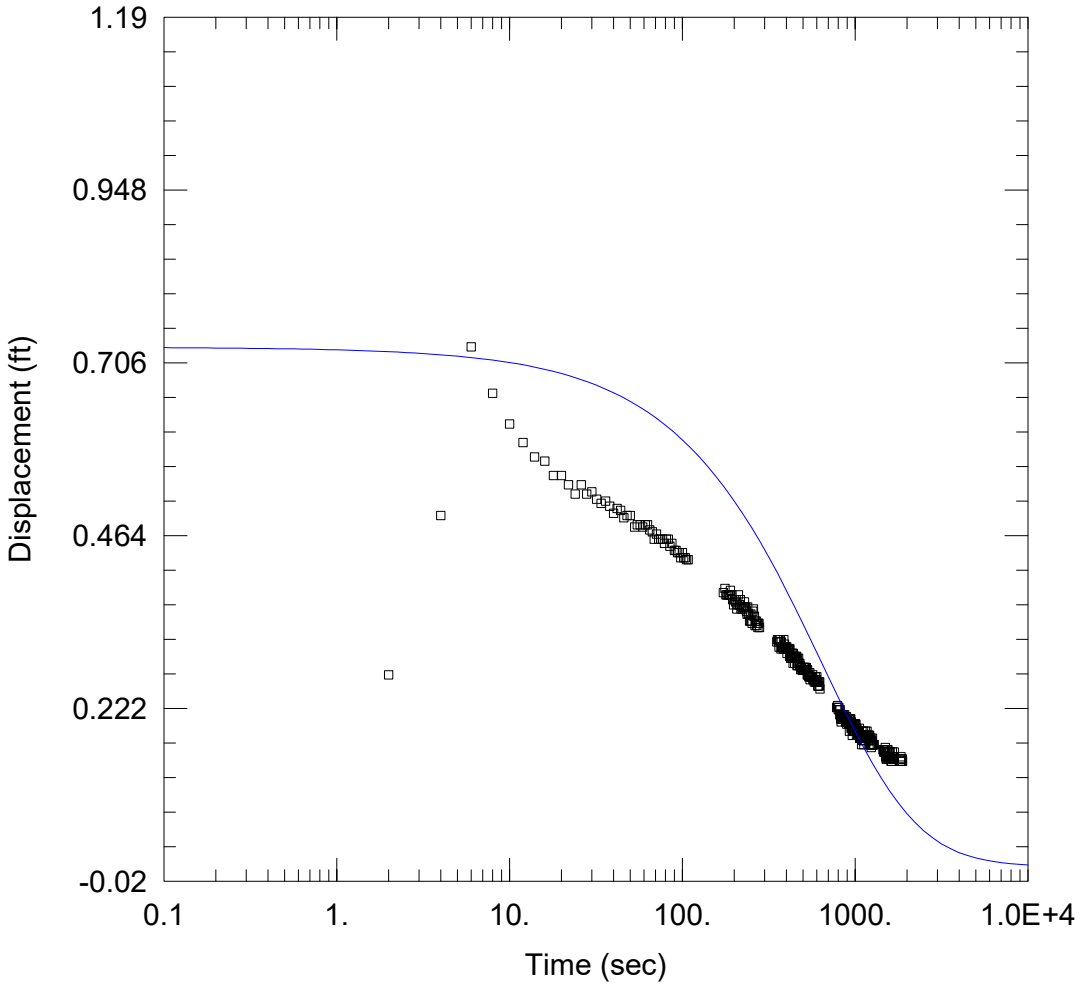
WELL DATA (MW-8A)

Initial Displacement: 0.728 ft Static Water Column Height: 9.44 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 1.592E-6 ft/sec y0 = 0.4242 ft

MW-8A - Falling Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R4-KGS_100824.aqt
Date: 03/04/25 Time: 13:14:35

AQUIFER DATA

Saturated Thickness: 9.44 ft

WELL DATA (MW-8A)

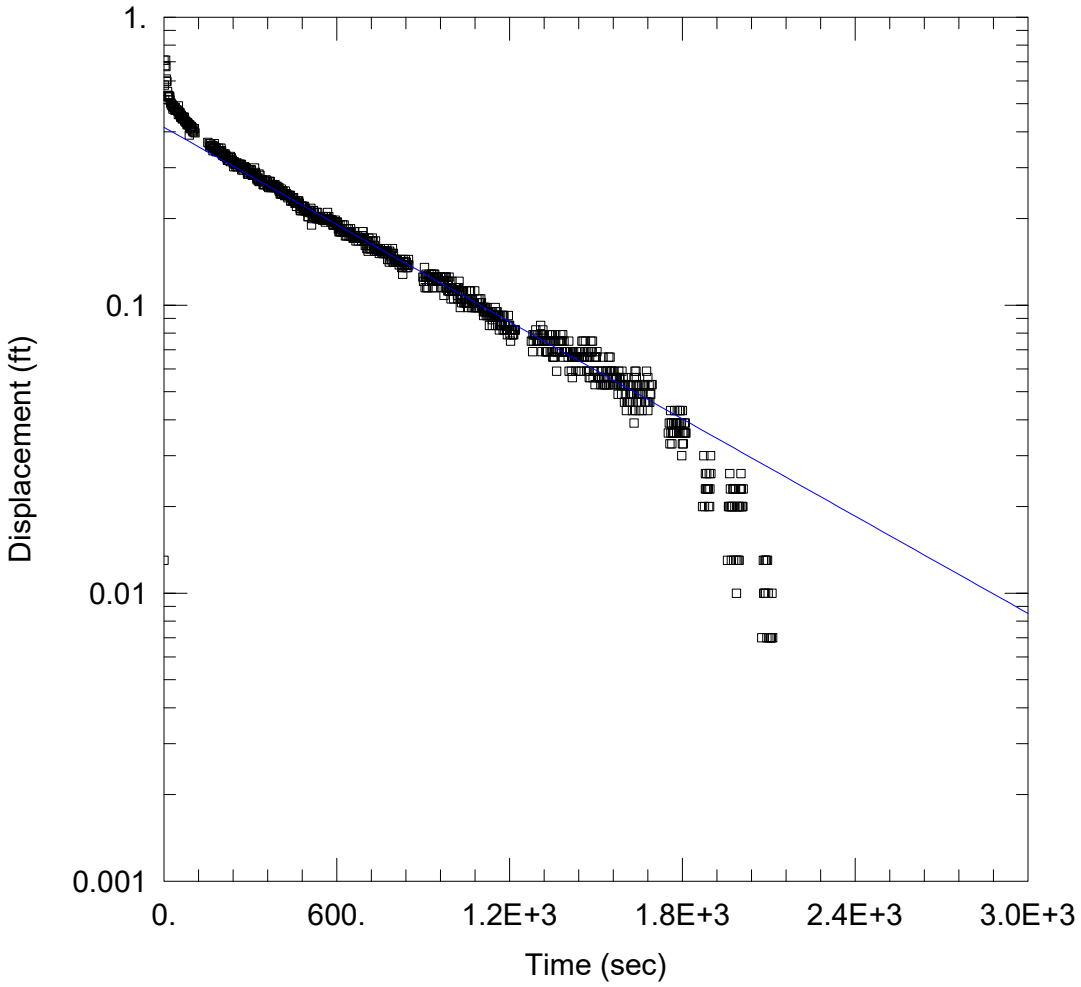
Initial Displacement: 0.728 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.44 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 3.771E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Falling Head Test 7



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-BR_100924.aqt
Date: 03/04/25 Time: 14:11:39

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

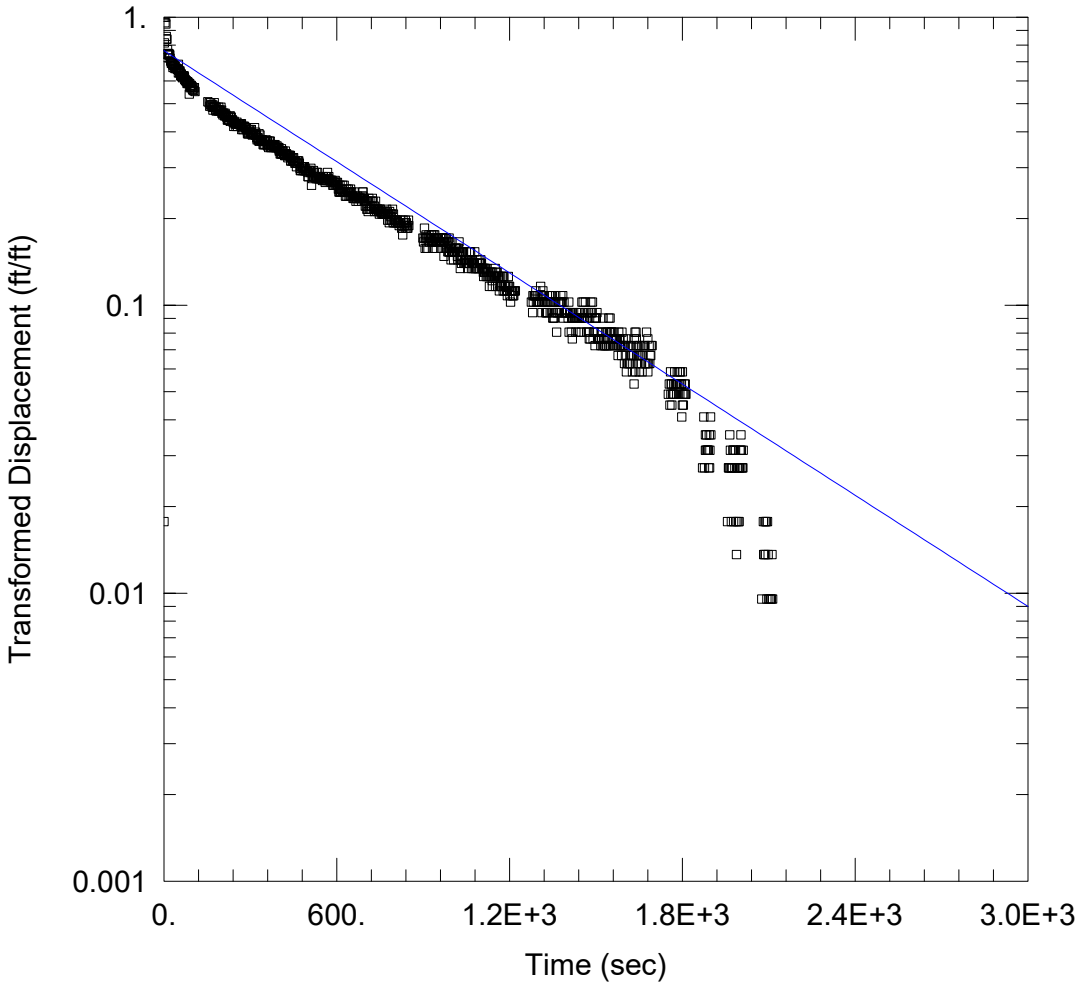
Initial Displacement: 0.709 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.818E-6 ft/sec
y0 = 0.4145 ft

MW-8A - Falling Head Test 7



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-D_100924.aqt
Date: 03/04/25 Time: 14:12:25

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

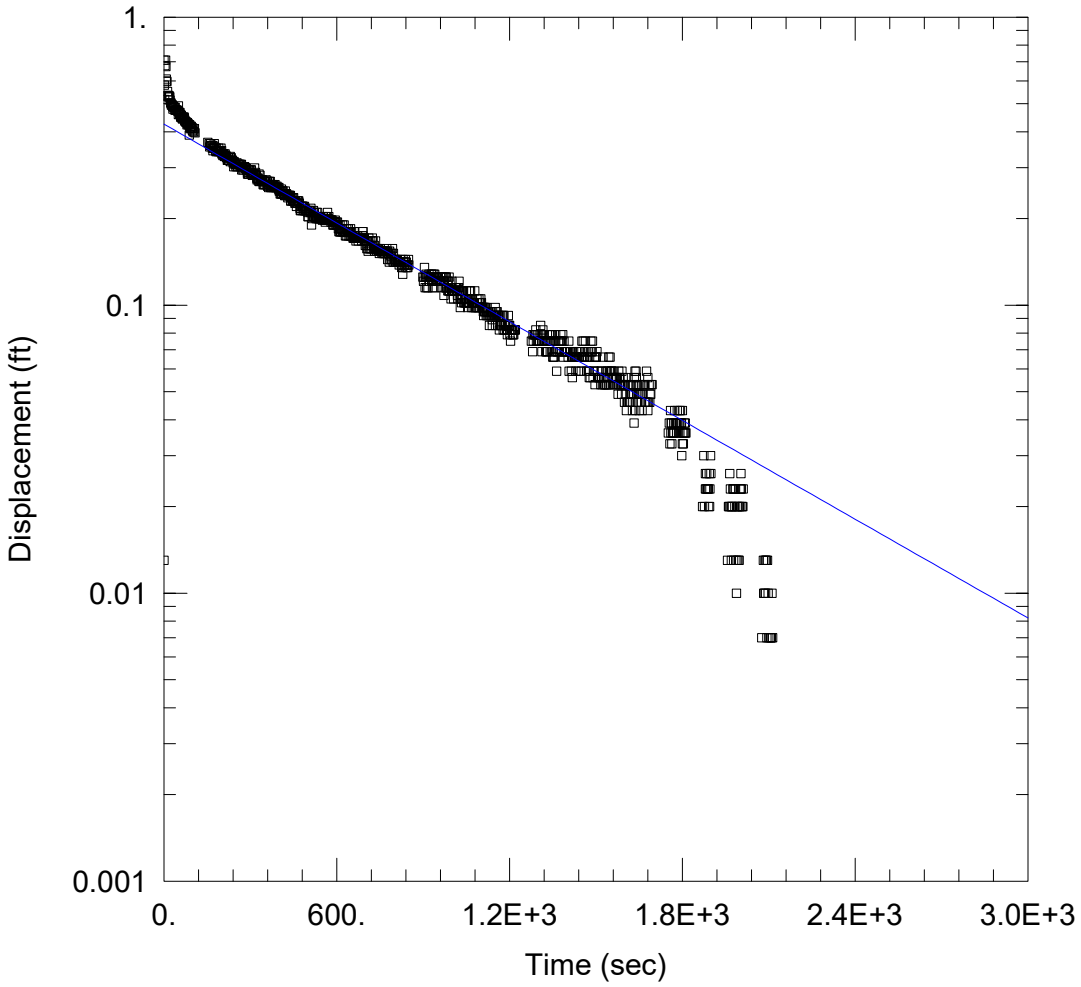
Initial Displacement: 0.709 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Dagan

K = 2.338E-6 ft/sec
y0 = 0.5467 ft

MW-8A - Falling Head Test 7



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-H_100924.aqt
Date: 03/04/25 Time: 14:12:10

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

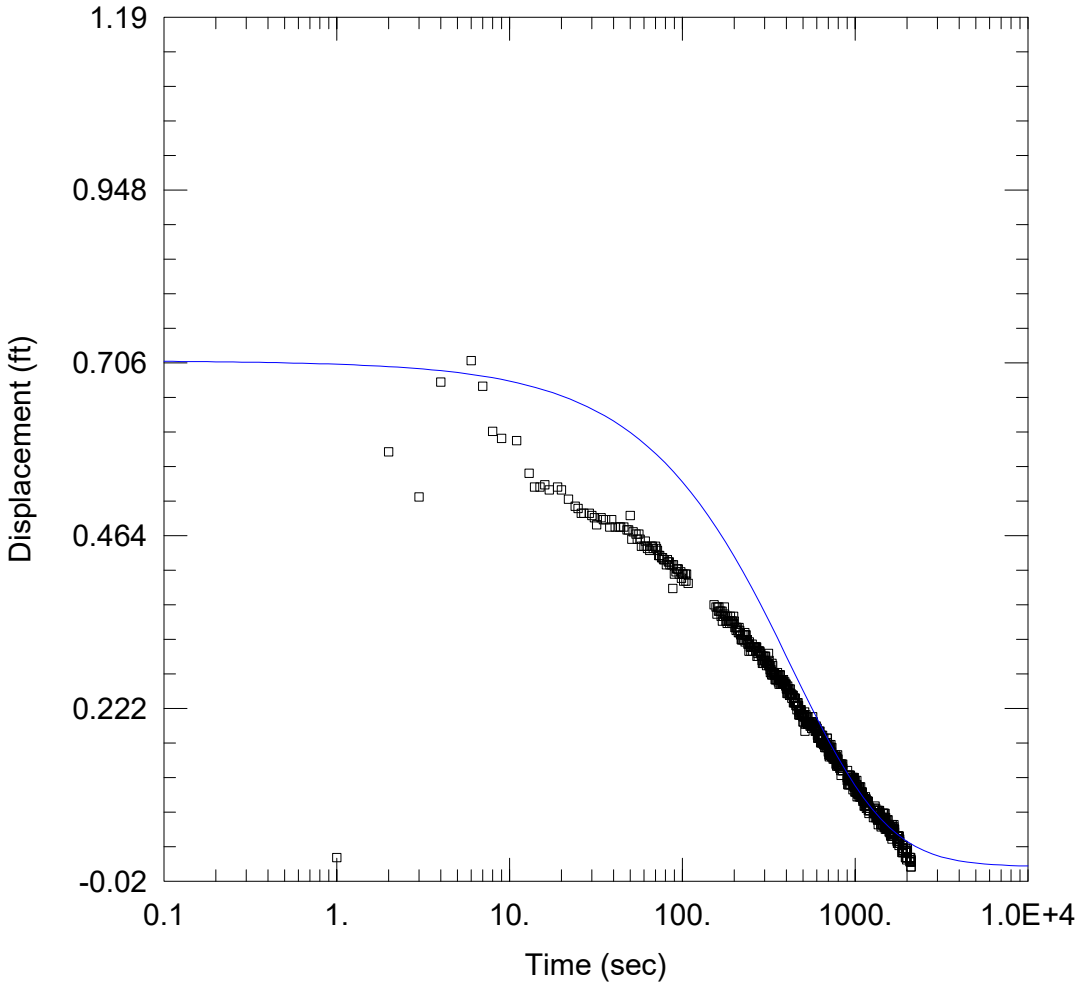
Initial Displacement: 0.709 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 2.53E-6 ft/sec y0 = 0.4249 ft

MW-8A - Falling Head Test 7



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R1-KGS_100924.aqt
Date: 03/04/25 Time: 14:11:54

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

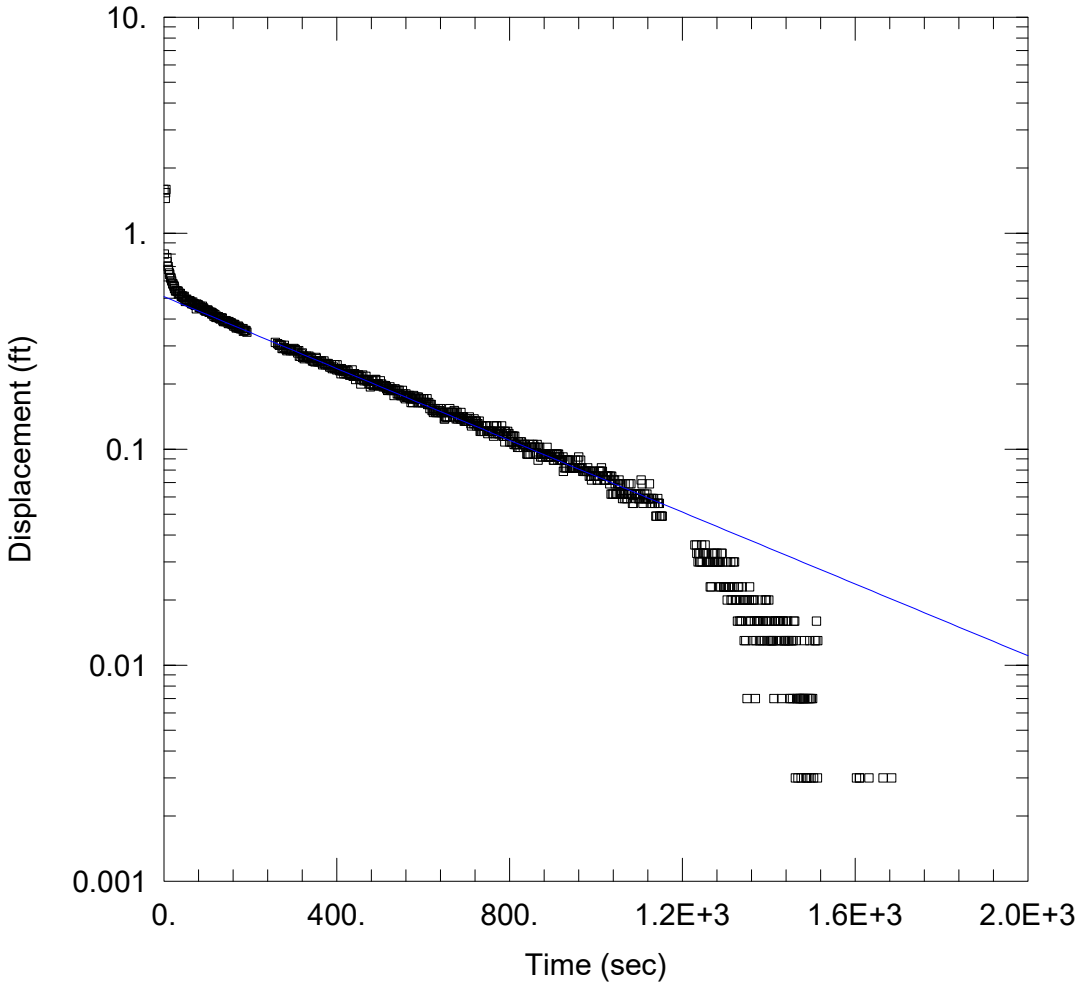
Initial Displacement: 0.709 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 5.574E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Rising Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-BR_100924.aqt
Date: 03/04/25 Time: 13:59:02

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

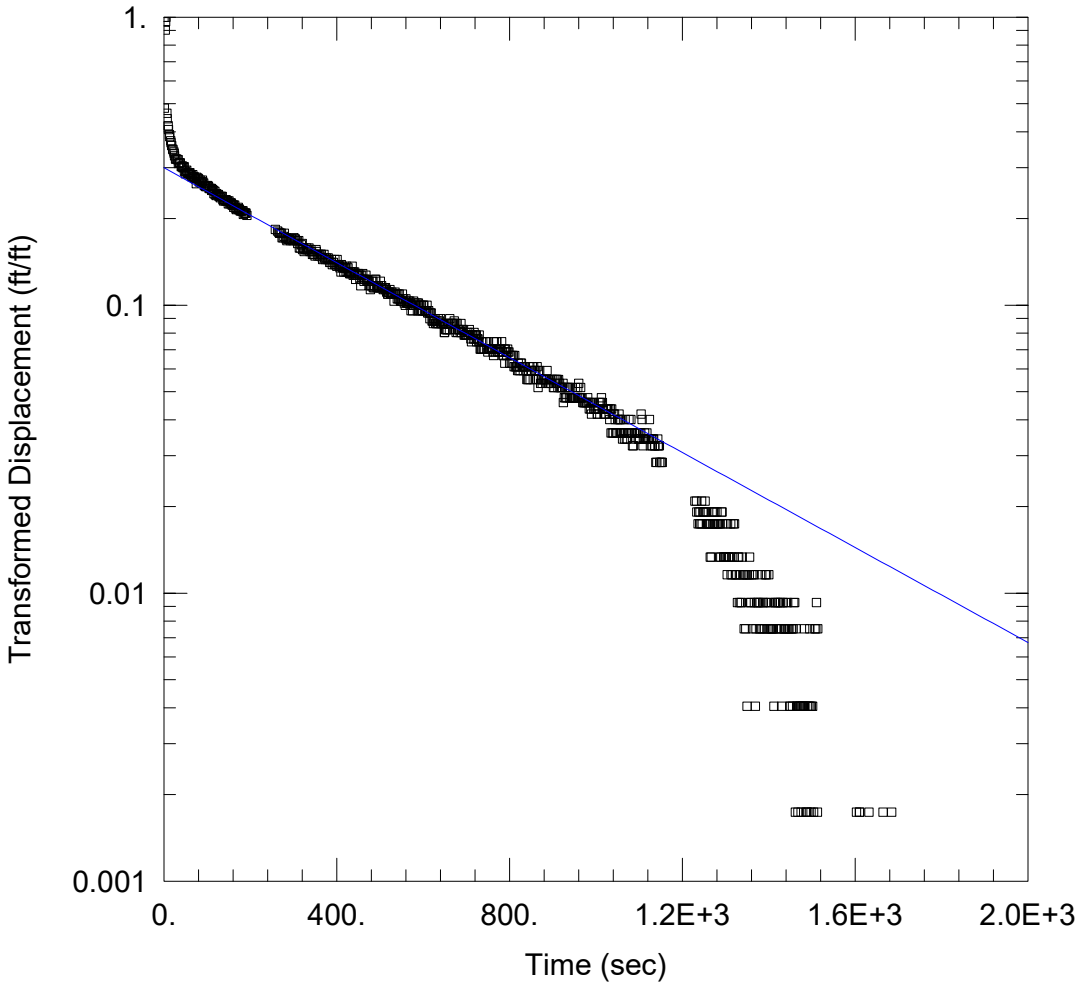
WELL DATA (MW-8A)

Initial Displacement: 1.591 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 2.686E-6 ft/sec y0 = 0.5079 ft

MW-8A - Rising Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-D_100924.aqt
Date: 03/04/25 Time: 13:52:02

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

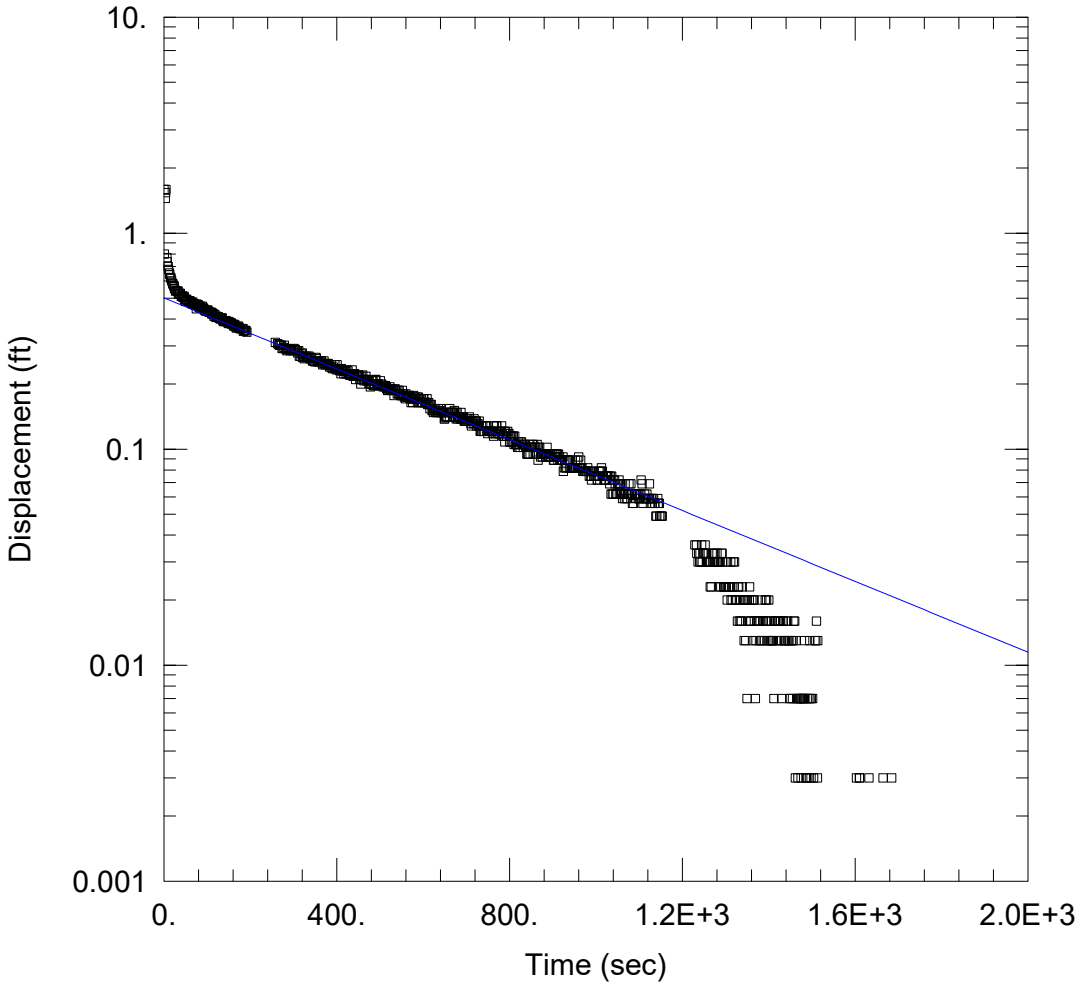
Initial Displacement: 1.591 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 2.995E-6 ft/sec y0 = 0.5051 ft

MW-8A - Rising Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-H_100924.aqt
Date: 03/04/25 Time: 13:51:15

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

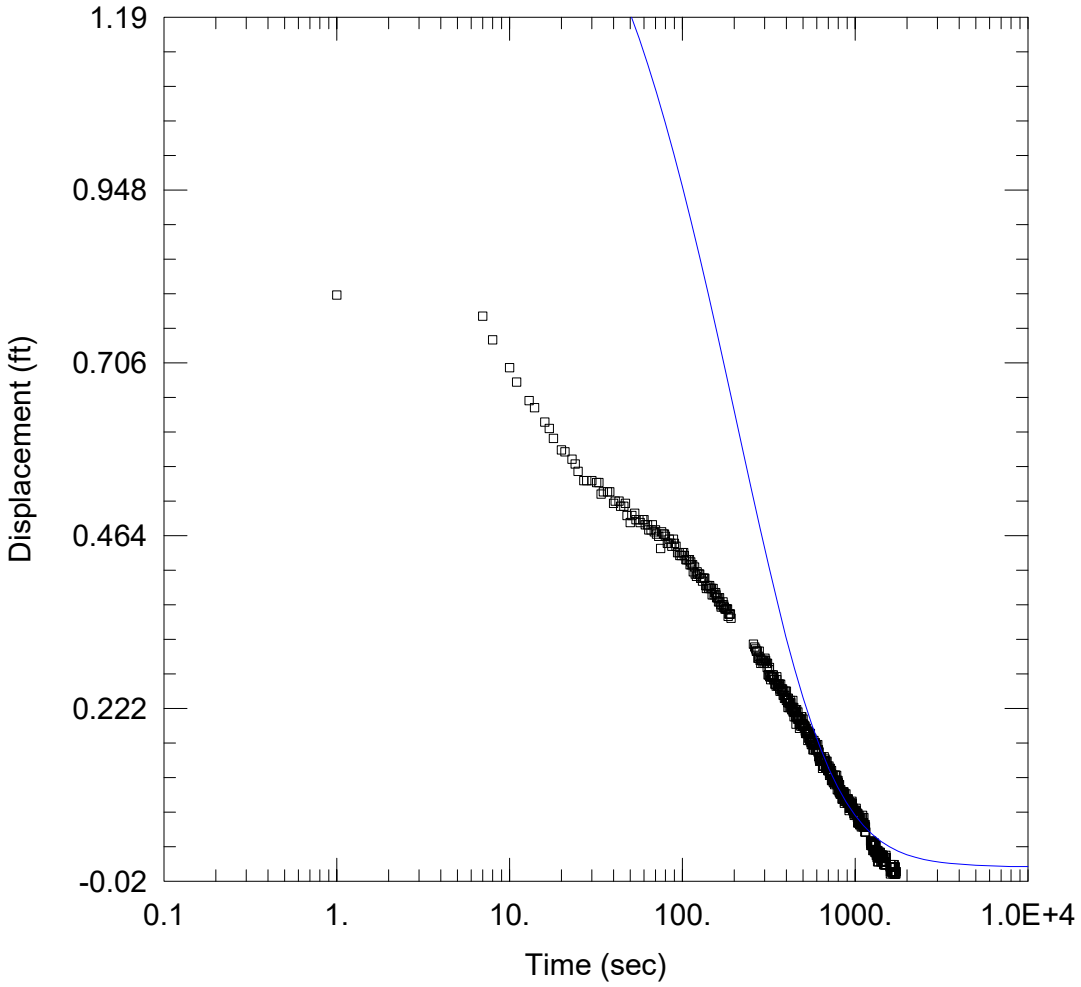
WELL DATA (MW-8A)

Initial Displacement: 1.591 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 3.629E-6 ft/sec y0 = 0.5007 ft

MW-8A - Rising Head Test 4



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F1-KGS_100924.aqt
Date: 03/04/25 Time: 14:00:33

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

Initial Displacement: 1.591 ft
Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.083 ft

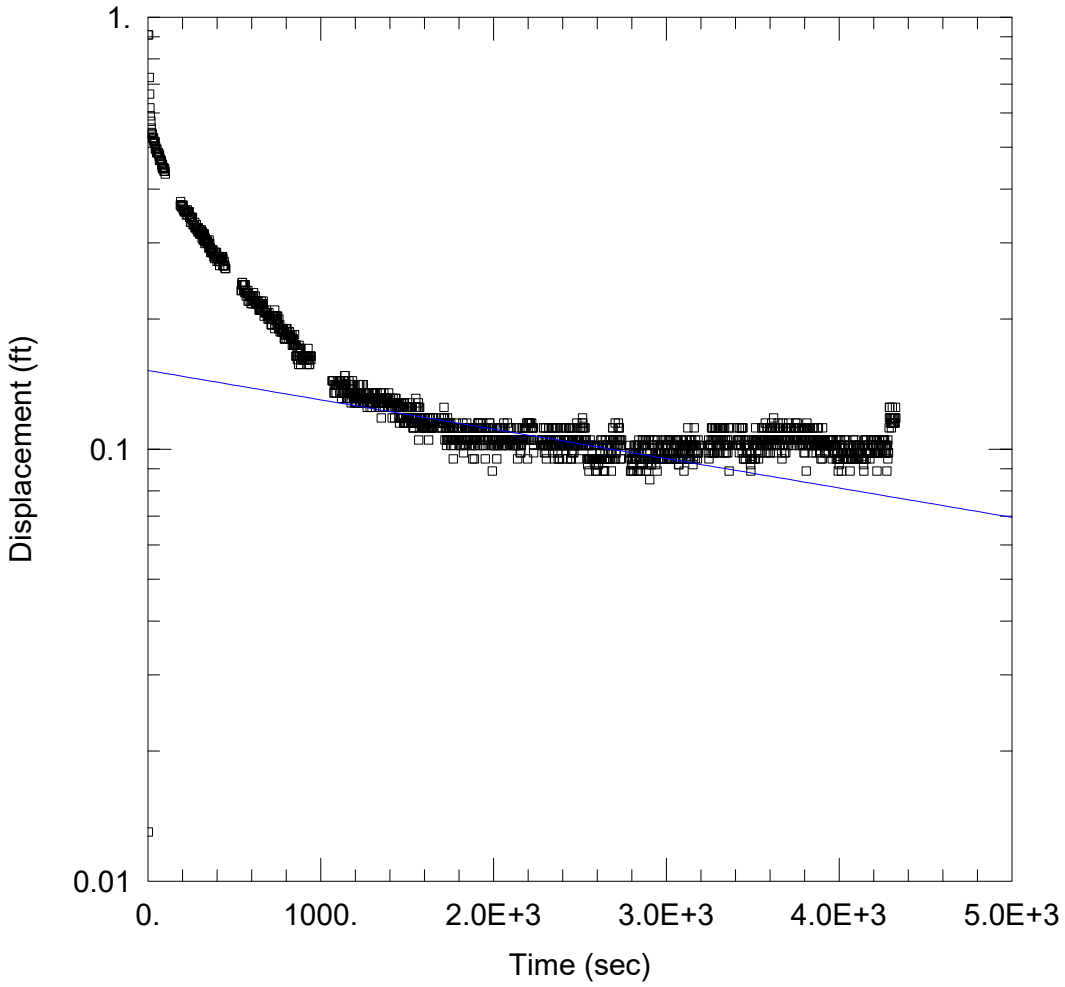
SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 1.176E-5 ft/sec
Ss = 0.0001057 ft^{-1}

Kz/Kr = 0.1

MW-8A - Falling Head Test 8



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-BR_100924.aqt
Date: 03/04/25 Time: 14:13:29

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

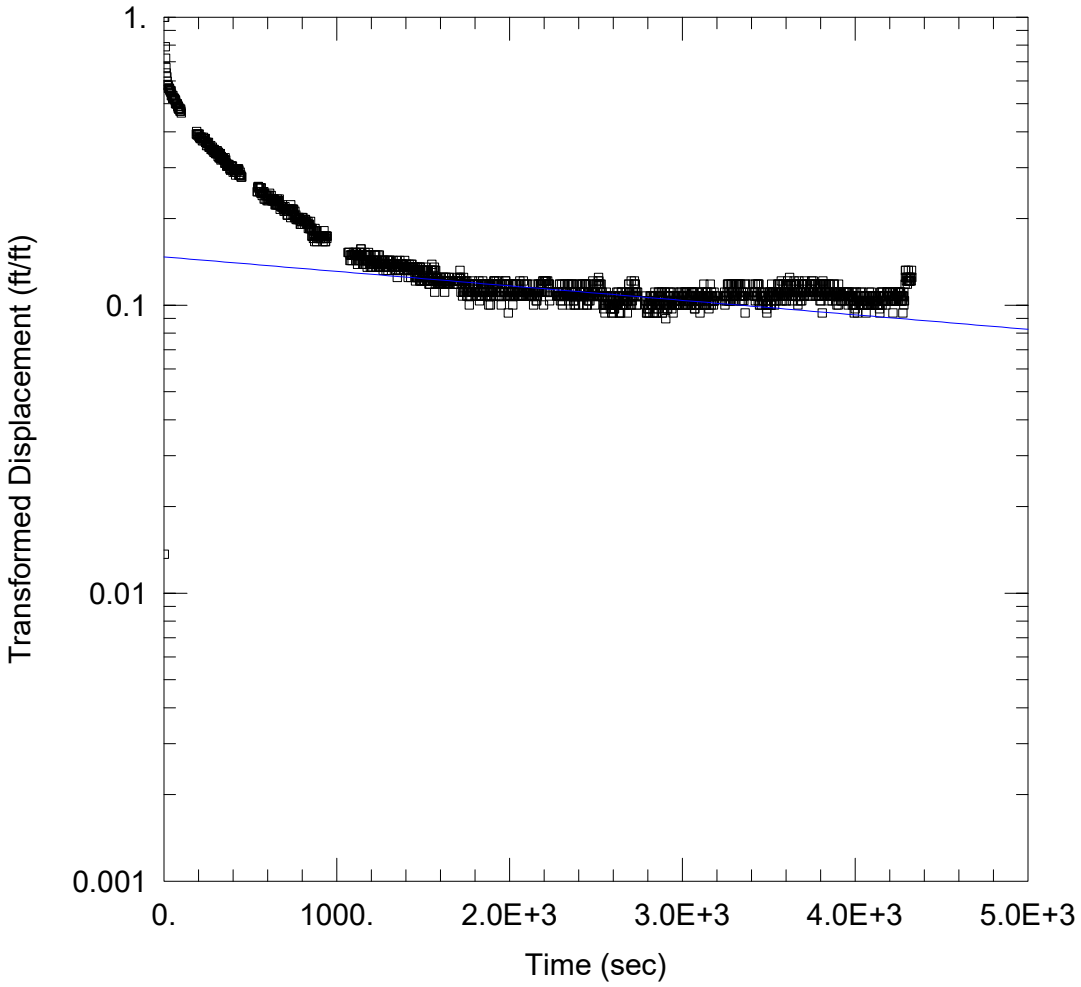
Initial Displacement: 0.909 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.197E-7 ft/sec
y0 = 0.1521 ft

MW-8A - Falling Head Test 8



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-D_100924.aqt
Date: 03/04/25 Time: 14:14:21

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

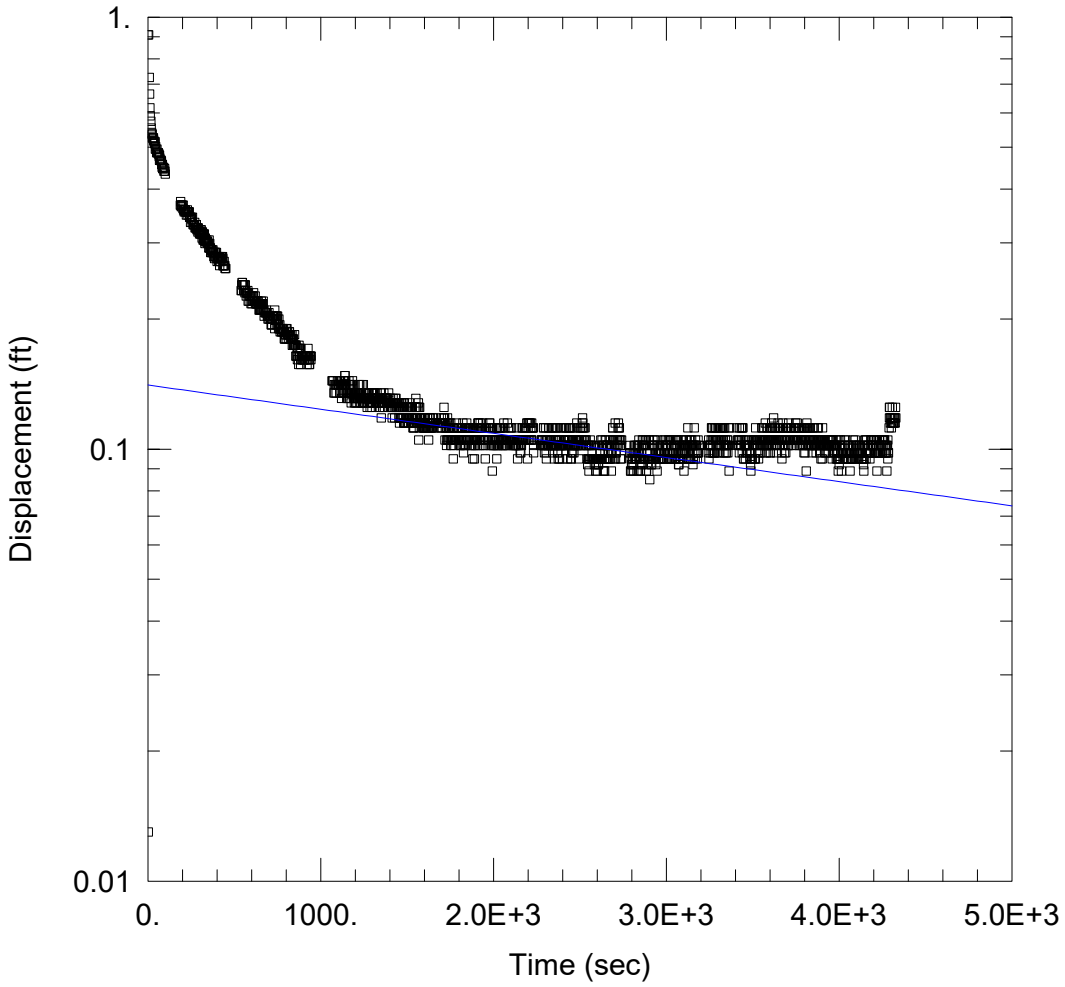
Initial Displacement: 0.909 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 1.827E-7 ft/sec y0 = 0.139 ft

MW-8A - Falling Head Test 8



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-H_100924.aqt
Date: 03/04/25 Time: 14:14:08

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

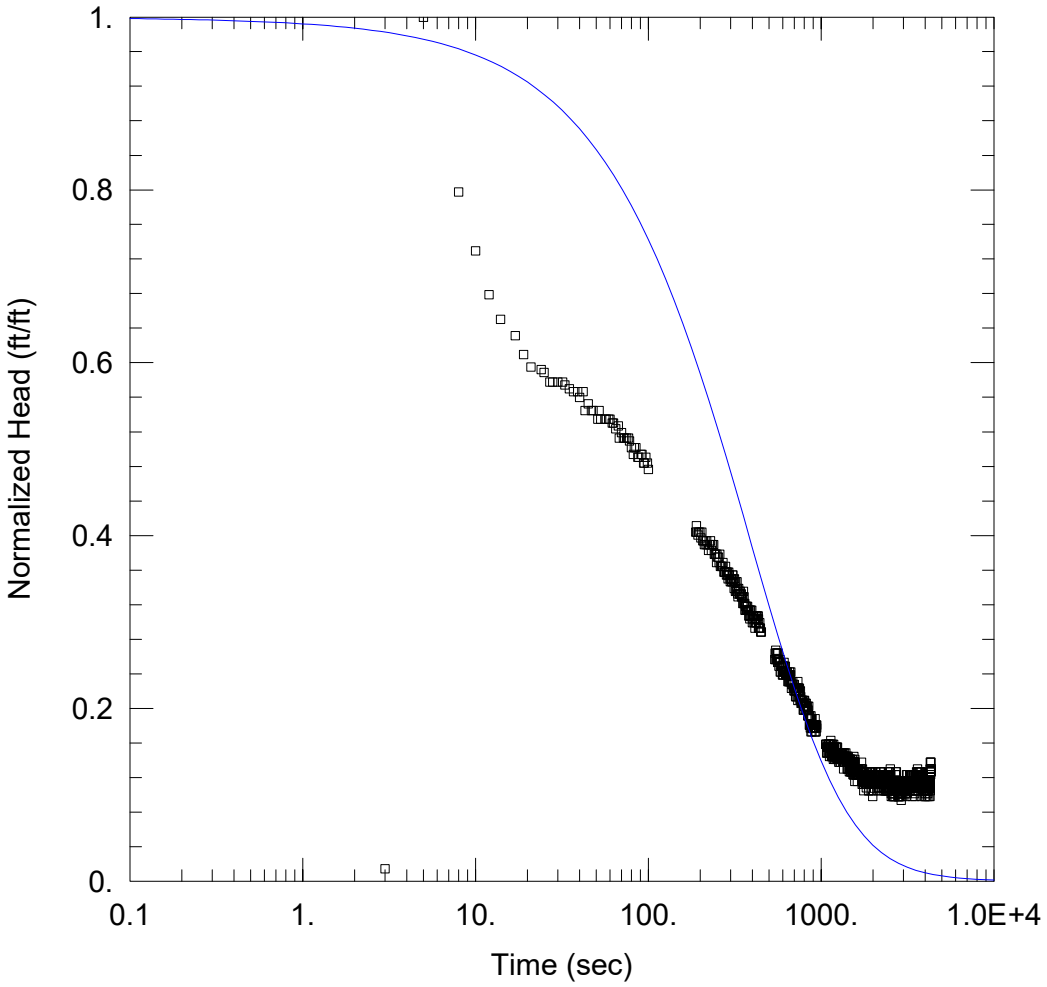
Initial Displacement: 0.909 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 2.474E-7 ft/sec y0 = 0.1407 ft

MW-8A - Falling Head Test 8



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R2-KGS_100924.aqt
Date: 03/04/25 Time: 14:13:46

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

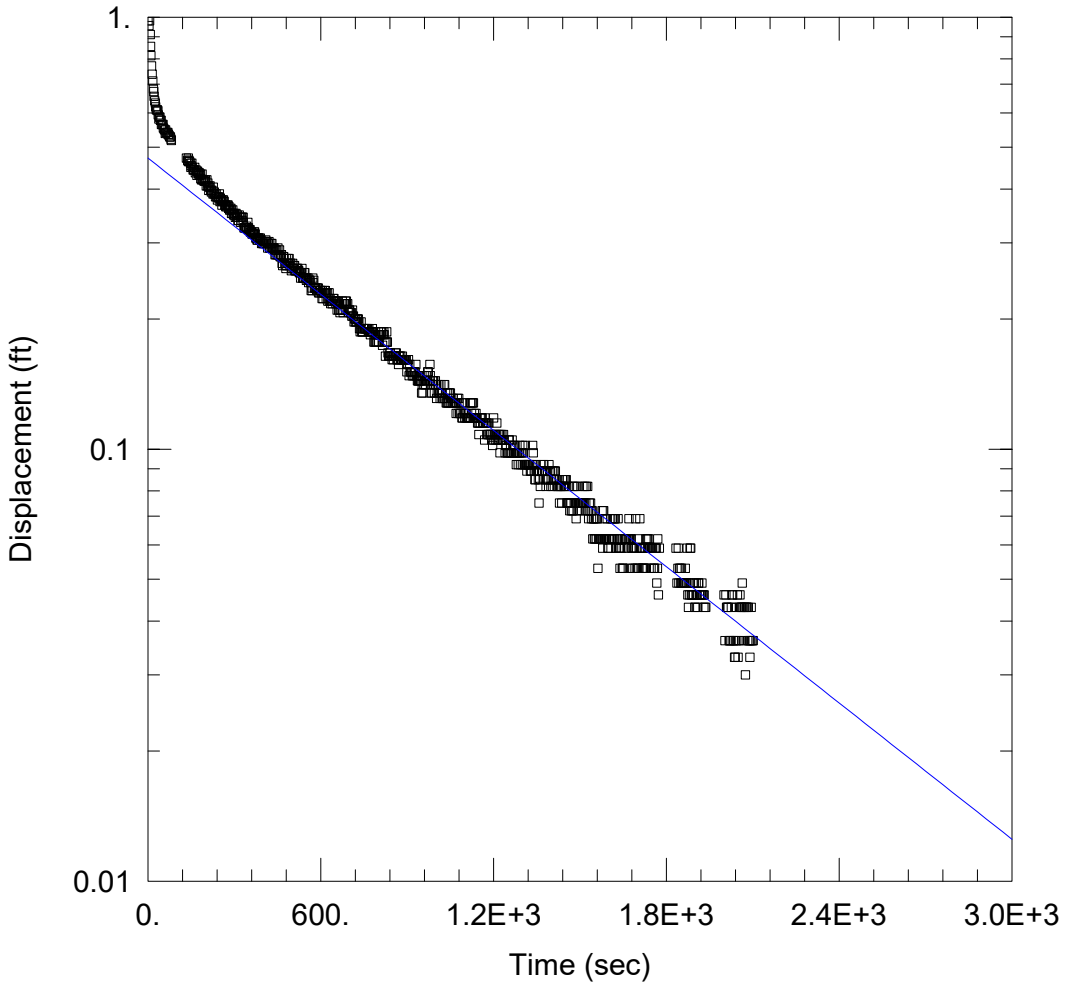
Initial Displacement: 0.909 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 6.158E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Rising Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-BR_100924.aqt
Date: 03/04/25 Time: 14:04:10

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

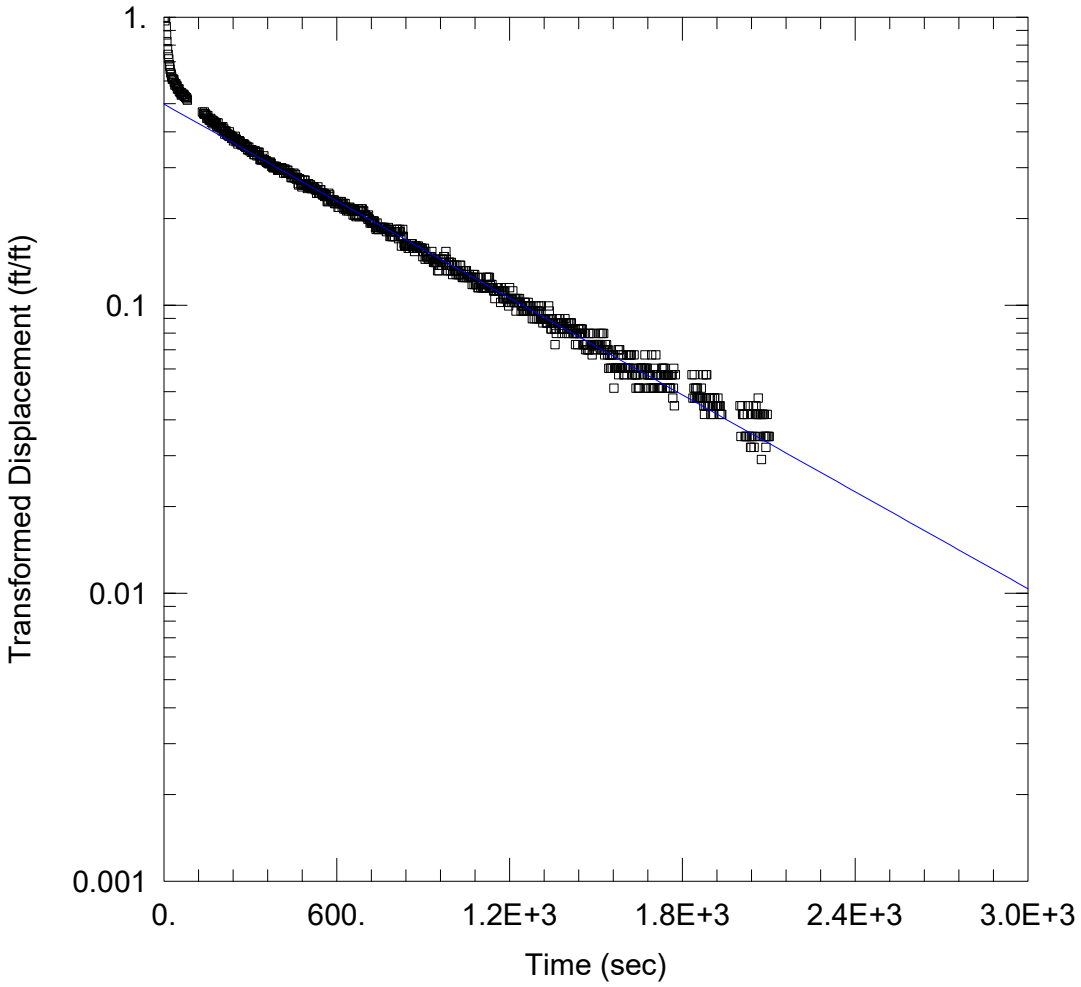
Initial Displacement: 0.981 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.698E-6 ft/sec y0 = 0.4717 ft

MW-8A - Rising Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-D_100924.aqt
Date: 03/04/25 Time: 14:01:36

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

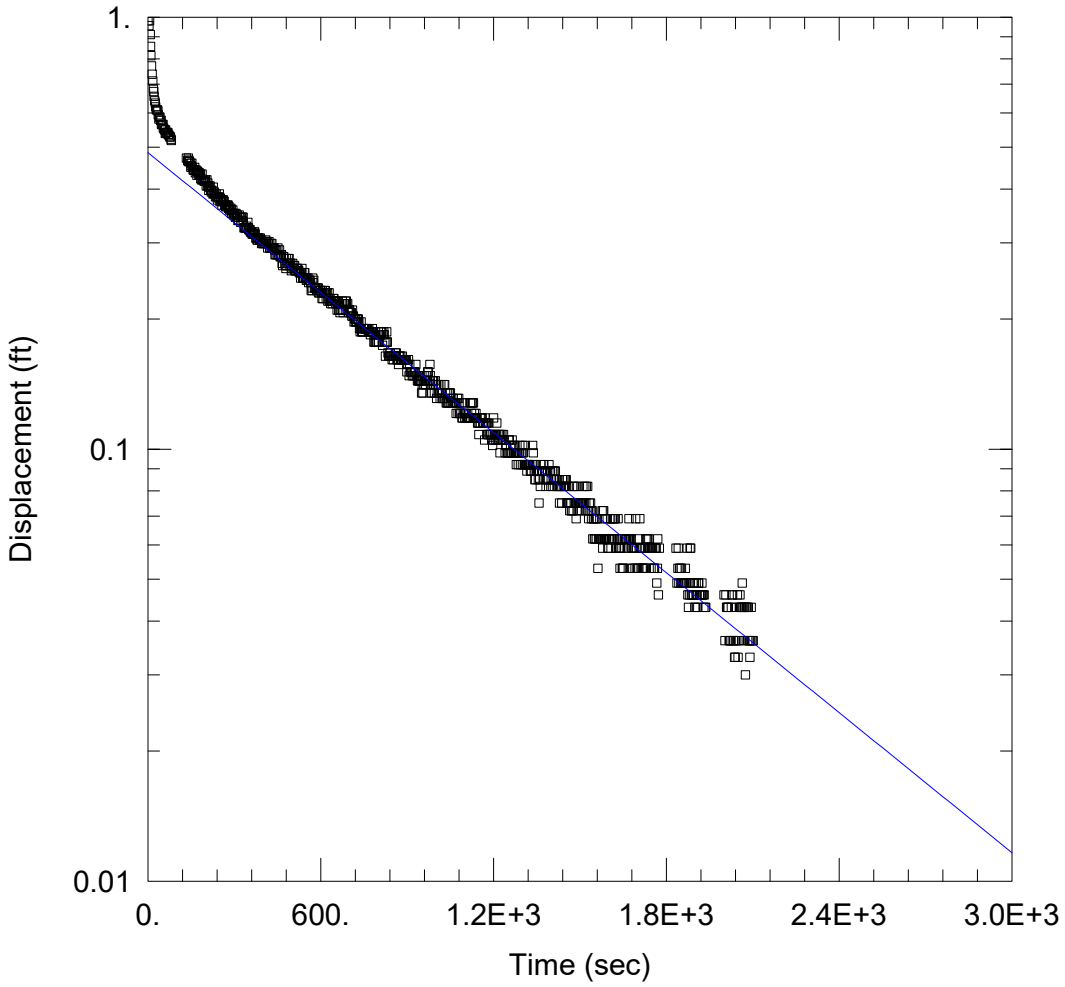
Initial Displacement: 0.981 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 2.038E-6 ft/sec y0 = 0.5016 ft

MW-8A - Rising Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-H_100924.aqt
Date: 03/04/25 Time: 14:05:06

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

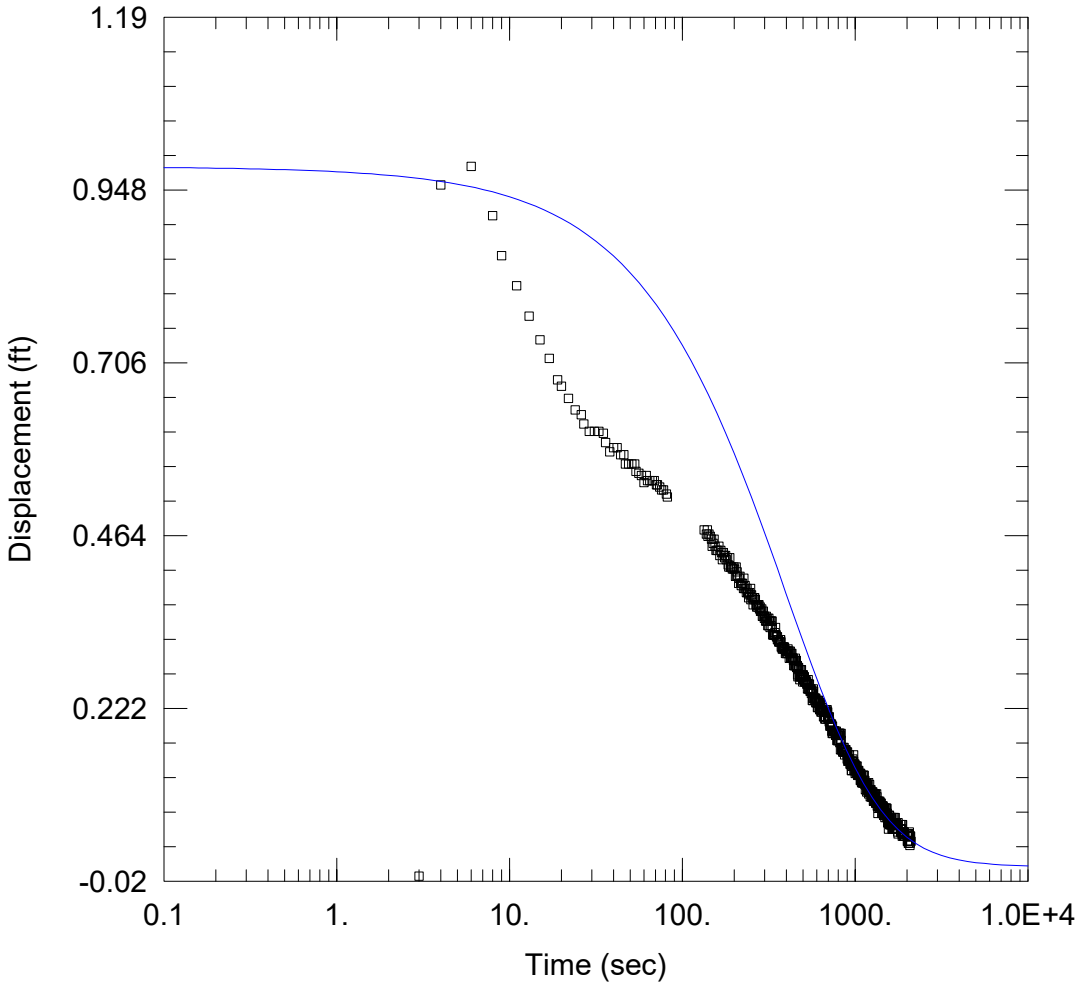
WELL DATA (MW-8A)

Initial Displacement: 0.981 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 2.391E-6 ft/sec
y0 = 0.4856 ft

MW-8A - Rising Head Test 5



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F2-KGS_100924.aqt
Date: 03/04/25 Time: 14:04:52

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

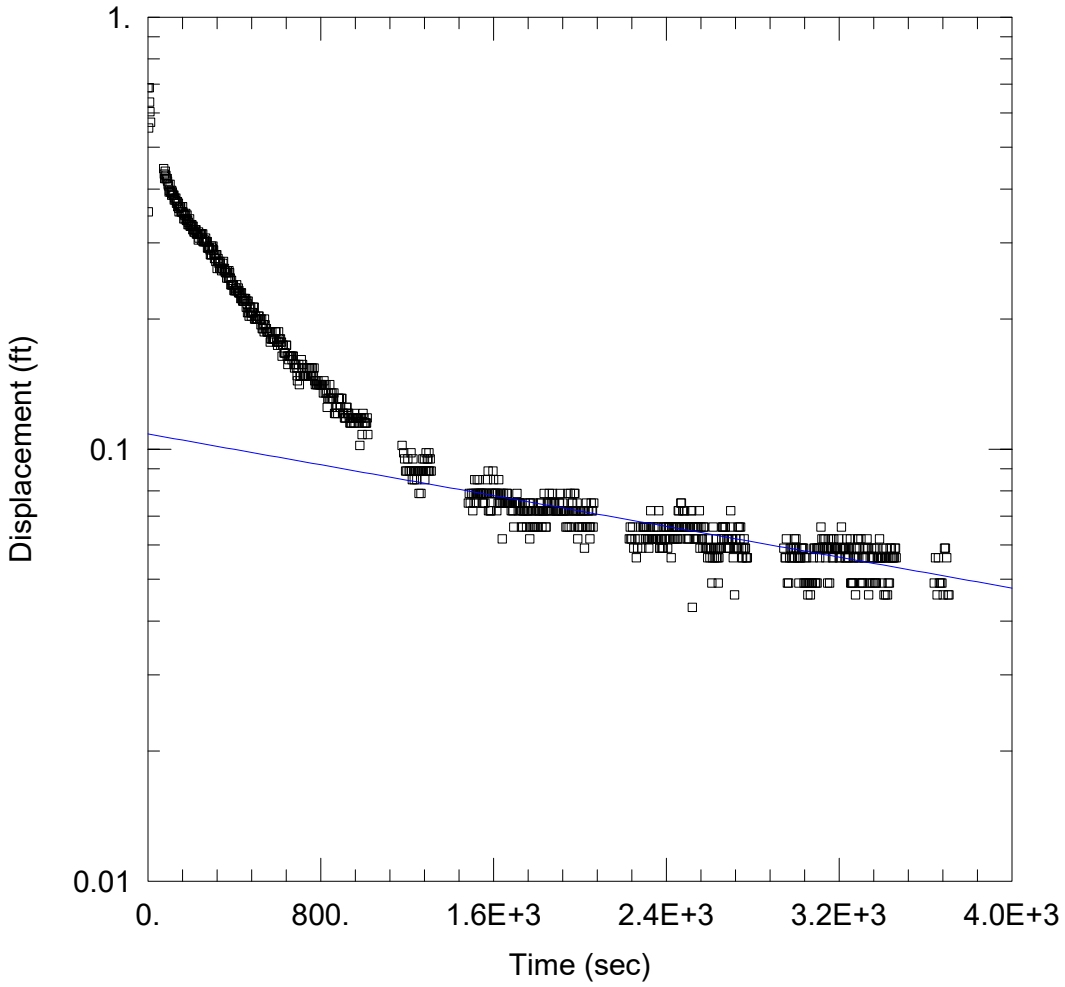
Initial Displacement: 0.981 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 6.092E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Falling Head Test 9



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-BR_100924.aqt
Date: 03/04/25 Time: 14:15:33

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

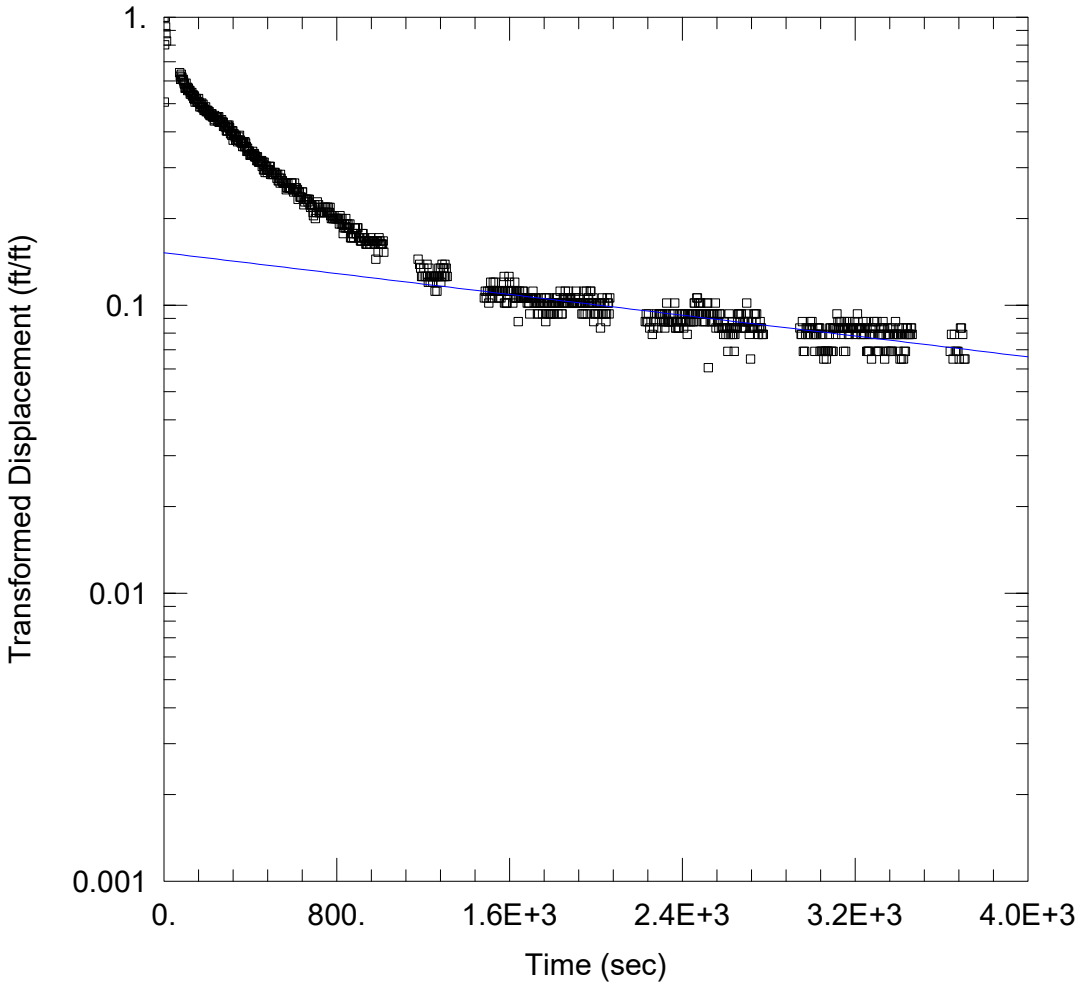
Initial Displacement: 0.686 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.88E-7 ft/sec y0 = 0.1084 ft

MW-8A - Falling Head Test 9



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-D_100924.aqt
Date: 03/04/25 Time: 14:15:17

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

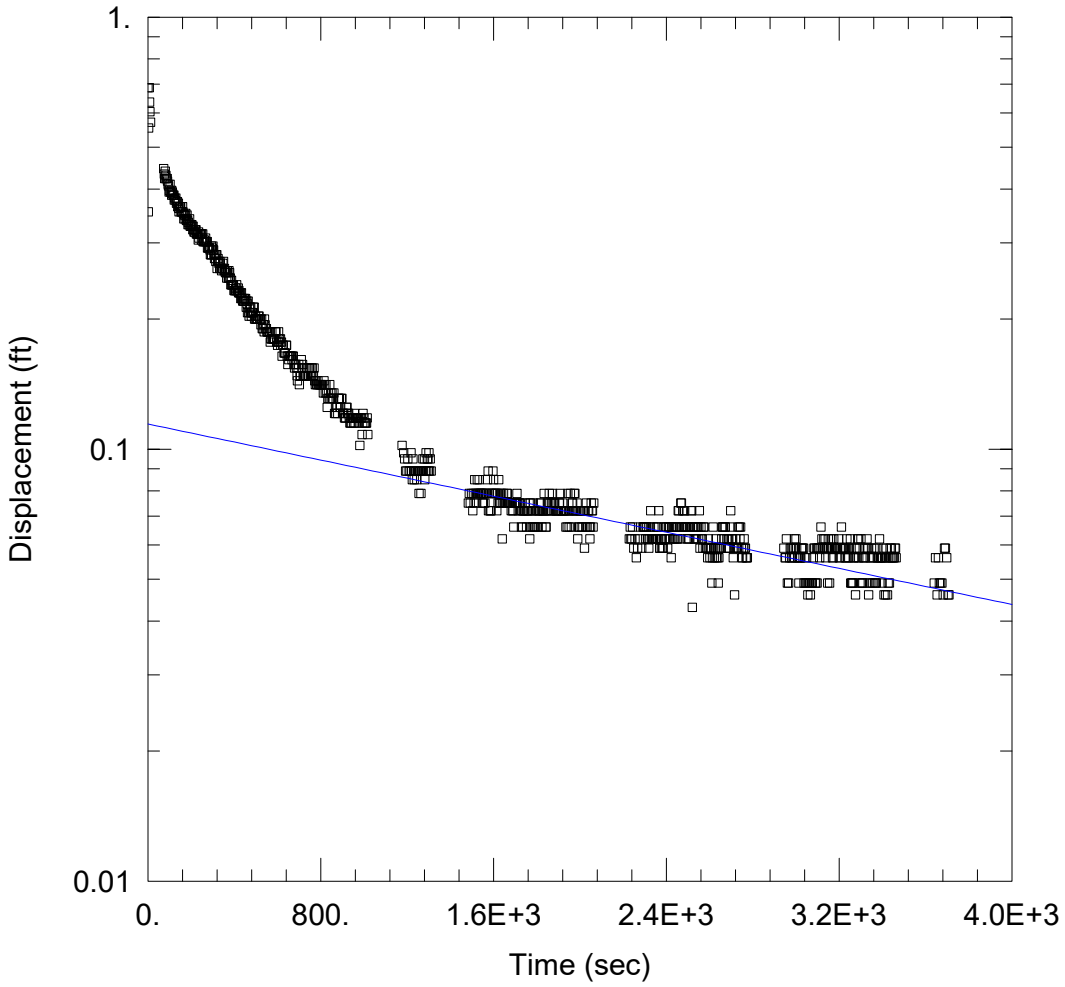
Initial Displacement: 0.686 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan

K = 3.284E-7 ft/sec y0 = 0.1074 ft

MW-8A - Falling Head Test 9



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-H_100924.aqt
Date: 03/04/25 Time: 14:15:03

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

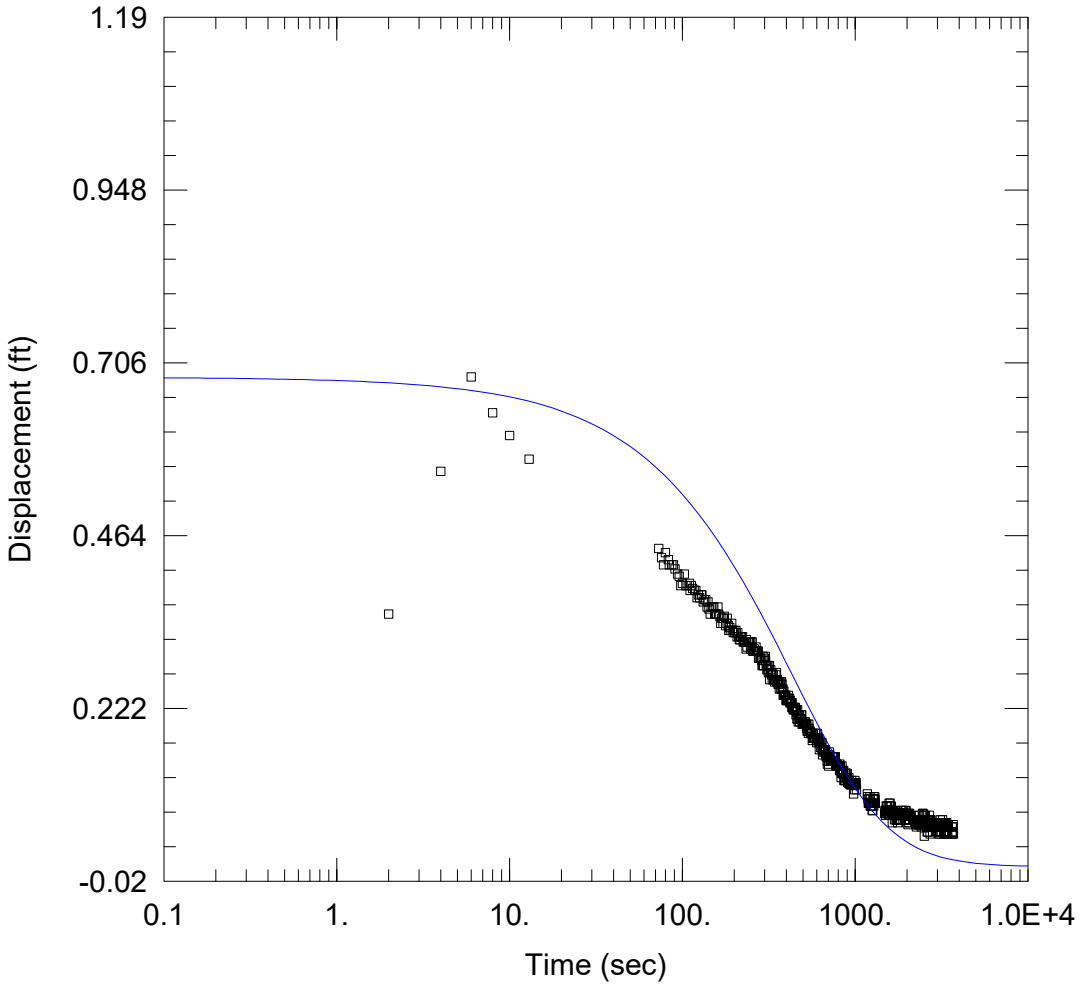
WELL DATA (MW-8A)

Initial Displacement: 0.686 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 4.624E-7 ft/sec
y0 = 0.1143 ft

MW-8A - Falling Head Test 9



WELL TEST ANALYSIS

Data Set: \...\MW-8A-R3-KGS_100924.aqt
Date: 03/04/25 Time: 14:14:46

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

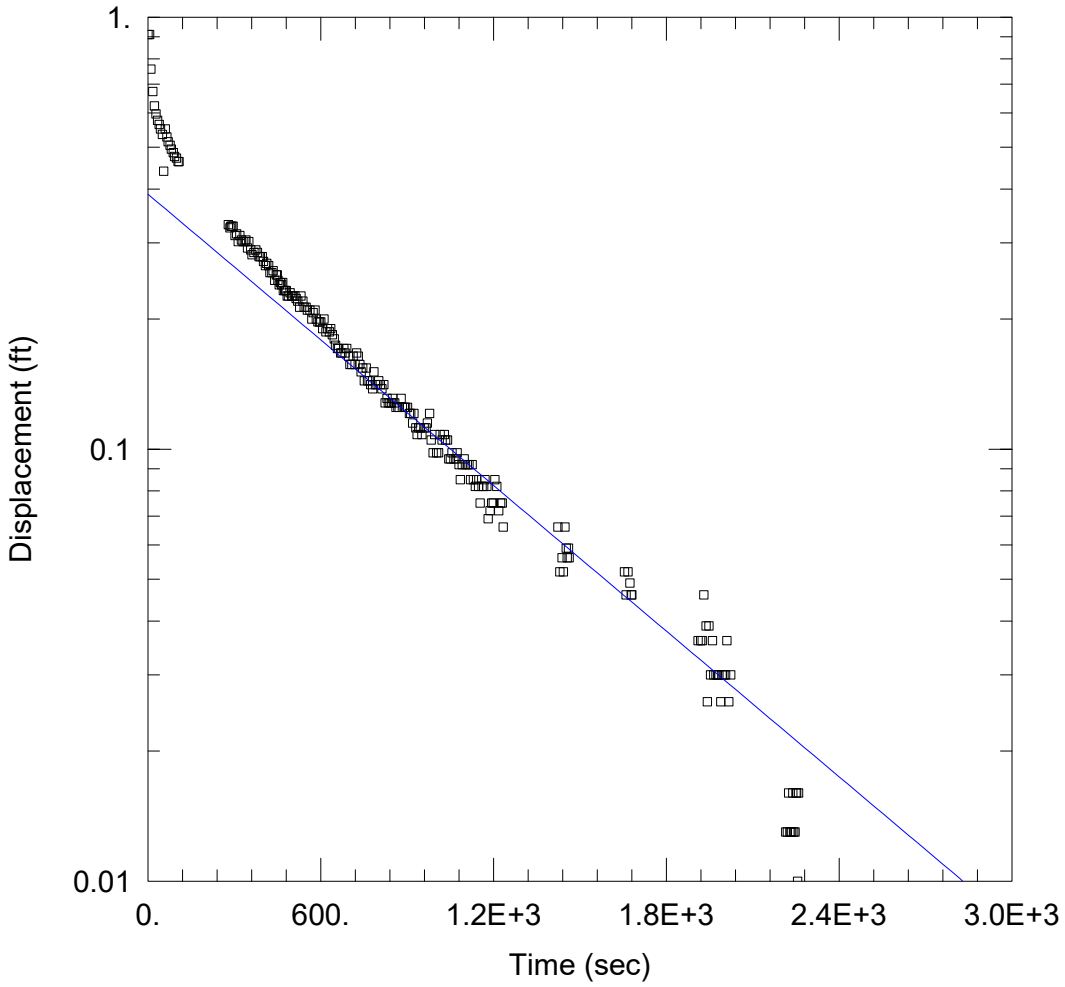
Initial Displacement: 0.686 ft
Total Well Penetration Depth: 13.25 ft
Casing Radius: 0.083 ft
Static Water Column Height: 9.46 ft
Screen Length: 10. ft
Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 5.574E-6 ft/sec
Kz/Kr = 0.1
Ss = 0.0001057 ft^{-1}

MW-8A - Rising Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F3-BR_100924.aqt
Date: 03/04/25 Time: 14:08:30

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW-8A)

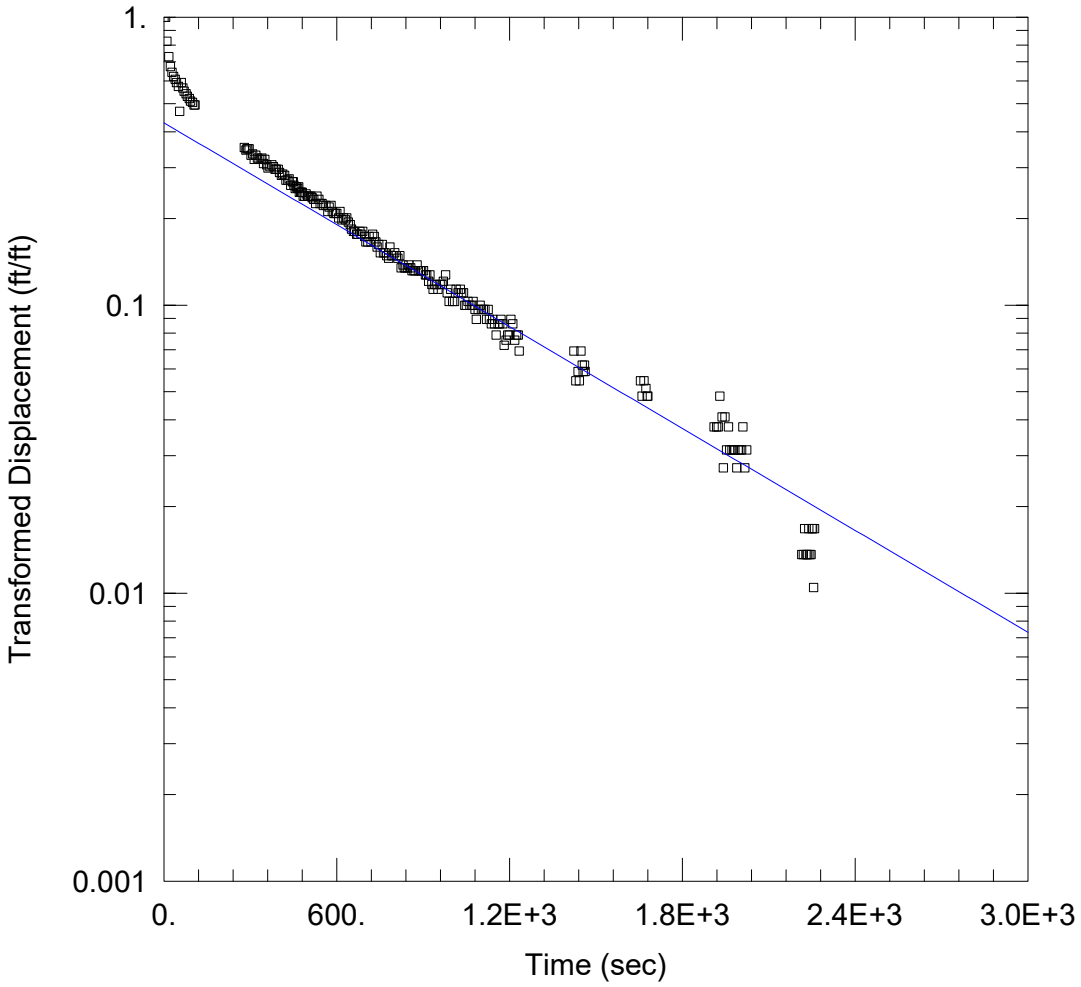
Initial Displacement: 0.912 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.815E-6 ft/sec y0 = 0.3891 ft

MW-8A - Rising Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F3-D_100924.aqt
Date: 03/04/25 Time: 14:08:17

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

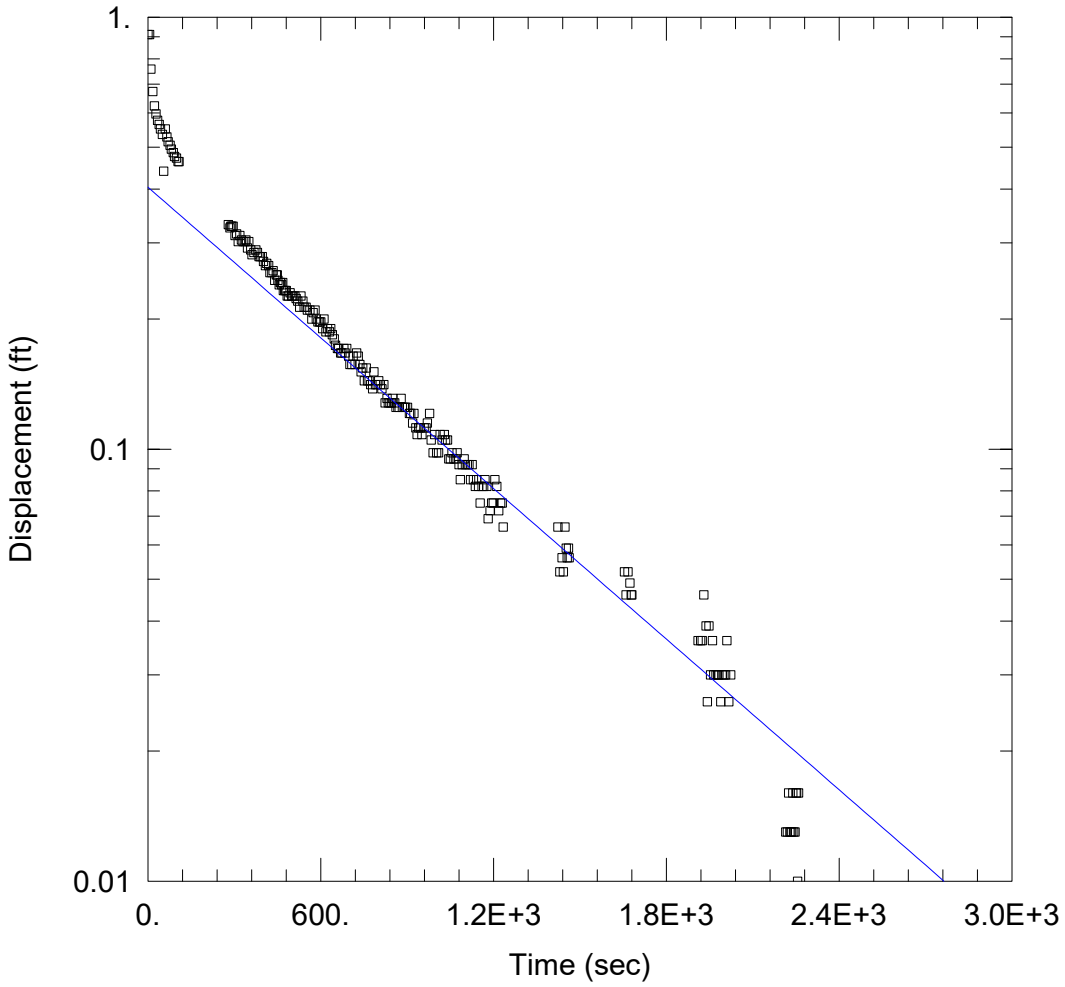
WELL DATA (MW-8A)

Initial Displacement: 0.912 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Dagan
K = 2.143E-6 ft/sec y0 = 0.4021 ft

MW-8A - Rising Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F3-H_100924.aqt
Date: 03/04/25 Time: 14:07:55

AQUIFER DATA

Saturated Thickness: 9.46 ft Anisotropy Ratio (Kz/Kr): 0.1

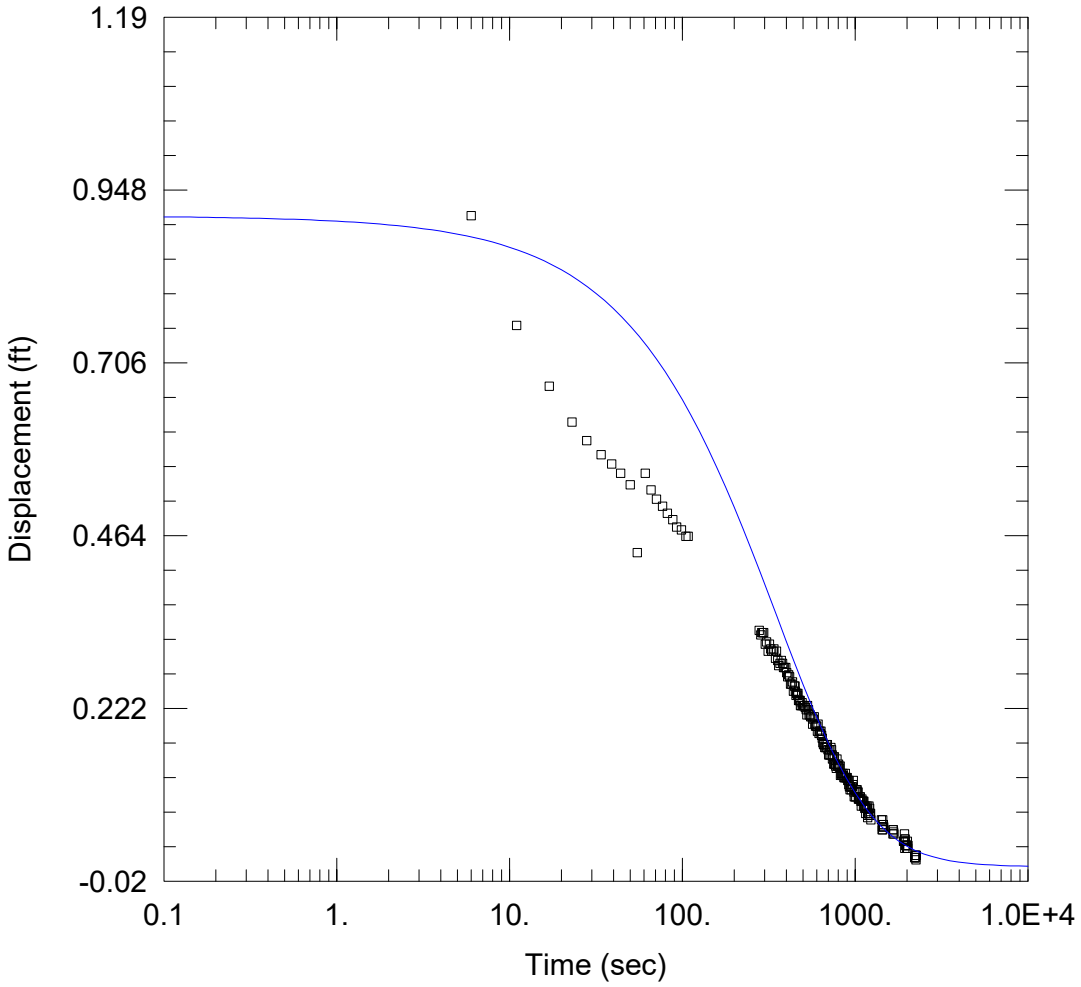
WELL DATA (MW-8A)

Initial Displacement: 0.912 ft Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft Screen Length: 10. ft
Casing Radius: 0.083 ft Well Radius: 0.083 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 2.572E-6 ft/sec y0 = 0.4039 ft

MW-8A - Rising Head Test 6



WELL TEST ANALYSIS

Data Set: \...\MW-8A-F3-KGS_100924.aqt
Date: 03/04/25 Time: 14:07:24

AQUIFER DATA

Saturated Thickness: 9.46 ft

WELL DATA (MW-8A)

Initial Displacement: 0.912 ft
Static Water Column Height: 9.46 ft
Total Well Penetration Depth: 13.25 ft
Screen Length: 10. ft
Casing Radius: 0.083 ft
Well Radius: 0.083 ft

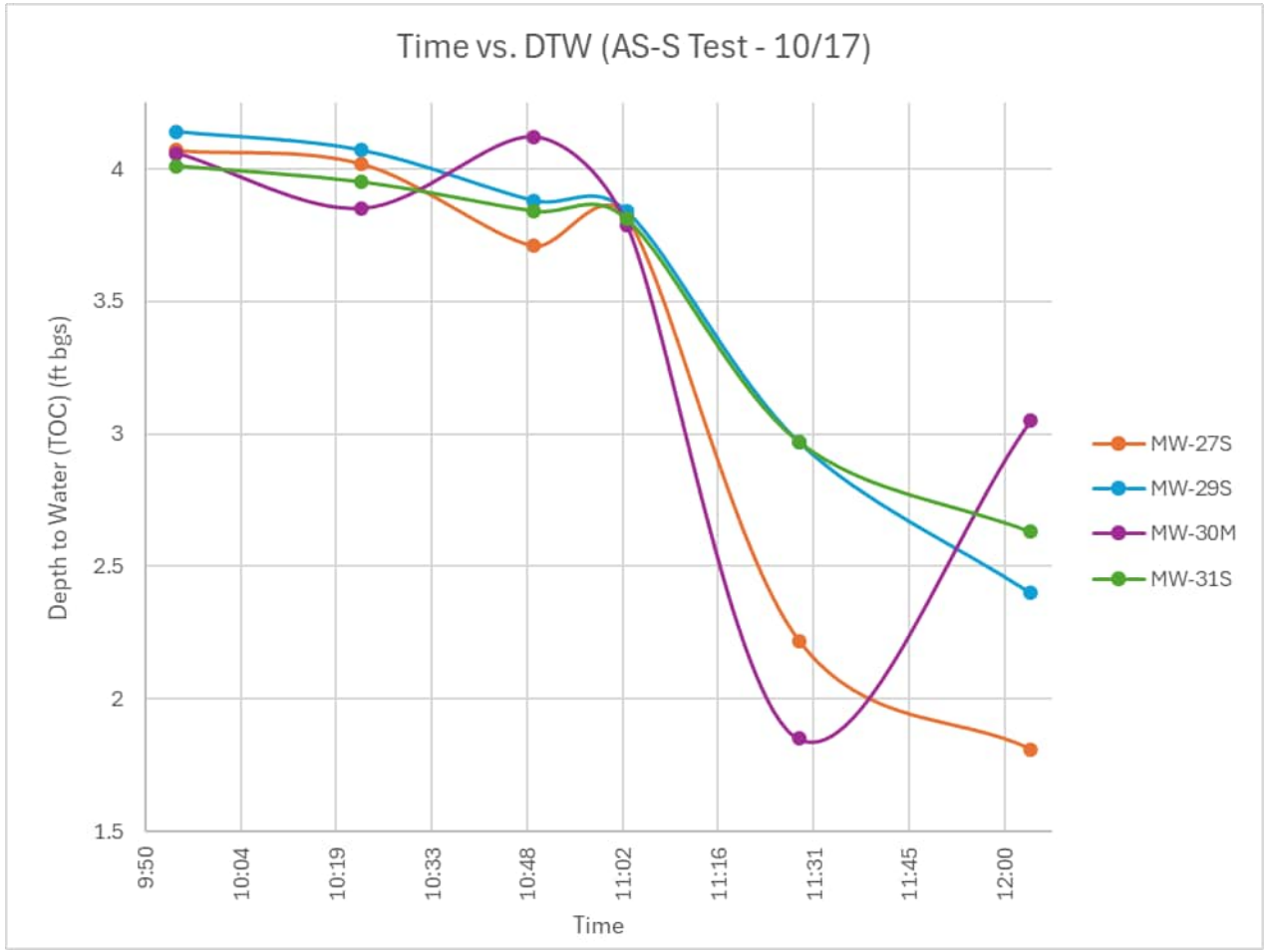
SOLUTION

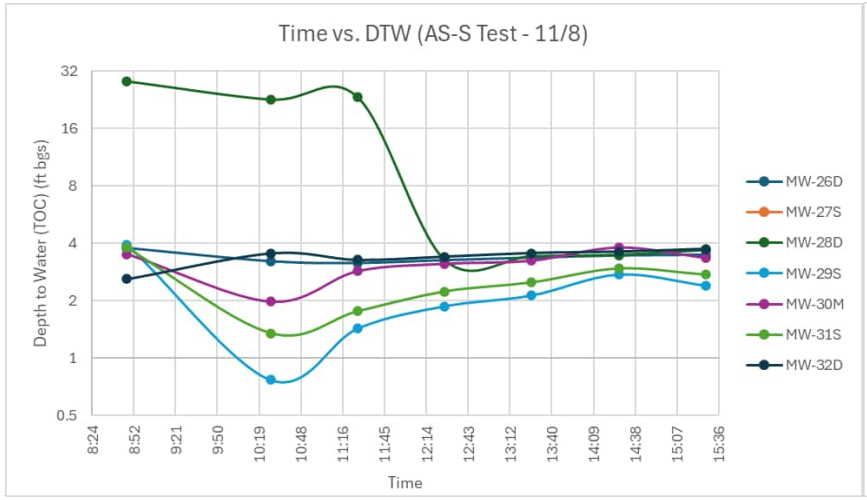
Aquifer Model: Unconfined
Solution Method: KGS Model

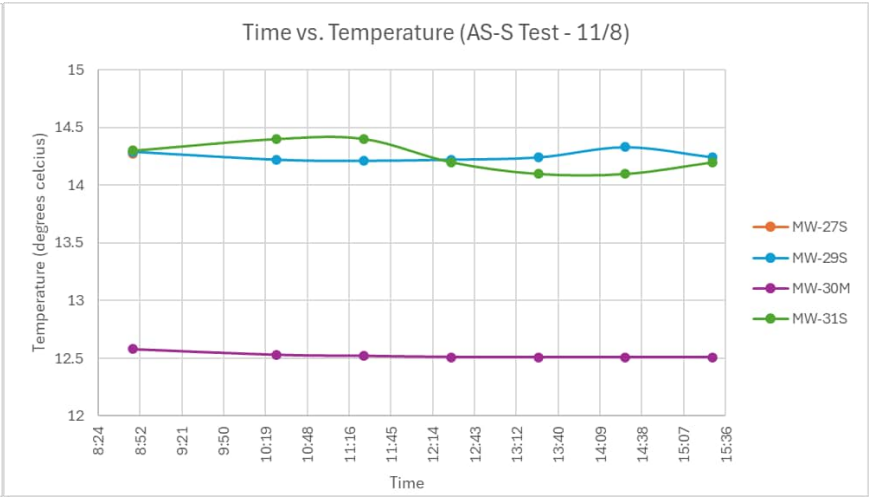
Kr = 7.023E-6 ft/sec
Ss = 0.0001057 ft^{-1}

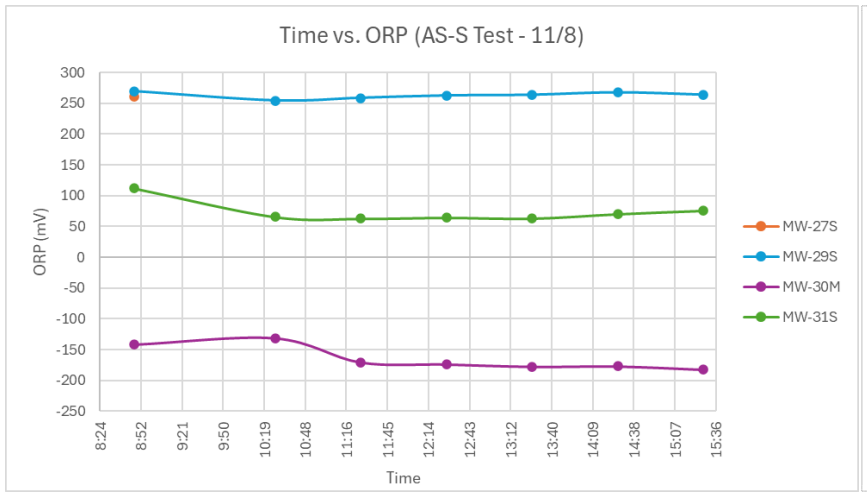
Kz/Kr = 0.1

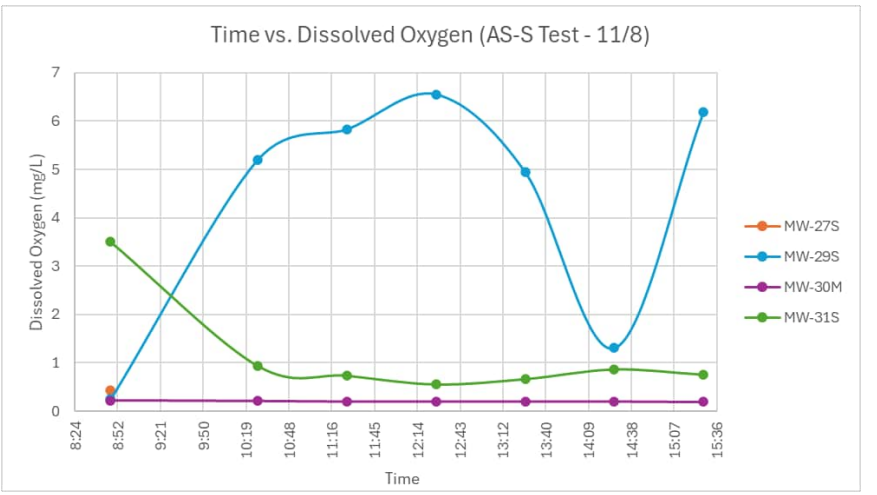
Attachment 8 Pilot Test Graphs

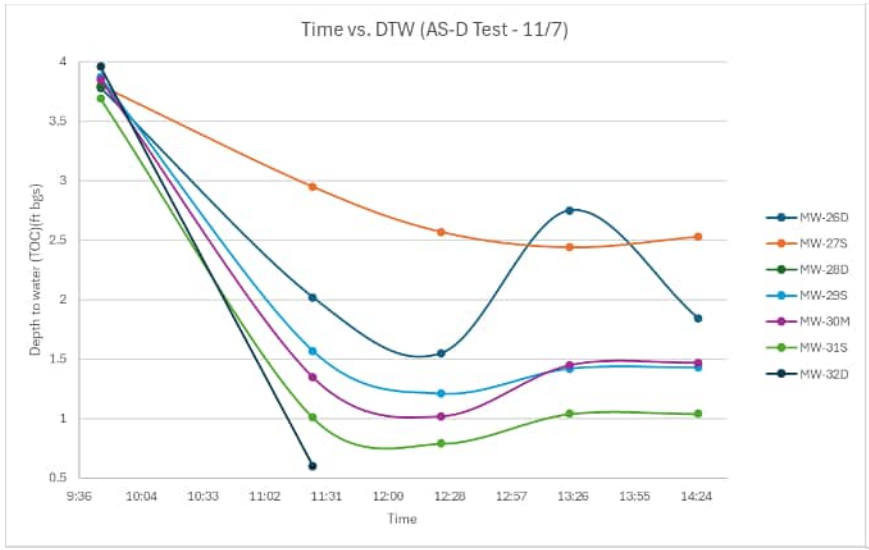

Time vs. DTW (AS-S Test - 10/17)
Depth to Water (TOC) (ft bgs)
4
3.5
3
2.5
2
1.5
9:50
10:04
10:19
10:33
10:48
11:02
11:16
11:31
11:45
12:00
Time
MW-27S
MW-29S
MW-30M
MW-31S

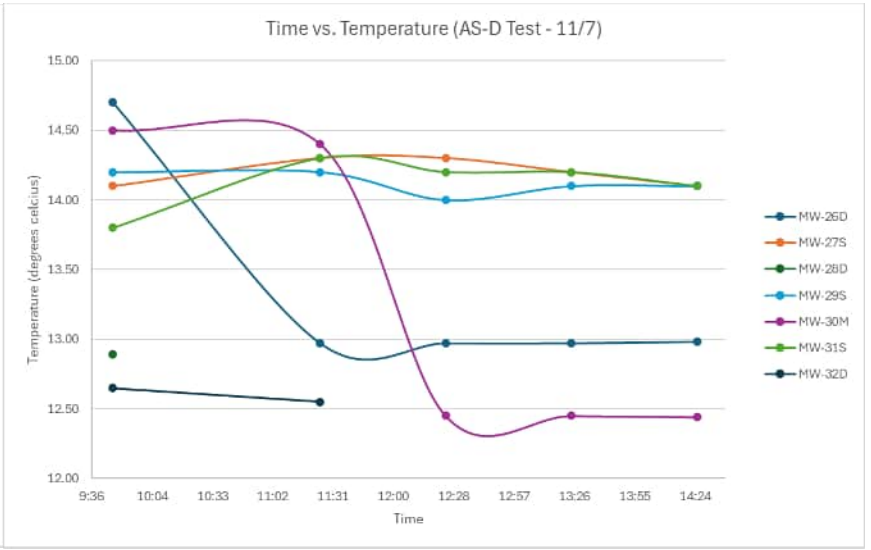

Time vs. DTW (AS-S Test - 11/8)
Depth to Water (TOC) (ft bgs)
32
16
8
4
2
1
0.5
8:24
8:52
9:21
9:50
10:19
10:48
11:16
11:45
12:14
12:43
13:12
13:40
14:09
14:38
15:07
15:36
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D

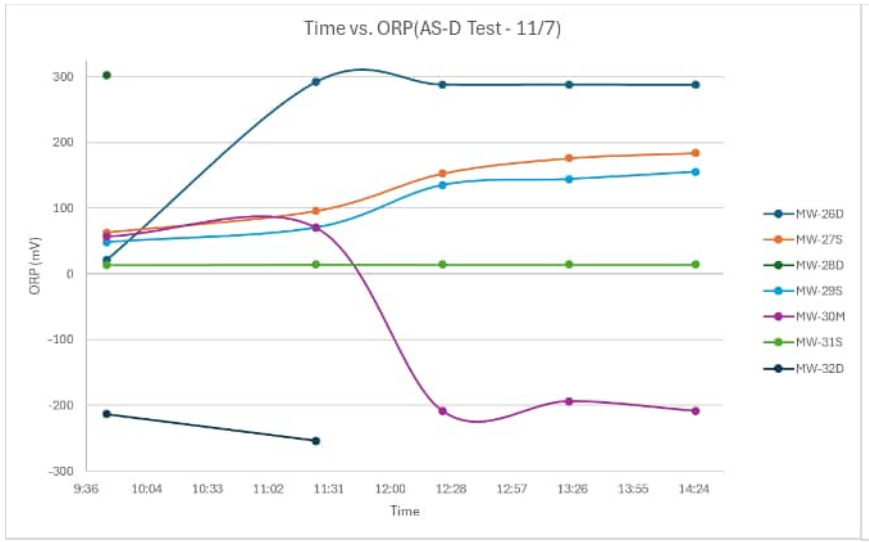

Time vs. Temperature (AS-S Test - 11/8)
Temperature (degrees celcius)
15
14.5
14
13.5
13
12.5
12
8:24
8:52
9:21
9:50
10:19
10:48
11:16
11:45
12:14
12:43
13:12
13:40
14:09
14:38
15:07
15:36
Time
MW-27S
MW-29S
MW-30M
MW-31S

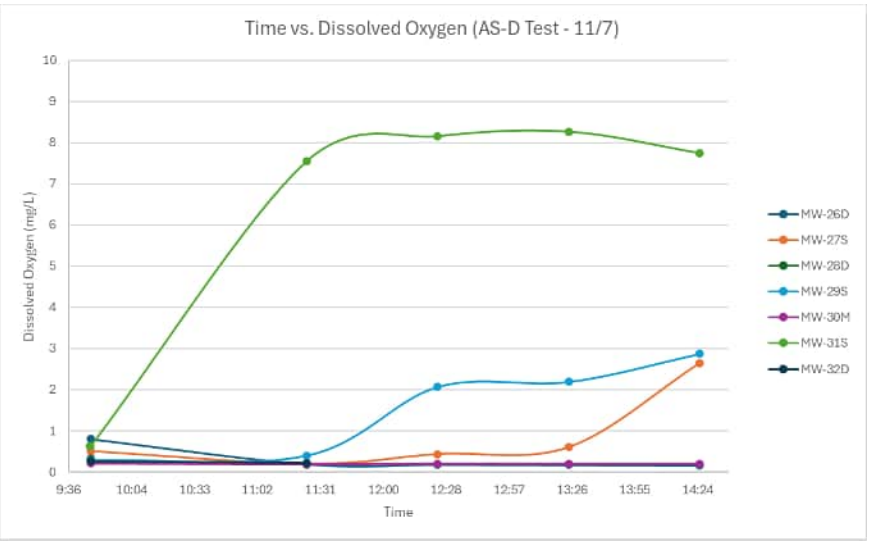

Time vs. ORP (AS-S Test - 11/8)
ORP (mV)
300
250
200
150
100
50
0
-50
-100
-150
-200
-250
8:24
8:52
9:21
9:50
10:19
10:48
11:16
11:45
12:14
12:43
13:12
13:40
14:09
14:38
15:07
15:36
Time
MW-27S
MW-29S
MW-30M
MW-31S

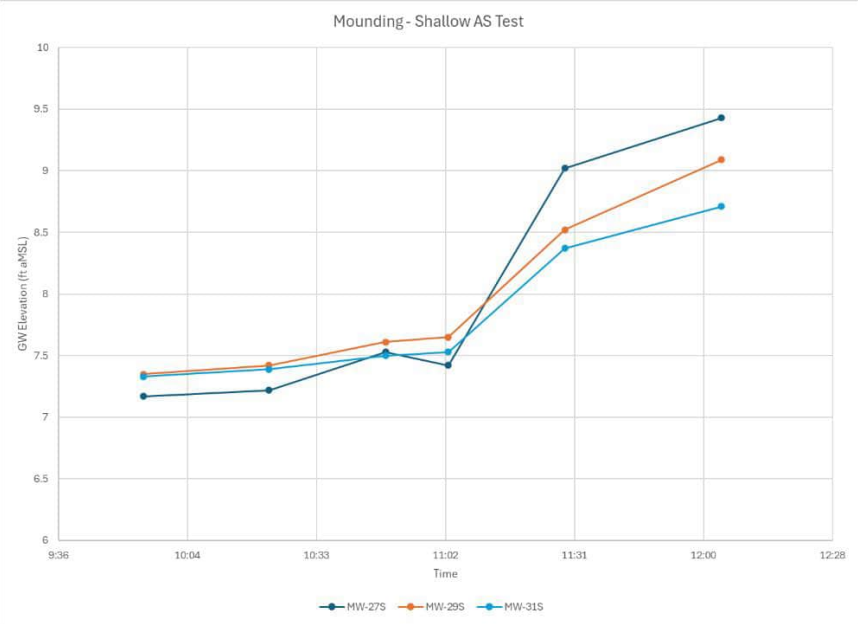

Time vs. Dissolved Oxygen (AS-S Test - 11/8)
Dissolved Oxygen (mg/L)
7
6
5
4
3
2
1
0
8:24
8:52
9:21
9:50
10:19
10:48
11:16
11:45
12:14
12:43
13:12
13:40
14:09
14:38
15:07
15:36
Time
MW-27S
MW-29S
MW-30M
MW-31S

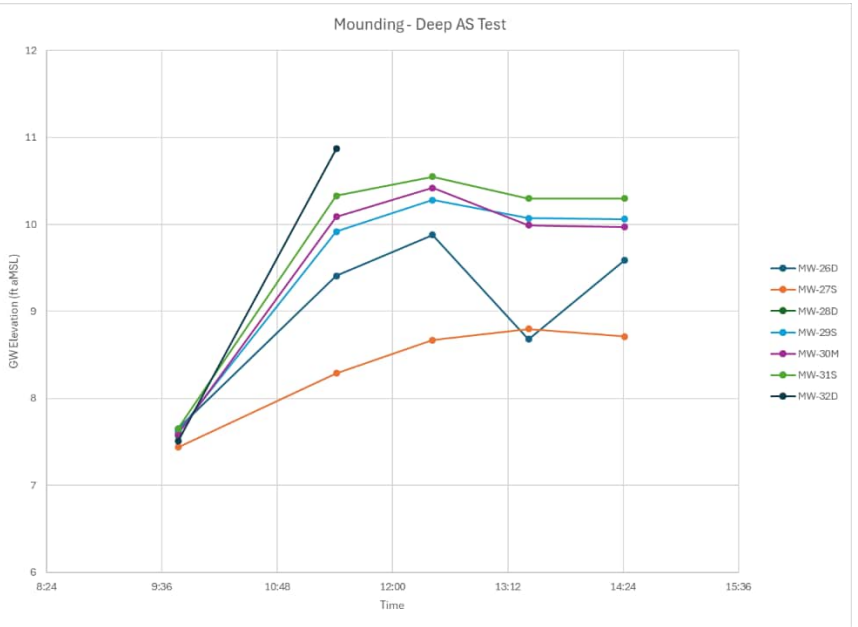

Time vs. DTW (AS-D Test - 11/7)
Depth to water (TOC)(ft bgs)
4
3.5
3
2.5
2
1.5
1
0.5
9:36
10:04
10:33
11:02
11:31
12:00
12:28
12:57
13:26
13:55
14:24
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D


Time vs. Temperature (AS-D Test - 11/7)
Temperature (degrees celcius)
15.00
14.50
14.00
13.50
13.00
12.50
12.00
9:36
10:04
10:33
11:02
11:31
12:00
12:28
12:57
13:26
13:55
14:24
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D


Time vs. ORP(AS-D Test - 11/7)
ORP (mV)
300
200
100
0
-100
-200
-300
9:36
10:04
10:33
11:02
11:31
12:00
12:28
12:57
13:26
13:55
14:24
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D


Time vs. Dissolved Oxygen (AS-D Test - 11/7)
Dissolved Oxygen (mg/L)
10
9
8
7
6
5
4
3
2
1
0
9:36
10:04
10:33
11:02
11:31
12:00
12:28
12:57
13:26
13:55
14:24
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D


Mounding - Shallow AS Test
GW Elevation (ft aMSL)
10
9.5
9
8.5
8
7.5
7
6.5
6
9:36
10:04
10:33
11:02
11:31
12:00
12:28
Time
MW-27S
MW-29S
MW-31S


Mounding - Deep AS Test
GW Elevation (ft aMSL)
12
11
10
9
8
7
6
8:24
9:36
10:48
12:00
13:12
14:24
15:36
Time
MW-26D
MW-27S
MW-28D
MW-29S
MW-30M
MW-31S
MW-32D

Attachment 9 Well Logs

Woodlife Area Soil Removal Delineation Assessment: Well Logs from Ecology

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning

Type of Well: Geotech Soil Boring
Number of Wells in Group 2 : 24 wells
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/19/2024
Drilling Completion Date: 6/21/2024
Received by Ecology: 6/25/2024 3:56 PM

Dimensions:
Diameter of borehole before decommissioning: 2.25 in
Well depth before decommissiong: 10 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

Material	From Depth	To Depth
N/A		

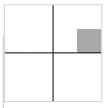
Individual Well Details (Group 2 of 2)

Well	Driller's Identifier	Decom Sealing Materials
1	WL-P26	Bentonite
2	WL-P25	Bentonite
3	WL-P24	Bentonite
4	WL-P23	Bentonite
5	WL-P22	Bentonite
6	WL-P21	Bentonite
7	WL-P19	Bentonite
8	WL-P20	Bentonite
9	WL-P15	Bentonite
10	WL-P14	Bentonite
11	WL-P5	Bentonite
12	WL-P16	Bentonite
13	WL-P4	Bentonite

Well Group 2 of 2 for Decommissioning

Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	ASPHALT
0 ft 6 in	1 ft 0 in	GRAVELY SANDS
1 ft 0 in	5 ft 0 in	GRAY SAND WITH SOME SILT
5 ft 0 in	10 ft 0 in	DARK GRAY COURSE SAND

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning
Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Well	Driller's Identifier	Decom Sealing Materials
14	WL-P6	Bentonite
15	WL-P13	Bentonite
16	WL-P17	Bentonite
17	WL-P12	Bentonite
18	WL-P10	Bentonite
19	WL-P9	Bentonite
20	WL-P8	Bentonite
21	WL-P7	Bentonite
22	WL-P3	Bentonite
23	WL-P2	Bentonite
24	WL-P1	Bentonite

Additional Well Decommissioning Information

None

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction

Type of Well: Geotech Soil Boring
Number of Wells in Group 2 : 24 wells
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/19/2024
Drilling Completion Date: 6/21/2024
Received by Ecology: 6/25/2024 3:56 PM

Dimensions:
Borehole Diameter: 2.25 in
Depth of completed well: 10 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

Material	From Depth	To Depth
N/A		

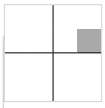
Individual Well Details (Group 2 of 2)

Well	Driller's Identifier	Water Level
1	WL-P26	Static Level at: 3 ft 6 in
2	WL-P25	Static Level at: 3 ft 2 in
3	WL-P24	Static Level at: 3 ft 1 in
4	WL-P23	Static Level at: 3 ft 6 in
5	WL-P22	Static Level at: 4 ft 3 in
6	WL-P21	Static Level at: 4 ft 6 in
7	WL-P19	Static Level at: 3 ft 8 in
8	WL-P20	Static Level at: 5 ft 2 in
9	WL-P15	Static Level at: 2 ft 9 in
10	WL-P14	Static Level at: 2 ft 8 in
11	WL-P5	Static Level at: 1 ft 7 in
12	WL-P16	Static Level at: 1 ft 7 in
13	WL-P4	Static Level at: 3 ft 7 in

Well Group 2 of 2

Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	ASPHALT
0 ft 6 in	1 ft 0 in	GRAVELY SANDS
1 ft 0 in	5 ft 0 in	GRAY SAND WITH SOME SILT
5 ft 0 in	10 ft 0 in	DARK GRAY COURSE SAND

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction (Group 2 of 5)
Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Well	Driller's Identifier	Water Level
14	WL-P6	Static Level at: 3 ft 1 in
15	WL-P13	Static Level at: 3 ft 8 in
16	WL-P17	Static Level at: 2 ft 9 in
17	WL-P12	Static Level at: 4 ft 8 in
18	WL-P10	Static Level at: 4 ft 7 in
19	WL-P9	Static Level at: 4 ft 4 in
20	WL-P8	Static Level at: 3 ft 9 in
21	WL-P7	Static Level at: 3 ft 6 in
22	WL-P3	Static Level at: 3 ft 7 in
23	WL-P2	Static Level at: 3 ft 9 in
24	WL-P1	Static Level at: 4 ft 6 in

Additional Well Construction Information

None

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning

Type of Well: Geotech Soil Boring
Number of Wells in Group 1 : 2 wells
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/19/2024
Drilling Completion Date: 6/21/2024
Received by Ecology: 6/25/2024 3:45 PM

Dimensions:
Diameter of borehole before decommissioning: 2.25 in
Well depth before decommissiong: 15 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

Material	From Depth	To Depth
N/A		

Individual Well Details (Group 1 of 2)

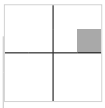
Well	Driller's Identifier	Decom Sealing Materials
1	WL-P18	Bentonite
2	WL-P-11	Bentonite

Additional Well Decommissioning Information
None

Well Group 1 of 2 for Decommissioning

Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	ASPHALT
0 ft 6 in	1 ft 0 in	GRAVELY SANDS
1 ft 0 in	5 ft 0 in	GRAY SAND WITH SOME SILT
5 ft 0 in	10 ft 0 in	DARK COURSE SAND
10 ft 0 in	15 ft 0 in	COURSE SAND

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction

Type of Well: Geotech Soil Boring
Number of Wells in Group 1 : 2 wells
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/19/2024
Drilling Completion Date: 6/21/2024
Received by Ecology: 6/25/2024 3:45 PM

Dimensions:
Borehole Diameter: 2.25 in
Depth of completed well: 15 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

Material	From Depth	To Depth
N/A		

Individual Well Details (Group 1 of 2)

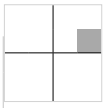
Well	Driller's Identifier	Water Level
1	WL-P18	Static Level at: 4 ft 0 in
2	WL-P-11	Static Level at: 4 ft 9 in

Additional Well Construction Information
None

Well Group 1 of 2

Construction Notice of Intent Number: SE89087
Decommissioning Notice of Intent Number: AE83154
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	ASPHALT
0 ft 6 in	1 ft 0 in	GRAVELY SANDS
1 ft 0 in	5 ft 0 in	GRAY SAND WITH SOME SILT
5 ft 0 in	10 ft 0 in	DARK COURSE SAND
10 ft 0 in	15 ft 0 in	COURSE SAND

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Creosote/Fuel Oil Area Hot Spot Soil Removal Delineation Assessment: Well Logs from Ecology

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning

Type of Well: Geotech Soil Boring
Number of Wells: 47
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/17/2024
Drilling Completion Date: 6/20/2024
Received by Ecology: 6/25/2024 2:57 PM

Dimensions:
Diameter of borehole before decommissioning: 2.25 in
Well depth before decommissiong: 10 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

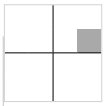
Material	From Depth	To Depth
N/A		

Individual Well Details

Well	Driller's Identifier	Decom Sealing Materials
1	CF-P1	Bentonite
2	CF-P2	Bentonite Slurry
3	CF-P3	Bentonite
4	CF-P4	Bentonite
5	CF-P5	Bentonite
6	CF-P6	Bentonite
7	CF-P7	Bentonite
8	CF-P8	Bentonite
9	CF-P9	Bentonite
10	CF-P10	Bentonite
11	CF-P11	Bentonite
12	CF-P12	Bentonite
13	CF-P13	Bentonite

Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	Asphalt
0 ft 6 in	1 ft 0 in	Gravely Sands
1 ft 0 in	5 ft 0 in	Gray Sand with Some Silt
5 ft 0 in	10 ft 0 in	Dark Gray Course Sand

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning
Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Well	Driller's Identifier	Decom Sealing Materials
14	CF-P14	Bentonite
15	CF-P15	Bentonite
16	CF-P16	Bentonite
17	CF-P17	Bentonite
18	CF-P18	Bentonite
19	CF-P19	Bentonite
20	CF-P20	Bentonite
21	CF-P21	Bentonite
22	CF-P22	Bentonite
23	CF-P23	Bentonite
24	CF-P24	Bentonite
25	CF-P25	Bentonite
26	CF-P26	Bentonite
27	CF-P27	Bentonite
Well	**Driller's Identifier**	**Decom Sealing Materials**
28	CF-P28	Bentonite
29	CF-P29	Bentonite
30	CF-P30	Bentonite
31	CF-P31	Bentonite
32	CF-P32	Bentonite
33	CF-P33	Bentonite
34	CF-P34	Bentonite
35	CF-P35	Bentonite
36	CF-P36	Bentonite
37	CF-P37	Bentonite
38	CF-P38	Bentonite
39	CF-P39	Bentonite
40	CF-P40	Bentonite
41	CF-P41	Bentonite
Well	**Driller's Identifier**	**Decom Sealing Materials**
42	CF-P42	Bentonite
43	CF-P43	Bentonite
44	CF-P44	Bentonite
45	CF-P45	Bentonite
46	CF-P46	Bentonite
47	CF-P47	Bentonite

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Decommissioning
Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Additional Well Decommissioning Information

None

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction

Type of Well: Geotech Soil Boring
Number of Wells: 47
Type of Work: 5
Method: DirectPush
Drilling Start Date: 6/17/2024
Drilling Completion Date: 6/20/2024
Received by Ecology: 6/25/2024 2:57 PM

Dimensions:
Borehole Diameter: 2.25 in
Depth of completed well: 10 ft 0 in

Construction Details

Casings:

From Depth	To Depth	Type	Diameter	Stickup
N/A				

Perforations:

Type	Size	Total Perforations	From Depth	To Depth
N/A				

Screens:

Manufacturer	Type	Diameter	Slot Size	From Depth	To Depth
N/A					

Sand/Gravel Packings:

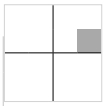
Material	From Depth	To Depth
N/A		

Individual Well Details

Well	Driller's Identifier	Water Level
1	CF-P1	Static Level at: 3 ft 7 in
2	CF-P2	Static Level at: 3 ft 8 in
3	CF-P3	Static Level at: 4 ft 1 in
4	CF-P4	Static Level at: 3 ft 9 in
5	CF-P5	Static Level at: 3 ft 2 in
6	CF-P6	Static Level at: 3 ft 4 in
7	CF-P7	Static Level at: 4 ft 3 in
8	CF-P8	Static Level at: 4 ft 1 in
9	CF-P9	Static Level at: 3 ft 9 in
10	CF-P10	Static Level at: 3 ft 5 in
11	CF-P11	Static Level at: 3 ft 9 in
12	CF-P12	Static Level at: 3 ft 5 in
13	CF-P13	Static Level at: 3 ft 6 in

Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Unique Ecology Well ID Tag Number: N/A
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: PO BOX 973, ANACORTES, WA 98221

Well Location:
Well Street Address: 300 WEST MARINE VIEW DRIVE
City, State, Zip: EVERETT, WA , 98201
County: Snohomish
Township: 29N Range: 5E Section: 7 in the SE 1/4 of the NE 1/4



Well Head Elevation:
Elevation Datum:
Elevation Method:
Latitude (DD): Longitude (DD):
Datum:
Horizontal Coordinate Collection Method:
Tax parcel No.: 29050700100400

Lithology

Layer: Describe by color, character, size of material and structure, and the kind and nature of the material in each layer penetrated, with at least one entry for each change of information.

From	To	Material
0 ft 0 in	0 ft 6 in	Asphalt
0 ft 6 in	1 ft 0 in	Gravely Sands
1 ft 0 in	5 ft 0 in	Gray Sand with Some Silt
5 ft 0 in	10 ft 0 in	Dark Gray Course Sand

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction (Group 2 of 5)
Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Well	Driller's Identifier	Water Level
14	CF-P14	Static Level at: 4 ft 1 in
15	CF-P15	Static Level at: 3 ft 9 in
16	CF-P16	Static Level at: 3 ft 9 in
17	CF-P17	Static Level at: 3 ft 8 in
18	CF-P18	Static Level at: 3 ft 9 in
19	CF-P19	Static Level at: 3 ft 7 in
20	CF-P20	Static Level at: 3 ft 9 in
21	CF-P21	Static Level at: 4 ft 8 in
22	CF-P22	Static Level at: 3 ft 8 in
23	CF-P23	Static Level at: 3 ft 5 in
24	CF-P24	Static Level at: 3 ft 5 in
25	CF-P25	Static Level at: 3 ft 5 in
26	CF-P26	Static Level at: 3 ft 3 in
27	CF-P27	Static Level at: 3 ft 1 in
Well	**Driller's Identifier**	**Water Level**
28	CF-P28	Static Level at: 3 ft 7 in
29	CF-P29	Static Level at: 3 ft 0 in
30	CF-P30	Static Level at: 3 ft 3 in
31	CF-P31	Static Level at: 3 ft 8 in
32	CF-P32	Static Level at: 3 ft 0 in
33	CF-P33	Static Level at: 3 ft 2 in
34	CF-P34	Static Level at: 4 ft 2 in
35	CF-P35	Static Level at: 4 ft 6 in
36	CF-P36	Static Level at: 4 ft 4 in
37	CF-P37	Static Level at: 4 ft 4 in
38	CF-P38	Static Level at: 4 ft 2 in
39	CF-P39	Static Level at: 3 ft 8 in
40	CF-P40	Static Level at: 4 ft 4 in
41	CF-P41	Static Level at: 5 ft 6 in
Well	**Driller's Identifier**	**Water Level**
42	CF-P42	Static Level at: 4 ft 0 in
43	CF-P43	Dry Hole
44	CF-P44	Static Level at: 4 ft 9 in
45	CF-P45	Static Level at: 3 ft 7 in
46	CF-P46	Static Level at: 3 ft 9 in
47	CF-P47	Static Level at: 3 ft 6 in

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

RESOURCE PROTECTION WELL REPORT Continuation

This is a report of the activities of a licensed Washington well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered.

Construction (Group 2 of 5)
Construction Notice of Intent Number: SE89086
Decommissioning Notice of Intent Number: AE83153
Property Owner Name: W AND W EVERETT INVESTMENTS LLC.
Property Owner Address: WA.ECY.WR.Water.BusinessObjects.Address

Additional Well Construction Information

None

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

Well Construction Certification: I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards. Material used and information reported above are true to the best of my knowledge and belief.

Driller/Engineer/Trainee Printed Name: DANIEL RIDER	Drilling Company: ANDERSON ENVIRONMENTAL CONTRACTING LLC
Driller or trainee License Number: 3223	Address: 705 COLORADO ST
If trainee, Driller's License Number:	City, State, Zip: KELSO WA 98626

Creosote/Fuel Oil Area Shallow and Deep Groundwater Zone Assessment: Well Logs from Ecology

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-823

Site Well Name MW-26D

Consulting Firm SLR

Was a variance approved for this well/boring? ☐ Yes ■ No

If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Rider, Dan

Driller/Engineer/Trainee Signature *Dan Rider*

License No. 3223

Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.

Well Street Address 300 WEST MARINE VIEW DRIVE

City EVERETT County SNOHOMISH

Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■

SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E

Latitude (Example: 47.12345) 48.014474

Longitude (Example: -120.12345) -122.209181

(WGS 84 Coordinate System)

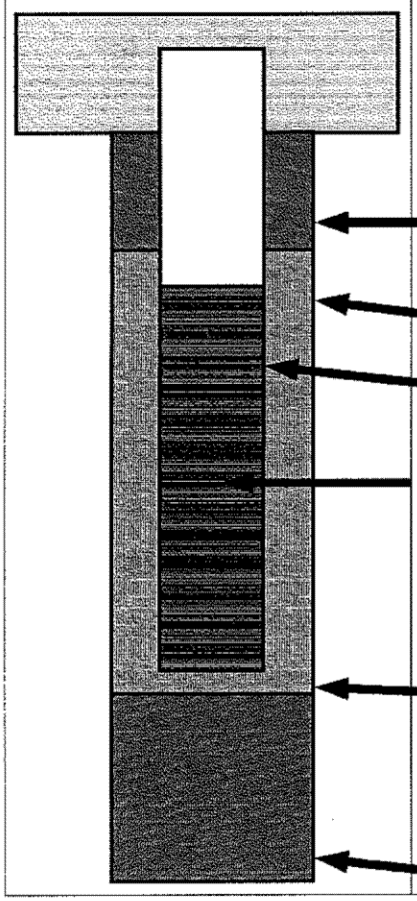
Borehole diameter 6 inches Casing diameter 2 inches

Static water level 9 ft below top of casing Date 07/08/2024

☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface

Start Date 07/08/2024 Completed Date 07/08/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	2" X 40'
Material	PVC
Backfill	FT
Type	
Seal	2' - 36' FT
Gravel Pack	36' - 50' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	50' FT
Backfill	
Material	
Total Hole Depth	50' FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 50': FT
WET SAND AND GRAVEL

Received
Department of Ecology
AUG 28 2024
Water Resources Program
NWRO

The Department of Ecology does not warranty the data and\or information on this well report.

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-828
Site Well Name MW-24S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

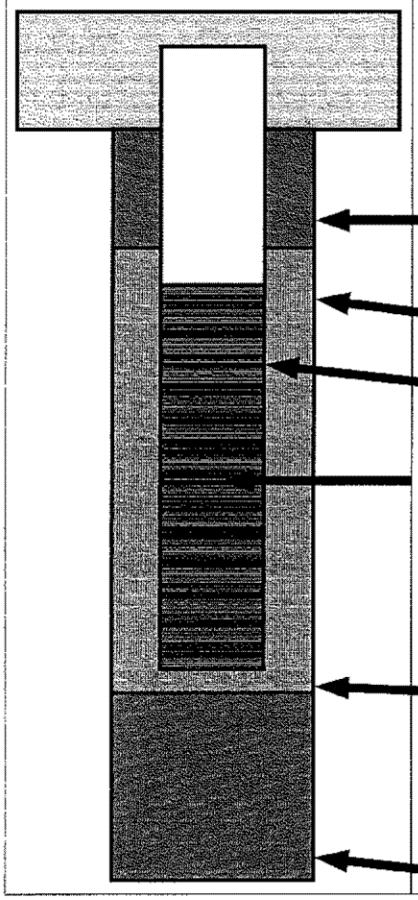
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.013976
Longitude (Example: -120.12345) -122.210187
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/08/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/08/2024 Completed Date 07/08/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	1'	FT
Blank Casing (dia x dep)	2" X 3'	
Material	PVC	
Backfill		FT
Type		
Seal	1' - 2'	FT
Gravel Pack	2' - 15'	FT
Material	SAND	
Screen (dia x dep)	2" X 10'	
Slot Size	.001	
Material	PVC	
Well Depth	13'	FT
Backfill		
Material		
Total Hole Depth	15'	FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 15': FT
WET SAND AND GRAVEL

FT

Received
Department of Ecology
AUG 28 2024
Water Resources Program
NWRO

The Department of Ecology does not warranty the data and\or information on this well report.

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Notice of Intent No. RE26450

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Type of Well:

■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Ecology Well ID Tag No. BQG-822

Site Well Name MW-30M

Consulting Firm SLR

Property Owner W AND W EVERETT INVESTMENTS LLC.

Well Street Address 300 WEST MARINE VIEW DRIVE

City EVERETT County SNOHOMISH

Tax Parcel No. 29050700100400

Was a variance approved for this well/boring? ☐ Yes ■ No

If yes, what was the variance for? _____

Location (see instructions): WWM ☐ or EWM ■

SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E

Latitude (Example: 47.12345) 48.014501

Longitude (Example: -120.12345) -122.209452

(WGS 84 Coordinate System)

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Rider, Dan

Driller/Engineer/Trainee Signature *Dan Rider*

License No. 3223

Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

Borehole diameter 6 inches Casing diameter 2 inches

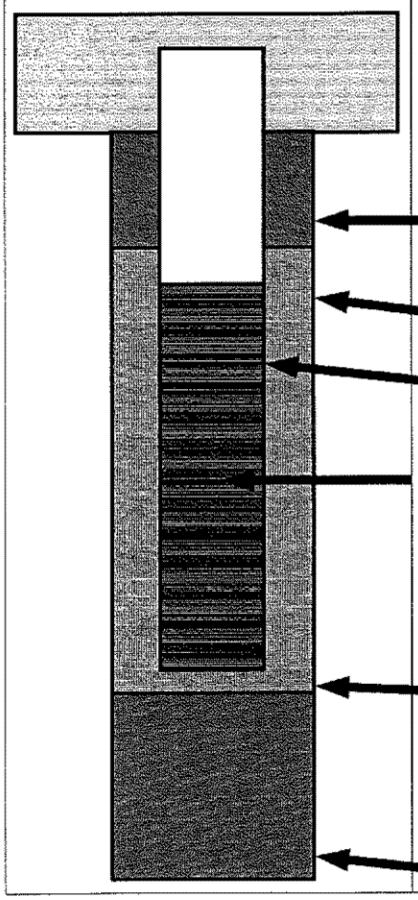
Static water level 9 ft below top of casing Date 07/09/2024

☐ Above-ground completion with bollards ■ Flush monument

↳ Stick-up of top of well casing _____ ft above ground surface

Start Date 07/09/2024 Completed Date 07/09/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	2" X 20'
Material	PVC
Backfill	FT
Type	
Seal	2' - 16' FT
Gravel Pack	16' - 30' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	30' FT
Backfill	
Material	
Total Hole Depth	30' FT

Formation Description

0' - 9': _____ FT

SAND AND GRAVEL

9' - 30': _____ FT

WET SAND AND GRAVEL

Received
Department of Ecology
AUG 28 2024
Water Resources Program

The Department of Ecology does not warranty the data and\or information on this well report.

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-821
Site Well Name MW-29S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature *Dan Rider*
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014536
Longitude (Example: -120.12345) -122.209388
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/09/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/09/2024 Completed Date 07/09/2024

Construction/Design	Well Data		Formation Description
	Concrete Surface Seal Depth	1' FT	0' - 9': FT
	Blank Casing (dia x dep)	2" X 3'	SAND AND GRAVEL
	Material	PVC	
	Backfill	FT	
	Type		9' - 15': FT
	Seal	1' - 2' FT	WET SAND AND GRAVEL
	Gravel Pack	2' - 15' FT	
	Material	SAND	
	Screen (dia x dep)	2" X 10'	FT
	Slot Size	.001	
	Material	PVC	
	Well Depth	13' FT	
	Backfill		
	Material		
	Total Hole Depth	15' FT	

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DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-820
Site Well Name MW-28D
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature *Dan Rider*
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

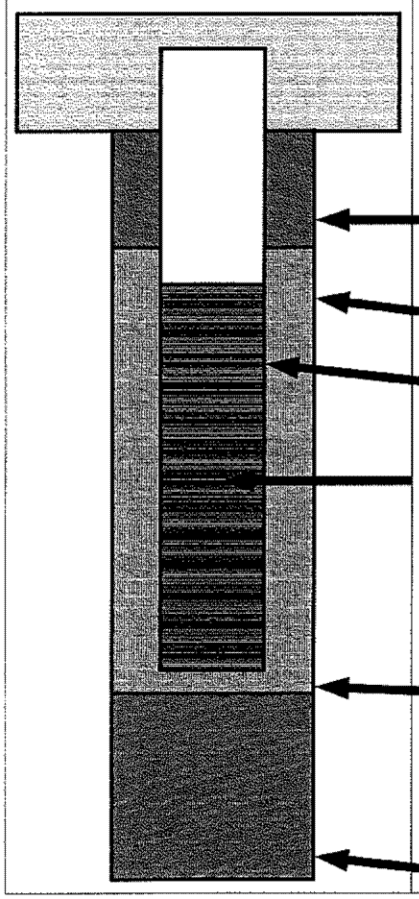
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014571
Longitude (Example: -120.12345) -122.209334
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/09/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/09/2024 Completed Date 07/09/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	2" X 40'
Material	PVC
Backfill	FT
Type	
Seal	2' - 36' FT
Gravel Pack	36' - 50' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	50' FT
Backfill	
Material	
Total Hole Depth	50' FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 50': FT
WET SAND AND GRAVEL

FT

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DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-824
Site Well Name MW-27S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

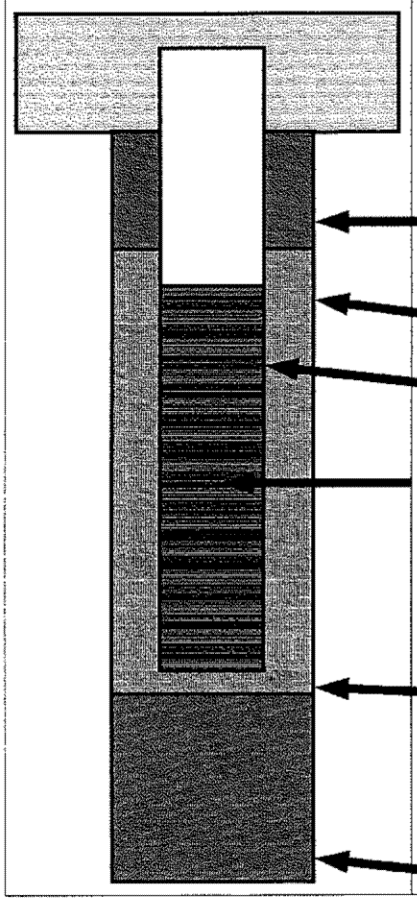
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014612
Longitude (Example: -120.12345) -122.209512
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/09/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/09/2024 Completed Date 07/09/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	1' FT
Blank Casing (dia x dep)	2" X 3'
Material	PVC
Backfill	FT
Type	
Seal	1' - 2' FT
Gravel Pack	2' - 15' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	13' FT
Backfill	
Material	
Total Hole Depth	15' FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 15': FT
WET SAND AND GRAVEL

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DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-819
Site Well Name MW-31S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

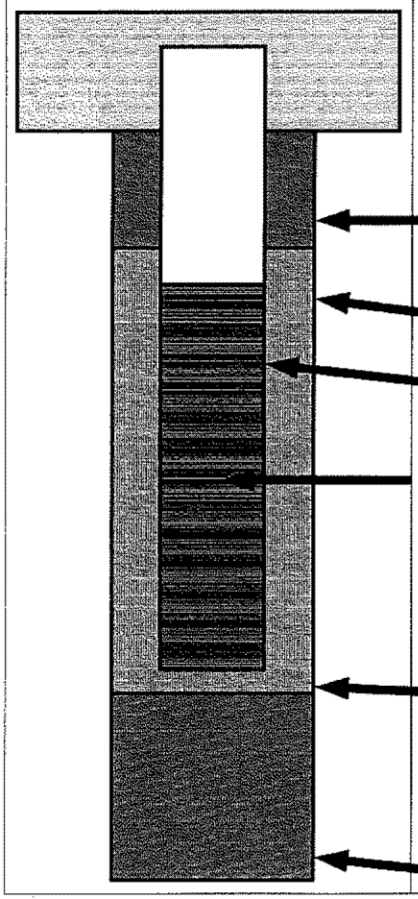
Type of Well:

■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014520
Longitude (Example: -120.12345) -122.209365
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/10/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/10/2024 Completed Date 07/10/2024

Construction/Design	Well Data		Formation Description
	Concrete Surface Seal Depth	1' FT	0' - 9': FT SAND AND GRAVEL
	Blank Casing (dia x dep)	2" X 3'	
	Material	PVC	
	Backfill	FT	
	Type		9' - 15': FT WET SAND AND GRAVEL
	Seal	1' - 2' FT	
	Gravel Pack	2' - 15' FT	
	Material	SAND	
	Screen (dia x dep)	2" X 10'	FT
	Slot Size	.001	
	Material	PVC	
	Well Depth	13' FT	
	Backfill		
	Material		
	Total Hole Depth	15' FT	

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Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-825
Site Well Name MW-33D
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

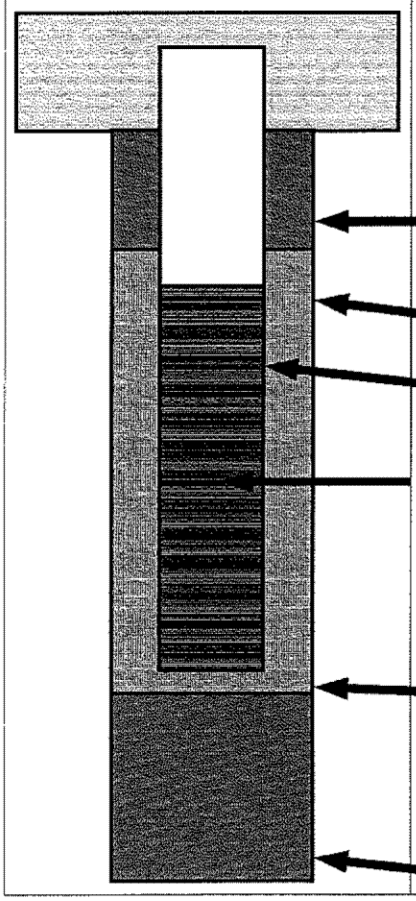
Type of Well:

■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014210
Longitude (Example: -120.12345) -122.209725
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/10/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/10/2024 Completed Date 07/10/2024

Construction/Design	Well Data		Formation Description
	Concrete Surface Seal Depth	2' FT	0' - 9': FT SAND AND GRAVEL
	Blank Casing (dia x dep)	2" X 40'	
	Material	PVC	
	Backfill	FT	
	Type		9' - 50': FT WET SAND AND GRAVEL
	Seal	2' - 36' FT	
	Gravel Pack	36' - 50' FT	
	Material	SAND	
	Screen (dia x dep)	2" X 10'	FT
	Slot Size	.001	
	Material	PVC	
	Well Depth	50' FT	
	Backfill		
	Material		
	Total Hole Depth	50' FT	

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DEPARTMENT OF ECOLOGY
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Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-818
Site Well Name MW-32D
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

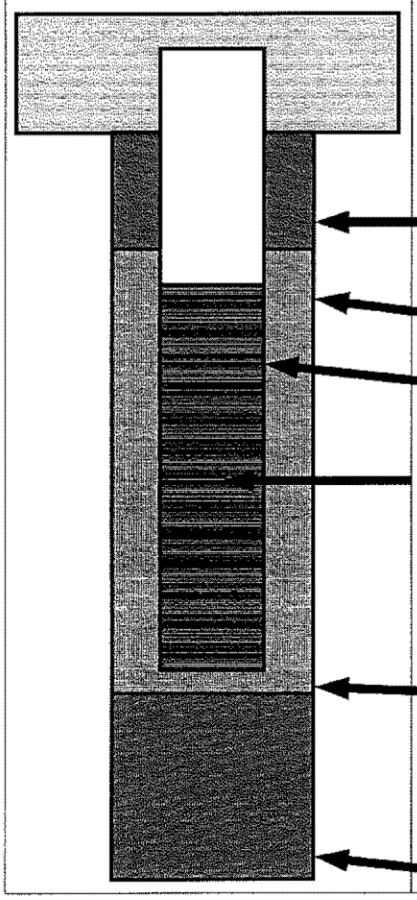
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014505
Longitude (Example: -120.12345) -122.209418
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/10/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/10/2024 Completed Date 07/10/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	2" X 40'
Material	PVC
Backfill	FT
Type	
Seal	2' - 36' FT
Gravel Pack	36' - 50' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	50' FT
Backfill	
Material	
Total Hole Depth	50' FT

Formation Description

0' - 9': _____ FT
SAND AND GRAVEL

9' - 50': _____ FT
WET SAND AND GRAVEL

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Water Resources Program
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877-833-6341.

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DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-827
Site Well Name MW-22D
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

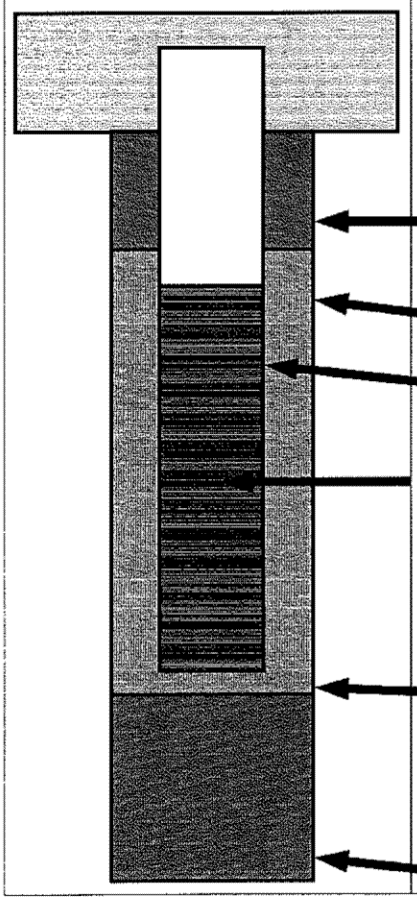
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.013724
Longitude (Example: -120.12345) -122.210145
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/10/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/10/2024 Completed Date 07/10/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	2" X 35'
Material	PVC
Backfill	FT
Type	
Seal	2' - 32' FT
Gravel Pack	32' - 50' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	45' FT
Backfill	
Material	
Total Hole Depth	50' FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 50': FT
WET SAND AND GRAVEL

FT

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DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☒ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQG-826
Site Well Name MW-23S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ☒ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

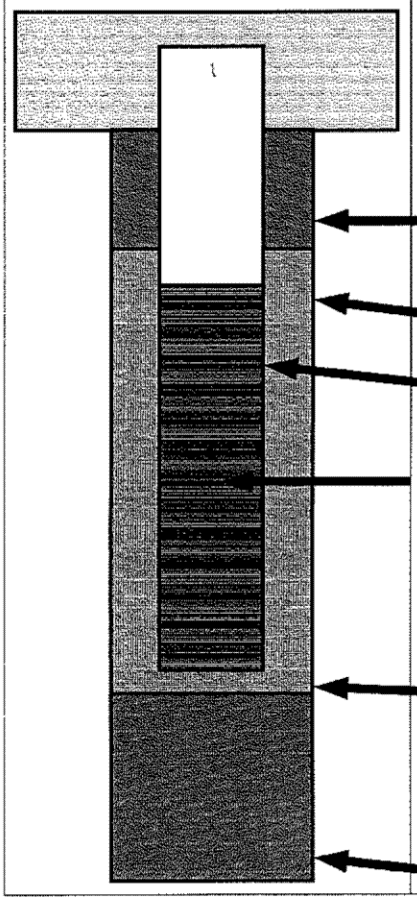
☒ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ☒
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.013721
Longitude (Example: -120.12345) -122.210116
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 2 inches
Static water level 9 ft below top of casing Date 07/11/2024
☐ Above-ground completion with bollards ☒ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/11/2024 Completed Date 07/11/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	1' FT
Blank Casing (dia x dep)	2" X 3'
Material	PVC
Backfill	FT
Type	
Seal	1' - 2' FT
Gravel Pack	2' - 15' FT
Material	SAND
Screen (dia x dep)	2" X 10'
Slot Size	.001
Material	PVC
Well Depth	13' FT
Backfill	
Material	
Total Hole Depth	15' FT

Formation Description

0' - 9': FT
SAND AND GRAVEL

9' - 15': FT
WET SAND AND GRAVEL

FT

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The data and/or image(s) may not be accurate, complete, legible, or otherwise reliable.

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PUBLIC DISCLOSURE

Please take notice that state law states that **all private citizen names and addresses may not** be used for any solicitation/commercial purpose.

Creosote/Fuel Oil Area Geotechnical Investigation Activities: Well Logs from Ecology

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☒ Construction
☒ Decommission ⇒ Original NOI No. _____

Ecology Well ID Tag No. _____

Site Well Name B-1

Consulting Firm SLR

Was a variance approved for this well/boring? ☐ Yes ☒ No

If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) CAVLAND, ABE

Driller/Engineer/Trainee Signature ABE CAVLAND

License No. 2861

Company Name Holt Services Inc

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

Notice of Intent No. SE89738/AG84123

Type of Well:

☐ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☒ Environmental Boring ☐ Other _____
↳ ☒ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner NORD

Well Street Address 340 W. MARINE DR.

City EVERETT County _____

Tax Parcel No. _____

Location (see instructions): WWM ☐ or EWM ☐

SW ¼-¼ SW ¼, Section 7 Town 29N Range 5E

Latitude (Example: 47.12345) 48.0138643

Longitude (Example: -120.12345) -122.2105398

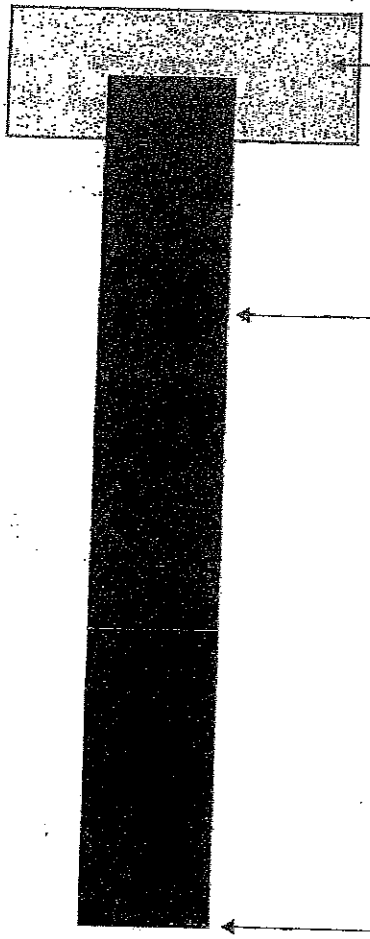
(WGS 84 Coordinate System)

Borehole diameter 10 inches Casing diameter / inches

Static water level 4' ft below top of casing Date 8-23-24

☐ Above-ground completion with bollards ☐ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface.

Start Date 8-23-24 Completed Date 8-23-24

Construction/Design	Well Data	Formation Description
	CONCRETE SURFACE SEAL 2 FT (CONCRETE)	0 - 5 FT Silty SANDS
	BACKFILL 46' FT (BENT CHIPS)	35 - 50 FT INTERLAYERED SANDS w/ SILT LENSES
	DEPTH OF BORING 50 FT	0 - _____ FT

Creosote/Fuel Oil Area BIO System Pilot Test:

Well Logs from Ecology

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☒ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BQU-301
Site Well Name AS-D
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ☒ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature Dan Rider
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

☒ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ☒
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014548
Longitude (Example: -120.12345) -122.209372
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 1 inches
Static water level 9 ft below top of casing Date 07/12/2024
☐ Above-ground completion with bollards ☒ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/12/2024 Completed Date 07/12/2024

Construction/Design	Well Data		Formation Description
	Concrete Surface Seal Depth	2' FT	0' - 9': FT
	Blank Casing (dia x dep)	1" X 48'	SAND AND GRAVEL
	Material	PVC	
Backfill		FT	
	Type		9' - 50': FT
Seal		2' - 45' FT	WET SAND AND GRAVEL
Gravel Pack		45' - 50' FT	
	Material	SAND	
	Screen (dia x dep)	2" X 2'	FT
	Slot Size	.001	
	Material	PVC	
Well Depth		50' FT	
	Backfill		
	Material		
Total Hole Depth		50' FT	

Received
Department of Ecology
AUG 28 2024
Water Resources Program

877-833-6341.

The Department of Ecology does not warranty the data and\or information on this well report.

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

■ Construction
☐ Decommission ⇨ Original NOI No. _____

Ecology Well ID Tag No. BPA-256
Site Well Name AS-S
Consulting Firm SLR
Was a variance approved for this well/boring? ☐ Yes ■ No
If yes, what was the variance for? _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

■ Driller ☐ Trainee ☐ Engineer
Name (Print Last, First Name) Rider, Dan
Driller/Engineer/Trainee Signature *Dan Rider*
License No. 3223
Company Name Anderson Environmental Contracting LLC

If trainee box is checked, sponsor's license number: _____
Sponsor's signature _____

Notice of Intent No. RE26450

Type of Well:

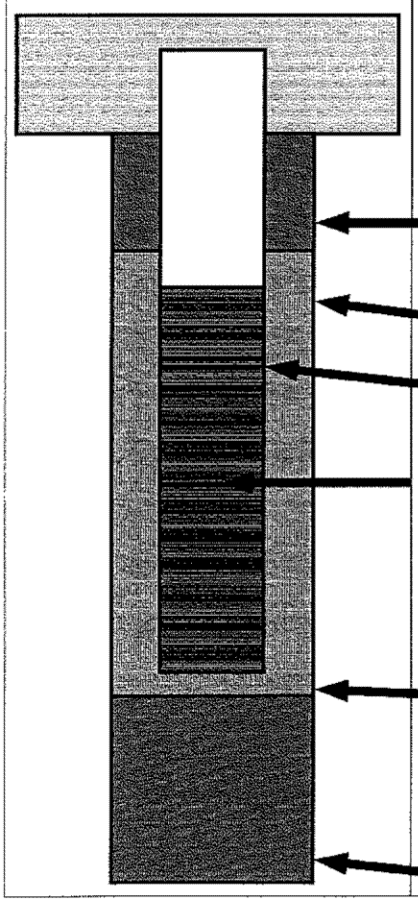
■ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner W AND W EVERETT INVESTMENTS LLC.
Well Street Address 300 WEST MARINE VIEW DRIVE
City EVERETT County SNOHOMISH
Tax Parcel No. 29050700100400

Location (see instructions): WWM ☐ or EWM ■
SE ¼-¼ NE ¼, Section 6 Town 29N Range 5E
Latitude (Example: 47.12345) 48.014570
Longitude (Example: -120.12345) -122.209451
(WGS 84 Coordinate System)

Borehole diameter 6 inches Casing diameter 1 inches
Static water level 9 ft below top of casing Date 07/12/2024
☐ Above-ground completion with bollards ■ Flush monument
↳ Stick-up of top of well casing _____ ft above ground surface
Start Date 07/12/2024 Completed Date 07/12/2024

Construction/Design



Well Data

Concrete Surface Seal Depth	2' FT
Blank Casing (dia x dep)	1" X 18'
Material	PVC
Backfill	FT
Type	
Seal	2' - 15' FT
Gravel Pack	15' - 20' FT
Material	SAND
Screen (dia x dep)	2" X 2'
Slot Size	.001
Material	PVC
Well Depth	20' FT
Backfill	
Material	
Total Hole Depth	20' FT

Formation Description

0' - 9': _____ FT
SAND AND GRAVEL

9' - 20': _____ FT
WET SAND AND GRAVEL

Received
Department of Ecology
_____ FT
AUG 28 2024
Water Resources Program
[illegible]

The Department of Ecology does not warranty the data and\or information on this well report.

Attachment 10 IDW Disposal Documentation

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **568442/D703796** was received by U.S. Ecology, Inc., on **3/21/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/21/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032001399-568442/D703796-1-1

Material: 20 55 GALLON DRUM

Process: Direct Landfill

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55768-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **568442/D703796** was received by U.S. Ecology, Inc., on **3/21/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/26/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032001399-568442/D703796-1-2

Material: 12 55 GALLON DRUM (CRUSHED EMPTY CONTAINER)

Process: Direct Landfill

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **568442/D703796** was received by U.S. Ecology, Inc., on **3/21/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/26/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032001399-568442/D703796-1-2

Material: 1 85 GALLON POLY DRUM (CRUSHED EMPTY CONTAINER)

Process: Direct Landfill

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **568442/D703796** was received by U.S. Ecology, Inc., on **3/21/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/24/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032001399-568442/D703796-1-2

Material: 12 55 GALLON DRUM

Process: Solidification

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **568442/D703796** was received by U.S. Ecology, Inc., on **3/21/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/24/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032001399-568442/D703796-1-2

Material: 1 85 GALLON POLY DRUM

Process: Solidification

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **572567/D707135** was received by U.S. Ecology, Inc., on **3/28/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **04/01/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032701546-572567/D707135-1-1

Material: 13 55 GALLON DRUM (CRUSHED EMPTY CONTAINER)

Process: Direct Landfill

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

CERTIFICATE OF DISPOSAL

April 6, 2025

JELD-WEN, INC
300 WEST MARINE VIEW DR
EVERETT, WA 98201

This is to certify that waste as defined on Waste Manifest number **572567/D707135** was received by U.S. Ecology, Inc., on **3/28/2025**. The waste(s) were subsequently treated, if required by CFR Part 268 and U.S. Ecology's permits, and disposed of on **03/28/2025** in accordance with permits and laws regulating this facility.

Reference Number: 25032701546-572567/D707135-1-1

Material: 13 55 GALLON DRUM

Process: Solidification

Management Code: H132 Landfill or surface impoundment that will be closed as landfill (to include prior treatment and/or stabilization)

Facility: US ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654

Waste Stream #: 55766-0

Waste Type: NON-HAZARDOUS

Customer: ADVANCED CHEMICAL TRANSPORT

Printed Name: BRENDA CORDOVA

Signature: Brenda Cordova

Title: CUSTOMER SUPPORT SPECIALIST LEAD

Attachment 11 Data Verification and Validation Summary

Data Quality and Usability Assessment of Field and Laboratory Data

Project Name:	Upland Pre-Remedial Design Investigation (PRDI) – Jeld Wen Site
Project Number:	108.020778.00001

Quality Assurance Program

A quality assurance (QA) program followed during this investigation addressed project administration, sampling protocols, data review, and data QA. SLR provided sample QA through strict adherence to the sampling protocols as presented in the following project document(s):

Project Document(s)
SLR International Corp. (SLR) Final Pre-Remedial Design Investigation Work Plan – Upland Areas of Jeld Wen Site; Appendix A – Upland Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP), April 3, 2024

Data verification and validation consisted of a review of the following:

- Holding times and sample preservation
- Method blank results
- Field blank results
- Surrogate recovery results for organic analyses
- Laboratory duplicate results for all analyses
- Field duplicate results/RPD
- MS/MSD results for all relevant analyses
- Completeness
- Reported detection limits for analyses
- LCS/LCSD results
- Copies of signed chain-of-custodies (COC)

Control limits that are not presented in the project document(s) will defer to the US Environmental Protection Agency (USEPA) National Functional Guidelines criteria, the analytical method limits, or the lab limits, as appropriate.

Project Data Source(s)

This report summarizes a review of analytical results for the following lab reports:

Lab Report No.	Lab Report Date	Laboratory
406268	06/28/2024	Friedman & Bruya, Inc.
406327	06/28/2024	Friedman & Bruya, Inc.
406328	06/28/2024	Friedman & Bruya, Inc.
408562	09/11/2024	Friedman & Bruya, Inc.
10697605	08/20/2024	Pace Analytical Services, LLC. (see attached Level IV validation)

Samples were analyzed by the following methods for the following parameters:

Analytical Method	Parameters
1613B	Dioxins and Furans (see attached Level IV validation)
8260D	Volatile Organic Compounds (VOC)
8270E SIM	Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAH)

Sampling Activities were performed on the following dates:

Date	Tasks
06/17/2024	Geoprobe soil sampling – Creosote/Fuel Oil Area
06/18/2024	Geoprobe soil sampling – Creosote/Fuel Oil Area
06/19/2024	Geoprobe soil sampling – Creosote/Fuel Oil Area
06/19/2024	Geoprobe soil sampling – Woodlife Area (see attached Level IV validation)
06/20/2024	Geoprobe soil sampling – Creosote/Fuel Oil Area
06/20/2024	Geoprobe soil sampling – Woodlife Area (see attached Level IV validation)
06/21/2024	Geoprobe soil sampling – Woodlife Area (see attached Level IV validation)
08/28/2024	Groundwater sampling
08/29/2024	Groundwater sampling
08/30/2024	Groundwater sampling

Stage 2B Data Verification – for above noted Lab Report No. 406268, 406327, 406328, 408562

Data Packages

The data packages were checked for transcription errors, omissions, and other anomalies. No issues were noted regarding the data packages. Analyses were performed by an appropriately accredited laboratory.

Sample Receipt

The sample receipt documentation was checked for anomalies. Minor discrepancies were noted related to COC (i.e. missing sample date, times mismatched on COC and bottle). No issues were noted regarding the condition of the samples upon receipt.

Holding Times and Preservation

Samples were appropriately preserved upon collection and were submitted to the laboratory. Sample analyses were conducted within holding time criteria. No issues were noted regarding sample preservation.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the appropriate frequencies. No analytes were detected above the detection limit in the method blank(s).

Surrogate Recovery Results

Surrogate analysis was performed at the required frequencies. All surrogate recoveries were within analytical method and laboratory percent recovery acceptance limits, except in cases of sample dilution which resulted in raised detection limits. In these cases, unacceptable surrogate recoveries may likely be due to matrix effects or as a result of the dilutions and are deemed inconsequential.

Laboratory Control Samples/Laboratory Control Sample Duplicates

LCS and LCSDs were analyzed at the appropriate frequencies and met laboratory control limits.

Laboratory Duplicate Samples

Laboratory duplicate samples were not analyzed for these data sets.

Matrix Spike/Matrix Spike Duplicate Samples

MS/MSD samples were analyzed at the appropriate frequencies and met laboratory control limits; however, the MS/MSD sample source material was from a batch (i.e., non-project related), and therefore the results may not be meaningful.

Reported Detection Limits

Detection limits were compared to applicable cleanup levels for the site. All analytes with non-detect results had detection limits at or below applicable cleanup levels or screening criteria. In addition, cPAH results are evaluated using Toxicity Equivalent Factors (TEFs) to produce a Toxic Equivalency (TEQ) value and presented using non-detect values as 0, ½ the listed detection limit, and values equal to the listed detection limit.

Field Data Verification

Field Data Quality Assurance Objectives

Field QA met project objectives by recording field measurements and observations in dedicated field logs, utilizing chain-of-custody protocol for sample collection and transport to the laboratory, and through adherence to sampling plan design, techniques, locations and sample handling protocols presented in the project document(s). Deviations are noted below.

Field Quality Control Methods

Field duplicates for soil samples were not collected at the frequency presented in the project document(s) of 1 per 20 samples (5%). 23 project samples and 1 duplicate (4%) were collected for cPAH analysis. The calculated relative percent difference (RPD) for soil cPAH duplicate analysis was greater than 100% and outside of project data objectives. Field duplicates for groundwater samples were collected at the appropriate frequency and calculated RPD was within project data objectives. Duplicate analysis summary tables are included as an attachment.

As stated in the project document(s), field duplicates are more likely to be affected by the variability of constituents in solids as opposed to liquids, and the differences in soils field duplicate samples will be considered as part of the overall data analysis and quality assurance evaluation rather than on the merits of the result alone.

Trip blanks were not utilized in accordance with project document(s). A trip blank did not accompany the soil samples selected for volatiles analysis from data set 406328. Analytes were not detected above the detection limit in the submitted trip blank(s).

Overall Assessment

This data is judged acceptable for use for the intended purposes.

Precision, Accuracy, Representativeness, Comparability, and Completeness

- Precision: Precision goals were met.
- Accuracy: Accuracy goals were met except as noted in the Surrogates section.
- Representativeness: Representativeness goals were met.
- Comparability: Comparability goals were met.
- Completeness: Completeness goals were met, except as noted in the Field Quality section.

Stage 4 Data Validation

Per the project document(s), high-resolution method analyses (i.e., 1613 method for dioxins) were evaluated by a third-party data validator per EPA Stage 4 data validation protocols. The Stage 4 validation was performed on 10% of the project samples per the project document(s) (35 total project samples and 4 project samples (11%) for Stage 4 validation). A copy of the third-party data validation report is included as an attachment.

Duplicate Analysis Summary Tables

Duplicate Analysis Summary - Soil cPAH

	Project Sample	Duplicate	RPD
Field Sample ID	CF-P42-9-10-062024	CF-P128-9-10-062024	
Date Collected	6/20/2024		
Parameter	Value	Value	Value
Polynuclear Aromatic Hydrocarbons (cPAHs)			
Benzo[a]anthracene	0.17	0.54	104%
Benzo[a]pyrene	0.035	0.61	178%
Benzo[b]fluoranthene	0.055	0.86	176%
Benzo[k]fluoranthene	0.012	0.23	180%
Chrysene	0.048	0.56	168%
Dibenzo[a,h]anthracene	<0.005	0.43	NA
Indeno[1,2,3-cd]pyrene	0.0051	0.14	186%
TEQ = 0	0.06	0.79	172%
TEQ = 1/2RL	0.06	0.79	172%
TEQ = RL	0.06	0.79	172%

Notes:

All Values in miligram per kilogram (mg/kg) or parts per million (ppm)

Bold indicates measured above laboratory method detection limit (MDL)

< X.XX indicates not detected above the method detection limit of X.XX

TEQ is sum of concentrations multiplied by TEF values per MTCA Table 708-2 using non-detect as 0 (U=0), using non-detect as 1/2 of laboratory reporting limit (U=1/2RL), and using non-detect as laboratory reporting limit (U=RL)

NA indicates not applicable as one or more of the values was Non-Detect (ND)

Duplicate Analysis Summary - Soils Dioxins

	Project Sample	Duplicate	RPD
Field Sample ID	WL-P19-3-4-061924	WL-P127-6-7-061924	
Date Collected	6/19/2024		
Parameter	Value	Value	Value
Dioxins and Furans per 1613 Method			
2,3,7,8-TCDF	0.24	<0.18	NA
2,3,7,8-TCDD	<0.19	<0.16	NA
1,2,3,7,8-PeCDF	0.39	<0.18	NA
2,3,4,7,8-PeCDF	<0.2	<0.17	NA
1,2,3,7,8-PeCDD	<0.2	<0.16	NA
1,2,3,4,7,8-HxCDF	<0.38	<0.32	NA
1,2,3,6,7,8-HxCDF	<0.39	<0.32	NA
2,3,4,6,7,8-HxCDF	<0.34	<0.28	NA
1,2,3,7,8,9-HxCDF	<0.37	<0.31	NA
1,2,3,4,7,8-HxCDD	<0.37	<0.31	NA
1,2,3,6,7,8-HxCDD	<0.46	<0.38	NA
1,2,3,7,8,9-HxCDD	<0.44	<0.36	NA
1,2,3,4,6,7,8-HpCDF	<0.34	0.35	NA
1,2,3,4,7,8,9-HpCDF	<0.42	<0.35	NA
1,2,3,4,6,7,8-HpCDD	3.2	2.4	29%
OCDF	<1.1	1.0	NA
OCDD	42	35	18%
TEQ = 0	0.08	0.04	67%
TEQ = 1/2RL	0.45	0.35	25%
TEQ = RL	0.81	0.66	20%

Notes:

All Values in picograms per liter (pg/L) or parts per quadrillion

Bold indicates measured above laboratory method detection limit (MDL)

< X.XX indicates not detected above the method detection limit of X.XX

TEQ is sum of concentrations multiplied by TEF values per MTCA Table 708-1 using non-detect as 0 (U=0), using non-detect as 1/2 of laboratory reporting limit (U=1/2RL), and using non-detect as laboratory reporting limit (U=RL)

NA indicates not applicable as one or more of the values was Non-Detect (ND)

Project sample and duplicate sample collected from same boring but not collected from same depth interval due to limited sample material

Duplicate Analysis Summary - Groundwater cPAH and Naphthalene

	Project Sample	Duplicate	RPD
Field Sample ID	MW-25D-083024	MW-97-083024	
Date Collected	8/30/2024		
Parameter	Value	Value	Value
Volatile Compunds By EPA Method 8260D			
Naphthalene	13,000	13,000	0%
Carcinogenic Polynuclear Aromatic Hydrocarbons (cPAHs) per 8270E-SIM			
Benzo[a]anthracene	130	120	8%
Benzo[a]pyrene	63	64	2%
Benzo[b]fluoranthene	95	97	2%
Benzo[k]fluoranthene	32	32	0%
Chrysene	100	98	2%
Dibenzo[a,h]anthracene	<10	6.1	NA
Indeno[1,2,3-cd]pyrene	20	19	5%
TEQ = 0	92	92	1%
TEQ = 1/2RL	93	92	0%
TEQ = RL	93	92	0%

Notes:

All Values in micrograms per liter (µg/L) or parts per billion (ppb)

Bold indicates measured above laboratory method detection limit (MDL)

< X.XX indicates not detected above the method detection limit of X.XX

TEQ is sum of concentrations multiplied by TEF values per MTCA Table 708-2 using non-detect as 0 (U=0), using non-detect as 1/2 of laboratory reporting limit (U=1/2RL), and using non-detect as laboratory reporting limit (U=RL)

NA indicates not applicable as one or more of the values was Non-Detect (ND)

Third-Party Data Validator Report

DIANE SHORT & ASSOCIATES, INC.
2634 S. Deframe Circle
Lakewood CO 80228
303:271-9642
dsa7cbc@eazyqaqc.com

ORGANIC DATA QUALITY REVIEW REPORT
DIOXIN/FURAN Method 1613B

SDG: 10697605

PROJECT: 108.V20689.00001 Nord Door for SLR International Corp. West Linn OR

LABORATORY: Pace Analytical Services, Minneapolis, MN

SAMPLE MATRIX and Count: 35 Solid samples

SAMPLING DATE (Month/Year): 6/19/2024 - 6/21/2024

ANALYSES REQUESTED: Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS – EPA 1613B.

SAMPLE NO.: See attached EDD

DATA REVIEWER: John Huntington

QA REVIEWER: Diane Short & Associates, Inc. INITIALS/DATE: DLS 10/30/2024

Telephone Logs included Yes____ No __X__

Contractual Violations Yes____ No __X_

The National Functional Guidelines for High Resolution Superfund Methods Data Review, USEPA CLP, November 2020 were used for this data validation. The National Functional Guidelines for Organic Superfund Methods Data Review, November 2020 have also been considered. The EPA SW 846 Methods for Evaluating Solid Waste, Physical/ Chemical Methods Third Edition, 1990, and current editions have also been referenced by the reviewer to perform this data validation review. Method 8290A from SW-846, 2007, has also been consulted as has EPA 1613B. The EPA Region II SOP for Dioxin data validation, 2010 has also been followed. The EPA qualifiers have been expanded to include a descriptor code and value to define QC violations and their values, per the approval of the Project Manager and EPA-approval. Per the Scope of Work, the data validation of these samples is Level IV and Level III.

I. DELIVERABLES

All deliverables were present as specified in the Statement of Work (SOW) or in the project contract.
Yes _X__ No___
High-Resolution GCMS setup was performed as specified in the method. This includes retention time requirements, mass resolution and accuracy, and chromatographic resolution checks. Please see section IX for details.

The EDD supplied only contains field sample results, without QC results. This is not a specific requirement in the deliverables. It is, however, a standard format and adds to the accuracy and productivity of the validation task. The EDD is designed to be a check on not only sample results but of the QC data being transferred from the instruments to the database/LIMS.
In addition, the EDD format uses the Washington State Environmental Information Management valid values for data qualifiers, which are different from the qualifiers used in the laboratory pdf reports. This can cause confusion for users. The EDD has been used only as a device for providing qualifiers and have relied on the pdf report for laboratory qualifiers.

Laboratory reports were provided in pdf format, and in the form of electronic deliverables (EDDs).

The following samples were validated at Level IV:
Field ID (Lab ID)
WL-P18-9-10-061924 (10697605053)
WL-P14-3-4-062024 (10697605041)
WL-P21-1-2-061924 (10697605061)
WL-P9-1-2-062124 (10697605025)
The remaining samples were validated at Level II.

II. ANALYTICAL REPORT FORMS

The Analytical Report or Data Sheets are present and complete for all requested analyses.
Yes __X__ No____

III. HOLDING TIME AND CASE INFORMATION

1. Samples were received intact, with the required preservation and temperature.
Yes ___ No _X__
Soils for dioxin analysis may be stored in the dark up to 1 year per method. Samples were received within holding time.

The nominal temperature specified for storing samples is less than 6°C per CFR, and the method specifies < 4°C. These samples were shipped per the COC on 6/21/2024 and were received by the laboratory on 6/22/2024. The laboratory receiving documentation indicates that the ice was melted in the cooler. One cooler was received at 17.4^{o} C and the other at 23.2^{o}C.

From a technical standpoint, chlorinated dioxins and furans are very stable and unlikely to degrade by any mechanism in the length of time during which they were out of specified temperature.

As a practical matter, the length of time that the samples were held at temperatures approaching room temperature can be no more than 1 day. Based on SW-846 Method 8290 and Method 1613B statements as well as numerous literature sources, the stability of dioxins and furans is such that this amount of time is not considered to have resulted in any significant degradation. Therefore, this should be regarded as a minor matter and the data are considered to be usable.

The recommended qualifier for this would be JT17, to indicate that in the worst cases, the temperature on receipt was 17º C above the specified upper limit of 6ºC. The functional guidelines state to use technical judgement in applying qualifiers to samples not meeting the storage temperature guidance. In this case, for reasons stated above, this qualifier has not been applied in this case.

2. Samples were extracted and analyzed within the Method 1613B holding time limits.
Yes _X__ No ____

IV. CHAIN-OF CUSTODY

The chains of custody were submitted and are complete with dates and signatures.
Yes __ No __X__
FEDEX tracking documentation was not present in the data packages.
The COCs were in order except for the following instances:

There were multiple COC forms present, needed to accommodate the number of samples. Only the first form was signed and dated by the laboratory. The completed COC's are to be provided to the client for the project record.

V. BLANK

1. Method blanks were free of contamination.
Yes ____ No __X__
Some method blanks had detectable levels of contaminants. Results in associated samples are qualified as UMB#, where # is the method blank level corrected for dilution, whenever the result in the sample is less than 5x the method blank level. Such results may be used as non-detected values, with the result considered to be less than the value measured in the sample. Thus, if the sample result is 0.1 pg/g but the result is qualified as UB# due to an associated method blank, the result should be regarded as < 0.10 pg/g or non-detect. The dioxins and furans are not common laboratory contaminants and the source to the contamination may be due to inadequate cleaning of the instruments or that the MDLs are not fully achievable and the blanks are due to instrument background.

The dioxin data validation guidance available generally indicates that professional judgment is to be used for method blank qualification. This approach is taken from validation guidance for other GC/MS methods. The factor of 5 provides a conservative estimate of a typical method blank control window that might be obtained by control charting.

The laboratory flags method blank outliers with a "B" flag. Not all of these flagged results are qualified since the lab does not consider the magnitude of the sample result.

Qualified results are shown in the table below and in the EDD. There are no dilutions for these samples.

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA
10697605007	WL-P3-3-4-062124	Total TCDD	1.2	0.29	UMB0.36	UB
10697605019	WL-P7-3-4-062124	Total TCDD	2.6	0.33	UMB0.36	UB
10697605022	WL-P8-3-4-062124	Total TCDD	1.2	0.19	UMB0.36	UB
10697605034	WL-P12-5-6-062024	Total TCDD	0.36	0.19	UMB0.36	UB
10697605037	WL-P13-3-4-062024	Total TCDD	0.25	0.17	UMB0.36	UB
10697605040	WL-P14-1-2-062024	Total TCDD	24	0.17	UMB0.36	UB
10697605046	WL-P16-1-2-062024	Total TCDD	3.9	0.22	UMB0.36	UB
10697605055	WL-P19-3-4-061924	Total TCDD	0.55	0.19	UMB0.36	UB
10697605058	WL-P20-1-2-061924	1,2,3,4,6,7,8-HpCDD	2.0	0.28	UMB0.44	UB
10697605058	WL-P20-1-2-061924	OCDD	19	0.80	UMB1.9	UB
10697605061	WL-P21-1-2-061924	1,2,3,4,6,7,8-HpCDD	0.94	0.28	UMB0.44	UB
10697605061	WL-P21-1-2-061924	OCDD	5.9	0.80	UMB1.9	UB

2. Field blanks were free of contamination.
Yes ____ No ____ NA__X__
There were no field blanks identified. Field blanks, especially water/ equipment blanks are not routinely applicable to soil samples.

VI. SURROGATES/INTERNAL STANDARDS
The surrogates were within limits of acceptance per method.
Yes __X__ No ____
This method is an isotopic dilution analysis. The method calls for the use two isotopically-labeled recovery standards (13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD), and 9 isotopically-labeled "internal standards", which are isotopic analogs of each target congener. The target compounds are quantified against the internal standards. They, in turn, are quantified against the recovery standards. The recovery standard is spiked into the extract after the extraction is complete, but before any cleanup step is quantified.

The internal standard recoveries are reported and serve much the same function as the surrogates used in other methods, but they are also used to quantify the targets, hence serve as internal standards. The recovery standards are shown in the raw results, but not in the reported results.

The laboratory does not show recovery limits in the reports. The method specifies recovery limits and the results reported are within those limits in all cases with the exception of sample WL-P14-1-2-062024 (10697605040). In that sample, 2,3,4,6,7,8-HxCDF-13C was recovered at 26% and 1,2,3,4,6,7,8-HpCDF-13C was recovered at 24%. These are below the limits recommended by the method and the laboratory has flagged them with ‘R’ to indicate low recovery. The standard EPA qualifier ‘R’ indicates a rejected result. This is not the case here and the lab flag is not to be used to assess the quality of the data.

It is notable that in this sample, all the labeled compounds are recovered about half as well as they are in other samples in this set. This suggests either a sample prep error or a matrix effect. Analytes associated with the two lab-flagged internal standards are qualified as JIS#, where # is the recovery of the associated out of limits internal standard.

In this case, the internal standard low recovery does not indicate the direction of possible bias, since the result for the qualified compound is calculated from the area of the internal standard. The qualifier should be regarded as an indication of possible greater bias than is typical for the method.

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA
10697605040	WL-P14-1-2-062024	2,3,4,6,7,8-HxCDF	1.7	0.30	JI26	J
10697605040	WL-P14-1-2-062024	1,2,3,4,6,7,8-HpCDF	5.2	0.30	JI24	J

VII. MATRIX SPIKE AND DUPLICATE

1. Matrix spike and matrix spike duplicates were performed at the required frequency
Yes _X__ No____ NA____
There are three MS/MSD in this data set and the project frequency of 1/20 samples is met.

SDG	Lab Sample ID	Client Sample ID
10697605	10697605001	WL-P1-1-062124
10697605	10697605011	WL-P4-3-4-062024
10697605	10697605058	WL-P20-1-2-061924

2. The MS/MSD recoveries were within the contractual or laboratory limits.
Yes ____ No __X__ NA____
Because this is an isotopic dilution method, every analysis provides an opportunity to evaluate matrix bias from the recoveries of the internal standard/surrogate labeled compounds. The isotopic dilution compensates for matrix bias unless the bias is extreme, so that analytical accuracy is better than it is with other types of analytical methods. This means that matrix spikes tend to be in control.

The laboratory does not provide recovery control limits for the MS/MSDs, although they do provide LCS recoveries. They have flagged some results in the MS/MSD as out of limits (with the lab flag ‘R’). Based on these flags, it appears the lab is using the same limits as those for the LCS runs. The standard EPA qualifier ‘R’ indicates a rejected result. This is not the case here and the lab flag is not to be used to assess the quality of the data.

In this case, all recoveries are in control for the MS/MSDs except for those for OCDD on the MSMSD of WL-P1-1-062124 (10697605001). The MS is recovered at 237% and the MS at 20%. These are qualified for possible bias because the sample level is not >4x the spike. However, the sample result is still high enough that the recovery calculations may be impacted.

Therefore, there it is recommended that there is no significant bias for OCDD. The parent sample is qualified as JMS20, since this is the more significant bias.

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA Q
10697605001	WL-P1-1-062124	OCDD	560	0.76	JMS20	J

3. The MS/MSD RPD values were within contractual or laboratory limits.
Yes ___ No __X__
The RPDS are in control for the MS/MSDs for all analytes except for two cases. For OCDD in sample WL-P1-1-062124 the RPD is 45%. The result in the parent sample is further qualified as JMD45 to indicate a possible precision issue. For the same sample, 1,2,3,4,6,7,8-HpCDD has an RPD of 24%, and the laboratory indicates in their discussion that 20% is the laboratory RPD limit. This result is qualified as JMD24.

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA Q
10697605001	WL-P1-1-062124	OCDD	560	0.76	JMS20MD45	J
10697605001	WL-P1-1-062124	1,2,3,4,6,7,8-HpCDD	67	0.27	JMD24	J

4. The MS/MSD is a client sample
Yes __X__ No____ NA ____

VIII. LABORATORY CONTROL SAMPLES

1. Laboratory control samples were conducted at the prescribed frequency of 1/20 samples or one per preparation batch, whichever is most frequent.
Yes __X__ No___

2. Laboratory control sample recoveries were within laboratory control acceptance windows.
Yes __X__ No___

IX. INITIAL CALIBRATION and CONTINUING CALIBRATION

1. Initial and Continuing Calibrations were performed at the required frequency.
Yes __X_ No____
Opening and closing calibrations were performed as specified.

2. Initial calibration %RSD values were within the acceptance limits of 20% as specified in the method.
Yes __X_ No____

3. Calibration verification (VER) %D values were within method limits.
Yes _X__ No____
Limits are specified in the method with an acceptance window for each analyte.

4. Resolution Criteria were met for 2,3,7,8 TCDD.
Yes __X__ No____

The review is performed on the 4 specified samples to represent over 10% of the samples This information was provided in forms and in the raw data.

5. The signal to noise ratios for the target compounds were > 10
Yes __X__ No____

6. The mass ratios were met for all of the dioxin and furan congeners.
Yes __X___ No____
This information was provided with each target search report and all standard runs.

7. The RSDs for the IC response factors met the 20% limit.
Yes __X__ No____

8. Mass Spectral Resolution was > 10,000.
Yes __X__ No____
Mass resolution plots from PFK are provided with the raw data for each analytical run. These include the actual resolution measured in each case, and a manual check confirms these to be correct. All are > 10,000.

9. Mass deviation is less than 5ppm.
Yes __X__ No____
The same documentation clearly shows that the deviation between the measured and exact mass is well within specifications.

10. The minimum retention time requirements are met.
Yes __X__ No____
The specified criteria are met.

X. TCL IDENTIFICATION
1. Single Ion Monitoring was performed as required.
Yes __X_ No___

2. Identification of the internal standards met the ion ratio, retention time and RIC requirements.
Yes __X__ No____

3. Spectral accuracy and quantitation are accurate.
Yes _X__ No_____
The review is performed on the 4 specified samples to represent over 10% of the samples. Mass spectral identifications were correct and accurate on those samples reviewed.
No have been provided to verify that confirmation runs were made on a DB-225 column, and no indication that confirmation was requested. Therefore, this policy means that 2,3,7,8-TCDF is only determined on the DB-5MS column, and confirmations are not conducted. The reported 2,3,7,8-TCDF detections in this set of data could be biased high due to interference.

The laboratory policy on 2,3,7,8-TCDF is provided in the laboratory discussion, as follows:

"*Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%*."

The TCDD GC resolution checks on the DB-5MS column were conducted and met criteria in all cases.
The laboratory flags estimated results with a "J." Such results are below the RL, but greater than the MDL.

The laboratory data flags are addressed in the Discussion section of the lab report. The lab report contains a summary page that lists these flags. As discussed in the Deliverables section of this report, these flags are not identical to those in the EDD. Those flags are addressed on the Washington State Data Management website. One key flag is the "T" flag in the EDD, which represents data reported between the MDL and the RL. The standard EPA qualifier for this 'J'.

The laboratory includes an EMPC (estimated maximum possible concentration) column in the reports and results are reported in that column when not all ratio criteria are met. These results are usually detections that demonstrate interference. In such cases, the laboratory also provides other flags such as "P" which indicates that PCDE (polychlorinated diphenyl ether) interference is present. In cases where the result is reported as an EMPC, the result is qualified as JQ to indicate that the value may be biased or mis-identified. In the EDD, these instances have been flagged with "UJ", which indicates a non-detected result in the standard EPA nomenclature. As this is not the case, the 'flags' in the EDD are not recommended for use in assessing the data quality. It appears to be an attempt by the laboratory to accommodate the Washington State flags. There are other choices that may be a better fit for this purpose than UJ. The validator would recommend reviewing this choice, as has been noted in other cases in the report.

The laboratory calculation from raw data to final reported result was checked for 10% of the samples and in all cases was within acceptance criteria.

XI. FIELD QC

Field duplicates have been collected for every 1/20 samples and meet a suggested guidance of 35% RPD for water or 50% RPD for soils. For low level values (< 10x Reporting Limit, RL), a difference of 2 x RL is suggested for water and 4 x RL for soils. Final field precision will be determined by the project manager.
Yes ____ No _X__ NA __
Field duplicates have not been identified. It is recommended that field duplicates be collected at the required frequency and are chosen to best Represent the overall matrix of the samples to the extent possible. The client will determine the overall Precision of the sample event. This is part of the EPA PARCCs (precision, accuracy, representativeness, Comparability, Completeness).

XII. OVERALL ASSESSMNENT

The laboratory has followed the cited method. Qualifiers have been added to the data, but no data have been rejected. The data are fully usable after consideration of qualifiers. A summary

of pertinent observations is provided below.

Deliverables

High-Resolution GCMS setup was performed as specified in the method. This includes retention time requirements, mass resolution and accuracy, and chromatographic resolution checks. Please see section IX for details.

The EDD supplied only contains field sample results, without QC results. This is not a specific requirement in the deliverables. It is, however, a standard format and adds to the accuracy and productivity of the validation task. The EDD is designed to be a check on not only sample results but of the QC data being transferred from the instruments to the database/LIMS. In addition, the EDD format uses the Washington State Environmental Information Management valid values for data qualifiers, which are different from the qualifiers used in the laboratory pdf reports. This can cause confusion for users. The EDD has been used only as a device for providing qualifiers and have relied on the pdf report for laboratory qualifiers.

Laboratory reports were provided in pdf format, and in the form of electronic deliverables (EDDs).

The following samples were validated at Level IV:
Field ID (Lab ID)
WL-P18-9-10-061924 (10697605053)
WL-P14-3-4-062024 (10697605041)
WL-P21-1-2-061924 (10697605061)
WL-P9-1-2-062124 (10697605025)
The remaining samples were validated at Level II.

Sample Preservation and Holding Times

Soils for dioxin analysis may be stored in the dark up to 1 year per method. Samples were received within holding time.

The nominal temperature specified for storing samples is less than 6°C per CFR, and the method specifies < 4°C. These samples were shipped per the COC on 6/21/2024 and were received by the laboratory on 6/22/2024. The laboratory receiving documentation indicates that the ice was melted in the cooler. On cooler was received at 17.4^{o} C and the other at 23.2^{o}C.

From a technical standpoint, chlorinated dioxins and furans are very stable and unlikely to degrade by any mechanism in the length of time during which they were out of specified temperature.

As a practical matter, the length of time that the samples were held at temperatures approaching room temperature can be no more than 1 day. Based on SW-846 Method 8290 and Method 1613B statements as well as numerous literature sources, the stability of dioxins and furans is such that this amount of time is very unlikely to have resulted in any significant degradation. Therefore, this should be regarded as a minor matter and the data are recommended to be usable.

The recommended qualifier for this would be JT17, to indicate that in the worst cases, the temperature on receipt was 17° C above the specified upper limit of 6°C. The functional guidelines state to use technical judgement in applying qualifiers to samples not meeting the storage temperature guidance. In this case, for reasons stated above, this qualifier has not been applied in this case.

Chain of Custody

FEDEX tracking documentation was not present in the data packages.
The COCs were in order except for the following instances:

There were multiple COC forms present, needed to accommodate the number of samples. Only the first form was signed and dated by the laboratory. The completed COC's are to be provided to the client for the project record.

Surrogates/Internal Standards

This method is an isotopic dilution analysis. The method calls for the use two isotopically-labeled recovery standards (13C12-1,2,3,4-TCDD and 13C12-1,2,3,7,8,9-HxCDD), and 9 isotopically-labeled "internal standards", which are isotopic analogs of each target congener. The target compounds are quantified against the internal standards, and they in turn are quantified against the recovery standards. The recovery standard is spiked into the extract after the extraction is complete but before any cleanup steps and is quantified.

The internal standard recoveries are reported and serve much the same function as the surrogates used in other methods, but they are also used to quantify the targets, hence serve as internal standards. The recovery standards are shown in the raw results, but not in the reported results.

The laboratory does not show recovery limits in the reports. The method specifies recovery limits and the results reported are within those limits in all cases with the exception of sample WL-P14-1-2-062024 (10697605040). In that sample, 2,3,4,6,7,8-HxCDF-13C was recovered at 26% and 1,2,3,4,6,7,8-HpCDF-13C was recovered at 24%. These are below the limits recommended by the method and the laboratory has flagged them with R to indicate low recovery. The standard EPA qualifier 'R' indicates a rejected result. This is not the case here and the lab flag is not to be used to assess the quality of the data.

It is notable that in this sample, all the labeled compounds are recovered about half as well as they are in other samples in this set. This suggests either a sample prep error or a matrix effect. Analytes associated with the two lab-flagged internal standards are qualified as JIS#, where # is the recovery of the associated out of limits internal standard.

In this case, the internal standard low recovery does not indicate the direction of possible bias, since the result for the qualified compound is calculated from the area of the internal standard. The qualifier should be regarded as an indication of possible greater bias than is typical for the method.

Method Blanks

Some method blanks had detectable levels of contaminants. Results in associated samples are

qualified as UMB#, where # is the method blank level corrected for dilution, whenever the result in the sample is less than 5x the method blank level. Such results may be used as non-detected values, with the result considered to be less than the value measured in the sample. Thus, if the sample result is 0.1 pg/g but the result is qualified as UB# due to an associated method blank, the result should be regarded as < 0.10 pg/g or non-detect.

The dioxin data validation guidance available generally indicates that professional judgment is to be used for method blank qualification. This approach is taken from validation guidance for other GC/MS methods. The factor of 5 provides a conservative estimate of a typical method blank control window that might be obtained by control charting.

The laboratory flags method blank outliers with a "B" flag. Not all of these flagged results are qualified since the lab does not consider the magnitude of the sample result. The dioxins and furans are not common laboratory contaminants and the source to the contamination may be due to inadequate cleaning of the instruments or that the MDLs are not fully achievable and the blanks are due to instrument background.

Qualified results are shown in the table below and in the EDD. There are no dilutions for these samples.

Matrix Spikes and Matrix Spike Duplicates

There are three MS/MSD in this data set and the project frequency of 1/20 samples is met.

Because this is an isotopic dilution method, every analysis provides an opportunity to evaluate matrix bias from the recoveries of the internal standard/surrogate labeled compounds. The isotopic dilution compensates for matrix bias unless the bias is extreme, so that analytical accuracy is better than it is with other types of analytical methods. This means that matrix spikes tend to be in control.

The laboratory does not provide recovery control limits for the MS/MSDs, although they do provide LCS recoveries. They have flagged some results in the MS/MSD as out of limits (with the lab flag R) and based on these flags it appears they are using the same limits as those for the LCS runs. The standard EPA qualifier 'R' indicates a rejected result. This is not the case here and the lab flag is not to be used to assess the quality of the data.

In this case, all recoveries are in control for the MS/MSDs except for those for OCDD on the MSMSD of WL-P1-1-062124 (10697605001). The MS is recovered at 237% and the MS at 20%. These are qualified for possible bias because the sample level is not >4x the spike. However, the sample result is still high enough that the recovery calculations may be impacted. Therefore, there it is recommended that there is no significant bias for OCDD. The parent sample is qualified as JMS20, since this is the more significant bias.

The RPDS are in control for the MS/MSDs for all analytes except for two cases. For OCDD in sample WL-P1-1-062124 the RPD is 45%. The result in the parent sample is qualified as JMD45 to indicate a possible precision issue. For the same sample, 1,2,3,4,6,7,8-HpCDD has an

RPD of 24%, and the laboratory indicates in their discussion that 20% is the laboratory RPD limit. This result is qualified as JMD24.

Field Blanks

Field blanks, especially water/ equipment blanks, are not routinely applicable to soil samples.

TCL Identification

The review is performed on 10% of the samples. Mass spectral identifications were correct and accurate on those samples reviewed.

No data have been submitted to indicate confirmation runs were made on a DB-225 column, and no indication that confirmation was requested. Therefore, this policy means that 2,3,7,8-TCDF is only determined on the DB-5MS column, and confirmations are not conducted. The reported 2,3,7,8-TCDF detections in this set of data could be biased high due to interference.

The laboratory policy on 2,3,7,8-TCDF is provided in the laboratory discussion, as follows: "*Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%*."

The TCDD GC resolution checks on the DB-5MS column were conducted and met criteria in all cases.

The laboratory flags estimated results with a "J." Such results are below the RL, but greater than the MDL.

The laboratory data flags are addressed in the Discussion section of the lab report. The lab report contains a summary page that lists these flags. As discussed in the Deliverables section of this report, these flags are not identical to those in the EDD. Those flags are addressed on the Washington State Data Management website. One key flag is the "T" flag in the EDD, which represents data reported between the MDL and the RL. The standard EPA qualifier for this 'J'.

The laboratory includes an EMPC (estimated maximum possible concentration) column in the reports and results are reported in that column when not all ratio criteria are met. These results are usually detections that suffer interference. In such cases, the laboratory also provides other flags such as "P" which indicates that PCDE (polychlorinated diphenyl ether) interference is present. In cases where the result is reported as an EMPC, the result is qualified as JQ to indicate that the value may be biased or mis-identified. In the EDD, these instances have been flagged with "UJ", which indicates a non-detected result in the standard EPA nomenclature. As this is not the case, the 'flags' in the EDD are not recommended for use in assessing the data quality as has been noted in other cases in the report.

The laboratory calculation from raw data to final reported result was checked for 10% of the samples and in all cases was within acceptance criteria.

Field Duplicates

No field duplicates were identified to the validator. It is recommended that field duplicates be collected at the required frequency and are chosen to best Represent the overall matrix of the samples to the extent possible. The client will determine the overall Precision of the sample event. This is part of the EPA PARCCs (precision, accuracy, representativeness, Comparability, Completeness).

Table of Qualified Results

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA Q
10697605001	WL-P1-1-062124	1,2,3,6,7,8-HxCDF	3.2	0.32	JQ	J
10697605001	WL-P1-1-062124	1,2,3,4,6,7,8-HpCDD	67	0.27	JMD24	J
10697605001	WL-P1-1-062124	OCDD	560	0.76	JMS20MD45	J
10697605004	WL-P2-1-2-062124	2,3,7,8-TCDD	0.62	0.14	JQ	J
10697605004	WL-P2-1-2-062124	1,2,3,6,7,8-HxCDF	34	0.30	JQ	J
10697605004	WL-P2-1-2-062124	1,2,3,7,8,9-HxCDF	0.74	0.29	JQ	J
10697605004	WL-P2-1-2-062124	OCDD	11000	0.72	JE	J
10697605005	WL-P2-3-4-062124	1,2,3,6,7,8-HxCDD	1.5	0.73	JQ	J
10697605005	WL-P2-3-4-062124	1,2,3,7,8,9-HxCDD	1.2	0.97	JQ	J
10697605007	WL-P3-3-4-062124	Total TCDD	1.2	0.29	UMB0.36	UB
10697605010	WL-P4-1-2-062024	1,2,3,6,7,8-HxCDF	140	0.32	JQ	J
10697605010	WL-P4-1-2-062024	1,2,3,4,6,7,8-HpCDD	4100	0.27	JE	J
10697605010	WL-P4-1-2-062024	OCDD	63000	0.77	JE	J
10697605010	WL-P4-1-2-062024	Total HpCDD	9200	0.35	JE	J
10697605013	WL-P5-3-4-062024	1,2,3,4,6,7,8-HpCDD	0.65	0.31	JQ	J
10697605019	WL-P7-3-4-062124	Total TCDD	2.6	0.33	UMB0.36	UB
10697605022	WL-P8-3-4-062124	1,2,3,4,6,7,8-HpCDD	0.72	0.33	JQ	J
10697605022	WL-P8-3-4-062124	Total TCDD	1.2	0.19	UMB0.36	UB
10697605025	WL-P9-1-2-062124	1,2,3,7,8-PeCDD	0.26	0.16	JQ	J
10697605034	WL-P12-5-6-062024	1,2,3,4,7,8-HxCDD	0.44	0.38	JQ	J
10697605034	WL-P12-5-6-062024	Total TCDD	0.36	0.19	UMB0.36	UB
10697605037	WL-P13-3-4-062024	1,2,3,4,6,7,8-HpCDF	0.77	0.31	JQ	J
10697605037	WL-P13-3-4-062024	Total TCDD	0.25	0.17	UMB0.36	UB
10697605040	WL-P14-1-2-062024	1,2,3,7,8-PeCDF	1.9	0.20	JQ	J
10697605040	WL-P14-1-2-062024	2,3,4,6,7,8-HxCDF	1.7	0.30	JI26	J
10697605040	WL-P14-1-2-062024	1,2,3,4,6,7,8-HpCDF	5.2	0.30	JI24	J
10697605040	WL-P14-1-2-062024	Total TCDD	24	0.17	UMB0.36	UB
10697605041	WL-P14-3-4-062024	1,2,3,4,6,7,8-HpCDD	1.3	0.38	JQ	J
10697605043	WL-P15-1-2-062024	1,2,3,7,8-PeCDF	1.4	1.2	JQ	J
10697605043	WL-P15-1-2-062024	2,3,4,7,8-PeCDF	1.5	1.1	JQ	J
10697605046	WL-P16-1-2-062024	1,2,3,7,8-PeCDF	0.55	0.26	JQ	J
10697605046	WL-P16-1-2-062024	Total TCDD	3.9	0.22	UMB0.36	UB
10697605049	WL-P17-3-4-062024	2,3,4,7,8-PeCDF	0.20	0.19	JQ	J
10697605052	WL-P18-7-8-061924	1,2,3,7,8,9-HxCDF	4.2	0.30	JQ	J

LAB_ID	CLIENT_ID	ANALYTE	Result (pg/g)	MDL	DSA Q	EPA Q
10697605053	WL-P18-9-10-061924	1,2,3,4,6,7,8-HpCDD	6800	0.37	JE	J
10697605053	WL-P18-9-10-061924	Total HpCDF	3000	0.44	JE	J
10697605053	WL-P18-9-10-061924	Total HpCDD	12000	0.37	JE	J
10697605055	WL-P19-3-4-061924	2,3,7,8-TCDF	0.24	0.22	JQ	J
10697605055	WL-P19-3-4-061924	1,2,3,7,8-PeCDF	0.39	0.22	JQ	J
10697605055	WL-P19-3-4-061924	Total TCDD	0.55	0.19	UMB0.36	UB
10697605058	WL-P20-1-2-061924	1,2,3,4,6,7,8-HpCDD	2.0	0.28	UMB0.44	UB
10697605058	WL-P20-1-2-061924	OCDD	19	0.80	UMB1.9	UB
10697605061	WL-P21-1-2-061924	2,3,7,8-TCDF	0.28	0.18	JQ	J
10697605061	WL-P21-1-2-061924	1,2,3,4,6,7,8-HpCDD	0.94	0.28	UMB0.44	UB
10697605061	WL-P21-1-2-061924	OCDD	5.9	0.80	UMB1.9	UB
10697605064	WL-P22-1-2-061924	2,3,7,8-TCDD	0.25	0.17	JQ	J
10697605064	WL-P22-1-2-061924	2,3,4,7,8-PeCDF	0.26	0.18	JQ	J
10697605064	WL-P22-1-2-061924	1,2,3,4,7,8-HxCDD	0.80	0.34	JQ	J
10697605067	WL-P23-5-6-061924	1,2,3,7,8-PeCDF	5.9	0.16	JQ	J
10697605067	WL-P23-5-6-061924	1,2,3,4,6,7,8-HpCDD	9100	0.24	JE	J
10697605067	WL-P23-5-6-061924	OCDF	12000	0.77	JE	J
10697605067	WL-P23-5-6-061924	OCDD	220000	6.7	JE	J
10697605067	WL-P23-5-6-061924	Total HpCDD	21000	0.24	JE	J
10697605070	WL-P24-1-2-061924	1,2,3,7,8-PeCDF	1.7	0.19	JQ	J
10697605070	WL-P24-1-2-061924	1,2,3,4,7,8-HxCDD	0.60	0.31	JQ	J
10697605076	WL-P26-1-2-061924	1,2,3,7,8,9-HxCDF	1.1	0.33	JQ	J
10697605076	WL-P26-1-2-061924	1,2,3,4,7,8-HxCDD	1.3	0.32	JQ	J
10697605079	WL-P26-1-2-061924	OCDF	1.0	0.88	JQ	J



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