REPORT

2024 Remedial Action Progress Report

Oregon Tool – Naef Road (ECSI 1035)

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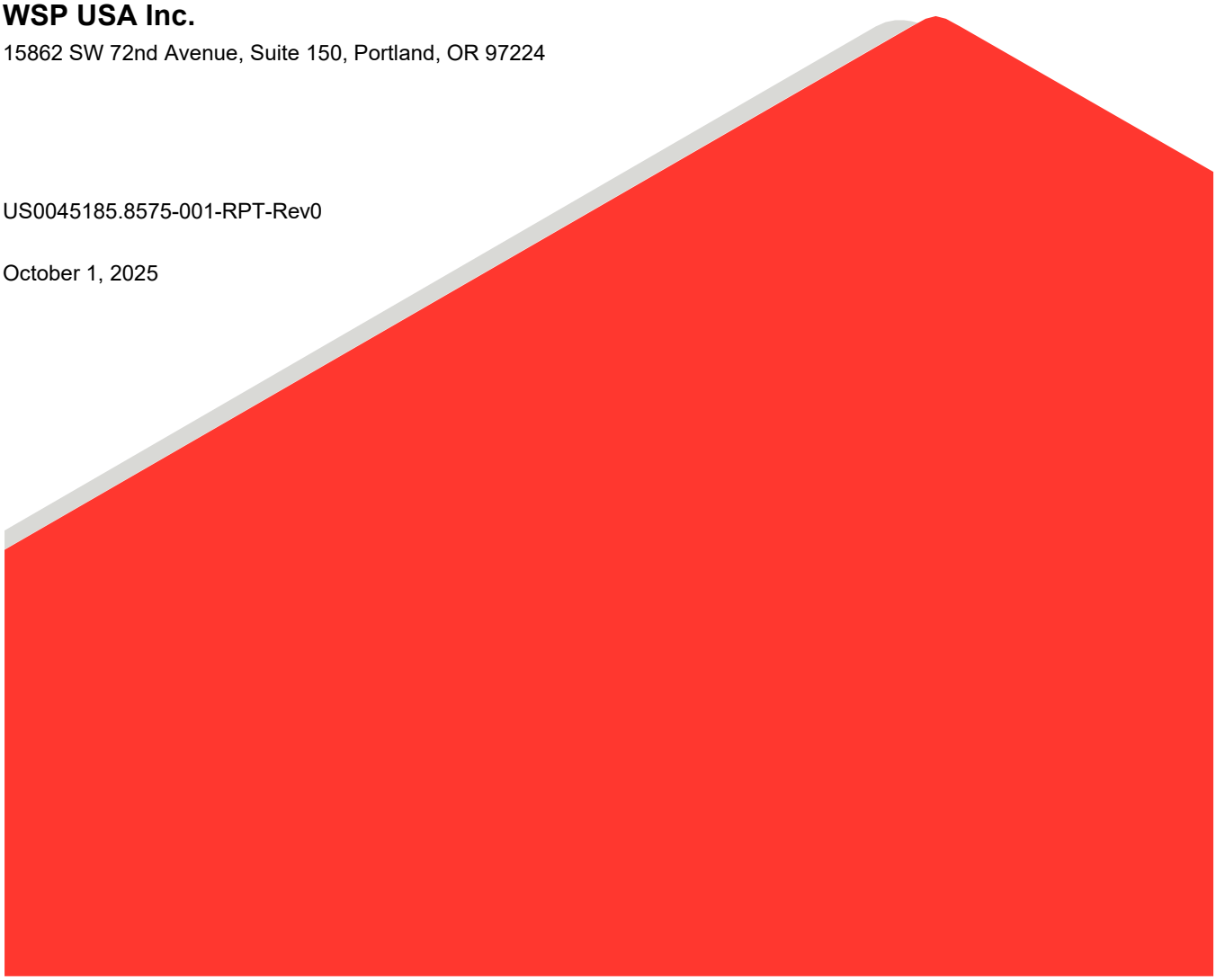


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1.0 INTRODUCTION

This report, submitted on behalf of Oregon Tool, Inc. (formerly Blount), by WSP USA Inc. (WSP), documents the remedial action progress at Oregon Tool's former Carlton Chain Saw blade manufacturing facility located at 3901 SE Naef Road in Oak Grove, Oregon (Site). The Site is impacted by halogenated volatile organic compounds (HVOCs), with groundwater being the primary media of concern. The facility, sometimes referred to as the Oregon Tool-Carlton facility, was closed by Oregon Tool in 2014, sold by Oregon Tool in December 2015, and occupied by tenants beginning in October 2016.

The Site is currently operated by NW Flex Space, which leases space to over 20 tenants. The interior configuration of the building (locations of walls, etc.) is occasionally modified to meet the needs of the building's tenants. The Site is located within an industrial area of Oak Grove. The Site slopes to the southwest in the direction of Boardman Creek, which is located about 300 feet southwest of the Site. A Site location map is presented as Figure 1, and a historic facility layout is shown in Figure 2.

1.1 Purpose

This report documents the 2024 groundwater sampling results, the performance of the groundwater remediation system, and the overall progress towards meeting Oregon Department of Environmental Quality (DEQ) cleanup goals for the Site. This report is submitted in accordance with the terms of the Record of Decision ([ROD]; DEQ 1999) and DEQ Consent Order No. ECSR-NWR-90-09 (DEQ 1990), as amended in the Third Addendum to the Consent Order (DEQ 2000).

1.2 Background

Site soils and groundwater have been impacted with trichloroethene (TCE) and related chlorinated ethenes (daughter products), which originated from multiple sources (circa 1960s – 1970s). Beginning in 1989 and continuing to the present time, multiple phases of contaminant investigation and remediation have been conducted. The investigation has included the installation of over 100 groundwater monitoring wells. Remediation techniques employed have included soil excavation and disposal, soil vapor extraction (SVE), in situ chemical oxidation (ISCO), enhanced reductive dechlorination (ERD), and groundwater pump and treat (using an air stripper). The remaining COCs are mostly limited to groundwater occurring within the sediment that overlies the weathered basalt (WB). COCs are also found locally at the Site within the WB.

The Site sediment, deposited by gigantic Ice Age floods, mantles older topography formed on the WB. The WB grades downward into competent basalt bedrock. Regionally, the sediment has been described as coarse- or fine-grained. The coarse sediment (chiefly sand and gravel, with lesser silt and clay) is termed Qfc, and it lies beneath the Site. The fine sediment (chiefly silt and clay, with lesser sand and gravel) is termed Qff. The Qff unit occurs downslope of the Site, where it underlies a flat valley termed the "Qff basin."

Although the Qfc and Qff units have a common origin, their different soil textures yield different hydrogeological properties. Specifically, the Qff's finer texture makes it less permeable than the Qfc, as documented by previous hydraulic testing.

The Qfc unit is divided into subunits SU A and SU B. SU A consists of clayey silt, fine sandy silt, or clayey silt and fine sand. SU B lies beneath SU A, and it consists of granule- to cobble-size gravel in a matrix of mixed clay, silt, and sand. The overall Qfc unit is approximately 20 to 30 feet thick.

1.2.1 Former UST System Source

Cleanup actions beginning in the 1990s focused on a release from a former underground storage tank (UST) system near the southeastern corner of the facility (Figure 2). This source has been remediated by means of soil excavation, groundwater extraction, ERD (injection of a carbon substrate), and attenuation monitoring, using wells and direct push points located as shown in Figures 3, 4, 5, and 6.

Contaminated groundwater downgradient of the source area (shallow groundwater in Qfc SU A and SU B) was addressed by:

1) A biowall of emulsified vegetable oil (EVO) installed in 2007 immediately downgradient of the former UST to treat residual source material in groundwater (Prowell, 2008). The biowall is now believed to be beyond its design lifespan and, therefore, likely to have only a minimal effect on current groundwater conditions. The so-called outdoor area is in the biowall vicinity, and TCE concentrations there had fallen below DEQ Risk Based Concentrations (RBCs) by October 2023, and VC concentrations at two wells there barely exceeded the stringent Commercial Chronic Vapor Intrusion RBC.

2) Seven groundwater extraction wells along the southern Site boundary provide hydraulic containment. These consist of extraction wells EW-1 through EW-7. Note that EW-8, located on the far side of Naef Road, is no longer functional as of early 2024. Water from the extraction wells is piped to an on-site aboveground tray stripper, and the treated groundwater is discharged to the Oak Lodge Water District storm water system under the terms of the First Addendum to Order on Consent No. ESCR-NWR-90-09 (DEQ 1996).

1.2.2 Former Heat Treat and Punch Press Rooms Sources

Two additional sources of TCE were identified beneath the building from 2011 to 2015. These were in the former punch press and heat treat rooms (Figure 2). Both areas were originally outdoor gravel areas behind the building, prior to a building expansion.

The technologies employed to treat these additional source areas have consisted of:

1) SVE to address vadose zone TCE - SVE was implemented in summer 2013 and was discontinued in 2015 (Amec Foster Wheeler [now WSP] 2017).

2) In situ chemical oxidation (ISCO) to address shallow groundwater dissolved phase plumes - ISCO treatment consisted of multiple phases of injection beginning in May 2014 and was discontinued after high concentrations of HVOCs (i.e., total HVOC >10,000 ug/L and/or individual HVOCs above hot spot concentrations [DEQ 1998]) were no longer present.

3) ERD (as a follow-on to ISCO) to address the remaining dissolved-phase plumes above DEQ cleanup levels - ERD treatment consisted of multiple phases of injection beginning in April 2015.

All work is conducted under DEQ-approved work plans (AMEC [now WSP] 2013a, 2013b; 2014). Monitored natural attenuation (MNA) is expected to be implemented as a remedy component; the development of a formal MNA plan will be completed after active remediation achieves hot spot removal.

1.3 Remedy Goals and Constituents of Concern

Remedial actions needed to address COCs originating from the former UST source were described in the ROD. The COCs are TCE, tetrachloroethene (PCE), cis-1,2 dichloroethene (cis-1,2 DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC).

Five former UST source Remedial Action Objectives (RAOs) were identified in the ROD to address groundwater plume containment, hot spot treatment, and surface water protection to protect human health, ecological receptors, and beneficial uses within the Locality of the Facility (LOF). As stated in DEQ (2020) guidance, an LOF consists of the area containing points "…where a human or ecological receptor contacts or is reasonably likely to contact facility-related hazardous substances."

1.4 Work Completed During 2024

Operations and monitoring work completed in 2022 and 2023 included:

- Continued operation of down-gradient extraction wells for COC mass removal and hydraulic containment of the shallow plume, including routine treatment system maintenance.
- Weekly measurements of groundwater extraction system operations and system flow rates.
- Monthly sampling and analysis of treatment system influent and effluent.
- Annual groundwater monitoring (October 21 through 25, and October 28 through 30, 2024) (Table 1).
- Semi-annual groundwater monitoring at selected wells in addition to the annual event (April 24 and 25, 2024) (Table 1).
- Quarterly groundwater monitoring at selected wells in addition to the annual and semi-annual events (January 23 and August 27, 2024) (Table 1).

Remedy efforts continued under the scope of the DEQ-approved Remedial Action Work Plan (RAWP) (AMEC 2012). The remedied work completed in 2024 consisted of the following:

- Comprehensive ERD groundwater monitoring in the heat treat, press room, outdoor, and transects 1 through 7 areas (October 21 through 25, and October 28 through 30, 2024).

The 2024 annual groundwater monitoring data are reviewed in conjunction with the 2024 performance data in Sections 2 and 3 of this report. Laboratory reports are provided in Appendix A. A geologic cross section and well construction summary are provided in Appendix B.

2.0 EXTRACTION SYSTEM PERFORMANCE

Groundwater extraction performance monitoring data are summarized in tables and graphs provided in Appendix C. Performance findings are summarized below.

2.1 Extraction System

The groundwater extraction system operated at an annual average rate of approximately 2.3 gallons per minute (gpm) during 2024. The largest extraction rate has typically been at EW-6 (WSP 2022).

Off-site well EW-8 was no longer functioning as an extraction well as of January 2024 because of inaccessible clogging in the well's discharge line, leading to a lowering of the average system extraction rate, which had previously been 3.1 gpm in 2022. Pumping overall maintained sufficient drawdown to achieve hydraulic containment (Figures 7 and 8).

2.2 Effluent Treatment System

Monitoring parameters for treated groundwater effluent from the air stripper treatment equipment complied with discharge limits. No COCs were detected in the effluent except for TCE in January and February 2023 (Table C-1) at concentrations below the effluent limits.

2.3 Summary of Operational Problems Encountered at Systems

First Quarter 2024: No operational problems were encountered. Exceptions included:

- Flow from EW-8 was restricted by clogging in the discharge line from the well; the EW-8 pump was turned off on January 23, 2024. Note that the discharge line is a 3/4-inch diameter line that runs over 200 feet in length and passes beneath Naef Road. This line cannot be cleared by water "jetting". Reactivation of EW-8 would require the installation of a new discharge line, which does not appear to be warranted at this time.
- A down-well air-line failure was observed at DPE-8 on February 13, 2024, and repaired on February 20, 2024.

Second Quarter 2024: No operational problems were encountered, except for the following:

- Compressor belts were adjusted on April 4, 2024.

Third Quarter 2024: No operational problems were encountered. Exceptions included:

- On September 17, 2024, an air leak was observed from a blown line at the air manifold, and the groundwater pumping system was not operating upon technician arrival after an alarm had occurred on September 15, 2024. The line was repaired, and the system was running on September 17, 2024.
- The air compressor failed based on an alarm on the night of September 26, 2024, and parts for repair were ordered from three different suppliers on September 27, 2024.

Fourth Quarter 2024: No operational problems were encountered.

3.0 Groundwater Performance Results

Hydraulic and water quality performance for 2024 is discussed below. Routine groundwater monitoring data from 2024 are summarized in Table 2. Hydraulic data and hydrographs are presented in Appendix C, and historical groundwater monitoring data are summarized in Appendix D.

3.1 Groundwater Elevations, Flow, and Gradients

Groundwater elevations for 2024 are presented in Table C-2. Groundwater elevation contours for October 2024 are shown in Figure 7 for SU B and shallow Qff basin wells, and in Figure 8 for WB wells. SU A groundwater elevation contours are not shown, because they exhibit a pattern of flow similar to that observed in SU B.

The pattern of the groundwater elevation contours for SU B continues to show generally westerly and southerly directions of on-site flow toward the perimeter extraction wells. A groundwater ridge is present beneath the eastern part of the site, near the original UST source area, and this ridge results in groundwater flowing away from the UST area toward the northwest, west, and south (Figure 7). Inward horizontal hydraulic gradients in shallow groundwater were maintained along the downgradient site perimeter, indicating the containment action of the extraction well network.

In the WB, the pattern of the groundwater elevation contours also indicates a generally southwestward flow direction (Figure 8).

Horizontal hydraulic gradients for two well pairs in April 2024 and five well pairs in October 2024 are presented in Table C-3. Vertical hydraulic gradient estimates for four shallow SU A and WB well pairs in October 2024 are presented in Table C-3. Where both downward gradients and elevated COC concentrations occur in either SU A or SU B, potential exists for downward migration of dissolved-phase COCs, either from SU A to SU B or from SU B to the WB. In each case, the apparent downward vertical gradient between MW-11-1 and MW-11b should be considered inconclusive because the head in MW-11-2, which is completed at a depth below MW-11-1 and above MW-11b, has historically been less than the head in either MW-11-1 or MW-11b.

3.2 COC Concentrations and Mass Reduction

3.2.1 Introduction

Routine groundwater quality monitoring is performed to track overall plume stability and the performance of the hydraulic containment system. Results are shown in Tables 1 through 6, Figures 9 and 10, and summarized in Appendix D.

3.2.2 Contaminant Mass Reduction

From 1997 through 2021, an estimated total of 618.7 pounds of COCs had been removed from soil and groundwater (WSP 2022). This total combines results from groundwater extraction, SVE, ISCO, and ERD. The total COC mass removed by the 2015-2021 ERD treatment program was estimated at 30.9 pounds, of which 5.33 pounds were removed during 2021 (WSP 2022). The diminishing rate of mass removal is due to the cumulative success of the remedial activities over the years. As mass is successfully removed, there is less mass remaining to be removed, and the removal rate correspondingly decreases.

Due to the diminishing rate of mass removal and the overall lower concentrations of COCs present, the focus of remediation since 2021 has been to monitor COC concentrations in groundwater throughout the site, which should continue to decline due to a combination of biodegradation and natural attenuation processes. Continued calculation of pounds removed per annum does not appear to be warranted at this time.

3.2.3 TCE Distribution

Because TCE was the most broadly distributed COC at the Site and was also the putative starting source COC, TCE has been used as the index parameter for depicting the approximate horizontal and vertical extent of the plume. TCE concentrations are shown in Figure 9 for shallow groundwater SU A and SU B, respectively, in October 2024. TCE concentrations are shown in Figure 10 for WB and competent basalt groundwater, respectively, in October 2024. The SU B zone has historically contained the highest COC mass. Constituent trend charts at numerous wells are shown in Appendix D, along with Table D-1 summarizing data from 2014 through April 2025.

Review of the data for **2024** indicates the following:

- TCE and other COC impacts remain present in both SU A and SU B, but the impacts in SU A and SU B are isolated in smaller areas than before and are of generally lower concentration.
- The magnitude and extent of the TCE concentrations have diminished in SU B, as can be seen by comparing pre-treatment (2014) with post-treatment maps through 2024 (Figure 11), and in trend charts shown in Appendix D.
- Cis-1,2 DCE and VC are now the main COCs by mass in the heat treat and press room areas. The cis-1,2, DCE and VC are natural breakdown products of TCE and are expected to be transient in nature.
- In the WB, TCE concentrations greater than 100 µg/L continue to occur to the south and southwest of the facility building (MW-2b, MW-2c, MW-17b, and MW-18b) (Figure 10 and Table 2).

Investigation into the competent basalt has been limited to the following:

- Between 2008 and 2010, grab samples of groundwater from the basalt were obtained during the drilling of the boreholes for on-site monitoring wells MW-2b, -2c, -15b, -17b, and -18b. The test results are summarized in Figure 10.
- Testing of the competent basalt groundwater samples collected from drilled boreholes from 2003 to 2010 indicated that TCE was present at concentrations of 38 to 480 µg/L between depths of approximately 70 to 100 feet (Figure 10). Deeper samples from the MW-2c borehole contained TCE in concentrations of 23.6 µg/L (106 feet), 128 µg/L (127 feet), and 14.2 µg/L (155 feet) (Figure 10). Samples from the off-site (and presumably downgradient) Stanley Tools' basaltic water supply well did not contain detectable TCE or other COCs in 2000, 2005, 2010, 2011, 2019, and 2020.

3.2.4 On-Site Shallow Groundwater COC Trends

This section reviews short-term TCE and long-term PCE, TCE, cis-1,2 DCE, and VC trends in shallow groundwater as an indication of remedy performance in the former UST source area and the area downgradient that is under the influence of groundwater extraction.

Former UST Source Area – The TCE concentration in groundwater at well MW-10-2 peaked at nearly 70,000 µg/L in the late 1990s, and most wells in the former UST area have been characterized by low TCE concentrations since 2007 due to ERD treatment (WSP 2022). The exception was MW-10-2, which received additional treatment in 2009. Since 2009 TCE concentrations at MW-10-2 have mostly remained less than 5 micrograms per liter (µg/L) except for an excursion to 11.1 µg/L in October 2016, after which the TCE concentration at MW-10-2 decreased to approximately 1 µg/L or less until 2021 when the TCE concentration

began a slow rise, reaching concentrations of 11.5 and 7.03 µg/L in October 2024 and April 2025, respectively (Table 2, Figure 9, Table D-1, Appendix D trend charts).

Plumes beneath the Building – The main TCE plume bodies in SU A and SU B have shown a weakening in concentration and extent in the period from October 2023 to October 2024 (Tables 3, 4, 5, Figure 9, Table D-1, Appendix D trend charts). These decreases in TCE are believed to be due to the biodegradation effects of residual ERD amendment and to natural mechanisms of attenuation.

Southeastern Perimeter and at SE Naef Road – Southeast of the former UST area, TCE concentrations continued to vary with location, and generally dropped in the Outdoor Area. Along SE Naef Road, the TCE concentrations have been generally stable to decline from October 2023 to October 2024, as seen at wells DPE-7, DPE-8, EW-4, EW-5a, and EW-6 (Table 2, Figure 9, Table D-1, Appendix D trend charts).

Southwestern Perimeter – Downgradient of former MW-3, along the southwestern site perimeter, TCE concentrations at MW-15-2 continued their long-term decline. At EW-7, the TCE concentrations continued to fluctuate, showing movement from 23.6 µg/L in October 2023 to 16.9 µg/L in October 2024(Table 2, Figure 9, Table D-1, Appendix D trend charts).

3.2.5 Off-Site Shallow Groundwater COC Trends

TCE was detected in the other off-site wells (Table 2 and Figure 9), at concentrations below the most stringent TCE RBC of 13 µg/L in October 2024. At MW-13-2, the concentrations of TCE and cis-1,2-DCE continued to decline. At EW-8, there was a temporary TCE concentration excursion to 149 µg/L immediately following shut down of pumping at the well in January 2024, possibly due to water re-entering the groundwater table smear zone; TCE concentrations fell to below 13 µg/L later in 2024, and to below detection in early 2025 (Table 2, Table D-1, Appendix D trend charts).

3.2.6 Weathered Basalt Groundwater COC Trends

There are 12 wells completed in the WB – 9 on-site and 3 off-site. The on-site wells are MW-1b, MW-2b, MW-2c, MW-5b, MW-11b, MW-14b, MW-15b, MW-17b, and MW-18b. The off-site wells are MW-6b, MW-7b, and MW-16b. The well locations are shown in Figures 8 and 10.

Except for groundwater at MW-18b closer to the Site center, TCE concentrations dropped at the other sampled wells during the period from October 2023 to October 2024; the most noticeable concentration drops in this time period occurred at wells MW-2c and MW-11b (Table 2, Table D-1, Appendix D trend charts). There has been a slow increasing trend in TCE concentrations at WB wells MW-02b, MW-02c, MW-11b, MW-14b, and MW-18b. Continued decreases in TCE concentrations in SU B may eventually lead to decreases in TCE concentrations in the WB.

4.0 COMPARISON OF MONITORING DATA WITH PERFORMANCE GOALS

This section compares remedy performance with the five RAOs established in the ROD. Performance criteria established in the Final Monitoring, Performance Evaluation and Contingency Plan (Prowell Environmental and Pegasus Geoscience, 2002) are used to assess conformance with RAOs.

4.1 On-Site Plume Control (RAO 1)

"Prevent further migration of contaminants from on-site to off-site areas, to the extent practical."

RAO 1 pertains to the control of shallow groundwater in SU A and SU B. The shallow containment system was not designed to manage deeper groundwater.

Conformance with RAO 1 is evaluated on the basis of hydraulic performance and TCE concentration trends using four criteria:

- Maintain continuous operation of each on-site and perimeter groundwater extraction well, to the extent reasonably feasible;
- Maintain pumping levels (drawdowns) to within approximately five feet of the bottom of well screens in perimeter extraction wells;
- Maintain annual average inward horizontal hydraulic gradients along the downgradient site perimeter; and
- Maintain generally stable to declining COC concentration trends in off-site Western Plume wells.

These criteria were mostly met. The groundwater gradient created by the combined effects of pumping at all active extraction wells shows that pumping contained the plume. This can be seen by comparing the groundwater gradient in Figure 7 with the plume extent shown in Figure 9. These criteria will be re-evaluated in conjunction with DEQ to determine if an update is warranted.

4.2 Off-Site Plume Control (RAO 2)

"Prevent migration of groundwater containing COCs at concentrations that would result in a significant adverse effect on reasonably likely beneficial uses of groundwater in the residential area."

RAO 2 pertains to the control of contamination in SU A, SU B, and Qff. The containment system captures the shallower water, as demonstrated in Figure 7. The containment system included groundwater extraction from EW-5a, which, though not designed to manage deeper groundwater, led to capture in the WB (Figure 8).

Conformance with RAO 2 is evaluated using two criteria:

- Maintain stable to declining COC concentration trends in wells near the downgradient perimeter of the Western Plume and outside or near the perimeter of the estimated hydraulic capture area; and
- Prevent exceedance of DEQ groundwater RBCs in the residential zone.

These criteria were met. COC concentrations continued to remain at non-detectable concentrations at all off-site Qff and WB monitoring wells except Well EW-8. At EW-8, after a short-lived increase to 149 µg/L TCE at the time of well shutdown in January 2024, TCE has remained below the cleanup goal of 13 µg/L, accompanied by low and falling levels of cis-1,2 DCE, and low VC concentrations (ranging from non-detection up to an April 2025 value of 8.29 µg/L).

4.3 Surface Water Protection (RAOS 3 and 4)

"Prevent migration to surface water of groundwater containing COCs at concentrations that would result in exceedance of the surface water risk-based concentrations."

"Prevent exposure of human and ecological receptors to surface water containing COCs at concentrations exceeding risk-based concentrations."

Conformance with RAOs 3 and 4 is measured using the results of surface water sampling performed at seven locations at five-year intervals. Surface water sampling and analysis were performed in 2005, 2010, 2015, 2018, and 2020. The results for 2005 and 2010 indicated that COCs were not detected at the seven sampling locations. In 2015, low levels of TCE or c-1,2-DCE were detected in the three samples closest to the site, but they did not persist downstream. No detections were reported in 2018. In 2020, only cis-1,2 DCE was detected, at a concentration of 0.798 µg/L at location SW-2, but the compound was not detected in the other samples obtained from locations farther downstream, and these results confirm that the cleanup is meeting RAOs 3 and 4. The next five-year review will incorporate surface water sampling and testing conducted in 2025.

4.4 Hot Spot Treatment (RAO 5)

"Treat hot spots of contamination to the extent feasible, as specified in OAR 340-122-090(40)"

The 2014 annual report stated that there were two hot spots. The original hot spot is the COC release into shallow groundwater in the former UST source area. The second hot spot is beneath the former heat treat room area, where elevated TCE concentrations were found in 2010 and further delineated in 2011 and 2012. Work completed in late 2014 and early 2015 indicated the presence of a third hot spot, which is located beneath the former easternmost press room (Section 5.3).

The ERD biowall was first implemented at the former UST source area from 2007 to 2010. ISCO was first implemented in 2015, and three rounds of ISCO treatment were completed, ending in 2017. ERD treatment was implemented in winter and spring 2017 in the outdoor area downgradient of the UST source area. As of October 2023, the UST groundwater source area has been remediated; elevated COC concentrations persist farther downgradient in the plume, near perimeter extraction well EW-4 and monitoring well MW-11-2, which historically emanated from the UST area source.

Remediation for the second hot spot, which emanated from the former heat treat room area, consisted of SVE for TCE in unsaturated soil, and ISCO and ERD for shallow groundwater. SVE began in the summer of 2013 and ended in 2015. ISCO was first implemented in 2014, and five rounds of ISCO treatment were completed, ending in 2017.

Remediation for the third hot spot, which emanated from the former press room area, consisted of ISCO and ERD for shallow groundwater. ISCO was first implemented in 2015, and three rounds of ISCO treatment were completed, ending in 2017.

ERD treatment was implemented in spring and summer 2015 in the area extending downgradient from the heat treat and press room source areas. ERD treatment was implemented in winter and spring 2017 in the outdoor area. In 2018, additional groundwater monitoring was completed to evaluate the effectiveness of prior ISCO and ERD treatments, resulting in the decision to terminate ISCO treatment and transition the former heat treat and press room areas to ERD treatment (Section 5.3). ERD has now been implemented at the former heat treat and press room source areas twice, in 2019 and in 2023.

5.0 ADDITIONAL REMEDY ACTIONS

5.1 SVE

As detailed in the 2015 Annual Remedial Action Performance Report, operation of the SVE system was suspended in 2015 because TCE soil gas concentrations had diminished and no longer exceeded the DEQ RBC for occupational vapor intrusion (VI). Rebound testing needs to be performed to confirm that the soil gas TCE concentrations remain below the RBC. Oregon Tool will develop a rebound-testing plan for DEQ review after the ongoing groundwater treatment of SU A in the heat treat area has been completed.

5.2 ISCO

No ISCO work was completed during 2024 because ISCO treatment objectives have been attained, as explained in the 2018 annual report (Wood [now WSP] 2020).

5.3 ERD

The location of all ERD transects, injection wells, and monitoring wells, including the lawn and outdoor areas, is shown in Figure 6.

5.3.1 Background

ERD treatment as part of recent efforts began in 2015, with injection of emulsified vegetable oil (EVO) along injection well transects T1 through T5 across the dissolved-phase plume emanating from the heat treat source area.

Additional ERD treatment was implemented in December 2016, after injection transects T6 and T7 of injection wells, and three monitoring wells were installed in October 2016 in the so-called lawn area that consists of landscaping between the office and the southern property boundary. Transects T6 and T7 were intended to replace the depleted 2007 biowall and to resume ERD treatment of dissolved-phase impacts extending downgradient from the outdoor area, where previously untreated impacts remained near the original UST.

In 2017, the outdoor area immediately east of the office and south of the press room transitioned from ISCO treatment to ERD treatment.

Another round of ERD treatment was implemented from June 13 to 23, 2023, in the heat treat area, press room area, and outdoor area. The June 2023 ERD amendment injection occurred at 80 locations (WSP 2024). No ERD treatment occurred in 2024.

5.3.2 Heat Treat Room Source Area

As described in the 2018 Annual Report (Wood 2020), after attaining ISCO objectives, Oregon Tool determined that the heat treat source area and transect T1, located closely downgradient of the heat treat source area, should transition to ERD treatment. The injection of the ERD amendment first occurred in 2019. An additional injection of ERD occurred in June 2023, extending the favorable geochemical conditions of lowered dissolved oxygen and negative redox potentials at many wells through late 2023. Monitoring continued from 2020 through 2023. The laboratory and field geochemistry data from 2024 are summarized in Table 3.

Concentration data indicate that ERD has changed COC concentrations; specifically, TCE concentrations have decreased while cis-1,2-DCE and VC concentrations increased, with cis-1,2-DCE and then VC becoming the dominant compounds. By October 2024, total COC concentrations at the SU A and SU B wells had dropped almost across the board, indicating the efficacy of the June 2023 ERD amendment injection. The TCE

concentrations exceeded an RBC value at only four of the 22 heat treat area wells sampled in October 2024. Figure 9 shows remaining TCE concentrations as of October 2024, and Figure 11 demonstrates the decline of TCE in SU B through the years of treatment.

The elevated specific conductivity readings from groundwater samples at many wells in October 2024 (Table 3) indicated the continued presence of ERD amendment and a continuing potential for bioremediation. Elevated pH readings are evidence of alkalinity increases expected from the formation of carbon dioxide during the biodegradation of organic carbon, which interacts with soil minerals.

More COC mass should be biodegraded or naturally attenuated in 2025 as residual carbon amendment is consumed. Monitoring to continue tracking these processes will continue in 2025.

5.3.3 Press Room Source Area

The press room source area transitioned to ERD treatment in 2019. An additional injection of ERD occurred in June 2023, extending the favorable geochemical conditions at many wells through late 2024. The laboratory and field geochemistry data from 2024 are summarized in Table 4.

Concentration data indicate that ERD has changed COC concentrations; specifically, TCE concentrations have decreased while cis-1,2-DCE and VC concentrations increased, with cis-1,2-DCE and then VC becoming the dominant compounds. Between October 2022 and October 2023, total COC concentrations at the SU A and SU B wells had dropped almost across the board. The detected TCE concentrations exceeded an RBC value at only MW-74-2, out of the 11 press room area wells sampled in October 2024.

The elevated specific conductivity readings from groundwater samples at many wells in October 2024 (Table 4) indicated the continued presence of ERD amendment and a continuing potential for bioremediation. Elevated pH readings are evidence of alkalinity increases expected from the formation of carbon dioxide during the biodegradation of organic carbon, which interacts with soil minerals.

More COC mass should be biodegraded or naturally attenuated in 2025 as residual carbon amendment is consumed. Monitoring to continue tracking these processes will continue in 2025.

5.3.4 Dissolved-Phase Plume from Heat Treat Source Area

The laboratory and field geochemistry data from 2022 and 2023 are summarized in Table 5. Transects 1 through 5 across this plume received ERD amendments in 2015 and 2019. Transect T1 in the heat treat plume received additional ERD amendment in June 2023.

Review of the data indicates that ERD treatment has caused the TCE plume to weaken significantly, as shown by changes in plume extent and strength over time (Figures 9 and 11). Groundwater at locations along several transects exhibited elevated specific conductivity readings, indicating the continued presence of ERD amendment and a continuing potential for bioremediation. More COC mass should be biodegraded or naturally attenuated in 2025 as residual carbon amendment is consumed. Monitoring to continue tracking these processes will continue in 2025.

5.3.5 Outdoor Area

Untreated groundwater that had migrated from the original UST source was found to occur in SU B beneath a landscaped area near the facility office entrance (the “outdoor area”). Because some of the TCE concentrations in the groundwater exceeded 10,000 µg/L (the ISCO treatment goal), the outdoor area was treated by means of ISCO in September and October 2015 and in July 2016.

Post-ISCO-injection groundwater monitoring through October 2016 indicated that the ISCO treatment goal (10,000 µg/L) had been attained and that the area could transition to ERD treatment. ERD treatment in the outdoor area was implemented in May 2017. Post-ERD-injection monitoring began in October 2017. To sustain ERD in the outdoor area, Oregon Tool injected additional amendment in November 2019 and in June 2023.

Monitoring data through October 2024 indicate that ERD-driven TCE declines have occurred to a point that TCE and cis-1,2-DCE concentrations are below RBCs in all wells sampled, and the VC concentration of 4.22 µg/L slightly exceeds an RBC at well MW-76-2, the only Outdoor Area well sampled in 2024.

The elevated specific conductivity readings from groundwater samples at well MW-76-2 in October 2023 (Table 6) indicated the continued presence of ERD amendment and a continuing potential for bioremediation. More COC mass should be biodegraded or naturally attenuated in 2025 as residual carbon amendment is consumed. Monitoring to continue tracking these processes will continue in 2025.

5.3.6 Lawn Area

The landscaped area (the “lawn area”) between the office and groundwater extraction wells contains groundwater migrating from the original UST source toward the extraction wells. In May and June 2007, groundwater in SU A and SU B in this area was treated using a biowall constructed by injecting EVO into 12 temporary boreholes (Prowell 2008). Treatment effects diminished by 2010.

In fall 2016, Oregon Tool implemented additional downgradient treatment in the lawn area to improve groundwater quality more rapidly. This was accomplished by installing two additional transects of injection wells (Transects T6 and T7), one monitoring well, MW-78-2, downgradient of Transect T6, and two monitoring wells, MW-79-2 and MW-80-2, downgradient of Transect T7 (Figure 6). Earlier-installed monitoring wells MW-2-2, downgradient of Transect T6, and MW-23-2R, downgradient of Transect T7, are also used to check ERD progress. A treatment solution of EVO and lactate was injected at transects T6 and T7 between December 14, 2016, and January 4, 2017.

Post-treatment sample data through October 2024 are summarized in Table 5. The results indicate that the shallow groundwater in the lawn area has been substantially remediated, with many COC concentrations either nondetectable or below RBCs. October 2024 results (a few exceeding RBCs) range up to 39.4 µg/L TCE in well B37 and 171 µg/L VC in well B37.

More COC mass should be biodegraded or naturally attenuated in 2025 as residual carbon amendment flushes through the lawn area. Monitoring to continue tracking these processes will continue in 2025.

5.4 ERD Review Summary

ERD treatment is progressing, with the greatest improvements apparent in the heat treat source area, the press room source area, and the outdoor area; all three of these source areas are now substantially remediated to the point that natural attenuation mechanisms should be able to address the remaining COC mass.

Away from the source areas, downgradient groundwater quality near the ERD transects continues to improve, as shown by dropping total COC concentrations, the conversion of a TCE-dominated plume to one dominated by cis-1,2-DCE/VC, and an increasingly fragmented plume. The strongest ERD effects are near transects 1, 2, and 3.

The TCE-dominated groundwater contamination that previously existed at monitoring well MW-20-2 has diminished considerably (Appendix D) and may have migrated downgradient to MW-60-2 on the downgradient

side of transect T3. Concentrations of COCs at well MW-60-2 are trending downward, and this may also be a result of diminished upgradient contaminant flux from areas that have undergone ISCO and ERD treatment.

Slower improvements near transects 4 and 5 may be due less to ERD and more to diminished upgradient contaminant flux from areas that have undergone ISCO and ERD treatment.

5.5 Investigation – Derived Waste

Well sampling purge water generated as investigation-derived waste created during 2024 was run through the on-site water treatment system.

6.0 DATA GAPS, RECOMMENDATIONS, AND FUTURE REMEDY ACTIONS

6.1 Data Gaps

No data gaps were identified during 2024.

6.2 Recommendations

6.2.1 Groundwater System Operations

No modifications are recommended. On-site perimeter extraction wells will continue to operate, in conjunction with the aboveground treatment system, to hydraulically restrict plume migration. The extraction wells should be periodically redeveloped, and the system piping periodically cleaned, to maintain functionality.

6.2.2 Groundwater Monitoring Modifications

Oregon Tool stated in earlier annual reports that the groundwater monitoring program should be consolidated and simplified in terms of monitoring locations, frequency, and analytes. This approach was implemented in October 2024 as the majority of TCE source mass has now been transformed and degraded. No further reduction in sampling locations is planned for 2025.

6.2.3 Extraction/Treatment System Maintenance

It is recommended that EW-8's use be converted to that of only groundwater monitoring. This recommendation is based on the following factors:

- There is no longer sufficient contaminant mass located off-site to warrant maintaining groundwater extraction in the off-site area.
- Existing on-site extraction wells are sufficient for containment of the contaminant plume.
- Restoring extraction functionality to EW-8 would require installation of a new discharge line beneath Naef Road, which would involve a significant cost with minimal associated benefit.
- Having EW-8 off-line provides the (albeit modest) environmental benefits of a reduction in electricity usage and volume of discharge water requiring treatment.

No modifications are recommended to the other extraction wells. The extraction wells should be periodically redeveloped to maintain functionality. The existing treatment system remains successful in removing contaminants prior to discharge and therefore no modifications are recommended for the treatment system.

6.3 Future Remedy Actions

In addition to routine hydraulic containment, Oregon Tool's 2025 project schedule includes:

- Groundwater monitoring of selected wells in April and October 2025.
- Site-wide groundwater monitoring in October 2025, as part of the site's annual groundwater monitoring event.
- Localized ERD and natural attenuation monitoring as appropriate.
- Consultation with DEQ on future remedy implementation.

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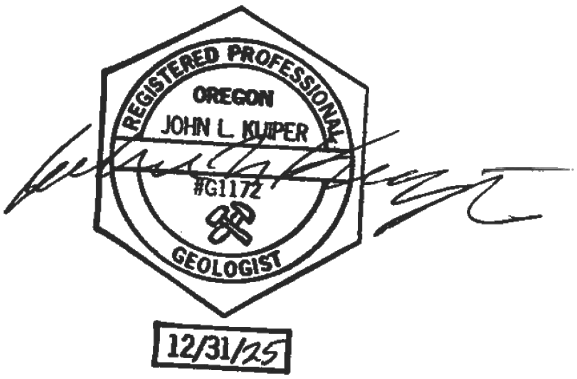
8.0 LIMITATIONS

This report was prepared exclusively for Oregon Tool by WSP USA Inc. (WSP). The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in WSP services and based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This Remedial Action Performance Report is intended to be used by Oregon Tool for only the Oregon Tool Carlton Facility in Milwaukie, Oregon, subject to the terms and conditions of its contract with WSP. Any other use of, or reliance on, this report by any third party is at that party's sole risk

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TABLES

TABLE 1

Routine Groundwater Monitoring Schedule for 2024

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Injection Wells			
A1	--	Annually	VOCs
A10	--	--	--
A11	--	Annually	VOCs
A12	--	--	--
A14	--	--	--
A16	--	Annually	VOCs
A18	--	--	--
A34	--	Annually	VOCs
A35	--	--	--
A36	--	Annually	VOCs
A4	--	--	--
A45	--	--	--
A47	--	--	--
A48	--	Annually	VOCs
A5	--	Annually	VOCs
A50	--	Annually	VOCs
A7	--	--	--
A8	--	--	--
B1	--	Annually	VOCs
B10	--	Annually	VOCs
B11	--	--	--
B12	--	--	--
B13	--	Annually	VOCs
B18	--	Annually	VOCs
B2	--	--	--
B23	--	Annually	VOCs
B24	--	--	--
B25	--	--	--
B26	--	--	--
B3	--	Annually	VOCs
B33	--	--	--
B37	--	Annually	VOCs
B4	--	--	--
B44	--	--	--
B45	--	Annually	VOCs
B8	--	Annually	VOCs
B9	--	--	--
I-A-1	--	--	--
I-A-2b	--	--	--
I-A-3b	--	Annually	VOCs
I-A-4b	--	--	--
I-A-5b	--	--	--
I-A-7	--	--	--
I-A-8	--	--	--
I-A-9	--	--	--
I-B-1	--	--	--
I-B-10	--	--	--
I-B-11	--	Annually	VOCs
I-B-12	--	--	--
I-B-13	--	--	--

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Injection Wells (cont.)			
I-B-14	--	Annually	VOCs
I-B-15	--	--	--
I-B-16	--	Annually	VOCs
I-B-17	--	--	--
I-B-18	--	Annually	VOCs
I-B-19	--	--	--
I-B-2	--	Annually	VOCs
I-B-20	--	--	--
I-B-21	--	--	--
I-B-22	--	--	--
I-B-4	--	--	--
I-B-5	--	--	--
I-B-7	--	--	--
I-B-8	--	--	--
I-B-9	--	Annually	VOCs
OI-B-01	--	--	--
OI-B-02	--	--	--
OI-B-04	--	--	--
OI-B-05	--	--	--
OI-B-06	--	--	--
OI-B-07	--	--	--
OI-B-08	--	--	--
OI-B-09	--	--	--
OI-B-10	--	--	--
PI-A-01	--	--	VOCs
PI-A-02	--	--	--
PI-A-03	--	--	--
PI-A-04	--	--	--
PI-A-05	--	--	--
PI-A-06	--	--	--
PI-A-07	--	--	--
PI-B-01	--	--	--
PI-B-02	--	--	--
PI-B-03	--	--	--
PI-B-04	--	--	--
PI-B-05	--	--	--
PI-B-06	--	--	--
PI-B-07	--	--	VOCs
PI-B-09	--	--	--
PI-B-10	--	--	VOCs
PI-B-11	--	--	--
PI-B-13	--	--	VOCs
PI-B-14	--	--	--
PI-B-15	--	--	VOCs
PI-B-16	--	--	--
PI-B-17	--	--	--
PI-B-18	--	--	VOCs
PI-B-19	--	--	--
Non-Operating Extraction Wells			
DPE-1 (EW-1)	--	--	--
DPE-2	--	--	--
DPE-3	--	--	--

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Non-Operating Extraction Wells, cont.			
DPE-4	--	--	--
DPE-5	Annually	Annually	VOCs
DPE-6	--	--	--
EW-8*	Quarterly	Q1, Q3, Q4	VOCs
Operating Extraction Wells			
DPE-7 (EW-3)	--	Quarterly	VOCs
DPE-8 (EW-2)	--	Quarterly	VOCs
EW-4	Quarterly	Quarterly	VOCs
EW-5a	Quarterly	Quarterly	VOCs
EW-6	Quarterly	Quarterly	VOCs
EW-7	Quarterly	Quarterly	VOCs
Shallow Monitoring Wells & Piezometers			
CRC-1	Annually	Annually	VOCs
CRC-10	--	--	--
CRC-11	--	--	--
CRC-12	--	--	--
CRC-13	--	--	--
CRC-2	--	--	--
CRC-3	--	--	--
CRC-4	--	--	--
CRC-5	--	--	--
CRC-6	--	--	--
CRC-7	Annually	Annually	VOCs
CRC-8	--	--	--
CRC-9	--	--	--
EW-1a	--	--	--
MW-01a (EW-1a)	--	Annually	VOCs
MW-02-1	--	--	--
MW-02-2	Annually	Annually	VOCs
MW-03	--	--	--
MW-03R	Annually	Annually	VOCs
MW-04	Annually	Annually	VOCs
MW-06	--	--	--
MW-06a	--	--	--
MW-07	--	--	--
MW-07a	--	--	--
MW-07a	--	--	--
MW-08	Semiannually	Semiannually	VOCs
MW-09	--	--	--
MW-09	--	--	--
MW-10-1	Annually	Annually	VOCs
MW-10-2	Annually	Annually	VOCs
MW-11-1	Semiannually	Semiannually	VOCs
MW-11-2	Q1, Q2, Q3	Q1, Q2, Q3	VOCs
MW-12	Q2	Q2	VOCs
MW-13-2	Semiannually	Semiannually	VOCs
MW-14	Semiannually	Semiannually	VOCs

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Shallow Monitoring Wells & Piezometers, cont.			
MW-15-1	Semiannually	Semiannually	VOCs
MW-15-2	Semiannually	Semiannually	VOCs
MW-16a	--	--	--
MW-19-1	Annually	Annually	VOCs
MW-19-2	Annually	Annually	VOCs
MW-1a	--	--	--
MW-20-1	Annually	Annually	VOCs
MW-20-2	Annually	Annually	VOCs
MW-21-1	--	--	--
MW-21-2	Annually	Annually	VOCs
MW-22-1	--	--	--
MW-22-2	Annually	--	--
MW-23-1	--	--	--
MW-23-2	--	--	--
MW-23-2R	Annually	--	--
MW-24-1	--	--	--
MW-25-1	Annually	Annually	VOCs
MW-26-1	Annually	Annually	VOCs
MW-27-1	Annually	Annually	VOCs
MW-28-2	Annually	Annually	VOCs
MW-29-1	--	--	--
MW-30-1	--	--	--
MW-31-1	Annually	Annually	VOCs
MW-32-2	--	--	--
MW-33-2	Annually	Annually	VOCs
MW-34-1	--	--	--
MW-35-1	--	--	--
MW-36-2	Annually	Annually	VOCs
MW-37-2	Annually	Annually	VOCs
MW-39-2	Annually	Annually	VOCs
MW-40-2	--	--	--
MW-41-2	Annually	Annually	VOCs
MW-42-2	Annually	--	--
MW-43-1	Annually	Annually	VOCs
MW-44-1	--	--	--
MW-45-1	--	--	--
MW-46-2	Annually	Annually	VOCs
MW-47-2	Annually	--	--
MW-48-2	Annually	Annually	VOCs
MW-49-2	Annually	--	--
MW-50-2	Annually	Annually	VOCs
MW-51-2	--	--	--
MW-52-2	Annually	Annually	VOCs
MW-53-2	Annually	Annually	VOCs
MW-54-1	--	--	--
MW-55-1	--	--	--

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Shallow Monitoring Wells & Piezometers, cont.			
MW-56-1	--	--	--
MW-57-1	Annually	Annually	VOCs
MW-57-2	Annually	Annually	VOCs
MW-58-1	--	--	--
MW-59-2	Annually	Annually	VOCs
MW-60-1	Annually	Annually	VOCs
MW-60-2	Annually	Annually	VOCs
MW-61-1	Annually	Annually	VOCs
MW-61-2	Annually	--	VOCs
MW-62-2	Annually	--	VOCs
MW-63-2	Annually	--	VOCs
MW-64-1	Annually	--	VOCs
MW-64-2	Annually	--	VOCs
MW-65-1	Annually	--	VOCs
MW-65-2	Annually	--	VOCs
MW-66-1	Annually	--	VOCs
MW-66-2	Annually	--	--
MW-67-2	Annually	--	VOCs
MW-68-1	Annually	--	VOCs
MW-69-1	--	--	--
MW-70-1	--	--	--
MW-71-1	Annually	--	VOCs
MW-72-2	Annually	--	VOCs
MW-73-2	Annually	--	--
MW-74-2	Annually	--	VOCs
MW-75-2	Annually	--	--
MW-76-2	Annually	--	VOCs
MW-77-2	Annually	--	--
MW-78-2	Annually	--	VOCs
MW-79-2	Annually	--	VOCs
MW-80-2	Annually	--	VOCs
PZ-3	--	--	--
PZ-4	--	--	--
PZ-5	--	--	--
SP-01	Annually	--	VOCs
Weathered Basalt Wells			
MW-01b	Annually	Annually	VOCs
MW-02b	Q1, Q2, Q4	Q1, Q2, Q4	VOCs
MW-02c	Q1, Q2, Q4	--	--
MW-02c-L	--	Q1, Q2, Q4	VOCs
MW-02c-U	--	Q1, Q2, Q4	VOCs
MW-05b	Semiannually	Semiannually	VOCs
MW-05b	--	--	--
MW-06b	--	--	--
MW-07b	Annually	Annually	VOCs
MW-11b	Q1, Q2, Q4	Q1, Q2, Q4	VOCs

Table 1
Routine Groundwater Monitoring Schedule for 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Water Level Location Frequency 2024[a,b]	Water Quality Sampling Frequency 2024[a,b]	Water Quality Sampling Analysis
Weathered Basalt Wells, cont.			
MW-14b	Q1, Q2	Q1, Q2	VOCs
MW-15b	Semiannually	Semiannually	VOCs
MW-16b	Annually	Annually	VOCs
MW-17b	Q1, Q2, Q4	--	--
MW-17b-L	--	Q1, Q2, Q4	VOCs
MW-17b-U	--	Q1, Q2, Q4	VOCs
MW-18b	Q1, Q2, Q4	--	--
MW-18b-L	--	Q1, Q2, Q4	VOCs
MW-18b-U	--	Q1, Q2, Q4	VOCs

Notes:

[a] Quarterly monitoring scheduled for January (Q1), April (Q2), July (Q3) & October (Q4); semiannual monitoring scheduled for April (Q2) and October (Q4); annual monitoring scheduled for October (Q4).

[b] Monitoring program reduced in Q4 2024 per the Annual Well Sampling Adjustment Letter Oregon Tool - Naef Road Site (2024)

* EW-8 plugged and offline during 2024 Q2; unable to sample

VOCs = volatile organic compounds

TABLE 2

Routine Groundwater Monitoring Laboratory Results and Field Geochemistry for October 2022 through April 2025

TABLE 2
Routine Groundwater Monitoring Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
Non-Operating Extraction Wells													
SU A&B	DPE-1	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.940	1.74	--	--	6.65	706	16.2
		10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.910	1.71	--	--	--	--	--
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.560	1.36	--	--	6.71	689	16.4
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.580	1.38	--	--	--	--	--
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.560	1.36	--	--	6.52	620	16.4
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.580	1.38	--	--	--	--	--
	DPE-3	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	6.64	517	17.3
		10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	--	--	--
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.72	466	17.2
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.71	471	17.1
	DPE-4	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	6.65	557	17.3
		10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	--	--	--
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.65	494	17
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	0.200	0.1 U	6.54	532	16.9
	DPE-5	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	6.36	349	15.8
		10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	--	--	--
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.18	260	15.7
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.42	261	15.9
		10/23/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.45	311	15.5
		4/24/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.28	294	15.5
	DPE-6	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	1.00	--	--	6.34	356	16.2
		7/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.18	298	16.0
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.49	292	15.9
Qff & WB	EW-8	4/20/2022	0.400 U	0.840	0.400 U	194	**3.48**	199	--	--	--	--	--
		7/13/2022	0.400 U	0.400 U	0.400 U	198	1.28	200	--	--	--	--	--
		10/11/2022	0.800 U	0.800 U	0.800 U	184	0.800 U	186	--	--	--	--	--
		1/17/2023	0.800 U	0.800 U	0.800 U	199	0.800 U	201	--	--	--	--	--
		4/20/2023	0.800 U	0.940	0.800 U	161	0.800 U	163	--	--	--	--	--
		7/7/2023	0.800 U	0.800 U	0.800 U	139	0.940	141	--	--	--	--	--
		10/6/2023	0.400 U	0.400 U	0.400 U	167	0.380	168	--	--	--	--	--
		1/23/2024	1.31	**149**	0.400 U	107	0.200 U	258	--	--	--	--	--
		8/27/2024	0.800 U	12.4	0.800 U	54.3	0.400 U	67.7	--	--	--	--	--
		10/23/2024	0.400 U	12.3	0.400 U	38.1	0.200 U	50.9	--	--	--	--	--
		1/28/2025	0.800 U	0.800 U	0.800 U	1.84	0.720	3.76	--	--	--	--	--
		4/25/2025	0.400 U	0.400 U	0.400 U	1.34	**8.29**	10.2	--	--	--	--	--

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Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
Operating Extraction Wells													
SU A&B	DPE-7	1/19/2022	0.400 U	**34.5**	0.590	59.4	0.400 U	94.9	--	--	--	--	--
		4/20/2022	0.400 U	**17.0**	0.400 U	30.0	0.400 U	47.6	--	--	--	--	--
		7/13/2022	0.400 U	**28.5**	0.550	47.7	0.400 U	77.2	--	--	--	--	--
		10/11/2022	0.410	**29.5**	0.480	42.2	0.400 U	72.8	--	--	--	--	--
		1/17/2023	0.440	**34.2**	0.410	41.6	0.750	77.4	--	--	--	--	--
		4/20/2023	0.400 U	7.46	0.400 U	4.68	0.400 U	12.7	--	--	--	--	--
		7/7/2023	0.510	**49.8**	0.460	33.7	1.24	85.7	--	--	--	--	--
		10/6/2023	0.460	**46.0**	0.510	36.0	0.340	83.3	--	--	--	--	--
		1/23/2024	0.420	**34.2**	0.540	39.7	0.280	75.1	--	--	--	--	--
		4/25/2024	0.400 U	**34.4**	0.440	36.4	0.280	71.7	--	--	--	--	--
		8/27/2024	0.400 U	**32.1**	0.480	36.1	0.610	69.5	--	--	--	--	--
		10/23/2024	0.400	**34.0**	0.400 U	37.2	0.200 U	71.9	--	--	--	--	--
		1/29/2025	0.400 U	**36.0**	0.450	31.2	0.200 U	68.0	--	--	--	--	--
		4/25/2025	0.400 U	**40.7**	0.400	31.4	0.200 U	72.8	--	--	--	--	--
	DPE-8	1/19/2022	8.80	**620**	4.00 U	66.9	**4.00 U**	700	--	--	--	--	--
		4/20/2022	8.55	**549**	2.00 U	50.2	2.00 U	610	--	--	--	--	--
		7/13/2022	5.70	**361**	2.00 U	37.2	2.00 U	406	--	--	--	--	--
		10/11/2022	7.85	**507**	2.00 U	31.8	2.00 U	549	--	--	--	--	--
		1/17/2023	6.84	**443**	0.400 U	26.8	0.400 U	477	--	--	--	--	--
		4/20/2023	10.8	**586**	2.00 U	23.8	2.00 U	623	--	--	--	--	--
		7/7/2023	8.40	**599**	2.00 U	23.1	2.00 U	633	--	--	--	--	--
		10/6/2023	11.1	**760**	2.00 U	21.8	1.00 U	794	--	--	--	--	--
		1/23/2024	3.70	**190**	2.00 U	6.35	1.00 U	202	--	--	--	--	--
		4/25/2024	10.3	**690**	2.00 U	22.8	1.00 U	725	--	--	--	--	--
		8/27/2024	8.00	**500**	2.00 U	16.8	1.00 U	526	--	--	--	--	--
		10/23/2024	7.40	**413**	2.00 U	16.0	1.00 U	438	--	--	--	--	--
		1/29/2025	8.35	**465**	2.00 U	14.6	1.00 U	489	--	--	--	--	--
		4/25/2025	9.65	**582**	2.00 U	16.9	1.00 U	610	--	--	--	--	--
	EW-4	1/19/2022	14.4	**1,460**	4.00 U	297	**4.00 U**	1,775	--	--	--	--	--
		4/20/2022	13.2	**1,240**	8.00 U	263	**8.00 U**	1,524	--	--	--	--	--
		7/13/2022	14.2	**1,150**	4.00 U	322	**4.00 U**	1,490	--	--	--	--	--
		10/11/2022	17.0	**1,470**	4.00 U	334	**4.00 U**	1,825	--	--	--	--	--
		1/17/2023	15.4	**1,480**	4.00 U	335	**4.00 U**	1,834	--	--	--	--	--
		4/20/2023	17.9	**1,400**	4.00 U	309	**4.00 U**	1,731	--	--	--	--	--
		7/7/2023	16.6	**1,770**	4.00 U	333	**4.00 U**	2,124	--	--	--	--	--
		10/6/2023	17.1	**1,680**	4.00 U	309	2.00 U	2,009	--	--	--	--	--
		1/23/2024	16.9	**1,400**	4.00 U	311	2.00 U	1,731	--	--	--	--	--
		4/25/2024	12.1	**1,310**	4.00 U	330	2.00 U	1,655	--	--	--	--	--
		8/27/2024	12.1	**1,200**	4.00	263	2.00 U	1,480	--	--	--	--	--
		10/23/2024	13.7	**1,200**	4.00 U	302	2.00 U	1,519	--	--	--	--	--
		1/29/2025	17.9	**1,500**	4.00 U	321	2.00 U	1,842	--	--	--	--	--
		4/25/2025	18.3	**1,570**	4.12	307	0.740	1,900	--	--	--	--	--

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Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A&B (cont.)	EW-5A	4/20/2022	2.68	**228**	1.10	111	**6.14**	349	--	--	--	--	--
		7/13/2022	2.54	**215**	1.00	109	**6.18**	334	--	--	--	--	--
		10/11/2022	2.72	**239**	1.20	111	**6.32**	360	--	--	--	--	--
		1/17/2023	2.16	**198**	1.14	99.0	**4.40**	305	--	--	--	--	--
		4/20/2023	2.84	**203**	1.24	92.5	**3.86**	303	--	--	--	--	--
		7/7/2023	2.46	**269**	1.50	107	**5.76**	386	--	--	--	--	--
		10/6/2023	2.52	**237**	1.70	92.2	**5.28**	339	--	--	--	--	--
		1/23/2024	2.30	**201**	1.70	88.4	**3.55**	297	--	--	--	--	--
		4/25/2024	2.00	**231**	1.62	101	**4.28**	340	--	--	--	--	--
		8/27/2024	2.04	**222**	1.60	87.9	**4.24**	318	--	--	--	--	--
		10/23/2024	2.38	**188**	1.54	107	**5.29**	304	--	--	--	--	--
		1/29/2025	2.52	**234**	1.44	90.6	**3.32**	332	--	--	--	--	--
		4/25/2025	2.54	**259**	1.42	100	**3.46**	366	--	--	--	--	--
	EW-6	1/19/2022	1.94	**260**	0.800 U	42.3	0.800 U	305	--	--	--	--	--
		1/19/2022	4.00 U	**268**	4.00 U	45.7	**4.00 U**	320	--	--	--	--	--
		4/20/2022	2.05	**261**	2.00 U	41.6	2.00 U	307	--	--	--	--	--
		4/20/2022	2.30	**271**	2.00 U	43.0	2.00 U	318	--	--	--	--	--
		7/13/2022	1.62	**188**	1.00 U	28.2	1.00 U	219	--	--	--	--	--
		7/13/2022	1.75	**182**	1.00 U	28.2	1.00 U	213	--	--	--	--	--
		10/11/2022	2.50	**282**	0.800 U	45.5	0.800 U	331	--	--	--	--	--
		1/17/2023	2.52	**323**	0.800 U	53.5	0.800 U	380	--	--	--	--	--
		1/17/2023	2.40	**312**	0.800 U	52.5	0.800 U	368	--	--	--	--	--
		4/20/2023	3.55	**317**	2.00 U	52.8	2.00 U	375	--	--	--	--	--
		4/20/2023	3.50	**324**	2.00 U	51.4	2.00 U	381	--	--	--	--	--
		7/7/2023	3.20	**425**	2.00 U	56.6	2.00 U	487	--	--	--	--	--
		10/6/2023	3.15	**401**	2.00 U	54.3	1.00 U	460	--	--	--	--	--
		10/6/2023	3.45	**416**	2.00 U	54.2	1.00 U	475	--	--	--	--	--
		1/23/2024	3.40	**350**	2.00 U	60.6	1.00 U	416	--	--	--	--	--
		1/23/2024	3.05	**318**	2.00 U	55.7	1.00 U	378	--	--	--	--	--
		4/25/2024	3.35	**408**	2.00 U	67.7	1.00 U	481	--	--	--	--	--
		4/25/2024	3.55	**414**	2.00 U	69.8	1.00 U	489	--	--	--	--	--
		8/27/2024	3.25	**394**	2.00 U	67.2	1.00 U	466	--	--	--	--	--
		8/27/2024	3.10	**392**	2.00 U	64.3	1.00 U	461	--	--	--	--	--
		10/23/2024	3.05	**331**	2.00 U	66.1	1.00 U	402	--	--	--	--	--
		10/23/2024	2.75	**358**	2.00 U	62.2	1.00 U	424	--	--	--	--	--
		1/29/2025	3.75	**425**	2.00 U	76.2	1.00 U	506	--	--	--	--	--
		1/29/2025	3.70	**400**	2.00 U	69.3	1.00 U	475	--	--	--	--	--
		4/25/2025	4.25	**466**	2.00 U	75.6	1.00 U	547	--	--	--	--	--
		4/25/2025	4.10	**467**	2.00 U	76.6	1.00 U	549	--	--	--	--	--

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Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A&B (cont.)	EW-7	1/19/2022	1.33	**33.0**	0.400 U	8.08	0.400 U	42.8	--	--	--	--	--
		4/20/2022	1.19	**28.6**	0.400 U	7.36	0.400 U	37.6	--	--	--	--	--
		7/13/2022	1.43	**31.7**	0.400 U	9.83	0.400 U	43.4	--	--	--	--	--
		10/11/2022	1.14	**22.4**	0.400 U	8.82	0.400 U	32.8	--	--	--	--	--
		1/17/2023	1.15	**24.9**	0.400 U	9.80	0.400 U	36.3	--	--	--	--	--
		4/20/2023	1.19	**20.7**	0.400 U	7.86	0.400 U	30.2	--	--	--	--	--
		7/7/2023	1.10	**26.9**	0.400 U	4.41	0.400 U	32.8	--	--	--	--	--
		10/6/2023	1.12	**23.6**	0.400 U	8.97	0.200 U	34.0	--	--	--	--	--
		1/23/2024	1.14	**19.3**	0.400 U	9.00	0.200 U	29.7	--	--	--	--	--
		4/25/2024	1.39	**23.2**	0.400 U	9.23	0.200 U	34.1	--	--	--	--	--
		8/27/2024	0.900	**16.5**	0.400 U	7.60	0.200 U	25.3	--	--	--	--	--
		10/23/2024	1.01	**16.9**	0.400 U	8.98	0.200 U	27.2	--	--	--	--	--
		1/29/2025	1.28	**23.3**	0.400 U	9.94	0.200 U	34.8	--	--	--	--	--
		4/25/2025	1.25	**24.0**	0.400 U	10.1	0.200 U	35.7	--	--	--	--	--
		4/25/2025	1.32	**24.5**	0.400 U	10.3	0.200 U	36.4	--	--	--	--	--
Shallow Monitoring Wells													
Qff	MW-06A	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
	MW-07A	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	MW-16A	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
SU A	MW-08	4/19/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/6/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		4/19/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		10/23/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/23/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	MW-10-1	10/5/2022	0.400 U	1.37	0.400 U	0.400 U	0.400 U	2.17	--	--	6.49	438	18.5
		10/4/2023	0.410	1.94	0.400 U	0.400 U	0.200 U	2.85	--	--	6.64	156	16.2
		10/23/2024	0.400 U	0.990	0.400 U	0.400 U	0.200 U	1.69	--	--	6.45	304	17.1
		4/24/2025	0.400 U	1.59	0.400 U	0.400 U	0.200 U	2.29	--	--	6.12	284	16.9
	MW-11-1	4/19/2022	0.400 U	2.06	0.400 U	1.73	0.400 U	4.39	--	--	6.3	520	12.5
		10/6/2022	0.630	8.07	0.400 U	5.51	0.400 U	14.6	--	--	6.16	506	17.1
		4/20/2023	0.400 U	0.730	0.400 U	1.27	0.400 U	2.60	--	--	6.26	496	16.9
		10/5/2023	0.400 U	1.81	0.400 U	1.18	0.340	3.73	--	--	6.36	374	17.1
		4/24/2024	0.400 U	0.400 U	0.400 U	1.14	0.260	2.00	--	--	6.18	298	170
		10/23/2024	0.400 U	0.400 U	0.400 U	1.10	0.600	2.30	--	--	6.38	377	15.9
		4/24/2025	0.400 U	0.710	0.400 U	0.420	0.200 U	1.63	--	--	6.09	365	15.5

TABLE 2
Routine Groundwater Monitoring Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A (cont.)	MW-12	4/19/2022	0.860	4.70	0.400 U	1.21	0.400 U	7.17	--	--	--	--	--
		10/7/2022	0.550	2.79	0.400 U	2.43	0.400 U	6.17	--	--	--	--	--
		4/19/2023	0.420	3.10	0.400 U	1.18	0.400 U	5.10	--	--	--	--	--
		4/24/2024	0.400 U	2.26	0.400 U	1.99	0.200 U	4.75	--	--	--	--	--
		4/23/2025	0.400	3.78	0.400 U	2.72	0.200 U	7.20	--	--	--	--	--
	MW-14	4/19/2022	0.400 U	6.34	0.400 U	12.2	0.400 U	19.1	--	--	6.31	652	12.4
		10/6/2022	0.420	**165**	0.670 J	41.6	**3.47**	211	--	--	6.3	629	15.3
		4/20/2023	0.400 U	0.640	0.400 U	3.58	0.400 U	4.82	--	--	6.25	578	15.2
		10/5/2023	0.400 U	**16.4**	0.400 U	7.28	0.550	24.6	--	--	6.18	618	15.7
		4/24/2024	0.400 U	1.18	0.400 U	4.36	0.200 U	6.04	--	--	5.92	555	15.8
		10/24/2024	0.400 U	4.40	0.400 U	4.50	0.200	9.50	--	--	6.36	623	14.6
		10/24/2024	0.400 U	3.22	0.400 U	4.56	0.200 U	8.28	--	--	--	--	--
		4/24/2025	0.400 U	0.400 U	0.400 U	3.26	0.200 U	3.96	--	--	6.15	621	14.8
	MW-15-1	4/19/2022	0.400 U	1.14	0.400 U	0.750	0.400 U	2.49	--	--	6.14	296	14.5
		10/6/2022	0.400 U	1.26	0.400 U	0.730	0.400 U	2.59	--	--	6.19	208	15.7
		4/20/2023	0.400 U	0.630	0.400 U	0.490	0.400 U	1.72	--	--	5.98	154	15.7
		10/5/2023	0.400 U	0.940	0.400 U	0.540	0.200 U	1.98	--	--	6.12	295	17.6
		4/24/2024	0.400 U	0.900	0.400 U	0.530	0.200 U	1.93	--	--	5.96	254	17.2
		10/24/2024	0.400 U	0.750	0.400 U	0.510	0.200 U	1.76	--	--	6.19	290	16
		4/24/2025	0.400 U	0.900	0.400 U	0.440	0.200 U	1.84	--	--	6.17	232	15.8
	SP-01	10/6/2022	0.400 U	5.10	0.400 U	1.17	2.12	8.79	--	--	--	--	--
		10/3/2023	0.400 U	**14.0**	0.400 U	0.400 U	0.200 U	14.7	--	--	--	--	--
		10/23/2024	0.400 U	7.85	0.400 U	0.400 U	0.200 U	8.55	--	--	--	--	--
	CRC-1	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.430	0.400 U	0.400 U	0.200 U	1.13	--	--	--	--	--
		10/23/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/23/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	CRC-10	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.49	539	16.9
		10/5/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.26	490	16.5
	MW-01A	10/5/2022	0.400 U	1.14	0.400 U	0.400 U	0.400 U	1.94	--	--	6.6	678	17.3
		10/5/2022	0.400 U	1.22	0.400 U	0.400 U	0.400 U	2.02	--	--	--	--	--
		10/4/2023	0.400 U	3.56	0.400 U	0.460	0.200 U	4.52	--	--	6.56	585	16.8
		10/4/2023	0.400 U	3.90	0.400 U	0.460	0.200 U	4.86	--	--	--	--	--
		10/23/2024	0.400 U	1.93	0.400 U	0.400 U	0.200 U	2.63	--	--	6.48	605	17
		4/24/2025	0.400 U	1.23	0.400 U	0.400 U	0.250	2.08	--	--	6.01	524	16.9
SU A&B	MW-04	4/19/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.76	5.87	14.7
		10/6/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	6.88	567	15.5
		10/5/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.79	584	15.8
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.89	575	14.9
		4/25/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	6.81	555	14.7

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Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU B	MW-10-2	10/5/2022	0.400 U	7.61	1.15	4.55	**4.46**	18.0	--	--	6.58	430	17
		10/4/2023	0.400 U	8.44	0.700	3.40	0.210	13.0	--	--	6.65	330	17
		10/4/2023	0.400 U	8.13	0.640	3.20	0.210	12.4	--	--	--	--	--
		10/23/2024	0.400 U	11.5	0.400 U	3.15	0.270	15.3	--	--	6.7	305	16
		4/24/2025	0.400 U	7.03	0.400 U	1.01	0.200 U	8.54	--	--	6.71	283	16.3
	MW-11-2	1/19/2022	53.8	**3,270**	10.0 U	183	**10.0 U**	3,517	--	--	6.28	397	12.9
		4/19/2022	30.5	**2,990**	10.0 U	54.2	**10.0 U**	3,085	--	--	6.55	436	12.7
		7/12/2022	42.2	**2,170**	10.0 U	75.0	**10.0 U**	2,297	--	--	6.48	441	12.9
		10/6/2022	62.5	**2,810**	20.0 U	173	**20.0 U**	3,066	--	--	6.58	353	15
		1/17/2023	10.0 U	**172**	10.0 U	1,180	**28.5**	1,391	--	--	6.71	330	14.9
		4/20/2023	14.2	**643**	10.0 U	912	**43.8**	1,618	--	--	6.64	340	15.1
		7/6/2023	27.0	**1,350**	10.0 U	1,270	**10.0 U**	2,657	--	--	6.38	300	15.1
		10/5/2023	4.00 U	4.00 U	4.00 U	690	**771**	1,467	--	--	6.58	293	15.1
		1/23/2024	1.64	**38.3**	0.400 U	15.9	1.86	57.9	--	--	6.69	258	15.2
		4/24/2024	33.6	**1,970**	4.00 U	348	**13.7**	2,367	--	--	6.24	272	15.2
		4/24/2024	36.8	**1,880**	3.18	234	**10.8**	2,165	--	--	--	--	--
		8/27/2024	27.0	**1,770**	8.00 U	648	**9.40**	2,458	--	--	6.6	248	15.1
		1/28/2025	2.71	**59.0**	0.410	85.2	0.390	148	--	--	6.46	261	15.1
		4/24/2025	5.67	**310**	0.560	103	0.210	419	--	--	6.23	264	15.2
	MW-13-2	4/19/2022	1.54	**199**	0.400 U	13.9	0.400 U	215	--	--	6.41	380	12.9
		7/12/2022	1.75	**162**	0.400 U	25.1	0.400 U	189	--	--	6	294	13.9
		10/6/2022	3.73	**335**	0.760 J	71.6	0.400 U	411	--	--	6.41	429	15.6
		1/17/2023	0.590	**21.0**	0.400 U	2.79	0.400 U	24.8	--	--	6.75	374	15.7
		4/20/2023	0.400 U	2.42	0.400 U	0.620	0.400 U	3.64	--	--	6.79	318	15.5
		10/5/2023	0.410	4.98	0.400 U	0.770	0.200 U	6.46	--	--	6.55	395	15.7
		4/24/2024	0.490	**39.0**	0.400 U	16.3	0.200 U	56.1	--	--	6.71	349	15.6
		10/24/2024	0.400 U	12.4	0.400 U	1.75	0.200 U	14.7	--	--	6.88	219	15.4
		4/24/2025	0.400 U	2.70	0.400 U	0.690	0.200 U	3.89	--	--	6.76	216	15.6
	MW-15-2	4/19/2022	1.05	**116**	0.400 U	14.3	0.490	132	--	--	6.41	253	14.4
		10/6/2022	0.450	**30.1**	0.400 U	5.64	0.400 U	36.6	--	--	6.09	277	16.1
		4/20/2023	0.400 U	11.1	0.400 U	3.51	0.400 U	15.2	--	--	6.01	256	15.9
		10/5/2023	0.400 U	**18.8**	0.400 U	4.30	0.290	23.8	--	--	6.17	238	15.9
		4/24/2024	0.550	**53.1**	0.400 U	12.7	0.570	67.1	--	--	6.05	199	15.9
		10/24/2024	0.400 U	7.43	0.400 U	3.07	0.200 U	11.0	--	--	6.31	177	15.6
		4/24/2025	0.400 U	9.79	0.400 U	3.56	0.200 U	13.9	--	--	6.16	674	15.6
	CRC-7	10/5/2022	1.40	4.54	0.400 U	0.400 U	0.400 U	6.54	--	--	6.39	286	15.2
		10/5/2023	0.610	4.58	0.400 U	0.470	0.200 U	5.96	--	--	6.47	292	15.3
		10/23/2024	1.13	3.43	0.400 U	0.400 U	0.200 U	5.06	--	--	6.45	188	15.4
		4/23/2025	0.400 U	0.810	0.400 U	0.400 U	0.200 U	1.51	--	--	--	--	--

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Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
Weathered Basalt Wells													
WB	MW-01B	10/6/2022	0.400 U	0.810	0.400 U	0.400 U	0.400 U	1.61	--	--	--	--	--
		10/3/2023	0.400 U	0.810	0.400 U	0.400 U	0.200 U	1.51	--	--	--	--	--
		10/23/2024	0.400 U	0.870	0.400 U	0.400 U	0.200 U	1.57	--	--	--	--	--
		4/23/2025	0.400 U	1.17	0.400 U	0.400 U	0.200 U	1.87	--	--	--	--	--
	MW-02B	1/19/2022	6.10	**1,270**	4.00 U	46.9	**4.00 U**	1,327	--	--	--	--	--
		4/19/2022	7.40	**1,210**	4.00 U	51.9	**4.00 U**	1,273	--	--	--	--	--
		7/12/2022	7.10	**1,020**	4.00 U	50.0	**4.00 U**	1,081	--	--	--	--	--
		10/7/2022	6.30	**1,070**	4.00 U	99.2	**6.40**	1,184	--	--	--	--	--
		1/17/2023	7.40	**1,300**	4.00 U	59.6	**4.00 U**	1,371	--	--	--	--	--
		4/19/2023	6.50	**1,190**	4.00 U	63.7	**4.00 U**	1,264	--	--	--	--	--
		7/6/2023	7.00	**1,180**	4.00 U	49.4	**4.00 U**	1,240	--	--	--	--	--
		10/3/2023	7.60	**1,410**	4.00 U	54.7	2.00 U	1,475	--	--	--	--	--
		1/23/2024	7.30	**1,100**	4.00 U	52.5	2.00 U	1,163	--	--	--	--	--
		4/24/2024	6.50	**1,250**	4.00 U	56.5	2.00 U	1,316	--	--	--	--	--
		10/24/2024	6.90	**1,030**	4.00 U	51.4	2.00 U	1,091	--	--	--	--	--
		1/29/2025	6.70	**1,180**	4.00 U	60.2	2.00 U	1,250	--	--	--	--	--
		4/23/2025	9.00	**1,610**	4.00 U	69.8	2.00 U	1,692	--	--	--	--	--
	MW-02C-L	1/19/2022	4.30	**738**	2.00 U	26.0	2.00 U	770	--	--	--	--	--
		4/19/2022	6.85	**1,020**	2.00 U	39.0	2.00 U	1,068	--	--	--	--	--
		7/12/2022	6.70	**917**	2.00 U	45.4	2.00 U	971	--	--	--	--	--
		10/7/2022	5.65	**855**	2.00 U	33.1	2.00 U	896	--	--	--	--	--
		1/17/2023	6.30	**946**	2.00 U	27.8	2.00 U	982	--	--	--	--	--
		4/19/2023	7.85	**816**	2.00 U	54.3	2.00 U	880	--	--	--	--	--
		7/6/2023	5.30	**775**	4.00 U	28.2	**4.00 U**	813	--	--	--	--	--
		10/3/2023	6.80	**1,100**	4.00 U	38.4	2.00 U	1,148	--	--	--	--	--
		1/23/2024	5.80	**798**	2.00 U	30.0	1.00 U	835	--	--	--	--	--
		4/24/2024	6.40	**1,050**	4.00 U	43.1	2.00 U	1,103	--	--	--	--	--
		10/24/2024	5.60	**848**	4.00 U	39.0	2.00 U	896	--	--	--	--	--
		1/29/2025	6.50	**958**	2.00 U	41.2	1.00 U	1,007	--	--	--	--	--
		4/23/2025	8.60	**1,180**	2.00 U	55.6	1.00 U	1,246	--	--	--	--	--
	MW-02C-U	1/19/2022	4.50	**771**	2.00 U	27.4	2.00 U	805	--	--	--	--	--
		4/19/2022	6.30	**994**	2.00 U	35.4	2.00 U	1,038	--	--	--	--	--
		7/12/2022	6.50	**941**	2.00 U	41.8	2.00 U	991	--	--	--	--	--
		10/7/2022	5.45	**887**	2.00 U	34.8	2.00 U	929	--	--	--	--	--
		1/17/2023	5.35	**866**	2.00 U	32.5	2.00 U	906	--	--	--	--	--
		4/19/2023	6.55	**828**	2.00 U	47.6	2.00 U	884	--	--	--	--	--
		7/6/2023	5.30	**849**	4.00 U	30.5	**4.00 U**	889	--	--	--	--	--
		10/3/2023	6.30	**1,040**	4.00 U	37.8	2.00 U	1,087	--	--	--	--	--
		1/23/2024	5.60	**824**	2.00 U	30.8	1.00 U	862	--	--	--	--	--
		4/24/2024	6.60	**1,100**	4.00 U	42.1	2.00 U	1,152	--	--	--	--	--
		10/24/2024	5.60	**847**	4.00 U	37.3	2.00 U	893	--	--	--	--	--
		1/29/2025	7.50	**947**	2.00 U	37.0	1.00 U	993	--	--	--	--	--
		4/23/2025	8.20	**1,230**	2.00 U	48.0	1.00 U	1,288	--	--	--	--	--

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Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
WB (cont.)	MW-05B	4/19/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		4/19/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/23/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	MW-06B	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/23/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	MW-11B	4/19/2022	1.90	**241**	0.800 U	31.4	0.800 U	275	--	--	--	--	--
		7/12/2022	1.98	**207**	0.800 U	36.7	0.800 U	246	--	--	--	--	--
		10/6/2022	1.98	**240**	0.800 U	38.5	0.800 U	281	--	--	--	--	--
		1/17/2023	1.38	**185**	0.800 U	75.8	1.82	264	--	--	--	--	--
		4/19/2023	1.46	**175**	0.800 U	118	2.40	297	--	--	--	--	--
		7/6/2023	1.47	**125**	0.400 U	74.4	0.400 U	201	--	--	--	--	--
		10/3/2023	5.30	**796**	4.00 U	889	2.60	1,695	--	--	--	--	--
		1/23/2024	1.02	**137**	0.800 U	143	0.400 U	282	--	--	--	--	--
		4/24/2024	1.80	**260**	0.800 U	52.9	0.420	316	--	--	--	--	--
		10/23/2024	1.38	**192**	0.800 U	104	1.74	300	--	--	--	--	--
		1/29/2025	1.30	**206**	0.800 U	129	1.10	338	--	--	--	--	--
		4/23/2025	2.26	**398**	0.800 U	50.3	0.400 U	451	--	--	--	--	--
	MW-14B	1/19/2022	2.00 U	**248**	2.00 U	6.80	2.00 U	258	--	--	--	--	--
		4/19/2022	2.00 U	**201**	2.00 U	6.25	2.00 U	210	--	--	--	--	--
		7/12/2022	2.08	**178**	0.800 U	10.1	0.800 U	191	--	--	--	--	--
		10/6/2022	2.55	**236**	2.00 U	7.20	2.00 U	248	--	--	--	--	--
		1/17/2023	2.55	**251**	2.00 U	8.65	2.00 U	264	--	--	--	--	--
		4/19/2023	2.25	**238**	2.00 U	8.60	2.00 U	251	--	--	--	--	--
		7/6/2023	2.15	**213**	2.00 U	6.40	2.00 U	224	250	0.720	--	--	--
		1/23/2024	2.00 U	**208**	2.00 U	7.05	1.00 U	218	--	--	--	--	--
		4/24/2024	2.40	**212**	2.00 U	7.75	1.00 U	224	--	--	--	--	--
		1/29/2025	2.70	**219**	2.00 U	7.35	1.00 U	231	--	--	--	--	--
		4/23/2025	2.75	**254**	2.00 U	7.35	1.00 U	266	--	--	--	--	--
	MW-15B	4/19/2022	1.49	1.03	0.400 U	0.400 U	0.400 U	3.12	--	--	--	--	--
		7/12/2022	1.55	0.920	0.400 U	0.400 U	0.400 U	3.07	--	--	--	--	--
		10/6/2022	1.85	1.10	0.400 U	0.400 U	0.400 U	3.55	--	--	--	--	--
		4/19/2023	1.71	0.720	0.400 U	0.400 U	0.400 U	3.03	--	--	--	--	--
		10/3/2023	1.74	0.910	0.400 U	0.400 U	0.200 U	3.15	--	--	--	--	--
		4/24/2024	1.47	0.760	0.400 U	0.400 U	0.200 U	2.73	--	--	--	--	--
		10/24/2024	1.54	0.690	0.400 U	0.400 U	0.200 U	2.73	--	--	--	--	--
		4/23/2025	1.70	0.740	0.400 U	0.400 U	0.200 U	2.94	--	--	--	--	--

TABLE 2
Routine Groundwater Monitoring Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
WB (cont.)	MW-16B	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	--	--	--
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
		4/23/2025	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	--	--	--
	MW-17B-L	1/19/2022	4.10	**454**	2.00 U	31.8	2.00 U	492	--	--	--	--	--
		4/19/2022	4.15	**408**	2.00 U	29.6	2.00 U	444	--	--	--	--	--
		7/12/2022	3.65	**327**	2.00 U	30.4	2.00 U	363	--	--	--	--	--
		10/7/2022	4.05	**347**	2.00 U	28.0	2.00 U	381	--	--	--	--	--
		1/17/2023	4.40	**400**	2.00 U	33.4	2.00 U	440	--	--	--	--	--
		4/19/2023	4.35	**375**	2.00 U	36.4	2.00 U	418	--	--	--	--	--
		7/6/2023	3.55	**380**	2.00 U	28.9	2.00 U	414	--	--	--	--	--
		10/3/2023	4.30	**323**	2.00 U	23.0	1.00 U	352	--	--	--	--	--
		1/23/2024	3.15	**279**	2.00 U	25.0	1.00 U	309	--	--	--	--	--
		4/24/2024	3.25	**318**	2.00 U	27.8	1.00 U	351	--	--	--	--	--
		10/24/2024	3.05	**296**	2.00 U	25.1	1.00 U	326	--	--	--	--	--
		1/29/2025	3.85	**308**	2.00 U	26.0	1.00 U	339	--	--	--	--	--
		4/24/2025	4.43	**385**	0.400 U	32.6	0.200 U	422	--	--	--	--	--
	MW-17B-U	1/19/2022	4.00	**437**	2.00 U	29.7	2.00 U	473	--	--	--	--	--
		4/19/2022	3.80	**364**	2.00 U	26.6	2.00 U	396	--	--	--	--	--
		7/12/2022	3.55	**329**	2.00 U	32.3	2.00 U	367	--	--	--	--	--
		10/7/2022	3.75	**337**	2.00 U	27.2	2.00 U	370	--	--	--	--	--
		1/17/2023	3.70	**364**	2.00 U	30.0	2.00 U	400	--	--	--	--	--
		4/19/2023	3.80	**364**	2.00 U	34.3	2.00 U	404	--	--	--	--	--
		7/6/2023	3.80	**388**	2.00 U	29.2	2.00 U	423	--	--	--	--	--
		10/3/2023	4.12	**313**	0.400 U	29.8	0.200 U	347	--	--	--	--	--
		1/23/2024	3.40	**322**	2.00 U	28.7	1.00 U	356	--	--	--	--	--
		4/24/2024	3.30	**324**	2.00 U	28.0	1.00 U	357	--	--	--	--	--
		10/24/2024	3.10	**306**	2.00 U	24.8	1.00 U	335	--	--	--	--	--
		1/29/2025	3.95	**332**	2.00 U	25.6	1.00 U	363	--	--	--	--	--
		4/24/2025	4.41	**348**	0.400 U	32.0	0.200 U	385	--	--	--	--	--

TABLE 2
Routine Groundwater Monitoring Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
WB (cont.)	MW-18B-L	1/19/2022	16.0	**2,210**	23.2	1,010	**31.0**	3,290	--	--	--	--	--
		4/19/2022	26.0	**2,480**	**27.0**	1,000	**34.8**	3,568	--	--	--	--	--
		7/12/2022	29.2	**2,440**	22.2	725	**26.0**	3,242	--	--	--	--	--
		10/7/2022	40.2	**3,450**	**32.2**	1,030	**33.5**	4,586	--	--	--	--	--
		1/17/2023	35.5	**3,250**	**31.8**	1,050	**36.0**	4,403	--	--	--	--	--
		4/19/2023	41.8	**3,100**	**26.5**	497	**22.5**	3,688	--	--	--	--	--
		7/6/2023	37.8	**4,050**	**25.5**	564	**28.0**	4,705	--	--	--	--	--
		10/3/2023	45.0	**4,010**	**34.0**	508	**22.5**	4,620	--	--	--	--	--
		1/23/2024	40.8	**3,560**	**30.0**	556	**25.5**	4,212	--	--	--	--	--
		4/24/2024	45.0	**4,310**	**27.8**	555	**18.0**	4,956	--	--	--	--	--
		10/24/2024	50.8	**4,780**	**25.2**	585	**17.2**	5,458	--	--	--	--	--
		1/29/2025	55.8	**4,540**	**25.8**	562	**12.8**	5,196	--	--	--	--	--
		4/23/2025	58.0	**4,780**	21.5	538	**11.0**	5,409	--	--	--	--	--
	MW-18B-U	1/19/2022	21.0	**2,870**	17.2	654	**20.0**	3,582	--	--	--	--	--
		4/19/2022	33.0	**3,180**	23.8	738	**28.2**	4,003	--	--	--	--	--
		7/12/2022	34.5	**2,700**	**31.5**	753	**39.8**	3,559	--	--	--	--	--
		10/7/2022	35.0	**2,850**	**28.8**	956	**36.8**	3,907	--	--	--	--	--
		1/17/2023	38.5	**3,770**	23.0	606	**25.8**	4,463	--	--	--	--	--
		4/19/2023	37.0	**3,460**	18.8 J	510	**11.0 J**	4,037	--	--	--	--	--
		7/6/2023	47.2	**4,500**	21.2	494	**18.2**	5,081	--	--	--	--	--
		10/3/2023	47.6	**3,440**	**31.4**	710	**23.2**	4,252	--	--	--	--	--
		1/23/2024	40.5	**3,660**	22.8	498	**14.5**	4,236	--	--	--	--	--
		4/24/2024	44.0	**3,980**	24.0	508	**16.2**	4,572	--	--	--	--	--
		10/24/2024	42.5	**3,900**	**26.5**	503	**19.8**	4,492	--	--	--	--	--
		1/29/2025	65.0	**3,850**	21.2	604	**8.75**	4,549	--	--	--	--	--
		4/23/2025	59.2	**4,760**	15.4	538	**4.20**	5,377	--	--	--	--	--

Notes:

Shaded Bold = detection limit or analyte concentration exceeds at least one RBC

pH, conductivity, and temperature only available on primary samples collected via purging.

[1] = Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals, August 2023.

[2] = Oregon Department of Environmental Quality Chronic and Acute Vapor Intrusion Risk-Based Concentrations, March 2025.

Abbreviations:

-- = not measured
µg/L = micrograms per liter
µS/cm = microSiemens per centimeter
°C = degree Celsius
>S = RBC exceeds the solubility limit
COC = contaminant of concern
DCE = dichloroethene
J = estimated result
PCE = tetrachloroethene
SU = standard pH units
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride

Well name suffixes are defined as follows:
-L = Lower well-screen interval for diffusion bag
-U = Upper well-screen interval for diffusion bag

Locations are designated as follows:
SU A&B = Shallow alluvial Subunits A and B
SU A = Shallow Qfc fine-grained facies, Subunit A
SU B = Shallow Qfc coarse-grained facies, Subunit B
Qff = Shallow fine-grained flood deposits
WB = Weathered Basalt, Frenchman Spring Member of CRBG

Note: total COCs were calculated using 0.5x the detection limit for non-detect results

TABLE 3

Heat Treat Treatment Area Well Laboratory Results and Field Geochemistry for October 2022 through April 2025

Table 3
Heat Treat Treatment Area Wells Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--	--	--
SU A	MW-19-1	10/10/2022	--	--	--	--	--	--	--	--	-19.7	0.31	7.30	722	16.0
		10/11/2022	0.400 U	0.570	0.400 U	2.42	**79.2**	82.6	--	--	--	--	--	--	--
		5/12/2023	0.400 U	0.400 U	3.92	144	**193**	341	--	--	-26.3	0.32	7.25	712	15.5
		10/9/2023	0.400 U	0.790	0.400 U	2.48	**6.59**	10.3	--	--	-60.2	2.24	7.29	2,887	16.3
		10/21/2024	0.400 U	0.400 U	0.400 U	1.15	1.21	2.96			-117.6	1.27	6.97	1,066	16.1
	MW-29-1	10/10/2022	0.400 U	0.400 U	0.400 U	1.19	2.46	4.25	--	--	-12.1	0.35	6.79	1,059	18.4
		10/9/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	--	--	-33.0	9.53	7.98	2,073	17.8
	MW-30-1	10/10/2022	0.400 U	0.400 U	0.400 U	18.2	**7.00**	25.8	--	--	-21.9	0.21	6.68	620	18.0
		10/9/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	-15.4	3.10	7.33	1,999	17.7
	MW-31-1	10/10/2022	0.400 U	0.400 U	0.400 U	1.56	1.90	4.06	--	--	-29.8	0.43	6.74	892	18.5
		10/11/2023	2.00 U	2.00 U	2.35	28.1	**46.2**	78.7	--	--	--	--	--	--	--
		10/22/2024	0.400 U	2.33	0.400 U	8.16	**12.0**	22.9			-91.6	0.03	6.45	1,337	16.9
	MW-34-1	10/10/2022	0.400 U	0.400 U	0.400 U	0.410	0.400 U	1.21	--	--	-21.7	0.25	6.80	649	17.3
		10/11/2023	0.800 U	0.800 U	0.800 U	0.800 U	0.400 U	1.80	--	--	84.1	2.51	6.73	1,782	17.4
	MW-35-1	10/10/2022	0.400 U	7.42	0.400 U	3.26	**7.48**	18.6	--	--	-32.2	0.30	7.04	1,323	16.2
		10/9/2023	0.800 U	1.00	0.800 U	0.880	0.400	3.08	--	--	-87.4	1.48	7.87	4,074	16.6
	MW-43-1	10/6/2022	0.400 U	0.400 U	0.400 U	1.27	**4.00**	5.87	--	--	-55.2	0.42	7.07	946	16.4
		10/10/2023	0.400 U	0.400 U	0.400 U	0.690	1.80	3.09	--	--	72.6	3.51	7.86	1,772	16.7
		10/23/2024	0.400 U	0.400 U	0.400 U	0.790	0.970	2.36			-76.2	0.39	6.72	1,576	14.7
	MW-44-1	10/6/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	--	--	-40.2	1.21	7.18	562	15.8
		10/10/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.370	1.17	--	--	85.0	3.19	8.22	946	15.8
	MW-45-1	10/7/2022	0.400 U	0.400 U	0.400 U	0.510	1.24	2.35	--	--	-65.5	0.20	6.81	1,181	16.8
		10/11/2023	0.400 U	0.400 U	0.400 U	0.590	1.37	2.56	--	--	88.4	3.13	7.46	1,531	16.1
	I-A-1	4/4/2022	0.850	0.400 U	0.400 U	0.510	0.400 U	1.96	--	--	46.2	0.71	5.85	319	14.8
		10/10/2022	0.400 U	0.400 U	0.400 U	0.820	0.440	1.86	--	--	--	--	--	--	--
		10/10/2022	0.400 U	0.400 U	0.400 U	0.620	0.400 U	1.42	--	--	8.1	0.36	6.59	337	18.4
		10/9/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	--	--	2.4	4.09	6.33	4,910	18.2
	I-A-2B	10/10/2022	0.400 U	0.850	0.400 U	0.650	**3.40**	5.30	--	--	-6.8	2.73	6.62	884	18.7
		10/9/2023	4.00 U	4.00 U	4.00 U	5.00	**3.50**	14.5	--	--	46.5	10.62	5.81	6,571	17.8
	I-A-3B	10/10/2022	0.400 U	0.780	0.600	36.6	**85.8**	124	--	--	-36.2	0.48	6.82	823	17.3
		10/9/2023	2.00 U	2.00 U	2.00 U	8.60	**23.8**	35.4	--	--	7.2	9.56	7.99	1,728	17.8
		10/22/2024	2.00 U	2.00 U	12.3	429	**819**	1,262			-20.4	1.91	6.63	1,426	16.6
	I-A-4B	10/11/2022	0.800 U	0.800 U	0.800 U	210	**42.6**	254	--	--	-10.3	0.35	7.06	1,264	16.9
		10/9/2023	4.00 U	4.00 U	4.00 U	4.50	2.70	13.2	--	--	-36.4	3.35	6.90	5,287	17.1
	I-A-5B	10/11/2022	0.400 U	5.53	0.400 U	45.7	**5.96**	57.6	--	--	-21.4	0.43	6.76	1,043	16.7
		10/9/2023	2.00 U	2.00 U	2.00 U	2.00 U	**5.85**	9.85	--	--	-44.3	5.02	7.63	3,624	17.6
	I-A-7	10/6/2022	0.400 U	0.400 U	0.400 U	10.2	**6.99**	17.8	--	--	-8.2	2.65	6.90	925	16.2
		10/9/2023	0.400 U	0.400 U	0.400 U	0.420	0.200 U	1.12	--	--	-45.9	3.45	7.55	1,979	17.1
	I-A-8	10/6/2022	0.400 U	0.400 U	0.400 U	3.86	**9.89**	14.4	--	--	-46.3	0.47	7.26	882	15.7
		10/10/2023	0.400 U	0.400 U	0.400 U	3.66	**7.98**	12.2	--	--	56.7	2.13	8.09	1,605	16.3
	I-A-9	10/6/2022	0.400 U	0.400 U	0.400 U	0.770	0.660	2.03	--	--	-39.0	7.21	7.27	982	18.1
		10/9/2023	0.400 U	0.550	0.400 U	0.810	0.770	2.53	--	--	-42.7	2.73	7.95	1,991	15.6

Table 3
Heat Treat Treatment Area Wells Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--	--	--
SU B	MW-19-2	3/10/2022	80.0 U	**80.0 U**	**80.0 U**	**16,100**	**2,600**	18,820	--	--	-31.1	1.79	7.38	951	15.2
		10/11/2022	8.00 U	**16.0**	19.0	**3,580**	**1,230**	4,849	--	--	-71.2	0.15	7.58	624	16.0
		10/9/2023	4.00 U	4.00 U	4.30	578	**1,060**	1,646	--	--	-57.2	1.49	8.48	2,303	16.0
		10/21/2024	2.00 U	**13.1**	6.95	302	**270**	593			-146.7	0.01	7.46	1,339	15.9
	MW-28-2	10/10/2022	0.400 U	4.31	3.37	92.4	**91.5**	192	--	--	-35.2	0.19	6.80	495	17.3
		10/9/2023	0.400 U	0.400	0.400 U	2.17	3.22	6.19	--	--	-82.0	1.90	8.48	808	17.4
		10/22/2024	0.400 U	0.400 U	0.550	19.2	**25.8**	46.0			-125.0	0.06	7.08	774	15.9
	MW-32-2	3/10/2022	4.00 U	4.00 U	4.00 U	204	**97.1**	307	3.70	130	-133.2	1.50	7.47	906	15.5
		10/11/2022	0.400 U	2.30	0.800	34.0	**15.3**	52.6	--	--	61.5	0.81	7.51	569	16.2
		5/12/2023	0.400 U	0.400 U	0.400 U	2.29	**4.80**	7.69	--	--	60.7	0.49	7.42	588	15.5
		10/9/2023	4.00 U	4.00 U	4.00 U	5.30	**3.50**	14.8	--	--	--	--	--	--	--
		10/9/2023	2.00 U	2.00 U	2.00 U	4.30	3.10	10.4	--	--	-85.5	1.70	7.49	5,665	16.5
	MW-33-2	10/10/2022	8.00 U	**2,920**	19.4	1,630	**72.6**	4,646	--	--	-54.6	0.15	7.07	1,003	16.9
		5/12/2023	8.00 U	**3,870**	23.4	**1,920**	**8.00 U**	5,821	--	--	-96.7	0.09	7.08	958	15.5
		10/9/2023	20.0 U	**796**	20.0 U	**2,860**	**55.5**	3,732	--	--	-87.8	1.68	6.60	22,162	16.9
		10/22/2024	2.00 U	2.00 U	2.00 U	2.00 U	1.30	5.30			-161.2	0.01	7.07	5,800	16.1
	MW-36-2	3/10/2022	100 U	**542**	**100 U**	**12,300**	**1,290**	14,232	910	7.90	-108.9	1.77	6.42	2,168	15.0
		10/10/2022	20.0 U	**28.5**	23.0	**6,370**	**1,080**	7,512	--	--	-72.0	0.30	6.97	1,520	15.5
		5/12/2023	4.00 U	4.00 U	**27.1**	610	**790**	1,431	--	--	-84.3	0.03	7.06	1,498	15.4
		10/9/2023	40.0 U	**42.0**	**40.0 U**	361	**108**	551	--	--	--	--	--	--	--
		10/22/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00			-125.4	0.33	7.18	5,131	16.1
	MW-37-2	10/11/2022	4.00 U	**271**	**76.5**	1,640	**507**	2,497	--	--	66.6	0.21	7.08	836	16.7
		10/11/2023	4.00 U	**72.3**	13.5	307	**103**	498	--	--	76.9	2.46	7.94	1,392	15.8
		10/23/2024	0.400 U	**164**	**27.7**	441	**185**	818			-50.1	0.01	7.07	1,225	15.0
	MW-38-2	10/6/2022	0.940	0.720	0.400 U	4.30	**14.6**	20.8	--	--	-36.9	0.76	7.35	613	15.6
		10/10/2023	8.20	3.42	0.800 U	10.6	**4.90**	27.5	--	--	--	--	--	--	--
		10/10/2023	7.60	4.06	0.800 U	10.7	**5.66**	28.4	--	--	11.8	3.55	7.91	2,102	15.0
	MW-39-2	3/10/2022	40.0 U	**1,160**	**65.0**	**7,630**	**1,190**	10,065	75.0	240	-151.3	1.67	7.05	1,166	14.0
		10/6/2022	4.00 U	**27.9**	**59.0**	**9,310**	**905**	10,304	--	--	-49.0	0.49	7.46	793	14.8
		10/6/2022	40.0 U	**40.0 U**	**65.0**	**10,600**	**1,060**	11,765	--	--	--	--	--	--	--
		5/12/2023	40.0 U	**40.0 U**	**89.0**	**10,000**	**5,600**	15,729	--	--	-62.2	0.58	7.33	758	14.1
		10/10/2023	4.00 U	4.00 U	7.90	512	**1,050**	1,574	--	--	86.3	3.34	5.27	5,554	14.9
		10/23/2024	0.400 U	1.88	4.13	103	**191**	300			-124.7	0.05	6.97	1,566	14.1
	MW-40-2	10/6/2022	0.400 U	1.02	0.400 U	25.0	**29.9**	56.3	--	--	-60.5	0.53	7.11	529	15.0
		10/10/2023	4.00 U	4.00 U	4.00 U	125	**30.9**	162	--	--	91.7	3.02	5.24	9,989	15.6
	MW-41-2	10/6/2022	10.0 U	10.0 U	18.0	**1,960**	**1,100**	3,088	--	--	-43.6	0.35	7.09	609	15.3
		5/12/2023	10.0 U	10.0 U	17.8	1,720	**964**	2,712	--	--	-51.3	0.26	7.03	593	14.9
		10/10/2023	10.0 U	10.0 U	10.0 U	1,010	**576**	1,601	--	--	66.5	2.70	8.66	1,019	15.0
		10/23/2024	10.0 U	10.0 U	20.2	1,150	**732**	1,912			-96.8	0.01	6.96	762	13.5
	MW-42-2	3/10/2022	20.0 U	**1,240**	**52.5**	**4,980**	**2,820**	9,103	350	250	-155.7	1.52	7.35	1,229	14.1
		10/6/2022	40.0 U	**1,100**	**48.0**	**3,700**	**2,300**	7,168	--	--	-60.9	0.24	7.45	820	15.3
		10/10/2023	0.400 U	0.400 U	0.400 U	2.68	**6.71**	9.99	--	--	--	--	--	--	--
		10/10/2023	2.00 U	2.00 U	2.00 U	10.8	**26.6**	40.4	--	--	68.4	2.82	7.53	2,376	15.3
	MW-46-2	10/6/2022	4.00 U	**19.9**	10.2	278	**28.0**	338	--	--	-14.0	0.26	7.03	803	14.9
		10/10/2023	0.400 U	0.760	0.520	8.73	**12.0**	22.2	--	--	76.4	2.67	7.93	1,404	14.8
		10/23/2024	0.400 U	0.400 U	0.400 U	0.940	1.08	2.62			-86.4	0.02	6.75	1,276	14.0
	MW-47-2	10/7/2022	0.400 U	2.83	0.400 U	30.8	**8.67**	42.7	--	--	60.5	0.38	6.90	808	15.6
		10/11/2023	0.400 U	0.840	0.400 U	10.7	**4.22**	16.2	--	--	161.8	6.50	7.56	1,273	15.2

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Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	Ethene (µg/L) 74-85-1	Ethane (µg/L) 74-84-0	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--	--	--
SU B (cont.)	MW-48-2	10/7/2022	0.400 U	0.400 U	0.400 U	2.84	**4.07**	7.51	--	--	-43.2	0.17	7.16	609	15.2
		10/11/2023	0.400 U	0.400 U	0.400 U	3.07	**4.14**	7.81	--	--	--	--	--	--	--
		10/11/2023	0.400 U	0.400 U	0.400 U	0.460	1.09	2.15	--	--	89.9	4.12	8.48	855	14.4
		10/23/2024	0.400 U	0.400 U	0.400 U	5.92	**6.71**	13.2			-102.5	0.01	6.96	1,010	12.9
	MW-49-2	10/7/2022	0.400 U	1.00	0.400 U	11.4	**7.75**	20.6	--	--	-73.0	0.27	6.57	1,111	17.6
		10/11/2023	0.400 U	0.410	0.400 U	2.22	1.89	4.92	--	--	104.0	3.44	7.03	1,653	15.4
	MW-50-2	10/7/2022	2.00 U	**15.8**	5.90	501	**26.4**	550	--	--	-31.2	0.35	6.79	1,091	15.4
		10/11/2023	0.400 U	**40.6**	2.11	176	**11.2**	230	--	--	104.0	3.95	7.65	1,346	14.5
		10/23/2024	0.400 U	**13.2**	2.83	152	**14.8**	183			-3.0	0.01	6.70	1,430	14.1
	MW-51-2	10/7/2022	0.400 U	0.400 U	0.400 U	30.1	**14.9**	45.6	--	--	-28.6	0.22	6.98	148	15.9
		10/11/2023	0.400 U	0.400 U	0.780	46.5	**11.5**	59.2	--	--	61.6	2.66	7.67	1,120	15.4
	MW-52-2	10/7/2022	0.400 U	0.400 U	0.400 U	0.760	0.400 U	1.56	--	--	-30.7	0.49	6.42	915	17.2
		10/11/2023	0.400 U	0.400 U	0.400 U	0.520	0.200 U	1.22	--	--	72.5	2.25	7.04	1,423	14.9
		10/23/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900			-52.8	0.03	6.41	1,250	13.3
	MW-53-2	10/7/2022	0.400 U	9.67	2.10	126	**76.1**	214	--	--	-37.5	0.34	6.71	1,007	16.8
		10/11/2023	0.400 U	0.400 U	0.400 U	0.860	0.940	2.40	--	--	57.9	2.32	7.72	1,639	15.0
		10/23/2024	0.400 U	4.21	2.59	101	**58.3**	166			-63.7	0.07	6.69	1,375	12.8
	I-B-1	10/11/2022	2.00 U	9.70	5.25	988	**247**	1,251	--	--	--	--	--	--	--
		10/9/2023	0.800 U	**29.8**	6.58	41.2	**39.5**	117	--	--	-134.5	1.25	8.58	1,967	17.1
	I-B-2	10/10/2022	2.00 U	**141**	2.00 U	544	**71.8**	759	--	--	-66.3	0.23	6.75	1,532	16.8
		10/9/2023	4.00 U	**306**	**28.3**	1,280	**476**	2,092	--	--	-59.3	1.41	7.30	4,216	16.5
		10/21/2024	0.400 U	5.17	2.05	79.5	**116**	203			-27.6	0.01	6.89	1,634	16.1
	I-B-4	10/10/2022	0.800 U	3.70	3.64	247	**88.8**	344	--	--	--	--	--	--	--
		10/11/2023	2.00 U	3.05	2.00 U	9.55	2.75	17.4	--	--	99.6	2.99	5.47	5,284	16.6
	I-B-5	10/6/2022	1.10	12.1	1.22	57.1	**75.5**	147	--	--	--	--	--	--	--
		10/10/2023	2.00 U	2.00	2.00 U	58.2	**36.6**	98.8	--	--	58.2	2.55	6.93	4,655	15.1
	I-B-7	10/11/2022	0.400 U	11.9	7.16	633	**455**	1,107	--	--	-50.7	0.21	7.23	672	15.7
		10/10/2023	0.800 U	0.800 U	0.800 U	9.10	**13.1**	23.4	--	--	73.5	2.97	7.93	1,950	15.4
	I-B-8	10/11/2022	0.400 U	0.400 U	0.400 U	0.640	2.61	3.85	--	--	--	--	--	--	--
		10/11/2022	0.400 U	0.400 U	0.400 U	0.550	2.41	3.56	--	--	-37.0	0.19	7.11	436	15.6
		10/10/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	--	--	68.0	2.57	7.33	1,398	15.2
	I-B-9	10/6/2022	20.0 U	**39.5**	20.0 U	**2,440**	**519**	3,019	--	--	-22.8	0.44	6.86	722	14.9
		10/10/2023	0.400 U	0.420	0.400 U	2.06	**11.3**	14.2	--	--	72.6	2.24	7.57	2,020	14.5
		10/23/2024	0.400 U	5.69	4.83	89.8	**129**	230			-91.6	0.00	6.80	1,303	13.8
	I-B-10	10/6/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.900	1.70	--	--	-41.6	0.43	7.14	722	15.6
		10/10/2023	0.400 U	0.400 U	0.400 U	22.6	**99.1**	122	--	--	81.1	3.51	8.04	1,533	15.2
	I-B-11	10/11/2022	0.800 U	3.76	3.14	313	**152**	472	--	--	-36.5	0.24	7.03	861	15.8
		10/10/2023	2.00 U	2.45	12.9	97.8	**197**	311	--	--	--	--	--	--	--
		10/23/2024	4.00 U	**38.1**	5.70	371	**195**	612			-94.8	0.01	6.90	1,115	13.9
	I-B-12	10/6/2022	2.00 U	4.30	3.40	302	**282**	593	--	--	-30.9	0.46	7.37	639	15.6
		10/10/2023	0.400 U	9.64	1.85	81.9	**48.0**	142	--	--	58.9	2.03	8.04	1,588	15.2
	I-B-13	10/7/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.600	1.40	--	--	-24.9	0.16	7.13	779	16.4
		10/11/2023	0.400 U	0.400 U	0.400 U	0.400 U	1.01	1.81	--	--	11.3	3.72	8.29	1,212	15.6
	I-B-14	10/7/2022	1.00 U	**33.1**	**56.9**	74.0	**272**	437	--	--	--	--	--	--	--
		10/11/2023	1.00 U	**14.0**	**28.0**	13.3	**134**	190	--	--	170.9	7.93	7.21	1,747	14.8
		10/23/2024	0.400 U	**25.7**	**34.7**	92.6	**88.6**	242			-102.6	0.01	7.03	1,089	13.5
	I-B-15	10/7/2022	0.400 U	**26.7**	0.400 U	30.4	2.69	60.2	--	--	70.9	1.12	6.22	831	16.5
		10/11/2023	2.00 U	3.60	2.00 U	55.4	**4.40**	65.4	--	--	122.0	3.53	5.70	3,493	14.9

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Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--	--	--
SU B (cont.)	I-B-16	10/7/2022	1.94	**13.1**	0.800 U	289	**53.4**	358	--	--	-33.2	0.19	6.68	1,223	16.2
		10/11/2023	0.400 U	1.56	0.400 U	19.3	**7.57**	28.8	--	--	120.0	5.90	6.55	1,862	14.9
		10/23/2024	0.400 U	1.93	0.400 U	1.64	1.55	5.52			-90.1	0.07	6.61	1,061	13.8
	I-B-17	10/7/2022	0.400 U	0.400 U	0.400 U	0.460	1.33	2.39	--	--	-64.5	0.26	7.08	830	18.1
		10/11/2023	0.400 U	0.400 U	0.400 U	0.430	0.640	1.67	--	--	106.8	4.42	7.74	1,314	15.6
	I-B-18	10/7/2022	40.0 U	**199**	**56.0**	**7,400**	**2,300**	9,975	--	--	-17.1	0.27	6.81	1,109	16.4
		10/11/2023	4.00 U	4.00 U	4.00 U	71.2	**644**	721	--	--	105.0	4.25	7.21	1,721	15.5
		10/23/2024	0.800 U	6.16	8.92	563	**2,070**	2,648			-89.6	0.01	66.30	1,493	13.6
	I-B-19	10/7/2022	0.400 U	1.31	0.400 U	6.51	2.71	10.9	--	--	20.5	2.59	6.49	987	18.5
		10/11/2023	0.800 U	0.800 U	0.800 U	1.66	1.22	4.08	--	--	113.0	5.39	6.71	2,112	15.7
	I-B-20	10/7/2022	0.400 U	0.680	0.400 U	1.30	1.84	4.22	--	--	-45.9	0.33	6.67	870	16.8
		10/11/2023	0.800 U	0.800 U	0.800 U	2.04	1.26	4.50	--	--	65.5	2.36	7.32	1,555	15.3
	I-B-21	10/7/2022	0.400 U	0.630	0.400 U	0.550	0.540	2.12	--	--	-36.4	0.21	6.93	884	16.9
		10/11/2023	4.00 U	4.00 U	4.00 U	4.10	2.00 U	11.1	--	--	75.1	3.00	6.65	1,585	15.4
	I-B-22	10/7/2022	0.400 U	0.400 U	0.400 U	0.850	0.400 U	1.65	--	--	-31.2	0.40	6.62	840	17.7
		10/11/2023	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	4.50	--	--	77.7	2.56	6.25	2,363	15.1

Notes:

Shaded Bold = detection limit or analyte concentration exceeds at least one RBC

[1] = Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals, August 2023.

[2] = Oregon Department of Environmental Quality Chronic and Acute Vapor Intrusion Risk-Based Concentrations, March 2025.

Abbreviations:

-- = not measured
µg/L = micrograms per liter
µS/cm = microSiemens per centimeter
°C = degree Celsius
>S = RBC exceeds the solubility limit
COC = contaminant of concern
DCE = dichloroethene
ERD = Enhanced reductive dechlorination
ISCO = In situ chemical oxidation
J = estimated result
Location Key: SU A indicates Qfc aquifer Subunit A, SU B indicates Qfc aquifer Subunit B
mg/L = milligrams per liter
mV = millivolts
RBC = DEQ Risk-Based Concentration
RBCwi = risk-based concentration for groundwater volatilization to indoor air
SU = standard pH units
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride

Note: total COCs were calculated using 0.5x the detection limit for non-detect results

TABLE 4

Press Room Treatment Area Well Laboratory Results and Field Geochemistry for October 2022 through April 2025

Table 4
Press Room Treatment Area Wells Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A	MW-68-1	10/13/2022	4.00 U	4.00 U	8.50	1450 J	**568**	2,031	31.2	0.40	6.40	952	19.06
		10/13/2022	0.400 U	0.400	6.27	824 J	**458**	1,289	--	--	--	--	--
		10/12/2023	20.0 U	**20.0 U**	20.0 U	804	**216**	1,050	89.2	3.01	7.28	5,646	18.80
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	0.1	-92.30	6.59	2297	18.10
	MW-69-1	10/13/2022	0.400 U	0.400 U	0.400 U	29.4	**32.4**	62.4	51.9	0.46	6.43	908	19.18
		10/12/2023	0.400 U	0.400 U	0.400 U	4.82	2.43	7.85	86.3	3.66	7.88	1,567	19.30
	MW-70-1	10/12/2022	20.0 U	**20.0 U**	20.0 U	1,610	**1,390**	3,030	-51.2	0.53	6.86	1,209	19.16
		10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.0 U**	45.0	46.2	1.75	7.83	5,823	19.50
	MW-71-1	10/12/2022	2.00 U	2.00 U	4.50	881	**130**	1,018	2.1	0.11	6.51	822	19.15
		10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.5**	50.5	68.1	2.83	7.99	5,635	19.40
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.870	1.67	--	--	--	--	--
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.960	1.76	-93.9	0.14	6.63	2072	18.40
	PI-A-01	10/14/2022	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	5.00	-40.2	0.20	6.90	1,552	20.33
		10/13/2023	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	2.25	97.5	2.64	6.84	5,622	19.10
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	-99.9	0.07	6.77	2789	17.50
	PI-A-02	10/13/2023	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	2.25	156.0	5.95	7.78	4,069	18.80
	PI-A-03	10/13/2023	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	2.25	149.0	4.85	7.84	4,737	18.90
	PI-A-04	10/13/2022	2.00 U	2.00 U	5.95	1,280	**1,220**	2,508	-46.5	0.08	6.63	1,300	19.06
		10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**43.0**	83.0	74.7	3.10	7.67	6,036	19.40
	PI-A-05	10/14/2022	2.00 UJ	2.00 UJ	2.00 UJ	2.00 UJ	2.00 UJ	5.00	-30.9	0.17	6.69	1,350	18.18
		10/13/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	91.7	2.67	7.15	7,945	19.20
	PI-A-06	10/13/2022	0.400 UJ	0.400 J	0.400 UJ	0.400 J	0.400 J	1.60	-70.2	0.18	6.91	1,303	19.21
		10/12/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	40.8	1.79	8.44	7,223	19.40
	PI-A-07	10/13/2022	2.00 UJ	2.00 UJ	2.00 UJ	2.00 J	2.00 UJ	6.00	-40.9	0.20	6.81	1,264	19.53
		10/12/2023	2.00 U	2.00 U	2.00 U	2.15	1.00 U	5.65	104.0	3.57	7.41	6,046	19.10
SU B	MW-72-2	10/14/2022	0.400	0.880	0.400 U	0.790	0.790	3.06	52.6	0.25	6.85	1,058	17.19
		10/12/2023	0.410	0.670	0.400 U	0.880	0.670	2.83	--	--	--	--	--
		10/12/2023	0.420	0.710	0.400 U	0.860	0.490	2.68	130.0	5.97	8.95	1,758	17.30
		10/24/2024	0.400 U	0.480	0.400 U	1.15	0.830	2.86	-31.4	1.33	6.80	1431	17.00
	MW-73-2	10/13/2022	0.400 U	1.01	1.29	127	**63.8**	193	-50.1	0.27	7.03	1,130	18.84
		10/13/2023	0.400 U	**23.6**	1.21	104	**57.9**	187	--	--	--	--	--
		10/13/2023	0.400 U	**19.2**	1.07	93.0	**56.0**	169	84.2	2.43	7.45	1,808	18.70
	MW-74-2	10/12/2022	0.780	9.35	1.17	114	**124**	249	-27.8	0.34	6.83	1,379	19.38
		10/12/2023	2.00 U	3.40	2.60	832	**532**	1,371	65.6	1.91	7.17	8,409	19.00
		10/24/2024	4.64	**36.3**	**80.8**	**10,000**	**4,100**	14,222	-107.6	0.06	6.80	2238	18.30
	PI-B-01	10/14/2022	0.400 J	0.780	0.400 UJ	11.2 J	1.29	13.9	54.9	0.12	6.94	1,005	17.21
		10/12/2023	4.00 U	4.00 U	4.00 U	12.4	2.00 U	19.4	199.0	7.54	6.69	1,913	17.00
	PI-B-02	10/14/2022	0.400 U	0.400 U	0.400 U	0.530	0.400 U	1.33	31.6	0.33	6.94	966	18.06
		10/13/2023	0.400 U	0.400 U	0.400 U	0.400	0.200 U	1.10	90.3	2.99	7.44	1,664	17.40
	PI-B-03	10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.0 U**	45.0	210.0	11.82	7.02	1,304	18.60
	PI-B-04	10/14/2022	4.00 U	4.00 U	4.00 U	9.50	**4.00 U**	17.5	19.8	0.62	6.46	907	18.17
		10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.0 U**	45.0	82.3	2.48	6.79	1,211	18.00
	PI-B-05	10/14/2022	0.400 U	3.58	1.38	42.1	**4.27**	51.5	-40.5	0.16	6.83	1,083	16.98
		10/13/2023	2.00 U	2.00 U	2.00 U	11.9	3.00	17.9	133.0	2.66	7.19	5,194	17.90
	PI-B-06	10/14/2022	4.00 U	4.00 U	4.00 U	4.00 U	**4.00 U**	10.0	65.8	0.34	6.09	1,390	17.99
		10/12/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	94.3	6.35	8.54	4,617	17.90

Table 4
Press Room Treatment Area Wells Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU B (cont.)	PI-B-07	10/13/2022	4.00 UJ	**20.9 J**	4.00 UJ	127 J	**5.30 J**	157	5.0	0.31	5.95	1,263	18.51
		10/12/2023	4.00 U	9.00	4.00 U	23.6	2.00 U	37.6	110.0	5.75	8.24	1,480	18.10
		10/24/2024	0.900	2.06	0.800 U	3.50	0.440	7.30	4.3	0.08	6.37	1214	17.80
	PI-B-09	10/13/2023	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	4.50	115.0	2.28	7.10	4,076	18.40
	PI-B-10	10/13/2022	4.00 UJ	**39.5 J**	8.40 UJ	388 J	**9.30 J**	443	55.0	0.40	6.66	1,087	18.64
		10/13/2023	4.00 U	5.60	4.00 U	151	**4.60**	165	138.0	2.54	7.57	3,175	18.50
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	**3.90**	11.9	-177.1	0.05	7.00	5800	17.90
	PI-B-11	10/13/2022	4.00 UJ	**13.2 J**	4.00 UJ	274 J	**18.1 J**	309	-19.3	0.28	6.95	1,370	18.42
		10/12/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	64.0	3.79	7.64	5,474	18.90
	PI-B-13	10/14/2022	2.00 UJ	2.00 J	2.00 UJ	28.2 J	2.35 J	34.6	-20.1	0.41	6.44	1,009	18.38
		10/13/2023	2.00 U	2.00 U	2.00 U	2.65	1.00 U	6.15	109.0	2.00	7.58	5,550	18.60
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	-82.6	0.29	6.78	2633	17.40
	PI-B-14	10/14/2022	2.00 UJ	2.00 UJ	2.00 UJ	3.05 J	2.00 UJ	7.05	121.3	1.90	5.67	1,480	18.41
		10/13/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.0 U**	45.0	161.0	3.40	7.88	2,940	19.00
	PI-B-15	10/13/2022	4.00 U	4.70	4.00 U	203	**63.6**	275	70.6	0.10	6.31	1,377	18.50
		10/13/2023	4.00 U	9.20	4.00 U	24.2	**4.70**	42.1	125.0	4.30	7.82	5,221	18.90
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.20	10.2	-132.4	0.05	7.01	427.5	17.80
	PI-B-16	10/14/2022	0.400 UJ	3.91 J	0.400 UJ	4.57 J	1.05 J	9.93	64.5	0.20	6.84	1,118	19.06
		10/13/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.30	10.3	116.0	3.14	7.04	3,059	18.90
	PI-B-17	10/13/2022	0.400 UJ	0.740 J	0.400 UJ	8.81 J	3.20 J	13.2	78.6	0.20	6.63	1,130	18.52
		10/12/2023	20.0 U	**20.0 U**	20.0 U	20.0 U	**10.0 U**	45.0	129.0	6.32	7.91	2,123	18.70
	PI-B-18	10/13/2022	14.0	**1070 J**	**95.2**	**2790 J**	**999 J**	4,968	-38.2	0.06	6.93	1,192	19.44
		10/12/2023	10.0 U	11.0	10.0 U	289	**202**	512	116.0	4.05	7.84	3,498	20.00
		10/24/2024	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	-167.1	0.00	7.29	7993	18.20
	PI-B-19	10/13/2022	0.400 U	12.3	0.470	63.6	**27.4**	104	-39.0	0.07	6.70	852	18.62
		10/12/2023	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	4.50	60.3	1.97	7.88	4551	19.10

Notes:

Shaded Bold = detection limit or analyte concentration exceeds at least one RBC

[1] = Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals, August 2023.

[2] = Oregon Department of Environmental Quality Chronic and Acute Vapor Intrusion Risk-Based Concentrations, March 2025.

Abbreviations:

-- = not measured
µg/L = micrograms per liter
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°C = degree Celsius
>S = RBC exceeds the solubility limit
COC = contaminant of concern
DCE = dichloroethene
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Location Key: SU A indicates Qfc aquifer Subunit A, SU B indicates Qfc aquifer Subunit B
mg/L = milligrams per liter
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RBC = DEQ Risk-Based Concentration
RBCwi = risk-based concentration for groundwater volatilization to indoor air
SU = standard pH units
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride

Note: total COCs were calculated using 0.5x the detection limit for non-detect results

TABLE 5

Transect Treatment Area Well Laboratory Results and Field Geochemistry for October 2022 through April 2025

Table 5
Transect Treatment Area Wells Laboratory Results and Field Geochemistry for 2022-2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A 1	MW-57-1	4/4/2022	2.51	**984**	**63.2**	**1,900**	**154**	3,104	22.6	0.94	6.57	800	16.2
		10/11/2022	0.400 U	**133**	21.9	803	**154**	1,112	74.5	0.22	7.02	747	17.6
		10/3/2023	0.400 U	0.810	0.520	16.8	**53.1**	71.4	-74.9	0.54	6.64	3225	17.7
		10/22/2024	0.400 U	3.05	1.17	84.1	**55.2**	144	-88.7	0.07	6.71	1409	16.8
	A1	4/4/2022	0.400 U	1.08	0.400 U	3.13	**6.76**	11.4	-70.1	0.49	6.01	866	15.3
		10/11/2022	0.400 U	0.500	0.400 U	0.990	**4.03**	5.92	27.0	0.27	6.81	811	17.5
		10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	-61.9	0.63	6.19	6438	17.2
		10/22/2024	0.400 U	0.400 U	0.400 U	0.470	0.220	1.29	-95.1	0.03	6.54	1601	16.6
	A4	4/4/2022	0.400 U	0.400 U	0.400 U	0.410	0.400 U	1.21	-43.4	1.96	6.48	1422	14.8
		10/11/2022	0.400 U	0.400 U	0.400 U	0.420	0.400 U	1.22	-71.8	0.17	6.99	1175	18.2
		10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	-17.0	1.99	5.38	17539	17.8
	A5	10/11/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-38.2	0.22	7.00	80	18.5
		10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	--	--	--	--	--
		10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	22.3	1.06	5.13	17840	18.2
		10/22/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-130.9	0.00	6.64	2061	18.1
SU A 2	MW-20-1	10/12/2022	0.400 U	**29.4**	7.41	50.7	**10.2**	97.9	9.8	0.14	6.86	676	18.1
		10/3/2023	0.400 U	**54.7**	8.16	40.0	**8.65**	112	-81.4	0.57	6.62	4931	18.0
		10/21/2024	0.400 U	**37.6**	9.43	69.3	**14.3**	131	45.6	0.10	6.69	1088	18.1
	MW-58-1	10/12/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-34.9	0.12	6.97	753	18.2
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	1.57	2.37	-98.4	0.54	6.75	2640	18.1
	A7	10/12/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.410	1.21	-48.2	0.17	6.83	814	18.0
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-97.7	0.58	6.67	2807	18.0
	A8	10/12/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-30.7	0.32	6.84	569	17.9
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-59.6	0.50	5.56	1830	17.8
	A10	10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.500 U	1.05	-103.2	0.47	6.63	3997	18.2
	A11	10/17/2022	0.400 UJ	0.400 UJ	0.400 UJ	0.440 J	1.36 J	2.40	-58.2	0.17	6.94	1123	19.3
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.330	1.13	-80.1	0.67	6.74	3950	18.3
		10/28/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-39.7	0.33	6.81	1926	17.7
	A12	10/17/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-34.6	0.17	6.90	1108	18.8
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-86.2	0.49	6.63	3860	18.7
SU A 3	MW-60-1	10/12/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	39.1	0.30	6.79	772	18.3
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200	1.00	--	--	--	--	--
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200	1.00	-51.6	0.82	6.82	2710	18.2
		10/21/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200	1.00	-77.6	0.31	6.70	1146	18.1
	A16	10/12/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-44.5	0.17	6.86	755	17.9
		10/4/2023	2.00 U	2.00 U	2.00 U	2.20	1.65	6.85	89.3	2.12	5.28	3350	18.0
		10/21/2024	0.400 U	6.71	0.400 U	2.85	0.200 U	10.1	-113.7	0.04	6.74	1075	18.1
	A18**	10/20/2022	4.00 U	4.00 U	4.00 U	4.00 U	**4.00 U**	10.0	64.0	0.30	6.46	893	19.2
		10/4/2023	--	--	--	--	--	--	75.2	2.29	6.28	3571	19.4
		10/5/2023	2.00 U	2.00 U	2.00 U	2.45	1.00 U	5.95	--	--	--	--	--

Table 5
Transect Treatment Area Wells Laboratory Results and Field Geochemistry for 2022-2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L)					Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
			PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4						
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU A 4	MW-21-1	10/17/2022	0.400 U	**23.3**	0.920 J	60.3	1.09	85.8	39.6	1.29	6.78	507	19.9
		10/4/2023	0.400 U	**37.8**	0.470	27.3	1.04	66.8	--	--	--	--	--
	MW-21-2	10/28/2024	6.20	**752**	4.00 U	107	**4.80**	872	34.2	0.65	6.21	719	18.2
	MW-25-1	10/17/2022	0.400 U	**14.8**	0.540 J	12.9	1.28	29.7	-13.2	0.68	6.85	854	18.4
		10/5/2023	0.400 U	5.16	0.700	9.14	1.91	17.1	-30.2	0.97	7.06	1350	17.9
		10/28/2024	0.400 U	6.68	0.400 U	5.93	0.740	13.8	8.2	0.60	6.56	1099	18.4
	MW-26-1	10/5/2022	1.31	**37.6**	0.400 U	7.67	0.400 U	47.0	87.2	3.29	6.22	326	16.7
		10/5/2023	1.35	**43.2**	0.690	7.35	0.200 U	52.7	96.8	4.81	6.87	600	16.9
		10/28/2024	1.03	**27.1**	0.530	4.53	0.200 U	33.3	60.2	2.09	6.31	527	16.8
	MW-61-1	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	3.20	4.00	-34.9	0.94	6.86	835	18.4
		10/5/2023	0.400 U	0.400 U	0.400 U	0.630	0.720	1.95	-54.8	2.10	7.05	1299	18.2
		10/29/2024	0.400 U	0.400 U	0.400 U	1.38	0.970	2.95	-5.8	0.57	6.57	1046	18.2
	MW-64-1	10/5/2022	0.680	**194**	5.36	123	**8.03**	331	-20.6	0.36	6.67	695	18.6
		10/4/2023	0.800 U	**23.3**	4.64	79.9	**15.2**	123	20.3	0.51	6.58	2205	18.7
		10/30/2024	0.400 U	**27.8**	2.99	66.2	**16.6**	114	49.8	0.57	6.50	918	18.1
	MW-65-1	10/5/2022	4.45	**239**	1.20	21.9	1.48	268	77.2	0.65	6.48	615	17.1
		10/5/2023	3.58	**358**	1.08	21.8	0.700	385	265.0	0.67	6.98	831	17.1
		10/30/2024	3.24	**294**	0.860	22.2	0.940	321	--	--	--	--	--
		10/30/2024	3.38	**298**	1.18	23.4	1.00	327	0.4	113.90	6.44	694	17.0
	A34	10/5/2022	0.400 U	0.400 U	0.400 U	0.510	0.590	1.70	-31.2	0.38	6.53	1290	17.2
		10/4/2023	0.400 U	0.400 U	0.400 U	1.97	0.270	2.84	-77.9	0.47	6.60	3001	19.3
		10/28/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-78.0	0.18	6.59	1151	18.6
	A35	10/5/2022	0.400 U	0.400 U	0.400 U	0.400	**9.44**	10.4	-83.9	0.24	6.72	706	18.9
		10/4/2023	0.400 U	0.400 U	0.400 U	0.470	0.830	1.90	--	--	--	--	--
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.650	1.45	-63.0	0.31	6.46	2794	18.1
	A36	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	**6.82**	7.62	-34.2	0.54	6.67	627	18.9
		10/4/2023	0.400 U	0.400 U	0.400 U	0.540	0.810	1.95	-65.5	0.77	6.59	2123	19.1
		10/28/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.410	1.21	-48.2	0.51	6.65	783	18.7
SU A 5	MW-03R	10/18/2022	1.23	0.400 U	0.400 U	0.400 U	0.400 U	2.03	94.6	1.30	6.49	195	15.9
		10/5/2023	1.24	0.400 U	0.400 U	0.400 U	0.200 U	1.94	--	--	--	--	--
		10/29/2024	1.15	0.400 U	0.400 U	0.400 U	0.200 U	1.85	124.6	6.22	6.22	285.1	15.9
	MW-27-1	10/5/2022	0.560	**24.4**	1.47	22.4	0.400 U	49.0	89.7	0.82	6.46	867	17.6
		10/4/2023	0.400	**29.3**	5.77	53.3	**5.79**	94.6	--	--	--	--	--
		10/30/2024	0.400 U	**27.3**	6.34	62.3	**5.26**	101	114.6	0.74	6.54	114.6	17.7
	MW-66-1	10/18/2022	0.840	**140**	0.820	10.4	0.400 U	152	80.6	0.20	6.43	285	17.9
		10/5/2023	0.870	**131**	2.04	12.9	1.14	148	--	--	--	--	--
		10/29/2024	0.690	**97.3**	2.05	15.2	1.10	116	99.1	0.48	6.38	444	16.9
	A45	10/18/2022	0.400 U	1.12	0.760	157	0.950	160	-48.1	0.12	6.80	513	17.9
		10/5/2023	0.400 U	1.32	0.640	121	1.15	124	--	--	--	--	--
	A47	10/18/2022	0.400 U	0.400 U	0.400 U	5.07	**5.38**	11.1	-20.7	0.18	6.60	707	18.3
		10/5/2023	0.400 U	0.400 U	0.400 U	2.56	2.26	5.42	--	--	--	--	--
	A48	10/18/2022	4.00 U	**256**	**45.9**	178	**85.3**	567	-10.5	0.15	6.47	405	18.8
		10/5/2023	0.800 U	**155**	**72.4**	170	**103**	501	--	--	--	--	--
		10/29/2024	0.800 U	5.38	25.0	333	**101**	465	-16.3	0.26	6.47	633	17.6
	A50	10/18/2022	0.400 U	0.400 U	0.400 U	1.42	1.27	3.29	--	--	--	--	--
		10/22/2022	--	--	--	--	--	--	4.6	0.07	6.56	314	18.7
		10/5/2023	0.400 U	0.400 U	0.400 U	3.46	**5.41**	9.47	--	--	--	--	--
		10/29/2024	0.400 U	0.400 U	0.400 U	2.59	**5.00**	8.19	18.0	0.34	6.71	619	17.2

Table 5
Transect Treatment Area Wells Laboratory Results and Field Geochemistry for 2022-2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU B 1	MW-57-2	4/4/2022	0.400 U	3.22	0.400 U	64.3	0.400 U	68.1	73.2	1.31	6.83	492	16.4
		10/11/2022	0.400 U	3.58	1.14	68.8	**6.19**	79.9	62.4	0.22	7.29	413	17.6
		10/3/2023	0.400 U	4.00	1.66	87.5	1.96	95.3	37.9	0.67	7.16	1511	17.4
		10/22/2024	0.400 U	4.29	1.19	85.1	1.55	92.3	-23.1	0.02	7.16	644	16.6
	B1	4/4/2022	0.400 U	0.400 U	0.400 U	0.870	**4.23**	5.70	-60.1	0.26	6.33	903	14.8
		10/3/2023	0.400 U	0.400 U	0.400 U	0.900	1.17	2.67	-109.2	0.33	6.62	3879	16.5
		10/22/2024	0.400 U	0.400 U	0.400 U	0.410	0.820	1.83	--	--	--	--	--
		10/22/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.770	1.57	-104.4	0.03	6.82	887	15.6
	B2	4/4/2022	0.400 U	0.400 U	0.400 U	6.48	**20.2**	27.3	-90.0	0.62	6.51	575	15.9
		10/12/2022	0.400 U	0.400 U	0.890	55.5	**123**	180	-64.7	0.21	7.17	615	16.3
		10/3/2023	4.00 U	4.00 U	4.00 U	9.20	**3.40**	18.6	35.2	1.46	4.97	12887	16.9
	B3	4/4/2022	0.400 U	0.400 U	0.400 U	0.400 U	1.21	2.01	-64.0	0.59	6.32	704	16.2
		10/12/2022	0.400 U	0.400 U	0.400 U	0.990	**3.32**	4.91	-13.6	0.83	7.10	511	16.8
		10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	46.3	0.34	5.05	12904	17.5
		10/22/2024	0.400 U	0.510	0.400 U	1.54	1.93	4.38	-102.2	0.01	6.59	945	16.5
	B4	10/3/2023	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	9.00	120.6	0.53	4.79	14133	18.2
SU B 2	MW-20-2	10/12/2022	2.30	**298**	9.75	78.8	**16.2**	405	-70.6	0.58	6.89	683	17.2
		10/3/2023	2.45	**422**	12.0	110	**19.8**	566	57.4	0.95	6.65	2362	18.1
		10/21/2024	2.00 U	**287**	10.6	100	**17.5**	416	55.5	0.20	6.60	997	17.8
	MW-59-2	10/17/2022	0.800 U	0.800 U	1.14 J	190	**57.6**	250	-33.4	0.20	6.93	905	18.6
		10/4/2023	0.800 U	0.800 U	5.66	362	**154**	522	-32.4	0.23	6.78	3375	18.4
		10/28/2024	0.400 U	0.400 U	1.58	180	**77.5**	259	-30.2	0.25	6.73	1499	18.0
	B8	10/17/2022	0.400 U	0.400 U	0.400 U	0.530	0.400 U	1.33	-41.2	0.16	7.06	486	18.2
		10/3/2023	0.400 U	0.400 U	0.400 U	0.460	0.230	1.29	-101.3	0.60	6.82	1662	18.3
		10/28/2024	0.400 U	0.400 U	0.400 U	1.88	**4.44**	6.92	-71.1	0.26	6.84	649	17.5
	B9	10/17/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-47.7	0.20	6.82	1086	18.9
		10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-98.9	0.62	6.79	3845	18.7
	B10	10/17/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-25.2	0.45	7.12	1068	18.6
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.380	1.18	-106.1	0.34	6.68	4865	18.9
		10/24/2024	0.400 U	0.400 U	0.400 U	1.27	2.25	4.12	-99.3	0.06	7.81	1622	18.1
SU B 3	MW-60-2	10/12/2022	20.0 U	**1,860**	20.0 U	542	**20.0 U**	2,432	21.9	0.33	6.49	706	18.1
		10/4/2023	8.40	**1,360**	8.00 U	418	**12.2**	1,803	147.3	2.49	6.51	2467	18.0
		10/21/2024	8.00 U	**1,040**	8.00 U	359	**12.8**	1,420	105.6	0.24	6.40	1004	18.0
	MW-62-2	10/17/2022	0.400 U	**22.2**	0.750	30.6	1.18	54.9	--	--	6.50	840	19.3
		10/4/2023	--	--	--	--	--	--	80.7	0.39	6.69	2868	19.0
		10/5/2023	0.400 U	11.4	0.420	18.6	0.460	31.1	--	--	--	--	--
		10/30/2024	0.400 U	6.97	0.400 U	8.18	0.200 U	15.7	32.5	4.59	6.75	1139	18.6
	B12*	10/4/2023	4.00 U	4.00 U	4.00 U	20.3	2.00 U	27.3	94.3	0.89	5.38	5203	17.8
	B13	10/3/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-83.9	0.59	6.64	2975	18.5
		10/21/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.320	1.12	-110.1	0.05	6.62	1147	18.0
	B18	10/17/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-15.1	0.38	7.09	791	18.8
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.330	1.13	-102.2	3.20	6.81	2770	18.8
		10/24/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.350	1.15	-70.5	0.26	6.97	1050	18.7

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Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU B 4	MW-21-2	10/17/2022	10.5	**1,080**	4.00 U	126	**4.00 U**	1,221	71.2	0.34	6.47	495	18.8
		10/4/2023	7.40	**997**	4.00 U	121	**4.60**	1,132	69.7	0.42	6.33	1682	18.6
	MW-61-2	10/5/2022	1.81	**123**	2.85	40.8	**5.50**	174	-13.9	0.38	6.50	323	17.6
		10/5/2023	1.62	**103**	0.400 U	11.6	0.200 U	117	10.2	0.42	6.85	543	17.7
		10/29/2024	1.24	**76.5**	0.400 U	10.7	0.200 U	88.7	70.6	0.37	6.14	455.1	17.8
	MW-63-2	10/17/2022	0.720	**14.8**	0.400 U	3.04	0.400 U	19.0	81.5	3.18	6.55	257	16.9
		10/5/2023	0.600	11.8	0.400 U	0.640	0.200 U	13.3	45.3	4.21	7.17	431	17.0
		10/28/2024	0.450	8.39	0.400 U	0.750	0.200 U	9.89	62.7	0.84	6.29	370.1	16.8
	MW-64-2	10/5/2022	1.18	**176**	0.400 U	8.97	0.400 U	187	52.9	1.62	6.54	286	18.0
		10/4/2023	0.550	**82.8**	0.400 U	4.76	0.200 U	88.4	82.3	2.35	7.05	1003	18.5
		10/30/2024	0.680	**69.4**	0.400 U	4.77	0.200 U	75.2	100.7	3.26	6.95	414.5	17.1
	MW-65-2	10/5/2022	0.560	1.90	0.400 U	0.400 U	0.400 U	3.06	90.2	1.69	6.61	259	16.6
		10/5/2023	0.400 U	1.59	0.400 U	0.400 U	0.200 U	2.29	--	--	--	--	--
		10/5/2023	0.400 U	1.72	0.400 U	0.400 U	0.200 U	2.42	65.6	8.81	7.46	445	17.0
		10/30/2024	0.460	1.07	0.400 U	0.400 U	0.200 U	2.03	102.6	1.96	6.48	371.2	16.8
	B23	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-64.9	0.38	6.80	757	19.6
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.250	1.05	-15.6	0.56	6.67	2822	18.8
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.260	1.06	-60.5	0.40	6.67	2387	18.3
		10/28/2024	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-63.1	0.25	6.68	938	18.2
	B24	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	-46.4	0.72	6.70	697	18.3
		10/4/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-28.9	0.58	6.60	3313	18.2
	B25	10/5/2022	0.400 U	0.400 U	0.400 U	0.520	0.720	1.84	-48.5	0.73	6.77	786	18.6
	B26	10/5/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	42.0	0.45	6.79	761	18.9
SU B 5	MW-66-2	10/18/2022	0.480	1.61	0.400 U	0.720	0.400 U	3.21	84.3	0.30	6.40	260	17.0
		10/5/2023	0.450	0.970	0.400 U	0.400 U	0.200 U	1.92	--	--	--	--	--
	MW-67-2	10/18/2022	0.780	**23.9**	0.400 U	5.28	0.680	30.8	60.1	0.07	6.26	241	20.4
		10/5/2023	0.800	11.6	0.400 U	2.34	0.200 U	15.0	--	--	--	--	--
		10/29/2024	0.640	9.00	0.400 U	2.60	0.390	12.8	38.6	0.22	6.20	334	17.9
	B33	10/18/2022	0.400 U	2.75	0.400 U	2.27	0.710	6.13	7.3	0.15	6.48	307	18.0
		10/5/2023	0.400 U	1.47	0.400 U	1.06	0.300	3.23	--	--	--	--	--
SU B 6	MW-02-2	10/18/2022	0.400 U	7.92	0.400 U	2.48	0.400 U	11.0	59.3	0.10	6.24	303	17.4
		10/5/2023	0.400 U	5.69	0.400 U	1.70	0.220	8.01	-33.6	0.61	6.96	494	17.4
		10/29/2024	0.400 U	4.42	0.400 U	2.06	0.430	7.31	-4.4	0.33	6.50	416.2	17.1
	MW-78-2	10/19/2022	4.41	**50.6**	0.400 U	8.44	0.400 U	63.9	91.6	0.19	6.29	255	14.7
		10/6/2023	3.22	**33.6**	0.400 U	5.35	0.350	42.7	24.2	0.59	6.93	448	15.4
		10/25/2024	1.97	**23.8**	0.400 U	4.95	0.200 U	31.0	25.4	0.49	6.24	397.7	13.4
	B37	10/18/2022	0.400 U	0.400 U	1.27	23.4	**6.71**	31.8	--	--	--	--	--
		10/18/2022	0.400 U	0.400 U	1.01	18.8	**6.27**	26.5	67.2	0.12	6.34	424	17.6
		10/5/2023	0.400 U	0.400 U	4.84	254	**193**	452	-24.6	0.72	6.94	852	16.8
		10/29/2024	2.00 U	**39.4**	15.2	683	**171**	910	-24.6	0.44	6.55	828	16.2
	B44	10/6/2023	0.400 U	0.400 U	0.830	6.44	**4.40**	12.1	-13.3	0.62	7.17	628	15.6
	B45	10/19/2022	0.400 U	0.870	0.400 U	3.82	**3.88**	8.97	19.9	0.20	6.45	569	15.5
		10/6/2023	0.400 U	0.980	0.400 U	3.03	**4.41**	8.82	-14.7	0.78	7.11	944	16.2
		10/25/2024	0.400 U	0.440	0.400 U	2.00	2.52	5.36	--	--	--	--	--
		10/25/2024	0.400 U	0.570	0.400 U	1.75	2.70	5.42	-27.7	0.60	6.55	745	14.1

Table 5
Transect Treatment Area Wells Laboratory Results and Field Geochemistry for 2022-2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
SU B 7	MW-22-2	10/19/2022	0.640	**18.0**	0.400 U	4.00	0.400 U	23.0	112.8	0.71	6.23	274	15.8
	MW-23-2R	10/19/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.930	1.73	61.1	0.32	6.67	799	13.6
		10/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.570	1.37	78.7	0.89	7.57	707	14.0
	MW-79-2	10/19/2022	0.400 U	0.820	0.400 U	1.29	0.440	2.95	58.9	0.33	6.71	448	13.7
		10/6/2023	0.400 U	0.600	0.400 U	0.590	0.390	1.98	46.2	0.70	7.37	744	14.0
		10/29/2024	0.400 U	0.670	0.400 U	1.01	0.200 U	2.18	19.6	1.44	6.70	575	12.9
	MW-80-2	10/19/2022	0.540	3.46	0.400 U	2.66	0.400 U	7.06	109.0	0.64	6.36	463	13.5
		10/6/2023	0.400	2.99	0.400 U	2.08	0.200 U	5.77	88.6	0.86	7.31	697	13.9
		10/29/2024	0.400 U	1.99	0.400 U	1.33	0.200 U	3.82	31.7	1.17	6.41	510	13.5

Notes:

Shaded Bold = detection limit or analyte concentration exceeds at least one RBC

[1] = Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals, August 2023.

[2] = Oregon Department of Environmental Quality Chronic and Acute Vapor Intrusion Risk-Based Concentrations, March 2025.

*B12 inaccessible Q4 2024; B13 collected instead.

**A18 and suitable alternative locations dry.

Abbreviations:

-- = not measured
µg/L = micrograms per liter
µS/cm = microSiemens per centimeter
°C = degree Celsius
>S = RBC exceeds the solubility limit
COC = contaminant of concern
DCE = dichloroethene
ERD = Enhanced reductive dechlorination
ISCO = In situ chemical oxidation
J = estimated result
Location Key: SU A indicates Qfc aquifer Subunit A, SU B indicates Qfc aquifer Subunit B
mg/L = milligrams per liter
mV = millivolts
RBC = DEQ Risk-Based Concentration
RBCwi = risk-based concentration for groundwater volatilization to indoor air
SU = standard pH units
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride

Note: total COCs were calculated using 0.5x the detection limit for non-detect results

TABLE 6

Outdoor Treatment Area Well Laboratory Results and Field Geochemistry for October 2022 through April 2025

Table 6
Outdoor Treatment Area Wells Laboratory Results and Field Geochemistry for 2022 - 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Well	Date	COCs (µg/L) PCE 127-18-4	TCE 79-01-6	1,1-DCE 75-35-4	c 1,2-DCE 156-59-2	VC 75-01-4	Total COCs (µg/L)	ORP (mV)	Dissolved Oxygen (mg/L)	pH (SU)	Conductivity (µS/cm)	Temperature (°C)
Volatilization to Outdoor Air - Occupational[1]			>S	20,000	2,400,000	>S	5,900	--	--	--	--	--	--
Groundwater in an Excavation[1]			5,600	430	44,000	18,000	960	--	--	--	--	--	--
Commercial Chronic Vapor Intrusion RBCwi[2]			130	13	25	1,800	3.3	--	--	--	--	--	--
Commercial Acute Vapor Intrusion RBCwi[2]			320	28	870	--	4,600	--	--	--	--	--	--
Outdoor Area	MW-75-2	8/16/2022	1.11	**75.2**	0.980	100	**12.2**	189	--	--	--	--	--
		10/19/2022	1.72	**123**	0.870	84.8	**7.57**	218	4.5	0.13	6.46	1,154	17.54
		10/6/2023	0.400 U	1.41	0.400 U	2.72	**3.37**	7.90	-85.9	0.63	6.44	4,114	22.5
	MW-76-2	10/19/2022	0.400 U	0.400 U	0.400 U	0.730	3.14	4.47	-73.7	0.09	6.86	952	17.82
		10/6/2023	0.400 U	0.520	0.400 U	1.73	**4.64**	7.29	--	--	--	--	--
		10/6/2023	0.400 U	0.440	0.400 U	1.36	**4.81**	7.01	-61.7	0.9	7.09	1,328	17.9
		10/25/2024	0.400 U	0.400 U	0.400 U	1.24	**4.22**	6.06	-43	0.61	6.75	1,174	14.1
	MW-77-2	10/19/2022	0.400 U	0.400 U	0.400 U	0.430	0.620	1.65	-12.9	0.19	6.61	1,026	16.47
		10/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	0.900	-64.7	1.06	6.87	1,707	20.2
	OI-B-01	10/20/2022	0.400 UJ	0.400 UJ	0.400 UJ	1.39 J	1.43 J	3.42	103.2	1.4	6.09	1,090	18.7
		10/6/2023	0.400 U	0.400 U	0.400 U	1.19	0.860	2.65	-24.9	6.34	7.03	1,617	20.3
	OI-B-05	10/20/2022	0.400 UJ	1.20 J	0.400 UJ	5.41 J	2.43 J	9.44	0	0.1	6.51	987	17.41
		10/6/2023	0.600 U	0.400 U	0.400 U	0.540	0.200 U	1.34	-45.5	1.14	6.61	2,756	23.6
	OI-B-08	10/20/2022	--	--	--	--	--	--	125.6	0.15	5.63	58	18.63
		10/13/2023	0.400 U	0.400 U	0.400 U	0.500 U	0.200 U	0.950	-45.9	1.58	6.66	1,745	17.2
	OI-B-09	10/20/2022	0.400 U	1.11	0.400 U	0.610	0.400 U	2.32	45.2	0.49	6.35	1,222	16.83
		10/6/2023	0.400 U	1.60	0.400 U	0.590	0.200 U	2.69	-56.9	1.02	6.84	2,004	18.5
	OI-B-10	10/20/2022	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	1.00	66.5	0.36	6.27	683	17.83
		10/6/2023	0.400 U	0.400 U	0.400 U	0.400 U	0.800	1.60	-64.3	0.86	7.41	1,226	18.2

Notes:

Shaded Bold = detection limit or analyte concentration exceeds at least one RBC

[1] = Oregon Department of Environmental Quality Risk-Based Concentrations for Individual Chemicals, August 2023.

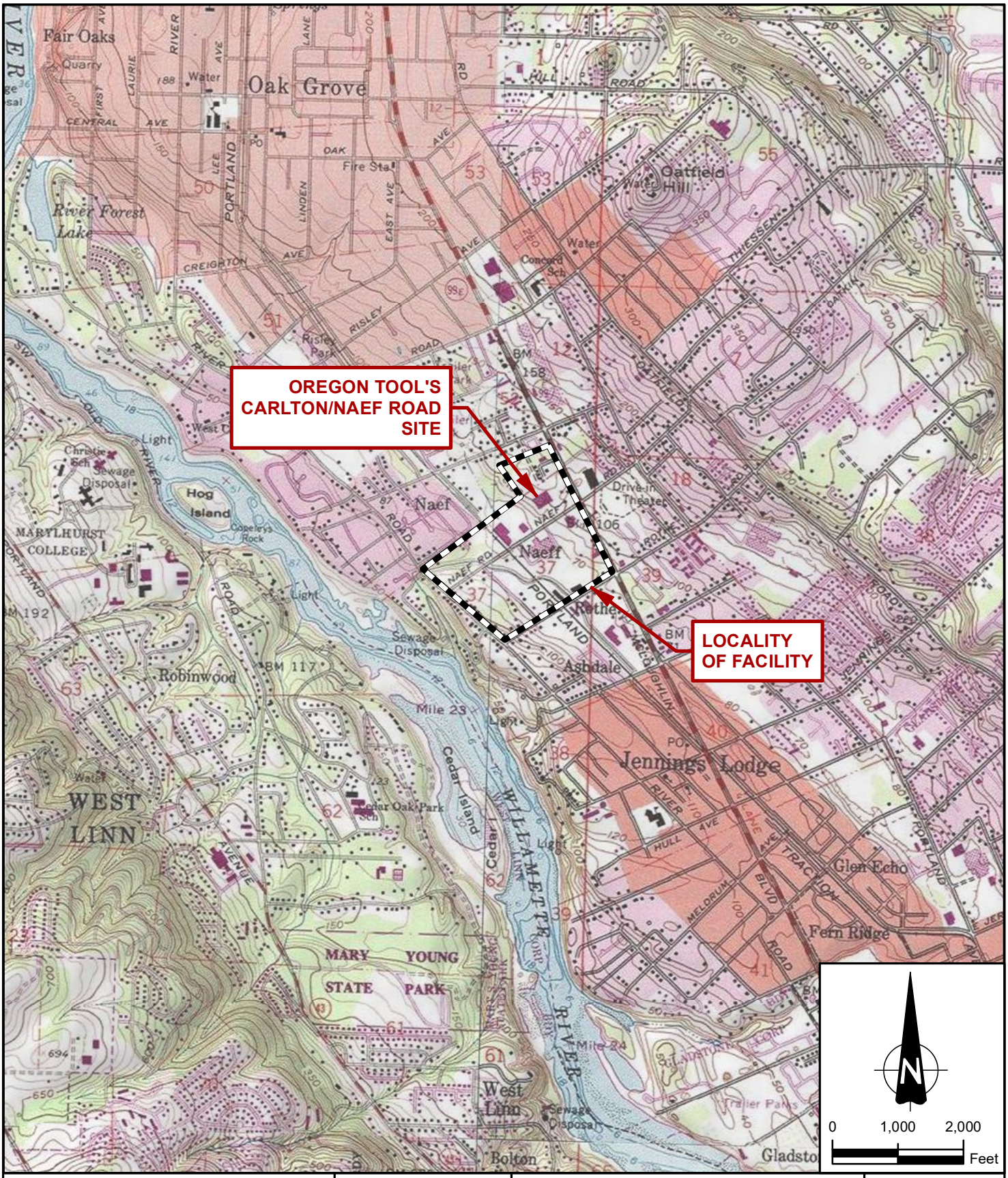
[2] = Oregon Department of Environmental Quality Chronic and Acute Vapor Intrusion Risk-Based Concentrations, March 2025.

Abbreviations:

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µS/cm = microSiemens per centimeter
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DCE = dichloroethene
ERD = Enhanced reductive dechlorination
ISCO = In situ chemical oxidation
J = estimated result
Location Key: SU A indicates Qfc aquifer Subunit A, SU B indicates Qfc aquifer Subunit B
mg/L = milligrams per liter
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RBC = DEQ Risk-Based Concentration
RBCwi = risk-based concentration for groundwater volatilization to indoor air
SU = standard pH units
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride

Note: total COCs w Note: total COCs were calculated using 0.5x the detection limit for non-detect results

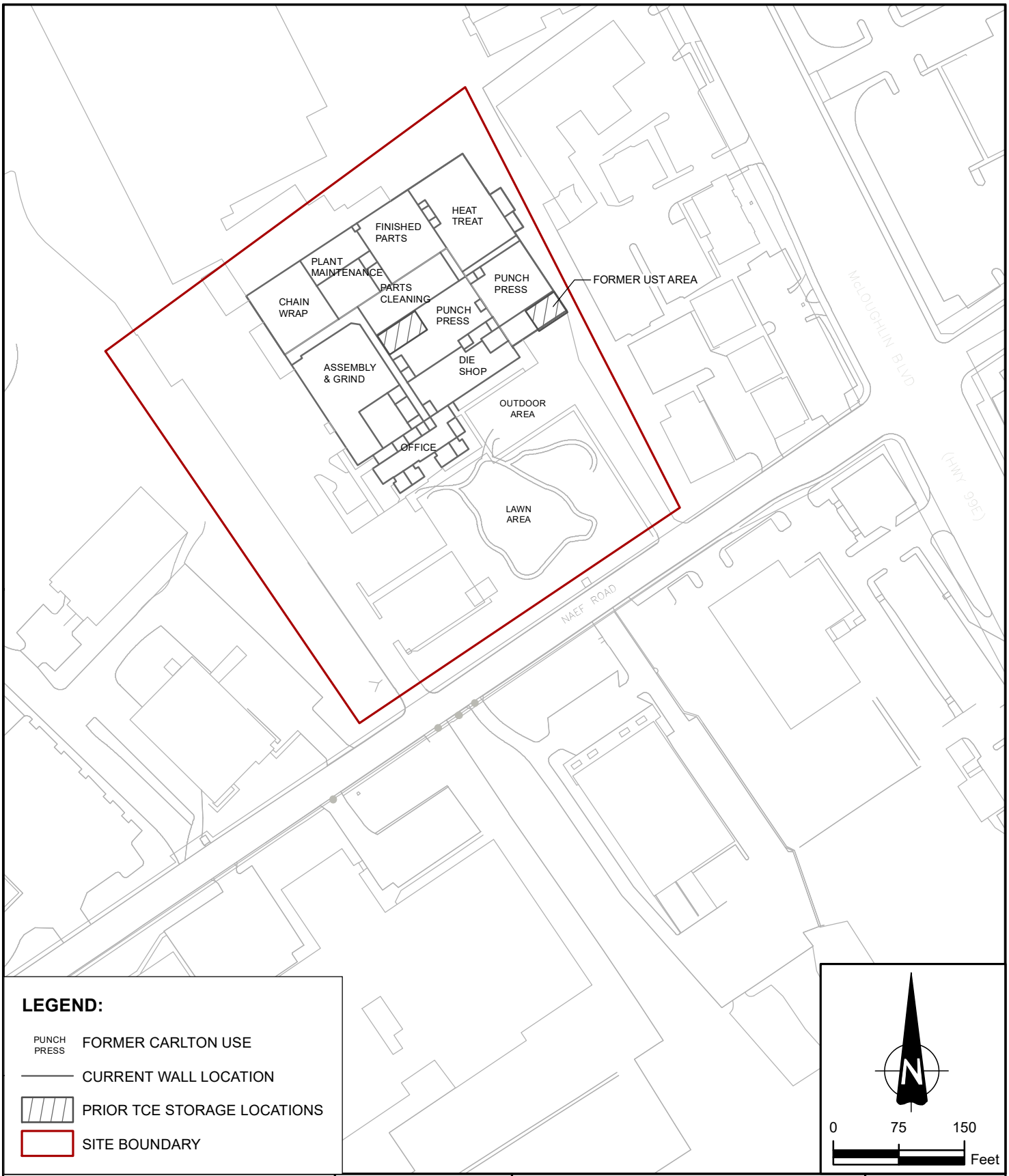
FIGURES



OREGON TOOL		CARLTON/NAEF ROAD SITE 3901 SE NAEF ROAD OAK GROVE, OREGON	DATE SEPTEMBER 2025
			SCALE 1 " = 2,000 feet
WSP 15862 SW 72nd Ave., Suite 150 Portland, OR 97224		SITE LOCATION	PROJECT NO. US0045185
			FIGURE 1

DRAWN BY: SD CHECKED BY: JHK

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OREGON TOOL

[redacted]

CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

DATE
SEPTEMBER 2025

SCALE
1 " = 150 feet

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

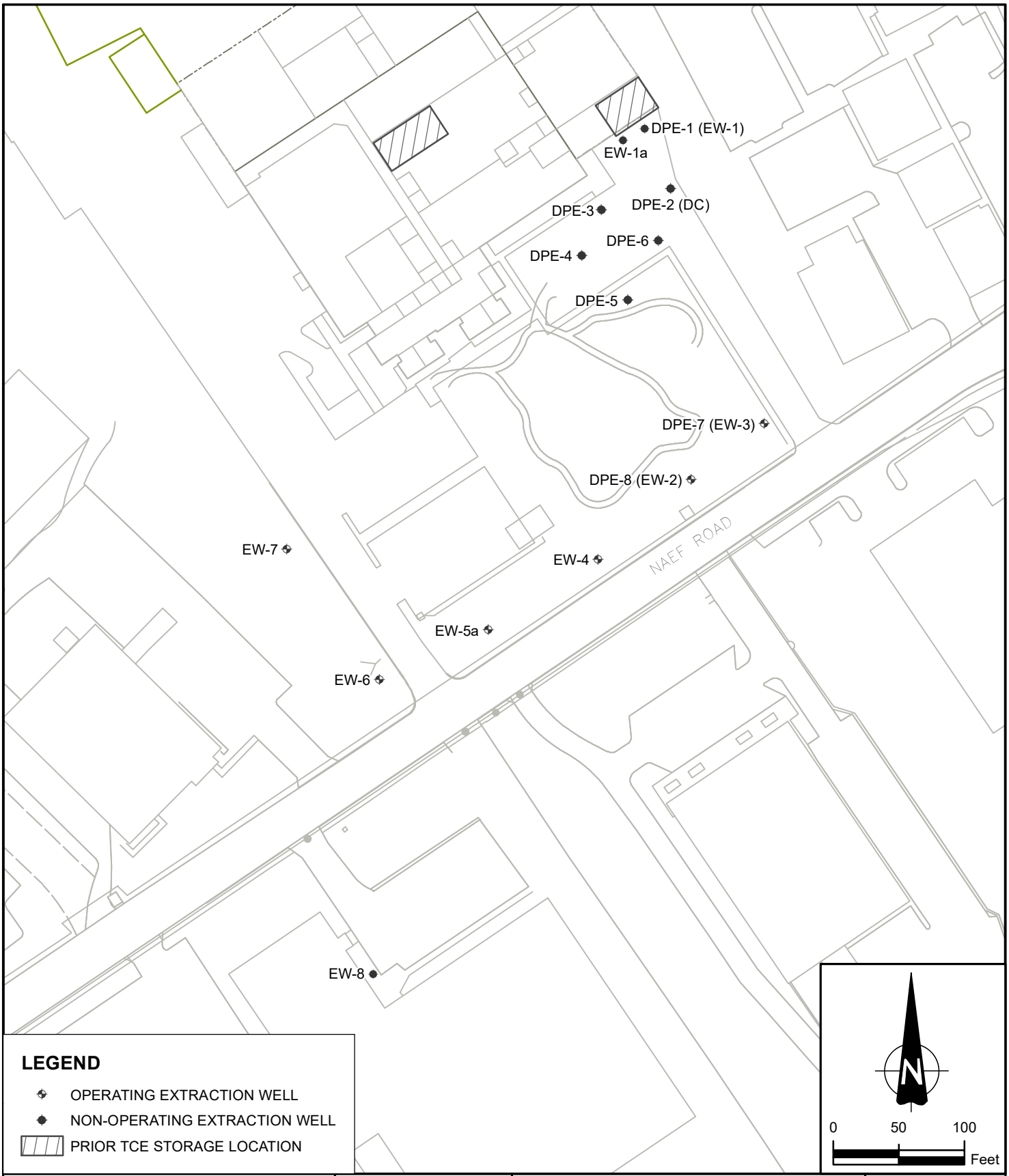
FORMER FACILITY LAYOUT

PROJECT NO.
US0045185

FIGURE
2

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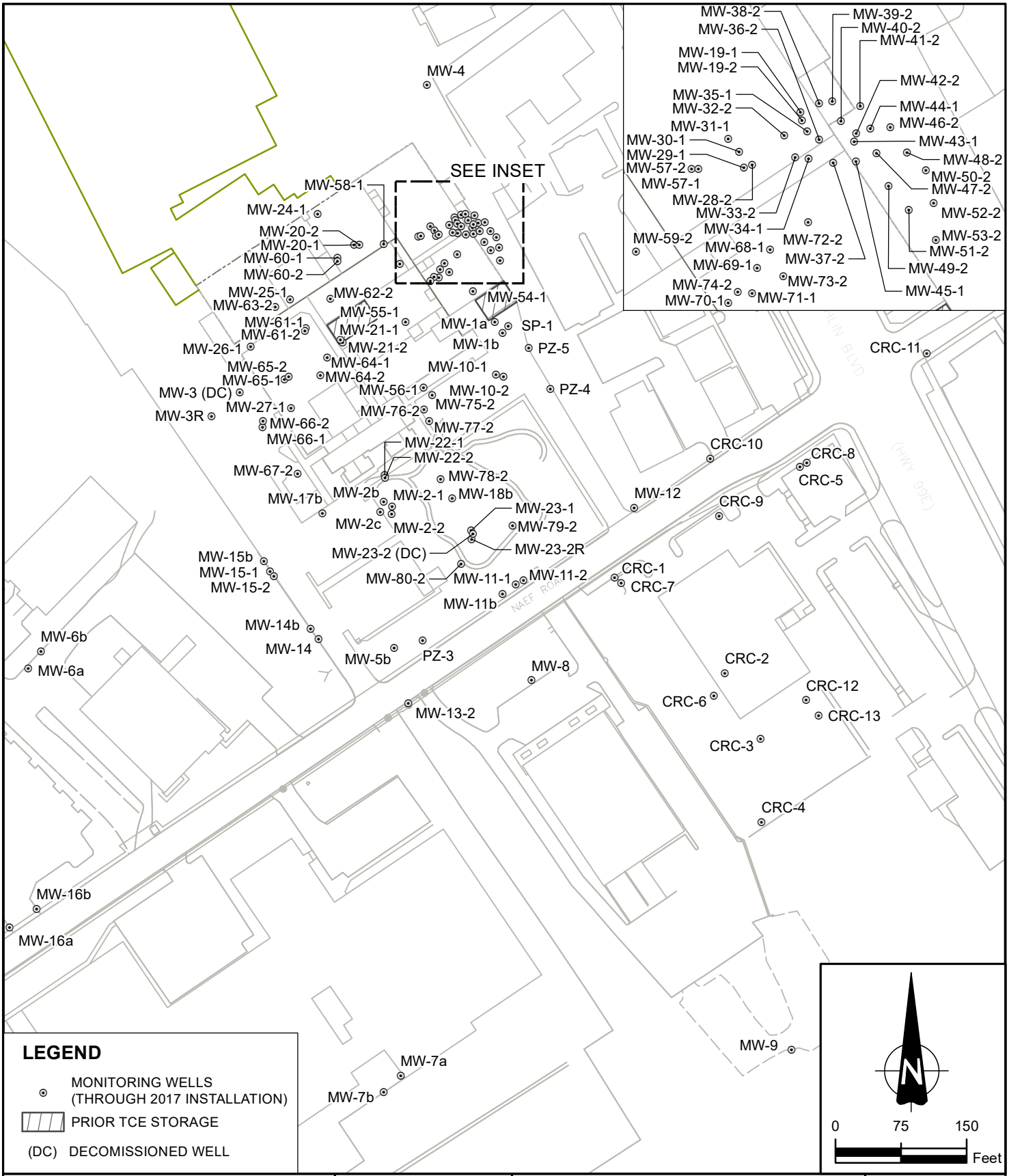
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OREGON TOOL	[redacted]	CARLTON/NAEF ROAD SITE 3901 SE NAEF ROAD OAK GROVE, OREGON	DATE: SEPTEMBER 2025 SCALE: 1 " = 100 feet
WSP 15862 SW 72nd Ave., Suite 150 Portland, OR 97224		EXTRACTION WELL LOCATIONS	PROJECT NO.: US0045185 FIGURE: 3

DRAWN BY: SD CHECKED BY: JHK

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OREGON TOOL

[redacted]

CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

DATE
SEPTEMBER 2025

SCALE
1 " = 150 '

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

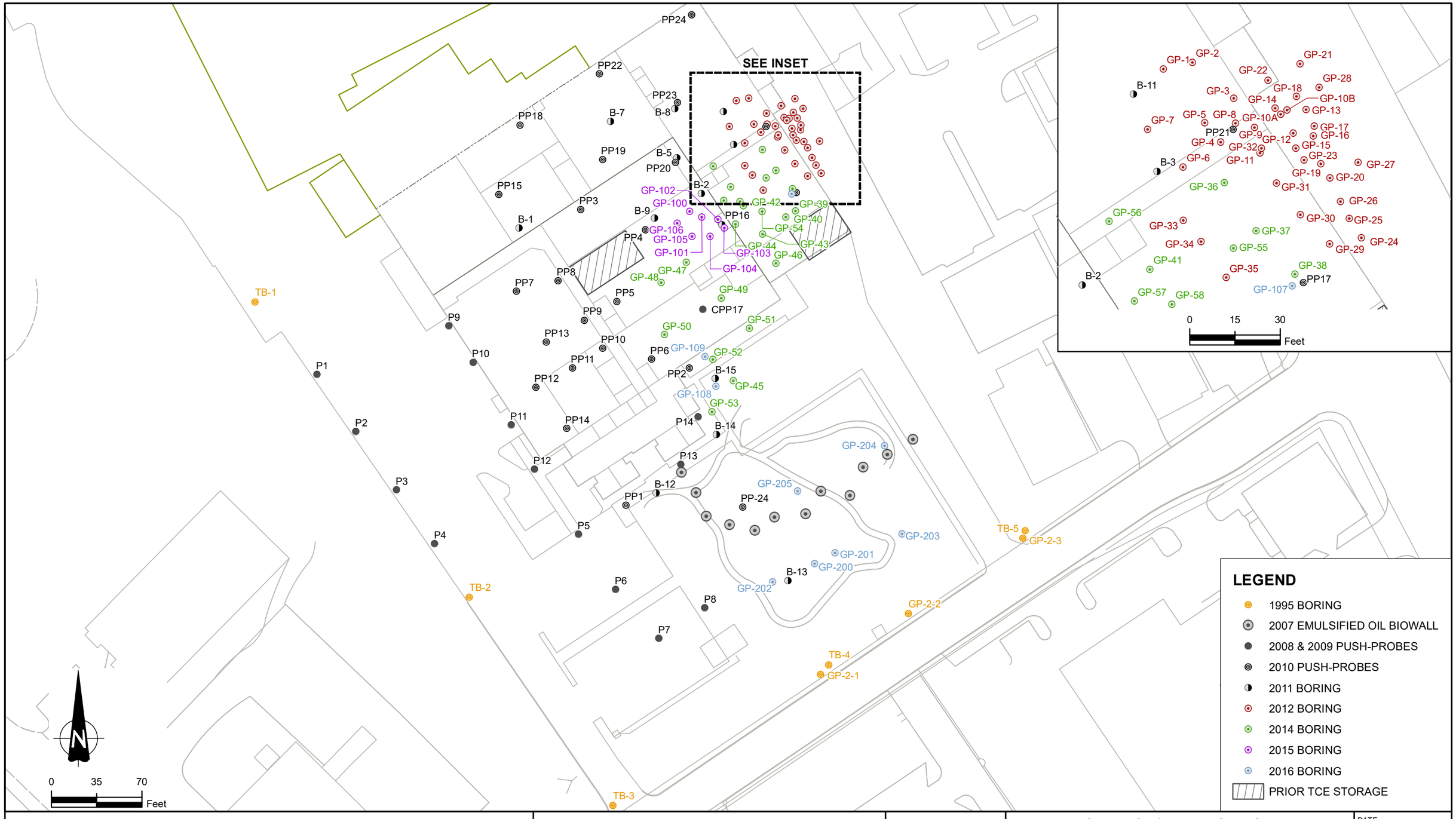
MONITORING WELL LOCATIONS

PROJECT NO.
US0045185

FIGURE
4

DRAWN BY: PM CHECKED BY: RB

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OREGON TOOL

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Portland, OR 97224

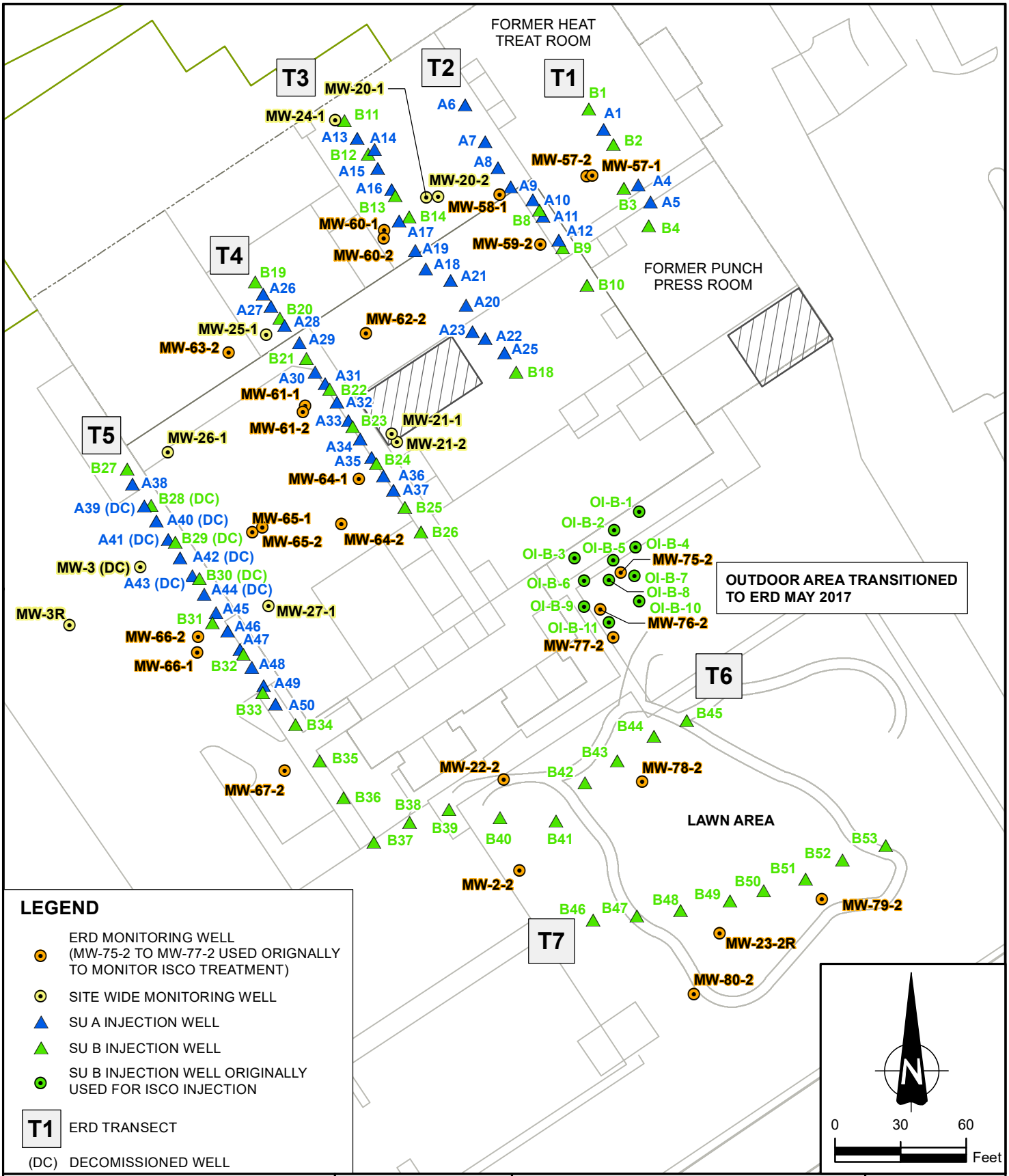
CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

TEMPORARY ON-SITE BORING LOCATIONS

DATE: SEPTEMBER 2025
SCALE: 1 " = 70 '
PROJECT NO.: US0045185
FIGURE: 5

DRAWN BY: PM CHECKED BY: JKH

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OREGON TOOL

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Portland, OR 97224

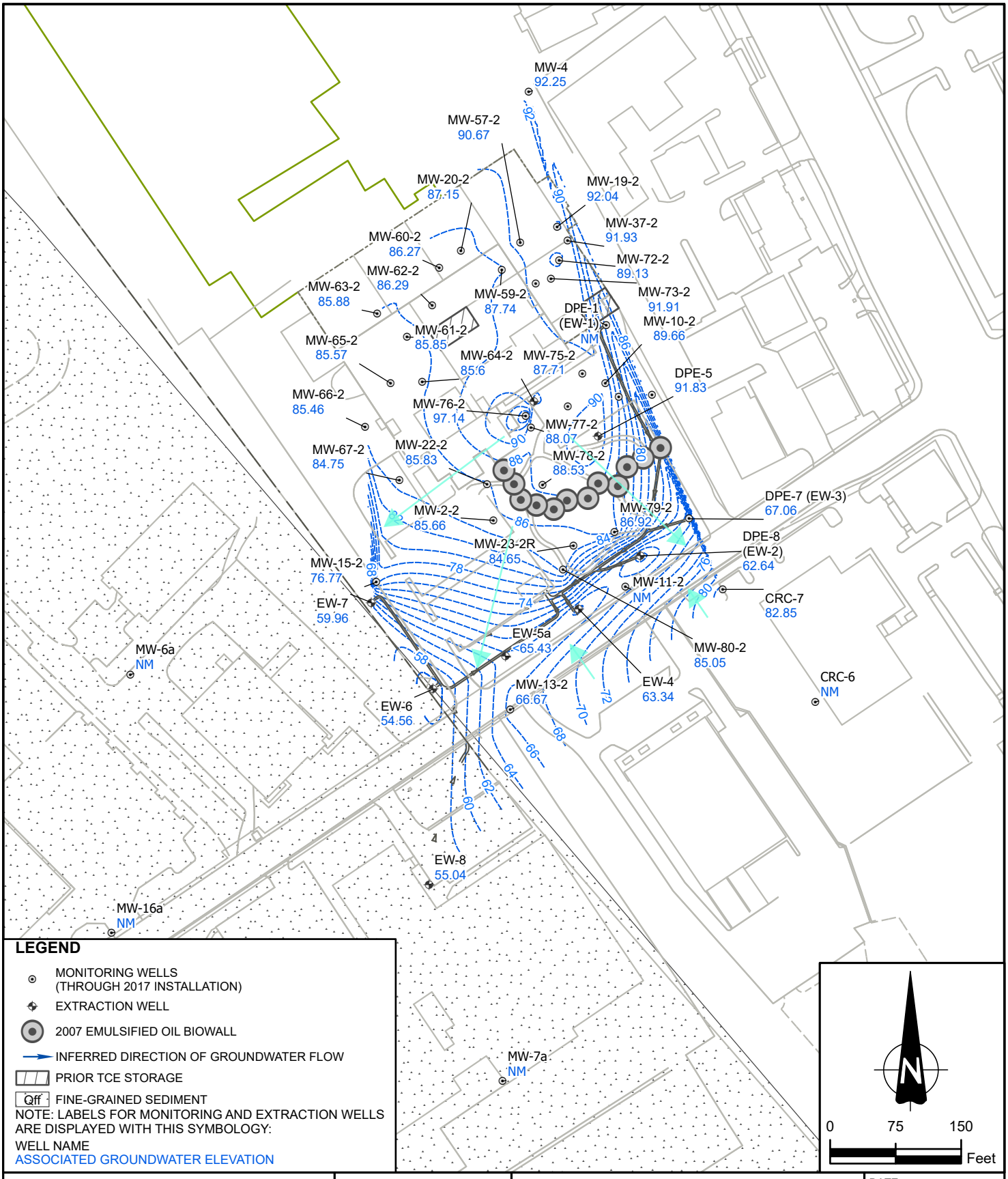
CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

ERD INJECTION AND MONITORING WELL LOCATIONS

DATE: SEPTEMBER 2025
SCALE: 1 " = 60 '
PROJECT NO.: US0045185
FIGURE: 6

DRAWN BY: PM CHECKED BY: RB

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LEGEND

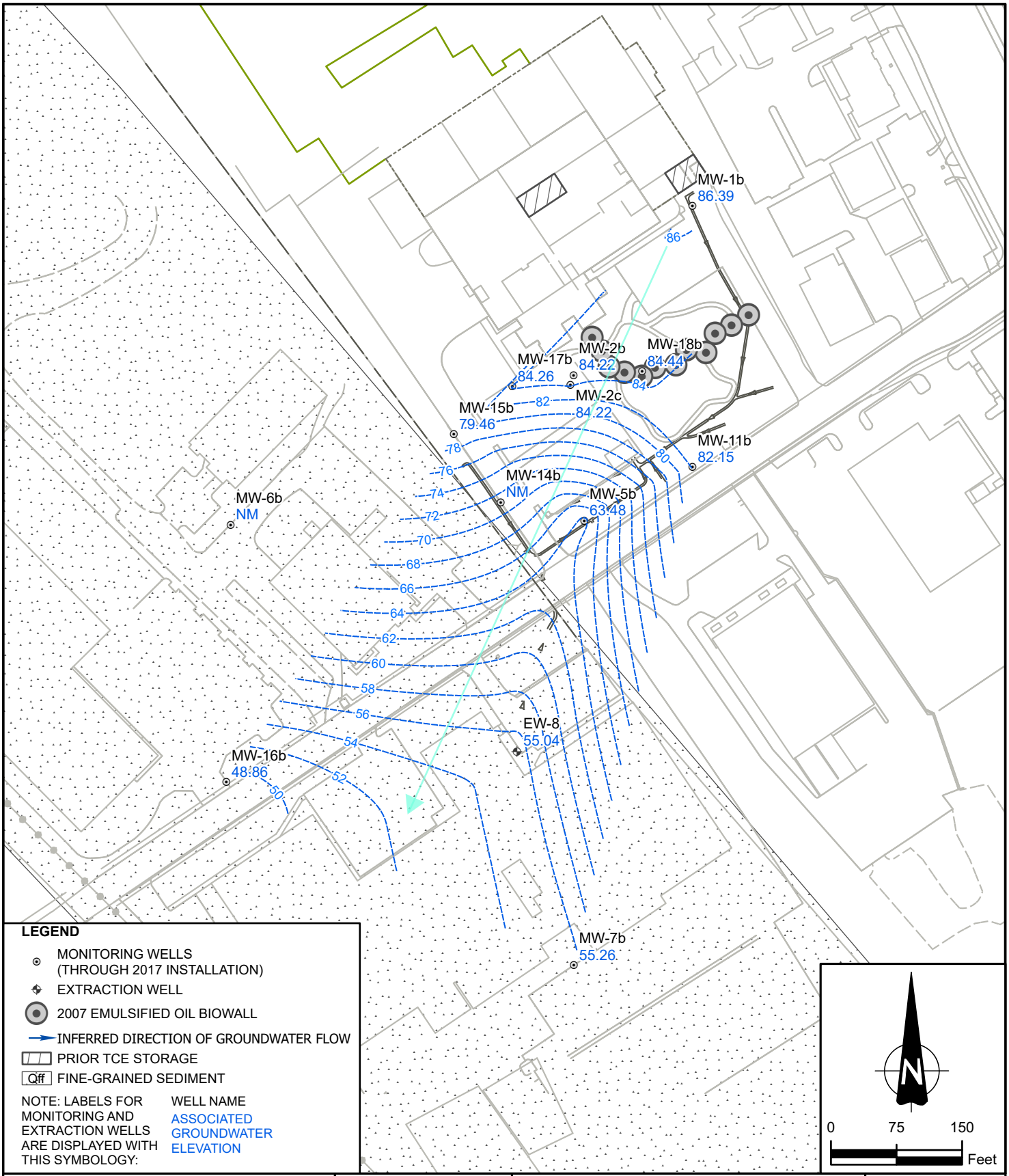
- MONITORING WELLS (THROUGH 2017 INSTALLATION)
- EXTRACTION WELL
- 2007 EMULSIFIED OIL BIOWALL
- INFERRED DIRECTION OF GROUNDWATER FLOW
- PRIOR TCE STORAGE
- Qff FINE-GRAINED SEDIMENT

NOTE: LABELS FOR MONITORING AND EXTRACTION WELLS ARE DISPLAYED WITH THIS SYMBOLOGY:
WELL NAME
ASSOCIATED GROUNDWATER ELEVATION

OREGON TOOL	CARLTON/NAEF ROAD SITE 3901 SE NAEF ROAD OAK GROVE, OREGON	DATE: SEPTEMBER 2025 SCALE: 1:1,800
WSP 15862 SW 72nd Ave., Suite 150 Portland, OR 97224	SU B GROUNDWATER ELEVATIONS OCTOBER 2024	PROJECT NO.: US0045185 FIGURE: 7

DRAWN BY: PM CHECKED BY: RB

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LEGEND

- MONITORING WELLS (THROUGH 2017 INSTALLATION)
- EXTRACTION WELL
- 2007 EMULSIFIED OIL BIOWALL
- INFERRED DIRECTION OF GROUNDWATER FLOW
- PRIOR TCE STORAGE
- Qff FINE-GRAINED SEDIMENT

NOTE: LABELS FOR MONITORING AND EXTRACTION WELLS ARE DISPLAYED WITH THIS SYMBOLOGY:

WELL NAME
ASSOCIATED GROUNDWATER ELEVATION

N

0 75 150
Feet

OREGON TOOL

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

WB GROUNDWATER ELEVATIONS
OCTOBER 2024

DATE
SEPTEMBER 2025

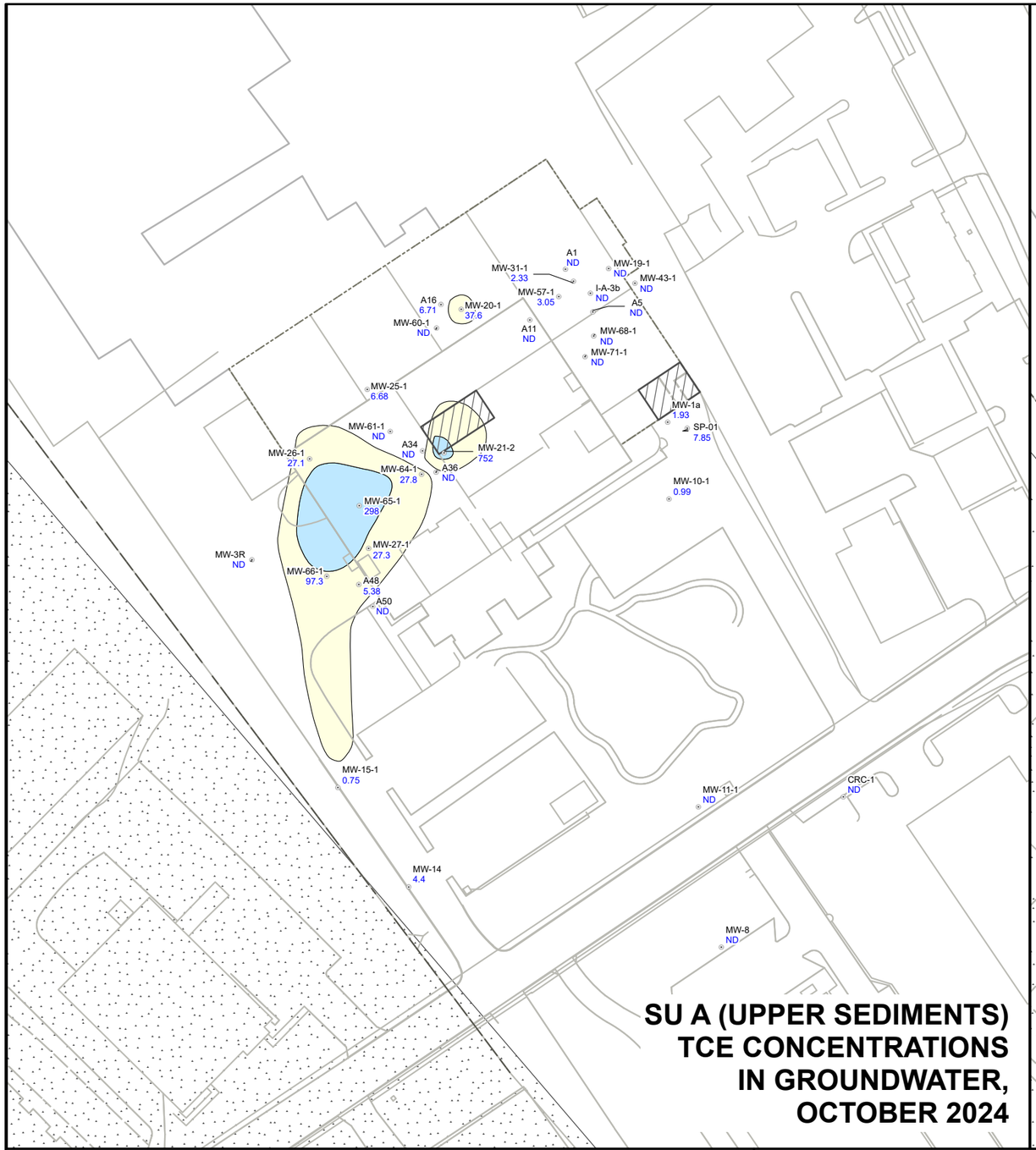
SCALE
1 " = 150 feet

PROJECT NO.
US0045185

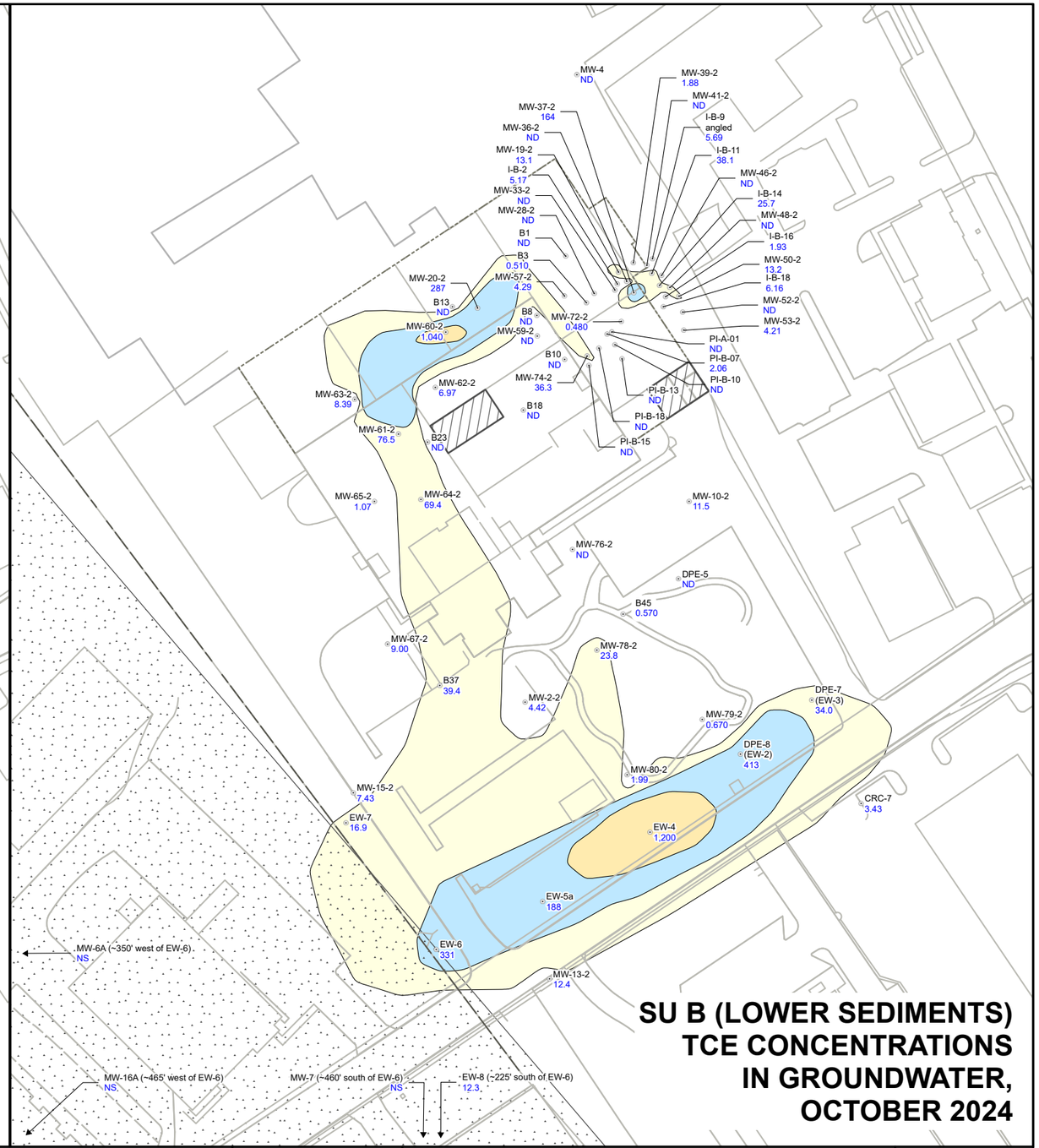
FIGURE
8

DRAWN BY: PM CHECKED BY: RB

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SU A (UPPER SEDIMENTS) TCE CONCENTRATIONS IN GROUNDWATER, OCTOBER 2024



SU B (LOWER SEDIMENTS) TCE CONCENTRATIONS IN GROUNDWATER, OCTOBER 2024

LEGEND

- MONITORING WELLS (THROUGH 2015 INSTALLATION)
- PRIOR TCE STORAGE
- FINE-GRAINED SEDIMENT
- 10 TRICHLOROETHENE (TCE) CONCENTRATION (µg/L)
- ND NOT DETECTED
- NS NOT SAMPLED
- TCE CONCENTRATION 1,000 TO 10,000 µg/L
- TCE CONCENTRATION 100 TO 1,000 µg/L
- TCE CONCENTRATION 13 TO 100 µg/L

N

0 50 100 Feet

OREGON TOOL

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

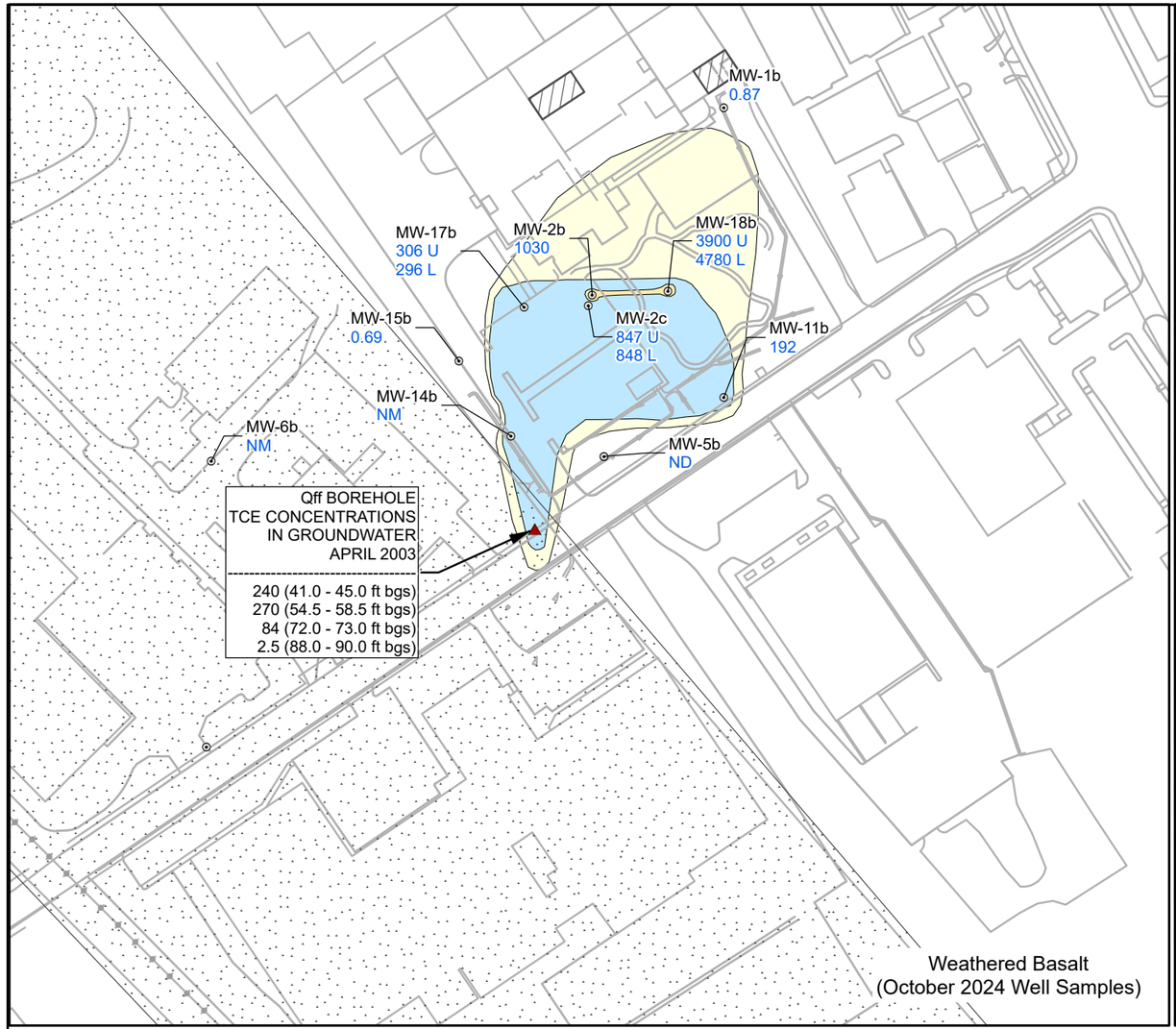
CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

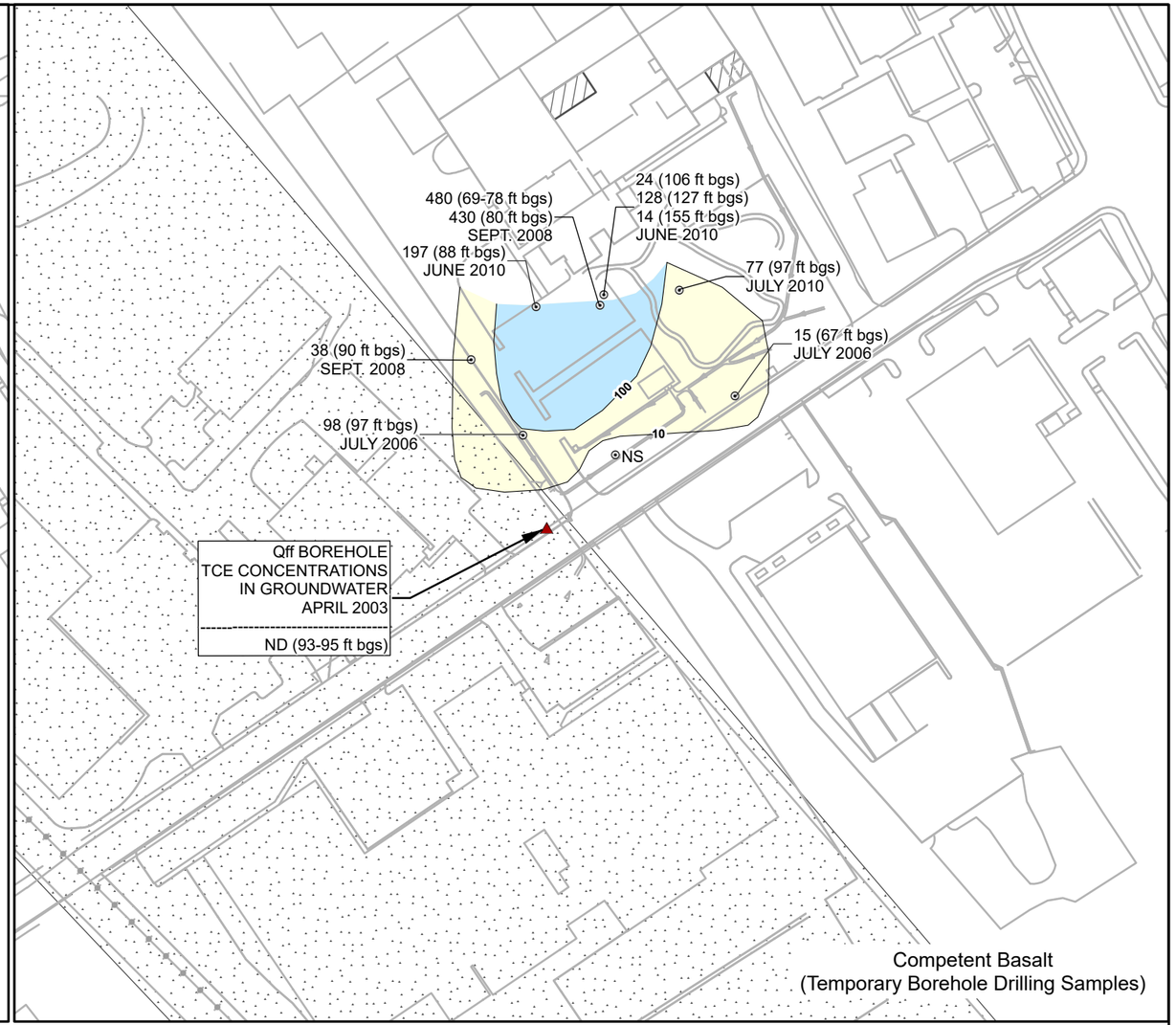
TCE CONCENTRATIONS IN GROUNDWATER
Qfc SU A, SU B, AND Qff BASIN
OCTOBER 2024

DATE: AUGUST 2025
SCALE: 1:1,200
PROJECT NO.: US0045185
FIGURE: 9

DRAWN BY: PM CHECKED BY: RB

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LEGEND

- MONITORING WELLS (THROUGH 2015 INSTALLATION)
- GROUNDWATER EXTRACTION WELL
- PRIOR TCE STORAGE
- FINE-GRAINED SEDIMENT
- TCE CONCENTRATION 1,000 TO 10,000 µg/L
- TCE CONCENTRATION 100 TO 1,000 µg/L
- TCE CONCENTRATION 13 TO 100 µg/L

* MW-6b, MW-7b, AND MW-16b SCREENED SCREENED TO FROM 45-55 ft

** EW-8 SCREENED FROM 20-50 ft BUT THE WELL IS FILLED WITH SOLIDS UP TO A DEPTH OF APPROX 26 ft, MAKING THE EFFECTIVE SCREEN LENGTH 20 TO 26ft; THEREFORE, EW-8 IS OMITTED.

ND ANALYTE NOT DETECTED

NM NOT MEASURED

J ESTIMATED CONCENTRATION

(a) WELL SCREEN LONGER THAN 20 ft, U=UPPER AND L=LOWER DIFFUSION BAG

MW-1b SCREENED FROM 55-60 ft
MW-2b SCREENED FROM 64-69 ft
MW-2c SCREENED FROM 61-90 ft
MW-5b SCREENED FROM 88.4-93.4 ft
MW-11b SCREENED FROM 50-60 ft
MW-14b SCREENED FROM 79.5-89.5 ft
MW-15b SCREENED FROM 57-67 ft
MW-17b SCREENED FROM 50.5-84.5 ft
MW-18b SCREENED FROM 46-81 ft

N

0 75 150 Feet

OREGON TOOL

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

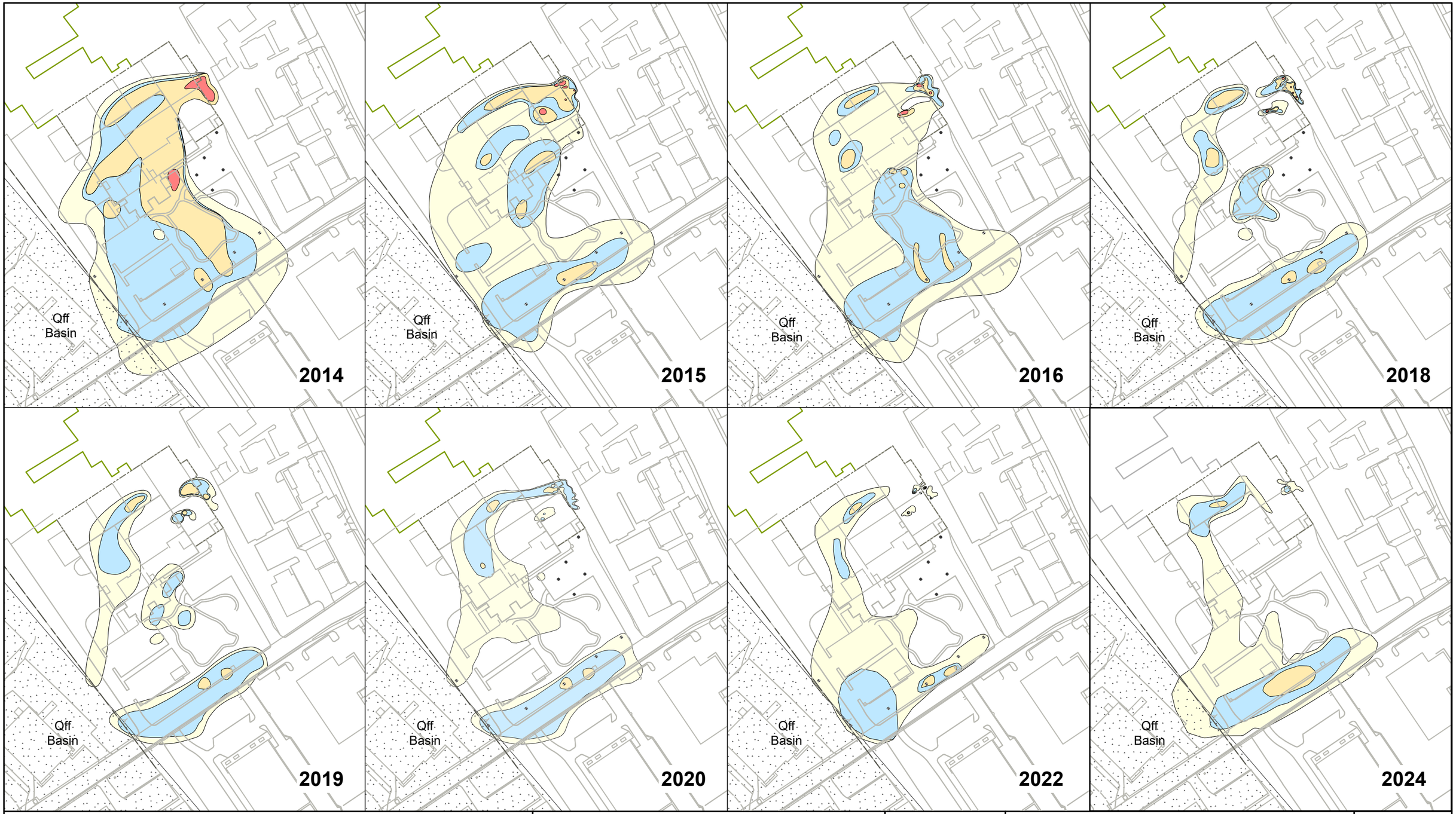
CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

TCE CONCENTRATIONS IN GROUNDWATER
WEATHERED AND COMPETENT BASALT
AS OF OCTOBER 2024

DATE: AUGUST 2025
SCALE: 1:1,800
PROJECT NO.: US0045185
FIGURE: 10

DRAWN BY: PM CHECKED BY: RB

G:\OregonTool\NaefRoad\11_GIS\TEMP\2025_07_10_HF_APRXs\NaefRoad\NaefRoad.aprx - USHf141441 - 8/20/2025 - 1:43 PM



LEGEND

- MONITORING WELLS
- OPERATING EXTRACTION WELL
- NON-OPERATING EXTRACTION WELL
- TEMPORARY BORINGS
- FINE-GRAINED SEDIMENT
- TCE CONCENTRATION MORE THAN 10,000 µg/L
- TCE CONCENTRATION 1,000 TO 10,000 µg/L
- TCE CONCENTRATION 100 TO 1,000 µg/L
- TCE CONCENTRATION 10 TO 100 µg/L (2014-2023), 13 TO 100 µg/L (2024)

Note:
1. Panels 2014 - 2022 were made with lowest contour = 10 µg/L TCE
2. Panel 2024 was made with lowest contour = 13 µg/L TCE

N

0 100 200 Feet

OREGON TOOL

WSP
15862 SW 72nd Ave., Suite 150
Portland, OR 97224

CARLTON/NAEF ROAD SITE
3901 SE NAEF ROAD
OAK GROVE, OREGON

SU B TCE CONCENTRATIONS
2014, 2015, 2016, 2018, 2019, 2020, 2022, 2024

DATE: SEPTEMBER 2025
SCALE: 1" = 200 ft
PROJECT NO.: 061M12372H
FIGURE: 11

DRAWN BY: PM CHECKED BY: RB

G:\OregonTool\NaefRoad\11_GIS\TEMP\2025_07_10_HF_APRX\NaefRoad\NaefRoad.aprx - USHf141441 - 9/5/2025 - 10:49 AM

APPENDIX A

Laboratory Reports (2024 and early 2025)

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Monday, February 5, 2024

Russ Bunker
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4A1415 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4A1415, which was received by the laboratory on 1/23/2024 at 5:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INF-012324	**A4A1415-01**	**Water**	**01/23/24 14:00**	**01/23/24 17:30**
EFF-012324	**A4A1415-02**	**Water**	**01/23/24 13:40**	**01/23/24 17:30**
EFF-012324-D	**A4A1415-03**	**Water**	**01/23/24 13:41**	**01/23/24 17:30**
Trip Blank#3398	**A4A1415-22**	**Water**	**01/23/24 00:00**	**01/23/24 17:30**

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-012324 (A4A1415-01)				**Matrix: Water**		**Batch: 24A0761**		
Bromobenzene	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/25/24 22:14	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/25/24 22:14	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/25/24 22:14	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
cis-1,2-Dichloroethene	**165**	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/25/24 22:14	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/25/24 22:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-012324 (A4A1415-01)				**Matrix: Water**		**Batch: 24A0761**		
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
Tetrachloroethene (PCE)	**7.60**	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/25/24 22:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Trichloroethene (TCE)	**617**	---	2.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/25/24 22:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Vinyl chloride	**1.40**	---	1.00	ug/L	5	01/25/24 22:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*01/25/24 22:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*01/25/24 22:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*01/25/24 22:14*	*EPA 8260D*	
EFF-012324 (A4A1415-02)				**Matrix: Water**		**Batch: 24A0761**		
Bromobenzene	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/25/24 17:21	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 05 24 2226

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-012324 (A4A1415-02)				**Matrix: Water**		**Batch: 24A0761**		
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/25/24 17:21	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/25/24 17:21	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:21	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/25/24 17:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*01/25/24 17:21*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*01/25/24 17:21*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*01/25/24 17:21*	*EPA 8260D*	
EFF-012324-D (A4A1415-03)				**Matrix: Water**		**Batch: 24A0761**		
Bromobenzene	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-012324-D (A4A1415-03)				**Matrix: Water**		**Batch: 24A0761**		
Bromochloromethane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/25/24 17:44	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 05 24 2226

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-012324-D (A4A1415-03)				**Matrix: Water**		**Batch: 24A0761**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/25/24 17:44	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/25/24 17:44	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/25/24 17:44	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/25/24 17:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*1*	*01/25/24 17:44*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*01/25/24 17:44*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*01/25/24 17:44*	*EPA 8260D*	
Trip Blank#3398 (A4A1415-22)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3398 (A4A1415-22)				**Matrix: Water**		**Batch: 24A0811**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/26/24 13:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*01/26/24 13:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*01/26/24 13:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*	*01/26/24 13:20*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Blank (24A0761-BLK1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 12:50							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4A1415 - 02 05 24 2226

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C									Water			
Blank (24A0761-BLK1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 12:50							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*104 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*				*"*			
LCS (24A0761-BS1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 11:32							
EPA 8260D												
Bromobenzene	18.1	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Bromochloromethane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Bromodichloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromoform	24.5	---	1.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Bromomethane	20.0	---	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Carbon tetrachloride	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloroform	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chloromethane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
4-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.4	---	5.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
LCS (24A0761-BS1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 11:32							
1,3-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
1,4-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethane	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	17.1	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
1,3-Dichloropropane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
cis-1,3-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	21.1	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Tetrachloroethene (PCE)	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,3-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,2-Trichloroethane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1-Trichloroethane	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	16.7	---	0.400	ug/L	1	20.0	---	84	80-120%	---	---	
Trichlorofluoromethane	23.0	---	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichloropropane	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Vinyl chloride	19.3	---	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*				*"*			
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56		Analyzed: 01/25/24 21:52							
QC Source Sample: Non-SDG (A4A1386-07)												
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 21:52									
QC Source Sample: Non-SDG (A4A1386-07)												
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 21:52									
QC Source Sample: Non-SDG (A4A1386-07)												
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	10.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 86 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*103 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*107 %*		*80-120 %*				*"*			
Matrix Spike (24A0761-MS1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 13:58									
QC Source Sample: Non-SDG (A4A1342-02)												
EPA 8260D												
Bromobenzene	18.3	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	19.4	---	1.00	ug/L	1	20.0	ND	97	78-123%	---	---	
Bromodichloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	25.6	---	1.00	ug/L	1	20.0	ND	128	66-130%	---	---	Q-54b
Bromomethane	20.0	---	5.00	ug/L	1	20.0	ND	100	53-141%	---	---	
Carbon tetrachloride	26.3	---	1.00	ug/L	1	20.0	ND	131	72-136%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Chloroethane	22.4	---	5.00	ug/L	1	20.0	ND	112	60-138%	---	---	
Chloroform	20.3	---	1.00	ug/L	1	20.0	ND	102	79-124%	---	---	
Chloromethane	17.6	---	5.00	ug/L	1	20.0	ND	88	50-139%	---	---	
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	22.7	---	1.00	ug/L	1	20.0	ND	114	78-122%	---	---	
Dibromochloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.4	---	5.00	ug/L	1	20.0	ND	82	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	
Dibromomethane	20.0	---	1.00	ug/L	1	20.0	ND	100	79-123%	---	---	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Matrix Spike (24A0761-MS1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 13:58									
QC Source Sample: Non-SDG (A4A1342-02)												
1,2-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,3-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,4-Dichlorobenzene	19.0	---	0.500	ug/L	1	20.0	ND	95	79-120%	---	---	
Dichlorodifluoromethane	23.8	---	1.00	ug/L	1	20.0	ND	119	32-152%	---	---	
1,1-Dichloroethane	22.2	---	0.400	ug/L	1	20.0	ND	111	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.2	---	0.400	ug/L	1	20.0	ND	111	73-128%	---	---	
1,1-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	71-131%	---	---	
cis-1,2-Dichloroethene	19.2	---	0.400	ug/L	1	20.0	ND	96	78-123%	---	---	
trans-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	17.8	---	0.500	ug/L	1	20.0	ND	89	78-122%	---	---	
1,3-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	80-120%	---	---	
2,2-Dichloropropane	23.9	---	1.00	ug/L	1	20.0	ND	120	60-139%	---	---	
1,1-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
trans-1,3-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	20.0	---	5.00	ug/L	1	20.0	ND	100	66-134%	---	---	
Methylene chloride	21.5	---	10.0	ug/L	1	20.0	ND	107	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.4	---	0.400	ug/L	1	20.0	ND	107	78-124%	---	---	
1,1,2,2-Tetrachloroethane	17.7	---	0.500	ug/L	1	20.0	ND	89	71-121%	---	---	
Tetrachloroethene (PCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	74-129%	---	---	
1,2,3-Trichlorobenzene	17.7	---	2.00	ug/L	1	20.0	ND	89	69-129%	---	---	
1,1,2-Trichloroethane	19.8	---	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
1,2,4-Trichlorobenzene	16.0	---	2.00	ug/L	1	20.0	ND	80	69-130%	---	---	
1,1,1-Trichloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	74-131%	---	---	
Trichloroethene (TCE)	17.8	---	0.400	ug/L	1	20.0	ND	89	79-123%	---	---	
Trichlorofluoromethane	26.3	---	2.00	ug/L	1	20.0	ND	132	65-141%	---	---	
1,2,3-Trichloropropane	19.3	---	1.00	ug/L	1	20.0	ND	96	73-122%	---	---	
Vinyl chloride	19.5	---	0.200	ug/L	1	20.0	ND	97	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 93 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*90 %*	*80-120 %*	*"*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Blank (24A0811-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:53							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Blank (24A0811-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:53							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				
LCS (24A0811-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 11:48							
EPA 8260D												
Bromobenzene	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Bromochloromethane	24.7	---	1.00	ug/L	1	20.0	---	**124**	**80-120%**	---	---	Q-56
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	15.5	---	1.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
Carbon tetrachloride	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Chlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroethane	48.2	---	5.00	ug/L	1	20.0	---	**241**	**80-120%**	---	---	Q-56
Chloroform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	25.7	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
2-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
4-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.8	---	5.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.1	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4A1415 - 02 05 24 2226

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
LCS (24A0811-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 11:48							
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethane	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,2-Dichloroethene	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,3-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Hexachlorobutadiene	17.2	---	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
Methylene chloride	19.1	---	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	23.2	---	0.500	ug/L	1	20.0	---	116	80-120%	---	---	
Tetrachloroethene (PCE)	17.1	---	0.400	ug/L	1	20.0	---	86	80-120%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	18.7	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	16.8	---	0.400	ug/L	1	20.0	---	84	80-120%	---	---	
Trichlorofluoromethane	35.2	---	2.00	ug/L	1	20.0	---	**176**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Vinyl chloride	20.8	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*				*"*			
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50		Analyzed: 01/26/24 20:09							
QC Source Sample: MW17B-012324-L (A4A1415-21)												
EPA 8260D												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4A1415 - 02 05 24 2226

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 20:09									
QC Source Sample: MW17B-012324-L (A4A1415-21)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**24.9**	---	2.00	ug/L	5	---	25.0	---	---	0.6	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	1.10	---	---	***	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 20:09									
QC Source Sample: MW17B-012324-L (A4A1415-21)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2.85**	---	2.00	ug/L	5	---	3.15	---	---	10	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**282**	---	2.00	ug/L	5	---	279	---	---	0.9	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				
Matrix Spike (24A0811-MS1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 16:58									
QC Source Sample: Non-SDG (A4A1431-09)												
EPA 8260D												
Bromobenzene	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
Bromochloromethane	26.5	---	1.00	ug/L	1	20.0	ND	**133**	**78-123%**	---	---	Q-54c
Bromodichloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	16.1	---	1.00	ug/L	1	20.0	ND	80	66-130%	---	---	Q-54f
Bromomethane	28.1	---	5.00	ug/L	1	20.0	ND	141	53-141%	---	---	Q-54a
Carbon tetrachloride	21.1	---	1.00	ug/L	1	20.0	ND	106	72-136%	---	---	
Chlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	51.5	---	5.00	ug/L	1	20.0	ND	**258**	**60-138%**	---	---	Q-54
Chloroform	22.2	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	36.4	---	5.00	ug/L	1	20.0	ND	**182**	**50-139%**	---	---	Q-54e
2-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	22.1	---	1.00	ug/L	1	20.0	ND	111	78-122%	---	---	
Dibromochloromethane	20.6	---	1.00	ug/L	1	20.0	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.9	---	5.00	ug/L	1	20.0	ND	84	62-128%	---	---	Q-54g
1,2-Dibromoethane (EDB)	20.1	---	0.500	ug/L	1	20.0	ND	101	77-121%	---	---	
Dibromomethane	21.8	---	1.00	ug/L	1	20.0	ND	109	79-123%	---	---	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Matrix Spike (24A0811-MS1)			Prepared: 01/26/24 11:50		Analyzed: 01/26/24 16:58							
QC Source Sample: Non-SDG (A4A1431-09)												
1,2-Dichlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	28.8	---	1.00	ug/L	1	20.0	ND	144	32-152%	---	---	
1,1-Dichloroethane	22.8	---	0.400	ug/L	1	20.0	ND	114	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.4	---	0.400	ug/L	1	20.0	ND	122	73-128%	---	---	
1,1-Dichloroethene	24.3	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	113	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	22.3	---	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
1,3-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	19.6	---	1.00	ug/L	1	20.0	ND	98	60-139%	---	---	
1,1-Dichloropropene	23.2	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
cis-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	92	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	20.6	---	5.00	ug/L	1	20.0	ND	103	66-134%	---	---	
Methylene chloride	20.6	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	ND	103	78-124%	---	---	
1,1,2,2-Tetrachloroethane	24.9	---	0.500	ug/L	1	20.0	ND	**124**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	74-129%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	ND	107	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	22.2	---	2.00	ug/L	1	20.0	ND	111	69-130%	---	---	
1,1,1-Trichloroethane	21.7	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	18.5	---	0.400	ug/L	1	20.0	ND	92	79-123%	---	---	
Trichlorofluoromethane	42.4	---	2.00	ug/L	1	20.0	ND	**212**	**65-141%**	---	---	Q-54d
1,2,3-Trichloropropane	22.1	---	1.00	ug/L	1	20.0	ND	111	73-122%	---	---	
Vinyl chloride	26.2	---	0.200	ug/L	1	20.0	ND	131	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*				*"*			

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24A0761							
A4A1415-01	Water	EPA 8260D	01/23/24 14:00	01/25/24 11:56	5mL/5mL	5mL/5mL	1.00
A4A1415-02	Water	EPA 8260D	01/23/24 13:40	01/25/24 11:56	5mL/5mL	5mL/5mL	1.00
A4A1415-03	Water	EPA 8260D	01/23/24 13:41	01/25/24 11:56	5mL/5mL	5mL/5mL	1.00
Batch: 24A0811							
A4A1415-22	Water	EPA 8260D	01/23/24 00:00	01/25/24 11:42	5mL/5mL	5mL/5mL	1.00

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +121%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +18%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +56%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**Russ Bunker**	**A4A1415 - 02 05 24 2226**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**Russ Bunker**	**A4A1415 - 02 05 24 2226**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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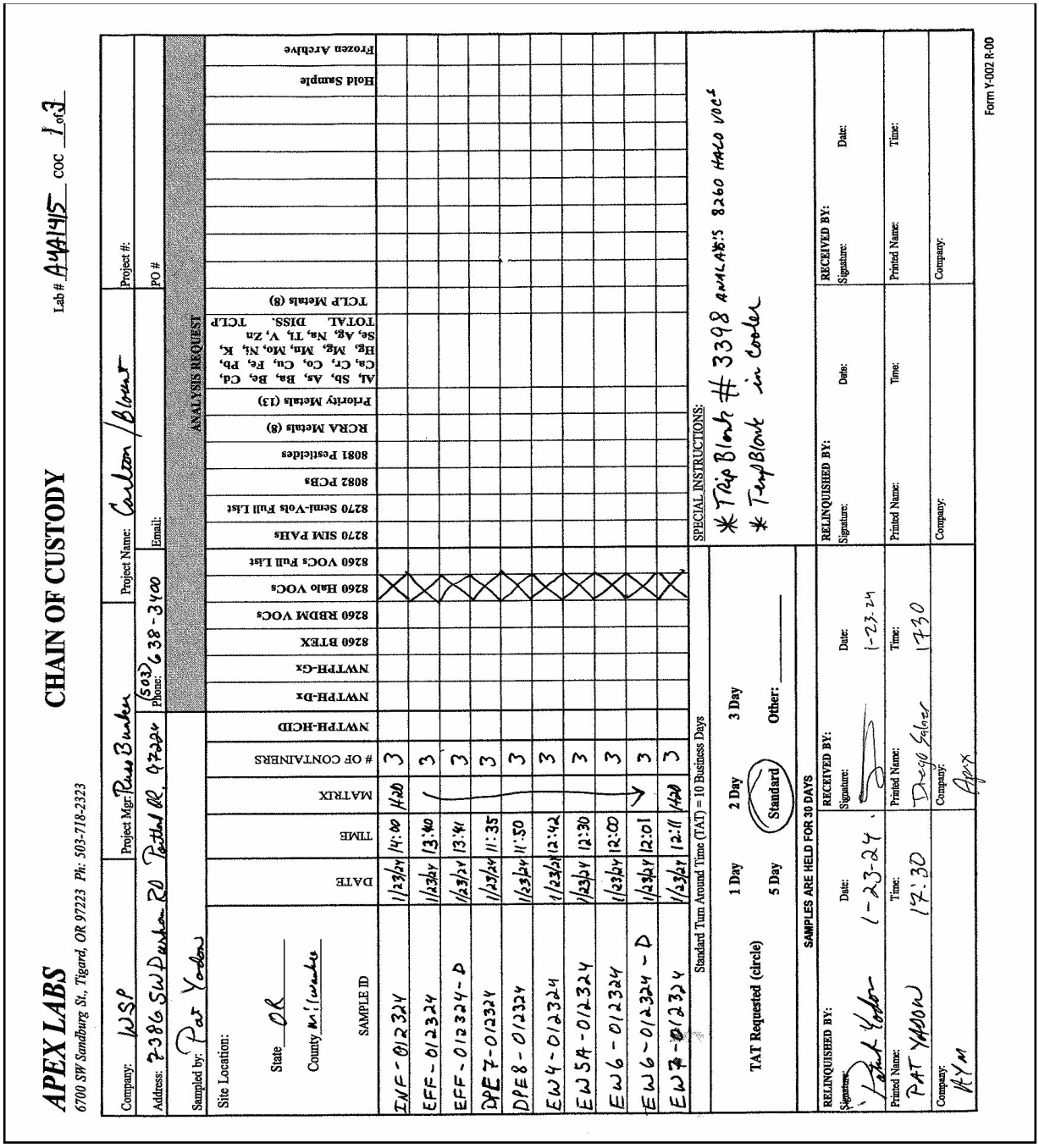
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 05 24 2226



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4A1415 COC 1 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton / Blount | Project #:
Address: 2386 SW Dunham Rd Portland OR, 97201 | Phone: (503) 638-3400 | Email: | PO #
Sampled by: Pat Yodon

ANALYSIS REQUEST

Site Location:
State OR
County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
INF-012324	1/23/24	14:00	H2O	3						X											
EFF-012324	1/23/24	13:40		3																	
EFF-012324-D	1/23/24	13:41		3																	
DPE7-012324	1/23/24	11:35		3																	
DPE8-012324	1/23/24	11:50		3																	
EW4-012324	1/23/24	12:42		3																	
EW5A-012324	1/23/24	12:30		3																	
EW6-012324	1/23/24	12:00		3																	
EW6-012324-D	1/23/24	12:01		3																	
EW7-012324	1/23/24	12:11	H2O	3																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank #3398 ANALYSIS: 8260 HALO VOCs
* Temp Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 1-23-24	Date: 1-23-24	Date:	Date:
Printed Name: PAT YODON	Printed Name: Diego Salcer	Printed Name:	Printed Name:
Time: 17:30	Time: 1730	Time:	Time:
Company: WYM	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

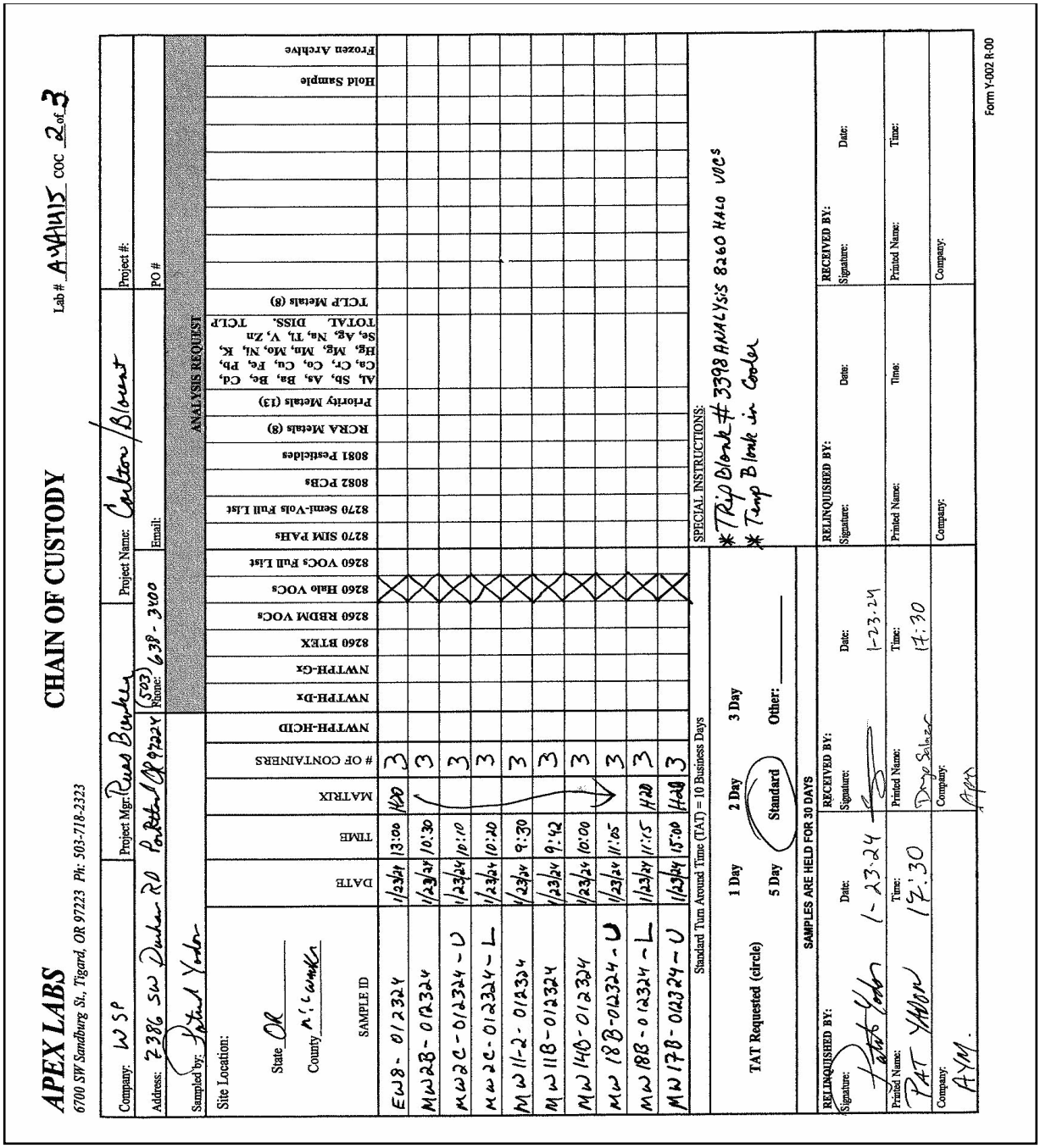
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # AWH115 COC 2 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton/Blount | Project #:
Address: 2386 SW Dunbar Rd Portland OR 97224 | Phone: (503) 638-3100 | Email: | PO #
Sampled by: Yuliet Yodes

Site Location: State OR County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EW8-012324	1/23/24	13:00	WD	3						X											
MW28-012324	1/23/24	10:30	W	3						X											
MW2C-012324-D	1/23/24	10:10		3						X											
MW2C-012324-L	1/23/24	10:20		3						X											
MW11-2-012324	1/23/24	9:30		3						X											
MW11B-012324	1/23/24	9:42		3						X											
MW14B-012324	1/23/24	10:00		3						X											
MW18B-012324-D	1/23/24	11:05		3						X											
MW18B-012324-L	1/23/24	11:15	WD	3						X											
MW17B-012324-D	1/23/24	15:00	WD	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank # 3398 ANALYSIS 8260 HALO VOCS
* Temp Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Yuliet Yodes	Signature:	Signature:	Signature:
Printed Name: PAT YAMMON	Printed Name: Doug Salmon	Printed Name:	Printed Name:
Company: AYM.	Company: Apex	Company:	Company:
Date: 1-23-24	Date: 1-23-24	Date:	Date:
Time: 17:30	Time: 17:30	Time:	Time:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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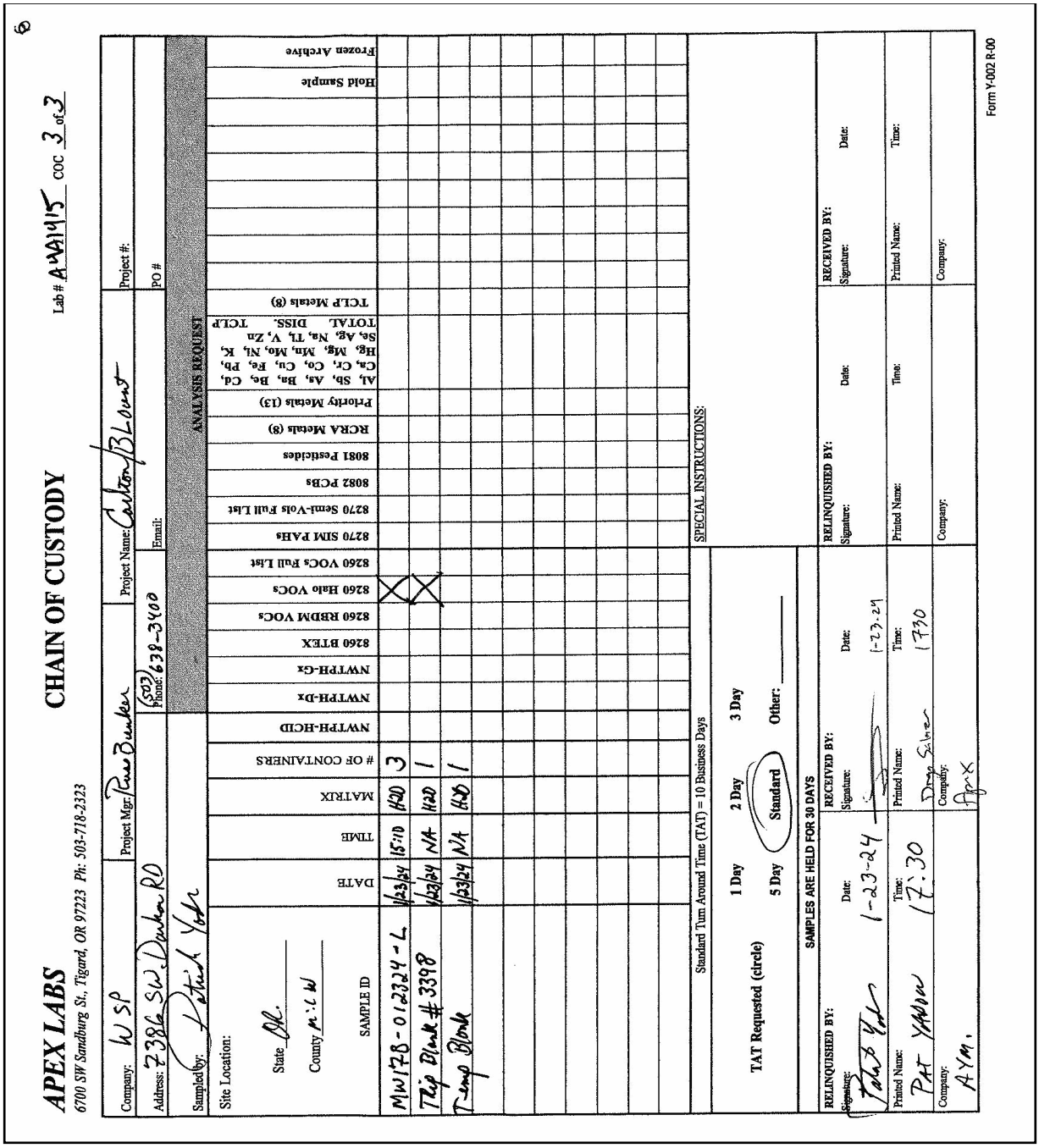
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 05 24 2226



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4A1415 COC 3 of 3

Company: WSP | Project Mgr: Russ Bunker | Phone: (503) 638-3400 | Project Name: Carlton/Blount | Project #:
Address: 2386 SW Dunham RD | Email: | PO #
Sampled by: Patrick Yodn

ANALYSIS REQUEST

Site Location:
State: OR
County: Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW178-012324-L	1/23/24	15:10	H2O	3						X											
Trip Blank #3398	1/23/24	N/A	H2O	1						X											
Temp Blank	1/23/24	N/A	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature:		Signature:	
Printed Name:	Time:	Printed Name:	Time:
Company:		Company:	

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Patrick Yodn	1-23-24	Signature:	1-23-24
Printed Name: Pat Yodn	Time: 17:30	Printed Name: Doug Salmon	Time: 1730
Company: AYM.		Company: APEX	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 05 24 2226**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4A1415

Project/Project #: Carlton/Blount

Delivery Info:

Date/time received: 1-23-24 @ 1730 By: DJS

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

Cooler Inspection Date/time inspected: 1-23-24 @ 1733 By: DJS

Chain of Custody included? Yes Y No ____

Signed/dated by client? Yes Y No ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 1/24/24 @ 1925 By: KAC

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes X No ___ NA ___

Comments Trip Blank HS, Sed 3/3: DPE7, DPE8, EW8, MW12

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:____

Comments: ____

Additional information: TB# 3398

Labeled by: KAM Witness: APW Cooler Inspected by: DSJ

Form Y-003 R-01

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Friday, February 9, 2024

Russ Bunker
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4A1415 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4A1415, which was received by the laboratory on 1/23/2024 at 5:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DPE7-012324	A4A1415-04	Water	01/23/24 11:35	01/23/24 17:30
DPE8-012324	A4A1415-05	Water	01/23/24 11:50	01/23/24 17:30
EW4-012324	A4A1415-06	Water	01/23/24 12:42	01/23/24 17:30
EW5A-012324	A4A1415-07	Water	01/23/24 12:30	01/23/24 17:30
EW6-012324	A4A1415-08	Water	01/23/24 12:00	01/23/24 17:30
EW6-012324-D	A4A1415-09	Water	01/23/24 12:01	01/23/24 17:30
EW7-012324	A4A1415-10	Water	01/23/24 12:11	01/23/24 17:30
EW8-012324	A4A1415-11	Water	01/23/24 13:00	01/23/24 17:30
MW2B-012324	A4A1415-12	Water	01/23/24 10:30	01/23/24 17:30
MW2C-012324-U	A4A1415-13	Water	01/23/24 10:10	01/23/24 17:30
MW2C-012324-L	A4A1415-14	Water	01/23/24 10:20	01/23/24 17:30
MW11-2-012324	A4A1415-15	Water	01/23/24 09:30	01/23/24 17:30
MW11B-012324	A4A1415-16	Water	01/23/24 09:42	01/23/24 17:30
MW14B-012324	A4A1415-17	Water	01/23/24 10:00	01/23/24 17:30
MW18B-012324-U	A4A1415-18	Water	01/23/24 11:05	01/23/24 17:30
MW18B-012324-L	A4A1415-19	Water	01/23/24 11:15	01/23/24 17:30
MW17B-012324-U	A4A1415-20	Water	01/23/24 15:00	01/23/24 17:30
MW17B-012324-L	A4A1415-21	Water	01/23/24 15:10	01/23/24 17:30
Trip Blank#3398	A4A1415-22	Water	01/23/24 00:00	01/23/24 17:30

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-012324 (A4A1415-04)				**Matrix: Water**		**Batch: 24A0761**		
Bromobenzene	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/25/24 18:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1-Dichloroethene	**0.540**	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
cis-1,2-Dichloroethene	**39.7**	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/25/24 18:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-012324 (A4A1415-04)				**Matrix: Water**		**Batch: 24A0761**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
Tetrachloroethene (PCE)	**0.420**	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
Trichloroethene (TCE)	**34.2**	---	0.400	ug/L	1	01/25/24 18:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/25/24 18:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/25/24 18:07	EPA 8260D	
Vinyl chloride	**0.280**	---	0.200	ug/L	1	01/25/24 18:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*01/25/24 18:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*01/25/24 18:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*01/25/24 18:07*	*EPA 8260D*	
DPE8-012324 (A4A1415-05)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 16:43	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 16:43	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 16:43	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-012324 (A4A1415-05)				**Matrix: Water**		**Batch: 24A0812**		
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
cis-1,2-Dichloroethene	**6.35**	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 16:43	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
Tetrachloroethene (PCE)	**3.70**	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 16:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Trichloroethene (TCE)	**190**	---	2.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 16:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 16:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*01/26/24 16:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*01/26/24 16:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*110 %*	*80-120 %*	*1*	*01/26/24 16:43*	*EPA 8260D*	
EW4-012324 (A4A1415-06)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-012324 (A4A1415-06)				**Matrix: Water**		**Batch: 24A0812**		
Bromochloromethane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	01/26/24 17:05	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
cis-1,2-Dichloroethene	**311**	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-012324 (A4A1415-06)				**Matrix: Water**		**Batch: 24A0812**		
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Tetrachloroethene (PCE)	**16.9**	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Trichloroethene (TCE)	**1400**	---	4.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	01/26/24 17:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	01/26/24 17:05	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	01/26/24 17:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:* *80-120 %*	*1*	*01/26/24 17:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*01/26/24 17:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*01/26/24 17:05*	*EPA 8260D*	
EW5A-012324 (A4A1415-07)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Bromochloromethane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Bromoform	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Bromomethane	ND	---	12.5	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Chlorobenzene	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Chloroethane	ND	---	12.5	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Chloroform	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Chloromethane	ND	---	12.5	ug/L	2.5	01/26/24 17:50	EPA 8260D	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Dibromomethane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-012324 (A4A1415-07)				**Matrix: Water**		**Batch: 24A0812**		
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1-Dichloroethene	**1.70**	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
cis-1,2-Dichloroethene	**88.4**	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Methylene chloride	ND	---	25.0	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Tetrachloroethene (PCE)	**2.30**	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Trichloroethene (TCE)	**201**	---	1.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	01/26/24 17:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Vinyl chloride	**3.55**	---	0.500	ug/L	2.5	01/26/24 17:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*01/26/24 17:50*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*01/26/24 17:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*	*1*	*01/26/24 17:50*	*EPA 8260D*	
EW6-012324 (A4A1415-08)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012324 (A4A1415-08)				**Matrix: Water**		**Batch: 24A0812**		
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 18:13	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 18:13	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 18:13	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
cis-1,2-Dichloroethene	**60.6**	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 18:13	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012324 (A4A1415-08)				**Matrix: Water**		**Batch: 24A0812**		
Tetrachloroethene (PCE)	**3.40**	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 18:13	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Trichloroethene (TCE)	**350**	---	2.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 18:13	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 18:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*01/26/24 18:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*01/26/24 18:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*106 %*	*80-120 %*	*1*	*01/26/24 18:13*	*EPA 8260D*	
EW6-012324-D (A4A1415-09)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 18:35	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 18:35	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 18:35	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012324-D (A4A1415-09)				**Matrix: Water**		**Batch: 24A0812**		
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
cis-1,2-Dichloroethene	**55.7**	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 18:35	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
Tetrachloroethene (PCE)	**3.05**	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 18:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Trichloroethene (TCE)	**318**	---	2.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 18:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 18:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:* *80-120 %*	*1*	*01/26/24 18:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*01/26/24 18:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*109 %*	*80-120 %*	*1*	*01/26/24 18:35*	*EPA 8260D*	
EW7-012324 (A4A1415-10)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-012324 (A4A1415-10)				**Matrix: Water**		**Batch: 24A0812**		
Bromoform	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/26/24 15:13	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
cis-1,2-Dichloroethene	**9.00**	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
Tetrachloroethene (PCE)	**1.14**	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-012324 (A4A1415-10)				**Matrix: Water**		**Batch: 24A0812**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
Trichloroethene (TCE)	**19.3**	---	0.400	ug/L	1	01/26/24 15:13	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/26/24 15:13	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:13	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/26/24 15:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*01/26/24 15:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*01/26/24 15:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*108 %*	*80-120 %*	*1*	*01/26/24 15:13*	*EPA 8260D*	
EW8-012324 (A4A1415-11)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/26/24 15:35	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-012324 (A4A1415-11)				**Matrix: Water**		**Batch: 24A0812**		
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
cis-1,2-Dichloroethene	**107**	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
trans-1,2-Dichloroethene	**0.540**	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
Tetrachloroethene (PCE)	**1.31**	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
Trichloroethene (TCE)	**149**	---	0.400	ug/L	1	01/26/24 15:35	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/26/24 15:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/26/24 15:35	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/26/24 15:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:* *80-120 %*	*1*	*01/26/24 15:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*01/26/24 15:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*106 %*	*80-120 %*	*1*	*01/26/24 15:35*	*EPA 8260D*	
MW2B-012324 (A4A1415-12)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-012324 (A4A1415-12)				**Matrix: Water**		**Batch: 24A0812**		
Bromomethane	ND	---	50.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	01/26/24 18:58	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
cis-1,2-Dichloroethene	**52.5**	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Tetrachloroethene (PCE)	**7.30**	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	01/26/24 18:58	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-012324 (A4A1415-12)				**Matrix: Water**		**Batch: 24A0812**		
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Trichloroethene (TCE)	**1100**	---	4.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	01/26/24 18:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	01/26/24 18:58	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	01/26/24 18:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*01/26/24 18:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*01/26/24 18:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*106 %*	*80-120 %*	*1*	*01/26/24 18:58*	*EPA 8260D*	
MW2C-012324-U (A4A1415-13)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 19:20	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 19:20	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 19:20	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012324-U (A4A1415-13)				**Matrix: Water**		**Batch: 24A0812**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
cis-1,2-Dichloroethene	**30.8**	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 19:20	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
Tetrachloroethene (PCE)	**5.60**	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Trichloroethene (TCE)	**824**	---	2.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 19:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 19:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*	*1*	*01/26/24 19:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*01/26/24 19:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*01/26/24 19:20*	*EPA 8260D*	
MW2C-012324-L (A4A1415-14)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 19:43	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012324-L (A4A1415-14)				**Matrix: Water**		**Batch: 24A0812**		
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 19:43	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 19:43	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
cis-1,2-Dichloroethene	**30.0**	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 19:43	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	
Tetrachloroethene (PCE)	**5.80**	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 19:43	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012324-L (A4A1415-14)				**Matrix: Water**		**Batch: 24A0812**		
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Trichloroethene (TCE)	**798**	---	2.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 19:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 19:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits: 80-120 %*	*1*	*01/26/24 19:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*01/26/24 19:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*110 %*	*80-120 %*	*1*	*01/26/24 19:43*	*EPA 8260D*	
MW11-2-012324 (A4A1415-15RE1)				**Matrix: Water**		**Batch: 24A0864**		
Bromobenzene	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/29/24 14:50	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-012324 (A4A1415-15RE1)				**Matrix: Water**		**Batch: 24A0864**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
cis-1,2-Dichloroethene	**15.9**	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
Tetrachloroethene (PCE)	**1.64**	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
Trichloroethene (TCE)	**38.3**	---	0.400	ug/L	1	01/29/24 14:50	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/29/24 14:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/29/24 14:50	EPA 8260D	
Vinyl chloride	**1.86**	---	0.200	ug/L	1	01/29/24 14:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*	*1*	*01/29/24 14:50*	*EPA 8260D*	
Toluene-d8 (Surr)		*100 %*		*80-120 %*	*1*	*01/29/24 14:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*	*1*	*01/29/24 14:50*	*EPA 8260D*	
MW11B-012324 (A4A1415-16)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	01/26/24 20:28	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-012324 (A4A1415-16)				**Matrix: Water**		**Batch: 24A0812**		
Chlorobenzene	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	01/26/24 20:28	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	01/26/24 20:28	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
cis-1,2-Dichloroethene	**143**	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	01/26/24 20:28	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Tetrachloroethene (PCE)	**1.02**	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	01/26/24 20:28	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-012324 (A4A1415-16)				**Matrix: Water**		**Batch: 24A0812**		
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
Trichloroethene (TCE)	**137**	---	0.800	ug/L	2	01/26/24 20:28	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	01/26/24 20:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	01/26/24 20:28	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	2	01/26/24 20:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*01/26/24 20:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*01/26/24 20:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*01/26/24 20:28*	*EPA 8260D*	
MW14B-012324 (A4A1415-17)				**Matrix: Water**		**Batch: 24A0812**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 20:50	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 20:50	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 20:50	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	

Apex Laboratories

Philip Nerenberg

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-012324 (A4A1415-17)				**Matrix: Water**		**Batch: 24A0812**		
cis-1,2-Dichloroethene	**7.05**	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 20:50	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 20:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Trichloroethene (TCE)	**208**	---	2.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 20:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 20:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:* *80-120 %*	*1*	*01/26/24 20:50*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*01/26/24 20:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*	*80-120 %*	*1*	*01/26/24 20:50*	*EPA 8260D*	
MW18B-012324-U (A4A1415-18)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	01/26/24 23:20	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012324-U (A4A1415-18)				**Matrix: Water**		**Batch: 24A0811**		
Chloroethane	ND	---	125	ug/L	25	01/26/24 23:20	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	01/26/24 23:20	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1-Dichloroethene	**22.8**	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
cis-1,2-Dichloroethene	**498**	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	01/26/24 23:20	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
Tetrachloroethene (PCE)	**40.5**	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012324-U (A4A1415-18)				**Matrix: Water**		**Batch: 24A0811**		
Trichloroethene (TCE)	**3660**	---	10.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	01/26/24 23:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	01/26/24 23:20	EPA 8260D	
Vinyl chloride	**14.5**	---	5.00	ug/L	25	01/26/24 23:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*01/26/24 23:20*	*EPA 8260D*
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*01/26/24 23:20*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*	*1*	*01/26/24 23:20*	*EPA 8260D*
MW18B-012324-L (A4A1415-19)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	01/26/24 21:31	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	01/26/24 21:31	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	01/26/24 21:31	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1-Dichloroethene	**30.0**	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
cis-1,2-Dichloroethene	**556**	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012324-L (A4A1415-19)				**Matrix: Water**		**Batch: 24A0811**		
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	01/26/24 21:31	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
Tetrachloroethene (PCE)	**40.8**	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Trichloroethene (TCE)	**3560**	---	10.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	01/26/24 21:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	01/26/24 21:31	EPA 8260D	
Vinyl chloride	**25.5**	---	5.00	ug/L	25	01/26/24 21:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*01/26/24 21:31*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*1*	*01/26/24 21:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*	*1*	*01/26/24 21:31*	*EPA 8260D*	
MW17B-012324-U (A4A1415-20)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 21:58	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 21:58	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012324-U (A4A1415-20)				**Matrix: Water**		**Batch: 24A0811**		
Chloroform	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 21:58	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
cis-1,2-Dichloroethene	**28.7**	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 21:58	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
Tetrachloroethene (PCE)	**3.40**	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 21:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Trichloroethene (TCE)	**322**	---	2.00	ug/L	5	01/26/24 21:58	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012324-U (A4A1415-20)				**Matrix: Water**		**Batch: 24A0811**		
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 21:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 21:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*01/26/24 21:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*01/26/24 21:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*92 %*	*80-120 %*	*1*	*01/26/24 21:58*	*EPA 8260D*	
MW17B-012324-L (A4A1415-21)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/26/24 19:42	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/26/24 19:42	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/26/24 19:42	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
cis-1,2-Dichloroethene	**25.0**	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4A1415 - 02 09 24 1606

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012324-L (A4A1415-21)				**Matrix: Water**		**Batch: 24A0811**		
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/26/24 19:42	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
Tetrachloroethene (PCE)	**3.15**	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/26/24 19:42	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Trichloroethene (TCE)	**279**	---	2.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/26/24 19:42	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/26/24 19:42	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*01/26/24 19:42*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*1*	*01/26/24 19:42*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*	*1*	*01/26/24 19:42*	*EPA 8260D*	
Trip Blank#3398 (A4A1415-22)				**Matrix: Water**		**Batch: 24A0811**		
Bromobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3398 (A4A1415-22)				**Matrix: Water**		**Batch: 24A0811**		
Chloromethane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/26/24 13:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/26/24 13:20	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/26/24 13:20	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3398 (A4A1415-22)				**Matrix: Water**		**Batch: 24A0811**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/26/24 13:20	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/26/24 13:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*01/26/24 13:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*01/26/24 13:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*91 %*	*80-120 %*	*1*	*01/26/24 13:20*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Blank (24A0761-BLK1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 12:50							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Blank (24A0761-BLK1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 12:50							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*			*"*				
LCS (24A0761-BS1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 11:32							
EPA 8260D												
Bromobenzene	18.1	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Bromochloromethane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Bromodichloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromoform	24.5	---	1.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Bromomethane	20.0	---	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Carbon tetrachloride	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloroform	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chloromethane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
4-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.4	---	5.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C								**Water**				
LCS (24A0761-BS1)			Prepared: 01/25/24 08:00		Analyzed: 01/25/24 11:32							
1,3-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
1,4-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethane	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	17.1	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
1,3-Dichloropropane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
cis-1,3-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	21.1	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Tetrachloroethene (PCE)	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,3-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,2-Trichloroethane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1-Trichloroethane	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	16.7	---	0.400	ug/L	1	20.0	---	84	80-120%	---	---	
Trichlorofluoromethane	23.0	---	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichloropropane	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Vinyl chloride	19.3	---	0.200	ug/L	1	20.0	---	97	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56		Analyzed: 01/25/24 21:52							
QC Source Sample: Non-SDG (A4A1386-07)												
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 21:52									
QC Source Sample: Non-SDG (A4A1386-07)												
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Duplicate (24A0761-DUP1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 21:52									
QC Source Sample: Non-SDG (A4A1386-07)												
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	10.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 86 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*103 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*107 %*		*80-120 %*				*"*			
Matrix Spike (24A0761-MS1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 13:58									
QC Source Sample: Non-SDG (A4A1342-02)												
EPA 8260D												
Bromobenzene	18.3	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	19.4	---	1.00	ug/L	1	20.0	ND	97	78-123%	---	---	
Bromodichloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	25.6	---	1.00	ug/L	1	20.0	ND	128	66-130%	---	---	Q-54b
Bromomethane	20.0	---	5.00	ug/L	1	20.0	ND	100	53-141%	---	---	
Carbon tetrachloride	26.3	---	1.00	ug/L	1	20.0	ND	131	72-136%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Chloroethane	22.4	---	5.00	ug/L	1	20.0	ND	112	60-138%	---	---	
Chloroform	20.3	---	1.00	ug/L	1	20.0	ND	102	79-124%	---	---	
Chloromethane	17.6	---	5.00	ug/L	1	20.0	ND	88	50-139%	---	---	
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	22.7	---	1.00	ug/L	1	20.0	ND	114	78-122%	---	---	
Dibromochloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.4	---	5.00	ug/L	1	20.0	ND	82	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	
Dibromomethane	20.0	---	1.00	ug/L	1	20.0	ND	100	79-123%	---	---	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0761 - EPA 5030C							**Water**					
Matrix Spike (24A0761-MS1)			Prepared: 01/25/24 11:56 Analyzed: 01/25/24 13:58									
QC Source Sample: Non-SDG (A4A1342-02)												
1,2-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,3-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,4-Dichlorobenzene	19.0	---	0.500	ug/L	1	20.0	ND	95	79-120%	---	---	
Dichlorodifluoromethane	23.8	---	1.00	ug/L	1	20.0	ND	119	32-152%	---	---	
1,1-Dichloroethane	22.2	---	0.400	ug/L	1	20.0	ND	111	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.2	---	0.400	ug/L	1	20.0	ND	111	73-128%	---	---	
1,1-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	71-131%	---	---	
cis-1,2-Dichloroethene	19.2	---	0.400	ug/L	1	20.0	ND	96	78-123%	---	---	
trans-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	17.8	---	0.500	ug/L	1	20.0	ND	89	78-122%	---	---	
1,3-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	80-120%	---	---	
2,2-Dichloropropane	23.9	---	1.00	ug/L	1	20.0	ND	120	60-139%	---	---	
1,1-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
trans-1,3-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	20.0	---	5.00	ug/L	1	20.0	ND	100	66-134%	---	---	
Methylene chloride	21.5	---	10.0	ug/L	1	20.0	ND	107	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.4	---	0.400	ug/L	1	20.0	ND	107	78-124%	---	---	
1,1,2,2-Tetrachloroethane	17.7	---	0.500	ug/L	1	20.0	ND	89	71-121%	---	---	
Tetrachloroethene (PCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	74-129%	---	---	
1,2,3-Trichlorobenzene	17.7	---	2.00	ug/L	1	20.0	ND	89	69-129%	---	---	
1,1,2-Trichloroethane	19.8	---	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
1,2,4-Trichlorobenzene	16.0	---	2.00	ug/L	1	20.0	ND	80	69-130%	---	---	
1,1,1-Trichloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	74-131%	---	---	
Trichloroethene (TCE)	17.8	---	0.400	ug/L	1	20.0	ND	89	79-123%	---	---	
Trichlorofluoromethane	26.3	---	2.00	ug/L	1	20.0	ND	132	65-141%	---	---	
1,2,3-Trichloropropane	19.3	---	1.00	ug/L	1	20.0	ND	96	73-122%	---	---	
Vinyl chloride	19.5	---	0.200	ug/L	1	20.0	ND	97	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 93 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*90 %*	*80-120 %*	*"*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Blank (24A0811-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:53							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Blank (24A0811-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:53							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				
LCS (24A0811-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 11:48							
EPA 8260D												
Bromobenzene	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Bromochloromethane	24.7	---	1.00	ug/L	1	20.0	---	**124**	**80-120%**	---	---	Q-56
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	15.5	---	1.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
Carbon tetrachloride	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Chlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroethane	48.2	---	5.00	ug/L	1	20.0	---	**241**	**80-120%**	---	---	Q-56
Chloroform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	25.7	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
2-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
4-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.8	---	5.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.1	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4A1415 - 02 09 24 1606

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
LCS (24A0811-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 11:48							
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethane	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,2-Dichloroethene	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,3-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Hexachlorobutadiene	17.2	---	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
Methylene chloride	19.1	---	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	23.2	---	0.500	ug/L	1	20.0	---	116	80-120%	---	---	
Tetrachloroethene (PCE)	17.1	---	0.400	ug/L	1	20.0	---	86	80-120%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	18.7	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichloroethene (TCE)	16.8	---	0.400	ug/L	1	20.0	---	84	80-120%	---	---	
Trichlorofluoromethane	35.2	---	2.00	ug/L	1	20.0	---	**176**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Vinyl chloride	20.8	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*				*"*			
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50		Analyzed: 01/26/24 20:09							
QC Source Sample: MW17B-012324-L (A4A1415-21)												
EPA 8260D												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 20:09									
QC Source Sample: MW17B-012324-L (A4A1415-21)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**24.9**	---	2.00	ug/L	5	---	25.0	---	---	0.6	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	1.10	---	---	***	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Duplicate (24A0811-DUP1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 20:09									
QC Source Sample: MW17B-012324-L (A4A1415-21)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2.85**	---	2.00	ug/L	5	---	3.15	---	---	10	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**282**	---	2.00	ug/L	5	---	279	---	---	0.9	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				
Matrix Spike (24A0811-MS1)			Prepared: 01/26/24 11:50 Analyzed: 01/26/24 16:58									
QC Source Sample: Non-SDG (A4A1431-09)												
EPA 8260D												
Bromobenzene	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
Bromochloromethane	26.5	---	1.00	ug/L	1	20.0	ND	**133**	**78-123%**	---	---	Q-54c
Bromodichloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	16.1	---	1.00	ug/L	1	20.0	ND	80	66-130%	---	---	Q-54h
Bromomethane	28.1	---	5.00	ug/L	1	20.0	ND	141	53-141%	---	---	Q-54a
Carbon tetrachloride	21.1	---	1.00	ug/L	1	20.0	ND	106	72-136%	---	---	
Chlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	51.5	---	5.00	ug/L	1	20.0	ND	**258**	**60-138%**	---	---	Q-54
Chloroform	22.2	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	36.4	---	5.00	ug/L	1	20.0	ND	**182**	**50-139%**	---	---	Q-54f
2-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	22.1	---	1.00	ug/L	1	20.0	ND	111	78-122%	---	---	
Dibromochloromethane	20.6	---	1.00	ug/L	1	20.0	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.9	---	5.00	ug/L	1	20.0	ND	84	62-128%	---	---	Q-54i
1,2-Dibromoethane (EDB)	20.1	---	0.500	ug/L	1	20.0	ND	101	77-121%	---	---	
Dibromomethane	21.8	---	1.00	ug/L	1	20.0	ND	109	79-123%	---	---	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0811 - EPA 5030C							**Water**					
Matrix Spike (24A0811-MS1)			Prepared: 01/26/24 11:50		Analyzed: 01/26/24 16:58							
QC Source Sample: Non-SDG (A4A1431-09)												
1,2-Dichlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	28.8	---	1.00	ug/L	1	20.0	ND	144	32-152%	---	---	
1,1-Dichloroethane	22.8	---	0.400	ug/L	1	20.0	ND	114	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.4	---	0.400	ug/L	1	20.0	ND	122	73-128%	---	---	
1,1-Dichloroethene	24.3	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	113	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	22.3	---	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
1,3-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	19.6	---	1.00	ug/L	1	20.0	ND	98	60-139%	---	---	
1,1-Dichloropropene	23.2	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
cis-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	92	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	20.6	---	5.00	ug/L	1	20.0	ND	103	66-134%	---	---	
Methylene chloride	20.6	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	ND	103	78-124%	---	---	
1,1,2,2-Tetrachloroethane	24.9	---	0.500	ug/L	1	20.0	ND	**124**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	74-129%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	ND	107	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	22.2	---	2.00	ug/L	1	20.0	ND	111	69-130%	---	---	
1,1,1-Trichloroethane	21.7	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	18.5	---	0.400	ug/L	1	20.0	ND	92	79-123%	---	---	
Trichlorofluoromethane	42.4	---	2.00	ug/L	1	20.0	ND	**212**	**65-141%**	---	---	Q-54d
1,2,3-Trichloropropane	22.1	---	1.00	ug/L	1	20.0	ND	111	73-122%	---	---	
Vinyl chloride	26.2	---	0.200	ug/L	1	20.0	ND	131	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*				*"*			

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C							**Water**					
Blank (24A0812-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:57							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C							**Water**					
Blank (24A0812-BLK1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:57							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
LCS (24A0812-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:04							
EPA 8260D												
Bromobenzene	17.5	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Bromochloromethane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Bromodichloromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromoform	23.6	---	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
Bromomethane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
Carbon tetrachloride	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Chlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Chloroethane	21.3	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloroform	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chloromethane	19.1	---	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
2-Chlorotoluene	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Chlorotoluene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromochloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.5	---	5.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromomethane	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C								**Water**				
LCS (24A0812-BS1)			Prepared: 01/26/24 08:00		Analyzed: 01/26/24 12:04							
1,3-Dichlorobenzene	21.3	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,4-Dichlorobenzene	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethane	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.3	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	16.7	---	0.500	ug/L	1	20.0	---	83	80-120%	---	---	
1,3-Dichloropropane	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
2,2-Dichloropropane	21.5	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
cis-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.9	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2,2-Tetrachloroethane	16.4	---	0.500	ug/L	1	20.0	---	82	80-120%	---	---	
Tetrachloroethene (PCE)	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,3-Trichlorobenzene	16.7	---	2.00	ug/L	1	20.0	---	83	80-120%	---	---	
1,1,2-Trichloroethane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	15.5	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	16.2	---	0.400	ug/L	1	20.0	---	81	80-120%	---	---	
Trichlorofluoromethane	22.4	---	2.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2,3-Trichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Vinyl chloride	17.9	---	0.200	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 92 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*90 %*		*80-120 %*			*"*				
Duplicate (24A0812-DUP1)			Prepared: 01/26/24 12:24		Analyzed: 01/26/24 17:28							

QC Source Sample: EW4-012324 (A4A1415-06)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C							**Water**					
Duplicate (24A0812-DUP1)			Prepared: 01/26/24 12:24 Analyzed: 01/26/24 17:28									
QC Source Sample: EW4-012324 (A4A1415-06)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	3.70	---	---	***	30%	
cis-1,2-Dichloroethene	**292**	---	4.00	ug/L	10	---	311	---	---	6	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker
		Report ID: A4A1415 - 02 09 24 1606

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C							**Water**					
Duplicate (24A0812-DUP1)			Prepared: 01/26/24 12:24 Analyzed: 01/26/24 17:28									
QC Source Sample: EW4-012324 (A4A1415-06)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**15.3**	---	4.00	ug/L	10	---	16.9	---	---	10	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1330**	---	4.00	ug/L	10	---	1400	---	---	5	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*			*"*				
Matrix Spike (24A0812-MS1)			Prepared: 01/26/24 12:24 Analyzed: 01/26/24 21:58									
QC Source Sample: Non-SDG (A4A1449-02)												
EPA 8260D												
Bromobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	19.3	---	1.00	ug/L	1	20.0	ND	96	78-123%	---	---	
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	ND	106	79-125%	---	---	
Bromoform	26.4	---	1.00	ug/L	1	20.0	ND	**132**	**66-130%**	---	---	Q-01
Bromomethane	19.3	---	5.00	ug/L	1	20.0	ND	97	53-141%	---	---	
Carbon tetrachloride	25.8	---	1.00	ug/L	1	20.0	ND	129	72-136%	---	---	
Chlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	23.1	---	5.00	ug/L	1	20.0	ND	115	60-138%	---	---	
Chloroform	20.1	---	1.00	ug/L	1	20.0	ND	100	79-124%	---	---	
Chloromethane	18.4	---	5.00	ug/L	1	20.0	ND	92	50-139%	---	---	
2-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-122%	---	---	
4-Chlorotoluene	22.0	---	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	23.0	---	1.00	ug/L	1	20.0	ND	115	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.7	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	Q-54g
1,2-Dibromoethane (EDB)	21.3	---	0.500	ug/L	1	20.0	ND	107	77-121%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0812 - EPA 5030C							**Water**					
Matrix Spike (24A0812-MS1)			Prepared: 01/26/24 12:24		Analyzed: 01/26/24 21:58							
QC Source Sample: Non-SDG (A4A1449-02)												
Dibromomethane	19.5	---	1.00	ug/L	1	20.0	ND	98	79-123%	---	---	
1,2-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,3-Dichlorobenzene	22.5	---	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,4-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	ND	96	79-120%	---	---	
Dichlorodifluoromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	32-152%	---	---	
1,1-Dichloroethane	21.6	---	0.400	ug/L	1	20.0	ND	108	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	22.9	---	0.400	ug/L	1	20.0	ND	114	71-131%	---	---	
cis-1,2-Dichloroethene	18.0	---	0.400	ug/L	1	20.0	ND	90	78-123%	---	---	
trans-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	ND	110	75-124%	---	---	
1,2-Dichloropropane	17.6	---	0.500	ug/L	1	20.0	ND	88	78-122%	---	---	
1,3-Dichloropropane	20.7	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	ND	102	60-139%	---	---	
1,1-Dichloropropene	20.6	---	1.00	ug/L	1	20.0	ND	103	79-125%	---	---	
cis-1,3-Dichloropropene	14.0	---	1.00	ug/L	1	20.0	ND	**70**	**75-124%**	---	---	Q-01
trans-1,3-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	ND	99	73-127%	---	---	
Hexachlorobutadiene	20.8	---	5.00	ug/L	1	20.0	ND	104	66-134%	---	---	
Methylene chloride	21.6	---	10.0	ug/L	1	20.0	ND	108	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.2	---	0.400	ug/L	1	20.0	ND	111	78-124%	---	---	
1,1,2,2-Tetrachloroethane	17.9	---	0.500	ug/L	1	20.0	ND	89	71-121%	---	---	
Tetrachloroethene (PCE)	23.4	---	0.400	ug/L	1	20.0	ND	117	74-129%	---	---	
1,2,3-Trichlorobenzene	18.4	---	2.00	ug/L	1	20.0	ND	92	69-129%	---	---	
1,1,2-Trichloroethane	19.9	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,2,4-Trichlorobenzene	16.4	---	2.00	ug/L	1	20.0	ND	82	69-130%	---	---	Q-54g
1,1,1-Trichloroethane	23.4	---	0.400	ug/L	1	20.0	ND	117	74-131%	---	---	
Trichloroethene (TCE)	18.4	---	0.400	ug/L	1	20.0	ND	92	79-123%	---	---	
Trichlorofluoromethane	26.7	---	2.00	ug/L	1	20.0	ND	133	65-141%	---	---	
1,2,3-Trichloropropane	19.5	---	1.00	ug/L	1	20.0	ND	97	73-122%	---	---	
Vinyl chloride	18.6	---	0.200	ug/L	1	20.0	ND	93	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 92 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*94 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*89 %*	*80-120 %*	*"*	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							**Water**					
Blank (24A0864-BLK1)			Prepared: 01/29/24 09:00		Analyzed: 01/29/24 12:41							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							**Water**					
Blank (24A0864-BLK1)			Prepared: 01/29/24 09:00		Analyzed: 01/29/24 12:41							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (24A0864-BS1)			Prepared: 01/29/24 09:00		Analyzed: 01/29/24 10:42							
EPA 8260D												
Bromobenzene	18.1	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Bromochloromethane	18.1	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Bromodichloromethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromomethane	21.4	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
Chlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	20.9	---	5.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroform	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Chloromethane	16.9	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
2-Chlorotoluene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromochloromethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.8	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	18.5	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							**Water**					
LCS (24A0864-BS1)			Prepared: 01/29/24 09:00		Analyzed: 01/29/24 10:42							
1,3-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,2-Dichloroethene	18.3	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dichloropropane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
2,2-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Hexachlorobutadiene	20.2	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
Methylene chloride	17.5	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.7	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Tetrachloroethene (PCE)	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichlorobenzene	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,2-Trichloroethane	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trichlorobenzene	18.5	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,1-Trichloroethane	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichloroethene (TCE)	17.5	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	25.1	---	2.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 92 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24A0864-DUP1)			Prepared: 01/29/24 10:36		Analyzed: 01/29/24 15:54							
QC Source Sample: Non-SDG (A4A1386-04RE1)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							**Water**					
Duplicate (24A0864-DUP1)			Prepared: 01/29/24 10:36 Analyzed: 01/29/24 15:54									
QC Source Sample: Non-SDG (A4A1386-04RE1)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID: A4A1415 - 02 09 24 1606

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							Water					
Duplicate (24A0864-DUP1)			Prepared: 01/29/24 10:36 Analyzed: 01/29/24 15:54									
QC Source Sample: Non-SDG (A4A1386-04RE1)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Matrix Spike (24A0864-MS1)			Prepared: 01/29/24 10:36 Analyzed: 01/29/24 19:28									
QC Source Sample: Non-SDG (A4A1477-01)												
EPA 8260D												
Bromobenzene	20.5	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Bromochloromethane	19.8	---	1.00	ug/L	1	20.0	ND	99	78-123%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	ND	106	79-125%	---	---	
Bromoform	18.6	---	1.00	ug/L	1	20.0	ND	93	66-130%	---	---	
Bromomethane	22.3	---	5.00	ug/L	1	20.0	ND	112	53-141%	---	---	
Carbon tetrachloride	23.2	---	1.00	ug/L	1	20.0	ND	116	72-136%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Chloroethane	24.3	---	5.00	ug/L	1	20.0	ND	122	60-138%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	ND	106	79-124%	---	---	
Chloromethane	26.0	---	5.00	ug/L	1	20.0	ND	130	50-139%	---	---	
2-Chlorotoluene	22.3	---	1.00	ug/L	1	20.0	ND	112	79-122%	---	---	
4-Chlorotoluene	21.5	---	1.00	ug/L	1	20.0	ND	107	78-122%	---	---	
Dibromochloromethane	19.0	---	1.00	ug/L	1	20.0	ND	95	74-126%	---	---	
1,2-Dibromo-3-chloropropane	22.7	---	5.00	ug/L	1	20.0	ND	114	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.6	---	0.500	ug/L	1	20.0	ND	103	77-121%	---	---	
Dibromomethane	20.3	---	1.00	ug/L	1	20.0	ND	101	79-123%	---	---	

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APEX LABORATORIES

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24A0864 - EPA 5030C							**Water**					
Matrix Spike (24A0864-MS1)			Prepared: 01/29/24 10:36 Analyzed: 01/29/24 19:28									
QC Source Sample: Non-SDG (A4A1477-01)												
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.1	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
1,4-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	79-120%	---	---	
Dichlorodifluoromethane	21.8	---	1.00	ug/L	1	20.0	ND	109	32-152%	---	---	
1,1-Dichloroethane	21.5	---	0.400	ug/L	1	20.0	ND	107	77-125%	---	---	
1,2-Dichloroethane (EDC)	18.6	---	0.400	ug/L	1	20.0	ND	93	73-128%	---	---	
1,1-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	ND	106	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	0.380	108	78-123%	---	---	
trans-1,2-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	0.680	107	75-124%	---	---	
1,2-Dichloropropane	22.8	---	0.500	ug/L	1	20.0	ND	114	78-122%	---	---	
1,3-Dichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	99	80-120%	---	---	
2,2-Dichloropropane	21.5	---	1.00	ug/L	1	20.0	ND	107	60-139%	---	---	
1,1-Dichloropropene	24.7	---	1.00	ug/L	1	20.0	ND	123	79-125%	---	---	
cis-1,3-Dichloropropene	21.1	---	1.00	ug/L	1	20.0	ND	105	75-124%	---	---	
trans-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	ND	104	73-127%	---	---	
Hexachlorobutadiene	16.5	---	5.00	ug/L	1	20.0	ND	83	66-134%	---	---	
Methylene chloride	20.3	---	10.0	ug/L	1	20.0	ND	102	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.2	---	0.400	ug/L	1	20.0	ND	101	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.7	---	0.500	ug/L	1	20.0	ND	108	71-121%	---	---	
Tetrachloroethene (PCE)	20.9	---	0.400	ug/L	1	20.0	ND	104	74-129%	---	---	
1,2,3-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	ND	97	69-129%	---	---	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,2,4-Trichlorobenzene	20.0	---	2.00	ug/L	1	20.0	ND	100	69-130%	---	---	
1,1,1-Trichloroethane	21.4	---	0.400	ug/L	1	20.0	ND	107	74-131%	---	---	
Trichloroethene (TCE)	21.6	---	0.400	ug/L	1	20.0	ND	108	79-123%	---	---	
Trichlorofluoromethane	22.8	---	2.00	ug/L	1	20.0	ND	114	65-141%	---	---	Q-54e
1,2,3-Trichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
Vinyl chloride	30.3	---	0.200	ug/L	1	20.0	ND	**150**	**58-137%**	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24A0761							
A4A1415-04	Water	EPA 8260D	01/23/24 11:35	01/25/24 11:56	5mL/5mL	5mL/5mL	1.00
Batch: 24A0811							
A4A1415-18	Water	EPA 8260D	01/23/24 11:05	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-19	Water	EPA 8260D	01/23/24 11:15	01/25/24 11:42	5mL/5mL	5mL/5mL	1.00
A4A1415-20	Water	EPA 8260D	01/23/24 15:00	01/25/24 11:42	5mL/5mL	5mL/5mL	1.00
A4A1415-21	Water	EPA 8260D	01/23/24 15:10	01/25/24 11:42	5mL/5mL	5mL/5mL	1.00
A4A1415-22	Water	EPA 8260D	01/23/24 00:00	01/25/24 11:42	5mL/5mL	5mL/5mL	1.00
Batch: 24A0812							
A4A1415-05	Water	EPA 8260D	01/23/24 11:50	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-06	Water	EPA 8260D	01/23/24 12:42	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-07	Water	EPA 8260D	01/23/24 12:30	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-08	Water	EPA 8260D	01/23/24 12:00	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-09	Water	EPA 8260D	01/23/24 12:01	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-10	Water	EPA 8260D	01/23/24 12:11	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-11	Water	EPA 8260D	01/23/24 13:00	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-12	Water	EPA 8260D	01/23/24 10:30	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-13	Water	EPA 8260D	01/23/24 10:10	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-14	Water	EPA 8260D	01/23/24 10:20	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-16	Water	EPA 8260D	01/23/24 09:42	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
A4A1415-17	Water	EPA 8260D	01/23/24 10:00	01/26/24 12:24	5mL/5mL	5mL/5mL	1.00
Batch: 24A0864							
A4A1415-15RE1	Water	EPA 8260D	01/23/24 09:30	01/29/24 10:36	5mL/5mL	5mL/5mL	1.00

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +121%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +18%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +56%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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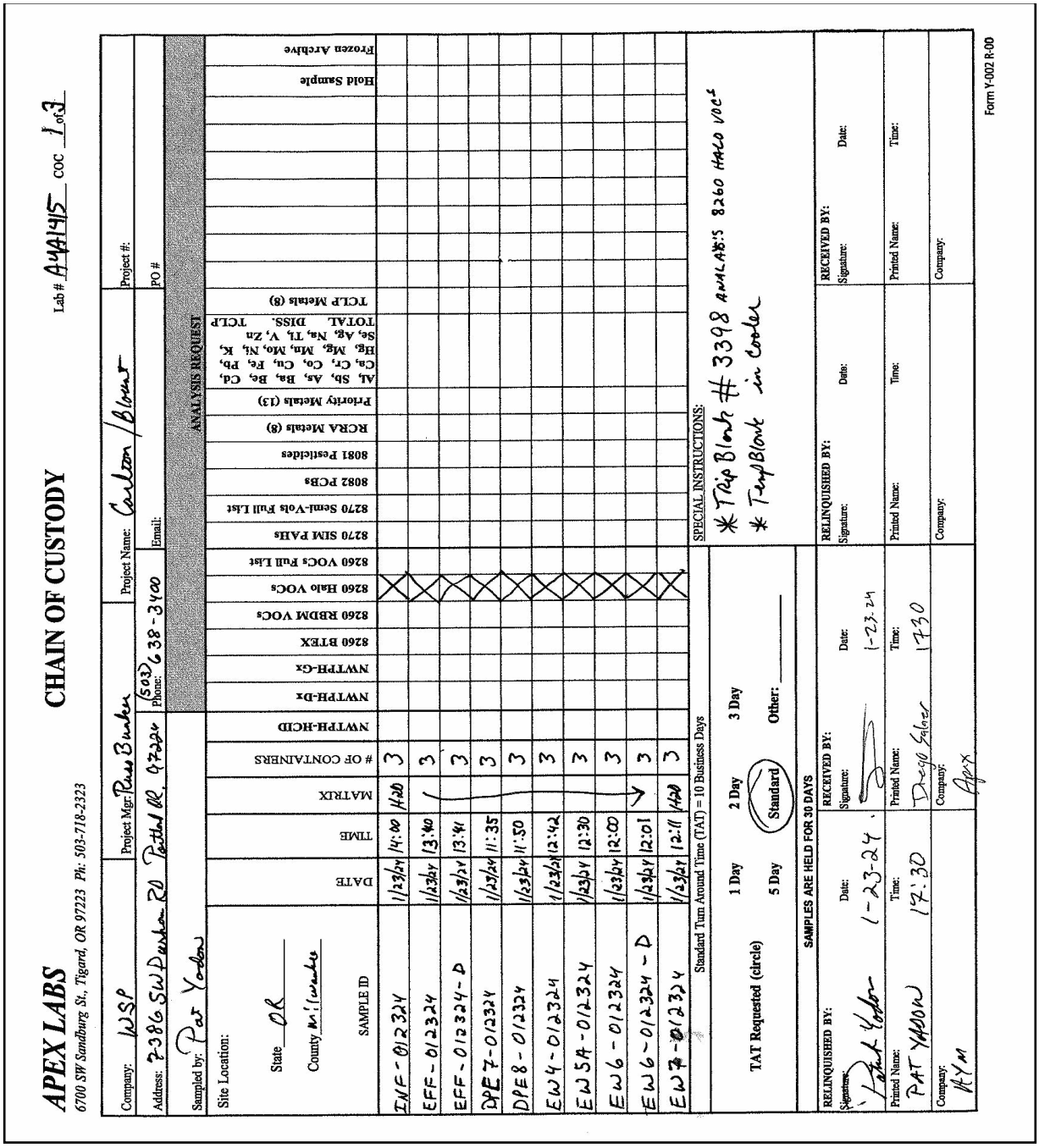
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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 09 24 1606



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4A1415 COC 1 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton / Blount | Project #:
Address: 2386 SW Dunham Rd Portland OR 97221 | Phone: (503) 638-3400 | Email: | PO #
Sampled by: Pat Yoder

ANALYSIS REQUEST

Site Location:
State OR
County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
INF-012324	1/23/24	14:00	H2O	3						X											
EFF-012324	1/23/24	13:40		3																	
EFF-012324-D	1/23/24	13:41		3																	
DPE7-012324	1/23/24	11:35		3																	
DPE8-012324	1/23/24	11:50		3																	
EW4-012324	1/23/24	12:42		3																	
EW5A-012324	1/23/24	12:30		3																	
EW6-012324	1/23/24	12:00		3																	
EW6-012324-D	1/23/24	12:01		3																	
EW7-012324	1/23/24	12:11	H2O	3																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank #3398 ANALYSIS: 8260 HALO VOCs
* Trip Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 1-23-24	Date: 1-23-24	Date:	Date:
Printed Name: PAT YODER	Printed Name: Doug Salzer	Printed Name:	Printed Name:
Time: 17:30	Time: 1730	Time:	Time:
Company: HYM	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

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Philip Nerenberg, Lab Director

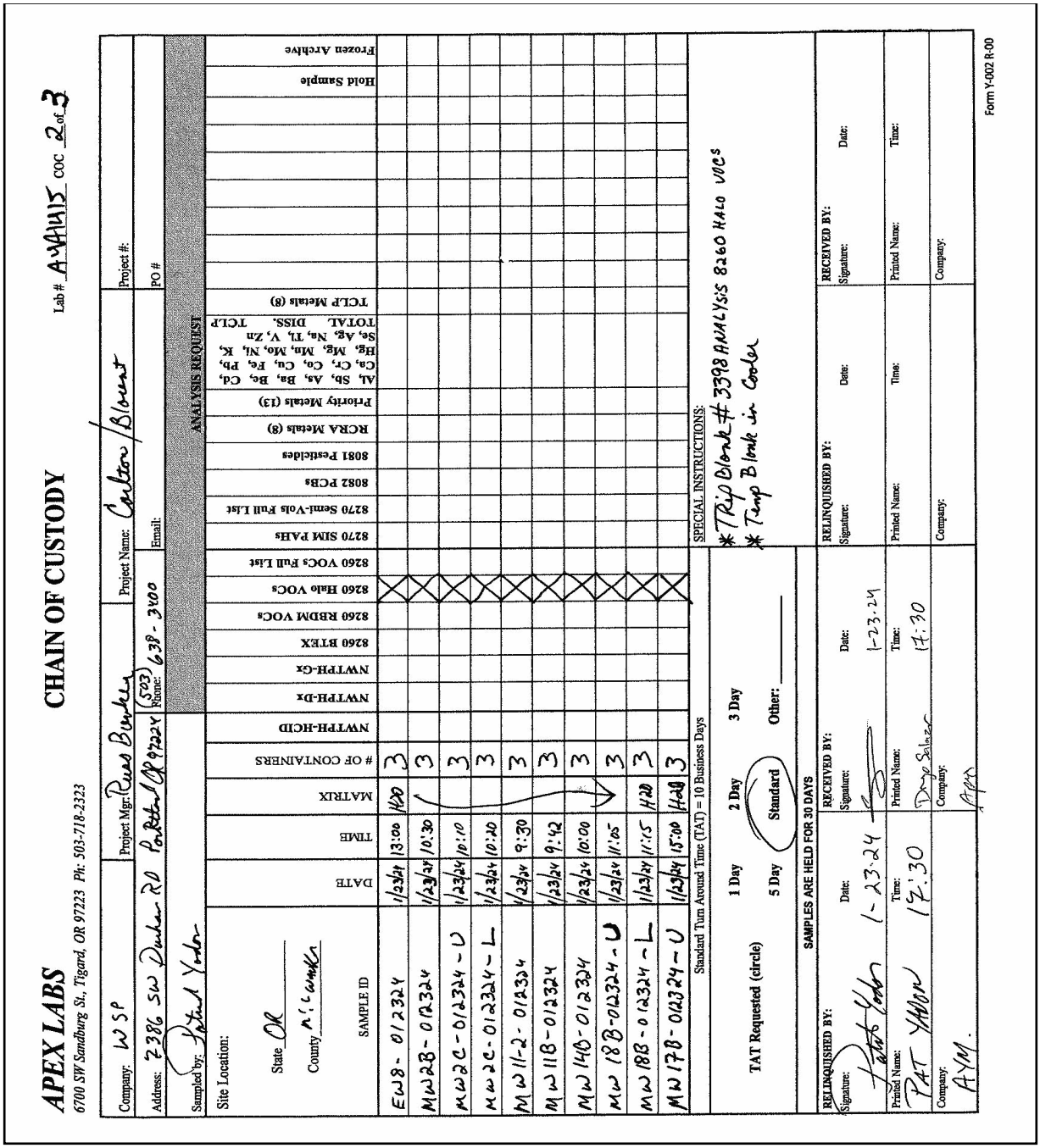
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 09 24 1606



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4A1415 COC 2 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton/Blount | Project #:
Address: 2386 SW Dunbar Rd Portland OR 97224 | Phone: (503) 638-3100 | Email: | PO #
Sampled by: Matt Yoder

Site Location:
State OR
County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 RBDM VOCs	8260 BTEX	8260 Halo VOCs	8260 Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EW8-012324	1/23/24	13:00	WD	3						X											
MW28-012324	1/23/24	10:30	W	3						X											
MW2C-012324-D	1/23/24	10:10		3						X											
MW2C-012324-L	1/23/24	10:20		3						X											
MW11-2-012324	1/23/24	9:30		3						X											
MW11B-012324	1/23/24	9:42		3						X											
MW14B-012324	1/23/24	10:00		3						X											
MW18B-012324-D	1/23/24	11:05		3						X											
MW18B-012324-L	1/23/24	11:15	WD	3						X											
MW17B-012324-D	1/23/24	15:00	WD	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank # 3398 ANALYSIS 8260 HALO VOCS
* Temp Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Matt Yoder	Signature:	Signature:	Signature:
Date: 1-23-24	Date: 1-23-24	Date:	Date:
Time: 17:30	Time: 17:30	Time:	Time:
Printed Name: PAT YAMON	Printed Name: Doug Salmon	Printed Name:	Printed Name:
Company: AYM.	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director

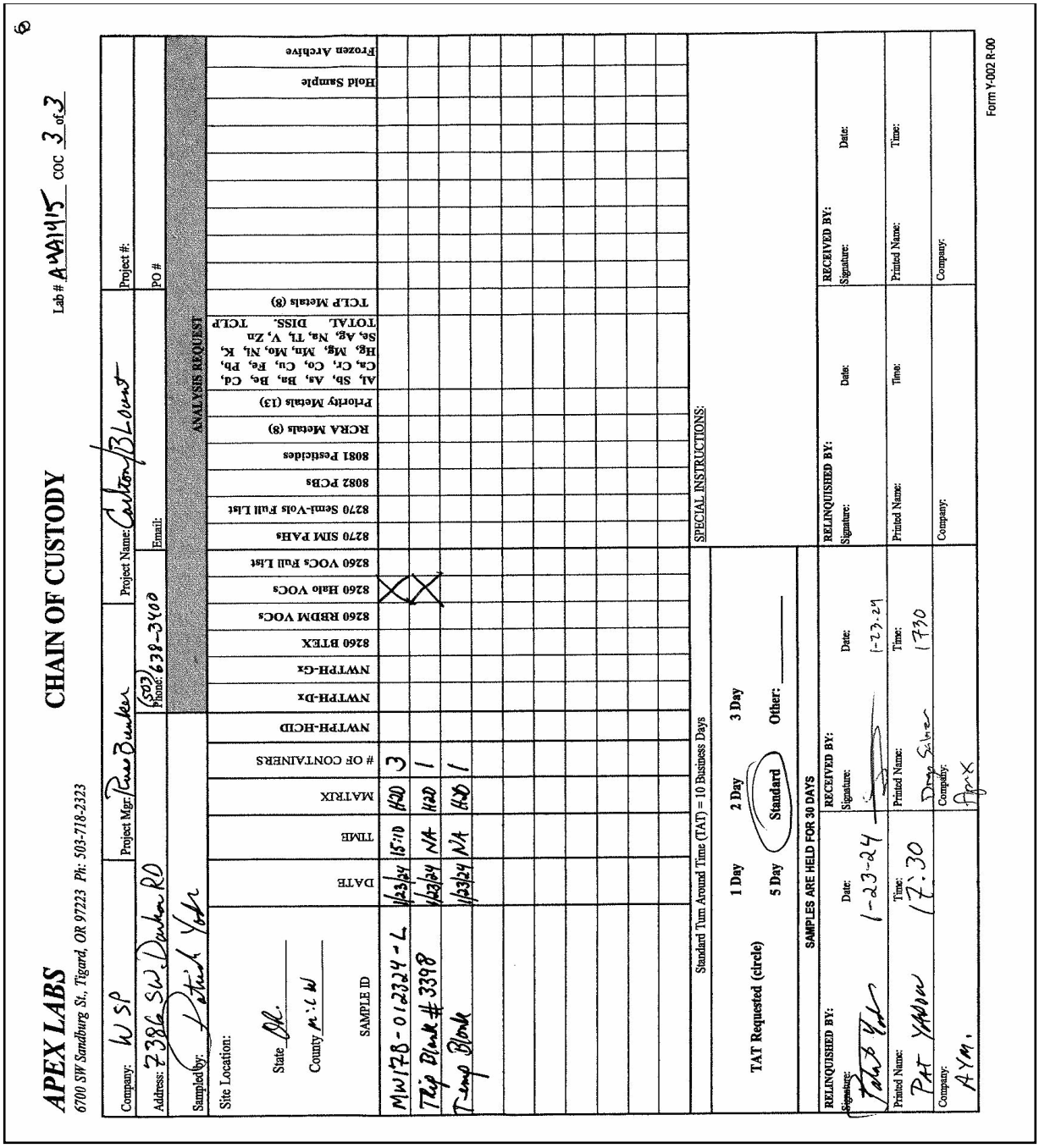
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **Russ Bunker**

Report ID:
A4A1415 - 02 09 24 1606



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4A1415 COC 3 of 3

Company: WSP | Project Mgr: Russ Bunker | Phone: (503) 638-3400 | Project Name: Carlton/Blount | Project #:
Address: 2386 SW Dunham RD | Email: | PO #
Sampled by: Patrick Yodn
Site Location: State OR. County Yamhill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW178-012324-L	1/23/24	15:10	H2O	3						X	X										
Trip Blank #3398	1/23/24	NA	H2O	1																	
Temp Blank	1/23/24	NA	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:	1-23-24	17:30	Signature:	1-23-24	1730
Printed Name: Patrick Yodn			Printed Name: Doug Salmon		
Company: AYM.			Company: APEX		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4A1415 - 02 09 24 1606**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4A1415

Project/Project #: Carlton/Blount

Delivery Info:

Date/time received: 1-23-24 @ 1730 By: DJS

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

Cooler Inspection Date/time inspected: 1-23-24 @ 1733 By: DJS

Chain of Custody included? Yes Y No ____

Signed/dated by client? Yes Y No ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 1/24/24 @ 1925 By: KAC

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes X No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments:

Do VOA vials have visible headspace? Yes X No ___ NA ___

Comments Trip Blank HS, Sed 3/3: DPE7, DPE8, EW8, MW1R

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:

Comments:

Additional information: TB# 3398

Labeled by: KAM Witness: APW Cooler Inspected by: DSJ

Form Y-003 R-01

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Friday, March 1, 2024

Russ Bunker
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4B1566 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4B1566, which was received by the laboratory on 2/27/2024 at 2:39:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-022724	A4B1566-01	Water	02/27/24 12:30	02/27/24 14:39
EFF-022724-D	A4B1566-02	Water	02/27/24 12:31	02/27/24 14:39
INF-022724	A4B1566-03	Water	02/27/24 12:45	02/27/24 14:39
Trip Blank#3437	A4B1566-04	Water	02/27/24 00:00	02/27/24 14:39

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4B1566 - 03 01 24 1133

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-022724 (A4B1566-01)				**Matrix: Water**		**Batch: 24B0968**		
Bromobenzene	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	02/28/24 16:28	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	02/28/24 16:28	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-022724 (A4B1566-01)				**Matrix: Water**		**Batch: 24B0968**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/28/24 16:28	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/28/24 16:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:28	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	02/28/24 16:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*02/28/24 16:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*02/28/24 16:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*02/28/24 16:28*	*EPA 8260D*	
EFF-022724-D (A4B1566-02)				**Matrix: Water**		**Batch: 24B0968**		
Bromobenzene	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	02/28/24 16:56	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4B1566 - 03 01 24 1133

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-022724-D (A4B1566-02)				**Matrix: Water**		**Batch: 24B0968**		
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/28/24 16:56	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/28/24 16:56	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:56	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	02/28/24 16:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:*	*80-120 %*	*1*	*02/28/24 16:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*02/28/24 16:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*02/28/24 16:56*	*EPA 8260D*	
INF-022724 (A4B1566-03)				**Matrix: Water**		**Batch: 24B0968**		
Bromobenzene	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-022724 (A4B1566-03)				**Matrix: Water**		**Batch: 24B0968**		
Bromochloromethane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Bromomethane	ND	---	12.5	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Chlorobenzene	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Chloroethane	ND	---	12.5	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Chloroform	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Chloromethane	ND	---	12.5	ug/L	2.5	02/28/24 21:55	EPA 8260D	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Dibromomethane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1-Dichloroethene	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
cis-1,2-Dichloroethene	**37.7**	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Methylene chloride	ND	---	25.0	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-022724 (A4B1566-03)				**Matrix: Water**		**Batch: 24B0968**		
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Tetrachloroethene (PCE)	**2.22**	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Trichloroethene (TCE)	**217**	---	1.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	02/28/24 21:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Vinyl chloride	ND	---	0.500	ug/L	2.5	02/28/24 21:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:*	*80-120 %*	*1*	*02/28/24 21:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*02/28/24 21:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*02/28/24 21:55*	*EPA 8260D*	
Trip Blank#3437 (A4B1566-04)				**Matrix: Water**		**Batch: 24B0968**		
Bromobenzene	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	02/28/24 16:01	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3437 (A4B1566-04)				**Matrix: Water**		**Batch: 24B0968**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/28/24 16:01	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/28/24 16:01	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/28/24 16:01	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	02/28/24 16:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:*	*80-120 %*	*1*	*02/28/24 16:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*02/28/24 16:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*02/28/24 16:01*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C								Water				
Blank (24B0968-BLK1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 15:33									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C							**Water**					
Blank (24B0968-BLK1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 15:33									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 111 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (24B0968-BS1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 14:36									
EPA 8260D												
Bromobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromodichloromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromoform	17.0	---	2.00	ug/L	1	20.0	---	85	80-120%	---	---	
Bromomethane	26.1	---	5.00	ug/L	1	20.0	---	**130**	**80-120%**	---	---	Q-56
Carbon tetrachloride	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	29.5	---	5.00	ug/L	1	20.0	---	**148**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chloromethane	21.0	---	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
2-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.8	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Dibromomethane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C							**Water**					
LCS (24B0968-BS1)			Prepared: 02/28/24 12:53		Analyzed: 02/28/24 14:36							
1,3-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,4-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethane	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethene	22.3	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichloropropane	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
trans-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Hexachlorobutadiene	19.5	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	21.5	---	10.0	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.9	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Tetrachloroethene (PCE)	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	19.9	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
Trichloroethene (TCE)	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichlorofluoromethane	28.2	---	2.00	ug/L	1	20.0	---	**141**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Vinyl chloride	21.2	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (24B0968-DUP1)			Prepared: 02/28/24 12:53		Analyzed: 02/28/24 22:23							

QC Source Sample: INF-022724 (A4B1566-03)

EPA 8260D

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4B1566 - 03 01 24 1133

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C							**Water**					
Duplicate (24B0968-DUP1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 22:23									
QC Source Sample: INF-022724 (A4B1566-03)												
Bromobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
Bromomethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Chloroethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Chloroform	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chloromethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**39.6**	---	1.00	ug/L	2.5	---	37.7	---	---	5	30%	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	25.0	ug/L	2.5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker
		Report ID: A4B1566 - 03 01 24 1133

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C							**Water**					
Duplicate (24B0968-DUP1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 22:23									
QC Source Sample: INF-022724 (A4B1566-03)												
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2.40**	---	1.00	ug/L	2.5	---	2.22	---	---	8	30%	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**230**	---	1.00	ug/L	2.5	---	217	---	---	6	30%	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.500	ug/L	2.5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 117 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24B0968-MS1)			Prepared: 02/28/24 12:53 Analyzed: 02/28/24 17:50									
QC Source Sample: Non-SDG (A4B1580-01)												
EPA 8260D												
Bromobenzene	19.7	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	22.9	---	1.00	ug/L	1	20.0	ND	115	78-123%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	ND	106	79-125%	---	---	
Bromoform	17.0	---	2.00	ug/L	1	20.0	ND	85	66-130%	---	---	
Bromomethane	27.9	---	5.00	ug/L	1	20.0	ND	139	53-141%	---	---	Q-54
Carbon tetrachloride	21.2	---	1.00	ug/L	1	20.0	ND	106	72-136%	---	---	
Chlorobenzene	20.3	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Chloroethane	28.2	---	5.00	ug/L	1	20.0	ND	**141**	**60-138%**	---	---	ICV-01, Q-54b
Chloroform	24.1	---	1.00	ug/L	1	20.0	0.630	118	79-124%	---	---	
Chloromethane	21.2	---	5.00	ug/L	1	20.0	ND	106	50-139%	---	---	
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	17.6	---	1.00	ug/L	1	20.0	ND	88	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.3	---	5.00	ug/L	1	20.0	ND	81	62-128%	---	---	

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4B1566 - 03 01 24 1133

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C							**Water**					
Matrix Spike (24B0968-MS1)			Prepared: 02/28/24 12:53		Analyzed: 02/28/24 17:50							
QC Source Sample: Non-SDG (A4B1580-01)												
1,2-Dibromoethane (EDB)	20.2	---	0.500	ug/L	1	20.0	ND	101	77-121%	---	---	
Dibromomethane	22.1	---	1.00	ug/L	1	20.0	ND	111	79-123%	---	---	
1,2-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,3-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	ND	100	79-120%	---	---	
Dichlorodifluoromethane	25.0	---	1.00	ug/L	1	20.0	ND	125	32-152%	---	---	
1,1-Dichloroethane	22.9	---	0.400	ug/L	1	20.0	ND	115	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.400	ug/L	1	20.0	ND	110	73-128%	---	---	
1,1-Dichloroethene	23.8	---	0.400	ug/L	1	20.0	ND	119	71-131%	---	---	
cis-1,2-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	ND	106	78-123%	---	---	
trans-1,2-Dichloroethene	21.7	---	0.400	ug/L	1	20.0	ND	109	75-124%	---	---	
1,2-Dichloropropane	21.6	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	19.6	---	1.00	ug/L	1	20.0	ND	98	80-120%	---	---	
2,2-Dichloropropane	21.7	---	1.00	ug/L	1	20.0	ND	109	60-139%	---	---	
1,1-Dichloropropene	23.4	---	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
cis-1,3-Dichloropropene	15.3	---	1.00	ug/L	1	20.0	ND	77	75-124%	---	---	
trans-1,3-Dichloropropene	17.4	---	1.00	ug/L	1	20.0	ND	87	73-127%	---	---	
Hexachlorobutadiene	20.9	---	5.00	ug/L	1	20.0	ND	105	66-134%	---	---	
Methylene chloride	21.9	---	10.0	ug/L	1	20.0	ND	110	74-124%	---	---	
1,1,1,2-Tetrachloroethane	18.9	---	0.400	ug/L	1	20.0	ND	95	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	21.3	---	0.400	ug/L	1	20.0	ND	106	74-129%	---	---	
1,2,3-Trichlorobenzene	20.0	---	2.00	ug/L	1	20.0	ND	100	69-129%	---	---	
1,1,2-Trichloroethane	20.3	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,2,4-Trichlorobenzene	19.2	---	2.00	ug/L	1	20.0	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	23.8	---	0.400	ug/L	1	20.0	ND	119	74-131%	---	---	
Trichloroethene (TCE)	22.0	---	0.400	ug/L	1	20.0	ND	110	79-123%	---	---	
Trichlorofluoromethane	33.5	---	2.00	ug/L	1	20.0	ND	**168**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	21.1	---	1.00	ug/L	1	20.0	ND	106	73-122%	---	---	
Vinyl chloride	23.4	---	0.200	ug/L	1	20.0	ND	117	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 107 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*94 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24B0968 - EPA 5030C												**Water**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24B0968							
A4B1566-01	Water	EPA 8260D	02/27/24 12:30	02/28/24 13:51	5mL/5mL	5mL/5mL	1.00
A4B1566-02	Water	EPA 8260D	02/27/24 12:31	02/28/24 13:51	5mL/5mL	5mL/5mL	1.00
A4B1566-03	Water	EPA 8260D	02/27/24 12:45	02/28/24 13:51	5mL/5mL	5mL/5mL	1.00
A4B1566-04	Water	EPA 8260D	02/27/24 00:00	02/28/24 13:51	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +21%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +28%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

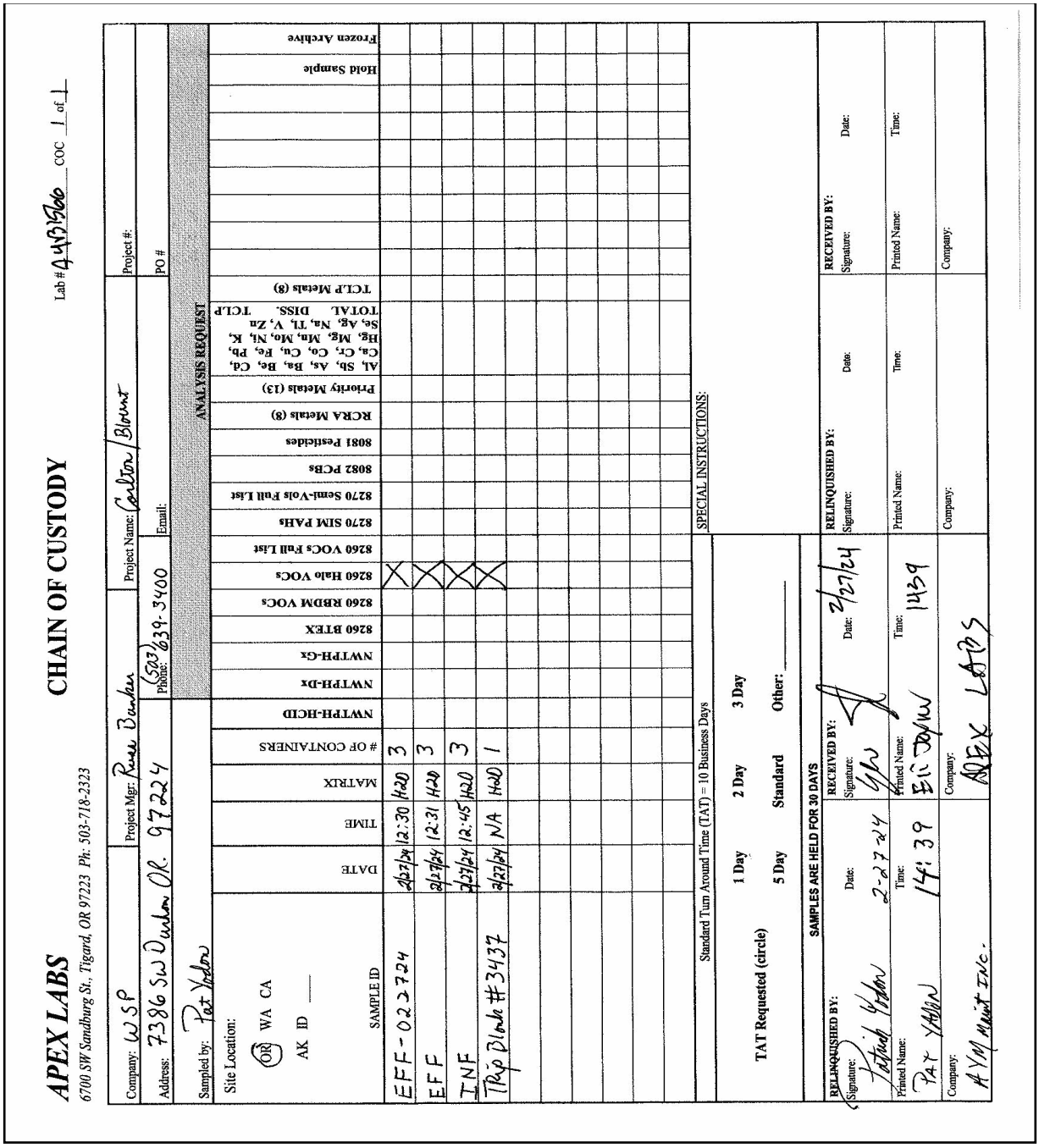
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # 4A1566 COC 1 of 1

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton/Blount | Project #:
Address: 7386 SW Dunlap OR. 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Pat Yadon

Site Location: (OR) WA CA AK ID ___

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF-022724	2/27/24	12:30	H20	3						X											
EFF	2/27/24	12:31	H20	3						X											
INF	2/27/24	12:45	H20	3						X											
Trip Blank #3437	2/27/24	NA	H20	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: ___

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Pat Yadon	Date: 2-27-24	Time: 1439	RECEIVED BY: Signature:	Date: 2/27/24	Time: 1439	Printed Name: Pat Yadon	Company: WSP
RELINQUISHED BY: Signature:	Date:	Time:	RECEIVED BY: Signature: Eli Dayton	Date:	Time: 1439	Printed Name: Eli Dayton	Company: APEX LABS
RELINQUISHED BY: Signature:	Date:	Time:	RECEIVED BY: Signature:	Date:	Time:	Printed Name:	Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4B1566 - 03 01 24 1133**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4B1566

Project/Project #: Carlton / Blount

Delivery Info:
Date/time received: 2/27/24 @ 1439 By: EST
Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

Cooler Inspection Date/time inspected: 2/27/24 @ 1442 By: EST
Chain of Custody included? Yes X No ____
Signed/dated by client? Yes X No ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.3						
Custody seals? (Y/N)	N (Y) EST 2/27/24						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	IN						

Cooler out of temp? (Y/N) Possible reason why:
Green dots applied to out of temperature samples? Yes/No
Out of temperature samples form initiated? Yes/No
Sample Inspection: Date/time inspected: 2/27/24 @ 13:33 By: KAM
All samples intact? Yes X No ___ Comments:
aaa for kam 2/27/24
Bottle labels/COCs agree? Yes ___ No X Comments: ~~see form~~ EFF ID reads EFF-022724-D & INF ID reads INF-022724, matched by times.
COC/container discrepancies form initiated? Yes X No (X)
aaa for kam 2/27/24
Containers/volumes received appropriate for analysis? Yes X No ___ Comments:
Do VOA vials have visible headspace? Yes ___ No X NA ___
Comments
Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:
Comments:
Additional information: TB # 34337
Labeled by: KAM Witness: AW Cooler Inspected by: KAM

Form Y-003 R-01

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, April 11, 2024

Russ Bunker
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4C1843 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4C1843, which was received by the laboratory on 3/29/2024 at 4:24:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-032924	A4C1843-01	Water	03/29/24 14:00	03/29/24 16:24
EFF-032924-D	A4C1843-02	Water	03/29/24 14:01	03/29/24 16:24
INF-032924	A4C1843-03	Water	03/29/24 14:22	03/29/24 16:24
Trip Blank #3492	A4C1843-04	Water	03/29/24 00:00	03/29/24 16:24

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Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-032924 (A4C1843-01)				**Matrix: Water**		**Batch: 24D0089**		
Bromobenzene	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/02/24 18:58	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/02/24 18:58	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-032924 (A4C1843-01)				**Matrix: Water**		**Batch: 24D0089**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/02/24 18:58	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/02/24 18:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/02/24 18:58	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/02/24 18:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*04/02/24 18:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/02/24 18:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/02/24 18:58*	*EPA 8260D*	
EFF-032924-D (A4C1843-02)				**Matrix: Water**		**Batch: 24D0089**		
Bromobenzene	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/02/24 19:25	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4C1843 - 04 11 24 2052

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-032924-D (A4C1843-02)				**Matrix: Water**		**Batch: 24D0089**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/02/24 19:25	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/02/24 19:25	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/02/24 19:25	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/02/24 19:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*04/02/24 19:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/02/24 19:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*04/02/24 19:25*	*EPA 8260D*	
INF-032924 (A4C1843-03)				**Matrix: Water**		**Batch: 24D0089**		
Bromobenzene	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-032924 (A4C1843-03)				**Matrix: Water**		**Batch: 24D0089**		
Bromoform	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/02/24 22:36	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/02/24 22:36	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	04/02/24 22:36	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
cis-1,2-Dichloroethene	**69.4**	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/02/24 22:36	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
Tetrachloroethene (PCE)	**4.10**	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-032924 (A4C1843-03)				**Matrix: Water**		**Batch: 24D0089**		
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/02/24 22:36	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Trichloroethene (TCE)	**458**	---	2.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/02/24 22:36	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/02/24 22:36	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits: 80-120 %*	*1*	*04/02/24 22:36*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/02/24 22:36*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/02/24 22:36*	*EPA 8260D*	
Trip Blank #3492 (A4C1843-04)				**Matrix: Water**		**Batch: 24D0089**		
Bromobenzene	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/02/24 13:58	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: Russ Bunker	A4C1843 - 04 11 24 2052

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank #3492 (A4C1843-04)				**Matrix: Water**		**Batch: 24D0089**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/02/24 13:58	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/02/24 13:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/02/24 13:58	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/02/24 13:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*04/02/24 13:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/02/24 13:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/02/24 13:58*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							**Water**					
Blank (24D0089-BLK1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 13:31									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4C1843 - 04 11 24 2052

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							Water					
Blank (24D0089-BLK1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 13:31									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24D0089-BS1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 12:32									
EPA 8260D												
Bromobenzene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromodichloromethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromoform	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromomethane	20.2	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
Carbon tetrachloride	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloroform	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	18.2	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
2-Chlorotoluene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
4-Chlorotoluene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Dibromochloromethane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.6	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	22.3	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							**Water**					
LCS (24D0089-BS1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 12:32									
1,3-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,4-Dichlorobenzene	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Dichlorodifluoromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.9	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloropropane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,3-Dichloropropane	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
2,2-Dichloropropane	24.8	---	1.00	ug/L	1	20.0	---	**124**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
trans-1,3-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Hexachlorobutadiene	17.0	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
Methylene chloride	19.6	---	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Tetrachloroethene (PCE)	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2,3-Trichlorobenzene	18.3	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,2-Trichloroethane	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	16.0	---	2.00	ug/L	1	20.0	---	80	80-120%	---	---	
1,1,1-Trichloroethane	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichlorofluoromethane	24.9	---	2.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Vinyl chloride	18.7	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (24D0089-DUP1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 22:09									
QC Source Sample: Non-SDG (A4C1842-01)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							**Water**					
Duplicate (24D0089-DUP1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 22:09									
QC Source Sample: Non-SDG (A4C1842-01)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	1.05	---	---	***	30%	
cis-1,2-Dichloroethene	**78.8**	---	2.00	ug/L	5	---	79.1	---	---	0.4	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	1.75	---	---	***	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	Russ Bunker

Report ID:
A4C1843 - 04 11 24 2052

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							Water					
Duplicate (24D0089-DUP1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 22:09									
QC Source Sample: Non-SDG (A4C1842-01)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**220**	---	2.00	ug/L	5	---	214	---	---	3	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	**1.35**	---	1.00	ug/L	5	---	1.35	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24D0089-MS1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 23:04									
QC Source Sample: INF-032924 (A4C1843-03)												
EPA 8260D												
Bromobenzene	99.0	---	2.50	ug/L	5	100	ND	99	80-120%	---	---	
Bromochloromethane	112	---	5.00	ug/L	5	100	ND	112	78-123%	---	---	
Bromodichloromethane	122	---	5.00	ug/L	5	100	ND	122	79-125%	---	---	
Bromoform	108	---	5.00	ug/L	5	100	ND	108	66-130%	---	---	
Bromomethane	107	---	25.0	ug/L	5	100	ND	107	53-141%	---	---	
Carbon tetrachloride	119	---	5.00	ug/L	5	100	ND	119	72-136%	---	---	
Chlorobenzene	107	---	2.50	ug/L	5	100	ND	107	80-120%	---	---	
Chloroethane	130	---	25.0	ug/L	5	100	ND	130	60-138%	---	---	
Chloroform	112	---	5.00	ug/L	5	100	ND	112	79-124%	---	---	
Chloromethane	111	---	25.0	ug/L	5	100	ND	111	50-139%	---	---	
2-Chlorotoluene	103	---	5.00	ug/L	5	100	ND	103	79-122%	---	---	
4-Chlorotoluene	104	---	5.00	ug/L	5	100	ND	104	78-122%	---	---	
Dibromochloromethane	106	---	5.00	ug/L	5	100	ND	106	74-126%	---	---	
1,2-Dibromo-3-chloropropane	99.4	---	25.0	ug/L	5	100	ND	99	62-128%	---	---	
1,2-Dibromoethane (EDB)	107	---	2.50	ug/L	5	100	ND	107	77-121%	---	---	
Dibromomethane	112	---	5.00	ug/L	5	100	ND	112	79-123%	---	---	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24D0089 - EPA 5030C							**Water**					
Matrix Spike (24D0089-MS1)			Prepared: 04/02/24 10:51 Analyzed: 04/02/24 23:04									
QC Source Sample: INF-032924 (A4C1843-03)												
1,2-Dichlorobenzene	108	---	2.50	ug/L	5	100	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	109	---	2.50	ug/L	5	100	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	101	---	2.50	ug/L	5	100	ND	101	79-120%	---	---	
Dichlorodifluoromethane	121	---	5.00	ug/L	5	100	ND	121	32-152%	---	---	
1,1-Dichloroethane	108	---	2.00	ug/L	5	100	ND	108	77-125%	---	---	
1,2-Dichloroethane (EDC)	112	---	2.00	ug/L	5	100	ND	112	73-128%	---	---	
1,1-Dichloroethene	114	---	2.00	ug/L	5	100	ND	114	71-131%	---	---	
cis-1,2-Dichloroethene	186	---	2.00	ug/L	5	100	69.4	117	78-123%	---	---	
trans-1,2-Dichloroethene	106	---	2.00	ug/L	5	100	ND	106	75-124%	---	---	
1,2-Dichloropropane	102	---	2.50	ug/L	5	100	ND	102	78-122%	---	---	
1,3-Dichloropropane	103	---	5.00	ug/L	5	100	ND	103	80-120%	---	---	
2,2-Dichloropropane	123	---	5.00	ug/L	5	100	ND	123	60-139%	---	---	Q-54
1,1-Dichloropropene	118	---	5.00	ug/L	5	100	ND	118	79-125%	---	---	
cis-1,3-Dichloropropene	81.9	---	5.00	ug/L	5	100	ND	82	75-124%	---	---	
trans-1,3-Dichloropropene	105	---	5.00	ug/L	5	100	ND	105	73-127%	---	---	
Hexachlorobutadiene	113	---	25.0	ug/L	5	100	ND	113	66-134%	---	---	
Methylene chloride	105	---	50.0	ug/L	5	100	ND	105	74-124%	---	---	
1,1,1,2-Tetrachloroethane	110	---	2.00	ug/L	5	100	ND	110	78-124%	---	---	
1,1,2,2-Tetrachloroethane	107	---	2.50	ug/L	5	100	ND	107	71-121%	---	---	
Tetrachloroethene (PCE)	119	---	2.00	ug/L	5	100	4.10	115	74-129%	---	---	
1,2,3-Trichlorobenzene	110	---	10.0	ug/L	5	100	ND	110	69-129%	---	---	
1,1,2-Trichloroethane	106	---	2.50	ug/L	5	100	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	96.1	---	10.0	ug/L	5	100	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	126	---	2.00	ug/L	5	100	ND	126	74-131%	---	---	
Trichloroethene (TCE)	534	---	2.00	ug/L	5	100	458	**76**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	147	---	10.0	ug/L	5	100	ND	**147**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	101	---	5.00	ug/L	5	100	ND	101	73-122%	---	---	
Vinyl chloride	109	---	1.00	ug/L	5	100	ND	109	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 106 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*93 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24D0089							
A4C1843-01	Water	EPA 8260D	03/29/24 14:00	04/02/24 11:40	5mL/5mL	5mL/5mL	1.00
A4C1843-02	Water	EPA 8260D	03/29/24 14:01	04/02/24 11:40	5mL/5mL	5mL/5mL	1.00
A4C1843-03	Water	EPA 8260D	03/29/24 14:22	04/02/24 11:40	5mL/5mL	5mL/5mL	1.00
A4C1843-04	Water	EPA 8260D	03/29/24 00:00	04/02/24 11:40	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**Russ Bunker**	**A4C1843 - 04 11 24 2052**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

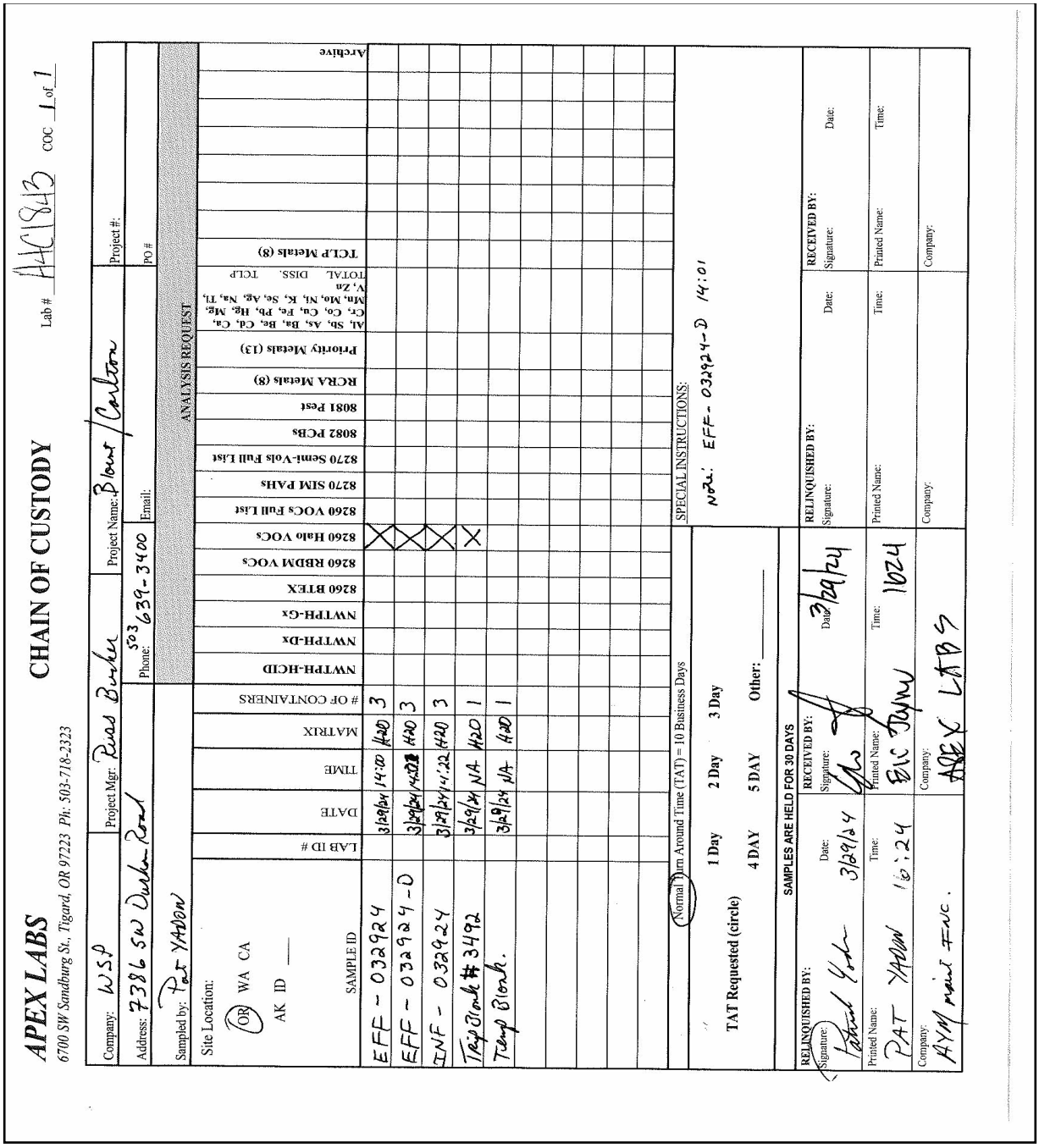
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4C1843 COC 1 of 1

Company: WSP | Project Mgr.: Russ Bunker | Project Name: Blount/Carlton | Project #:
Address: 7386 SW Durham Road | Phone: 503 639-3400 | Email: | PO #
Sampled by: Pat Yadon

Site Location: (OR) WA CA AK ID ___

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
EFF - 032924		3/29/24	14:00	H2O	3						X								
EFF - 032924-D		3/29/24	14:01	H2O	3						X								
INF - 032924		3/29/24	14:22	H2O	3						X								
Trip Blank #3492		3/29/24	NA	H2O	1						X								
Temp Blank.		3/29/24	NA	H2O	1														

(Normal Turn Around Time (TAT) = 10 Business Days)

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: ___

SPECIAL INSTRUCTIONS:
NOTE: EFF-032924-D 14:01

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yadon	Signature:	Signature:	Signature:
Printed Name: PAT YADON	Printed Name: Eric Joyce	Printed Name:	Printed Name:
Date: 3/29/24	Date: 3/29/24	Date:	Date:
Time: 16:24	Time: 1624	Time:	Time:
Company: HYM maint. Inc.	Company: APEX LABS	Company:	Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **Russ Bunker**	**A4C1843 - 04 11 24 2052**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 C1843

Project/Project #: Blount / Carlton

Delivery Info:
Date/time received: 3/29/24 @ 1624 By: EST
Delivered by: Apex__Client✓ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__
From USDA Regulated Origin? Yes ____ No ____

Cooler Inspection Date/time inspected: 3/29/24 @ 1626 By: EST
Chain of Custody included? Yes ✓ No ____
Signed/dated by client? Yes ____ No ✓
Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.4						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: ____
Green dots applied to out of temperature samples? Yes/No
Out of temperature samples form initiated? Yes/No
Sample Inspection: Date/time inspected: 3/29/24 @ 1700 By: JS
All samples intact? Yes ✓ No ___ Comments: ____
Bottle labels/COCs agree? Yes ✓ No ___ Comments: TB # 3492 ~~was for~~ 80 3/30/24
COC/container discrepancies form initiated? Yes ___ No ✓
Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments: ____
Do VOA vials have visible headspace? Yes ___ No ✓ NA ___
Comments ____
Water samples: pH checked: Yes___No___NA ✓ pH appropriate? Yes___No___NA ✓ pH ID: ____
Comments: ____

Labeled by: JS Witness: [illegible] Cooler Inspected by: JS

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, May 15, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4D1697 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4D1697, which was received by the laboratory on 4/25/2024 at 5:01:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 0.9 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW2B-042424	A4D1697-01	Water	04/24/24 11:54	04/25/24 17:01
MW2C-042424-U	A4D1697-02	Water	04/24/24 12:05	04/25/24 17:01
MW2C-042424-L	A4D1697-03	Water	04/24/24 12:15	04/25/24 17:01
MW5B-042424	A4D1697-04	Water	04/24/24 11:45	04/25/24 17:01
MW8-042424	A4D1697-05	Water	04/24/24 10:21	04/25/24 17:01
MW11-1-042424	A4D1697-06	Water	04/24/24 11:38	04/25/24 17:01
MW11-2-042424	A4D1697-07	Water	04/24/24 10:58	04/25/24 17:01
MW11-2-042424-D	A4D1697-08	Water	04/24/24 10:59	04/25/24 17:01
MW11B-042424	A4D1697-09	Water	04/24/24 11:10	04/25/24 17:01
MW12-042424	A4D1697-10	Water	04/24/24 13:00	04/25/24 17:01
MW13-2-042424	A4D1697-11	Water	04/24/24 10:15	04/25/24 17:01
MW14-042424	A4D1697-12	Water	04/24/24 09:25	04/25/24 17:01
MW14B-042424	A4D1697-13	Water	04/24/24 11:22	04/25/24 17:01
MW15-1-042424	A4D1697-14	Water	04/24/24 08:30	04/25/24 17:01
MW15-2-042424	A4D1697-15	Water	04/24/24 08:54	04/25/24 17:01
MW15B-042424	A4D1697-16	Water	04/24/24 11:30	04/25/24 17:01
MW18B-042424-U	A4D1697-17	Water	04/24/24 13:30	04/25/24 17:01
MW18B-042424-L	A4D1697-18	Water	04/24/24 13:40	04/25/24 17:01
MW17B-042424-U	A4D1697-19	Water	04/24/24 14:10	04/25/24 17:01
MW17B-042424-L	A4D1697-20	Water	04/24/24 14:20	04/25/24 17:01
DPE-7-042524	A4D1697-24	Water	04/25/24 14:15	04/25/24 17:01
DPE-8-042524	A4D1697-25	Water	04/25/24 13:56	04/25/24 17:01
EW4-042524	A4D1697-26	Water	04/25/24 13:18	04/25/24 17:01
EW5A-042524	A4D1697-27	Water	04/25/24 13:30	04/25/24 17:01
EW6-042524	A4D1697-28	Water	04/25/24 12:55	04/25/24 17:01
EW6-042524-D	A4D1697-29	Water	04/25/24 12:56	04/25/24 17:01
EW7-042524	A4D1697-30	Water	04/25/24 13:10	04/25/24 17:01
Trip Blank #3514	A4D1697-31	Water	04/24/24 00:00	04/25/24 17:01

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-042424 (A4D1697-01)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	05/01/24 19:30	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	05/01/24 19:30	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
cis-1,2-Dichloroethene	**56.5**	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	05/01/24 19:30	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-042424 (A4D1697-01)				**Matrix: Water**		**Batch: 24E0003**		
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Tetrachloroethene (PCE)	**6.50**	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Trichloroethene (TCE)	**1250**	---	4.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	05/01/24 19:30	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:30	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	05/01/24 19:30	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 19:30*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*05/01/24 19:30*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*05/01/24 19:30*	*EPA 8260D*	
MW2C-042424-U (A4D1697-02)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	05/01/24 18:36	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	05/01/24 18:36	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042424-U (A4D1697-02)				**Matrix: Water**		**Batch: 24E0003**		
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
cis-1,2-Dichloroethene	**42.1**	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Tetrachloroethene (PCE)	**6.60**	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Trichloroethene (TCE)	**1100**	---	4.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	05/01/24 18:36	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	05/01/24 18:36	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	05/01/24 18:36	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 18:36*	*EPA 8260D*
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*05/01/24 18:36*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*05/01/24 18:36*	*EPA 8260D*
MW2C-042424-L (A4D1697-03)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042424-L (A4D1697-03)				**Matrix: Water**		**Batch: 24E0003**		
Bromoform	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	05/01/24 19:03	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	05/01/24 19:03	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
cis-1,2-Dichloroethene	**43.1**	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Tetrachloroethene (PCE)	**6.40**	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042424-L (A4D1697-03)				**Matrix: Water**		**Batch: 24E0003**		
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Trichloroethene (TCE)	**1050**	---	4.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	05/01/24 19:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	05/01/24 19:03	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	05/01/24 19:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*05/01/24 19:03*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/01/24 19:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/01/24 19:03*	*EPA 8260D*	
MW5B-042424 (A4D1697-04)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 10:51	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 10:51	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5B-042424 (A4D1697-04)				**Matrix: Water**		**Batch: 24E0003**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/01/24 10:51	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 10:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 10:51	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/01/24 10:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*05/01/24 10:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/01/24 10:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*05/01/24 10:51*	*EPA 8260D*	
MW8-042424 (A4D1697-05)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 11:18	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW8-042424 (A4D1697-05)				**Matrix: Water**		**Batch: 24E0003**		
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 11:18	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 11:18	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW8-042424 (A4D1697-05)				**Matrix: Water**		**Batch: 24E0003**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/01/24 11:18	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 11:18	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:18	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/01/24 11:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*05/01/24 11:18*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*05/01/24 11:18*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*05/01/24 11:18*	*EPA 8260D*	
MW11-1-042424 (A4D1697-06)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 11:46	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 11:46	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
cis-1,2-Dichloroethene	**1.14**	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-1-042424 (A4D1697-06)				**Matrix: Water**		**Batch: 24E0003**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/01/24 11:46	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 11:46	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 11:46	EPA 8260D	
Vinyl chloride	**0.260**	---	0.200	ug/L	1	05/01/24 11:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 11:46*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*05/01/24 11:46*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*05/01/24 11:46*	*EPA 8260D*	
MW11-2-042424 (A4D1697-07)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	05/01/24 16:47	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-042424 (A4D1697-07)				**Matrix: Water**		**Batch: 24E0003**		
Chloromethane	ND	---	50.0	ug/L	10	05/01/24 16:47	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
cis-1,2-Dichloroethene	**348**	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	05/01/24 16:47	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Tetrachloroethene (PCE)	**33.6**	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	05/01/24 16:47	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	05/01/24 16:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-042424 (A4D1697-07)				**Matrix: Water**		**Batch: 24E0003**		
Vinyl chloride	**13.7**	---	2.00	ug/L	10	05/01/24 16:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 16:47*	*EPA 8260D*
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/01/24 16:47*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*05/01/24 16:47*	*EPA 8260D*
MW11-2-042424 (A4D1697-07RE1)				**Matrix: Water**		**Batch: 24E0078**		
Trichloroethene (TCE)	**1970**	---	40.0	ug/L	100	05/03/24 03:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*05/03/24 03:47*	*EPA 8260D*
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/03/24 03:47*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*	*1*	*05/03/24 03:47*	*EPA 8260D*
MW11-2-042424-D (A4D1697-08)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 12:13	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 12:13	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-042424-D (A4D1697-08)				**Matrix: Water**		**Batch: 24E0003**		
1,1-Dichloroethene	**3.18**	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
trans-1,2-Dichloroethene	**3.28**	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
Tetrachloroethene (PCE)	**36.8**	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 12:13	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 12:13	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 12:13	EPA 8260D	
Vinyl chloride	**10.8**	---	0.200	ug/L	1	05/01/24 12:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 12:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*05/01/24 12:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*05/01/24 12:13*	*EPA 8260D*	
MW11-2-042424-D (A4D1697-08RE1)				**Matrix: Water**		**Batch: 24E0078**		
cis-1,2-Dichloroethene	**234**	---	40.0	ug/L	100	05/03/24 04:42	EPA 8260D	
Trichloroethene (TCE)	**1880**	---	40.0	ug/L	100	05/03/24 04:42	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*05/03/24 04:42*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/03/24 04:42*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*05/03/24 04:42*	*EPA 8260D*	
MW11B-042424 (A4D1697-09)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-042424 (A4D1697-09)				**Matrix: Water**		**Batch: 24E0003**		
Bromodichloromethane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	05/01/24 18:09	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	05/01/24 18:09	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	05/01/24 18:09	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
cis-1,2-Dichloroethene	**52.9**	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	05/01/24 18:09	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-042424 (A4D1697-09)				**Matrix: Water**		**Batch: 24E0003**		
Tetrachloroethene (PCE)	**1.80**	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
Trichloroethene (TCE)	**260**	---	0.800	ug/L	2	05/01/24 18:09	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	05/01/24 18:09	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	05/01/24 18:09	EPA 8260D	
Vinyl chloride	**0.420**	---	0.400	ug/L	2	05/01/24 18:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 18:09*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*05/01/24 18:09*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*05/01/24 18:09*	*EPA 8260D*	
MW12-042424 (A4D1697-10RE1)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 20:30	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW12-042424 (A4D1697-10RE1)				**Matrix: Water**		**Batch: 24E0078**		
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
cis-1,2-Dichloroethene	**1.99**	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
Trichloroethene (TCE)	**2.26**	---	0.400	ug/L	1	05/02/24 20:30	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 20:30	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:30	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/02/24 20:30	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*05/02/24 20:30*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*05/02/24 20:30*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*05/02/24 20:30*	*EPA 8260D*	
MW13-2-042424 (A4D1697-11)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 14:02	EPA 8260D	Q-54m

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW13-2-042424 (A4D1697-11)				**Matrix: Water**		**Batch: 24E0003**		
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 14:02	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
cis-1,2-Dichloroethene	**16.3**	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
trans-1,2-Dichloroethene	**0.560**	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	
Tetrachloroethene (PCE)	**0.490**	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 14:02	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW13-2-042424 (A4D1697-11)				**Matrix: Water**		**Batch: 24E0003**		
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
Trichloroethene (TCE)	**39.0**	---	0.400	ug/L	1	05/01/24 14:02	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 14:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 14:02	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/01/24 14:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*05/01/24 14:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*05/01/24 14:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/01/24 14:02*	*EPA 8260D*	
MW14-042424 (A4D1697-12RE1)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 20:58	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-042424 (A4D1697-12RE1)				**Matrix: Water**		**Batch: 24E0078**		
cis-1,2-Dichloroethene	**4.36**	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
Trichloroethene (TCE)	**1.18**	---	0.400	ug/L	1	05/02/24 20:58	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 20:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 20:58	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/02/24 20:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*05/02/24 20:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*05/02/24 20:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/02/24 20:58*	*EPA 8260D*	
MW14B-042424 (A4D1697-13)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/01/24 16:19	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/01/24 16:19	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-042424 (A4D1697-13)				**Matrix: Water**		**Batch: 24E0003**		
Chloroform	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/01/24 16:19	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
cis-1,2-Dichloroethene	**7.75**	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/01/24 16:19	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
Tetrachloroethene (PCE)	**2.40**	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 16:19	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Trichloroethene (TCE)	**212**	---	2.00	ug/L	5	05/01/24 16:19	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-042424 (A4D1697-13)				**Matrix: Water**		**Batch: 24E0003**		
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/01/24 16:19	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/01/24 16:19	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 16:19*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/01/24 16:19*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*	*1*	*05/01/24 16:19*	*EPA 8260D*	
MW15-1-042424 (A4D1697-14RE1)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 19:35	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
cis-1,2-Dichloroethene	**0.530**	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-1-042424 (A4D1697-14RE1)				**Matrix: Water**		**Batch: 24E0078**		
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
Trichloroethene (TCE)	**0.900**	---	0.400	ug/L	1	05/02/24 19:35	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 19:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 19:35	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/02/24 19:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*05/02/24 19:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/02/24 19:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*05/02/24 19:35*	*EPA 8260D*	
MW15-2-042424 (A4D1697-15)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 15:24	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 15:24	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-2-042424 (A4D1697-15)				**Matrix: Water**		**Batch: 24E0003**		
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
cis-1,2-Dichloroethene	**12.7**	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
Tetrachloroethene (PCE)	**0.550**	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
Trichloroethene (TCE)	**53.1**	---	0.400	ug/L	1	05/01/24 15:24	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 15:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:24	EPA 8260D	
Vinyl chloride	**0.570**	---	0.200	ug/L	1	05/01/24 15:24	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-2-042424 (A4D1697-15)				**Matrix: Water**		**Batch: 24E0003**		
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*05/01/24 15:24*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/01/24 15:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/01/24 15:24*	*EPA 8260D*	
MW15B-042424 (A4D1697-16)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/01/24 15:51	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/01/24 15:51	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15B-042424 (A4D1697-16)				**Matrix: Water**		**Batch: 24E0003**		
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
Tetrachloroethene (PCE)	**1.47**	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/01/24 15:51	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/01/24 15:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/01/24 15:51	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/01/24 15:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*05/01/24 15:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/01/24 15:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*05/01/24 15:51*	*EPA 8260D*	
MW15B-042424 (A4D1697-16RE1)				**Matrix: Water**		**Batch: 24E0078**		
Trichloroethene (TCE)	**0.760**	---	0.400	ug/L	1	05/02/24 20:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*05/02/24 20:03*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/02/24 20:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*05/02/24 20:03*	*EPA 8260D*	
MW18B-042424-U (A4D1697-17)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	05/01/24 20:25	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	05/01/24 20:25	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042424-U (A4D1697-17)				**Matrix: Water**		**Batch: 24E0003**		
Chloromethane	ND	---	125	ug/L	25	05/01/24 20:25	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1-Dichloroethene	**24.0**	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
cis-1,2-Dichloroethene	**508**	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	05/01/24 20:25	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
Tetrachloroethene (PCE)	**44.0**	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	05/01/24 20:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	05/01/24 20:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Trichloroethene (TCE)	**3980**	---	10.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	05/01/24 20:25	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042424-U (A4D1697-17)				**Matrix: Water**		**Batch: 24E0003**		
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	05/01/24 20:25	EPA 8260D	
Vinyl chloride	**16.2**	---	5.00	ug/L	25	05/01/24 20:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*	*1*	*05/01/24 20:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/01/24 20:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*05/01/24 20:25*	*EPA 8260D*	
MW18B-042424-L (A4D1697-18RE1)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	05/03/24 03:20	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	05/03/24 03:20	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	05/03/24 03:20	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1-Dichloroethene	**27.8**	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
cis-1,2-Dichloroethene	**555**	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042424-L (A4D1697-18RE1)				**Matrix: Water**		**Batch: 24E0078**		
2,2-Dichloropropane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	05/03/24 03:20	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
Tetrachloroethene (PCE)	**45.0**	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Trichloroethene (TCE)	**4310**	---	10.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	05/03/24 03:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	05/03/24 03:20	EPA 8260D	
Vinyl chloride	**18.0**	---	5.00	ug/L	25	05/03/24 03:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*05/03/24 03:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/03/24 03:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*05/03/24 03:20*	*EPA 8260D*	
MW17B-042424-U (A4D1697-19)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/01/24 17:14	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/01/24 17:14	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/01/24 17:14	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042424-U (A4D1697-19)				**Matrix: Water**		**Batch: 24E0003**		
Dibromochloromethane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
cis-1,2-Dichloroethene	**28.0**	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/01/24 17:14	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
Tetrachloroethene (PCE)	**3.30**	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 17:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Trichloroethene (TCE)	**324**	---	2.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/01/24 17:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/01/24 17:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 107 %*		*Limits: 80-120 %*	*1*	*05/01/24 17:14*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042424-U (A4D1697-19)				**Matrix: Water**		**Batch: 24E0003**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*05/01/24 17:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*05/01/24 17:14*	*EPA 8260D*	
MW17B-042424-L (A4D1697-20)				**Matrix: Water**		**Batch: 24E0003**		
Bromobenzene	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/01/24 17:41	EPA 8260D	Q-54m
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/01/24 17:41	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/01/24 17:41	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
cis-1,2-Dichloroethene	**27.8**	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042424-L (A4D1697-20)				**Matrix: Water**		**Batch: 24E0003**		
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/01/24 17:41	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
Tetrachloroethene (PCE)	**3.25**	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/01/24 17:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Trichloroethene (TCE)	**318**	---	2.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/01/24 17:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/01/24 17:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*05/01/24 17:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/01/24 17:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*05/01/24 17:41*	*EPA 8260D*	
DPE-7-042524 (A4D1697-24)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 22:20	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE-7-042524 (A4D1697-24)				**Matrix: Water**		**Batch: 24E0078**		
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1-Dichloroethene	**0.440**	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
cis-1,2-Dichloroethene	**36.4**	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
trans-1,2-Dichloroethene	**0.510**	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
Trichloroethene (TCE)	**34.4**	---	0.400	ug/L	1	05/02/24 22:20	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 22:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 22:20	EPA 8260D	
Vinyl chloride	**0.280**	---	0.200	ug/L	1	05/02/24 22:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*05/02/24 22:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/02/24 22:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*05/02/24 22:20*	*EPA 8260D*	
DPE-8-042524 (A4D1697-25)				**Matrix: Water**		**Batch: 24E0078**		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE-8-042524 (A4D1697-25)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/03/24 01:58	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/03/24 01:58	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/03/24 01:58	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
cis-1,2-Dichloroethene	**22.8**	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/03/24 01:58	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/03/24 01:58	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE-8-042524 (A4D1697-25)				**Matrix: Water**		**Batch: 24E0078**		
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
Tetrachloroethene (PCE)	**10.3**	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 01:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Trichloroethene (TCE)	**690**	---	2.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/03/24 01:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/03/24 01:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits: 80-120 %*	*1*	*05/03/24 01:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/03/24 01:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/03/24 01:58*	*EPA 8260D*	
EW4-042524 (A4D1697-26)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	05/03/24 02:53	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-042524 (A4D1697-26)				**Matrix: Water**		**Batch: 24E0078**		
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
cis-1,2-Dichloroethene	**330**	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Tetrachloroethene (PCE)	**12.1**	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Trichloroethene (TCE)	**1310**	---	4.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	05/03/24 02:53	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	05/03/24 02:53	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	05/03/24 02:53	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*05/03/24 02:53*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/03/24 02:53*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*05/03/24 02:53*	*EPA 8260D*	
EW5A-042524 (A4D1697-27)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-042524 (A4D1697-27)				**Matrix: Water**		**Batch: 24E0078**		
Bromoform	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	05/03/24 01:31	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	05/03/24 01:31	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	05/03/24 01:31	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1-Dichloroethene	**1.62**	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
cis-1,2-Dichloroethene	**101**	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
trans-1,2-Dichloroethene	**1.02**	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	05/03/24 01:31	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Tetrachloroethene (PCE)	**2.00**	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-042524 (A4D1697-27)				**Matrix: Water**		**Batch: 24E0078**		
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
Trichloroethene (TCE)	**231**	---	0.800	ug/L	2	05/03/24 01:31	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	05/03/24 01:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	05/03/24 01:31	EPA 8260D	
Vinyl chloride	**4.28**	---	0.400	ug/L	2	05/03/24 01:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*05/03/24 01:31*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/03/24 01:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*05/03/24 01:31*	*EPA 8260D*	
EW6-042524 (A4D1697-28)				**Matrix: Water**		**Batch: 24E0144**		
Bromobenzene	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/03/24 22:06	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/03/24 22:06	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/03/24 22:06	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042524 (A4D1697-28)				**Matrix: Water**		**Batch: 24E0144**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	Q-42
cis-1,2-Dichloroethene	**67.7**	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/03/24 22:06	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
Tetrachloroethene (PCE)	**3.35**	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 22:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Trichloroethene (TCE)	**408**	---	2.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/03/24 22:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/03/24 22:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:*	*80-120 %*	*1*	*05/03/24 22:06*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*05/03/24 22:06*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*	*1*	*05/03/24 22:06*	*EPA 8260D*	
EW6-042524-D (A4D1697-29)				**Matrix: Water**		**Batch: 24E0144**		
Bromobenzene	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	05/03/24 23:01	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042524-D (A4D1697-29)				**Matrix: Water**		**Batch: 24E0144**		
Chlorobenzene	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	05/03/24 23:01	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	05/03/24 23:01	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
cis-1,2-Dichloroethene	**69.8**	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	05/03/24 23:01	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
Tetrachloroethene (PCE)	**3.55**	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 23:01	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	05/03/24 23:01	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042524-D (A4D1697-29)				**Matrix: Water**		**Batch: 24E0144**		
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Trichloroethene (TCE)	**414**	---	2.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	05/03/24 23:01	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	05/03/24 23:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:* *80-120 %*	*1*	*05/03/24 23:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/03/24 23:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*05/03/24 23:01*	*EPA 8260D*	
EW7-042524 (A4D1697-30RE1)				**Matrix: Water**		**Batch: 24E0275**		
Bromobenzene	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/08/24 12:56	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
cis-1,2-Dichloroethene	**9.23**	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-042524 (A4D1697-30RE1)				**Matrix: Water**		**Batch: 24E0275**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
Tetrachloroethene (PCE)	**1.39**	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
Trichloroethene (TCE)	**23.2**	---	0.400	ug/L	1	05/08/24 12:56	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/08/24 12:56	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/08/24 12:56	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/08/24 12:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:* *80-120 %*	*1*	*05/08/24 12:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/08/24 12:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*05/08/24 12:56*	*EPA 8260D*	
Trip Blank #3514 (A4D1697-31)				**Matrix: Water**		**Batch: 24E0144**		
Bromobenzene	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1802

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank #3514 (A4D1697-31)				**Matrix: Water**		**Batch: 24E0144**		
Chloromethane	ND	---	5.00	ug/L	1	05/03/24 12:59	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/03/24 12:59	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/03/24 12:59	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/03/24 12:59	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/03/24 12:59	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank #3514 (A4D1697-31)				**Matrix: Water**		**Batch: 24E0144**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/03/24 12:59	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/03/24 12:59	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*	*1*	*05/03/24 12:59*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*05/03/24 12:59*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*05/03/24 12:59*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C							**Water**					
Blank (24E0003-BLK1)			Prepared: 05/01/24 09:18		Analyzed: 05/01/24 10:24							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	Q-54m
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C								**Water**				
Blank (24E0003-BLK1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 10:24									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (24E0003-BS1)			Prepared: 05/01/24 08:18 Analyzed: 05/01/24 08:45									
EPA 8260D												
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	25.6	---	1.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	15.7	---	1.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
Bromomethane	11.5	---	5.00	ug/L	1	20.0	---	**57**	**80-120%**	---	---	Q-54m
Carbon tetrachloride	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	41.7	---	5.00	ug/L	1	20.0	---	**208**	**80-120%**	---	---	Q-56
Chloroform	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Chloromethane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
2-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Chlorotoluene	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Dibromochloromethane	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C							Water					
LCS (24E0003-BS1)			Prepared: 05/01/24 08:18 Analyzed: 05/01/24 08:45									
1,3-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dichlorodifluoromethane	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,1-Dichloroethane	22.1	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
1,1-Dichloroethene	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
cis-1,2-Dichloroethene	22.3	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
trans-1,2-Dichloroethene	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichloropropane	21.3	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
2,2-Dichloropropane	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,3-Dichloropropene	16.6	---	1.00	ug/L	1	20.0	---	83	80-120%	---	---	
Hexachlorobutadiene	18.7	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	20.0	---	10.0	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.3	---	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
Tetrachloroethene (PCE)	18.7	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,3-Trichlorobenzene	19.8	---	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2-Trichloroethane	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	18.8	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
Trichlorofluoromethane	35.4	---	2.00	ug/L	1	20.0	---	**177**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Vinyl chloride	21.1	---	0.200	ug/L	1	20.0	---	105	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				
Duplicate (24E0003-DUP1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 19:58									

QC Source Sample: MW2B-042424 (A4D1697-01)

EPA 8260D

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C							**Water**					
Duplicate (24E0003-DUP1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 19:58									
QC Source Sample: MW2B-042424 (A4D1697-01)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	Q-54m
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	2.20	---	---	***	30%	
cis-1,2-Dichloroethene	**52.4**	---	4.00	ug/L	10	---	56.5	---	---	8	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C							**Water**					
Duplicate (24E0003-DUP1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 19:58									
QC Source Sample: MW2B-042424 (A4D1697-01)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**6.20**	---	4.00	ug/L	10	---	6.50	---	---	5	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1120**	---	4.00	ug/L	10	---	1250	---	---	11	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*97 %*			*80-120 %*			*"*			
Matrix Spike (24E0003-MS1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 12:40									
QC Source Sample: MW11-2-042424-D (A4D1697-08)												
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Bromochloromethane	26.5	---	1.00	ug/L	1	20.0	ND	**132**	**78-123%**	---	---	Q-54i
Bromodichloromethane	23.9	---	1.00	ug/L	1	20.0	ND	119	79-125%	---	---	
Bromoform	16.9	---	1.00	ug/L	1	20.0	ND	85	66-130%	---	---	Q-54l
Bromomethane	17.0	---	5.00	ug/L	1	20.0	ND	85	53-141%	---	---	Q-54m
Carbon tetrachloride	21.2	---	1.00	ug/L	1	20.0	ND	106	72-136%	---	---	
Chlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	45.2	---	5.00	ug/L	1	20.0	ND	**226**	**60-138%**	---	---	Q-54j
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	19.1	---	5.00	ug/L	1	20.0	ND	95	50-139%	---	---	Q-54k
2-Chlorotoluene	20.9	---	1.00	ug/L	1	20.0	ND	104	79-122%	---	---	
4-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	ND	112	78-122%	---	---	
Dibromochloromethane	18.4	---	1.00	ug/L	1	20.0	ND	92	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.1	---	5.00	ug/L	1	20.0	ND	95	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.6	---	0.500	ug/L	1	20.0	ND	103	77-121%	---	---	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0003 - EPA 5030C							**Water**					
Matrix Spike (24E0003-MS1)			Prepared: 05/01/24 09:18 Analyzed: 05/01/24 12:40									
QC Source Sample: MW11-2-042424-D (A4D1697-08)												
Dibromomethane	24.1	---	1.00	ug/L	1	20.0	ND	120	79-123%	---	---	
1,2-Dichlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,3-Dichlorobenzene	21.9	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	22.9	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	22.9	---	0.400	ug/L	1	20.0	ND	114	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.2	---	0.400	ug/L	1	20.0	ND	121	73-128%	---	---	
1,1-Dichloroethene	28.8	---	0.400	ug/L	1	20.0	3.18	128	71-131%	---	---	
cis-1,2-Dichloroethene	401	---	0.400	ug/L	1	20.0	356	**228**	**78-123%**	---	---	E, Q-03
trans-1,2-Dichloroethene	26.1	---	0.400	ug/L	1	20.0	3.28	114	75-124%	---	---	
1,2-Dichloropropane	22.0	---	0.500	ug/L	1	20.0	ND	110	78-122%	---	---	
1,3-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	19.1	---	1.00	ug/L	1	20.0	ND	95	60-139%	---	---	
1,1-Dichloropropene	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	ND	94	75-124%	---	---	
trans-1,3-Dichloropropene	18.2	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Hexachlorobutadiene	20.8	---	5.00	ug/L	1	20.0	ND	104	66-134%	---	---	
Methylene chloride	20.1	---	10.0	ug/L	1	20.0	ND	101	74-124%	---	---	
1,1,1,2-Tetrachloroethane	19.9	---	0.400	ug/L	1	20.0	ND	100	78-124%	---	---	
1,1,2,2-Tetrachloroethane	23.6	---	0.500	ug/L	1	20.0	ND	118	71-121%	---	---	
Tetrachloroethene (PCE)	59.7	---	0.400	ug/L	1	20.0	36.8	114	74-129%	---	---	
1,2,3-Trichlorobenzene	20.8	---	2.00	ug/L	1	20.0	ND	104	69-129%	---	---	
1,1,2-Trichloroethane	22.1	---	0.500	ug/L	1	20.0	0.310	109	80-120%	---	---	
1,2,4-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	22.6	---	0.400	ug/L	1	20.0	ND	113	74-131%	---	---	
Trichloroethene (TCE)	2350	---	0.400	ug/L	1	20.0	2460	**-568**	**79-123%**	---	---	E, Q-03
Trichlorofluoromethane	38.1	---	2.00	ug/L	1	20.0	ND	**190**	**65-141%**	---	---	Q-54f
1,2,3-Trichloropropane	22.7	---	1.00	ug/L	1	20.0	ND	113	73-122%	---	---	
Vinyl chloride	35.5	---	0.200	ug/L	1	20.0	10.8	123	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Blank (24E0078-BLK1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 19:08									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID: A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C									Water			
Blank (24E0078-BLK1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 19:08									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (24E0078-BS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 18:13									
EPA 8260D												
Bromobenzene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	25.6	---	1.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	15.5	---	1.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
Bromomethane	28.1	---	5.00	ug/L	1	20.0	---	**140**	**80-120%**	---	---	Q-56
Carbon tetrachloride	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	44.6	---	5.00	ug/L	1	20.0	---	**223**	**80-120%**	---	---	Q-56
Chloroform	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	20.2	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
2-Chlorotoluene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	17.1	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.4	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

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Philip Nerenberg

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
LCS (24E0078-BS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 18:13									
1,3-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.4	---	0.400	ug/L	1	20.0	---	117	80-120%	---	---	
1,1-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	15.5	---	1.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
1,1-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	16.7	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Hexachlorobutadiene	18.2	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
Methylene chloride	19.7	---	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	17.7	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,3-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,2-Trichloroethane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,4-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1-Trichloroethane	20.3	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Trichlorofluoromethane	36.2	---	2.00	ug/L	1	20.0	---	**181**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*89 %*		*80-120 %*			*"*				
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									

QC Source Sample: MW11-2-042424 (A4D1697-07RE1)

EPA 8260D

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							Water					
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									
QC Source Sample: MW11-2-042424 (A4D1697-07RE1)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**315**	---	40.0	ug/L	100	---	298	---	---	6	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									
QC Source Sample: MW11-2-042424 (A4D1697-07RE1)												
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	40.0	ug/L	100	---	41.0	---	---	***	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1990**	---	40.0	ug/L	100	---	1970	---	---	1	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	100	---	18.0	---	---	***	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 108 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*103 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*				*"*			
Matrix Spike (24E0078-MS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 22:47									**COMP, CONT**
QC Source Sample: Non-SDG (A4E0851-07)												
EPA 8260D												
Bromobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Bromochloromethane	28.1	---	1.00	ug/L	1	20.0	ND	**141**	**78-123%**	---	---	Q-54i
Bromodichloromethane	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
Bromoform	17.4	---	1.00	ug/L	1	20.0	ND	87	66-130%	---	---	Q-54l
Bromomethane	33.2	---	5.00	ug/L	1	20.0	ND	**166**	**53-141%**	---	---	Q-54d
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	ND	113	72-136%	---	---	
Chlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	50.3	---	5.00	ug/L	1	20.0	ND	**251**	**60-138%**	---	---	Q-54
Chloroform	23.5	---	1.00	ug/L	1	20.0	ND	118	79-124%	---	---	
Chloromethane	22.7	---	5.00	ug/L	1	20.0	ND	113	50-139%	---	---	
2-Chlorotoluene	21.0	---	1.00	ug/L	1	20.0	ND	105	79-122%	---	---	
4-Chlorotoluene	23.2	---	1.00	ug/L	1	20.0	ND	116	78-122%	---	---	
Dibromochloromethane	18.8	---	1.00	ug/L	1	20.0	ND	94	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.8	---	5.00	ug/L	1	20.0	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Matrix Spike (24E0078-MS1)			Prepared: 05/02/24 13:25		Analyzed: 05/02/24 22:47							**COMP, CONT**
QC Source Sample: Non-SDG (A4E0851-07)												
Dibromomethane	24.8	---	1.00	ug/L	1	20.0	ND	**124**	**79-123%**	---	---	Q-01
1,2-Dichlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,3-Dichlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,4-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	79-120%	---	---	
Dichlorodifluoromethane	23.8	---	1.00	ug/L	1	20.0	ND	119	32-152%	---	---	
1,1-Dichloroethane	24.1	---	0.400	ug/L	1	20.0	ND	121	77-125%	---	---	
1,2-Dichloroethane (EDC)	26.0	---	0.400	ug/L	1	20.0	ND	**130**	**73-128%**	---	---	Q-01
1,1-Dichloroethene	26.7	---	0.400	ug/L	1	20.0	ND	**133**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	23.9	---	0.400	ug/L	1	20.0	ND	119	78-123%	---	---	
trans-1,2-Dichloroethene	23.2	---	0.400	ug/L	1	20.0	ND	116	75-124%	---	---	
1,2-Dichloropropane	23.3	---	0.500	ug/L	1	20.0	ND	117	78-122%	---	---	
1,3-Dichloropropane	22.7	---	1.00	ug/L	1	20.0	ND	114	80-120%	---	---	
2,2-Dichloropropane	16.6	---	1.00	ug/L	1	20.0	ND	83	60-139%	---	---	Q-54n
1,1-Dichloropropene	25.3	---	1.00	ug/L	1	20.0	ND	**127**	**79-125%**	---	---	Q-01
cis-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	ND	104	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Hexachlorobutadiene	20.3	---	5.00	ug/L	1	20.0	ND	101	66-134%	---	---	
Methylene chloride	21.4	---	10.0	ug/L	1	20.0	ND	107	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.9	---	0.400	ug/L	1	20.0	ND	104	78-124%	---	---	
1,1,2,2-Tetrachloroethane	25.0	---	0.500	ug/L	1	20.0	ND	**125**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	20.7	---	0.400	ug/L	1	20.0	ND	104	74-129%	---	---	
1,2,3-Trichlorobenzene	20.9	---	2.00	ug/L	1	20.0	ND	105	69-129%	---	---	
1,1,2-Trichloroethane	22.8	---	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
1,2,4-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	23.8	---	0.400	ug/L	1	20.0	ND	119	74-131%	---	---	
Trichloroethene (TCE)	20.4	---	0.400	ug/L	1	20.0	ND	102	79-123%	---	---	
Trichlorofluoromethane	43.1	---	2.00	ug/L	1	20.0	ND	**216**	**65-141%**	---	---	Q-54g
1,2,3-Trichloropropane	24.6	---	1.00	ug/L	1	20.0	ND	**123**	**73-122%**	---	---	Q-01
Vinyl chloride	24.9	---	0.200	ug/L	1	20.0	ND	124	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 98 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*88 %*	*80-120 %*	*"*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Blank (24E0144-BLK1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 12:30									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Blank (24E0144-BLK1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 12:30									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (24E0144-BS1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 11:17									
EPA 8260D												
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	26.4	---	1.00	ug/L	1	20.0	---	**132**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Bromoform	16.8	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Bromomethane	24.6	---	5.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroethane	48.0	---	5.00	ug/L	1	20.0	---	**240**	**80-120%**	---	---	Q-56
Chloroform	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloromethane	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
2-Chlorotoluene	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromochloromethane	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.7	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2-Dichlorobenzene	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C								**Water**				
LCS (24E0144-BS1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 11:17									
1,3-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,4-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dichlorodifluoromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichloroethane (EDC)	24.4	---	0.400	ug/L	1	20.0	---	**122**	**80-120%**	---	---	Q-56
1,1-Dichloroethene	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
cis-1,2-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
2,2-Dichloropropane	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Hexachlorobutadiene	19.2	---	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
Methylene chloride	21.0	---	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	22.4	---	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
1,2,4-Trichlorobenzene	19.0	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1-Trichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichlorofluoromethane	39.0	---	2.00	ug/L	1	20.0	---	**195**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Vinyl chloride	21.3	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*88 %*		*80-120 %*			*"*				
Duplicate (24E0144-DUP1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34									

QC Source Sample: EW6-042524 (A4D1697-28)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Duplicate (24E0144-DUP1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34									
QC Source Sample: EW6-042524 (A4D1697-28)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	**---**	**30%**	Q-17
cis-1,2-Dichloroethene	**70.0**	---	2.00	ug/L	5	---	67.7	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							Water					
Duplicate (24E0144-DUP1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34									
QC Source Sample: EW6-042524 (A4D1697-28)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**3.25**	---	2.00	ug/L	5	---	3.35	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**422**	---	2.00	ug/L	5	---	408	---	---	3	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 116 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*102 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*				*"*			
Matrix Spike (24E0144-MS1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 16:11									
QC Source Sample: Non-SDG (A4D1741-08)												
EPA 8260D												
Bromobenzene	19.5	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Bromochloromethane	26.7	---	1.00	ug/L	1	20.0	ND	**133**	**78-123%**	---	---	Q-54a
Bromodichloromethane	23.5	---	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
Bromoform	17.2	---	1.00	ug/L	1	20.0	ND	86	66-130%	---	---	
Bromomethane	28.6	---	5.00	ug/L	1	20.0	ND	**143**	**53-141%**	---	---	Q-54e
Carbon tetrachloride	22.1	---	1.00	ug/L	1	20.0	ND	111	72-136%	---	---	
Chlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	47.4	---	5.00	ug/L	1	20.0	ND	**237**	**60-138%**	---	---	Q-54b
Chloroform	22.2	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	20.9	---	5.00	ug/L	1	20.0	ND	105	50-139%	---	---	
2-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-122%	---	---	
4-Chlorotoluene	22.0	---	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	19.0	---	1.00	ug/L	1	20.0	ND	95	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.9	---	5.00	ug/L	1	20.0	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Matrix Spike (24E0144-MS1)			Prepared: 05/03/24 11:47		Analyzed: 05/03/24 16:11							
QC Source Sample: Non-SDG (A4D1741-08)												
Dibromomethane	23.6	---	1.00	ug/L	1	20.0	ND	118	79-123%	---	---	
1,2-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,3-Dichlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	22.3	---	1.00	ug/L	1	20.0	ND	112	32-152%	---	---	
1,1-Dichloroethane	23.2	---	0.400	ug/L	1	20.0	ND	116	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.6	---	0.400	ug/L	1	20.0	ND	123	73-128%	---	---	Q-54c
1,1-Dichloroethene	26.5	---	0.400	ug/L	1	20.0	ND	**132**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	22.9	---	0.400	ug/L	1	20.0	ND	115	78-123%	---	---	
trans-1,2-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	75-124%	---	---	
1,2-Dichloropropane	21.8	---	0.500	ug/L	1	20.0	ND	109	78-122%	---	---	
1,3-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	ND	111	80-120%	---	---	
2,2-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	ND	91	60-139%	---	---	
1,1-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	ND	89	75-124%	---	---	
trans-1,3-Dichloropropene	18.4	---	1.00	ug/L	1	20.0	ND	92	73-127%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	ND	99	66-134%	---	---	
Methylene chloride	20.6	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.2	---	0.400	ug/L	1	20.0	ND	101	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.9	---	0.500	ug/L	1	20.0	ND	114	71-121%	---	---	
Tetrachloroethene (PCE)	200	---	0.400	ug/L	1	20.0	179	107	74-129%	---	---	E
1,2,3-Trichlorobenzene	20.5	---	2.00	ug/L	1	20.0	ND	103	69-129%	---	---	
1,1,2-Trichloroethane	22.6	---	0.500	ug/L	1	20.0	ND	113	80-120%	---	---	
1,2,4-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	ND	97	69-130%	---	---	
1,1,1-Trichloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	74-131%	---	---	
Trichloroethene (TCE)	20.0	---	0.400	ug/L	1	20.0	ND	100	79-123%	---	---	
Trichlorofluoromethane	41.6	---	2.00	ug/L	1	20.0	ND	**208**	**65-141%**	---	---	Q-54h
1,2,3-Trichloropropane	22.4	---	1.00	ug/L	1	20.0	ND	112	73-122%	---	---	
Vinyl chloride	23.6	---	0.200	ug/L	1	20.0	ND	118	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 99 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*98 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*89 %*	*80-120 %*	*"*	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Blank (24E0275-BLK1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 09:13							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C									Water			
Blank (24E0275-BLK1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 09:13									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24E0275-BS1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 08:06									
EPA 8260D												
Bromobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromodichloromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromoform	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromomethane	16.4	---	5.00	ug/L	1	20.0	---	82	80-120%	---	---	
Carbon tetrachloride	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Chlorobenzene	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	19.0	---	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroform	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Chloromethane	16.5	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
2-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromochloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.5	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromomethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1802

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							Water					
LCS (24E0275-BS1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 08:06							
1,3-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethane	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,1-Dichloroethene	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	18.3	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,3-Dichloropropene	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Hexachlorobutadiene	20.1	---	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Methylene chloride	20.4	---	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	23.0	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Tetrachloroethene (PCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,3-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2-Trichloroethane	19.7	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,4-Trichlorobenzene	18.0	---	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,1-Trichloroethane	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Trichloroethene (TCE)	17.7	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
Trichlorofluoromethane	22.4	---	2.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Vinyl chloride	18.7	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 16:57							
QC Source Sample: Non-SDG (A4E1004-01)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 16:57									
QC Source Sample: Non-SDG (A4E1004-01)												
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	**242**	---	40.0	ug/L	100	---	242	---	---	0	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	**237**	---	40.0	ug/L	100	---	241	---	---	2	30%	
cis-1,2-Dichloroethene	**7120**	---	40.0	ug/L	100	---	7220	---	---	1	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	32.0	---	---	***	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 16:57									
QC Source Sample: Non-SDG (A4E1004-01)												
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**5390**	---	40.0	ug/L	100	---	5490	---	---	2	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	**1000**	---	40.0	ug/L	100	---	1040	---	---	4	30%	
Trichloroethene (TCE)	**2480**	---	40.0	ug/L	100	---	2630	---	---	6	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	**893**	---	20.0	ug/L	100	---	920	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
Matrix Spike (24E0275-MS1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 11:50									
QC Source Sample: Non-SDG (A4E0804-05)												
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Bromochloromethane	21.9	---	1.00	ug/L	1	20.0	ND	110	78-123%	---	---	
Bromodichloromethane	21.9	---	1.00	ug/L	1	20.0	ND	109	79-125%	---	---	
Bromoform	22.9	---	1.00	ug/L	1	20.0	ND	115	66-130%	---	---	
Bromomethane	19.4	---	5.00	ug/L	1	20.0	ND	97	53-141%	---	---	
Carbon tetrachloride	27.5	---	1.00	ug/L	1	20.0	ND	**137**	**72-136%**	---	---	Q-01
Chlorobenzene	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	22.5	---	5.00	ug/L	1	20.0	ND	112	60-138%	---	---	
Chloroform	21.3	---	1.00	ug/L	1	20.0	ND	106	79-124%	---	---	
Chloromethane	19.2	---	5.00	ug/L	1	20.0	ND	96	50-139%	---	---	
2-Chlorotoluene	22.6	---	1.00	ug/L	1	20.0	ND	113	79-122%	---	---	
4-Chlorotoluene	22.7	---	1.00	ug/L	1	20.0	ND	114	78-122%	---	---	
Dibromochloromethane	22.6	---	1.00	ug/L	1	20.0	ND	113	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.6	---	5.00	ug/L	1	20.0	ND	98	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.9	---	0.500	ug/L	1	20.0	ND	114	77-121%	---	---	
Dibromomethane	21.1	---	1.00	ug/L	1	20.0	ND	105	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Matrix Spike (24E0275-MS1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 11:50							
QC Source Sample: Non-SDG (A4E0804-05)												
1,2-Dichlorobenzene	22.6	---	0.500	ug/L	1	20.0	ND	113	80-120%	---	---	
1,3-Dichlorobenzene	23.3	---	0.500	ug/L	1	20.0	ND	117	80-120%	---	---	
1,4-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	22.9	---	1.00	ug/L	1	20.0	ND	115	32-152%	---	---	
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	ND	106	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.5	---	0.400	ug/L	1	20.0	ND	102	73-128%	---	---	
1,1-Dichloroethene	24.2	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	1.10	107	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	20.2	---	0.500	ug/L	1	20.0	ND	101	78-122%	---	---	
1,3-Dichloropropane	21.3	---	1.00	ug/L	1	20.0	ND	106	80-120%	---	---	
2,2-Dichloropropane	25.7	---	1.00	ug/L	1	20.0	ND	128	60-139%	---	---	
1,1-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	17.6	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	22.7	---	1.00	ug/L	1	20.0	ND	113	73-127%	---	---	
Hexachlorobutadiene	20.7	---	5.00	ug/L	1	20.0	ND	104	66-134%	---	---	
Methylene chloride	21.7	---	10.0	ug/L	1	20.0	ND	109	74-124%	---	---	
1,1,1,2-Tetrachloroethane	24.7	---	0.400	ug/L	1	20.0	ND	124	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.1	---	0.500	ug/L	1	20.0	ND	106	71-121%	---	---	
Tetrachloroethene (PCE)	24.8	---	0.400	ug/L	1	20.0	0.230	123	74-129%	---	---	
1,2,3-Trichlorobenzene	20.3	---	2.00	ug/L	1	20.0	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.5	---	2.00	ug/L	1	20.0	ND	97	69-130%	---	---	
1,1,1-Trichloroethane	23.1	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	20.4	---	0.400	ug/L	1	20.0	ND	102	79-123%	---	---	
Trichlorofluoromethane	25.2	---	2.00	ug/L	1	20.0	ND	126	65-141%	---	---	
1,2,3-Trichloropropane	18.6	---	1.00	ug/L	1	20.0	ND	93	73-122%	---	---	
Vinyl chloride	21.2	---	0.200	ug/L	1	20.0	ND	106	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24E0003							
A4D1697-01	Water	EPA 8260D	04/24/24 11:54	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-02	Water	EPA 8260D	04/24/24 12:05	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-03	Water	EPA 8260D	04/24/24 12:15	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-04	Water	EPA 8260D	04/24/24 11:45	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-05	Water	EPA 8260D	04/24/24 10:21	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-06	Water	EPA 8260D	04/24/24 11:38	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-07	Water	EPA 8260D	04/24/24 10:58	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-08	Water	EPA 8260D	04/24/24 10:59	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-09	Water	EPA 8260D	04/24/24 11:10	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-11	Water	EPA 8260D	04/24/24 10:15	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-13	Water	EPA 8260D	04/24/24 11:22	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-15	Water	EPA 8260D	04/24/24 08:54	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-16	Water	EPA 8260D	04/24/24 11:30	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-17	Water	EPA 8260D	04/24/24 13:30	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-19	Water	EPA 8260D	04/24/24 14:10	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
A4D1697-20	Water	EPA 8260D	04/24/24 14:20	05/01/24 09:18	5mL/5mL	5mL/5mL	1.00
Batch: 24E0078							
A4D1697-07RE1	Water	EPA 8260D	04/24/24 10:58	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-08RE1	Water	EPA 8260D	04/24/24 10:59	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-10RE1	Water	EPA 8260D	04/24/24 13:00	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-12RE1	Water	EPA 8260D	04/24/24 09:25	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-14RE1	Water	EPA 8260D	04/24/24 08:30	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-16RE1	Water	EPA 8260D	04/24/24 11:30	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-18RE1	Water	EPA 8260D	04/24/24 13:40	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-24	Water	EPA 8260D	04/25/24 14:15	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-25	Water	EPA 8260D	04/25/24 13:56	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-26	Water	EPA 8260D	04/25/24 13:18	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-27	Water	EPA 8260D	04/25/24 13:30	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
Batch: 24E0144							
A4D1697-28	Water	EPA 8260D	04/25/24 12:55	05/03/24 11:47	5mL/5mL	5mL/5mL	1.00
A4D1697-29	Water	EPA 8260D	04/25/24 12:56	05/03/24 11:47	5mL/5mL	5mL/5mL	1.00
A4D1697-31	Water	EPA 8260D	04/24/24 00:00	05/03/24 11:47	5mL/5mL	5mL/5mL	1.00
Batch: 24E0275							
A4D1697-30RE1	Water	EPA 8260D	04/25/24 13:10	05/08/24 08:45	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

COMP	Analyzed sample is a composite of discrete samples that was performed in the laboratory.
CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
E	Estimated Value. The result is above the calibration range of the instrument.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +103%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +120%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +20%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +57%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +61%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +75%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54j	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +88%. The results are reported as Estimated Values.
Q-54k	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**John Kuiper**	**A4D1697 - 05 15 24 1802**

Q-54l	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54m	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -23%. The results are reported as Estimated Values.
Q-54n	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

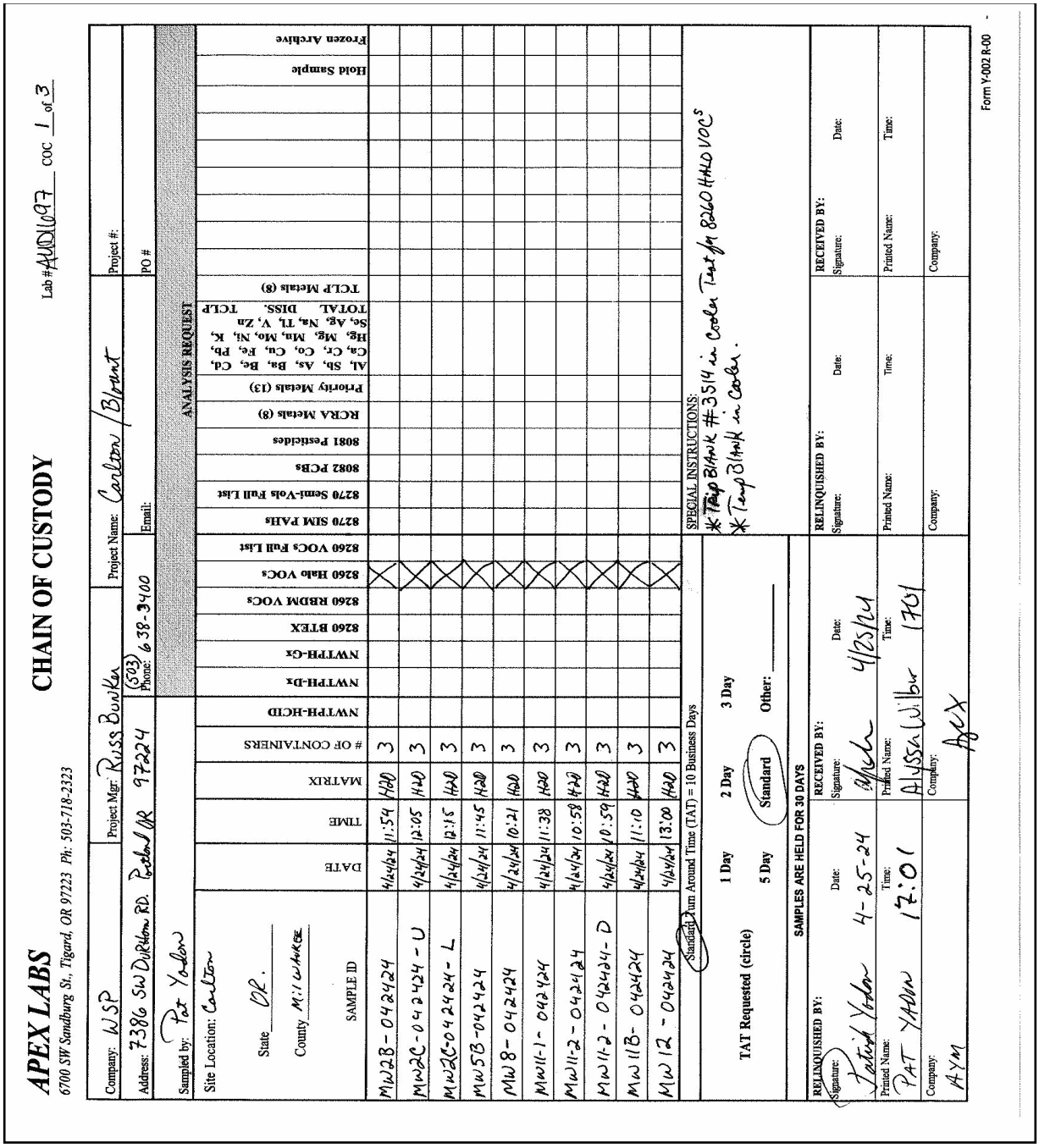
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # AUQ1697 COC 1 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton / Blount | Project #:
Address: 7386 SW Durham Rd. Portland OR 97224 | (503) Phone: 638-3400 | Email: | PO #
Sampled by: Pat Yadon
Site Location: Carlton
State OR.
County Yamhill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW28-042424	4/24/24	11:54	H2O	3						X											
MW2C-042424-U	4/24/24	12:05	H2O	3						X											
MW2C-042424-L	4/24/24	12:15	H2O	3						X											
MW58-042424	4/24/24	11:45	H2O	3						X											
MW8-042424	4/24/24	10:21	H2O	3						X											
MW11-1-042424	4/24/24	11:38	H2O	3						X											
MW11-2-042424	4/24/24	10:58	H2O	3						X											
MW11-2-042424-D	4/24/24	10:59	H2O	3						X											
MW11B-042424	4/24/24	11:10	H2O	3						X											
MW12-042424	4/24/24	13:00	H2O	3						X											

SPECIAL INSTRUCTIONS:
* Temp Blank #3514 in Cooler Test for 8260 HHLD VOCs
* Temp Blank in Cooler.

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yadon	Signature:	Signature:	Signature:
Date: 4-25-24	Date:	Date:	Date:
Time: 17:01	Time:	Time:	Time:
Printed Name: PAT YADON	Printed Name: ALYSSA WEBB	Printed Name:	Printed Name:
Company: AYM	Company: APEX	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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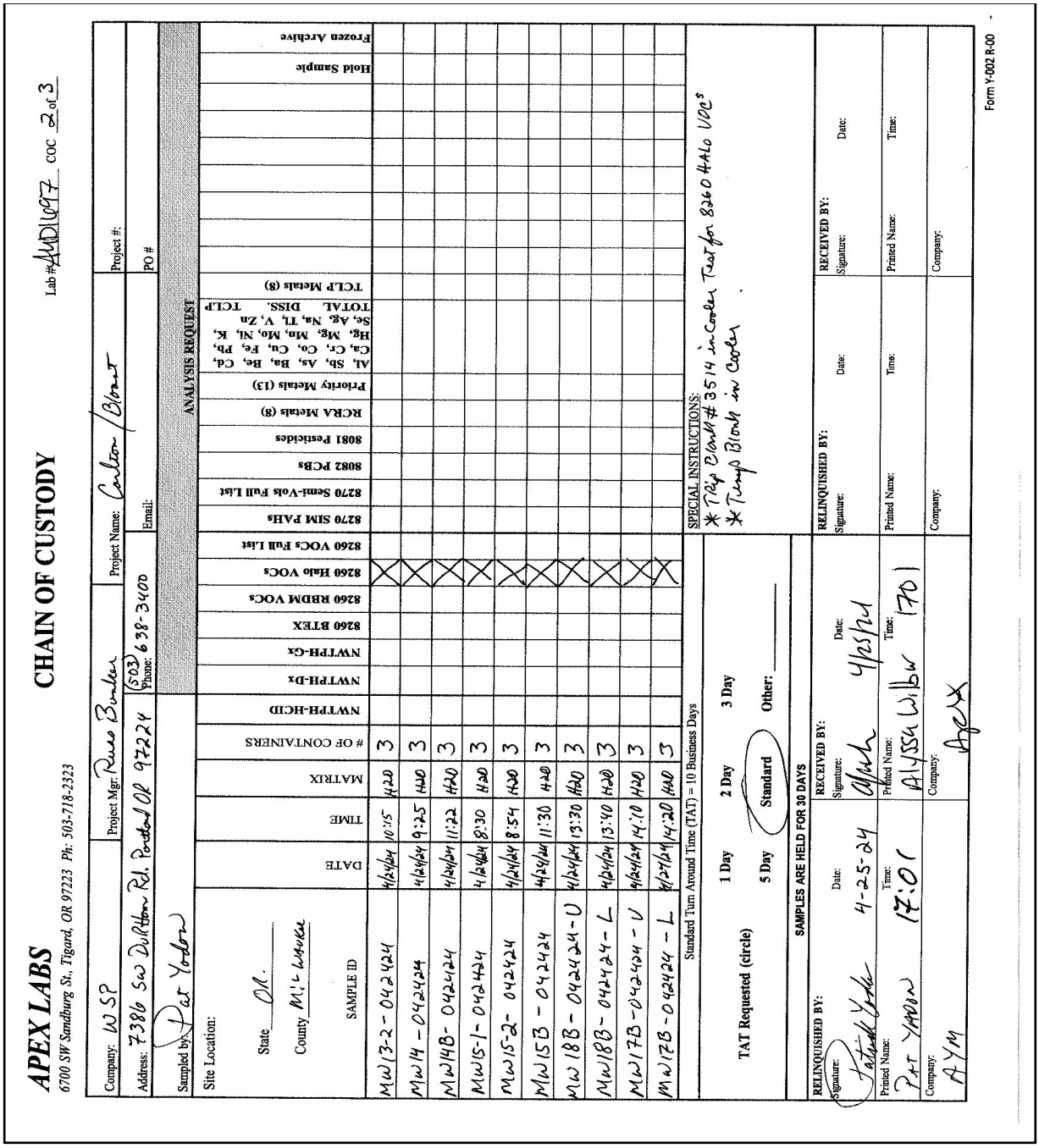
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4D1697 - 05 15 24 1802



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4D1697 COC 2 of 3

Company: WSP | Project Mgr: Russ Boulden | Project Name: Carlton/Bloom | Project #:
Address: 7386 SW Dartmouth Rd. Portland OR 97224 | (503) Phone: 638-3400 | Email: | PO #
Sampled by: Pat Yordon
Site Location: State OR County McMinnville

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW13-2-042424	4/24/24	10:15	H2O	3						X											
MW14-042424	4/24/24	9:25	H2O	3						X											
MW14B-042424	4/24/24	11:22	H2O	3						X											
MW15-1-042424	4/24/24	8:30	H2O	3						X											
MW15-2-042424	4/24/24	8:54	H2O	3						X											
MW15B-042424	4/24/24	11:30	H2O	3						X											
MW18B-042424-D	4/24/24	13:30	H2O	3						X											
MW18B-042424-L	4/24/24	13:40	H2O	3						X											
MW17B-042424-D	4/24/24	14:10	H2O	3						X											
MW17B-042424-L	4/24/24	14:20	H2O	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Pls Bloom # 3514 in Carlton Test for 8260 Halo VOCs
* Temp Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yordon	Signature: Alyssa Wilbur	Signature:	Signature:
Printed Name: Pat Yordon	Printed Name: Alyssa Wilbur	Printed Name:	Printed Name:
Company: AYM	Company: Apex	Company:	Company:
Date: 4-25-24	Date: 4/25/24	Date:	Date:
Time: 17:01	Time: 1701	Time:	Time:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4D1697 - 05 15 24 1802

APEX LABS — CHAIN OF CUSTODY

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A4D1697 COC 3 of 3

Company: WSP — Project Mgr: Russ Bunden — Project Name: Carlton/Blount — Project #:
Address: 2386 SW Dunham Rd. Portland OR 97224 — Phone: (503) 638-3400 — Email: — PO #
Sampled by: Pat Yadon
Site Location: State OR. County/City: Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF-042524	4/25/24	12:30	H2O	3						X											
EFF-042524-D	4/25/24	12:31	H2O	3						X											
INF-042524	4/25/24	12:40	H2O	3						X											
DPE-7-042524	4/25/24	14:15	H2O	3						X											
DPE-8-042524	4/25/24	13:56	H2O	3						X											
EW4-042524	4/25/24	13:18	H2O	3						X											
EW5A-042524	4/25/24	13:30	H2O	3						X											
EW6-042524	4/25/24	12:55	H2O	3						X											
EW6-042524-D	4/25/24	12:56	H2O	3						X											
EW7-042524	4/25/24	13:10	H2O	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day **Standard** Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank # 35114 Test For 8260 HALO VOCs
* Temp Blank in Coolers will as Trip Blank.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name: Pat Yadon	4-25-24	17:01	Printed Name: Alyssa Wilson	4/25/24	1701
Company: AYM.			Company: Apex		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1802**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 D1697

Project/Project #: Carlton/Blount

Delivery Info:

Date/time received: 4/25/24@1701 By: AAW

Delivered by: Apex__ Client X ESS__ FedEx__ UPS__ Radio__ Morgan__ SDS__ Evergreen__ Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 4/25/24@1701 By: AAW

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.9						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 4/30/24@1105 By: KAB

All samples intact? Yes Y No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: MW18B-042424-U 1/3 missing -U; ~~No Trip Blank listed, 1 Trip Blank recieved.~~ ask for tab 4/30/24

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

TB#: 3514

Labeled by: KAB Witness: KAM Cooler Inspected by: AAW

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, May 15, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4D1697 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4D1697, which was received by the laboratory on 4/25/2024 at 5:01:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 0.9 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-042524	A4D1697-21	Water	04/25/24 12:30	04/25/24 17:01
EFF-042524-D	A4D1697-22	Water	04/25/24 12:31	04/25/24 17:01
INF-042524	A4D1697-23	Water	04/25/24 12:40	04/25/24 17:01

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-042524 (A4D1697-21)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 21:25	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 21:25	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4D1697 - 05 15 24 1805

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-042524 (A4D1697-21)				**Matrix: Water**		**Batch: 24E0078**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/02/24 21:25	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 21:25	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:25	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/02/24 21:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*05/02/24 21:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/02/24 21:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*05/02/24 21:25*	*EPA 8260D*	
EFF-042524-D (A4D1697-22)				**Matrix: Water**		**Batch: 24E0078**		
Bromobenzene	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/02/24 21:52	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-042524-D (A4D1697-22)				**Matrix: Water**		**Batch: 24E0078**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/02/24 21:52	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/02/24 21:52	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/02/24 21:52	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/02/24 21:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:* *80-120 %*	*1*	*05/02/24 21:52*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*05/02/24 21:52*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*05/02/24 21:52*	*EPA 8260D*	
INF-042524 (A4D1697-23RE2)				**Matrix: Water**		**Batch: 24E0275**		
Bromobenzene	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-042524 (A4D1697-23RE2)				**Matrix: Water**		**Batch: 24E0275**		
Bromoform	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	05/08/24 13:40	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	05/08/24 13:40	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	05/08/24 13:40	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
cis-1,2-Dichloroethene	**46.6**	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	05/08/24 13:40	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Tetrachloroethene (PCE)	**3.12**	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-042524 (A4D1697-23RE2)				**Matrix: Water**		**Batch: 24E0275**		
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
Trichloroethene (TCE)	**257**	---	0.800	ug/L	2	05/08/24 13:40	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	05/08/24 13:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	05/08/24 13:40	EPA 8260D	
Vinyl chloride	**0.420**	---	0.400	ug/L	2	05/08/24 13:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*118 %*	*Limits: 80-120 %*	*1*	*05/08/24 13:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*05/08/24 13:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*05/08/24 13:40*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Blank (24E0078-BLK1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 19:08									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C									Water			
Blank (24E0078-BLK1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 19:08									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (24E0078-BS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 18:13									
EPA 8260D												
Bromobenzene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	25.6	---	1.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	15.5	---	1.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
Bromomethane	28.1	---	5.00	ug/L	1	20.0	---	**140**	**80-120%**	---	---	Q-56
Carbon tetrachloride	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	44.6	---	5.00	ug/L	1	20.0	---	**223**	**80-120%**	---	---	Q-56
Chloroform	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	20.2	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
2-Chlorotoluene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	17.1	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.4	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dibromomethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
LCS (24E0078-BS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 18:13									
1,3-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichloroethane (EDC)	23.4	---	0.400	ug/L	1	20.0	---	117	80-120%	---	---	
1,1-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	15.5	---	1.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
1,1-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	16.7	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Hexachlorobutadiene	18.2	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
Methylene chloride	19.7	---	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1,2-Tetrachloroethane	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	17.7	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,3-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,2-Trichloroethane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,4-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1-Trichloroethane	20.3	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Trichlorofluoromethane	36.2	---	2.00	ug/L	1	20.0	---	**181**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*89 %*		*80-120 %*			*"*				
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									

QC Source Sample: MW11-2-042424 (A4D1697-07RE1)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							Water					
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									
QC Source Sample: MW11-2-042424 (A4D1697-07RE1)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**315**	---	40.0	ug/L	100	---	298	---	---	6	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Duplicate (24E0078-DUP1)			Prepared: 05/02/24 13:25 Analyzed: 05/03/24 04:15									
QC Source Sample: MW11-2-042424 (A4D1697-07RE1)												
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	40.0	ug/L	100	---	41.0	---	---	***	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1990**	---	40.0	ug/L	100	---	1970	---	---	1	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	100	---	18.0	---	---	***	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 108 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*103 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*				*"*			
Matrix Spike (24E0078-MS1)			Prepared: 05/02/24 13:25 Analyzed: 05/02/24 22:47									**COMP, CONT**
QC Source Sample: Non-SDG (A4E0851-07)												
EPA 8260D												
Bromobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
Bromochloromethane	28.1	---	1.00	ug/L	1	20.0	ND	**141**	**78-123%**	---	---	Q-54h
Bromodichloromethane	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
Bromoform	17.4	---	1.00	ug/L	1	20.0	ND	87	66-130%	---	---	Q-54i
Bromomethane	33.2	---	5.00	ug/L	1	20.0	ND	**166**	**53-141%**	---	---	Q-54d
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	ND	113	72-136%	---	---	
Chlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	50.3	---	5.00	ug/L	1	20.0	ND	**251**	**60-138%**	---	---	Q-54
Chloroform	23.5	---	1.00	ug/L	1	20.0	ND	118	79-124%	---	---	
Chloromethane	22.7	---	5.00	ug/L	1	20.0	ND	113	50-139%	---	---	
2-Chlorotoluene	21.0	---	1.00	ug/L	1	20.0	ND	105	79-122%	---	---	
4-Chlorotoluene	23.2	---	1.00	ug/L	1	20.0	ND	116	78-122%	---	---	
Dibromochloromethane	18.8	---	1.00	ug/L	1	20.0	ND	94	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.8	---	5.00	ug/L	1	20.0	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0078 - EPA 5030C							**Water**					
Matrix Spike (24E0078-MS1)			Prepared: 05/02/24 13:25		Analyzed: 05/02/24 22:47							**COMP, CONT**
QC Source Sample: Non-SDG (A4E0851-07)												
Dibromomethane	24.8	---	1.00	ug/L	1	20.0	ND	**124**	**79-123%**	---	---	Q-01
1,2-Dichlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,3-Dichlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,4-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	79-120%	---	---	
Dichlorodifluoromethane	23.8	---	1.00	ug/L	1	20.0	ND	119	32-152%	---	---	
1,1-Dichloroethane	24.1	---	0.400	ug/L	1	20.0	ND	121	77-125%	---	---	
1,2-Dichloroethane (EDC)	26.0	---	0.400	ug/L	1	20.0	ND	**130**	**73-128%**	---	---	Q-01
1,1-Dichloroethene	26.7	---	0.400	ug/L	1	20.0	ND	**133**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	23.9	---	0.400	ug/L	1	20.0	ND	119	78-123%	---	---	
trans-1,2-Dichloroethene	23.2	---	0.400	ug/L	1	20.0	ND	116	75-124%	---	---	
1,2-Dichloropropane	23.3	---	0.500	ug/L	1	20.0	ND	117	78-122%	---	---	
1,3-Dichloropropane	22.7	---	1.00	ug/L	1	20.0	ND	114	80-120%	---	---	
2,2-Dichloropropane	16.6	---	1.00	ug/L	1	20.0	ND	83	60-139%	---	---	Q-54j
1,1-Dichloropropene	25.3	---	1.00	ug/L	1	20.0	ND	**127**	**79-125%**	---	---	Q-01
cis-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	ND	104	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Hexachlorobutadiene	20.3	---	5.00	ug/L	1	20.0	ND	101	66-134%	---	---	
Methylene chloride	21.4	---	10.0	ug/L	1	20.0	ND	107	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.9	---	0.400	ug/L	1	20.0	ND	104	78-124%	---	---	
1,1,2,2-Tetrachloroethane	25.0	---	0.500	ug/L	1	20.0	ND	**125**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	20.7	---	0.400	ug/L	1	20.0	ND	104	74-129%	---	---	
1,2,3-Trichlorobenzene	20.9	---	2.00	ug/L	1	20.0	ND	105	69-129%	---	---	
1,1,2-Trichloroethane	22.8	---	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
1,2,4-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	23.8	---	0.400	ug/L	1	20.0	ND	119	74-131%	---	---	
Trichloroethene (TCE)	20.4	---	0.400	ug/L	1	20.0	ND	102	79-123%	---	---	
Trichlorofluoromethane	43.1	---	2.00	ug/L	1	20.0	ND	**216**	**65-141%**	---	---	Q-54f
1,2,3-Trichloropropane	24.6	---	1.00	ug/L	1	20.0	ND	**123**	**73-122%**	---	---	Q-01
Vinyl chloride	24.9	---	0.200	ug/L	1	20.0	ND	124	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 98 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*88 %*	*80-120 %*	*"*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Blank (24E0144-BLK1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 12:30									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Blank (24E0144-BLK1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 12:30									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (24E0144-BS1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 11:17									
EPA 8260D												
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	26.4	---	1.00	ug/L	1	20.0	---	**132**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Bromoform	16.8	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
Bromomethane	24.6	---	5.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroethane	48.0	---	5.00	ug/L	1	20.0	---	**240**	**80-120%**	---	---	Q-56
Chloroform	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloromethane	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
2-Chlorotoluene	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromochloromethane	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.7	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2-Dichlorobenzene	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C								**Water**				
LCS (24E0144-BS1)			Prepared: 05/03/24 10:00 Analyzed: 05/03/24 11:17									
1,3-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,4-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dichlorodifluoromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichloroethane (EDC)	24.4	---	0.400	ug/L	1	20.0	---	**122**	**80-120%**	---	---	Q-56
1,1-Dichloroethene	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
cis-1,2-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
2,2-Dichloropropane	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Hexachlorobutadiene	19.2	---	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
Methylene chloride	21.0	---	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	22.4	---	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
1,2,4-Trichlorobenzene	19.0	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1-Trichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichlorofluoromethane	39.0	---	2.00	ug/L	1	20.0	---	**195**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Vinyl chloride	21.3	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 98 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*88 %*	*80-120 %*	*"*	

Duplicate (24E0144-DUP1) Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34

QC Source Sample: EW6-042524 (A4D1697-28)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Duplicate (24E0144-DUP1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34									
QC Source Sample: EW6-042524 (A4D1697-28)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	**---**	**30%**	Q-17
cis-1,2-Dichloroethene	**70.0**	---	2.00	ug/L	5	---	67.7	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							Water					
Duplicate (24E0144-DUP1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 22:34									
QC Source Sample: EW6-042524 (A4D1697-28)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**3.25**	---	2.00	ug/L	5	---	3.35	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**422**	---	2.00	ug/L	5	---	408	---	---	3	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 116 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*102 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*95 %*			*80-120 %*			*"*			
Matrix Spike (24E0144-MS1)			Prepared: 05/03/24 11:47 Analyzed: 05/03/24 16:11									
QC Source Sample: Non-SDG (A4D1741-08)												
EPA 8260D												
Bromobenzene	19.5	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Bromochloromethane	26.7	---	1.00	ug/L	1	20.0	ND	**133**	**78-123%**	---	---	Q-54a
Bromodichloromethane	23.5	---	1.00	ug/L	1	20.0	ND	117	79-125%	---	---	
Bromoform	17.2	---	1.00	ug/L	1	20.0	ND	86	66-130%	---	---	
Bromomethane	28.6	---	5.00	ug/L	1	20.0	ND	**143**	**53-141%**	---	---	Q-54e
Carbon tetrachloride	22.1	---	1.00	ug/L	1	20.0	ND	111	72-136%	---	---	
Chlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	47.4	---	5.00	ug/L	1	20.0	ND	**237**	**60-138%**	---	---	Q-54b
Chloroform	22.2	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	20.9	---	5.00	ug/L	1	20.0	ND	105	50-139%	---	---	
2-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-122%	---	---	
4-Chlorotoluene	22.0	---	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	19.0	---	1.00	ug/L	1	20.0	ND	95	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.9	---	5.00	ug/L	1	20.0	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0144 - EPA 5030C							**Water**					
Matrix Spike (24E0144-MS1)			Prepared: 05/03/24 11:47		Analyzed: 05/03/24 16:11							
QC Source Sample: Non-SDG (A4D1741-08)												
Dibromomethane	23.6	---	1.00	ug/L	1	20.0	ND	118	79-123%	---	---	
1,2-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,3-Dichlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	22.3	---	1.00	ug/L	1	20.0	ND	112	32-152%	---	---	
1,1-Dichloroethane	23.2	---	0.400	ug/L	1	20.0	ND	116	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.6	---	0.400	ug/L	1	20.0	ND	123	73-128%	---	---	Q-54c
1,1-Dichloroethene	26.5	---	0.400	ug/L	1	20.0	ND	**132**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	22.9	---	0.400	ug/L	1	20.0	ND	115	78-123%	---	---	
trans-1,2-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	75-124%	---	---	
1,2-Dichloropropane	21.8	---	0.500	ug/L	1	20.0	ND	109	78-122%	---	---	
1,3-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	ND	111	80-120%	---	---	
2,2-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	ND	91	60-139%	---	---	
1,1-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	ND	89	75-124%	---	---	
trans-1,3-Dichloropropene	18.4	---	1.00	ug/L	1	20.0	ND	92	73-127%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	ND	99	66-134%	---	---	
Methylene chloride	20.6	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.2	---	0.400	ug/L	1	20.0	ND	101	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.9	---	0.500	ug/L	1	20.0	ND	114	71-121%	---	---	
Tetrachloroethene (PCE)	200	---	0.400	ug/L	1	20.0	179	107	74-129%	---	---	E
1,2,3-Trichlorobenzene	20.5	---	2.00	ug/L	1	20.0	ND	103	69-129%	---	---	
1,1,2-Trichloroethane	22.6	---	0.500	ug/L	1	20.0	ND	113	80-120%	---	---	
1,2,4-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	ND	97	69-130%	---	---	
1,1,1-Trichloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	74-131%	---	---	
Trichloroethene (TCE)	20.0	---	0.400	ug/L	1	20.0	ND	100	79-123%	---	---	
Trichlorofluoromethane	41.6	---	2.00	ug/L	1	20.0	ND	**208**	**65-141%**	---	---	Q-54g
1,2,3-Trichloropropane	22.4	---	1.00	ug/L	1	20.0	ND	112	73-122%	---	---	
Vinyl chloride	23.6	---	0.200	ug/L	1	20.0	ND	118	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr) — *Recovery: 99 %* — *Limits: 80-120 %* — *Dilution: 1x*
Toluene-d8 (Surr) — *98 %* — *80-120 %* — *"*
4-Bromofluorobenzene (Surr) — *89 %* — *80-120 %* — *"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Blank (24E0275-BLK1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 09:13							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Blank (24E0275-BLK1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 09:13									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24E0275-BS1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 08:06									
EPA 8260D												
Bromobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromodichloromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromoform	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromomethane	16.4	---	5.00	ug/L	1	20.0	---	82	80-120%	---	---	
Carbon tetrachloride	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Chlorobenzene	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	19.0	---	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroform	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Chloromethane	16.5	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
2-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromochloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.5	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromomethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
LCS (24E0275-BS1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 08:06							
1,3-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethane	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,1-Dichloroethene	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	18.3	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,3-Dichloropropene	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Hexachlorobutadiene	20.1	---	5.00	ug/L	1	20.0	---	100	80-120%	---	---	
Methylene chloride	20.4	---	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	23.0	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Tetrachloroethene (PCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,3-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2-Trichloroethane	19.7	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,4-Trichlorobenzene	18.0	---	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,1-Trichloroethane	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Trichloroethene (TCE)	17.7	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
Trichlorofluoromethane	22.4	---	2.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Vinyl chloride	18.7	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 16:57							
QC Source Sample: Non-SDG (A4E1004-01)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 16:57									
QC Source Sample: Non-SDG (A4E1004-01)												
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	**242**	---	40.0	ug/L	100	---	242	---	---	0	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	**237**	---	40.0	ug/L	100	---	241	---	---	2	30%	
cis-1,2-Dichloroethene	**7120**	---	40.0	ug/L	100	---	7220	---	---	1	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	32.0	---	---	***	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID: A4D1697 - 05 15 24 1805

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Duplicate (24E0275-DUP1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 16:57									
QC Source Sample: Non-SDG (A4E1004-01)												
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**5390**	---	40.0	ug/L	100	---	5490	---	---	2	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	**1000**	---	40.0	ug/L	100	---	1040	---	---	4	30%	
Trichloroethene (TCE)	**2480**	---	40.0	ug/L	100	---	2630	---	---	6	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	**893**	---	20.0	ug/L	100	---	920	---	---	3	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
Matrix Spike (24E0275-MS1)			Prepared: 05/08/24 06:41 Analyzed: 05/08/24 11:50									
QC Source Sample: Non-SDG (A4E0804-05)												
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Bromochloromethane	21.9	---	1.00	ug/L	1	20.0	ND	110	78-123%	---	---	
Bromodichloromethane	21.9	---	1.00	ug/L	1	20.0	ND	109	79-125%	---	---	
Bromoform	22.9	---	1.00	ug/L	1	20.0	ND	115	66-130%	---	---	
Bromomethane	19.4	---	5.00	ug/L	1	20.0	ND	97	53-141%	---	---	
Carbon tetrachloride	27.5	---	1.00	ug/L	1	20.0	ND	**137**	**72-136%**	---	---	Q-01
Chlorobenzene	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	22.5	---	5.00	ug/L	1	20.0	ND	112	60-138%	---	---	
Chloroform	21.3	---	1.00	ug/L	1	20.0	ND	106	79-124%	---	---	
Chloromethane	19.2	---	5.00	ug/L	1	20.0	ND	96	50-139%	---	---	
2-Chlorotoluene	22.6	---	1.00	ug/L	1	20.0	ND	113	79-122%	---	---	
4-Chlorotoluene	22.7	---	1.00	ug/L	1	20.0	ND	114	78-122%	---	---	
Dibromochloromethane	22.6	---	1.00	ug/L	1	20.0	ND	113	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.6	---	5.00	ug/L	1	20.0	ND	98	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.9	---	0.500	ug/L	1	20.0	ND	114	77-121%	---	---	
Dibromomethane	21.1	---	1.00	ug/L	1	20.0	ND	105	79-123%	---	---	

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24E0275 - EPA 5030C							**Water**					
Matrix Spike (24E0275-MS1)			Prepared: 05/08/24 06:41		Analyzed: 05/08/24 11:50							
QC Source Sample: Non-SDG (A4E0804-05)												
1,2-Dichlorobenzene	22.6	---	0.500	ug/L	1	20.0	ND	113	80-120%	---	---	
1,3-Dichlorobenzene	23.3	---	0.500	ug/L	1	20.0	ND	117	80-120%	---	---	
1,4-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	22.9	---	1.00	ug/L	1	20.0	ND	115	32-152%	---	---	
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	ND	106	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.5	---	0.400	ug/L	1	20.0	ND	102	73-128%	---	---	
1,1-Dichloroethene	24.2	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	1.10	107	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	112	75-124%	---	---	
1,2-Dichloropropane	20.2	---	0.500	ug/L	1	20.0	ND	101	78-122%	---	---	
1,3-Dichloropropane	21.3	---	1.00	ug/L	1	20.0	ND	106	80-120%	---	---	
2,2-Dichloropropane	25.7	---	1.00	ug/L	1	20.0	ND	128	60-139%	---	---	
1,1-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	17.6	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	22.7	---	1.00	ug/L	1	20.0	ND	113	73-127%	---	---	
Hexachlorobutadiene	20.7	---	5.00	ug/L	1	20.0	ND	104	66-134%	---	---	
Methylene chloride	21.7	---	10.0	ug/L	1	20.0	ND	109	74-124%	---	---	
1,1,1,2-Tetrachloroethane	24.7	---	0.400	ug/L	1	20.0	ND	124	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.1	---	0.500	ug/L	1	20.0	ND	106	71-121%	---	---	
Tetrachloroethene (PCE)	24.8	---	0.400	ug/L	1	20.0	0.230	123	74-129%	---	---	
1,2,3-Trichlorobenzene	20.3	---	2.00	ug/L	1	20.0	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.5	---	2.00	ug/L	1	20.0	ND	97	69-130%	---	---	
1,1,1-Trichloroethane	23.1	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	20.4	---	0.400	ug/L	1	20.0	ND	102	79-123%	---	---	
Trichlorofluoromethane	25.2	---	2.00	ug/L	1	20.0	ND	126	65-141%	---	---	
1,2,3-Trichloropropane	18.6	---	1.00	ug/L	1	20.0	ND	93	73-122%	---	---	
Vinyl chloride	21.2	---	0.200	ug/L	1	20.0	ND	106	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24E0078							
A4D1697-21	Water	EPA 8260D	04/25/24 12:30	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
A4D1697-22	Water	EPA 8260D	04/25/24 12:31	05/02/24 13:25	5mL/5mL	5mL/5mL	1.00
Batch: 24E0275							
A4D1697-23RE2	Water	EPA 8260D	04/25/24 12:40	05/08/24 08:45	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

COMP	Analyzed sample is a composite of discrete samples that was performed in the laboratory.
CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
E	Estimated Value. The result is above the calibration range of the instrument.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +103%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +120%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +20%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +61%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +75%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54j	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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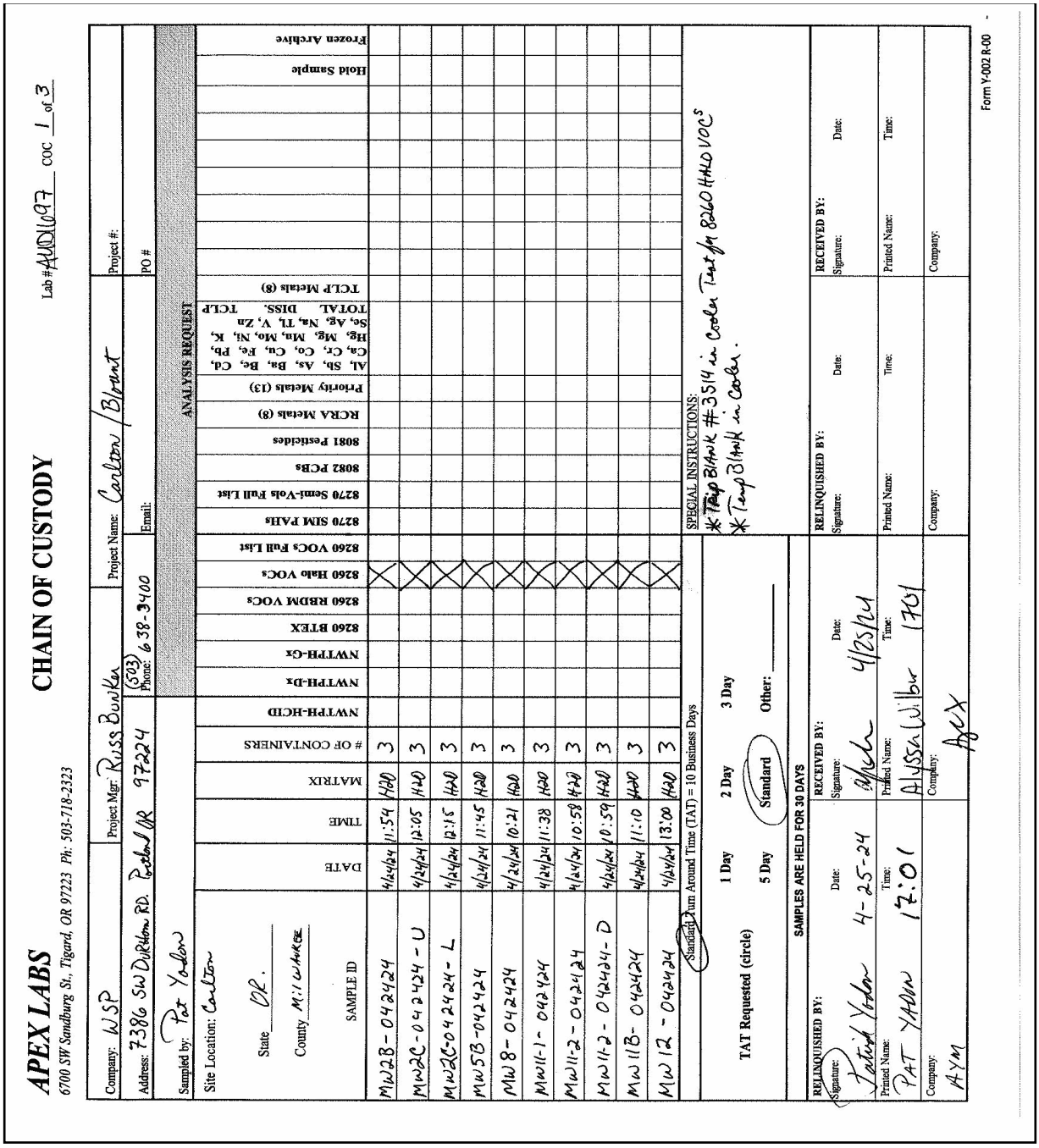
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4D1697 - 05 15 24 1805



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # AUQ1697 COC 1 of 3

Company: WSP | Project Mgr: Russ Bunker | Project Name: Carlton / Blount | Project #:
Address: 7386 SW Durham RD. Portland OR 97224 | (503) Phone: 638-3400 | Email: | PO #
Sampled by: Pat Yadon
Site Location: Carlton
State OR.
County Yamhill

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW28-042424	4/24/24	11:54	H2O	3						X											
MW2C-042424-U	4/24/24	12:05	H2O	3						X											
MW2C-042424-L	4/24/24	12:15	H2O	3						X											
MW58-042424	4/24/24	11:45	H2O	3						X											
MW8-042424	4/24/24	10:21	H2O	3						X											
MW11-1-042424	4/24/24	11:38	H2O	3						X											
MW11-2-042424	4/24/24	10:58	H2O	3						X											
MW11-2-042424-D	4/24/24	10:59	H2O	3						X											
MW11B-042424	4/24/24	11:10	H2O	3						X											
MW12-042424	4/24/24	13:00	H2O	3						X											

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:
* Temp Blank #3514 in Cooler Test for 8260 HHLO VOCs
* Temp Blank in Cooler.

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yadon	Signature:	Signature:	Signature:
Date: 4-25-24	Date:	Date:	Date:
Time: 17:01	Time:	Time:	Time:
Printed Name: PAT YADON	Printed Name: ALYSSA WEBB	Printed Name:	Printed Name:
Company: AYM	Company: APEX	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

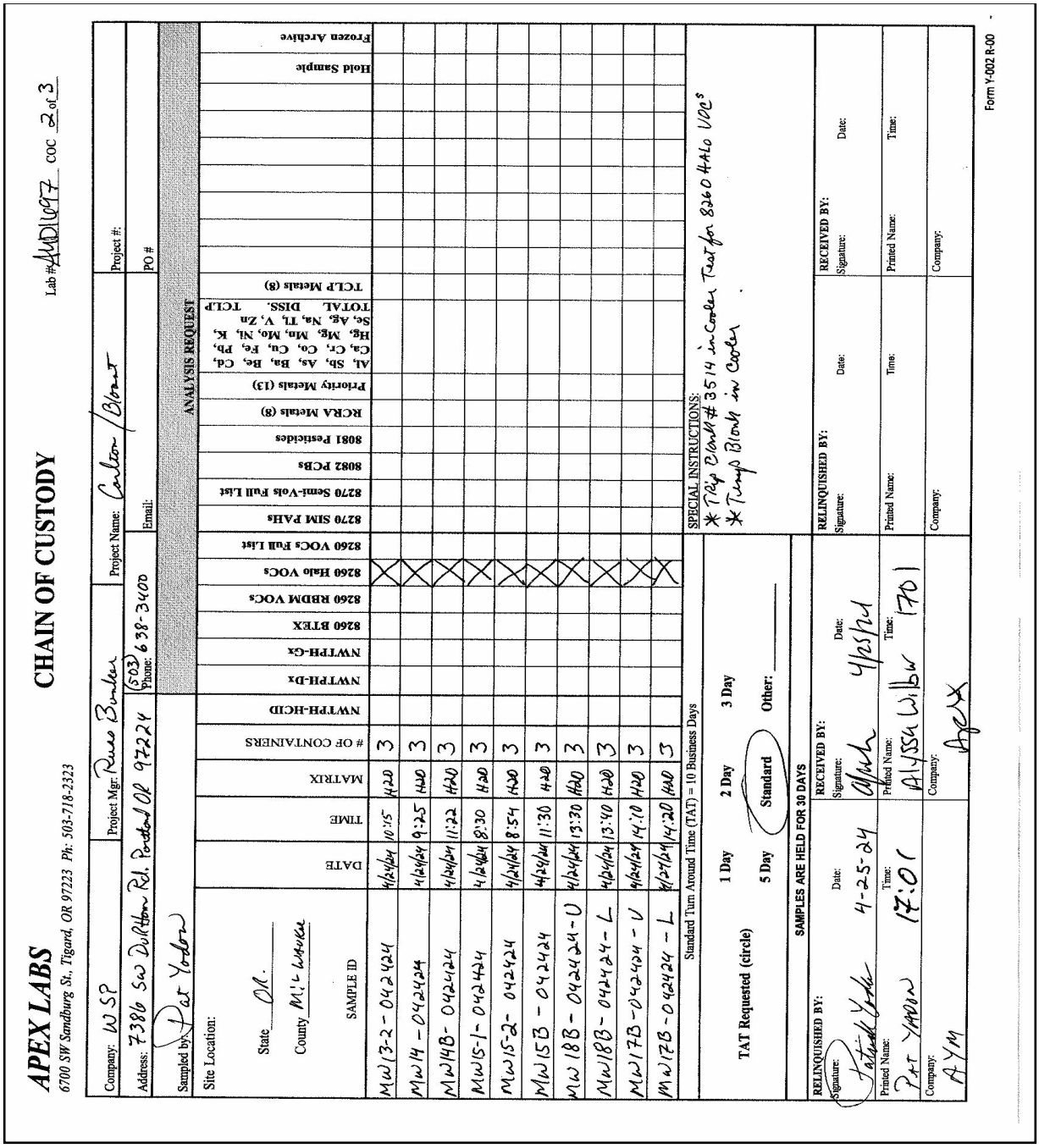
Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # 4D1697 COC 2 of 3

Company: WSP | Project Mgr: Russ Boulden | Project Name: Carlton / Bland | Project #:
Address: 7386 SW Dutton Rd. Portland OR 97224 | (503) Phone: 638-3400 | Email: | PO #
Sampled by: Pat Yodon
Site Location: State OR. County McMinnville

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW13-2-042424	4/24/24	10:15	H2O	3						X											
MW14-042424	4/24/24	9:25	H2O	3						X											
MW14B-042424	4/24/24	11:22	H2O	3						X											
MW15-1-042424	4/24/24	8:30	H2O	3						X											
MW15-2-042424	4/24/24	8:54	H2O	3						X											
MW15B-042424	4/24/24	11:30	H2O	3						X											
MW18B-042424-D	4/24/24	13:30	H2O	3						X											
MW18B-042424-L	4/24/24	13:40	H2O	3						X											
MW17B-042424-D	4/24/24	14:10	H2O	3						X											
MW17B-042424-L	4/24/24	14:20	H2O	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Pls Bland # 3514 in Cooler Test for 8260 4440 VOCs
* Temp Blank in Cooler

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yodon	Signature:	Signature:	Signature:
Printed Name: Pat Yodon	Printed Name: ALYSSA WILBUR	Printed Name:	Printed Name:
Date: 4-25-24	Date: 4/25/24	Date:	Date:
Time: 17:01	Time: 1701	Time:	Time:
Company: AYM	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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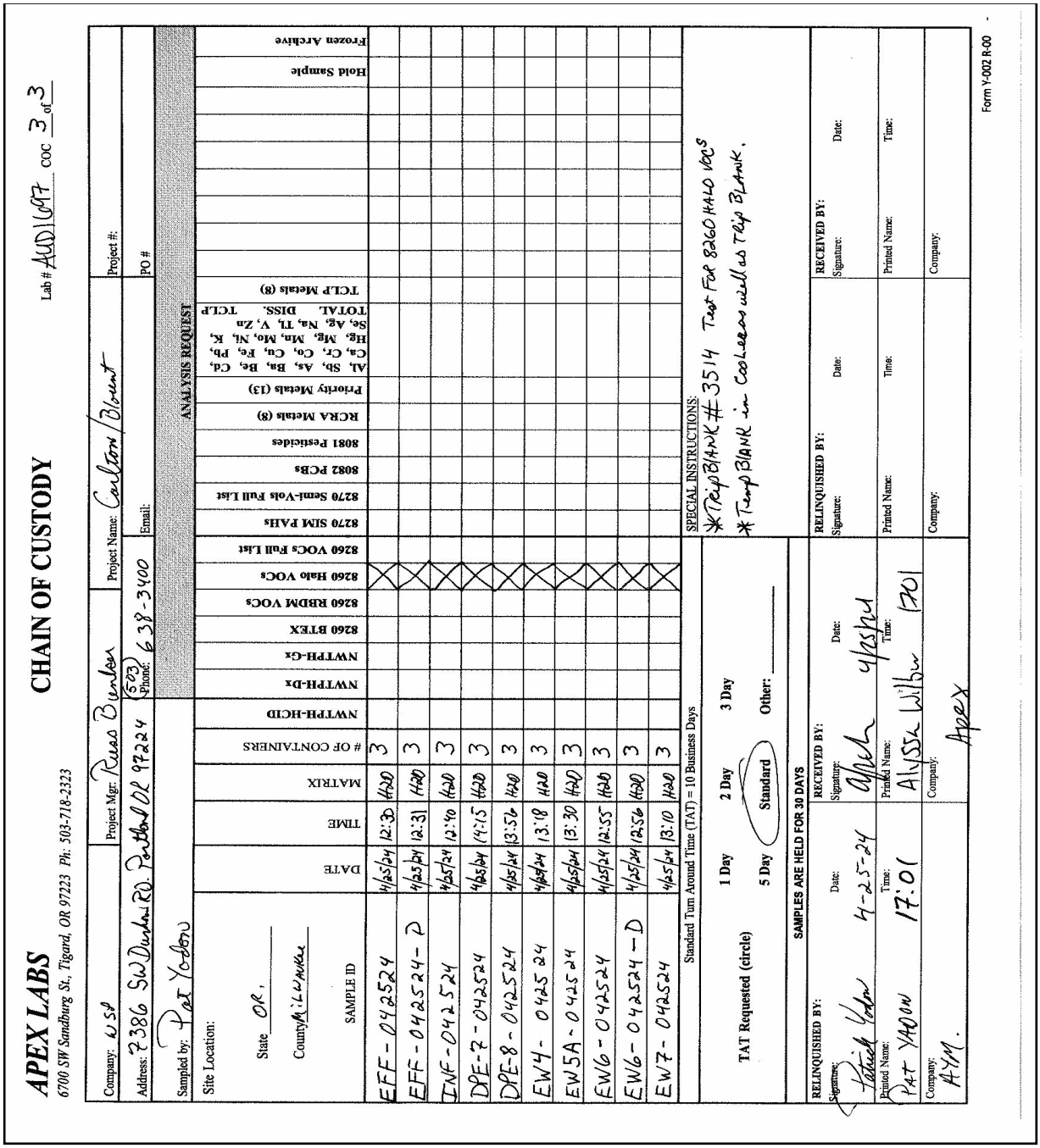
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4D1697 - 05 15 24 1805



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4D1697 COC 3 of 3

Company: WSP — Project Mgr: Russ Bunden — Project Name: Carlton/Blount — Project #:
Address: 7386 SW Dunham Rd. Portland OR 97224 — Phone: (503) 638-3400 — Email: — PO #
Sampled by: Pat Yoder
Site Location: State OR. County/City: Newberg

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF-042524	4/25/24	12:30	H2O	3						X											
EFF-042524-D	4/25/24	12:31	H2O	3						X											
INF-042524	4/25/24	12:40	H2O	3						X											
DPE-7-042524	4/25/24	14:15	H2O	3						X											
DPE-8-042524	4/25/24	13:56	H2O	3						X											
EW4-042524	4/25/24	13:18	H2O	3						X											
EW5A-042524	4/25/24	13:30	H2O	3						X											
EW6-042524	4/25/24	12:55	H2O	3						X											
EW6-042524-D	4/25/24	12:56	H2O	3						X											
EW7-042524	4/25/24	13:10	H2O	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SPECIAL INSTRUCTIONS:
* Trip Blank # 35114 Test For 8260 HALO VOCs
* Temp Blank in Coolers will as Trip Blank.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Pat Yoder Date: 4-25-24 Time: 17:01 Printed Name: PAT YODER Company: APEX
RECEIVED BY: Signature: Date: Time: Printed Name: Company:
RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:
RECEIVED BY: Signature: Alyssa Wilson Date: 4/25/24 Time: 1701 Printed Name: ALYSSA WILSON Company: APEX

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4D1697 - 05 15 24 1805**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 D1697

Project/Project #: Carlton/Blount

Delivery Info:

Date/time received: 4/25/24@1701 By: AAW

Delivered by: Apex__ Client X ESS__ FedEx__ UPS__ Radio__ Morgan__ SDS__ Evergreen__ Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 4/25/24@1701 By: AAW

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.9						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 4/30/24@1105 By: KAB

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: MW18B-042424-U 1/3 missing -U; ~~No Trip Blank listed, 1 Trip Blank recieved.~~ ask for tab 4/30/24

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

TB#: 3514

Labeled by: KAB Witness: KAM Cooler Inspected by: AAW

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Tuesday, June 11, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4E1717 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4E1717, which was received by the laboratory on 5/28/2024 at 11:50:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-052824	A4E1717-01	Water	05/28/24 09:40	05/28/24 11:50
EFF-052824-D	A4E1717-02	Water	05/28/24 09:41	05/28/24 11:50
INF-052824	A4E1717-03	Water	05/28/24 09:50	05/28/24 11:50
Trip Blank	A4E1717-04	Water	05/28/24 00:00	05/28/24 11:50

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-052824 (A4E1717-01)				**Matrix: Water**		**Batch: 24F0002**		
Bromobenzene	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	06/03/24 13:55	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	06/03/24 13:55	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-052824 (A4E1717-01)				**Matrix: Water**		**Batch: 24F0002**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/03/24 13:55	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/03/24 13:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	06/03/24 13:55	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	06/03/24 13:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*06/03/24 13:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*06/03/24 13:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*06/03/24 13:55*	*EPA 8260D*	
EFF-052824-D (A4E1717-02)				**Matrix: Water**		**Batch: 24F0054**		
Bromobenzene	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	06/04/24 13:27	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4E1717 - 06 11 24 1738

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-052824-D (A4E1717-02)				**Matrix: Water**		**Batch: 24F0054**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/04/24 13:27	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/04/24 13:27	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	06/04/24 13:27	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	06/04/24 13:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*06/04/24 13:27*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*06/04/24 13:27*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*06/04/24 13:27*	*EPA 8260D*	
INF-052824 (A4E1717-03RE1)				**Matrix: Water**		**Batch: 24F0116**		
Bromobenzene	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-052824 (A4E1717-03RE1)				**Matrix: Water**		**Batch: 24F0116**		
Bromoform	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	06/05/24 12:11	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
cis-1,2-Dichloroethene	**78.6**	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Tetrachloroethene (PCE)	**5.90**	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-052824 (A4E1717-03RE1)				**Matrix: Water**		**Batch: 24F0116**		
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Trichloroethene (TCE)	**472**	---	4.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	06/05/24 12:11	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	06/05/24 12:11	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	06/05/24 12:11	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*06/05/24 12:11*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*06/05/24 12:11*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*06/05/24 12:11*	*EPA 8260D*	
Trip Blank (A4E1717-04)				**Matrix: Water**		**Batch: 24F0054**		
Bromobenzene	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	06/04/24 12:05	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A4E1717-04)				**Matrix: Water**		**Batch: 24F0054**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/04/24 12:05	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/04/24 12:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	06/04/24 12:05	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	06/04/24 12:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*06/04/24 12:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*06/04/24 12:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*06/04/24 12:05*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C							**Water**					
Blank (24F0002-BLK1)			Prepared: 06/03/24 07:49 Analyzed: 06/03/24 09:22									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C									Water			
Blank (24F0002-BLK1)			Prepared: 06/03/24 07:49 Analyzed: 06/03/24 09:22									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24F0002-BS1)			Prepared: 06/03/24 07:49 Analyzed: 06/03/24 08:19									
EPA 8260D												
Bromobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Bromomethane	27.7	---	5.00	ug/L	1	20.0	---	**139**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	31.6	---	5.00	ug/L	1	20.0	---	**158**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	20.8	---	5.00	ug/L	1	20.0	---	104	80-120%	---	---	
2-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
4-Chlorotoluene	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.2	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.9	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C							**Water**					
LCS (24F0002-BS1)			Prepared: 06/03/24 07:49 Analyzed: 06/03/24 08:19									
1,3-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,4-Dichlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dichlorodifluoromethane	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
trans-1,3-Dichloropropene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	20.7	---	10.0	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.9	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Tetrachloroethene (PCE)	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	20.0	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	18.4	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,1-Trichloroethane	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichlorofluoromethane	29.4	---	2.00	ug/L	1	20.0	---	**147**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Vinyl chloride	19.9	---	0.200	ug/L	1	20.0	---	99	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*				*"*			
Duplicate (24F0002-DUP1)			Prepared: 06/03/24 08:49 Analyzed: 06/03/24 15:45									
QC Source Sample: Non-SDG (A4E1585-02)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C							**Water**					
Duplicate (24F0002-DUP1)			Prepared: 06/03/24 08:49 Analyzed: 06/03/24 15:45									
QC Source Sample: Non-SDG (A4E1585-02)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	**8.25**	---	2.00	ug/L	5	---	8.85	---	---	7	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	**10.8**	---	2.00	ug/L	5	---	11.7	---	---	8	30%	
cis-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C							**Water**					
Duplicate (24F0002-DUP1)			Prepared: 06/03/24 08:49 Analyzed: 06/03/24 15:45									
QC Source Sample: Non-SDG (A4E1585-02)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	**188**	---	2.00	ug/L	5	---	193	---	---	3	30%	
Trichloroethene (TCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (24F0002-MS1)			Prepared: 06/03/24 08:49 Analyzed: 06/03/24 18:29									
QC Source Sample: Non-SDG (A4E1568-07)												
EPA 8260D												
Bromobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	78-123%	---	---	
Bromodichloromethane	22.9	---	1.00	ug/L	1	20.0	ND	114	79-125%	---	---	
Bromoform	20.3	---	1.00	ug/L	1	20.0	ND	101	66-130%	---	---	
Bromomethane	32.8	---	5.00	ug/L	1	20.0	ND	**164**	**53-141%**	---	---	Q-54b
Carbon tetrachloride	23.5	---	1.00	ug/L	1	20.0	ND	118	72-136%	---	---	
Chlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	37.6	---	5.00	ug/L	1	20.0	ND	**188**	**60-138%**	---	---	ICV-01, Q-54e
Chloroform	21.9	---	1.00	ug/L	1	20.0	ND	109	79-124%	---	---	
Chloromethane	24.6	---	5.00	ug/L	1	20.0	ND	123	50-139%	---	---	
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.6	---	1.00	ug/L	1	20.0	ND	103	78-122%	---	---	
Dibromochloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.3	---	5.00	ug/L	1	20.0	ND	87	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.9	---	0.500	ug/L	1	20.0	ND	104	77-121%	---	---	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0002 - EPA 5030C							**Water**					
Matrix Spike (24F0002-MS1)			Prepared: 06/03/24 08:49		Analyzed: 06/03/24 18:29							
QC Source Sample: Non-SDG (A4E1568-07)												
Dibromomethane	22.8	---	1.00	ug/L	1	20.0	ND	114	79-123%	---	---	
1,2-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,3-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	27.1	---	1.00	ug/L	1	20.0	ND	135	32-152%	---	---	
1,1-Dichloroethane	22.3	---	0.400	ug/L	1	20.0	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.1	---	0.400	ug/L	1	20.0	ND	105	73-128%	---	---	
1,1-Dichloroethene	23.5	---	0.400	ug/L	1	20.0	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	ND	104	78-123%	---	---	
trans-1,2-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	21.7	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	80-120%	---	---	
2,2-Dichloropropane	18.8	---	1.00	ug/L	1	20.0	ND	94	60-139%	---	---	
1,1-Dichloropropene	23.1	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
cis-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	ND	93	75-124%	---	---	
trans-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	73-127%	---	---	
Hexachlorobutadiene	21.4	---	5.00	ug/L	1	20.0	ND	107	66-134%	---	---	
Methylene chloride	22.1	---	10.0	ug/L	1	20.0	ND	110	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.3	---	0.400	ug/L	1	20.0	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.5	---	0.500	ug/L	1	20.0	ND	108	71-121%	---	---	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	ND	108	74-129%	---	---	
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
1,2,4-Trichlorobenzene	18.3	---	2.00	ug/L	1	20.0	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	22.2	---	0.400	ug/L	1	20.0	ND	111	74-131%	---	---	
Trichloroethene (TCE)	21.0	---	0.400	ug/L	1	20.0	ND	105	79-123%	---	---	
Trichlorofluoromethane	36.0	---	2.00	ug/L	1	20.0	ND	**180**	**65-141%**	---	---	Q-54c
1,2,3-Trichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	73-122%	---	---	
Vinyl chloride	24.0	---	0.200	ug/L	1	20.0	ND	120	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C							**Water**					
Blank (24F0054-BLK1)			Prepared: 06/04/24 06:31		Analyzed: 06/04/24 11:38							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID: A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C									Water			
Blank (24F0054-BLK1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 11:38									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24F0054-BS1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 10:39									
EPA 8260D												
Bromobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromodichloromethane	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromomethane	33.0	---	5.00	ug/L	1	20.0	---	**165**	**80-120%**	---	---	Q-56
Carbon tetrachloride	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	35.4	---	5.00	ug/L	1	20.0	---	**177**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	21.9	---	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
2-Chlorotoluene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
4-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.7	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromomethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C							**Water**					
LCS (24F0054-BS1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 10:39									
1,3-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	23.5	---	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,2-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloropropane	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
trans-1,3-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Hexachlorobutadiene	21.9	---	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
Methylene chloride	21.9	---	10.0	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	21.0	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2-Trichloroethane	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1-Trichloroethane	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Trichlorofluoromethane	33.2	---	2.00	ug/L	1	20.0	---	**166**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Vinyl chloride	21.4	---	0.200	ug/L	1	20.0	---	107	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24F0054-DUP1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 21:39									

QC Source Sample: INF-052824 (A4E1717-03)

EPA 8260D

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C							Water					
Duplicate (24F0054-DUP1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 21:39									
QC Source Sample: INF-052824 (A4E1717-03)												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**57.2**	---	8.00	ug/L	20	---	58.2	---	---	2	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C							**Water**					
Duplicate (24F0054-DUP1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 21:39									
QC Source Sample: INF-052824 (A4E1717-03)												
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	8.00	ug/L	20	---	5.20	---	---	***	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**389**	---	8.00	ug/L	20	---	405	---	---	4	30%	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	4.00	ug/L	20	---	2.00	---	---	***	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*121 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				*S-06*
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (24F0054-MS1)			Prepared: 06/04/24 06:31 Analyzed: 06/04/24 15:17									
QC Source Sample: Non-SDG (A4F0796-06)												
EPA 8260D												
Bromobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Bromochloromethane	24.0	---	1.00	ug/L	1	20.0	ND	120	78-123%	---	---	
Bromodichloromethane	24.1	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
Bromoform	21.3	---	1.00	ug/L	1	20.0	ND	106	66-130%	---	---	
Bromomethane	36.7	---	5.00	ug/L	1	20.0	ND	**184**	**53-141%**	---	---	Q-54f
Carbon tetrachloride	24.7	---	1.00	ug/L	1	20.0	ND	124	72-136%	---	---	
Chlorobenzene	22.2	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
Chloroethane	41.6	---	5.00	ug/L	1	20.0	ND	**208**	**60-138%**	---	---	ICV-01, Q-54i
Chloroform	23.3	---	1.00	ug/L	1	20.0	0.510	114	79-124%	---	---	
Chloromethane	25.1	---	5.00	ug/L	1	20.0	ND	125	50-139%	---	---	
2-Chlorotoluene	21.2	---	1.00	ug/L	1	20.0	ND	106	79-122%	---	---	
4-Chlorotoluene	21.1	---	1.00	ug/L	1	20.0	ND	106	78-122%	---	---	
Dibromochloromethane	23.4	---	1.00	ug/L	1	20.0	ND	117	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.0	---	5.00	ug/L	1	20.0	ND	95	62-128%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C							**Water**					
Matrix Spike (24F0054-MS1)			Prepared: 06/04/24 06:31		Analyzed: 06/04/24 15:17							
QC Source Sample: Non-SDG (A4F0796-06)												
1,2-Dibromoethane (EDB)	21.9	---	0.500	ug/L	1	20.0	ND	110	77-121%	---	---	
Dibromomethane	23.8	---	1.00	ug/L	1	20.0	ND	119	79-123%	---	---	
1,2-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,3-Dichlorobenzene	22.1	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,4-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	79-120%	---	---	
Dichlorodifluoromethane	28.2	---	1.00	ug/L	1	20.0	ND	141	32-152%	---	---	
1,1-Dichloroethane	23.6	---	0.400	ug/L	1	20.0	ND	118	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.2	---	0.400	ug/L	1	20.0	ND	111	73-128%	---	---	
1,1-Dichloroethene	23.9	---	0.400	ug/L	1	20.0	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	ND	106	78-123%	---	---	
trans-1,2-Dichloroethene	21.6	---	0.400	ug/L	1	20.0	ND	108	75-124%	---	---	
1,2-Dichloropropane	22.6	---	0.500	ug/L	1	20.0	ND	113	78-122%	---	---	
1,3-Dichloropropane	21.1	---	1.00	ug/L	1	20.0	ND	105	80-120%	---	---	
2,2-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	60-139%	---	---	
1,1-Dichloropropene	24.0	---	1.00	ug/L	1	20.0	ND	120	79-125%	---	---	
cis-1,3-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	75-124%	---	---	
trans-1,3-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	ND	100	73-127%	---	---	
Hexachlorobutadiene	23.1	---	5.00	ug/L	1	20.0	ND	116	66-134%	---	---	
Methylene chloride	22.9	---	10.0	ug/L	1	20.0	ND	115	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.7	---	0.400	ug/L	1	20.0	ND	118	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.4	---	0.500	ug/L	1	20.0	ND	112	71-121%	---	---	
Tetrachloroethene (PCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	74-129%	---	---	
1,2,3-Trichlorobenzene	21.4	---	2.00	ug/L	1	20.0	ND	107	69-129%	---	---	
1,1,2-Trichloroethane	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	ND	96	69-130%	---	---	
1,1,1-Trichloroethane	23.1	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	22.2	---	0.400	ug/L	1	20.0	ND	111	79-123%	---	---	
Trichlorofluoromethane	38.9	---	2.00	ug/L	1	20.0	ND	**195**	**65-141%**	---	---	Q-54g
1,2,3-Trichloropropane	20.8	---	1.00	ug/L	1	20.0	ND	104	73-122%	---	---	
Vinyl chloride	24.6	---	0.200	ug/L	1	20.0	ND	123	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 105 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*96 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*92 %*	*80-120 %*	*"*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0054 - EPA 5030C								**Water**				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Blank (24F0116-BLK1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 09:05									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Blank (24F0116-BLK1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 09:05									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (24F0116-BS1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 08:14									
EPA 8260D												
Bromobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Bromochloromethane	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromodichloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromoform	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Bromomethane	21.5	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
Carbon tetrachloride	24.0	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Chlorobenzene	20.7	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	20.8	---	5.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroform	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	19.8	---	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Chlorotoluene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.2	---	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromomethane	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
LCS (24F0116-BS1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 08:14									
1,3-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,4-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	25.0	---	1.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloroethane (EDC)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloroethene	24.7	---	0.400	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
cis-1,2-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	23.9	---	0.400	ug/L	1	20.0	---	119	80-120%	---	---	
1,2-Dichloropropane	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichloropropane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
2,2-Dichloropropane	27.1	---	1.00	ug/L	1	20.0	---	**135**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
cis-1,3-Dichloropropene	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,3-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	21.7	---	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
Methylene chloride	20.0	---	10.0	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	23.9	---	0.400	ug/L	1	20.0	---	120	80-120%	---	---	
1,2,3-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	18.8	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	24.2	---	0.400	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
Trichloroethene (TCE)	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichlorofluoromethane	27.8	---	2.00	ug/L	1	20.0	---	**139**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Vinyl chloride	23.9	---	0.200	ug/L	1	20.0	---	120	80-120%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 99 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*98 %*	*80-120 %*	*"*	

Duplicate (24F0116-DUP1) Prepared: 06/05/24 06:10 Analyzed: 06/05/24 12:33

QC Source Sample: INF-052824 (A4E1717-03RE1)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Duplicate (24F0116-DUP1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 12:33									
QC Source Sample: INF-052824 (A4E1717-03RE1)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**76.8**	---	4.00	ug/L	10	---	78.6	---	---	2	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4E1717 - 06 11 24 1738

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							Water					
Duplicate (24F0116-DUP1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 12:33									
QC Source Sample: INF-052824 (A4E1717-03RE1)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**6.00**	---	4.00	ug/L	10	---	5.90	---	---	2	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**458**	---	4.00	ug/L	10	---	472	---	---	3	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	1.50	---	---	***	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 109 %*		*Limits: 80-120 %*							
Toluene-d8 (Surr)			*100 %*		*80-120 %*							
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*							
Duplicate (24F0116-DUP2)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 15:06									
QC Source Sample: Non-SDG (A4F0812-03)												
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	4.00	ug/L	1	---	ND	---	---	---	30%	R-02
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Duplicate (24F0116-DUP2)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 15:06									
QC Source Sample: Non-SDG (A4F0812-03)												
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*108 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*			*"*				
Matrix Spike (24F0116-MS1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 12:55									

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Matrix Spike (24F0116-MS1)			Prepared: 06/05/24 06:10		Analyzed: 06/05/24 12:55							
QC Source Sample: Non-SDG (A4E1709-06)												
EPA 8260D												
Bromobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Bromochloromethane	23.3	---	1.00	ug/L	1	20.0	ND	116	78-123%	---	---	
Bromodichloromethane	22.6	---	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	21.9	---	1.00	ug/L	1	20.0	ND	109	66-130%	---	---	
Bromomethane	25.2	---	5.00	ug/L	1	20.0	ND	126	53-141%	---	---	
Carbon tetrachloride	27.4	---	1.00	ug/L	1	20.0	ND	**137**	**72-136%**	---	---	Q-01
Chlorobenzene	23.2	---	0.500	ug/L	1	20.0	ND	116	80-120%	---	---	
Chloroethane	25.4	---	5.00	ug/L	1	20.0	ND	127	60-138%	---	---	
Chloroform	23.3	---	1.00	ug/L	1	20.0	ND	116	79-124%	---	---	
Chloromethane	23.3	---	5.00	ug/L	1	20.0	ND	116	50-139%	---	---	
2-Chlorotoluene	20.8	---	1.00	ug/L	1	20.0	ND	104	79-122%	---	---	
4-Chlorotoluene	20.9	---	1.00	ug/L	1	20.0	ND	105	78-122%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	74-126%	---	---	
1,2-Dibromo-3-chloropropane	21.6	---	5.00	ug/L	1	20.0	ND	108	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.6	---	0.500	ug/L	1	20.0	ND	103	77-121%	---	---	
Dibromomethane	22.1	---	1.00	ug/L	1	20.0	ND	111	79-123%	---	---	
1,2-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,3-Dichlorobenzene	23.4	---	0.500	ug/L	1	20.0	ND	117	80-120%	---	---	
1,4-Dichlorobenzene	22.2	---	0.500	ug/L	1	20.0	ND	111	79-120%	---	---	
Dichlorodifluoromethane	28.5	---	1.00	ug/L	1	20.0	ND	142	32-152%	---	---	Q-54h
1,1-Dichloroethane	24.4	---	0.400	ug/L	1	20.0	ND	122	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.5	---	0.400	ug/L	1	20.0	ND	107	73-128%	---	---	
1,1-Dichloroethene	28.7	---	0.400	ug/L	1	20.0	ND	**144**	**71-131%**	---	---	Q-54d
cis-1,2-Dichloroethene	22.9	---	0.400	ug/L	1	20.0	ND	115	78-123%	---	---	
trans-1,2-Dichloroethene	25.8	---	0.400	ug/L	1	20.0	ND	**129**	**75-124%**	---	---	Q-01
1,2-Dichloropropane	22.5	---	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
1,3-Dichloropropane	20.9	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	28.6	---	1.00	ug/L	1	20.0	ND	**143**	**60-139%**	---	---	Q-54a
1,1-Dichloropropene	26.6	---	1.00	ug/L	1	20.0	ND	**133**	**79-125%**	---	---	Q-01
cis-1,3-Dichloropropene	19.8	---	1.00	ug/L	1	20.0	ND	99	75-124%	---	---	
trans-1,3-Dichloropropene	22.2	---	1.00	ug/L	1	20.0	ND	111	73-127%	---	---	
Hexachlorobutadiene	22.4	---	5.00	ug/L	1	20.0	ND	112	66-134%	---	---	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24F0116 - EPA 5030C							**Water**					
Matrix Spike (24F0116-MS1)			Prepared: 06/05/24 06:10 Analyzed: 06/05/24 12:55									
QC Source Sample: Non-SDG (A4E1709-06)												
Methylene chloride	22.5	---	10.0	ug/L	1	20.0	ND	112	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.6	---	0.400	ug/L	1	20.0	ND	113	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	26.6	---	0.400	ug/L	1	20.0	ND	**133**	**74-129%**	---	---	Q-01
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	22.4	---	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,2,4-Trichlorobenzene	19.8	---	2.00	ug/L	1	20.0	ND	99	69-130%	---	---	
1,1,1-Trichloroethane	27.2	---	0.400	ug/L	1	20.0	ND	**136**	**74-131%**	---	---	Q-54
Trichloroethene (TCE)	23.8	---	0.400	ug/L	1	20.0	ND	119	79-123%	---	---	
Trichlorofluoromethane	33.3	---	2.00	ug/L	1	20.0	ND	**167**	**65-141%**	---	---	Q-54b
1,2,3-Trichloropropane	20.7	---	1.00	ug/L	1	20.0	ND	104	73-122%	---	---	
Vinyl chloride	27.1	---	0.200	ug/L	1	20.0	ND	135	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24F0002							
A4E1717-01	Water	EPA 8260D	05/28/24 09:40	06/03/24 08:49	5mL/5mL	5mL/5mL	1.00
Batch: 24F0054							
A4E1717-02	Water	EPA 8260D	05/28/24 09:41	06/04/24 10:56	5mL/5mL	5mL/5mL	1.00
A4E1717-04	Water	EPA 8260D	05/28/24 00:00	06/04/24 10:56	5mL/5mL	5mL/5mL	1.00
Batch: 24F0116							
A4E1717-03RE1	Water	EPA 8260D	05/28/24 09:50	06/05/24 09:43	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +15%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +19%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +27%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +38%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +45%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +46%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +57%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-06	Surrogate recovery is outside of established control limits.

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

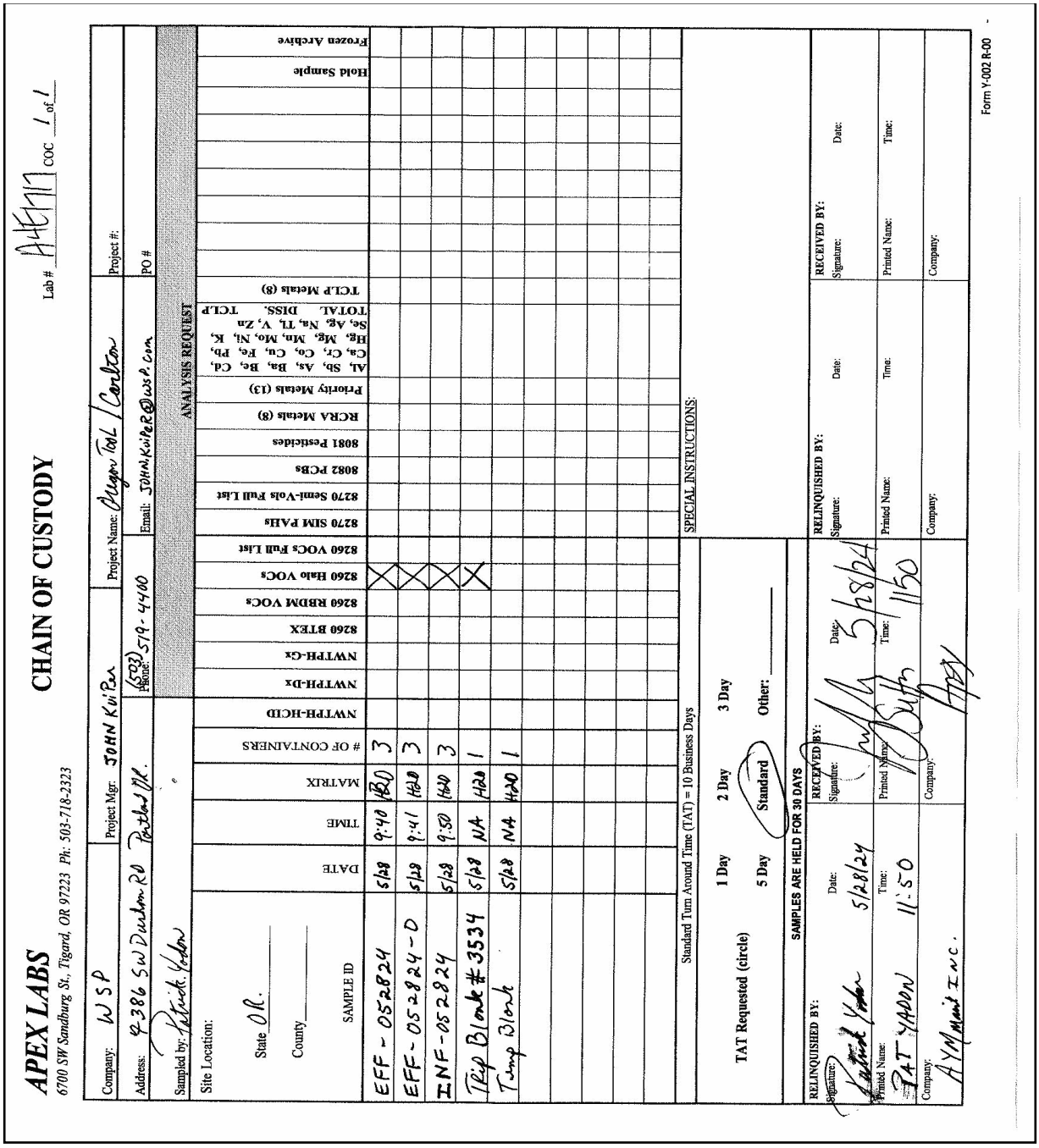
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4E1717 COC 1 of 1

Company: WSP | Project Mgr.: JOHN KUIPER | Project Name: Oregon Tool / Carlton | Project #:
Address: 9386 SW Dunsmuir Rd Portland OR. | Phone: (503) 519-4400 | Email: JOHN.KUIPER@WSP.COM | PO #
Sampled by: Patrick Yoder

ANALYSIS REQUEST

Site Location: State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF - 052824	5/28	9:40	WATER	3						X											
EFF - 052824 - D	5/28	9:41	H2O	3						X											
INF - 052824	5/28	9:50	H2O	3						X											
Trip Blank #3534	5/28	NA	H2O	1						X											
Temp Blank	5/28	NA	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Patrick Yoder	5/28/24	Signature:		Signature:		Signature:	
Printed Name: PAT YODER	Time: 11:50	Printed Name:	Time:	Printed Name:	Time:	Printed Name:	Time:
Company: AYM Maint Inc.		Company:		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4E1717 - 06 11 24 1738**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4E1717

Project/Project #: Oregon Tool/Carlton

Delivery Info:

Date/time received: 5/28/24 @ 1150 By: JS

Delivered by: Apex__Client_X_ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 5/28/24 @ 1151 By: JS

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.6						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 5/30/24 @ 836 By: JS

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments ____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID: ____

Comments: ____

Labeled by: JS Witness: [illegible] Cooler Inspected by: JS

Form Y-003 R-02

Apex Laboratories

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Tuesday, July 9, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4F1634 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4F1634, which was received by the laboratory on 6/28/2024 at 3:01:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 4.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-062824	A4F1634-01	Water	06/28/24 13:40	06/28/24 15:01
INF-062824	A4F1634-02	Water	06/28/24 13:50	06/28/24 15:01
TRIP 3534	A4F1634-03	Water	06/28/24 13:30	06/28/24 15:01

Apex Laboratories

Philip Nerenberg

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-062824 (A4F1634-01)				**Matrix: Water**		**Batch: 24G0072**		
Bromobenzene	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/02/24 17:05	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/02/24 17:05	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-062824 (A4F1634-01)				**Matrix: Water**		**Batch: 24G0072**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/02/24 17:05	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/02/24 17:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/02/24 17:05	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	07/02/24 17:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*86 %*	*Limits:* *80-120 %*	*1*	*07/02/24 17:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*07/02/24 17:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*07/02/24 17:05*	*EPA 8260D*	
INF-062824 (A4F1634-02)				**Matrix: Water**		**Batch: 24G0072**		
Bromobenzene	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	07/02/24 17:50	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	07/02/24 17:50	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	07/02/24 17:50	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4F1634 - 07 09 24 1901

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-062824 (A4F1634-02)				**Matrix: Water**		**Batch: 24G0072**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
cis-1,2-Dichloroethene	**80.0**	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	07/02/24 17:50	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
Tetrachloroethene (PCE)	**4.70**	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	07/02/24 17:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Trichloroethene (TCE)	**359**	---	2.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	07/02/24 17:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	07/02/24 17:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 89 %*		*Limits: 80-120 %*	*1*	*07/02/24 17:50*	*EPA 8260D*	
Toluene-d8 (Surr)		*103 %*		*80-120 %*	*1*	*07/02/24 17:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*103 %*		*80-120 %*	*1*	*07/02/24 17:50*	*EPA 8260D*	
TRIP 3534 (A4F1634-03)				**Matrix: Water**		**Batch: 24G0072**		
Bromobenzene	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP 3534 (A4F1634-03)				**Matrix: Water**		**Batch: 24G0072**		
Bromoform	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/02/24 15:58	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP 3534 (A4F1634-03)				**Matrix: Water**		**Batch: 24G0072**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/02/24 15:58	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/02/24 15:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/02/24 15:58	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	07/02/24 15:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*86 %*	*Limits:* *80-120 %*	*1*	*07/02/24 15:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*07/02/24 15:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*07/02/24 15:58*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Blank (24G0072-BLK1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 15:35									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Blank (24G0072-BLK1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 15:35									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 87 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*			*"*				
LCS (24G0072-BS1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 14:15									
EPA 8260D												
Bromobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	24.0	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Bromomethane	20.6	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
Carbon tetrachloride	24.3	---	1.00	ug/L	1	20.0	---	**122**	**80-120%**	---	---	Q-56
Chlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	29.6	---	5.00	ug/L	1	20.0	---	**148**	**80-120%**	---	---	Q-56
Chloroform	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	18.4	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.0	---	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
LCS (24G0072-BS1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 14:15									
1,3-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,4-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dichlorodifluoromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethane	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloroethane (EDC)	22.7	---	0.400	ug/L	1	20.0	---	114	80-120%	---	---	
1,1-Dichloroethene	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	17.9	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,3-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
2,2-Dichloropropane	24.0	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,1-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
cis-1,3-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
trans-1,3-Dichloropropene	23.9	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Hexachlorobutadiene	22.2	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	23.1	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Tetrachloroethene (PCE)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,3-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,2-Trichloroethane	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.3	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	16.9	---	0.400	ug/L	1	20.0	---	84	80-120%	---	---	
Trichlorofluoromethane	28.2	---	2.00	ug/L	1	20.0	---	**141**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Vinyl chloride	19.8	---	0.200	ug/L	1	20.0	---	99	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 85 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				
Duplicate (24G0072-DUP1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 20:49									
QC Source Sample: Non-SDG (A4G0832-04)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Duplicate (24G0072-DUP1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 20:49									
QC Source Sample: Non-SDG (A4G0832-04)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C												**Water**
Duplicate (24G0072-DUP1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 20:49									
QC Source Sample: Non-SDG (A4G0832-04)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*87 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
Duplicate (24G0072-DUP2)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 22:19									
QC Source Sample: Non-SDG (A4G0832-13)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Duplicate (24G0072-DUP2)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 22:19									
QC Source Sample: Non-SDG (A4G0832-13)												
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (24G0072-MS1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 18:57									
QC Source Sample: Non-SDG (A4G0847-01)												

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Matrix Spike (24G0072-MS1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 18:57									
QC Source Sample: Non-SDG (A4G0847-01)												
EPA 8260D												
Bromobenzene	1840	---	50.0	ug/L	100	2000	ND	92	80-120%	---	---	
Bromochloromethane	1920	---	100	ug/L	100	2000	ND	96	78-123%	---	---	
Bromodichloromethane	2060	---	100	ug/L	100	2000	ND	103	79-125%	---	---	
Bromoform	2230	---	100	ug/L	100	2000	ND	112	66-130%	---	---	
Bromomethane	2110	---	500	ug/L	100	2000	ND	105	53-141%	---	---	
Carbon tetrachloride	2520	---	100	ug/L	100	2000	ND	126	72-136%	---	---	Q-54
Chlorobenzene	1960	---	50.0	ug/L	100	2000	ND	98	80-120%	---	---	
Chloroethane	2850	---	500	ug/L	100	2000	ND	**142**	**60-138%**	---	---	Q-54b
Chloroform	2040	---	100	ug/L	100	2000	ND	102	79-124%	---	---	
Chloromethane	1860	---	500	ug/L	100	2000	ND	93	50-139%	---	---	
2-Chlorotoluene	1950	---	100	ug/L	100	2000	ND	98	79-122%	---	---	
4-Chlorotoluene	2060	---	100	ug/L	100	2000	ND	103	78-122%	---	---	
Dibromochloromethane	2130	---	100	ug/L	100	2000	ND	107	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1790	---	500	ug/L	100	2000	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	1970	---	50.0	ug/L	100	2000	ND	98	77-121%	---	---	
Dibromomethane	1900	---	100	ug/L	100	2000	ND	95	79-123%	---	---	
1,2-Dichlorobenzene	2020	---	50.0	ug/L	100	2000	ND	101	80-120%	---	---	
1,3-Dichlorobenzene	1990	---	50.0	ug/L	100	2000	ND	100	80-120%	---	---	
1,4-Dichlorobenzene	1990	---	50.0	ug/L	100	2000	ND	99	79-120%	---	---	
Dichlorodifluoromethane	2510	---	100	ug/L	100	2000	ND	125	32-152%	---	---	
1,1-Dichloroethane	2170	---	40.0	ug/L	100	2000	276	95	77-125%	---	---	
1,2-Dichloroethane (EDC)	2230	---	40.0	ug/L	100	2000	ND	111	73-128%	---	---	
1,1-Dichloroethene	2440	---	40.0	ug/L	100	2000	181	113	71-131%	---	---	
cis-1,2-Dichloroethene	7940	---	40.0	ug/L	100	2000	6050	94	78-123%	---	---	
trans-1,2-Dichloroethene	1950	---	40.0	ug/L	100	2000	26.0	96	75-124%	---	---	
1,2-Dichloropropane	1780	---	50.0	ug/L	100	2000	ND	89	78-122%	---	---	
1,3-Dichloropropane	2010	---	100	ug/L	100	2000	ND	100	80-120%	---	---	
2,2-Dichloropropane	2350	---	100	ug/L	100	2000	ND	117	60-139%	---	---	
1,1-Dichloropropene	1940	---	100	ug/L	100	2000	ND	97	79-125%	---	---	
cis-1,3-Dichloropropene	2120	---	100	ug/L	100	2000	ND	106	75-124%	---	---	
trans-1,3-Dichloropropene	2240	---	100	ug/L	100	2000	ND	112	73-127%	---	---	
Hexachlorobutadiene	2170	---	500	ug/L	100	2000	ND	108	66-134%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0072 - EPA 5030C							**Water**					
Matrix Spike (24G0072-MS1)			Prepared: 07/02/24 12:25 Analyzed: 07/02/24 18:57									
QC Source Sample: Non-SDG (A4G0847-01)												
Methylene chloride	1900	---	1000	ug/L	100	2000	ND	95	74-124%	---	---	
1,1,1,2-Tetrachloroethane	2230	---	40.0	ug/L	100	2000	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	1970	---	50.0	ug/L	100	2000	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	7070	---	40.0	ug/L	100	2000	5110	98	74-129%	---	---	
1,2,3-Trichlorobenzene	1850	---	200	ug/L	100	2000	ND	92	69-129%	---	---	
1,1,2-Trichloroethane	1990	---	50.0	ug/L	100	2000	ND	99	80-120%	---	---	
1,2,4-Trichlorobenzene	1880	---	200	ug/L	100	2000	ND	94	69-130%	---	---	
1,1,1-Trichloroethane	3260	---	40.0	ug/L	100	2000	1000	112	74-131%	---	---	
Trichloroethene (TCE)	3590	---	40.0	ug/L	100	2000	1870	86	79-123%	---	---	
Trichlorofluoromethane	3110	---	200	ug/L	100	2000	ND	**155**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	2140	---	100	ug/L	100	2000	ND	107	73-122%	---	---	
Vinyl chloride	2890	---	20.0	ug/L	100	2000	885	100	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 86 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24G0072							
A4F1634-01	Water	EPA 8260D	06/28/24 13:40	07/02/24 12:34	5mL/5mL	5mL/5mL	1.00
A4F1634-02	Water	EPA 8260D	06/28/24 13:50	07/02/24 12:34	5mL/5mL	5mL/5mL	1.00
A4F1634-03	Water	EPA 8260D	06/28/24 13:30	07/02/24 12:34	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +21%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +28%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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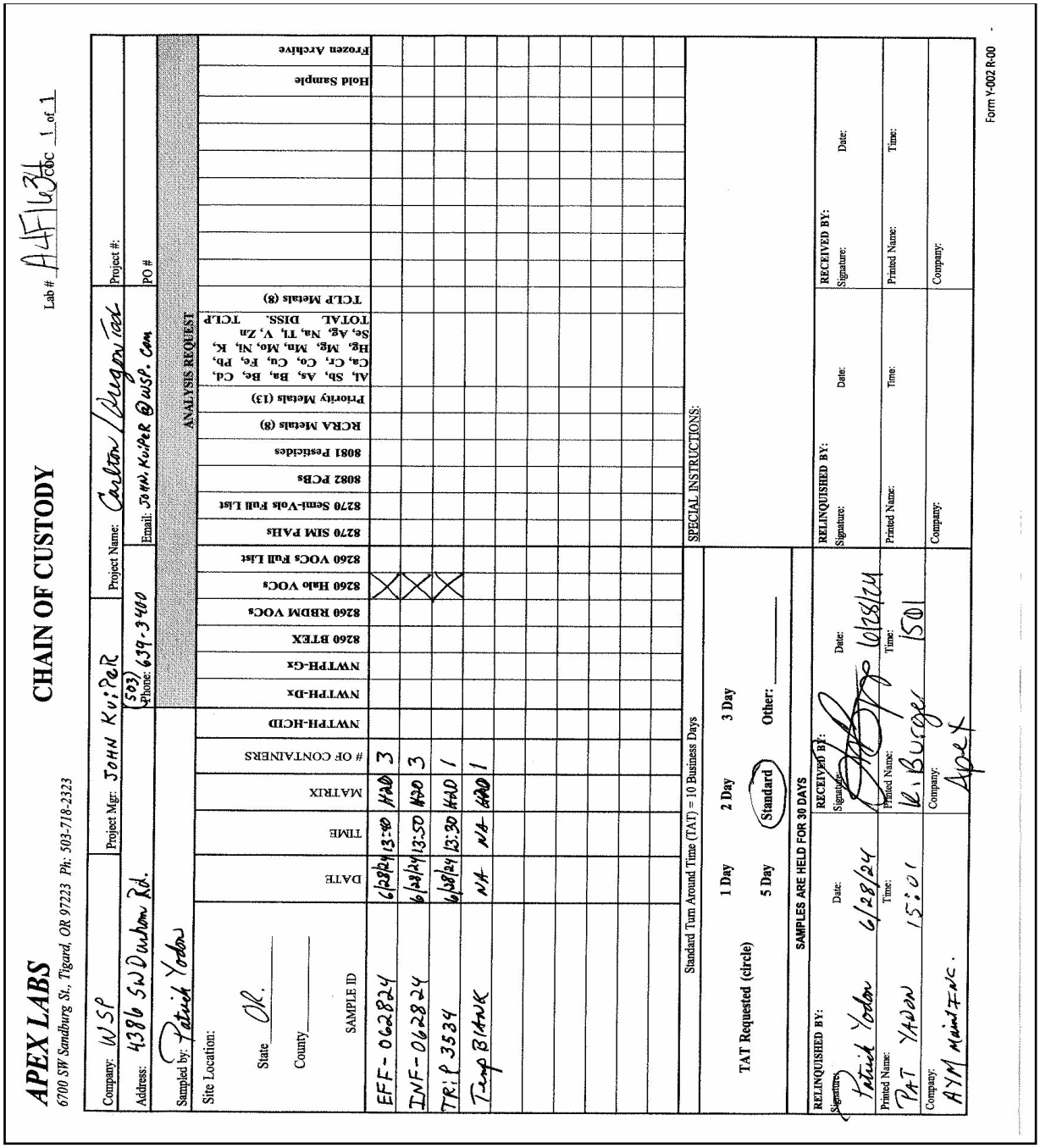
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4F1634 - 07 09 24 1901



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4F1634 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Dragon Tax | Project #:
Address: 4386 SW Dunham Rd. | Phone: (503) 639-3400 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Patrick Yodon
Site Location: OR. State ____ County ____

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF-062824	6/28/24	13:00	H2O	3						X											
INF-062824	6/28/24	13:50	H2O	3						X											
TRIP 3534	6/28/24	13:30	H2O	1						X											
Temp Blank	NA	NA	NA	1																	

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | (Standard) | Other: ____
SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature: Patrick Yodon	6/28/24	15:01	Signature:		
Printed Name: PAT YODON			Printed Name:		
Company: AYM maintenance.			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4F1634 - 07 09 24 1901**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4F1634

Project/Project #: Carlton / Oregon Tool

Delivery Info:

Date/time received: 6/28/24 @ 1501 By: WAB

Delivered by: Apex__Client X ESS___FedEx__UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 6/28/24 @ 1505 By: WAB

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	4.1						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	IN						

Cooler out of temp? (Y (N)) Possible reason why: _____

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes (No)

Sample Inspection: Date/time inspected: 6/28/24 @ 1550 By: JS

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: TB#3534 analyze for 8260 6/28/24

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

Labeled by: JS Witness: LJ Cooler Inspected by: JS

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Friday, August 2, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4G1449 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4G1449, which was received by the laboratory on 7/23/2024 at 3:43:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 4.5 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-072324	A4G1449-01	Water	07/23/24 13:18	07/23/24 15:43
INF-072324	A4G1449-02	Water	07/23/24 13:30	07/23/24 15:43
Trip Blank-072324	A4G1449-03	Water	07/23/24 00:00	07/23/24 15:43

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-072324 (A4G1449-01)				**Matrix: Water**		**Batch: 24G0802**		
Bromobenzene	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/24/24 20:18	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/24/24 20:18	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-072324 (A4G1449-01)				**Matrix: Water**		**Batch: 24G0802**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/24/24 20:18	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/24/24 20:18	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/24/24 20:18	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	07/24/24 20:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*07/24/24 20:18*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*07/24/24 20:18*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*07/24/24 20:18*	*EPA 8260D*	
INF-072324 (A4G1449-02)				**Matrix: Water**		**Batch: 24G0802**		
Bromobenzene	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	07/24/24 20:40	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	07/24/24 20:40	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	07/24/24 20:40	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4G1449 - 08 02 24 1801

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-072324 (A4G1449-02)				**Matrix: Water**		**Batch: 24G0802**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
cis-1,2-Dichloroethene	**72.6**	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	07/24/24 20:40	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
Tetrachloroethene (PCE)	**4.95**	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	07/24/24 20:40	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Trichloroethene (TCE)	**349**	---	2.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	07/24/24 20:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	07/24/24 20:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*07/24/24 20:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*07/24/24 20:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*07/24/24 20:40*	*EPA 8260D*	
Trip Blank-072324 (A4G1449-03)				**Matrix: Water**		**Batch: 24G0802**		
Bromobenzene	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank-072324 (A4G1449-03)				**Matrix: Water**		**Batch: 24G0802**		
Bromoform	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	07/24/24 12:54	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank-072324 (A4G1449-03)				**Matrix: Water**		**Batch: 24G0802**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	07/24/24 12:54	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	07/24/24 12:54	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	07/24/24 12:54	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	07/24/24 12:54	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:* *80-120 %*	*1*	*07/24/24 12:54*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*07/24/24 12:54*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*07/24/24 12:54*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
Blank (24G0802-BLK1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 11:25									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4G1449 - 08 02 24 1801

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C									Water			
Blank (24G0802-BLK1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 11:25									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24G0802-BS1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 10:37									
EPA 8260D												
Bromobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromodichloromethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromomethane	28.4	---	5.00	ug/L	1	20.0	---	**142**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	25.7	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
Chloroform	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	21.2	---	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
2-Chlorotoluene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
4-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.8	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromomethane	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
LCS (24G0802-BS1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 10:37									
1,3-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Dichlorodifluoromethane	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloroethene	22.7	---	0.400	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,2-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,3-Dichloropropane	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
2,2-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,3-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Hexachlorobutadiene	19.5	---	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
Methylene chloride	21.3	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	18.3	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,2-Trichloroethane	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,4-Trichlorobenzene	17.6	---	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,1-Trichloroethane	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichloroethene (TCE)	19.3	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Trichlorofluoromethane	30.4	---	2.00	ug/L	1	20.0	---	**152**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Vinyl chloride	24.0	---	0.200	ug/L	1	20.0	---	120	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24G0802-DUP1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 14:23									
QC Source Sample: Non-SDG (A4G1445-02)												
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
Duplicate (24G0802-DUP1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 14:23									
QC Source Sample: Non-SDG (A4G1445-02)												
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4G1449 - 08 02 24 1801

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							Water					
Duplicate (24G0802-DUP1)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 14:23									
QC Source Sample: Non-SDG (A4G1445-02)												
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (24G0802-DUP2)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 16:14									
QC Source Sample: Non-SDG (A4G1445-06)												
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
Duplicate (24G0802-DUP2)			Prepared: 07/24/24 07:08 Analyzed: 07/24/24 16:14									
QC Source Sample: Non-SDG (A4G1445-06)												
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 104 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*98 %*	*80-120 %*	*"*	

Matrix Spike (24G0802-MS1) Prepared: 07/24/24 07:08 Analyzed: 07/24/24 12:10

QC Source Sample: Non-SDG (A4G1434-01)

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
Matrix Spike (24G0802-MS1)			Prepared: 07/24/24 07:08		Analyzed: 07/24/24 12:10							
QC Source Sample: Non-SDG (A4G1434-01)												
EPA 8260D												
Bromobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Bromochloromethane	24.4	---	1.00	ug/L	1	20.0	ND	122	78-123%	---	---	
Bromodichloromethane	22.6	---	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	21.2	---	1.00	ug/L	1	20.0	ND	106	66-130%	---	---	
Bromomethane	29.5	---	5.00	ug/L	1	20.0	ND	**147**	**53-141%**	---	---	Q-54
Carbon tetrachloride	24.9	---	1.00	ug/L	1	20.0	ND	124	72-136%	---	---	
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	28.4	---	5.00	ug/L	1	20.0	ND	**142**	**60-138%**	---	---	Q-54b
Chloroform	37.2	---	1.00	ug/L	1	20.0	13.7	117	79-124%	---	---	
Chloromethane	24.4	---	5.00	ug/L	1	20.0	ND	122	50-139%	---	---	
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	ND	101	78-122%	---	---	
Dibromochloromethane	20.6	---	1.00	ug/L	1	20.0	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.5	---	5.00	ug/L	1	20.0	ND	83	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.2	---	0.500	ug/L	1	20.0	ND	101	77-121%	---	---	
Dibromomethane	22.4	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	21.3	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	26.6	---	1.00	ug/L	1	20.0	ND	133	32-152%	---	---	
1,1-Dichloroethane	23.5	---	0.400	ug/L	1	20.0	ND	118	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.5	---	0.400	ug/L	1	20.0	ND	112	73-128%	---	---	
1,1-Dichloroethene	26.0	---	0.400	ug/L	1	20.0	ND	130	71-131%	---	---	
cis-1,2-Dichloroethene	21.5	---	0.400	ug/L	1	20.0	ND	108	78-123%	---	---	
trans-1,2-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	75-124%	---	---	
1,2-Dichloropropane	22.4	---	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
1,3-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	ND	99	80-120%	---	---	
2,2-Dichloropropane	24.5	---	1.00	ug/L	1	20.0	ND	122	60-139%	---	---	
1,1-Dichloropropene	22.0	---	1.00	ug/L	1	20.0	ND	110	79-125%	---	---	
cis-1,3-Dichloropropene	20.1	---	1.00	ug/L	1	20.0	ND	101	75-124%	---	---	
trans-1,3-Dichloropropene	20.7	---	1.00	ug/L	1	20.0	ND	104	73-127%	---	---	
Hexachlorobutadiene	20.7	---	5.00	ug/L	1	20.0	ND	103	66-134%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24G0802 - EPA 5030C							**Water**					
Matrix Spike (24G0802-MS1)			Prepared: 07/24/24 07:08		Analyzed: 07/24/24 12:10							
QC Source Sample: Non-SDG (A4G1434-01)												
Methylene chloride	22.1	---	10.0	ug/L	1	20.0	ND	111	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	ND	103	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	21.8	---	0.400	ug/L	1	20.0	ND	109	74-129%	---	---	
1,2,3-Trichlorobenzene	19.0	---	2.00	ug/L	1	20.0	ND	95	69-129%	---	---	
1,1,2-Trichloroethane	20.1	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
1,2,4-Trichlorobenzene	18.3	---	2.00	ug/L	1	20.0	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	23.2	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	22.9	---	0.400	ug/L	1	20.0	1.87	105	79-123%	---	---	
Trichlorofluoromethane	33.6	---	2.00	ug/L	1	20.0	ND	**168**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	27.4	---	0.200	ug/L	1	20.0	ND	137	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24G0802							
A4G1449-01	Water	EPA 8260D	07/23/24 13:18	07/24/24 10:58	5mL/5mL	5mL/5mL	1.00
A4G1449-02	Water	EPA 8260D	07/23/24 13:30	07/24/24 10:58	5mL/5mL	5mL/5mL	1.00
A4G1449-03	Water	EPA 8260D	07/23/24 00:00	07/24/24 10:58	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +22%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +32%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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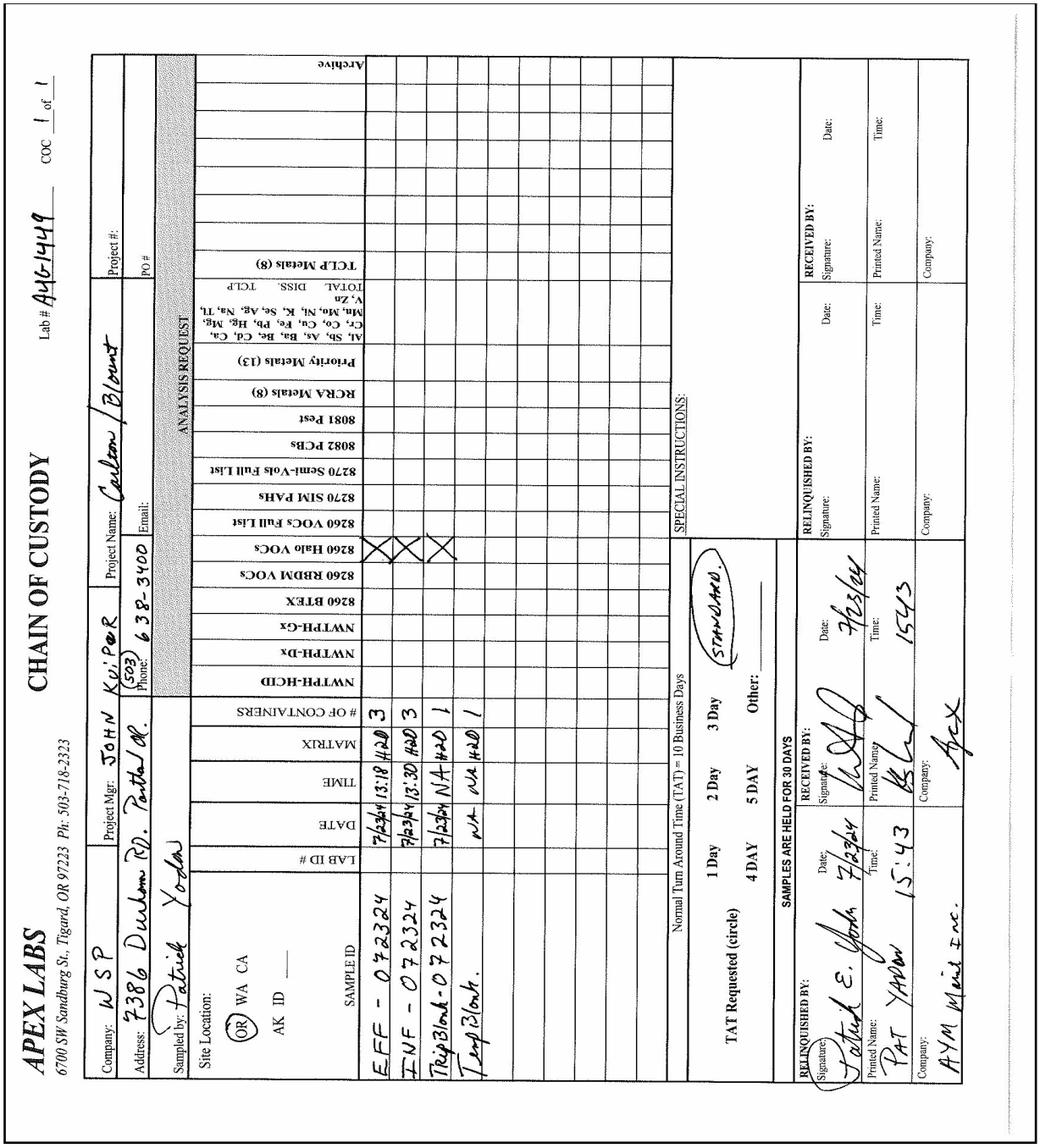
Apex Laboratories, LLC
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4G1449 - 08 02 24 1801



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4G1449 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project #:
Address: 7386 Dunlow Rd. Portland OR. | Phone: (503) 638-3400 | Project Name: Carlton / Blount | Email: | PO #
Sampled by: Patrick Yoder

Site Location: (OR) WA CA AK ID ___

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
EFF - 072324		7/23/24	13:18	HDD	3						X										
INF - 072324		7/23/24	13:30	HDD	3						X										
TripBlank-072324		7/23/24	NA	HDD	1						X										
TripBlank.		n/a	n/a	HDD	1																

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day (standard.) 4 DAY 5 DAY Other: ___

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick E. Yoder	Signature:	Signature:	Signature:
Date: 7/23/24	Date: 7/23/24	Date:	Date:
Time: 15:43	Time: 1543	Time:	Time:
Printed Name: PAT YODER	Printed Name:	Printed Name:	Printed Name:
Company: AYM Mini Inc.	Company: Apex	Company:	Company:

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4G1449 - 08 02 24 1801**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4G1449

Project/Project #: Carlton/Blount

Delivery Info:

Date/time received: 7/23/24 @ 1543 By: KN

Delivered by: Apex__Client_X_ESS___FedEx__UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes _____ No _X_

Cooler Inspection Date/time inspected: 7/23/24 @ 1557 By: AW

Chain of Custody included? Yes _X_ No _____

Signed/dated by client? Yes _X_ No _____

Contains USDA Reg. Soils? Yes _____ No _X_ Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	4.5						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 7/23/24 @ 18:20 By: ZA

All samples intact? Yes _X_ No ___ Comments: _____

Bottle labels/COCs agree? Yes _X_ No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No _X_

Containers/volumes received appropriate for analysis? Yes _X_ No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No _X_ NA ____

Comments _____

Water samples: pH checked: Yes___No___NA_X_ pH appropriate? Yes___No___NA_X_ pH ID:_____

Comments: _____

3573

Labeled by: KM Witness: KN Cooler Inspected by: ZA

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, September 11, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4H1496 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4H1496, which was received by the laboratory on 8/27/2024 at 2:58:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DPE7-082724	A4H1496-01	Water	08/27/24 13:48	08/27/24 14:58
DPE8-082724	A4H1496-02	Water	08/27/24 13:38	08/27/24 14:58
EW4-082724	A4H1496-03	Water	08/27/24 13:30	08/27/24 14:58
EW5A-082724	A4H1496-04	Water	08/27/24 13:22	08/27/24 14:58
EW6-082724	A4H1496-05	Water	08/27/24 12:45	08/27/24 14:58
EW6-082724-D	A4H1496-06	Water	08/27/24 12:46	08/27/24 14:58
EW7-082724	A4H1496-07	Water	08/27/24 12:56	08/27/24 14:58
EW8-082724	A4H1496-08	Water	08/27/24 13:09	08/27/24 14:58
MW11-2-082724	A4H1496-09	Water	08/27/24 12:30	08/27/24 14:58
Trip #3566	A4H1496-12	Water	08/27/24 00:00	08/27/24 14:58

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-082724 (A4H1496-01)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/04/24 22:29	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1-Dichloroethene	**0.480**	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
cis-1,2-Dichloroethene	**36.1**	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/04/24 22:29	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-082724 (A4H1496-01)				**Matrix: Water**		**Batch: 24I0095**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
Trichloroethene (TCE)	**32.1**	---	0.400	ug/L	1	09/04/24 22:29	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/04/24 22:29	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:29	EPA 8260D	
Vinyl chloride	**0.610**	---	0.200	ug/L	1	09/04/24 22:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*09/04/24 22:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*09/04/24 22:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*09/04/24 22:29*	*EPA 8260D*	
DPE8-082724 (A4H1496-02RE1)				**Matrix: Water**		**Batch: 24I0109**		
Bromobenzene	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	09/05/24 18:54	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	09/05/24 18:54	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	09/05/24 18:54	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1432

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-082724 (A4H1496-02RE1)				**Matrix: Water**		**Batch: 24I0109**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
cis-1,2-Dichloroethene	**16.8**	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	09/05/24 18:54	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
Tetrachloroethene (PCE)	**8.00**	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	09/05/24 18:54	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Trichloroethene (TCE)	**500**	---	2.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	09/05/24 18:54	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	09/05/24 18:54	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*119 %*	*Limits:*	*80-120 %*	*1*	*09/05/24 18:54*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*09/05/24 18:54*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*09/05/24 18:54*	*EPA 8260D*	
EW4-082724 (A4H1496-03)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-082724 (A4H1496-03)				**Matrix: Water**		**Batch: 24I0095**		
Bromoform	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	09/05/24 01:14	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1-Dichloroethene	**4.00**	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
cis-1,2-Dichloroethene	**263**	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Tetrachloroethene (PCE)	**12.1**	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-082724 (A4H1496-03)				**Matrix: Water**		**Batch: 24I0095**		
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Trichloroethene (TCE)	**1200**	---	4.00	ug/L	10	09/05/24 01:14	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	09/05/24 01:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	09/05/24 01:14	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	09/05/24 01:14	EPA 8260D	Q-42
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*119 %*	*Limits: 80-120 %*	*1*	*09/05/24 01:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*09/05/24 01:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*09/05/24 01:14*	*EPA 8260D*	
EW5A-082724 (A4H1496-04)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	09/05/24 00:46	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	09/05/24 00:46	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	09/05/24 00:46	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-082724 (A4H1496-04)				**Matrix: Water**		**Batch: 24I0095**		
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1-Dichloroethene	**1.60**	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
cis-1,2-Dichloroethene	**87.9**	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	09/05/24 00:46	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Tetrachloroethene (PCE)	**2.04**	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
Trichloroethene (TCE)	**222**	---	0.800	ug/L	2	09/05/24 00:46	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	09/05/24 00:46	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	09/05/24 00:46	EPA 8260D	
Vinyl chloride	**4.24**	---	0.400	ug/L	2	09/05/24 00:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*120 %*	*Limits:*	*80-120 %*	*1*	*09/05/24 00:46*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*09/05/24 00:46*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*09/05/24 00:46*	*EPA 8260D*	
EW6-082724 (A4H1496-05)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	09/04/24 22:56	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-082724 (A4H1496-05)				**Matrix: Water**		**Batch: 24I0095**		
Chlorobenzene	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	09/04/24 22:56	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	09/04/24 22:56	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
cis-1,2-Dichloroethene	**67.2**	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	09/04/24 22:56	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
Tetrachloroethene (PCE)	**3.25**	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 22:56	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 22:56	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-082724 (A4H1496-05)				**Matrix: Water**		**Batch: 24I0095**		
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Trichloroethene (TCE)	**394**	---	2.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	09/04/24 22:56	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	09/04/24 22:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits: 80-120 %*	*1*	*09/04/24 22:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*09/04/24 22:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*09/04/24 22:56*	*EPA 8260D*	
EW6-082724-D (A4H1496-06)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	09/04/24 23:24	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	09/04/24 23:24	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	09/04/24 23:24	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
cis-1,2-Dichloroethene	**64.3**	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-082724-D (A4H1496-06)				**Matrix: Water**		**Batch: 24I0095**		
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	09/04/24 23:24	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
Tetrachloroethene (PCE)	**3.10**	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 23:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Trichloroethene (TCE)	**392**	---	2.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	09/04/24 23:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	09/04/24 23:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*118 %*	*Limits:*	*80-120 %*	*1*	*09/04/24 23:24*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*09/04/24 23:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*09/04/24 23:24*	*EPA 8260D*	
EW7-082724 (A4H1496-07)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1432

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-082724 (A4H1496-07)				**Matrix: Water**		**Batch: 24I0095**		
Chloromethane	ND	---	5.00	ug/L	1	09/04/24 22:01	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
cis-1,2-Dichloroethene	**7.60**	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
Tetrachloroethene (PCE)	**0.900**	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/04/24 22:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/04/24 22:01	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
Trichloroethene (TCE)	**16.5**	---	0.400	ug/L	1	09/04/24 22:01	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/04/24 22:01	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-082724 (A4H1496-07)				**Matrix: Water**		**Batch: 24I0095**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/04/24 22:01	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/04/24 22:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*09/04/24 22:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*09/04/24 22:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*09/04/24 22:01*	*EPA 8260D*	
EW8-082724 (A4H1496-08)				**Matrix: Water**		**Batch: 24I0095**		**R-04**
Bromobenzene	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	09/05/24 02:09	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	09/05/24 02:09	EPA 8260D	
Chloroform	**2.08**	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	09/05/24 02:09	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
cis-1,2-Dichloroethene	**54.3**	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-082724 (A4H1496-08)				**Matrix: Water**		**Batch: 24I0095**		**R-04**
2,2-Dichloropropane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	09/05/24 02:09	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
Trichloroethene (TCE)	**12.4**	---	0.800	ug/L	2	09/05/24 02:09	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	09/05/24 02:09	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	09/05/24 02:09	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	2	09/05/24 02:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*09/05/24 02:09*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*09/05/24 02:09*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*09/05/24 02:09*	*EPA 8260D*	
MW11-2-082724 (A4H1496-09)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Bromochloromethane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Bromodichloromethane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Bromoform	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Bromomethane	ND	---	100	ug/L	20	09/05/24 00:19	EPA 8260D	
Carbon tetrachloride	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Chlorobenzene	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Chloroethane	ND	---	100	ug/L	20	09/05/24 00:19	EPA 8260D	
Chloroform	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Chloromethane	ND	---	100	ug/L	20	09/05/24 00:19	EPA 8260D	
2-Chlorotoluene	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
4-Chlorotoluene	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1432

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-082724 (A4H1496-09)				**Matrix: Water**		**Batch: 24I0095**		
Dibromochloromethane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Dibromomethane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
cis-1,2-Dichloroethene	**648**	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Hexachlorobutadiene	ND	---	100	ug/L	20	09/05/24 00:19	EPA 8260D	
Methylene chloride	ND	---	200	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Tetrachloroethene (PCE)	**27.0**	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
Trichloroethene (TCE)	**1770**	---	8.00	ug/L	20	09/05/24 00:19	EPA 8260D	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	09/05/24 00:19	EPA 8260D	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	09/05/24 00:19	EPA 8260D	
Vinyl chloride	**9.40**	---	4.00	ug/L	20	09/05/24 00:19	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 118 %*		*Limits: 80-120 %*	*1*	*09/05/24 00:19*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-082724 (A4H1496-09)				**Matrix: Water**		**Batch: 24I0095**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*105 %*	*Limits:* *80-120 %*	*1*	*09/05/24 00:19*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*09/05/24 00:19*	*EPA 8260D*	
Trip #3566 (A4H1496-12)				**Matrix: Water**		**Batch: 24I0109**		
Bromobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip #3566 (A4H1496-12)				**Matrix: Water**		**Batch: 24I0109**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/05/24 13:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*	*80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Blank (24I0095-BLK1)			Prepared: 09/04/24 18:53 Analyzed: 09/04/24 19:44									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4H1496 - 09 11 24 1432

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C									Water			
Blank (24I0095-BLK1)			Prepared: 09/04/24 18:53 Analyzed: 09/04/24 19:44									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*106 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24I0095-BS1)			Prepared: 09/04/24 14:53 Analyzed: 09/04/24 17:54									
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	23.1	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromomethane	24.7	---	5.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	28.5	---	5.00	ug/L	1	20.0	---	**142**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromochloromethane	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4H1496 - 09 11 24 1432

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
LCS (24I0095-BS1)			Prepared: 09/04/24 14:53 Analyzed: 09/04/24 17:54									
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloroethane	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.1	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,3-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Hexachlorobutadiene	18.8	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	19.6	---	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,1,2,2-Tetrachloroethane	24.6	---	0.500	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Tetrachloroethene (PCE)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	21.7	---	2.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2-Trichloroethane	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	20.3	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1-Trichloroethane	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
Trichloroethene (TCE)	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	25.6	---	2.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Vinyl chloride	21.2	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									**T-02**

QC Source Sample: EW4-082724 (A4H1496-03)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4H1496 - 09 11 24 1432

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									T-02
QC Source Sample: EW4-082724 (A4H1496-03)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	4.00	---	---	***	30%	
cis-1,2-Dichloroethene	**271**	---	4.00	ug/L	10	---	263	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									**T-02**
QC Source Sample: EW4-082724 (A4H1496-03)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**12.2**	---	4.00	ug/L	10	---	12.1	---	---	0.8	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1210**	---	4.00	ug/L	10	---	1200	---	---	0.9	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	1.10	---	---	***	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Duplicate (24I0095-DUP2)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:43									**T-02**
QC Source Sample: MW11-2-082724 (A4H1496-09)												
EPA 8260D												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4H1496 - 09 11 24 1432

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP2)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:43									T-02
QC Source Sample: MW11-2-082724 (A4H1496-09)												
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	---	4.80	---	---	***	30%	
cis-1,2-Dichloroethene	**666**	---	8.00	ug/L	20	---	648	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	5.40	---	---	***	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**29.2**	---	8.00	ug/L	20	---	27.0	---	---	8	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1850**	---	8.00	ug/L	20	---	1770	---	---	4	30%	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	**9.60**	---	4.00	ug/L	20	---	9.40	---	---	2	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*121 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				*S-02*
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Matrix Spike (24I0095-MS1)			Prepared: 09/04/24 18:53		Analyzed: 09/05/24 07:11							**T-02**
QC Source Sample: Non-SDG (A4H1498-01)												
EPA 8260D												
Bromobenzene	202	---	5.00	ug/L	10	200	ND	101	80-120%	---	---	
Bromochloromethane	229	---	10.0	ug/L	10	200	ND	115	78-123%	---	---	
Bromodichloromethane	226	---	10.0	ug/L	10	200	ND	113	79-125%	---	---	
Bromoform	240	---	10.0	ug/L	10	200	ND	120	66-130%	---	---	
Bromomethane	321	---	50.0	ug/L	10	200	ND	**160**	**53-141%**	---	---	Q-54a
Carbon tetrachloride	235	---	10.0	ug/L	10	200	ND	117	72-136%	---	---	
Chlorobenzene	214	---	5.00	ug/L	10	200	ND	107	80-120%	---	---	
Chloroethane	385	---	50.0	ug/L	10	200	ND	**193**	**60-138%**	---	---	ICV-01, Q-54
Chloroform	223	---	10.0	ug/L	10	200	ND	112	79-124%	---	---	
Chloromethane	207	---	50.0	ug/L	10	200	ND	103	50-139%	---	---	
2-Chlorotoluene	204	---	10.0	ug/L	10	200	ND	102	79-122%	---	---	
4-Chlorotoluene	206	---	10.0	ug/L	10	200	ND	103	78-122%	---	---	
Dibromochloromethane	222	---	10.0	ug/L	10	200	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	162	---	50.0	ug/L	10	200	ND	81	62-128%	---	---	
1,2-Dibromoethane (EDB)	203	---	5.00	ug/L	10	200	ND	102	77-121%	---	---	
Dibromomethane	227	---	10.0	ug/L	10	200	ND	113	79-123%	---	---	
1,2-Dichlorobenzene	204	---	5.00	ug/L	10	200	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	202	---	5.00	ug/L	10	200	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	214	---	5.00	ug/L	10	200	ND	107	79-120%	---	---	
Dichlorodifluoromethane	249	---	10.0	ug/L	10	200	ND	124	32-152%	---	---	
1,1-Dichloroethane	224	---	4.00	ug/L	10	200	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	216	---	4.00	ug/L	10	200	ND	108	73-128%	---	---	
1,1-Dichloroethene	241	---	4.00	ug/L	10	200	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	200	---	4.00	ug/L	10	200	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	209	---	4.00	ug/L	10	200	ND	104	75-124%	---	---	
1,2-Dichloropropane	212	---	5.00	ug/L	10	200	ND	106	78-122%	---	---	
1,3-Dichloropropane	207	---	10.0	ug/L	10	200	ND	104	80-120%	---	---	
2,2-Dichloropropane	168	---	10.0	ug/L	10	200	ND	84	60-139%	---	---	
1,1-Dichloropropene	220	---	10.0	ug/L	10	200	ND	110	79-125%	---	---	
cis-1,3-Dichloropropene	155	---	10.0	ug/L	10	200	ND	77	75-124%	---	---	
trans-1,3-Dichloropropene	208	---	10.0	ug/L	10	200	ND	104	73-127%	---	---	
Hexachlorobutadiene	182	---	50.0	ug/L	10	200	ND	91	66-134%	---	---	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Matrix Spike (24I0095-MS1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 07:11									**T-02**
QC Source Sample: Non-SDG (A4H1498-01)												
Methylene chloride	220	---	100	ug/L	10	200	ND	110	74-124%	---	---	
1,1,1,2-Tetrachloroethane	232	---	4.00	ug/L	10	200	ND	116	78-124%	---	---	
1,1,2,2-Tetrachloroethane	238	---	5.00	ug/L	10	200	ND	119	71-121%	---	---	Q-54a
Tetrachloroethene (PCE)	216	---	4.00	ug/L	10	200	ND	108	74-129%	---	---	
1,2,3-Trichlorobenzene	202	---	20.0	ug/L	10	200	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	217	---	5.00	ug/L	10	200	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	185	---	20.0	ug/L	10	200	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	234	---	4.00	ug/L	10	200	ND	117	74-131%	---	---	
Trichloroethene (TCE)	216	---	4.00	ug/L	10	200	ND	108	79-123%	---	---	
Trichlorofluoromethane	334	---	20.0	ug/L	10	200	ND	**167**	**65-141%**	---	---	Q-54d
1,2,3-Trichloropropane	228	---	10.0	ug/L	10	200	ND	114	73-122%	---	---	
Vinyl chloride	249	---	2.00	ug/L	10	200	ND	124	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Blank (24I0109-BLK1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 13:24									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID: A4H1496 - 09 11 24 1432

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C									Water			
Blank (24I0109-BLK1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 13:24									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*106 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (24I0109-BS1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 11:57									
EPA 8260D												
Bromobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromomethane	34.6	---	5.00	ug/L	1	20.0	---	**173**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	41.9	---	5.00	ug/L	1	20.0	---	**210**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	21.9	---	5.00	ug/L	1	20.0	---	109	80-120%	---	---	
2-Chlorotoluene	17.5	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
4-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.9	---	5.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromomethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
LCS (24I0109-BS1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 11:57									
1,3-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethane	21.9	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,2-Dichloroethene	19.5	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
Methylene chloride	21.8	---	10.0	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	17.2	---	2.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
Trichloroethene (TCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	33.7	---	2.00	ug/L	1	20.0	---	**168**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Vinyl chloride	21.8	---	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (24I0109-DUP2)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:56									
QC Source Sample: Non-SDG (A4H1498-03)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP2)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:56									
QC Source Sample: Non-SDG (A4H1498-03)												
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	100	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00 Analyzed: 09/06/24 00:24									**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00		Analyzed: 09/06/24 00:24							**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												
EPA 8260D												
Bromobenzene	18.7	---	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	ND	103	78-123%	---	---	
Bromodichloromethane	21.5	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	ND	100	66-130%	---	---	
Bromomethane	25.2	---	5.00	ug/L	1	20.0	ND	126	53-141%	---	---	Q-54c
Carbon tetrachloride	16.8	---	1.00	ug/L	1	20.0	ND	84	72-136%	---	---	
Chlorobenzene	17.2	---	0.500	ug/L	1	20.0	ND	86	80-120%	---	---	
Chloroethane	31.4	---	5.00	ug/L	1	20.0	ND	**157**	**60-138%**	---	---	ICV-01, Q-54e
Chloroform	21.8	---	1.00	ug/L	1	20.0	ND	92	79-124%	---	---	
Chloromethane	19.5	---	5.00	ug/L	1	20.0	ND	98	50-139%	---	---	
2-Chlorotoluene	12.3	---	1.00	ug/L	1	20.0	ND	**62**	**79-122%**	---	---	Q-01
4-Chlorotoluene	12.8	---	1.00	ug/L	1	20.0	ND	**64**	**78-122%**	---	---	Q-01
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.7	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	Q-54f
1,2-Dibromoethane (EDB)	19.4	---	0.500	ug/L	1	20.0	ND	97	77-121%	---	---	
Dibromomethane	21.9	---	1.00	ug/L	1	20.0	ND	110	79-123%	---	---	
1,2-Dichlorobenzene	13.8	---	0.500	ug/L	1	20.0	ND	**69**	**80-120%**	---	---	Q-01
1,3-Dichlorobenzene	11.4	---	0.500	ug/L	1	20.0	ND	**57**	**80-120%**	---	---	Q-01
1,4-Dichlorobenzene	12.9	---	0.500	ug/L	1	20.0	ND	**64**	**79-120%**	---	---	Q-01
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	19.4	---	0.400	ug/L	1	20.0	ND	97	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	ND	96	73-128%	---	---	
1,1-Dichloroethene	17.9	---	0.400	ug/L	1	20.0	ND	90	71-131%	---	---	
cis-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	ND	99	78-123%	---	---	
trans-1,2-Dichloroethene	18.1	---	0.400	ug/L	1	20.0	ND	91	75-124%	---	---	
1,2-Dichloropropane	21.7	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	19.1	---	1.00	ug/L	1	20.0	ND	96	80-120%	---	---	
2,2-Dichloropropane	16.6	---	1.00	ug/L	1	20.0	ND	83	60-139%	---	---	
1,1-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-125%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	20.0	ND		**66-134%**	---	---	Q-01

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00		Analyzed: 09/06/24 00:24							**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												
Methylene chloride	22.4	---	10.0	ug/L	1	20.0	ND	112	74-124%	---	---	
1,1,1,2-Tetrachloroethane	17.8	---	0.400	ug/L	1	20.0	ND	89	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.5	---	0.500	ug/L	1	20.0	ND	113	71-121%	---	---	
Tetrachloroethene (PCE)	12.9	---	0.400	ug/L	1	20.0	ND	**65**	**74-129%**	---	---	Q-01
1,2,3-Trichlorobenzene	7.57	---	2.00	ug/L	1	20.0	ND	**38**	**69-129%**	---	---	Q-01
1,1,2-Trichloroethane	22.1	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,2,4-Trichlorobenzene	6.50	---	2.00	ug/L	1	20.0	ND	**32**	**69-130%**	---	---	Q-01
1,1,1-Trichloroethane	18.9	---	0.400	ug/L	1	20.0	ND	95	74-131%	---	---	
Trichloroethene (TCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	79-123%	---	---	
Trichlorofluoromethane	21.6	---	2.00	ug/L	1	20.0	ND	108	65-141%	---	---	Q-54b
1,2,3-Trichloropropane	21.0	---	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
Vinyl chloride	21.5	---	0.200	ug/L	1	20.0	ND	107	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*110 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1432

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24I0095							
A4H1496-01	Water	EPA 8260D	08/27/24 13:48	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-03	Water	EPA 8260D	08/27/24 13:30	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-04	Water	EPA 8260D	08/27/24 13:22	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-05	Water	EPA 8260D	08/27/24 12:45	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-06	Water	EPA 8260D	08/27/24 12:46	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-07	Water	EPA 8260D	08/27/24 12:56	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-08	Water	EPA 8260D	08/27/24 13:09	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
A4H1496-09	Water	EPA 8260D	08/27/24 12:30	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
Batch: 24I0109							
A4H1496-02RE1	Water	EPA 8260D	08/27/24 13:38	09/05/24 12:45	5mL/5mL	5mL/5mL	1.00
A4H1496-12	Water	EPA 8260D	08/27/24 00:00	09/05/24 12:45	5mL/5mL	5mL/5mL	1.00

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +22%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +48%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +53%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +90%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
R-04	Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
S-02	Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
T-02	This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

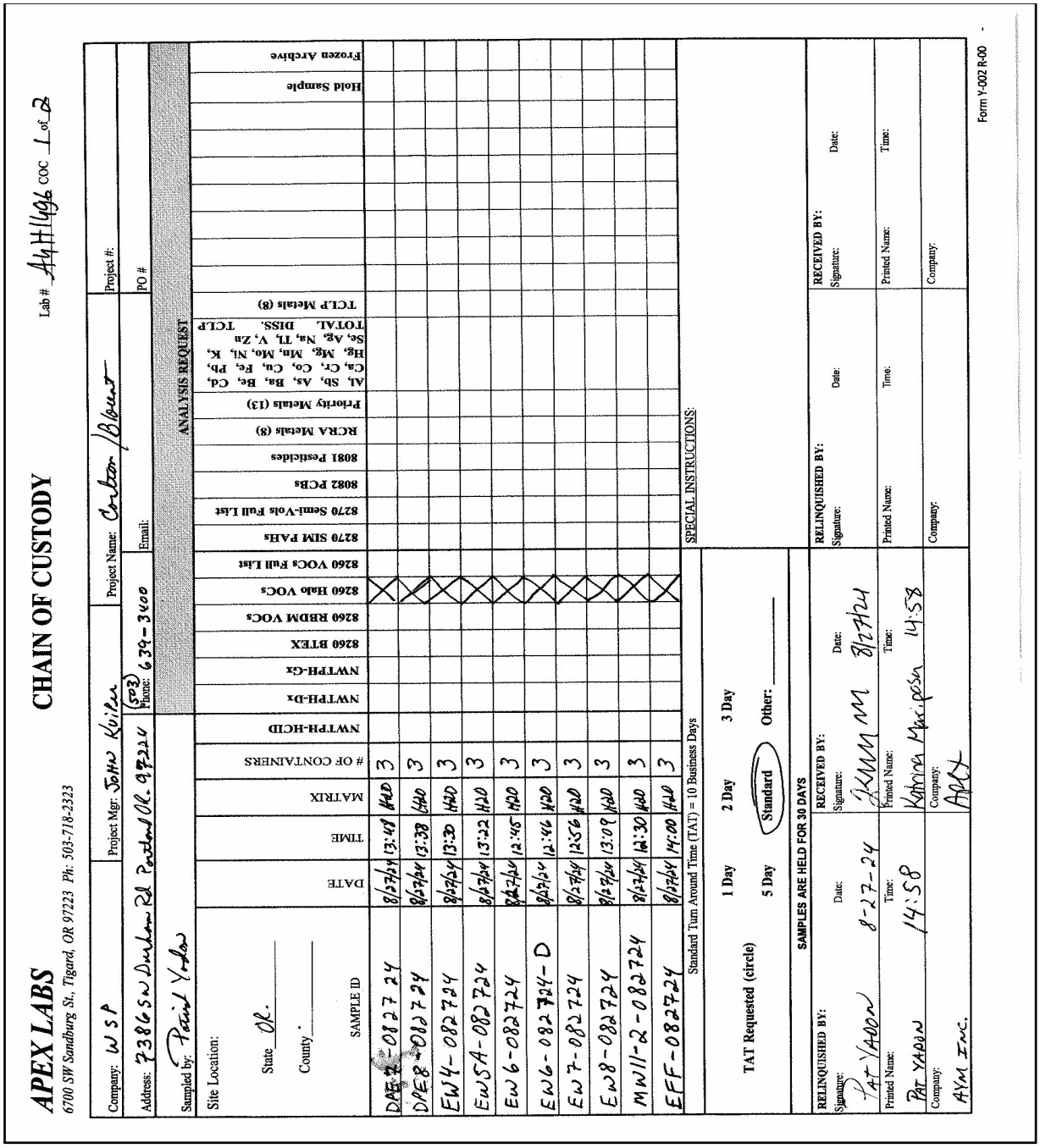
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4H1496 COC 1 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Bluer | Project #:
Address: 23865W Dublin Rd Portland OR. 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Paul Yadon

Site Location: State OR. County:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
DAE1-082724	8/27/24	13:48	WATER	3						X											
DAE2-082724	8/27/24	13:38	WATER	3						X											
EW4-082724	8/27/24	13:30	WATER	3						X											
EW5A-082724	8/27/24	13:22	WATER	3						X											
EW6-082724	8/27/24	12:45	WATER	3						X											
EW6-082724-D	8/27/24	12:46	WATER	3						X											
EW7-082724	8/27/24	12:56	WATER	3						X											
EW8-082724	8/27/24	13:09	WATER	3						X											
MW11-2-082724	8/27/24	12:30	WATER	3						X											
EFF-082724	8/27/24	14:00	WATER	3						X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name: Pat Yadon	8-27-24	14:58	Printed Name: Katrina Macpherson	8/27/24	14:58
Company: AYM Inc.			Company: APEX		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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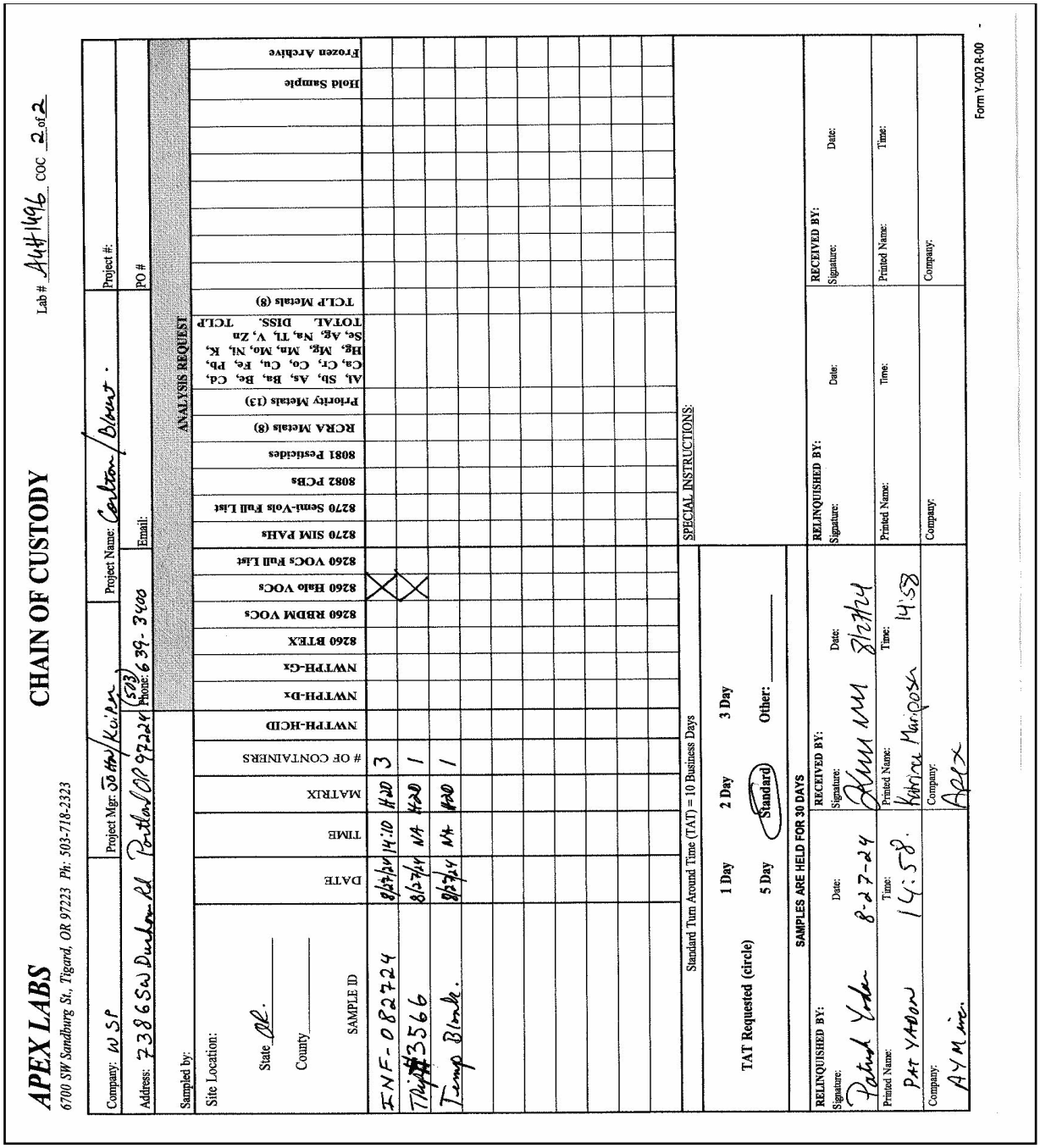
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4H1496 - 09 11 24 1432



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4H1496 COC 2 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Blount | Project #:
Address: 15866 SW Dunham Rd Portland OR 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by:

ANALYSIS REQUEST

Site Location: State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
ENF-082724	8/27/24	14:10	H2O	3						X											
Trip #3566	8/27/24	NA	H2O	1							X										
Temp Blank.	8/27/24	NA	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
1	Signature: Patrick Yinder	8-27-24	14:58	Signature: [illegible]	8/27/24	
	Printed Name: PAT YINDER			Printed Name: Katrina Mariposa		14:58
	Company: APEX			Company: APEX		

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
2	Signature:			Signature:		
	Printed Name:			Printed Name:		
	Company:			Company:		

Form Y-002 R-00

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1432**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4H1496

Project/Project #: Carlton / Blount

Delivery Info:

Date/time received: 8/27/24 @ 14:58 By: [illegible]

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 8/27/24 @ 15:00 By: [illegible]

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.3						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 8/27/24 @ 1605 By: ZA

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: ~~Trip Blank #~~ Container 24 8/24 ready, 3567. Trip Blank #

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments 3/3 for EW8-082724 have sediment.

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

#3567

Labeled by: ZA Witness: [illegible] Cooler Inspected by: ZA

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, September 11, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4H1496 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4H1496, which was received by the laboratory on 8/27/2024 at 2:58:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-082724	A4H1496-10	Water	08/27/24 14:00	08/27/24 14:58
INF-082724	A4H1496-11	Water	08/27/24 14:10	08/27/24 14:58
Trip #3566	A4H1496-12	Water	08/27/24 00:00	08/27/24 14:58

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1434

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-082724 (A4H1496-10)				**Matrix: Water**		**Batch: 24I0109**		
Bromobenzene	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/05/24 15:14	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/05/24 15:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-082724 (A4H1496-10)				**Matrix: Water**		**Batch: 24I0109**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	09/05/24 15:14	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/05/24 15:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/05/24 15:14	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/05/24 15:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits: 80-120 %*	*1*	*09/05/24 15:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*	*80-120 %*	*1*	*09/05/24 15:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*09/05/24 15:14*	*EPA 8260D*	
INF-082724 (A4H1496-11)				**Matrix: Water**		**Batch: 24I0095**		
Bromobenzene	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	09/04/24 23:51	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	09/04/24 23:51	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	09/04/24 23:51	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-082724 (A4H1496-11)				**Matrix: Water**		**Batch: 24I0095**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
cis-1,2-Dichloroethene	**51.2**	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	09/04/24 23:51	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
Tetrachloroethene (PCE)	**2.95**	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	09/04/24 23:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Trichloroethene (TCE)	**235**	---	2.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	09/04/24 23:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	09/04/24 23:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*	*1*	*09/04/24 23:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*09/04/24 23:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*09/04/24 23:51*	*EPA 8260D*	
Trip #3566 (A4H1496-12)				**Matrix: Water**		**Batch: 24I0109**		
Bromobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1434

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip #3566 (A4H1496-12)				**Matrix: Water**		**Batch: 24I0109**		
Bromoform	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip #3566 (A4H1496-12)				**Matrix: Water**		**Batch: 24I0109**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	09/05/24 13:51	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/05/24 13:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/05/24 13:51	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/05/24 13:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*	*80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*09/05/24 13:51*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Blank (24I0095-BLK1)			Prepared: 09/04/24 18:53 Analyzed: 09/04/24 19:44									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C									**Water**			
Blank (24I0095-BLK1)			Prepared: 09/04/24 18:53 Analyzed: 09/04/24 19:44									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*106 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24I0095-BS1)			Prepared: 09/04/24 14:53 Analyzed: 09/04/24 17:54									
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	23.1	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromomethane	24.7	---	5.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	28.5	---	5.00	ug/L	1	20.0	---	**142**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
4-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromochloromethane	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
LCS (24I0095-BS1)			Prepared: 09/04/24 14:53 Analyzed: 09/04/24 17:54									
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloroethane	20.1	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.1	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,3-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Hexachlorobutadiene	18.8	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	19.6	---	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,1,2,2-Tetrachloroethane	24.6	---	0.500	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Tetrachloroethene (PCE)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	21.7	---	2.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2-Trichloroethane	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	20.3	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1-Trichloroethane	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
Trichloroethene (TCE)	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	25.6	---	2.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Vinyl chloride	21.2	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									**T-02**

QC Source Sample: EW4-082724 (A4H1496-03)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									**T-02**
QC Source Sample: EW4-082724 (A4H1496-03)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	4.00	---	---	***	30%	
cis-1,2-Dichloroethene	**271**	---	4.00	ug/L	10	---	263	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:16									**T-02**
QC Source Sample: EW4-082724 (A4H1496-03)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**12.2**	---	4.00	ug/L	10	---	12.1	---	---	0.8	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1210**	---	4.00	ug/L	10	---	1200	---	---	0.9	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	1.10	---	---	***	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Duplicate (24I0095-DUP2)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:43									**T-02**
QC Source Sample: MW11-2-082724 (A4H1496-09)												
EPA 8260D												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4H1496 - 09 11 24 1434

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Duplicate (24I0095-DUP2)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 06:43									T-02
QC Source Sample: MW11-2-082724 (A4H1496-09)												
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	---	4.80	---	---	***	30%	
cis-1,2-Dichloroethene	**666**	---	8.00	ug/L	20	---	648	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	5.40	---	---	***	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**29.2**	---	8.00	ug/L	20	---	27.0	---	---	8	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1850**	---	8.00	ug/L	20	---	1770	---	---	4	30%	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	**9.60**	---	4.00	ug/L	20	---	9.40	---	---	2	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*121 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				*S-02*
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Matrix Spike (24I0095-MS1)			Prepared: 09/04/24 18:53		Analyzed: 09/05/24 07:11							**T-02**
QC Source Sample: Non-SDG (A4H1498-01)												
EPA 8260D												
Bromobenzene	202	---	5.00	ug/L	10	200	ND	101	80-120%	---	---	
Bromochloromethane	229	---	10.0	ug/L	10	200	ND	115	78-123%	---	---	
Bromodichloromethane	226	---	10.0	ug/L	10	200	ND	113	79-125%	---	---	
Bromoform	240	---	10.0	ug/L	10	200	ND	120	66-130%	---	---	
Bromomethane	321	---	50.0	ug/L	10	200	ND	**160**	**53-141%**	---	---	Q-54a
Carbon tetrachloride	235	---	10.0	ug/L	10	200	ND	117	72-136%	---	---	
Chlorobenzene	214	---	5.00	ug/L	10	200	ND	107	80-120%	---	---	
Chloroethane	385	---	50.0	ug/L	10	200	ND	**193**	**60-138%**	---	---	ICV-01, Q-54
Chloroform	223	---	10.0	ug/L	10	200	ND	112	79-124%	---	---	
Chloromethane	207	---	50.0	ug/L	10	200	ND	103	50-139%	---	---	
2-Chlorotoluene	204	---	10.0	ug/L	10	200	ND	102	79-122%	---	---	
4-Chlorotoluene	206	---	10.0	ug/L	10	200	ND	103	78-122%	---	---	
Dibromochloromethane	222	---	10.0	ug/L	10	200	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	162	---	50.0	ug/L	10	200	ND	81	62-128%	---	---	
1,2-Dibromoethane (EDB)	203	---	5.00	ug/L	10	200	ND	102	77-121%	---	---	
Dibromomethane	227	---	10.0	ug/L	10	200	ND	113	79-123%	---	---	
1,2-Dichlorobenzene	204	---	5.00	ug/L	10	200	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	202	---	5.00	ug/L	10	200	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	214	---	5.00	ug/L	10	200	ND	107	79-120%	---	---	
Dichlorodifluoromethane	249	---	10.0	ug/L	10	200	ND	124	32-152%	---	---	
1,1-Dichloroethane	224	---	4.00	ug/L	10	200	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	216	---	4.00	ug/L	10	200	ND	108	73-128%	---	---	
1,1-Dichloroethene	241	---	4.00	ug/L	10	200	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	200	---	4.00	ug/L	10	200	ND	100	78-123%	---	---	
trans-1,2-Dichloroethene	209	---	4.00	ug/L	10	200	ND	104	75-124%	---	---	
1,2-Dichloropropane	212	---	5.00	ug/L	10	200	ND	106	78-122%	---	---	
1,3-Dichloropropane	207	---	10.0	ug/L	10	200	ND	104	80-120%	---	---	
2,2-Dichloropropane	168	---	10.0	ug/L	10	200	ND	84	60-139%	---	---	
1,1-Dichloropropene	220	---	10.0	ug/L	10	200	ND	110	79-125%	---	---	
cis-1,3-Dichloropropene	155	---	10.0	ug/L	10	200	ND	77	75-124%	---	---	
trans-1,3-Dichloropropene	208	---	10.0	ug/L	10	200	ND	104	73-127%	---	---	
Hexachlorobutadiene	182	---	50.0	ug/L	10	200	ND	91	66-134%	---	---	

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0095 - EPA 5030C							**Water**					
Matrix Spike (24I0095-MS1)			Prepared: 09/04/24 18:53 Analyzed: 09/05/24 07:11									**T-02**
QC Source Sample: Non-SDG (A4H1498-01)												
Methylene chloride	220	---	100	ug/L	10	200	ND	110	74-124%	---	---	
1,1,1,2-Tetrachloroethane	232	---	4.00	ug/L	10	200	ND	116	78-124%	---	---	
1,1,2,2-Tetrachloroethane	238	---	5.00	ug/L	10	200	ND	119	71-121%	---	---	Q-54a
Tetrachloroethene (PCE)	216	---	4.00	ug/L	10	200	ND	108	74-129%	---	---	
1,2,3-Trichlorobenzene	202	---	20.0	ug/L	10	200	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	217	---	5.00	ug/L	10	200	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	185	---	20.0	ug/L	10	200	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	234	---	4.00	ug/L	10	200	ND	117	74-131%	---	---	
Trichloroethene (TCE)	216	---	4.00	ug/L	10	200	ND	108	79-123%	---	---	
Trichlorofluoromethane	334	---	20.0	ug/L	10	200	ND	**167**	**65-141%**	---	---	Q-54d
1,2,3-Trichloropropane	228	---	10.0	ug/L	10	200	ND	114	73-122%	---	---	
Vinyl chloride	249	---	2.00	ug/L	10	200	ND	124	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Blank (24I0109-BLK1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 13:24									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C									Water			
Blank (24I0109-BLK1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 13:24									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*106 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (24I0109-BS1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 11:57									
EPA 8260D												
Bromobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromomethane	34.6	---	5.00	ug/L	1	20.0	---	**173**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	41.9	---	5.00	ug/L	1	20.0	---	**210**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	21.9	---	5.00	ug/L	1	20.0	---	109	80-120%	---	---	
2-Chlorotoluene	17.5	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
4-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.9	---	5.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromomethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	

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15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4H1496 - 09 11 24 1434

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
LCS (24I0109-BS1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 11:57									
1,3-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethane	21.9	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,2-Dichloroethene	19.5	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
2,2-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
Methylene chloride	21.8	---	10.0	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	17.2	---	2.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
Trichloroethene (TCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	33.7	---	2.00	ug/L	1	20.0	---	**168**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Vinyl chloride	21.8	---	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*				*"*			
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP1)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:29									
QC Source Sample: Non-SDG (A4H1498-07)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Duplicate (24I0109-DUP2)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:56									
QC Source Sample: Non-SDG (A4H1498-03)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Duplicate (24I0109-DUP2)			Prepared: 09/05/24 10:00 Analyzed: 09/05/24 23:56									
QC Source Sample: Non-SDG (A4H1498-03)												
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	100	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00 Analyzed: 09/06/24 00:24									**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00		Analyzed: 09/06/24 00:24							**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												
EPA 8260D												
Bromobenzene	18.7	---	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	ND	103	78-123%	---	---	
Bromodichloromethane	21.5	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	ND	100	66-130%	---	---	
Bromomethane	25.2	---	5.00	ug/L	1	20.0	ND	126	53-141%	---	---	Q-54c
Carbon tetrachloride	16.8	---	1.00	ug/L	1	20.0	ND	84	72-136%	---	---	
Chlorobenzene	17.2	---	0.500	ug/L	1	20.0	ND	86	80-120%	---	---	
Chloroethane	31.4	---	5.00	ug/L	1	20.0	ND	**157**	**60-138%**	---	---	ICV-01, Q-54e
Chloroform	21.8	---	1.00	ug/L	1	20.0	ND	92	79-124%	---	---	
Chloromethane	19.5	---	5.00	ug/L	1	20.0	ND	98	50-139%	---	---	
2-Chlorotoluene	12.3	---	1.00	ug/L	1	20.0	ND	**62**	**79-122%**	---	---	Q-01
4-Chlorotoluene	12.8	---	1.00	ug/L	1	20.0	ND	**64**	**78-122%**	---	---	Q-01
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.7	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	Q-54f
1,2-Dibromoethane (EDB)	19.4	---	0.500	ug/L	1	20.0	ND	97	77-121%	---	---	
Dibromomethane	21.9	---	1.00	ug/L	1	20.0	ND	110	79-123%	---	---	
1,2-Dichlorobenzene	13.8	---	0.500	ug/L	1	20.0	ND	**69**	**80-120%**	---	---	Q-01
1,3-Dichlorobenzene	11.4	---	0.500	ug/L	1	20.0	ND	**57**	**80-120%**	---	---	Q-01
1,4-Dichlorobenzene	12.9	---	0.500	ug/L	1	20.0	ND	**64**	**79-120%**	---	---	Q-01
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	19.4	---	0.400	ug/L	1	20.0	ND	97	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	ND	96	73-128%	---	---	
1,1-Dichloroethene	17.9	---	0.400	ug/L	1	20.0	ND	90	71-131%	---	---	
cis-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	ND	99	78-123%	---	---	
trans-1,2-Dichloroethene	18.1	---	0.400	ug/L	1	20.0	ND	91	75-124%	---	---	
1,2-Dichloropropane	21.7	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	19.1	---	1.00	ug/L	1	20.0	ND	96	80-120%	---	---	
2,2-Dichloropropane	16.6	---	1.00	ug/L	1	20.0	ND	83	60-139%	---	---	
1,1-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-125%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	20.0	ND		**66-134%**	---	---	Q-01

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0109 - EPA 5030C							**Water**					
Matrix Spike (24I0109-MS1)			Prepared: 09/05/24 10:00		Analyzed: 09/06/24 00:24							**T-02**
QC Source Sample: Non-SDG (A4I0774-18)												
Methylene chloride	22.4	---	10.0	ug/L	1	20.0	ND	112	74-124%	---	---	
1,1,1,2-Tetrachloroethane	17.8	---	0.400	ug/L	1	20.0	ND	89	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.5	---	0.500	ug/L	1	20.0	ND	113	71-121%	---	---	
Tetrachloroethene (PCE)	12.9	---	0.400	ug/L	1	20.0	ND	**65**	**74-129%**	---	---	Q-01
1,2,3-Trichlorobenzene	7.57	---	2.00	ug/L	1	20.0	ND	**38**	**69-129%**	---	---	Q-01
1,1,2-Trichloroethane	22.1	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,2,4-Trichlorobenzene	6.50	---	2.00	ug/L	1	20.0	ND	**32**	**69-130%**	---	---	Q-01
1,1,1-Trichloroethane	18.9	---	0.400	ug/L	1	20.0	ND	95	74-131%	---	---	
Trichloroethene (TCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	79-123%	---	---	
Trichlorofluoromethane	21.6	---	2.00	ug/L	1	20.0	ND	108	65-141%	---	---	Q-54b
1,2,3-Trichloropropane	21.0	---	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
Vinyl chloride	21.5	---	0.200	ug/L	1	20.0	ND	107	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*110 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24I0095							
A4H1496-11	Water	EPA 8260D	08/27/24 14:10	09/04/24 18:53	5mL/5mL	5mL/5mL	1.00
Batch: 24I0109							
A4H1496-10	Water	EPA 8260D	08/27/24 14:00	09/05/24 12:45	5mL/5mL	5mL/5mL	1.00
A4H1496-12	Water	EPA 8260D	08/27/24 00:00	09/05/24 12:45	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +22%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +48%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +53%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +90%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
S-02	Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
T-02	This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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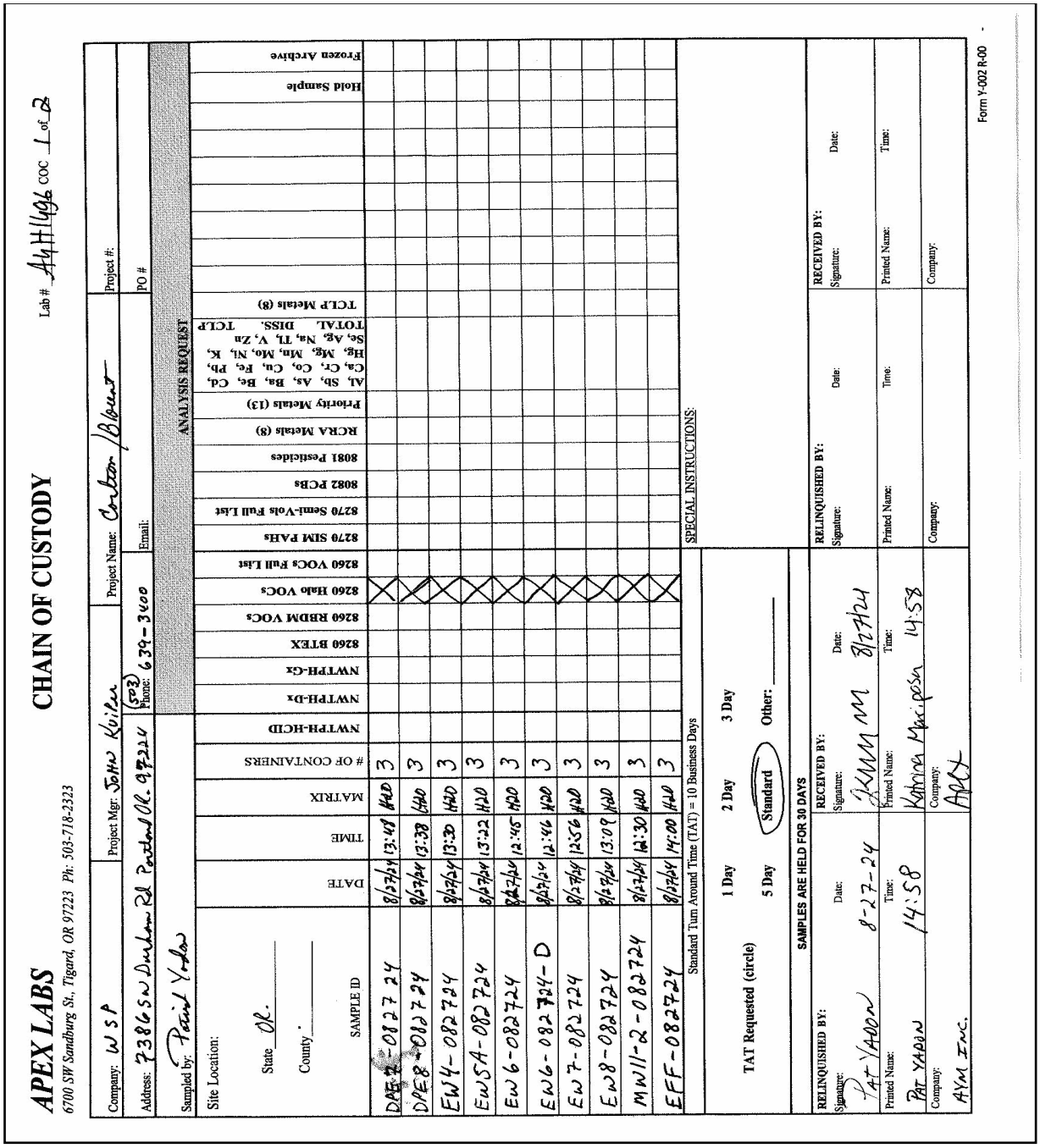
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4H1496 - 09 11 24 1434



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4H1496 COC 1 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Bluett | Project #:
Address: 23865 NW Dixion Rd Portland OR. 97210 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Paul Yadon

Site Location: State OR. County:

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
DAE1-082724	8/27/24	13:48	H2O	3						X											
DAE2-082724	8/27/24	13:38	H2O	3						X											
EW4-082724	8/27/24	13:30	H2O	3						X											
EW5A-082724	8/27/24	13:22	H2O	3						X											
EW6-082724	8/27/24	12:45	H2O	3						X											
EW6-082724-D	8/27/24	12:46	H2O	3						X											
EW7-082724	8/27/24	12:56	H2O	3						X											
EW8-082724	8/27/24	13:09	H2O	3						X											
MW11-2-082724	8/27/24	14:30	H2O	3						X											
EFF-082724	8/27/24	14:00	H2O	3						X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name: Pat Yadon	8-27-24	14:58	Printed Name:		
Company: AYM Inc.			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:		
Printed Name:			Printed Name:		
Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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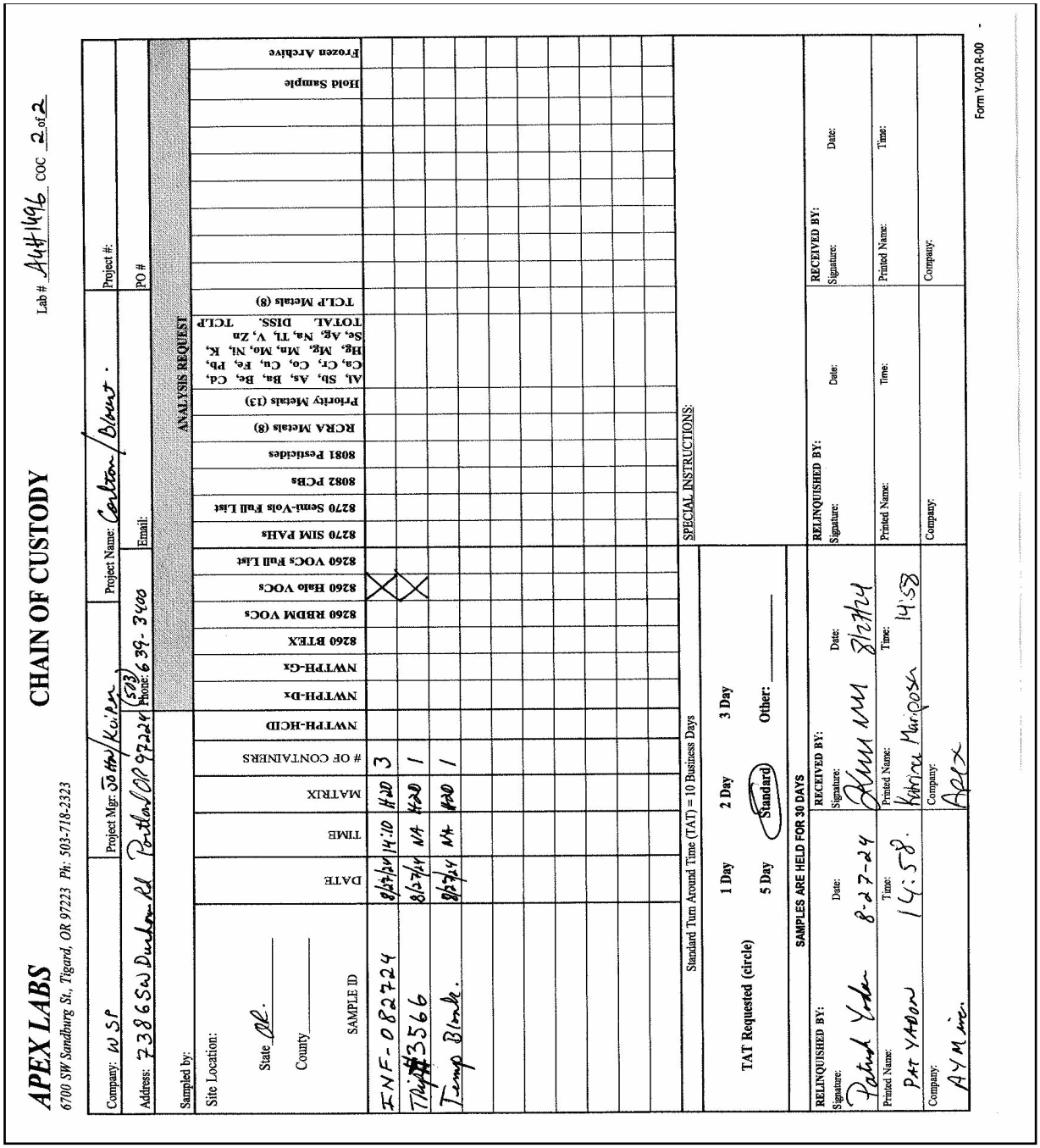
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4H1496 - 09 11 24 1434



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4H1496 COC 2 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Blount | Project #:
Address: 15866 SW Dunham Rd Portland OR 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by:

ANALYSIS REQUEST

Site Location: State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
ENF-082724	8/27/24	14:10	H2O	3						X											
Trip #3566	8/27/24	NA	H2O	1						X											
Temp Blank.	8/27/24	NA	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
1	Signature: Patrick Yinder	8-27-24	14:58	Signature: [illegible]	8/27/24	
	Printed Name: PAT YINDER			Printed Name: Marion Marioses		14:58
	Company: AYMIE.			Company: Apex		

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
2	Signature:			Signature:		
	Printed Name:			Printed Name:		
	Company:			Company:		

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
3	Signature:			Signature:		
	Printed Name:			Printed Name:		
	Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4H1496 - 09 11 24 1434**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4H1496

Project/Project #: Carlton / Blount

Delivery Info:

Date/time received: 8/27/24 @ 14:58 By: [signature]

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 8/27/24 @ 15:00 By: [signature]

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.3						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 8/27/24 @ 1605 By: ZA

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: ~~Trip Blank #~~ Container 24 8/24 ready, 3567. Trip Blank #

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments 3/3 for EW8-082724 have sediment.

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

#3567

Labeled by: ZA Witness: [signature] Cooler Inspected by: ZA

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Tuesday, October 1, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4I1244 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4I1244, which was received by the laboratory on 9/17/2024 at 4:07:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 6.0 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-091724	**A4I1244-01**	**Water**	**09/17/24 14:15**	**09/17/24 16:07**
INF-091724	**A4I1244-02**	**Water**	**09/17/24 14:30**	**09/17/24 16:07**
Trip-091724	**A4I1244-03**	**Water**	**09/17/24 00:00**	**09/17/24 16:07**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-091724 (A4I1244-01)				**Matrix: Water**		**Batch: 24I0588**		
Bromobenzene	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/19/24 17:22	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/19/24 17:22	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-091724 (A4I1244-01)				**Matrix: Water**		**Batch: 24I0588**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	09/19/24 17:22	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/19/24 17:22	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/19/24 17:22	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/19/24 17:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*09/19/24 17:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*09/19/24 17:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*09/19/24 17:22*	*EPA 8260D*	
INF-091724 (A4I1244-02)				**Matrix: Water**		**Batch: 24I0588**		
Bromobenzene	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	09/19/24 19:31	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	09/19/24 19:31	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	09/19/24 19:31	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4I1244 - 10 01 24 1509

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-091724 (A4I1244-02)				**Matrix: Water**		**Batch: 24I0588**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
cis-1,2-Dichloroethene	**37.6**	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	09/19/24 19:31	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
Tetrachloroethene (PCE)	**2.90**	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	09/19/24 19:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Trichloroethene (TCE)	**229**	---	2.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	09/19/24 19:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	09/19/24 19:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*1*	*09/19/24 19:31*	*EPA 8260D*
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*09/19/24 19:31*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*09/19/24 19:31*	*EPA 8260D*
Trip-091724 (A4I1244-03)				**Matrix: Water**		**Batch: 24I0588**		
Bromobenzene	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-091724 (A4I1244-03)				**Matrix: Water**		**Batch: 24I0588**		
Bromoform	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	09/19/24 10:32	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-091724 (A4I1244-03)				**Matrix: Water**		**Batch: 24I0588**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	09/19/24 10:32	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	09/19/24 10:32	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	09/19/24 10:32	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	09/19/24 10:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*90 %*	*Limits:* *80-120 %*	*1*	*09/19/24 10:32*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/19/24 10:32*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*09/19/24 10:32*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Blank (24I0588-BLK1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 09:41									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C									Water			
Blank (24I0588-BLK1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 09:41									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 92 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			
LCS (24I0588-BS1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 08:58									
EPA 8260D												
Bromobenzene	18.3	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Bromochloromethane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Bromodichloromethane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromoform	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromomethane	16.2	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Carbon tetrachloride	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	16.6	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
Chloroform	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chloromethane	15.6	---	5.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
2-Chlorotoluene	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromochloromethane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.7	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
LCS (24I0588-BS1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 08:58									
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,4-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1-Dichloroethane	17.6	---	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethene	18.3	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
cis-1,2-Dichloroethene	18.1	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,2-Dichloroethene	17.8	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
1,2-Dichloropropane	16.8	---	0.500	ug/L	1	20.0	---	84	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloropropene	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
cis-1,3-Dichloropropene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,3-Dichloropropene	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Hexachlorobutadiene	19.6	---	5.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	16.2	---	10.0	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trichlorobenzene	18.4	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,1-Trichloroethane	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichloroethene (TCE)	16.5	---	0.400	ug/L	1	20.0	---	82	80-120%	---	---	
Trichlorofluoromethane	20.8	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichloropropane	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Vinyl chloride	18.0	---	0.200	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 88 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Duplicate (24I0588-DUP1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 19:10									
QC Source Sample: Non-SDG (A4I1216-01)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Duplicate (24I0588-DUP1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 19:10									
QC Source Sample: Non-SDG (A4I1216-01)												
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Duplicate (24I0588-DUP1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 19:10									
QC Source Sample: Non-SDG (A4I1216-01)												
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	20.0	ug/L	100	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			
Duplicate (24I0588-DUP2)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 19:53									
QC Source Sample: INF-091724 (A4I1244-02)												
EPA 8260D												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4I1244 - 10 01 24 1509

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							Water					
Duplicate (24I0588-DUP2)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 19:53									
QC Source Sample: INF-091724 (A4I1244-02)												
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**40.6**	---	2.00	ug/L	5	---	37.6	---	---	8	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2.75**	---	2.00	ug/L	5	---	2.90	---	---	5	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**236**	---	2.00	ug/L	5	---	229	---	---	3	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (24I0588-MS1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 11:37									

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike (24I0588-MS1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 11:37									
QC Source Sample: Non-SDG (A4I1138-12)												
EPA 8260D												
Bromobenzene	19.4	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Bromochloromethane	19.8	---	1.00	ug/L	1	20.0	ND	99	78-123%	---	---	
Bromodichloromethane	22.0	---	1.00	ug/L	1	20.0	ND	110	79-125%	---	---	
Bromoform	23.6	---	1.00	ug/L	1	20.0	ND	118	66-130%	---	---	
Bromomethane	17.9	---	5.00	ug/L	1	20.0	ND	89	53-141%	---	---	
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	ND	119	72-136%	---	---	
Chlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
Chloroethane	19.4	---	5.00	ug/L	1	20.0	ND	97	60-138%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	ND	106	79-124%	---	---	
Chloromethane	18.9	---	5.00	ug/L	1	20.0	ND	95	50-139%	---	---	Q-54
2-Chlorotoluene	20.8	---	1.00	ug/L	1	20.0	ND	104	79-122%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	23.0	---	1.00	ug/L	1	20.0	ND	115	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.8	---	5.00	ug/L	1	20.0	ND	94	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.0	---	0.500	ug/L	1	20.0	ND	110	77-121%	---	---	
Dibromomethane	19.9	---	1.00	ug/L	1	20.0	ND	99	79-123%	---	---	
1,2-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,3-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	103	79-120%	---	---	
Dichlorodifluoromethane	19.6	---	1.00	ug/L	1	20.0	ND	98	32-152%	---	---	
1,1-Dichloroethane	19.9	---	0.400	ug/L	1	20.0	0.520	97	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.4	---	0.400	ug/L	1	20.0	ND	107	73-128%	---	---	
1,1-Dichloroethene	21.5	---	0.400	ug/L	1	20.0	0.670	104	71-131%	---	---	
cis-1,2-Dichloroethene	21.1	---	0.400	ug/L	1	20.0	0.310	104	78-123%	---	---	
trans-1,2-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	ND	102	75-124%	---	---	
1,2-Dichloropropane	18.7	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
1,3-Dichloropropane	21.5	---	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	23.5	---	1.00	ug/L	1	20.0	ND	118	60-139%	---	---	
1,1-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	21.2	---	1.00	ug/L	1	20.0	ND	106	75-124%	---	---	
trans-1,3-Dichloropropene	23.9	---	1.00	ug/L	1	20.0	ND	120	73-127%	---	---	
Hexachlorobutadiene	22.4	---	5.00	ug/L	1	20.0	ND	112	66-134%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike (24I0588-MS1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 11:37									
QC Source Sample: Non-SDG (A4I1138-12)												
Methylene chloride	17.3	---	10.0	ug/L	1	20.0	ND	86	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.9	---	0.400	ug/L	1	20.0	ND	119	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	ND	114	71-121%	---	---	
Tetrachloroethene (PCE)	22.3	---	0.400	ug/L	1	20.0	ND	111	74-129%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	ND	100	69-129%	---	---	
1,1,2-Trichloroethane	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,2,4-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	ND	99	69-130%	---	---	
1,1,1-Trichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	18.0	---	0.400	ug/L	1	20.0	ND	90	79-123%	---	---	
Trichlorofluoromethane	24.2	---	2.00	ug/L	1	20.0	ND	121	65-141%	---	---	
1,2,3-Trichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
Vinyl chloride	20.4	---	0.200	ug/L	1	20.0	ND	102	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 90 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Matrix Spike (24I0588-MS2)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 16:18									
QC Source Sample: Non-SDG (A4I1215-01)												
EPA 8260D												
Bromobenzene	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Bromochloromethane	22.7	---	1.00	ug/L	1	20.0	ND	113	78-123%	---	---	
Bromodichloromethane	22.3	---	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
Bromoform	23.5	---	1.00	ug/L	1	20.0	ND	118	66-130%	---	---	
Bromomethane	19.6	---	5.00	ug/L	1	20.0	ND	98	53-141%	---	---	
Carbon tetrachloride	24.6	---	1.00	ug/L	1	20.0	ND	123	72-136%	---	---	
Chlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
Chloroethane	22.8	---	5.00	ug/L	1	20.0	ND	114	60-138%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	21.0	---	5.00	ug/L	1	20.0	ND	105	50-139%	---	---	Q-54
2-Chlorotoluene	22.2	---	1.00	ug/L	1	20.0	ND	111	79-122%	---	---	
4-Chlorotoluene	23.6	---	1.00	ug/L	1	20.0	ND	118	78-122%	---	---	
Dibromochloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	74-126%	---	---	
1,2-Dibromo-3-chloropropane	20.6	---	5.00	ug/L	1	20.0	ND	103	62-128%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4I1244 - 10 01 24 1509

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike (24I0588-MS2)			Prepared: 09/19/24 07:35		Analyzed: 09/19/24 16:18							
QC Source Sample: Non-SDG (A4I1215-01)												
1,2-Dibromoethane (EDB)	22.5	---	0.500	ug/L	1	20.0	ND	112	77-121%	---	---	
Dibromomethane	21.4	---	1.00	ug/L	1	20.0	ND	107	79-123%	---	---	
1,2-Dichlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,3-Dichlorobenzene	22.4	---	0.500	ug/L	1	20.0	ND	112	80-120%	---	---	
1,4-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	79-120%	---	---	
Dichlorodifluoromethane	19.6	---	1.00	ug/L	1	20.0	ND	98	32-152%	---	---	
1,1-Dichloroethane	21.9	---	0.400	ug/L	1	20.0	ND	109	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.3	---	0.400	ug/L	1	20.0	ND	102	73-128%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	ND	112	78-123%	---	---	
trans-1,2-Dichloroethene	22.5	---	0.400	ug/L	1	20.0	ND	113	75-124%	---	---	
1,2-Dichloropropane	22.0	---	0.500	ug/L	1	20.0	ND	110	78-122%	---	---	
1,3-Dichloropropane	22.4	---	1.00	ug/L	1	20.0	ND	112	80-120%	---	---	
2,2-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	ND	111	60-139%	---	---	
1,1-Dichloropropene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-125%	---	---	
cis-1,3-Dichloropropene	22.9	---	1.00	ug/L	1	20.0	ND	114	75-124%	---	---	
trans-1,3-Dichloropropene	24.0	---	1.00	ug/L	1	20.0	ND	120	73-127%	---	---	
Hexachlorobutadiene	22.4	---	5.00	ug/L	1	20.0	ND	112	66-134%	---	---	
Methylene chloride	19.5	---	10.0	ug/L	1	20.0	ND	97	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.2	---	0.400	ug/L	1	20.0	ND	116	78-124%	---	---	
1,1,2,2-Tetrachloroethane	24.4	---	0.500	ug/L	1	20.0	ND	**122**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	22.2	---	0.400	ug/L	1	20.0	ND	111	74-129%	---	---	
1,2,3-Trichlorobenzene	21.2	---	2.00	ug/L	1	20.0	ND	106	69-129%	---	---	
1,1,2-Trichloroethane	21.2	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	21.5	---	2.00	ug/L	1	20.0	ND	108	69-130%	---	---	
1,1,1-Trichloroethane	22.3	---	0.400	ug/L	1	20.0	ND	111	74-131%	---	---	
Trichloroethene (TCE)	19.8	---	0.400	ug/L	1	20.0	ND	99	79-123%	---	---	
Trichlorofluoromethane	24.2	---	2.00	ug/L	1	20.0	ND	121	65-141%	---	---	
1,2,3-Trichloropropane	20.5	---	1.00	ug/L	1	20.0	ND	102	73-122%	---	---	
Vinyl chloride	23.5	---	0.200	ug/L	1	20.0	ND	118	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 98 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*100 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*99 %*	*80-120 %*	*"*	

Apex Laboratories



Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike Dup (24I0588-MSD1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 11:58									
QC Source Sample: Non-SDG (A4I1138-12)												
Bromobenzene	19.5	---	0.500	ug/L	1	20.0	ND	98	80-120%	0.8	30%	
Bromochloromethane	20.1	---	1.00	ug/L	1	20.0	ND	100	78-123%	1	30%	
Bromodichloromethane	22.3	---	1.00	ug/L	1	20.0	ND	112	79-125%	1	30%	
Bromoform	23.6	---	1.00	ug/L	1	20.0	ND	118	66-130%	0.2	30%	
Bromomethane	18.6	---	5.00	ug/L	1	20.0	ND	93	53-141%	4	30%	
Carbon tetrachloride	24.1	---	1.00	ug/L	1	20.0	ND	120	72-136%	1	30%	
Chlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	80-120%	2	30%	
Chloroethane	20.6	---	5.00	ug/L	1	20.0	ND	103	60-138%	6	30%	
Chloroform	21.5	---	1.00	ug/L	1	20.0	ND	108	79-124%	2	30%	
Chloromethane	19.9	---	5.00	ug/L	1	20.0	ND	100	50-139%	5	30%	Q-54
2-Chlorotoluene	20.9	---	1.00	ug/L	1	20.0	ND	105	79-122%	0.9	30%	
4-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	ND	109	78-122%	0.5	30%	
Dibromochloromethane	22.7	---	1.00	ug/L	1	20.0	ND	113	74-126%	1	30%	
1,2-Dibromo-3-chloropropane	19.1	---	5.00	ug/L	1	20.0	ND	96	62-128%	1	30%	
1,2-Dibromoethane (EDB)	21.7	---	0.500	ug/L	1	20.0	ND	108	77-121%	2	30%	
Dibromomethane	20.3	---	1.00	ug/L	1	20.0	ND	101	79-123%	2	30%	
1,2-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	ND	102	80-120%	1	30%	
1,3-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	80-120%	4	30%	
1,4-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	ND	104	79-120%	1	30%	
Dichlorodifluoromethane	21.1	---	1.00	ug/L	1	20.0	ND	105	32-152%	8	30%	
1,1-Dichloroethane	21.0	---	0.400	ug/L	1	20.0	0.520	102	77-125%	5	30%	
1,2-Dichloroethane (EDC)	20.9	---	0.400	ug/L	1	20.0	ND	104	73-128%	3	30%	
1,1-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	0.670	103	71-131%	0.7	30%	
cis-1,2-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	0.310	105	78-123%	0.9	30%	
trans-1,2-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	ND	102	75-124%	0.4	30%	
1,2-Dichloropropane	19.4	---	0.500	ug/L	1	20.0	ND	97	78-122%	4	30%	
1,3-Dichloropropane	21.6	---	1.00	ug/L	1	20.0	ND	108	80-120%	0.3	30%	
2,2-Dichloropropane	23.1	---	1.00	ug/L	1	20.0	ND	115	60-139%	2	30%	
1,1-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	ND	102	79-125%	0.05	30%	
cis-1,3-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	ND	107	75-124%	1	30%	
trans-1,3-Dichloropropene	23.9	---	1.00	ug/L	1	20.0	ND	119	73-127%	0.04	30%	
Hexachlorobutadiene	22.5	---	5.00	ug/L	1	20.0	ND	113	66-134%	0.6	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike Dup (24I0588-MSD1)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 11:58									
QC Source Sample: Non-SDG (A4I1138-12)												
Methylene chloride	17.2	---	10.0	ug/L	1	20.0	ND	86	74-124%	0.2	30%	
1,1,1,2-Tetrachloroethane	23.4	---	0.400	ug/L	1	20.0	ND	117	78-124%	2	30%	
1,1,2,2-Tetrachloroethane	23.0	---	0.500	ug/L	1	20.0	ND	115	71-121%	1	30%	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	ND	108	74-129%	3	30%	
1,2,3-Trichlorobenzene	20.5	---	2.00	ug/L	1	20.0	ND	103	69-129%	2	30%	
1,1,2-Trichloroethane	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	1	30%	
1,2,4-Trichlorobenzene	20.4	---	2.00	ug/L	1	20.0	ND	102	69-130%	4	30%	
1,1,1-Trichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	74-131%	0.2	30%	
Trichloroethene (TCE)	17.7	---	0.400	ug/L	1	20.0	ND	88	79-123%	2	30%	
Trichlorofluoromethane	24.2	---	2.00	ug/L	1	20.0	ND	121	65-141%	0.1	30%	
1,2,3-Trichloropropane	19.5	---	1.00	ug/L	1	20.0	ND	97	73-122%	1	30%	
Vinyl chloride	22.0	---	0.200	ug/L	1	20.0	ND	110	58-137%	7	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Matrix Spike Dup (24I0588-MSD2)			Prepared: 09/19/24 07:35 Analyzed: 09/19/24 16:39									
QC Source Sample: Non-SDG (A4I1215-01)												
Bromobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	5	30%	
Bromochloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	78-123%	2	30%	
Bromodichloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	79-125%	0.5	30%	
Bromoform	23.4	---	1.00	ug/L	1	20.0	ND	117	66-130%	0.4	30%	
Bromomethane	19.3	---	5.00	ug/L	1	20.0	ND	96	53-141%	2	30%	
Carbon tetrachloride	24.3	---	1.00	ug/L	1	20.0	ND	122	72-136%	0.9	30%	
Chlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	2	30%	
Chloroethane	22.0	---	5.00	ug/L	1	20.0	ND	110	60-138%	4	30%	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	0.09	30%	
Chloromethane	21.3	---	5.00	ug/L	1	20.0	ND	106	50-139%	2	30%	Q-54
2-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	ND	110	79-122%	1	30%	
4-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	ND	112	78-122%	5	30%	
Dibromochloromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	74-126%	3	30%	
1,2-Dibromo-3-chloropropane	19.4	---	5.00	ug/L	1	20.0	ND	97	62-128%	6	30%	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	4	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24I0588 - EPA 5030C							**Water**					
Matrix Spike Dup (24I0588-MSD2)			Prepared: 09/19/24 07:35		Analyzed: 09/19/24 16:39							
QC Source Sample: Non-SDG (A4I1215-01)												
Dibromomethane	21.4	---	1.00	ug/L	1	20.0	ND	107	79-123%	0.1	30%	
1,2-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	3	30%	
1,3-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	2	30%	
1,4-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	79-120%	4	30%	
Dichlorodifluoromethane	19.7	---	1.00	ug/L	1	20.0	ND	99	32-152%	0.7	30%	
1,1-Dichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	77-125%	0.09	30%	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	ND	103	73-128%	1	30%	
1,1-Dichloroethene	21.9	---	0.400	ug/L	1	20.0	ND	109	71-131%	1	30%	
cis-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	ND	112	78-123%	0.1	30%	
trans-1,2-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	ND	110	75-124%	2	30%	
1,2-Dichloropropane	21.8	---	0.500	ug/L	1	20.0	ND	109	78-122%	1	30%	
1,3-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	109	80-120%	2	30%	
2,2-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	ND	106	60-139%	4	30%	
1,1-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	ND	110	79-125%	3	30%	
cis-1,3-Dichloropropene	22.3	---	1.00	ug/L	1	20.0	ND	112	75-124%	2	30%	
trans-1,3-Dichloropropene	23.7	---	1.00	ug/L	1	20.0	ND	119	73-127%	1	30%	
Hexachlorobutadiene	22.6	---	5.00	ug/L	1	20.0	ND	113	66-134%	1	30%	
Methylene chloride	19.2	---	10.0	ug/L	1	20.0	ND	96	74-124%	1	30%	
1,1,1,2-Tetrachloroethane	22.7	---	0.400	ug/L	1	20.0	ND	114	78-124%	2	30%	
1,1,2,2-Tetrachloroethane	24.2	---	0.500	ug/L	1	20.0	ND	121	71-121%	1	30%	
Tetrachloroethene (PCE)	21.7	---	0.400	ug/L	1	20.0	ND	108	74-129%	3	30%	
1,2,3-Trichlorobenzene	20.7	---	2.00	ug/L	1	20.0	ND	104	69-129%	2	30%	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	ND	100	80-120%	6	30%	
1,2,4-Trichlorobenzene	20.8	---	2.00	ug/L	1	20.0	ND	104	69-130%	3	30%	
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	ND	110	74-131%	1	30%	
Trichloroethene (TCE)	19.7	---	0.400	ug/L	1	20.0	ND	99	79-123%	0.5	30%	
Trichlorofluoromethane	24.1	---	2.00	ug/L	1	20.0	ND	120	65-141%	0.3	30%	
1,2,3-Trichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	99	73-122%	4	30%	
Vinyl chloride	23.2	---	0.200	ug/L	1	20.0	ND	116	58-137%	2	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*				*"*			

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24I0588							
A4I1244-01	Water	EPA 8260D	09/17/24 14:15	09/19/24 09:23	5mL/5mL	5mL/5mL	1.00
A4I1244-02	Water	EPA 8260D	09/17/24 14:30	09/19/24 09:23	5mL/5mL	5mL/5mL	1.00
A4I1244-03	Water	EPA 8260D	09/17/24 00:00	09/19/24 09:23	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01 Spike recovery and/or RPD is outside acceptance limits.

Q-54 Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.

Q-55 Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

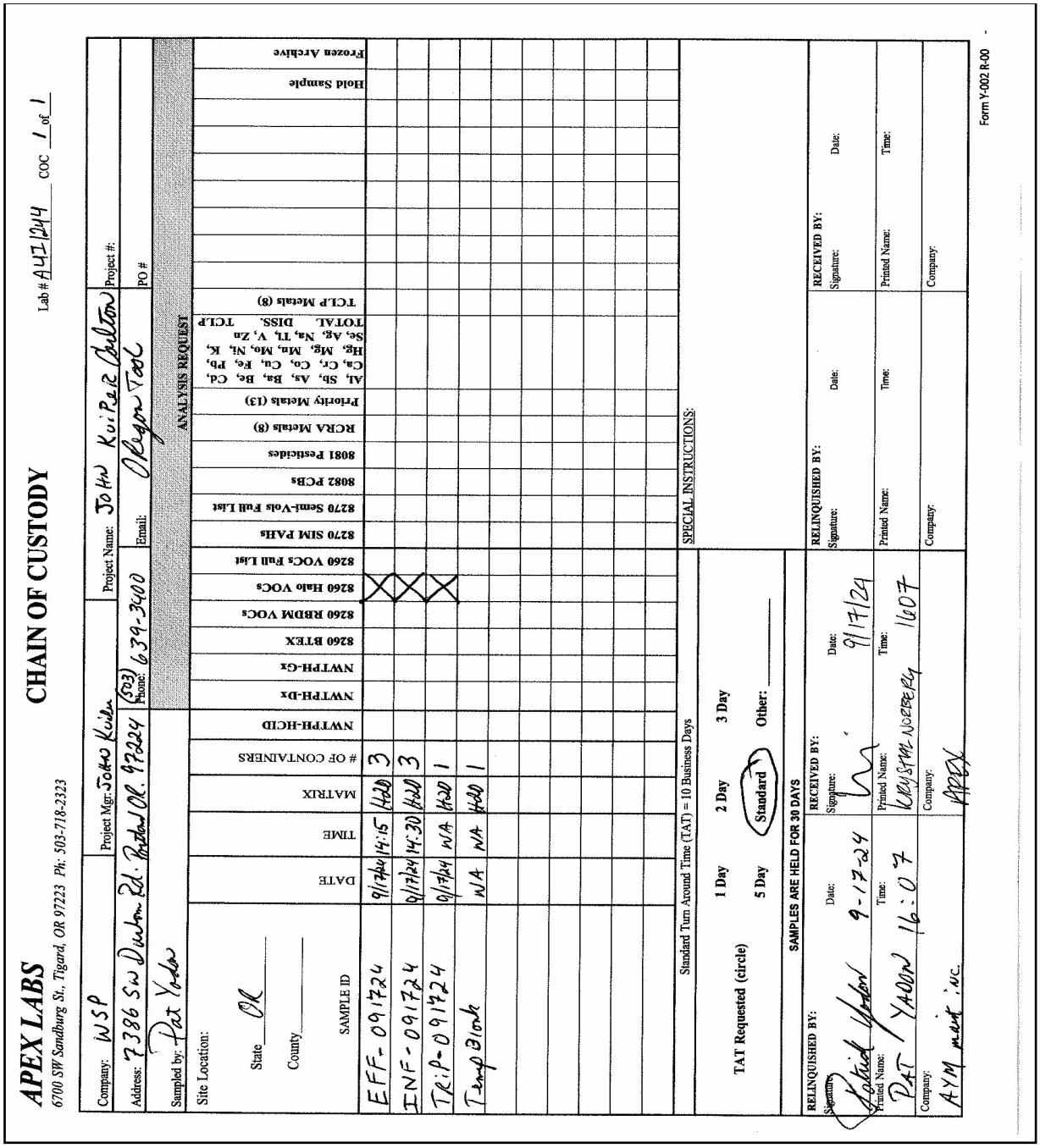
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4I1244 COC 1 of 1

Company: WSP
Project Mgr: John Kuiper
Project Name: John Kuiper Carlton
Project #:
Address: 7386 SW Dixon Rd. Portland OR. 97224
Phone: (503) 639-3400
Email: Oregon Tool
PO #
Sampled by: Pat Yaden

Site Location: State OR County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF-091724	9/17/24	14:15	H2O	3						X											
INF-091724	9/17/24	14:30	H2O	3						X											
Trip-091724	9/17/24	N/A	H2O	1						X											
Temp Blank	N/A	N/A	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day **Standard** Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 9-17-24	Date: 9/17/24	Date:	Date:
Time: 16:07	Time: 1607	Time:	Time:
Printed Name: Pat Yaden	Printed Name: Kristen Woodberg	Printed Name:	Printed Name:
Company: AYM maint. inc.	Company: APEX	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4I1244 - 10 01 24 1509**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4I1244

Project/Project #: JOHN KUIPER CARLTON Oregon Tool ARCFORTEN ALTRA

Delivery Info:

Date/time received: 9/17/24 @ 1607 By: KN

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other Aym maint. Inc.

From USDA Regulated Origin? Yes _____ No ✓

Cooler Inspection Date/time inspected: 9/17/24 @ 1607 By: KN

Chain of Custody included? Yes ✓ No _____

Signed/dated by client? Yes ✓ No _____

Contains USDA Reg. Soils? Yes _____ No ✓ Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	6.0						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	IN						

Cooler out of temp? (Y(N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 9/17/24 @ 16:20 By: KAM

All samples intact? Yes ✓ No ___ Comments: _____

Bottle labels/COCs agree? Yes ✓ No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No ✓

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ✓ NA ___

Comments _____

Water samples: pH checked: Yes___No___NA✓ pH appropriate? Yes___No___NA✓ pH ID:_____

Comments: _____

TB# 35860

Labeled by: KAM Witness: WAB Cooler Inspected by: KAM

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

Tuesday, November 5, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4J1661 - OR Tool/Carlton Remedy - 016M12372H

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4J1661, which was received by the laboratory on 10/23/2024 at 12:32:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 5.2 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-60-1-20241021	A4J1661-01	Water	10/21/24 11:50	10/23/24 12:32
MW-60-2-20241021	A4J1661-02	Water	10/21/24 12:30	10/23/24 12:32
MW-20-1-20241021	A4J1661-03	Water	10/21/24 13:10	10/23/24 12:32
MW-20-2-20241021	A4J1661-04	Water	10/21/24 15:30	10/23/24 12:32
A16-20241021	A4J1661-05	Water	10/21/24 14:10	10/23/24 12:32
B13-20241021	A4J1661-06	Water	10/21/24 14:50	10/23/24 12:32
MW-19-1-20241021	A4J1661-07	Water	10/21/24 16:40	10/23/24 12:32
MW-19-2-20241021	A4J1661-08	Water	10/21/24 17:05	10/23/24 12:32
I-B-2-20241021	A4J1661-09	Water	10/21/24 17:35	10/23/24 12:32
MW-28-2-20241022	A4J1661-10	Water	10/22/24 10:05	10/23/24 12:32
MW-33-2-20241022	A4J1661-11	Water	10/22/24 10:35	10/23/24 12:32
MW-36-2-20241022	A4J1661-12	Water	10/22/24 11:00	10/23/24 12:32
B1-20241022	A4J1661-13	Water	10/22/24 12:00	10/23/24 12:32
I-A-3B-20241022	A4J1661-14	Water	10/22/24 11:10	10/23/24 12:32
A1-20241022	A4J1661-15	Water	10/22/24 12:30	10/23/24 12:32
MW31-1-20241022	A4J1661-16	Water	10/22/24 12:55	10/23/24 12:32
B3-20241022	A4J1661-17	Water	10/22/24 13:25	10/23/24 12:32
MW57-20241022	A4J1661-18	Water	10/22/24 13:35	10/23/24 12:32
MW57-1-20241022	A4J1661-19	Water	10/22/24 14:25	10/23/24 12:32
A5-20241022	A4J1661-20	Water	10/22/24 15:20	10/23/24 12:32
DUP-1-20241022	A4J1661-21	Water	10/22/24 00:00	10/23/24 12:32
MW43-1-20241023	A4J1661-22	Water	10/23/24 10:00	10/23/24 12:32
MW39-2-20241023	A4J1661-23	Water	10/23/24 10:30	10/23/24 12:32
MW48-2-20241023	A4J1661-24	Water	10/23/24 11:10	10/23/24 12:32
MW41-2-20241023	A4J1661-25	Water	10/23/24 11:35	10/23/24 12:32
B-11-20241023	A4J1661-26	Water	10/23/24 12:05	10/23/24 12:32

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-60-1-20241021 (A4J1661-01)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/24/24 16:29	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/24 16:29	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-60-1-20241021 (A4J1661-01)				**Matrix: Water**		**Batch: 24J0945**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/24/24 16:29	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/24 16:29	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:29	EPA 8260D	
Vinyl chloride	**0.200**	---	0.200	ug/L	1	10/24/24 16:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*10/24/24 16:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*1*	*10/24/24 16:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/24/24 16:29*	*EPA 8260D*	
MW-60-2-20241021 (A4J1661-02)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Bromochloromethane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Bromodichloromethane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Bromoform	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Bromomethane	ND	---	100	ug/L	20	10/24/24 19:07	EPA 8260D	
Carbon tetrachloride	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Chlorobenzene	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Chloroethane	ND	---	100	ug/L	20	10/24/24 19:07	EPA 8260D	
Chloroform	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Chloromethane	ND	---	100	ug/L	20	10/24/24 19:07	EPA 8260D	
2-Chlorotoluene	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
4-Chlorotoluene	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Dibromochloromethane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Dibromomethane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-60-2-20241021 (A4J1661-02)				**Matrix: Water**		**Batch: 24J0945**		
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
cis-1,2-Dichloroethene	**359**	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Hexachlorobutadiene	ND	---	100	ug/L	20	10/24/24 19:07	EPA 8260D	
Methylene chloride	ND	---	200	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
Trichloroethene (TCE)	**1040**	---	8.00	ug/L	20	10/24/24 19:07	EPA 8260D	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	10/24/24 19:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	10/24/24 19:07	EPA 8260D	
Vinyl chloride	**12.8**	---	4.00	ug/L	20	10/24/24 19:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*10/24/24 19:07*	*EPA 8260D*
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*10/24/24 19:07*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*10/24/24 19:07*	*EPA 8260D*
MW-20-1-20241021 (A4J1661-03)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-20-1-20241021 (A4J1661-03)				**Matrix: Water**		**Batch: 24J0945**		
Bromoform	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/24/24 16:52	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1-Dichloroethene	**9.43**	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
cis-1,2-Dichloroethene	**69.3**	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-20-1-20241021 (A4J1661-03)				**Matrix: Water**		**Batch: 24J0945**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
Trichloroethene (TCE)	**37.6**	---	0.400	ug/L	1	10/24/24 16:52	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/24 16:52	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/24 16:52	EPA 8260D	
Vinyl chloride	**14.3**	---	0.200	ug/L	1	10/24/24 16:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*10/24/24 16:52*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*10/24/24 16:52*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/24/24 16:52*	*EPA 8260D*	
MW-20-2-20241021 (A4J1661-04)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/24/24 18:00	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/24/24 18:00	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/24/24 18:00	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-20-2-20241021 (A4J1661-04)				**Matrix: Water**		**Batch: 24J0945**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1-Dichloroethene	**10.6**	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
cis-1,2-Dichloroethene	**100**	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/24/24 18:00	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/24/24 18:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Trichloroethene (TCE)	**287**	---	2.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/24/24 18:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Vinyl chloride	**17.5**	---	1.00	ug/L	5	10/24/24 18:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*10/24/24 18:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*10/24/24 18:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*10/24/24 18:00*	*EPA 8260D*	
A16-20241021 (A4J1661-05RE1)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A16-20241021 (A4J1661-05RE1)				**Matrix: Water**		**Batch: 24J1010**		
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 13:38	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
cis-1,2-Dichloroethene	**2.85**	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 13:38	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A16-20241021 (A4J1661-05RE1)				**Matrix: Water**		**Batch: 24J1010**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
Trichloroethene (TCE)	**6.71**	---	0.400	ug/L	1	10/25/24 13:38	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 13:38	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:38	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/25/24 13:38	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 13:38*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/25/24 13:38*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*10/25/24 13:38*	*EPA 8260D*	
B13-20241021 (A4J1661-06)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/24/24 17:15	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B13-20241021 (A4J1661-06)				**Matrix: Water**		**Batch: 24J0945**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/24/24 17:15	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/24 17:15	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:15	EPA 8260D	
Vinyl chloride	**0.320**	---	0.200	ug/L	1	10/24/24 17:15	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*10/24/24 17:15*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*10/24/24 17:15*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/24/24 17:15*	*EPA 8260D*	
MW-19-1-20241021 (A4J1661-07)				**Matrix: Water**		**Batch: 24J0945**		
Bromobenzene	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-19-1-20241021 (A4J1661-07)				**Matrix: Water**		**Batch: 24J0945**		
Chloromethane	ND	---	42.0	ug/L	1	10/24/24 17:37	EPA 8260D	R-02
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
cis-1,2-Dichloroethene	**1.15**	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/24 17:37	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/24 17:37	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/24/24 17:37	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/24 17:37	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-19-1-20241021 (A4J1661-07)				**Matrix: Water**		**Batch: 24J0945**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/24 17:37	EPA 8260D	
Vinyl chloride	**1.21**	---	0.200	ug/L	1	10/24/24 17:37	EPA 8260D	**M-02**
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*	*1*	*10/24/24 17:37*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*10/24/24 17:37*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/24/24 17:37*	*EPA 8260D*	
MW-19-2-20241021 (A4J1661-08RE1)				**Matrix: Water**		**Batch: 24J1010**		**V-13**
Bromobenzene	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/25/24 21:55	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/25/24 21:55	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/25/24 21:55	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1-Dichloroethene	**6.95**	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
cis-1,2-Dichloroethene	**302**	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-19-2-20241021 (A4J1661-08RE1)				**Matrix: Water**		**Batch: 24J1010**		**V-13**
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/25/24 21:55	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/25/24 21:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Trichloroethene (TCE)	**13.1**	---	2.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/25/24 21:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Vinyl chloride	**270**	---	1.00	ug/L	5	10/25/24 21:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*10/25/24 21:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*10/25/24 21:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*10/25/24 21:55*	*EPA 8260D*	
I-B-2-20241021 (A4J1661-09RE1)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 16:31	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-2-20241021 (A4J1661-09RE1)				**Matrix: Water**		**Batch: 24J1010**		
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1-Dichloroethene	**2.05**	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
cis-1,2-Dichloroethene	**79.5**	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
Trichloroethene (TCE)	**5.17**	---	0.400	ug/L	1	10/25/24 16:31	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 16:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:31	EPA 8260D	
Vinyl chloride	**116**	---	0.200	ug/L	1	10/25/24 16:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 94 %*		*Limits: 80-120 %*	*1*	*10/25/24 16:31*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-2-20241021 (A4J1661-09RE1)				**Matrix: Water**		**Batch: 24J1010**		
Surrogate: Toluene-d8 (Surr)			*Recovery: 94 %*	*Limits: 80-120 %*	*1*	*10/25/24 16:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*10/25/24 16:31*	*EPA 8260D*	
MW-28-2-20241022 (A4J1661-10)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 13:59	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1-Dichloroethene	**0.550**	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
cis-1,2-Dichloroethene	**19.2**	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-28-2-20241022 (A4J1661-10)				**Matrix: Water**		**Batch: 24J1010**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/25/24 13:59	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 13:59	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 13:59	EPA 8260D	
Vinyl chloride	**25.8**	---	0.200	ug/L	1	10/25/24 13:59	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 13:59*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/25/24 13:59*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/25/24 13:59*	*EPA 8260D*	
MW-33-2-20241022 (A4J1661-11RE1)				**Matrix: Water**		**Batch: 24J1057**		**V-01, V-13**
Bromobenzene	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/28/24 16:33	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/28/24 16:33	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/28/24 16:33	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-33-2-20241022 (A4J1661-11RE1)				**Matrix: Water**		**Batch: 24J1057**		**V-01, V-13**
Dibromomethane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/28/24 16:33	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 16:33	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Trichloroethene (TCE)	ND	---	2.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/28/24 16:33	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Vinyl chloride	**1.30**	---	1.00	ug/L	5	10/28/24 16:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 16:33*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 16:33*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/28/24 16:33*	*EPA 8260D*	
MW-36-2-20241022 (A4J1661-12RE1)				**Matrix: Water**		**Batch: 24J1057**		**V-01, V-13**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-36-2-20241022 (A4J1661-12RE1)				**Matrix: Water**		**Batch: 24J1057**		**V-01, V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/28/24 16:55	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/28/24 16:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-36-2-20241022 (A4J1661-12RE1)				**Matrix: Water**		**Batch: 24J1057**		**V-01, V-13**
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/28/24 16:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/28/24 16:55	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/28/24 16:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 16:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 16:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/28/24 16:55*	*EPA 8260D*	
B1-20241022 (A4J1661-13)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 15:04	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-20241022 (A4J1661-13)				**Matrix: Water**		**Batch: 24J1010**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/25/24 15:04	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 15:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:04	EPA 8260D	
Vinyl chloride	**0.770**	---	0.200	ug/L	1	10/25/24 15:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 15:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/25/24 15:04*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/25/24 15:04*	*EPA 8260D*	
I-A-3B-20241022 (A4J1661-14)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-A-3B-20241022 (A4J1661-14)				**Matrix: Water**		**Batch: 24J1010**		
Bromoform	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/25/24 17:57	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/25/24 17:57	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/25/24 17:57	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1-Dichloroethene	**12.3**	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
cis-1,2-Dichloroethene	**429**	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/25/24 17:57	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-A-3B-20241022 (A4J1661-14)				**Matrix: Water**		**Batch: 24J1010**		
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/25/24 17:57	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Trichloroethene (TCE)	ND	---	2.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/25/24 17:57	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Vinyl chloride	**819**	---	1.00	ug/L	5	10/25/24 17:57	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:* *80-120 %*	*1*	*10/25/24 17:57*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/25/24 17:57*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*10/25/24 17:57*	*EPA 8260D*	
A1-20241022 (A4J1661-15RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 14:02	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	

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Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A1-20241022 (A4J1661-15RE1)				**Matrix: Water**		**Batch: 24J1057**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
cis-1,2-Dichloroethene	**0.470**	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 14:02	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 14:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:02	EPA 8260D	
Vinyl chloride	**0.220**	---	0.200	ug/L	1	10/28/24 14:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 14:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 14:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*10/28/24 14:02*	*EPA 8260D*	
MW31-1-20241022 (A4J1661-16RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW31-1-20241022 (A4J1661-16RE1)				**Matrix: Water**		**Batch: 24J1057**		
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 14:23	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2-Dichloroethane (EDC)	**1.04**	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
cis-1,2-Dichloroethene	**8.16**	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:23	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW31-1-20241022 (A4J1661-16RE1)				**Matrix: Water**		**Batch: 24J1057**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
Trichloroethene (TCE)	**2.33**	---	0.400	ug/L	1	10/28/24 14:23	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 14:23	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:23	EPA 8260D	
Vinyl chloride	**12.0**	---	0.200	ug/L	1	10/28/24 14:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 14:23*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/28/24 14:23*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*	*1*	*10/28/24 14:23*	*EPA 8260D*	
B3-20241022 (A4J1661-17RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 14:45	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
cis-1,2-Dichloroethene	**1.54**	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B3-20241022 (A4J1661-17RE1)				**Matrix: Water**		**Batch: 24J1057**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
Trichloroethene (TCE)	**0.510**	---	0.400	ug/L	1	10/28/24 14:45	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 14:45	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 14:45	EPA 8260D	
Vinyl chloride	**1.93**	---	0.200	ug/L	1	10/28/24 14:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 14:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/28/24 14:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/28/24 14:45*	*EPA 8260D*	
MW57-20241022 (A4J1661-18)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW57-20241022 (A4J1661-18)				**Matrix: Water**		**Batch: 24J1010**		
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 15:26	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1-Dichloroethene	**1.19**	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
cis-1,2-Dichloroethene	**85.1**	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
trans-1,2-Dichloroethene	**0.650**	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 15:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:26	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
Trichloroethene (TCE)	**4.29**	---	0.400	ug/L	1	10/25/24 15:26	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 15:26	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW57-20241022 (A4J1661-18)				**Matrix: Water**		**Batch: 24J1010**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:26	EPA 8260D	
Vinyl chloride	**1.55**	---	0.200	ug/L	1	10/25/24 15:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits: 80-120 %*	*1*	*10/25/24 15:26*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/25/24 15:26*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/25/24 15:26*	*EPA 8260D*	
MW57-1-20241022 (A4J1661-19)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 15:47	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1-Dichloroethene	**1.17**	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
cis-1,2-Dichloroethene	**84.1**	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW57-1-20241022 (A4J1661-19)				**Matrix: Water**		**Batch: 24J1010**		
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
Trichloroethene (TCE)	**3.05**	---	0.400	ug/L	1	10/25/24 15:47	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 15:47	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 15:47	EPA 8260D	
Vinyl chloride	**55.2**	---	0.200	ug/L	1	10/25/24 15:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*96 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 15:47*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/25/24 15:47*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/25/24 15:47*	*EPA 8260D*	
A5-20241022 (A4J1661-20RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 15:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A5-20241022 (A4J1661-20RE1)				**Matrix: Water**		**Batch: 24J1057**		
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 15:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 15:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:07	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 15:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*	*1*	*10/28/24 15:07*	*EPA 8260D*	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A5-20241022 (A4J1661-20RE1)				**Matrix: Water**		**Batch: 24J1057**		
Surrogate: Toluene-d8 (Surr)			*Recovery: 94 %*	*Limits: 80-120 %*	*1*	*10/28/24 15:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/28/24 15:07*	*EPA 8260D*	
DUP-1-20241022 (A4J1661-21RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 15:28	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
cis-1,2-Dichloroethene	**0.410**	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP-1-20241022 (A4J1661-21RE1)				**Matrix: Water**		**Batch: 24J1057**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 15:28	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 15:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:28	EPA 8260D	
Vinyl chloride	**0.820**	---	0.200	ug/L	1	10/28/24 15:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 15:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/28/24 15:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/28/24 15:28*	*EPA 8260D*	
MW43-1-20241023 (A4J1661-22)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/25/24 16:09	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW43-1-20241023 (A4J1661-22)				**Matrix: Water**		**Batch: 24J1010**		
Dibromomethane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
cis-1,2-Dichloroethene	**0.790**	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
trans-1,2-Dichloroethene	**0.610**	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/25/24 16:09	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/25/24 16:09	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/25/24 16:09	EPA 8260D	
Vinyl chloride	**0.970**	---	0.200	ug/L	1	10/25/24 16:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 16:09*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/25/24 16:09*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/25/24 16:09*	*EPA 8260D*	
MW39-2-20241023 (A4J1661-23RE1)				**Matrix: Water**		**Batch: 24J1057**		

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW39-2-20241023 (A4J1661-23RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 15:50	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1-Dichloroethene	**4.13**	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
cis-1,2-Dichloroethene	**103**	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
trans-1,2-Dichloroethene	**0.460**	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 15:50	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW39-2-20241023 (A4J1661-23RE1)				**Matrix: Water**		**Batch: 24J1057**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
Trichloroethene (TCE)	**1.88**	---	0.400	ug/L	1	10/28/24 15:50	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 15:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 15:50	EPA 8260D	
Vinyl chloride	**191**	---	0.200	ug/L	1	10/28/24 15:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*96 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 15:50*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 15:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/28/24 15:50*	*EPA 8260D*	
MW48-2-20241023 (A4J1661-24RE1)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 16:11	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW48-2-20241023 (A4J1661-24RE1)				**Matrix: Water**		**Batch: 24J1057**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
cis-1,2-Dichloroethene	**5.92**	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 16:11	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 16:11	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 16:11	EPA 8260D	
Vinyl chloride	**6.71**	---	0.200	ug/L	1	10/28/24 16:11	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 16:11*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/28/24 16:11*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/28/24 16:11*	*EPA 8260D*	
MW41-2-20241023 (A4J1661-25)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW41-2-20241023 (A4J1661-25)				**Matrix: Water**		**Batch: 24J1010**		
Bromoform	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	10/25/24 21:12	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	10/25/24 21:12	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	10/25/24 21:12	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1-Dichloroethene	**20.2**	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
cis-1,2-Dichloroethene	**1150**	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	10/25/24 21:12	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW41-2-20241023 (A4J1661-25)				**Matrix: Water**		**Batch: 24J1010**		
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Trichloroethene (TCE)	ND	---	10.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	10/25/24 21:12	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	10/25/24 21:12	EPA 8260D	
Vinyl chloride	**732**	---	5.00	ug/L	25	10/25/24 21:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:* *80-120 %*	*1*	*10/25/24 21:12*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/25/24 21:12*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/25/24 21:12*	*EPA 8260D*	
B-11-20241023 (A4J1661-26)				**Matrix: Water**		**Batch: 24J1010**		
Bromobenzene	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/25/24 21:34	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-11-20241023 (A4J1661-26)				**Matrix: Water**		**Batch: 24J1010**		
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1-Dichloroethene	**5.70**	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
cis-1,2-Dichloroethene	**371**	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Trichloroethene (TCE)	**38.1**	---	4.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/25/24 21:34	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/25/24 21:34	EPA 8260D	
Vinyl chloride	**195**	---	2.00	ug/L	10	10/25/24 21:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*1*	*10/25/24 21:34*	*EPA 8260D*
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/25/24 21:34*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*10/25/24 21:34*	*EPA 8260D*

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
Blank (24J0945-BLK1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 10:06									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
Blank (24J0945-BLK1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 10:06									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (24J0945-BS1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 09:21									
EPA 8260D												
Bromobenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	40.3	---	5.00	ug/L	1	20.0	---	**202**	**80-120%**	---	---	Q-56
Carbon tetrachloride	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	33.2	---	5.00	ug/L	1	20.0	---	**166**	**80-120%**	---	---	Q-56
Chloroform	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Chloromethane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
2-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
4-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromochloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromomethane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
LCS (24J0945-BS1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 09:21									
1,3-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dichlorodifluoromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethene	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
cis-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	20.3	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
trans-1,3-Dichloropropene	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Hexachlorobutadiene	17.7	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	19.7	---	10.0	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.5	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	19.5	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	18.2	---	2.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	16.5	---	2.00	ug/L	1	20.0	---	83	80-120%	---	---	
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
Trichloroethene (TCE)	18.7	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
Trichlorofluoromethane	35.6	---	2.00	ug/L	1	20.0	---	**178**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Vinyl chloride	22.9	---	0.200	ug/L	1	20.0	---	115	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				
Duplicate (24J0945-DUP1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 11:14									
QC Source Sample: Non-SDG (A4J1659-01)												
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
Duplicate (24J0945-DUP1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 11:14									
QC Source Sample: Non-SDG (A4J1659-01)												
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	**214**	---	40.0	ug/L	100	---	220	---	---	3	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	**83.0**	---	40.0	ug/L	100	---	85.0	---	---	2	30%	
cis-1,2-Dichloroethene	**2920**	---	40.0	ug/L	100	---	2930	---	---	0.5	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
Duplicate (24J0945-DUP1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 11:14									
QC Source Sample: Non-SDG (A4J1659-01)												
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2940**	---	40.0	ug/L	100	---	2980	---	---	1	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	**411**	---	40.0	ug/L	100	---	415	---	---	1	30%	
Trichloroethene (TCE)	**801**	---	40.0	ug/L	100	---	813	---	---	1	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	**677**	---	20.0	ug/L	100	---	681	---	---	0.6	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (24J0945-MS1)			Prepared: 10/24/24 07:44 Analyzed: 10/24/24 11:36									
QC Source Sample: Non-SDG (A4J1659-02)												
EPA 8260D												
Bromobenzene	17.2	---	0.500	ug/L	1	20.0	ND	86	80-120%	---	---	
Bromochloromethane	20.3	---	1.00	ug/L	1	20.0	ND	102	78-123%	---	---	
Bromodichloromethane	20.0	---	1.00	ug/L	1	20.0	ND	100	79-125%	---	---	
Bromoform	18.0	---	1.00	ug/L	1	20.0	ND	90	66-130%	---	---	
Bromomethane	38.1	---	5.00	ug/L	1	20.0	ND	**190**	**53-141%**	---	---	Q-54d
Carbon tetrachloride	23.7	---	1.00	ug/L	1	20.0	ND	119	72-136%	---	---	
Chlorobenzene	19.1	---	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
Chloroethane	30.2	---	5.00	ug/L	1	20.0	ND	**151**	**60-138%**	---	---	Q-54b
Chloroform	19.6	---	1.00	ug/L	1	20.0	ND	98	79-124%	---	---	
Chloromethane	17.6	---	5.00	ug/L	1	20.0	ND	88	50-139%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	ND	94	79-122%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	ND	94	78-122%	---	---	
Dibromochloromethane	19.0	---	1.00	ug/L	1	20.0	ND	95	74-126%	---	---	
1,2-Dibromo-3-chloropropane	15.5	---	5.00	ug/L	1	20.0	ND	77	62-128%	---	---	
1,2-Dibromoethane (EDB)	19.0	---	0.500	ug/L	1	20.0	ND	95	77-121%	---	---	
Dibromomethane	19.9	---	1.00	ug/L	1	20.0	ND	99	79-123%	---	---	

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Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J0945 - EPA 5030C							**Water**					
Matrix Spike (24J0945-MS1)			Prepared: 10/24/24 07:44		Analyzed: 10/24/24 11:36							
QC Source Sample: Non-SDG (A4J1659-02)												
1,2-Dichlorobenzene	18.3	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
1,4-Dichlorobenzene	18.5	---	0.500	ug/L	1	20.0	ND	93	79-120%	---	---	
Dichlorodifluoromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	32-152%	---	---	
1,1-Dichloroethane	20.3	---	0.400	ug/L	1	20.0	ND	101	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	ND	97	73-128%	---	---	
1,1-Dichloroethene	23.6	---	0.400	ug/L	1	20.0	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	0.960	92	78-123%	---	---	
trans-1,2-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	ND	99	75-124%	---	---	
1,2-Dichloropropane	18.7	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
1,3-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	ND	91	80-120%	---	---	
2,2-Dichloropropane	22.2	---	1.00	ug/L	1	20.0	ND	111	60-139%	---	---	
1,1-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	ND	104	79-125%	---	---	
cis-1,3-Dichloropropene	19.4	---	1.00	ug/L	1	20.0	ND	97	75-124%	---	---	
trans-1,3-Dichloropropene	19.7	---	1.00	ug/L	1	20.0	ND	98	73-127%	---	---	
Hexachlorobutadiene	17.4	---	5.00	ug/L	1	20.0	ND	87	66-134%	---	---	
Methylene chloride	18.6	---	10.0	ug/L	1	20.0	ND	93	74-124%	---	---	
1,1,1,2-Tetrachloroethane	18.4	---	0.400	ug/L	1	20.0	ND	92	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.4	---	0.500	ug/L	1	20.0	ND	97	71-121%	---	---	
Tetrachloroethene (PCE)	19.0	---	0.400	ug/L	1	20.0	ND	95	74-129%	---	---	
1,2,3-Trichlorobenzene	16.7	---	2.00	ug/L	1	20.0	ND	84	69-129%	---	---	
1,1,2-Trichloroethane	18.8	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
1,2,4-Trichlorobenzene	15.5	---	2.00	ug/L	1	20.0	ND	77	69-130%	---	---	
1,1,1-Trichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	18.2	---	0.400	ug/L	1	20.0	ND	91	79-123%	---	---	
Trichlorofluoromethane	37.8	---	2.00	ug/L	1	20.0	ND	**189**	**65-141%**	---	---	Q-54c
1,2,3-Trichloropropane	18.2	---	1.00	ug/L	1	20.0	ND	91	73-122%	---	---	
Vinyl chloride	23.2	---	0.200	ug/L	1	20.0	ND	116	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*90 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
Blank (24J1010-BLK1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 12:42									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
Blank (24J1010-BLK1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 12:42									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24J1010-BS1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 11:59									
EPA 8260D												
Bromobenzene	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromodichloromethane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromoform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	---	**131**	**80-120%**	---	---	Q-56
Carbon tetrachloride	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Chloroethane	23.6	---	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
Chloroform	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	18.3	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
2-Chlorotoluene	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.7	---	5.00	ug/L	1	20.0	---	**73**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Dibromomethane	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichlorobenzene	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
LCS (24J1010-BS1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 11:59									
1,3-Dichlorobenzene	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,4-Dichlorobenzene	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Dichlorodifluoromethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethane	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,3-Dichloropropane	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
2,2-Dichloropropane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloropropene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,3-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	18.0	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Methylene chloride	17.3	---	10.0	ug/L	1	20.0	---	86	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Tetrachloroethene (PCE)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	16.4	---	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,1,2-Trichloroethane	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,4-Trichlorobenzene	15.6	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.3	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	17.1	---	0.400	ug/L	1	20.0	---	85	80-120%	---	---	
Trichlorofluoromethane	25.9	---	2.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.5	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Vinyl chloride	21.6	---	0.200	ug/L	1	20.0	---	108	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24J1010-DUP1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 18:19									

QC Source Sample: I-A-3B-20241022 (A4J1661-14)

EPA 8260D

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper
		Report ID: A4J1661 - 11 05 24 1710

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
Duplicate (24J1010-DUP1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 18:19									
QC Source Sample: I-A-3B-20241022 (A4J1661-14)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	**13.5**	---	2.00	ug/L	5	---	12.3	---	---	9	30%	
cis-1,2-Dichloroethene	**425**	---	2.00	ug/L	5	---	429	---	---	0.9	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	1.00	---	---	***	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
Duplicate (24J1010-DUP1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 18:19									
QC Source Sample: I-A-3B-20241022 (A4J1661-14)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	2.00	ug/L	5	---	1.10	---	---	***	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	**826**	---	1.00	ug/L	5	---	819	---	---	0.9	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*94 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Matrix Spike (24J1010-MS1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 14:21									
QC Source Sample: MW-28-2-20241022 (A4J1661-10)												
EPA 8260D												
Bromobenzene	17.7	---	0.500	ug/L	1	20.0	ND	88	80-120%	---	---	
Bromochloromethane	20.1	---	1.00	ug/L	1	20.0	ND	100	78-123%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	ND	105	79-125%	---	---	
Bromoform	19.8	---	1.00	ug/L	1	20.0	ND	99	66-130%	---	---	
Bromomethane	23.9	---	5.00	ug/L	1	20.0	ND	119	53-141%	---	---	Q-54
Carbon tetrachloride	24.6	---	1.00	ug/L	1	20.0	ND	123	72-136%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Chloroethane	24.1	---	5.00	ug/L	1	20.0	ND	120	60-138%	---	---	
Chloroform	20.7	---	1.00	ug/L	1	20.0	ND	104	79-124%	---	---	
Chloromethane	19.0	---	5.00	ug/L	1	20.0	ND	95	50-139%	---	---	
2-Chlorotoluene	19.7	---	1.00	ug/L	1	20.0	ND	98	79-122%	---	---	
4-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	ND	99	78-122%	---	---	
Dibromochloromethane	19.7	---	1.00	ug/L	1	20.0	ND	98	74-126%	---	---	
1,2-Dibromo-3-chloropropane	14.6	---	5.00	ug/L	1	20.0	ND	73	62-128%	---	---	Q-54h
1,2-Dibromoethane (EDB)	18.4	---	0.500	ug/L	1	20.0	ND	92	77-121%	---	---	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1661 - 11 05 24 1710

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1010 - EPA 5030C							**Water**					
Matrix Spike (24J1010-MS1)			Prepared: 10/25/24 10:37 Analyzed: 10/25/24 14:21									
QC Source Sample: MW-28-2-20241022 (A4J1661-10)												
Dibromomethane	19.2	---	1.00	ug/L	1	20.0	ND	96	79-123%	---	---	
1,2-Dichlorobenzene	17.6	---	0.500	ug/L	1	20.0	ND	88	80-120%	---	---	
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	79-120%	---	---	
Dichlorodifluoromethane	20.6	---	1.00	ug/L	1	20.0	ND	103	32-152%	---	---	
1,1-Dichloroethane	19.2	---	0.400	ug/L	1	20.0	ND	96	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	ND	105	73-128%	---	---	
1,1-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	0.550	103	71-131%	---	---	
cis-1,2-Dichloroethene	39.0	---	0.400	ug/L	1	20.0	19.2	99	78-123%	---	---	
trans-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	ND	97	75-124%	---	---	
1,2-Dichloropropane	18.2	---	0.500	ug/L	1	20.0	ND	91	78-122%	---	---	
1,3-Dichloropropane	18.4	---	1.00	ug/L	1	20.0	ND	92	80-120%	---	---	
2,2-Dichloropropane	22.3	---	1.00	ug/L	1	20.0	ND	112	60-139%	---	---	
1,1-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-125%	---	---	
cis-1,3-Dichloropropene	17.7	---	1.00	ug/L	1	20.0	ND	89	75-124%	---	---	
trans-1,3-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	ND	101	73-127%	---	---	
Hexachlorobutadiene	16.3	---	5.00	ug/L	1	20.0	ND	82	66-134%	---	---	
Methylene chloride	17.1	---	10.0	ug/L	1	20.0	ND	85	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.0	---	0.400	ug/L	1	20.0	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.0	---	0.500	ug/L	1	20.0	ND	100	71-121%	---	---	
Tetrachloroethene (PCE)	19.6	---	0.400	ug/L	1	20.0	ND	98	74-129%	---	---	
1,2,3-Trichlorobenzene	15.6	---	2.00	ug/L	1	20.0	ND	78	69-129%	---	---	
1,1,2-Trichloroethane	18.0	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
1,2,4-Trichlorobenzene	15.3	---	2.00	ug/L	1	20.0	ND	76	69-130%	---	---	Q-54g
1,1,1-Trichloroethane	21.0	---	0.400	ug/L	1	20.0	ND	105	74-131%	---	---	
Trichloroethene (TCE)	17.0	---	0.400	ug/L	1	20.0	ND	85	79-123%	---	---	
Trichlorofluoromethane	27.2	---	2.00	ug/L	1	20.0	ND	136	65-141%	---	---	Q-54e
1,2,3-Trichloropropane	17.5	---	1.00	ug/L	1	20.0	ND	87	73-122%	---	---	
Vinyl chloride	45.5	---	0.200	ug/L	1	20.0	25.8	99	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1661 - 11 05 24 1710

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							Water					
Blank (24J1057-BLK1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 12:14									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1661 - 11 05 24 1710

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Blank (24J1057-BLK1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 12:14									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24J1057-BS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 11:23									
EPA 8260D												
Bromobenzene	17.1	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromomethane	25.8	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	22.6	---	5.00	ug/L	1	20.0	---	113	80-120%	---	---	
Chloroform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	16.9	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
2-Chlorotoluene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromomethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
LCS (24J1057-BS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 11:23									
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloroethane	18.3	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloropropane	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
1,3-Dichloropropane	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
2,2-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,3-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	18.6	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
Methylene chloride	16.8	---	10.0	ug/L	1	20.0	---	84	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	19.7	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	16.8	---	2.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,1,2-Trichloroethane	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1-Trichloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	17.1	---	0.400	ug/L	1	20.0	---	85	80-120%	---	---	
Trichlorofluoromethane	27.1	---	2.00	ug/L	1	20.0	---	**136**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Vinyl chloride	19.7	---	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									
QC Source Sample: Non-SDG (A4J1710-01)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									
QC Source Sample: Non-SDG (A4J1710-01)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**73.5**	---	2.00	ug/L	5	---	69.0	---	---	6	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1661 - 11 05 24 1710

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									
QC Source Sample: Non-SDG (A4J1710-01)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**3.85**	---	2.00	ug/L	5	---	3.35	---	---	14	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**278**	---	2.00	ug/L	5	---	265	---	---	5	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	**1.00**	---	1.00	ug/L	5	---	0.550	---	---	**58**	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (24J1057-MS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 21:35									
QC Source Sample: Non-SDG (A4J1710-05)												
EPA 8260D												
Bromobenzene	87.8	---	2.50	ug/L	5	100	ND	88	80-120%	---	---	
Bromochloromethane	107	---	5.00	ug/L	5	100	ND	107	78-123%	---	---	
Bromodichloromethane	109	---	5.00	ug/L	5	100	ND	109	79-125%	---	---	
Bromoform	105	---	5.00	ug/L	5	100	ND	105	66-130%	---	---	
Bromomethane	138	---	25.0	ug/L	5	100	ND	138	53-141%	---	---	Q-54e
Carbon tetrachloride	121	---	5.00	ug/L	5	100	ND	121	72-136%	---	---	
Chlorobenzene	100	---	2.50	ug/L	5	100	ND	100	80-120%	---	---	
Chloroethane	134	---	25.0	ug/L	5	100	ND	134	60-138%	---	---	
Chloroform	110	---	5.00	ug/L	5	100	ND	110	79-124%	---	---	
Chloromethane	95.7	---	25.0	ug/L	5	100	ND	96	50-139%	---	---	
2-Chlorotoluene	95.5	---	5.00	ug/L	5	100	ND	96	79-122%	---	---	
4-Chlorotoluene	96.8	---	5.00	ug/L	5	100	ND	97	78-122%	---	---	
Dibromochloromethane	101	---	5.00	ug/L	5	100	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	71.0	---	25.0	ug/L	5	100	ND	71	62-128%	---	---	Q-54f
1,2-Dibromoethane (EDB)	92.4	---	2.50	ug/L	5	100	ND	92	77-121%	---	---	
Dibromomethane	98.8	---	5.00	ug/L	5	100	ND	99	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Matrix Spike (24J1057-MS1)			Prepared: 10/28/24 10:02		Analyzed: 10/28/24 21:35							
QC Source Sample: Non-SDG (A4J1710-05)												
1,2-Dichlorobenzene	87.6	---	2.50	ug/L	5	100	ND	88	80-120%	---	---	
1,3-Dichlorobenzene	94.4	---	2.50	ug/L	5	100	ND	94	80-120%	---	---	
1,4-Dichlorobenzene	94.1	---	2.50	ug/L	5	100	ND	94	79-120%	---	---	
Dichlorodifluoromethane	96.6	---	5.00	ug/L	5	100	ND	97	32-152%	---	---	
1,1-Dichloroethane	103	---	2.00	ug/L	5	100	ND	103	77-125%	---	---	
1,2-Dichloroethane (EDC)	109	---	2.00	ug/L	5	100	ND	109	73-128%	---	---	
1,1-Dichloroethene	111	---	2.00	ug/L	5	100	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	119	---	2.00	ug/L	5	100	16.0	103	78-123%	---	---	
trans-1,2-Dichloroethene	102	---	2.00	ug/L	5	100	ND	102	75-124%	---	---	
1,2-Dichloropropane	98.0	---	2.50	ug/L	5	100	ND	98	78-122%	---	---	
1,3-Dichloropropane	92.2	---	5.00	ug/L	5	100	ND	92	80-120%	---	---	
2,2-Dichloropropane	102	---	5.00	ug/L	5	100	ND	102	60-139%	---	---	
1,1-Dichloropropene	102	---	5.00	ug/L	5	100	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	85.8	---	5.00	ug/L	5	100	ND	86	75-124%	---	---	
trans-1,3-Dichloropropene	99.8	---	5.00	ug/L	5	100	ND	100	73-127%	---	---	
Hexachlorobutadiene	85.0	---	25.0	ug/L	5	100	ND	85	66-134%	---	---	
Methylene chloride	90.4	---	50.0	ug/L	5	100	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	105	---	2.00	ug/L	5	100	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	93.6	---	2.50	ug/L	5	100	ND	94	71-121%	---	---	
Tetrachloroethene (PCE)	106	---	2.00	ug/L	5	100	7.40	98	74-129%	---	---	
1,2,3-Trichlorobenzene	79.6	---	10.0	ug/L	5	100	ND	80	69-129%	---	---	
1,1,2-Trichloroethane	92.6	---	2.50	ug/L	5	100	ND	93	80-120%	---	---	
1,2,4-Trichlorobenzene	78.7	---	10.0	ug/L	5	100	ND	79	69-130%	---	---	
1,1,1-Trichloroethane	111	---	2.00	ug/L	5	100	ND	111	74-131%	---	---	
Trichloroethene (TCE)	488	---	2.00	ug/L	5	100	413	**75**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	141	---	10.0	ug/L	5	100	ND	141	65-141%	---	---	Q-54a
1,2,3-Trichloropropane	87.6	---	5.00	ug/L	5	100	ND	88	73-122%	---	---	
Vinyl chloride	111	---	1.00	ug/L	5	100	ND	111	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*94 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24J0945							
A4J1661-01	Water	EPA 8260D	10/21/24 11:50	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
A4J1661-02	Water	EPA 8260D	10/21/24 12:30	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
A4J1661-03	Water	EPA 8260D	10/21/24 13:10	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
A4J1661-04	Water	EPA 8260D	10/21/24 15:30	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
A4J1661-06	Water	EPA 8260D	10/21/24 14:50	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
A4J1661-07	Water	EPA 8260D	10/21/24 16:40	10/24/24 09:40	5mL/5mL	5mL/5mL	1.00
Batch: 24J1010							
A4J1661-05RE1	Water	EPA 8260D	10/21/24 14:10	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-08RE1	Water	EPA 8260D	10/21/24 17:05	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-09RE1	Water	EPA 8260D	10/21/24 17:35	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-10	Water	EPA 8260D	10/22/24 10:05	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-13	Water	EPA 8260D	10/22/24 12:00	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-14	Water	EPA 8260D	10/22/24 11:10	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-18	Water	EPA 8260D	10/22/24 13:35	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-19	Water	EPA 8260D	10/22/24 14:25	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-22	Water	EPA 8260D	10/23/24 10:00	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-25	Water	EPA 8260D	10/23/24 11:35	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
A4J1661-26	Water	EPA 8260D	10/23/24 12:05	10/25/24 12:34	5mL/5mL	5mL/5mL	1.00
Batch: 24J1057							
A4J1661-11RE1	Water	EPA 8260D	10/22/24 10:35	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-12RE1	Water	EPA 8260D	10/22/24 11:00	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-15RE1	Water	EPA 8260D	10/22/24 12:30	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-16RE1	Water	EPA 8260D	10/22/24 12:55	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-17RE1	Water	EPA 8260D	10/22/24 13:25	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-20RE1	Water	EPA 8260D	10/22/24 15:20	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-21RE1	Water	EPA 8260D	10/22/24 00:00	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-23RE1	Water	EPA 8260D	10/23/24 10:30	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1661-24RE1	Water	EPA 8260D	10/23/24 11:10	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +16%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +46%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +58%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +82%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
V-01	Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
V-13	Reporting levels raised due to dilution necessary for analysis due to sample foaming in sparge vessel.

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

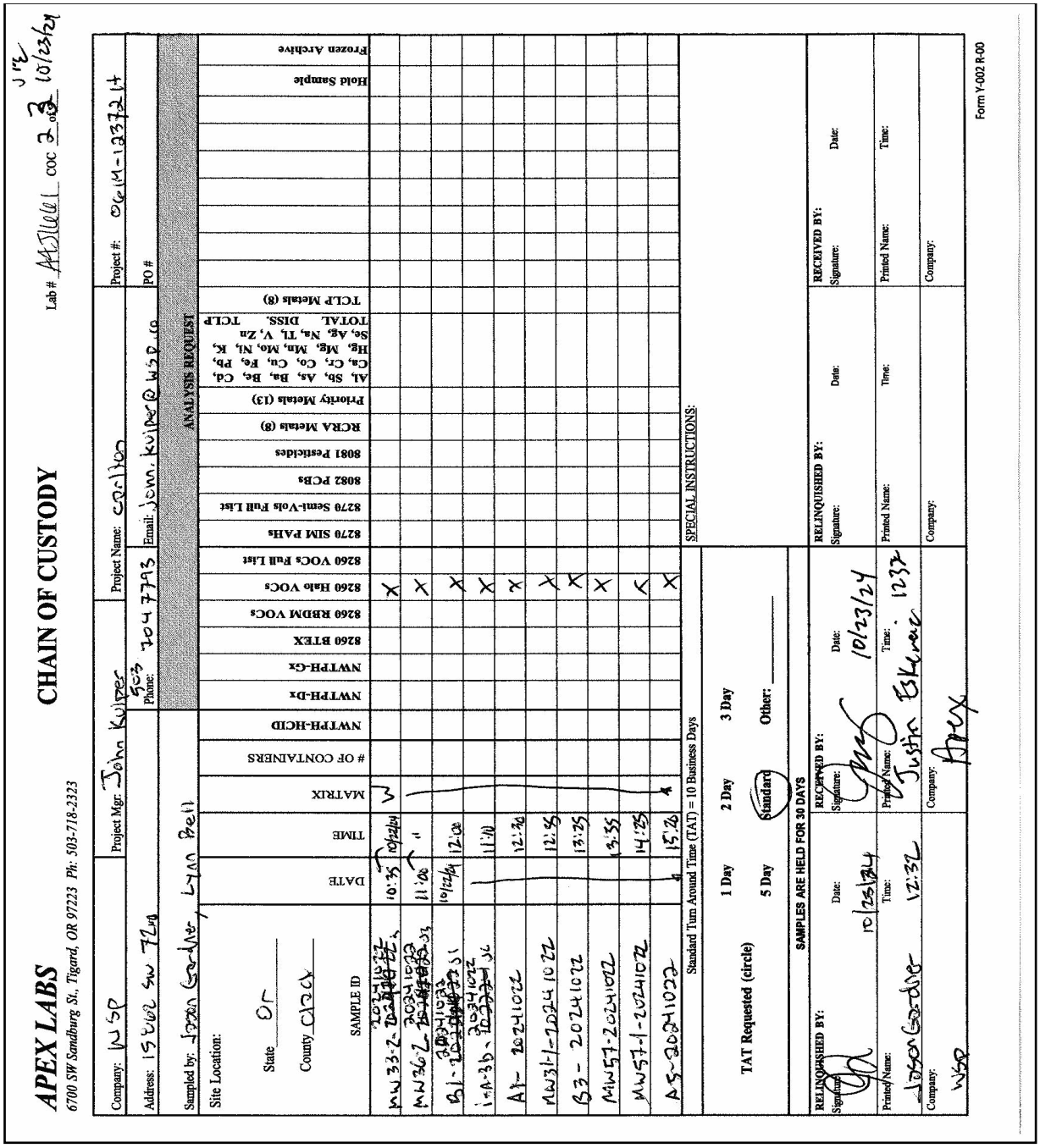
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1661 COC 2 of 3 10/23/24

Company: WSP
Project Mgr: John Kuiper
Phone: 503 704 7793
Project Name: Carlton
Email: John.Kuiper@wsp.com
Project #: 016M-12372H
PO #

Address: 15700 SW 72nd
Sampled by: Logan Gardner, Logan Bell

Site Location:
State OR
County Carlton

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RRDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW33-20241022	10/22/24	10:35	W							X											
MW36-20241022		11:05								X											
BJ-20241022	10/22/24	12:05								X											
MW34-20241022		11:10								X											
AT-20241022		12:30								X											
MW31-20241022		12:45								X											
BJ-20241022		13:25								X											
MW57-20241022		13:55								X											
MW57-20241022		14:25								X											
AS-20241022		15:20		4						X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle)
1 Day 2 Day 3 Day
5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 10/23/24 Time: 12:32 Printed Name: Logan Gardner Company: WSP

RECEIVED BY: Signature: Date: 10/23/24 Time: 1232 Printed Name: Justin Blumer Company: APEX

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

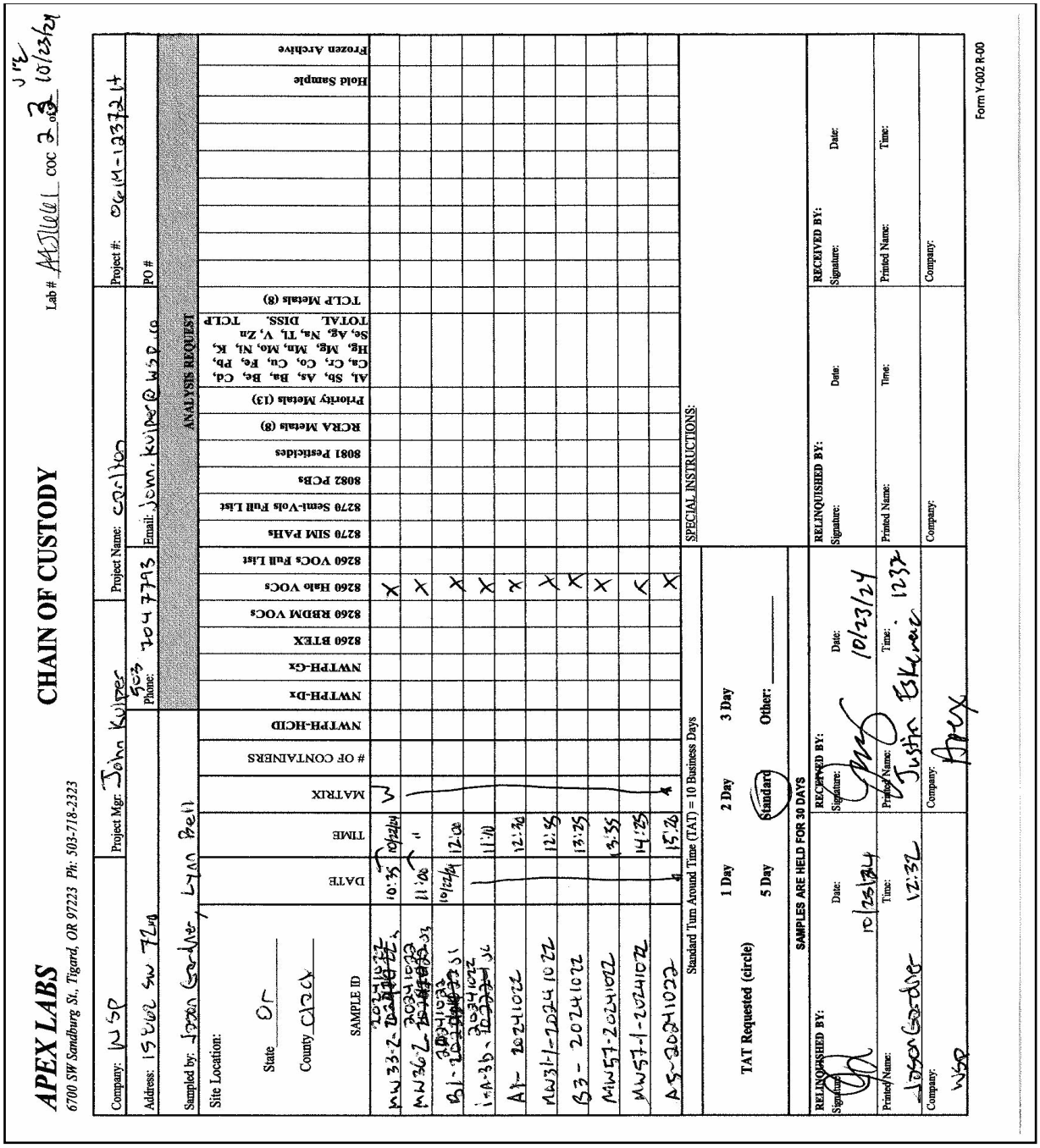
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**



CHAIN OF CUSTODY

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A4J1661 COC 3 of 3 10/23/24

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton | Project #: 016M-12372H
Address: 15700 SW 72nd | Phone: 503 704 7793 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Logan Gardner, Logan Bell

Site Location: State OR, County Clackamas

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RRDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW33-20241022	10/22/24	10:35	W							X											
MW36-20241022		11:05								X											
BJ-20241022	10/22/24	12:05								X											
MW34-20241022		11:10								X											
AT-20241022		12:30								X											
MW31-20241022		12:45								X											
BJ-20241022		13:25								X											
MW57-20241022		13:55								X											
MW57-20241022		14:25								X											
AS-20241022		15:20		4						X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day, 2 Day, 3 Day, 5 Day, Standard, Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature:		Signature:	10/23/24	Signature:		Signature:	
Printed Name:	Time:	Printed Name: Justin Blumer	Time: 1232	Printed Name:	Time:	Printed Name:	Time:
Company: WSP		Company: APEX		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

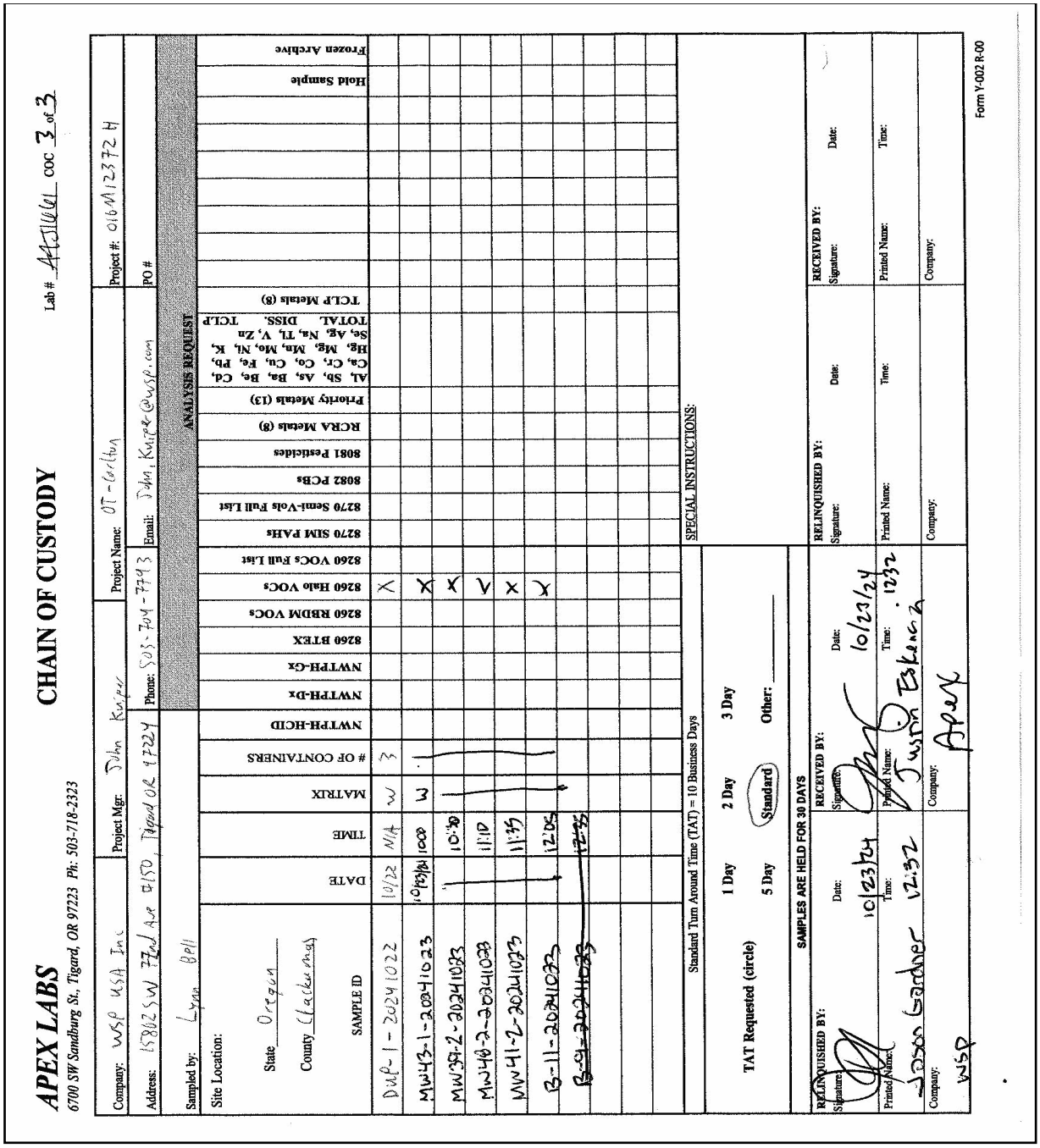
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1661 COC 3 of 3

Company: WSP USA Inc | Project Mgr: John Kuiper | Project Name: OR-Carlton | Project #: 016M12372H
Address: 15862 SW 72nd Ave Ste 150, Tigard OR 97224 | Phone: 503-704-7743 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell
Site Location: State Oregon, County Clackamas

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
Dup-1-20241022	10/22	N/A	W	3						X											
MW43-1-20241023	10/23/24	1000	W	3						X											
MW39-2-20241023	"	10:30	W							X											
MW48-2-20241023		11:10								X											
MW41-2-20241023		11:35								X											
B-11-20241023		12:05								X											
B-9-20241023		12:35																			

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:
RECEIVED BY: Signature: Date: 10/23/24 Time: 12:32 Printed Name: Justin Baker Company: Apex
RELINQUISHED BY: Signature: Date: Time: Printed Name: Jason Gardner 12:32 Company: WSP
RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

WO# A4J1661

COC/Container Discrepancies

COC Reads	Container Reads/Comments
MW-20-2-20241021 @1530	+ on 1/3 VOAs reads 15:3
B13-20241021 @1450	+ on 1/3 VOAs reads 14:5
MW-19-1-20241021 @1640	+ on 3/3 VOAs reads 16:55
MW-19-2-20241021 @1705	+ on 3/3 VOAs reads 17:25
~~B13-20241021~~ I-B-2-20241021 @1735	1/3 VOA IDs reads: I-B-2-20241021. HS on 1/3 VOAs + reads 1800
MW-33-2-20241022	3/3 VOAs have HS
MW-36-2-20241022	3/3 2/3 VOAs have HS
MW-57-1-20241022 @1425	1/3 VOAs IDs reads: MW-57-1-20241023 + on 1/3 VOAs reads 1423
A5-20241022	1/3 VOAs has HS, 1/3 VOAs has no sample
MW-39-2-20241022	1/3 VOAs have HS
MW57-20241022	3/3 VOAs ID reads MW-57-2-20241022
I-B-11-20241023 ←	~~3/3 VOAs~~ COC ID= B-11-20241023, matched by date/time.
I-A-3B-20241022	2/3 has HS.
MW43-1-20241023	1/3 has HS.

Form Y-004 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1661 - 11 05 24 1710**

APEX LABS COOLER RECEIPT FORM

Client: WSP USA INC Element WO#: A4 J1661

Project/Project #: 016M12372H OT-Carlton
WAC for SPE volatiles

Delivery Info:

Date/time received: 10/23/24 @ 1232 By: JPE

Delivered by: Apex X Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 10/23/24 @ 1308 By: JPE

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.2						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	REAL						
Condition (In/Out):	IN						

Cooler out of temp? (Y/N) Possible reason why:
Green dots applied to out of temperature samples? Yes/No
Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 10/23/24 @ 1504 By: KN

All samples intact? Yes ✓ No ___ Comments:

Bottle labels/COCs agree? Yes ___ No ✓ Comments: See discrepancy form.

COC/container discrepancies form initiated? Yes ✓ No ___

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments: 1/3 VOAs for A5-20241022 is empty.

Do VOA vials have visible headspace? Yes ✓ No ___ NA ___

Comments See discrepancy form.

Water samples: pH checked: Yes___No___NA ✓ pH appropriate? Yes___No___NA ✓ pH ID:

Comments:

Labeled by: KN Witness: ZM Cooler Inspected by: KN Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, November 7, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4J1710 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4J1710, which was received by the laboratory on 10/24/2024 at 5:04:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information			
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.			
(See Cooler Receipt Form for details)			
Cooler #1	3.5 degC	Cooler #2	4.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INF-102324	A4J1710-01	Water	10/23/24 11:12	10/24/24 17:04
EFF-102324	A4J1710-02	Water	10/23/24 11:00	10/24/24 17:04
DPE5-102324	A4J1710-03	Water	10/23/24 16:30	10/24/24 17:04
DPE7-102324	A4J1710-04	Water	10/23/24 10:10	10/24/24 17:04
DPE8-102324	A4J1710-05	Water	10/23/24 09:58	10/24/24 17:04
EW4-102324	A4J1710-06	Water	10/23/24 09:20	10/24/24 17:04
EW5A-102324	A4J1710-07	Water	10/23/24 09:46	10/24/24 17:04
EW6-102324	A4J1710-08	Water	10/23/24 08:30	10/24/24 17:04
EW7-102324	A4J1710-09	Water	10/23/24 08:54	10/24/24 17:04
EW8-102324	A4J1710-10	Water	10/23/24 10:22	10/24/24 17:04
CRC1-102324	A4J1710-11	Water	10/23/24 11:50	10/24/24 17:04
CRC7-102324	A4J1710-12	Water	10/23/24 11:30	10/24/24 17:04
MW1A-102324	A4J1710-13	Water	10/23/24 12:18	10/24/24 17:04
MW1B-102324	A4J1710-14	Water	10/23/24 14:12	10/24/24 17:04
SP1-102324	A4J1710-15	Water	10/23/24 14:30	10/24/24 17:04
MW8-102324	A4J1710-16	Water	10/23/24 15:02	10/24/24 17:04
MW10-1-102324	A4J1710-17	Water	10/23/24 13:22	10/24/24 17:04
MW10-2-102324	A4J1710-18	Water	10/23/24 13:50	10/24/24 17:04
MW11-1-102324	A4J1710-19	Water	10/23/24 15:30	10/24/24 17:04
MW11B-102324	A4J1710-20	Water	10/23/24 15:44	10/24/24 17:04
MW2B-102424	A4J1710-21	Water	10/24/24 09:42	10/24/24 17:04
MW2C-102424-U	A4J1710-22	Water	10/24/24 09:10	10/24/24 17:04
MW2C-102424-L	A4J1710-23	Water	10/24/24 09:20	10/24/24 17:04
MW4-102424	A4J1710-24	Water	10/24/24 15:10	10/24/24 17:04
MW5B-102424	A4J1710-25	Water	10/24/24 13:30	10/24/24 17:04
MW7B-102424	A4J1710-26	Water	10/24/24 14:40	10/24/24 17:04
MW13-2-102424	A4J1710-27	Water	10/24/24 14:00	10/24/24 17:04
MW14-102424	A4J1710-28	Water	10/24/24 12:25	10/24/24 17:04
MW14-102424-DUP	A4J1710-29	Water	10/24/24 12:26	10/24/24 17:04
MW15-1-102424	A4J1710-30	Water	10/24/24 10:36	10/24/24 17:04
MW15-2-102424	A4J1710-31	Water	10/24/24 11:04	10/24/24 17:04
MW15B-102424	A4J1710-32	Water	10/24/24 11:22	10/24/24 17:04
MW16B-102424	A4J1710-33	Water	10/24/24 14:20	10/24/24 17:04

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW17B-102424-U	A4J1710-34	Water	10/24/24 08:30	10/24/24 17:04
MW17B-102424-L	A4J1710-35	Water	10/24/24 08:40	10/24/24 17:04
MW18B-102424-U	A4J1710-36	Water	10/24/24 10:00	10/24/24 17:04
MW18B-102424-L	A4J1710-37	Water	10/24/24 10:10	10/24/24 17:04
Trip-102424-A	A4J1710-38	Water	10/23/24 07:00	10/24/24 17:04
Trip-102424-B	A4J1710-39	Water	10/23/24 07:00	10/24/24 17:04
EW6-102324-DUP	A4J1710-40	Water	10/23/24 08:31	10/24/24 17:04

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-102324 (A4J1710-01)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/28/24 20:30	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/28/24 20:30	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/28/24 20:30	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
cis-1,2-Dichloroethene	**69.0**	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/28/24 20:30	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/28/24 20:30	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-102324 (A4J1710-01)				**Matrix: Water**		**Batch: 24J1057**		
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
Tetrachloroethene (PCE)	**3.35**	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 20:30	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Trichloroethene (TCE)	**265**	---	2.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/28/24 20:30	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/28/24 20:30	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/28/24 20:30	EPA 8260D	Q-42
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 104 %*		*Limits: 80-120 %*	*1*	*10/28/24 20:30*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/28/24 20:30*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*10/28/24 20:30*	*EPA 8260D*	
EFF-102324 (A4J1710-02)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 19:47	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-102324 (A4J1710-02)				**Matrix: Water**		**Batch: 24J1057**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 19:47	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 19:47	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:47	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 19:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*10/28/24 19:47*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*10/28/24 19:47*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*10/28/24 19:47*	*EPA 8260D*	
DPE5-102324 (A4J1710-03)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE5-102324 (A4J1710-03)				**Matrix: Water**		**Batch: 24J1057**		
Bromoform	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 20:08	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE5-102324 (A4J1710-03)				**Matrix: Water**		**Batch: 24J1057**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 20:08	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 20:08	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:08	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 20:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*10/28/24 20:08*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 20:08*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/28/24 20:08*	*EPA 8260D*	
DPE7-102324 (A4J1710-04)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 19:25	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-102324 (A4J1710-04)				**Matrix: Water**		**Batch: 24J1057**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
cis-1,2-Dichloroethene	**37.2**	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
Tetrachloroethene (PCE)	**0.400**	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
Trichloroethene (TCE)	**34.0**	---	0.400	ug/L	1	10/28/24 19:25	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 19:25	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:25	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 19:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 19:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/28/24 19:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/28/24 19:25*	*EPA 8260D*	
DPE8-102324 (A4J1710-05)				**Matrix: Water**		**Batch: 24J1057**		
Bromobenzene	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/28/24 21:13	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-102324 (A4J1710-05)				**Matrix: Water**		**Batch: 24J1057**		
Chlorobenzene	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/28/24 21:13	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/28/24 21:13	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
cis-1,2-Dichloroethene	**16.0**	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/28/24 21:13	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
Tetrachloroethene (PCE)	**7.40**	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 21:13	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 21:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-102324 (A4J1710-05)				**Matrix: Water**		**Batch: 24J1057**		
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Trichloroethene (TCE)	**413**	---	2.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/28/24 21:13	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/28/24 21:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:* *80-120 %*	*1*	*10/28/24 21:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/28/24 21:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 21:13*	*EPA 8260D*	
EW4-102324 (A4J1710-06)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 06:29	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	Q-42
cis-1,2-Dichloroethene	**302**	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-102324 (A4J1710-06)				**Matrix: Water**		**Batch: 24J1074**		
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Tetrachloroethene (PCE)	**13.7**	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Trichloroethene (TCE)	**1200**	---	4.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 06:29	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 06:29	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 06:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*10/29/24 06:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*10/29/24 06:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*10/29/24 06:29*	*EPA 8260D*	
EW5A-102324 (A4J1710-07RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-102324 (A4J1710-07RE1)				**Matrix: Water**		**Batch: 24J1145**		
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 14:55	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1-Dichloroethene	**1.54**	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
cis-1,2-Dichloroethene	**107**	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
trans-1,2-Dichloroethene	**0.700**	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 14:55	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
Tetrachloroethene (PCE)	**2.38**	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 14:55	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 14:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 14:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-102324 (A4J1710-07RE1)				**Matrix: Water**		**Batch: 24J1145**		
Vinyl chloride	**5.29**	---	0.200	ug/L	1	10/30/24 14:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:* *80-120 %*	*1*	*10/30/24 14:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/30/24 14:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/30/24 14:55*	*EPA 8260D*	
EW5A-102324 (A4J1710-07RE2)				**Matrix: Water**		**Batch: 24J1198**		
Trichloroethene (TCE)	**188**	---	1.00	ug/L	2.5	10/31/24 19:38	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:* *80-120 %*	*1*	*10/31/24 19:38*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/31/24 19:38*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/31/24 19:38*	*EPA 8260D*	
EW6-102324 (A4J1710-08)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/29/24 07:34	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/29/24 07:34	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/29/24 07:34	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-102324 (A4J1710-08)				**Matrix: Water**		**Batch: 24J1074**		
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
cis-1,2-Dichloroethene	**66.1**	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/29/24 07:34	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
Tetrachloroethene (PCE)	**3.05**	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 07:34	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Trichloroethene (TCE)	**331**	---	2.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/29/24 07:34	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/29/24 07:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 07:34*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/29/24 07:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/29/24 07:34*	*EPA 8260D*	
EW7-102324 (A4J1710-09)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-102324 (A4J1710-09)				**Matrix: Water**		**Batch: 24J1074**		
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 00:48	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
cis-1,2-Dichloroethene	**8.98**	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
Tetrachloroethene (PCE)	**1.01**	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-102324 (A4J1710-09)				**Matrix: Water**		**Batch: 24J1074**		
Trichloroethene (TCE)	**16.9**	---	0.400	ug/L	1	10/29/24 00:48	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 00:48	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 00:48	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 00:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*10/29/24 00:48*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 00:48*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/29/24 00:48*	*EPA 8260D*	
EW8-102324 (A4J1710-10)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Chloroform	**1.22**	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 01:10	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
cis-1,2-Dichloroethene	**38.1**	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-102324 (A4J1710-10)				**Matrix: Water**		**Batch: 24J1074**		
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
Trichloroethene (TCE)	**12.3**	---	0.400	ug/L	1	10/29/24 01:10	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 01:10	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:10	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 01:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*10/29/24 01:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 01:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 01:10*	*EPA 8260D*	
CRC1-102324 (A4J1710-11)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 01:53	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC1-102324 (A4J1710-11)				**Matrix: Water**		**Batch: 24J1074**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 01:53	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 01:53	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 01:53	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 01:53	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC1-102324 (A4J1710-11)				**Matrix: Water**		**Batch: 24J1074**		
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 01:53	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*10/29/24 01:53*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 01:53*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 01:53*	*EPA 8260D*	
CRC7-102324 (A4J1710-12)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 02:14	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC7-102324 (A4J1710-12)				**Matrix: Water**		**Batch: 24J1074**		
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
Tetrachloroethene (PCE)	**1.13**	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
Trichloroethene (TCE)	**3.43**	---	0.400	ug/L	1	10/29/24 02:14	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 02:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:14	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 02:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 02:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*10/29/24 02:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/29/24 02:14*	*EPA 8260D*	
MW1A-102324 (A4J1710-13)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 02:35	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1A-102324 (A4J1710-13)				**Matrix: Water**		**Batch: 24J1074**		
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
Trichloroethene (TCE)	**1.93**	---	0.400	ug/L	1	10/29/24 02:35	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 02:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:35	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 02:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 02:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*10/29/24 02:35*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1A-102324 (A4J1710-13)				**Matrix: Water**		**Batch: 24J1074**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/29/24 02:35*	*EPA 8260D*	
MW1B-102324 (A4J1710-14)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 02:57	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1B-102324 (A4J1710-14)				**Matrix: Water**		**Batch: 24J1074**		
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
Trichloroethene (TCE)	**0.870**	---	0.400	ug/L	1	10/29/24 02:57	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 02:57	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 02:57	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 02:57	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 02:57*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/29/24 02:57*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/29/24 02:57*	*EPA 8260D*	
SP1-102324 (A4J1710-15)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 03:18	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SP1-102324 (A4J1710-15)				**Matrix: Water**		**Batch: 24J1074**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
Trichloroethene (TCE)	**7.85**	---	0.400	ug/L	1	10/29/24 03:18	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 03:18	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:18	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 03:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 03:18*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/29/24 03:18*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/29/24 03:18*	*EPA 8260D*	
MW8-102324 (A4J1710-16)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW8-102324 (A4J1710-16)				**Matrix: Water**		**Batch: 24J1074**		
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 03:39	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW8-102324 (A4J1710-16)				**Matrix: Water**		**Batch: 24J1074**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 03:39	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 03:39	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 03:39	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 03:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*10/29/24 03:39*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 03:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/29/24 03:39*	*EPA 8260D*	
MW10-1-102324 (A4J1710-17)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 04:00	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10-1-102324 (A4J1710-17)				**Matrix: Water**		**Batch: 24J1074**		
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
Trichloroethene (TCE)	**0.990**	---	0.400	ug/L	1	10/29/24 04:00	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 04:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:00	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 04:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:* *80-120 %*	*1*	*10/29/24 04:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 04:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/29/24 04:00*	*EPA 8260D*	
MW10-2-102324 (A4J1710-18)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10-2-102324 (A4J1710-18)				**Matrix: Water**		**Batch: 24J1074**		
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 04:22	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
cis-1,2-Dichloroethene	**3.15**	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:22	EPA 8260D	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10-2-102324 (A4J1710-18)				**Matrix: Water**		**Batch: 24J1074**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
Trichloroethene (TCE)	**11.5**	---	0.400	ug/L	1	10/29/24 04:22	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 04:22	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:22	EPA 8260D	
Vinyl chloride	**0.270**	---	0.200	ug/L	1	10/29/24 04:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 04:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/29/24 04:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*10/29/24 04:22*	*EPA 8260D*	
MW11-1-102324 (A4J1710-19)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 04:43	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-1-102324 (A4J1710-19)				**Matrix: Water**		**Batch: 24J1074**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
cis-1,2-Dichloroethene	**1.10**	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 04:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 04:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 04:43	EPA 8260D	
Vinyl chloride	**0.600**	---	0.200	ug/L	1	10/29/24 04:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 04:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/29/24 04:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*10/29/24 04:43*	*EPA 8260D*	
MW11B-102324 (A4J1710-20)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	10/29/24 07:55	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-102324 (A4J1710-20)				**Matrix: Water**		**Batch: 24J1074**		
Chloroethane	ND	---	10.0	ug/L	2	10/29/24 07:55	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	10/29/24 07:55	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
cis-1,2-Dichloroethene	**104**	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	10/29/24 07:55	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Tetrachloroethene (PCE)	**1.38**	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-102324 (A4J1710-20)				**Matrix: Water**		**Batch: 24J1074**		
Trichloroethene (TCE)	**192**	---	0.800	ug/L	2	10/29/24 07:55	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	10/29/24 07:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	10/29/24 07:55	EPA 8260D	
Vinyl chloride	**1.74**	---	0.400	ug/L	2	10/29/24 07:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*10/29/24 07:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 07:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/29/24 07:55*	*EPA 8260D*	
MW2B-102424 (A4J1710-21)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 08:17	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
cis-1,2-Dichloroethene	**51.4**	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	

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Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-102424 (A4J1710-21)				**Matrix: Water**		**Batch: 24J1074**		
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Tetrachloroethene (PCE)	**6.90**	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Trichloroethene (TCE)	**1030**	---	4.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 08:17	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:17	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 08:17	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 08:17*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/29/24 08:17*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*10/29/24 08:17*	*EPA 8260D*	
MW2C-102424-U (A4J1710-22)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 08:38	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-102424-U (A4J1710-22)				**Matrix: Water**		**Batch: 24J1074**		
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
cis-1,2-Dichloroethene	**37.3**	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 08:38	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Tetrachloroethene (PCE)	**5.60**	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Trichloroethene (TCE)	**847**	---	4.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 08:38	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:38	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-102424-U (A4J1710-22)				**Matrix: Water**		**Batch: 24J1074**		
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 08:38	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 110 %*		*Limits: 80-120 %*	*1*	*10/29/24 08:38*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 08:38*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 08:38*	*EPA 8260D*	
MW2C-102424-L (A4J1710-23)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 08:59	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
cis-1,2-Dichloroethene	**39.0**	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-102424-L (A4J1710-23)				**Matrix: Water**		**Batch: 24J1074**		
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Tetrachloroethene (PCE)	**5.60**	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Trichloroethene (TCE)	**848**	---	4.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 08:59	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 08:59	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 08:59	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*10/29/24 08:59*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*10/29/24 08:59*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*10/29/24 08:59*	*EPA 8260D*	
MW4-102424 (A4J1710-24)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 05:04	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-102424 (A4J1710-24)				**Matrix: Water**		**Batch: 24J1074**		
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 05:04	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 05:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:04	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 05:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*10/29/24 05:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*10/29/24 05:04*	*EPA 8260D*	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-102424 (A4J1710-24)				**Matrix: Water**		**Batch: 24J1074**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*	*1*	*10/29/24 05:04*	*EPA 8260D*	
MW5B-102424 (A4J1710-25)				**Matrix: Water**		**Batch: 24J1074**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 05:25	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5B-102424 (A4J1710-25)				**Matrix: Water**		**Batch: 24J1074**		
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 05:25	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 05:25	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 05:25	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 05:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*10/29/24 05:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 05:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/29/24 05:25*	*EPA 8260D*	
MW7B-102424 (A4J1710-26)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 19:44	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW7B-102424 (A4J1710-26)				**Matrix: Water**		**Batch: 24J1081**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 19:44	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 19:44	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 19:44	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 19:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 19:44*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*10/28/24 19:44*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 19:44*	*EPA 8260D*	
MW13-2-102424 (A4J1710-27)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW13-2-102424 (A4J1710-27)				**Matrix: Water**		**Batch: 24J1081**		
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 20:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
cis-1,2-Dichloroethene	**1.75**	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW13-2-102424 (A4J1710-27)				**Matrix: Water**		**Batch: 24J1081**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
Trichloroethene (TCE)	**12.4**	---	0.400	ug/L	1	10/28/24 20:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 20:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:07	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 20:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*10/28/24 20:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*10/28/24 20:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*10/28/24 20:07*	*EPA 8260D*	
MW14-102424 (A4J1710-28)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 20:29	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-102424 (A4J1710-28)				**Matrix: Water**		**Batch: 24J1081**		
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
cis-1,2-Dichloroethene	**4.50**	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
Trichloroethene (TCE)	**4.40**	---	0.400	ug/L	1	10/28/24 20:29	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 20:29	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:29	EPA 8260D	
Vinyl chloride	**0.200**	---	0.200	ug/L	1	10/28/24 20:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:* *80-120 %*	*1*	*10/28/24 20:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*10/28/24 20:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 20:29*	*EPA 8260D*	
MW14-102424-DUP (A4J1710-29)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-102424-DUP (A4J1710-29)				**Matrix: Water**		**Batch: 24J1081**		
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 20:52	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
cis-1,2-Dichloroethene	**4.56**	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:52	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-102424-DUP (A4J1710-29)				**Matrix: Water**		**Batch: 24J1081**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
Trichloroethene (TCE)	**3.22**	---	0.400	ug/L	1	10/28/24 20:52	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 20:52	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 20:52	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 20:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*10/28/24 20:52*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*	*80-120 %*	*1*	*10/28/24 20:52*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 20:52*	*EPA 8260D*	
MW15-1-102424 (A4J1710-30)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 21:15	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-1-102424 (A4J1710-30)				**Matrix: Water**		**Batch: 24J1081**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
cis-1,2-Dichloroethene	**0.510**	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
Trichloroethene (TCE)	**0.750**	---	0.400	ug/L	1	10/28/24 21:15	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 21:15	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:15	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 21:15	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 21:15*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*10/28/24 21:15*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*10/28/24 21:15*	*EPA 8260D*	
MW15-2-102424 (A4J1710-31)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-2-102424 (A4J1710-31)				**Matrix: Water**		**Batch: 24J1081**		
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 21:37	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
cis-1,2-Dichloroethene	**3.07**	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-2-102424 (A4J1710-31)				**Matrix: Water**		**Batch: 24J1081**		
Trichloroethene (TCE)	**7.43**	---	0.400	ug/L	1	10/28/24 21:37	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 21:37	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 21:37	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 21:37	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*10/28/24 21:37*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*10/28/24 21:37*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/28/24 21:37*	*EPA 8260D*	
MW15B-102424 (A4J1710-32)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 22:00	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15B-102424 (A4J1710-32)				**Matrix: Water**		**Batch: 24J1081**		
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
Tetrachloroethene (PCE)	**1.54**	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
Trichloroethene (TCE)	**0.690**	---	0.400	ug/L	1	10/28/24 22:00	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 22:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:00	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 22:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*10/28/24 22:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*	*80-120 %*	*1*	*10/28/24 22:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/28/24 22:00*	*EPA 8260D*	
MW16B-102424 (A4J1710-33)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 22:22	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW16B-102424 (A4J1710-33)				**Matrix: Water**		**Batch: 24J1081**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 22:22	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 22:22	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 22:22	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 22:22	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW16B-102424 (A4J1710-33)				**Matrix: Water**		**Batch: 24J1081**		
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 22:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*	*1*	*10/28/24 22:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*110 %*	*80-120 %*	*1*	*10/28/24 22:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 22:22*	*EPA 8260D*	
MW17B-102424-U (A4J1710-34)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/29/24 00:59	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/29/24 00:59	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/29/24 00:59	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
cis-1,2-Dichloroethene	**24.8**	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-102424-U (A4J1710-34)				**Matrix: Water**		**Batch: 24J1081**		
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/29/24 00:59	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
Tetrachloroethene (PCE)	**3.10**	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 00:59	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Trichloroethene (TCE)	**306**	---	2.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/29/24 00:59	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/29/24 00:59	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits:* *80-120 %*	*1*	*10/29/24 00:59*	*EPA 8260D*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*10/29/24 00:59*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*10/29/24 00:59*	*EPA 8260D*	
MW17B-102424-L (A4J1710-35)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	10/29/24 00:37	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/29/24 00:37	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/29/24 00:37	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-102424-L (A4J1710-35)				**Matrix: Water**		**Batch: 24J1081**		
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
cis-1,2-Dichloroethene	**25.1**	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/29/24 00:37	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
Tetrachloroethene (PCE)	**3.05**	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/29/24 00:37	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Trichloroethene (TCE)	**296**	---	2.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/29/24 00:37	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/29/24 00:37	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits:*	*80-120 %*	*10/29/24 00:37*	*EPA 8260D*	
Toluene-d8 (Surr)			*108 %*		*80-120 %*	*10/29/24 00:37*	*EPA 8260D*	

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-102424-L (A4J1710-35)				**Matrix: Water**		**Batch: 24J1081**		
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 95 %*	*Limits: 80-120 %*	*1*	*10/29/24 00:37*	*EPA 8260D*	
MW18B-102424-U (A4J1710-36)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	10/28/24 23:07	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	10/28/24 23:07	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	10/28/24 23:07	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1-Dichloroethene	**26.5**	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
cis-1,2-Dichloroethene	**503**	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-102424-U (A4J1710-36)				**Matrix: Water**		**Batch: 24J1081**		
Hexachlorobutadiene	ND	---	125	ug/L	25	10/28/24 23:07	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
Tetrachloroethene (PCE)	**42.5**	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Trichloroethene (TCE)	**3900**	---	10.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	10/28/24 23:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:07	EPA 8260D	
Vinyl chloride	**19.8**	---	5.00	ug/L	25	10/28/24 23:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 23:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*10/28/24 23:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*	*1*	*10/28/24 23:07*	*EPA 8260D*	
MW18B-102424-L (A4J1710-37)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	10/28/24 23:52	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	10/28/24 23:52	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	10/28/24 23:52	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-102424-L (A4J1710-37)				**Matrix: Water**		**Batch: 24J1081**		
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1-Dichloroethene	**25.2**	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
cis-1,2-Dichloroethene	**585**	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	10/28/24 23:52	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
Tetrachloroethene (PCE)	**50.8**	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Trichloroethene (TCE)	**4780**	---	10.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	10/28/24 23:52	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	10/28/24 23:52	EPA 8260D	
Vinyl chloride	**17.2**	---	5.00	ug/L	25	10/28/24 23:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*	*1*	*10/28/24 23:52*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*		*80-120 %*	*1*	*10/28/24 23:52*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*	*1*	*10/28/24 23:52*	*EPA 8260D*	
Trip-102424-A (A4J1710-38)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-102424-A (A4J1710-38)				**Matrix: Water**		**Batch: 24J1081**		
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 17:30	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-102424-A (A4J1710-38)				**Matrix: Water**		**Batch: 24J1081**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 17:30	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 17:30	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:30	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 17:30	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits: 80-120 %*	*1*	*10/28/24 17:30*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*10/28/24 17:30*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/28/24 17:30*	*EPA 8260D*	
Trip-102424-B (A4J1710-39)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/28/24 17:52	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-102424-B (A4J1710-39)				**Matrix: Water**		**Batch: 24J1081**		
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/28/24 17:52	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/28/24 17:52	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/28/24 17:52	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/28/24 17:52	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*10/28/24 17:52*	*EPA 8260D*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*10/28/24 17:52*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/28/24 17:52*	*EPA 8260D*	
EW6-102324-DUP (A4J1710-40)				**Matrix: Water**		**Batch: 24J1081**		
Bromobenzene	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-102324-DUP (A4J1710-40)				**Matrix: Water**		**Batch: 24J1081**		
Bromomethane	ND	---	25.0	ug/L	5	10/28/24 22:45	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	10/28/24 22:45	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	10/28/24 22:45	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
cis-1,2-Dichloroethene	**62.2**	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	10/28/24 22:45	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
Tetrachloroethene (PCE)	**2.75**	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 22:45	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-102324-DUP (A4J1710-40)				**Matrix: Water**		**Batch: 24J1081**		
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	10/28/24 22:45	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Trichloroethene (TCE)	**358**	---	2.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	10/28/24 22:45	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	10/28/24 22:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:* *80-120 %*	*1*	*10/28/24 22:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*10/28/24 22:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/28/24 22:45*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Blank (24J1057-BLK1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 12:14									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Blank (24J1057-BLK1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 12:14									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24J1057-BS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 11:23									
EPA 8260D												
Bromobenzene	17.1	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromomethane	25.8	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	22.6	---	5.00	ug/L	1	20.0	---	113	80-120%	---	---	
Chloroform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	16.9	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
2-Chlorotoluene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromomethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
LCS (24J1057-BS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 11:23									
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloroethane	18.3	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,2-Dichloroethene	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloropropane	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
1,3-Dichloropropane	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
2,2-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,3-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	18.6	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
Methylene chloride	16.8	---	10.0	ug/L	1	20.0	---	84	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Tetrachloroethene (PCE)	19.7	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	16.8	---	2.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,1,2-Trichloroethane	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1-Trichloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	17.1	---	0.400	ug/L	1	20.0	---	85	80-120%	---	---	
Trichlorofluoromethane	27.1	---	2.00	ug/L	1	20.0	---	**136**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Vinyl chloride	19.7	---	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									

QC Source Sample: INF-102324 (A4J1710-01)

EPA 8260D

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									
QC Source Sample: INF-102324 (A4J1710-01)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**73.5**	---	2.00	ug/L	5	---	69.0	---	---	6	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Duplicate (24J1057-DUP1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 20:52									
QC Source Sample: INF-102324 (A4J1710-01)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**3.85**	---	2.00	ug/L	5	---	3.35	---	---	14	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**278**	---	2.00	ug/L	5	---	265	---	---	5	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	**1.00**	---	1.00	ug/L	5	---	0.550	---	---	**58**	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (24J1057-MS1)			Prepared: 10/28/24 10:02 Analyzed: 10/28/24 21:35									
QC Source Sample: DPE8-102324 (A4J1710-05)												
EPA 8260D												
Bromobenzene	87.8	---	2.50	ug/L	5	100	ND	88	80-120%	---	---	
Bromochloromethane	107	---	5.00	ug/L	5	100	ND	107	78-123%	---	---	
Bromodichloromethane	109	---	5.00	ug/L	5	100	ND	109	79-125%	---	---	
Bromoform	105	---	5.00	ug/L	5	100	ND	105	66-130%	---	---	
Bromomethane	138	---	25.0	ug/L	5	100	ND	138	53-141%	---	---	Q-54j
Carbon tetrachloride	121	---	5.00	ug/L	5	100	ND	121	72-136%	---	---	
Chlorobenzene	100	---	2.50	ug/L	5	100	ND	100	80-120%	---	---	
Chloroethane	134	---	25.0	ug/L	5	100	ND	134	60-138%	---	---	
Chloroform	110	---	5.00	ug/L	5	100	ND	110	79-124%	---	---	
Chloromethane	95.7	---	25.0	ug/L	5	100	ND	96	50-139%	---	---	
2-Chlorotoluene	95.5	---	5.00	ug/L	5	100	ND	96	79-122%	---	---	
4-Chlorotoluene	96.8	---	5.00	ug/L	5	100	ND	97	78-122%	---	---	
Dibromochloromethane	101	---	5.00	ug/L	5	100	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	71.0	---	25.0	ug/L	5	100	ND	71	62-128%	---	---	Q-54k
1,2-Dibromoethane (EDB)	92.4	---	2.50	ug/L	5	100	ND	92	77-121%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1710 - 11 07 24 1642

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1057 - EPA 5030C							**Water**					
Matrix Spike (24J1057-MS1)			Prepared: 10/28/24 10:02		Analyzed: 10/28/24 21:35							
QC Source Sample: DPE8-102324 (A4J1710-05)												
Dibromomethane	98.8	---	5.00	ug/L	5	100	ND	99	79-123%	---	---	
1,2-Dichlorobenzene	87.6	---	2.50	ug/L	5	100	ND	88	80-120%	---	---	
1,3-Dichlorobenzene	94.4	---	2.50	ug/L	5	100	ND	94	80-120%	---	---	
1,4-Dichlorobenzene	94.1	---	2.50	ug/L	5	100	ND	94	79-120%	---	---	
Dichlorodifluoromethane	96.6	---	5.00	ug/L	5	100	ND	97	32-152%	---	---	
1,1-Dichloroethane	103	---	2.00	ug/L	5	100	ND	103	77-125%	---	---	
1,2-Dichloroethane (EDC)	109	---	2.00	ug/L	5	100	ND	109	73-128%	---	---	
1,1-Dichloroethene	111	---	2.00	ug/L	5	100	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	119	---	2.00	ug/L	5	100	16.0	103	78-123%	---	---	
trans-1,2-Dichloroethene	102	---	2.00	ug/L	5	100	ND	102	75-124%	---	---	
1,2-Dichloropropane	98.0	---	2.50	ug/L	5	100	ND	98	78-122%	---	---	
1,3-Dichloropropane	92.2	---	5.00	ug/L	5	100	ND	92	80-120%	---	---	
2,2-Dichloropropane	102	---	5.00	ug/L	5	100	ND	102	60-139%	---	---	
1,1-Dichloropropene	102	---	5.00	ug/L	5	100	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	85.8	---	5.00	ug/L	5	100	ND	86	75-124%	---	---	
trans-1,3-Dichloropropene	99.8	---	5.00	ug/L	5	100	ND	100	73-127%	---	---	
Hexachlorobutadiene	85.0	---	25.0	ug/L	5	100	ND	85	66-134%	---	---	
Methylene chloride	90.4	---	50.0	ug/L	5	100	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	105	---	2.00	ug/L	5	100	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	93.6	---	2.50	ug/L	5	100	ND	94	71-121%	---	---	
Tetrachloroethene (PCE)	106	---	2.00	ug/L	5	100	7.40	98	74-129%	---	---	
1,2,3-Trichlorobenzene	79.6	---	10.0	ug/L	5	100	ND	80	69-129%	---	---	
1,1,2-Trichloroethane	92.6	---	2.50	ug/L	5	100	ND	93	80-120%	---	---	
1,2,4-Trichlorobenzene	78.7	---	10.0	ug/L	5	100	ND	79	69-130%	---	---	
1,1,1-Trichloroethane	111	---	2.00	ug/L	5	100	ND	111	74-131%	---	---	
Trichloroethene (TCE)	488	---	2.00	ug/L	5	100	413	**75**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	141	---	10.0	ug/L	5	100	ND	141	65-141%	---	---	Q-54d
1,2,3-Trichloropropane	87.6	---	5.00	ug/L	5	100	ND	88	73-122%	---	---	
Vinyl chloride	111	---	1.00	ug/L	5	100	ND	111	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*94 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				

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Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
Blank (24J1074-BLK1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 00:27									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
Blank (24J1074-BLK1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 00:27									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (24J1074-BS1)			Prepared: 10/28/24 14:50 Analyzed: 10/28/24 23:44									
EPA 8260D												
Bromobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Bromochloromethane	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromomethane	26.8	---	5.00	ug/L	1	20.0	---	**134**	**80-120%**	---	---	Q-56
Carbon tetrachloride	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Chlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroethane	25.8	---	5.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
Chloroform	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Chloromethane	18.8	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
2-Chlorotoluene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromochloromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.2	---	5.00	ug/L	1	20.0	---	**76**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromomethane	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichlorobenzene	18.5	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1710 - 11 07 24 1642

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
LCS (24J1074-BS1)			Prepared: 10/28/24 14:50 Analyzed: 10/28/24 23:44									
1,3-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,4-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dichlorodifluoromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloroethane	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
2,2-Dichloropropane	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloropropene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,3-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Hexachlorobutadiene	17.4	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
Methylene chloride	18.0	---	10.0	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.1	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Tetrachloroethene (PCE)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	16.8	---	2.00	ug/L	1	20.0	---	84	80-120%	---	---	
1,1,2-Trichloroethane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	15.8	---	2.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	19.3	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichlorofluoromethane	27.9	---	2.00	ug/L	1	20.0	---	**139**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Vinyl chloride	22.2	---	0.200	ug/L	1	20.0	---	111	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*93 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*94 %*			*80-120 %*			*"*			
Duplicate (24J1074-DUP1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 06:51									

QC Source Sample: EW4-102324 (A4J1710-06)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
Duplicate (24J1074-DUP1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 06:51									
QC Source Sample: EW4-102324 (A4J1710-06)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	3.30	---	---	***	**30%**	Q-17
cis-1,2-Dichloroethene	**277**	---	4.00	ug/L	10	---	302	---	---	8	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
Duplicate (24J1074-DUP1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 06:51									
QC Source Sample: EW4-102324 (A4J1710-06)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**12.1**	---	4.00	ug/L	10	---	13.7	---	---	12	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1100**	---	4.00	ug/L	10	---	1200	---	---	9	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (24J1074-MS1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 05:47									
QC Source Sample: MW5B-102424 (A4J1710-25)												
EPA 8260D												
Bromobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
Bromochloromethane	22.5	---	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	24.1	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
Bromoform	20.9	---	1.00	ug/L	1	20.0	ND	105	66-130%	---	---	
Bromomethane	25.5	---	5.00	ug/L	1	20.0	ND	127	53-141%	---	---	Q-54c
Carbon tetrachloride	27.9	---	1.00	ug/L	1	20.0	ND	**139**	**72-136%**	---	---	Q-01
Chlorobenzene	21.1	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	28.9	---	5.00	ug/L	1	20.0	ND	**145**	**60-138%**	---	---	Q-54j
Chloroform	22.8	---	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	
Chloromethane	19.9	---	5.00	ug/L	1	20.0	ND	100	50-139%	---	---	
2-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	ND	99	78-122%	---	---	
Dibromochloromethane	21.1	---	1.00	ug/L	1	20.0	ND	106	74-126%	---	---	
1,2-Dibromo-3-chloropropane	16.0	---	5.00	ug/L	1	20.0	ND	80	62-128%	---	---	Q-54n
1,2-Dibromoethane (EDB)	19.7	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1074 - EPA 5030C							**Water**					
Matrix Spike (24J1074-MS1)			Prepared: 10/28/24 14:50 Analyzed: 10/29/24 05:47									
QC Source Sample: MW5B-102424 (A4J1710-25)												
Dibromomethane	21.8	---	1.00	ug/L	1	20.0	ND	109	79-123%	---	---	
1,2-Dichlorobenzene	18.5	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.5	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
1,4-Dichlorobenzene	19.3	---	0.500	ug/L	1	20.0	ND	96	79-120%	---	---	
Dichlorodifluoromethane	21.2	---	1.00	ug/L	1	20.0	ND	106	32-152%	---	---	
1,1-Dichloroethane	21.6	---	0.400	ug/L	1	20.0	ND	108	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.8	---	0.400	ug/L	1	20.0	ND	114	73-128%	---	---	
1,1-Dichloroethene	23.1	---	0.400	ug/L	1	20.0	ND	115	71-131%	---	---	
cis-1,2-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	0.370	105	78-123%	---	---	
trans-1,2-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	75-124%	---	---	
1,2-Dichloropropane	19.6	---	0.500	ug/L	1	20.0	ND	98	78-122%	---	---	
1,3-Dichloropropane	19.7	---	1.00	ug/L	1	20.0	ND	98	80-120%	---	---	
2,2-Dichloropropane	19.1	---	1.00	ug/L	1	20.0	ND	95	60-139%	---	---	
1,1-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	ND	104	79-125%	---	---	
cis-1,3-Dichloropropene	17.7	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	21.1	---	1.00	ug/L	1	20.0	ND	106	73-127%	---	---	
Hexachlorobutadiene	17.7	---	5.00	ug/L	1	20.0	ND	89	66-134%	---	---	
Methylene chloride	19.5	---	10.0	ug/L	1	20.0	ND	98	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.2	---	0.400	ug/L	1	20.0	ND	111	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.0	---	0.500	ug/L	1	20.0	ND	105	71-121%	---	---	
Tetrachloroethene (PCE)	20.7	---	0.400	ug/L	1	20.0	ND	104	74-129%	---	---	
1,2,3-Trichlorobenzene	16.7	---	2.00	ug/L	1	20.0	ND	84	69-129%	---	---	
1,1,2-Trichloroethane	19.0	---	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
1,2,4-Trichlorobenzene	16.0	---	2.00	ug/L	1	20.0	ND	80	69-130%	---	---	Q-54k
1,1,1-Trichloroethane	23.3	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	18.6	---	0.400	ug/L	1	20.0	ND	93	79-123%	---	---	
Trichlorofluoromethane	30.0	---	2.00	ug/L	1	20.0	ND	**150**	**65-141%**	---	---	Q-54e
1,2,3-Trichloropropane	18.6	---	1.00	ug/L	1	20.0	ND	93	73-122%	---	---	
Vinyl chloride	24.6	---	0.200	ug/L	1	20.0	ND	123	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*94 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
Blank (24J1081-BLK1)			Prepared: 10/28/24 14:00 Analyzed: 10/28/24 17:07									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
Blank (24J1081-BLK1)			Prepared: 10/28/24 14:00 Analyzed: 10/28/24 17:07									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
LCS (24J1081-BS1)			Prepared: 10/28/24 14:00 Analyzed: 10/28/24 16:22									
EPA 8260D												
Bromobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromodichloromethane	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromoform	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromomethane	29.9	---	5.00	ug/L	1	20.0	---	**149**	**80-120%**	---	---	Q-56
Carbon tetrachloride	24.2	---	1.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
Chlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	30.0	---	5.00	ug/L	1	20.0	---	**150**	**80-120%**	---	---	Q-56
Chloroform	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	15.0	---	5.00	ug/L	1	20.0	---	**75**	**80-120%**	---	---	Q-55
2-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromochloromethane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.7	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Dibromomethane	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
LCS (24J1081-BS1)			Prepared: 10/28/24 14:00 Analyzed: 10/28/24 16:22									
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Dichlorodifluoromethane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethane	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethene	24.0	---	0.400	ug/L	1	20.0	---	120	80-120%	---	---	
cis-1,2-Dichloroethene	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichloropropane	19.7	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloropropene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,3-Dichloropropene	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Hexachlorobutadiene	17.3	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
Methylene chloride	19.4	---	10.0	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.8	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Tetrachloroethene (PCE)	19.3	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	17.6	---	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,2-Trichloroethane	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	22.2	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
Trichloroethene (TCE)	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
Trichlorofluoromethane	37.5	---	2.00	ug/L	1	20.0	---	**188**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Vinyl chloride	22.4	---	0.200	ug/L	1	20.0	---	112	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				

Duplicate (24J1081-DUP1) Prepared: 10/28/24 16:49 Analyzed: 10/28/24 23:29

QC Source Sample: MW18B-102424-U (A4J1710-36)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
Duplicate (24J1081-DUP1)			Prepared: 10/28/24 16:49 Analyzed: 10/28/24 23:29									
QC Source Sample: MW18B-102424-U (A4J1710-36)												
Bromobenzene	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Bromoform	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Bromomethane	ND	---	125	ug/L	25	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
Chloroethane	ND	---	125	ug/L	25	---	ND	---	---	---	30%	
Chloroform	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Chloromethane	ND	---	125	ug/L	25	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
Dibromomethane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	---	ND	---	---	---	30%	
1,1-Dichloroethene	**29.8**	---	10.0	ug/L	25	---	26.5	---	---	12	30%	
cis-1,2-Dichloroethene	**561**	---	10.0	ug/L	25	---	503	---	---	11	30%	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	---	5.50	---	---	***	30%	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	125	ug/L	25	---	ND	---	---	---	30%	
Methylene chloride	ND	---	250	ug/L	25	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
Duplicate (24J1081-DUP1)			Prepared: 10/28/24 16:49 Analyzed: 10/28/24 23:29									
QC Source Sample: MW18B-102424-U (A4J1710-36)												
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**49.5**	---	10.0	ug/L	25	---	42.5	---	---	15	30%	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**4340**	---	10.0	ug/L	25	---	3900	---	---	11	30%	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	---	ND	---	---	---	30%	
Vinyl chloride	**22.5**	---	5.00	ug/L	25	---	19.8	---	---	13	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 117 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*107 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*				*"*			
Matrix Spike (24J1081-MS1)			Prepared: 10/28/24 16:49 Analyzed: 10/29/24 01:22									
QC Source Sample: MW17B-102424-U (A4J1710-34)												
EPA 8260D												
Bromobenzene	88.6	---	2.50	ug/L	5	100	ND	89	80-120%	---	---	
Bromochloromethane	117	---	5.00	ug/L	5	100	ND	117	78-123%	---	---	
Bromodichloromethane	114	---	5.00	ug/L	5	100	ND	114	79-125%	---	---	
Bromoform	99.2	---	5.00	ug/L	5	100	ND	99	66-130%	---	---	
Bromomethane	197	---	25.0	ug/L	5	100	ND	**197**	**53-141%**	---	---	Q-54g
Carbon tetrachloride	130	---	5.00	ug/L	5	100	ND	130	72-136%	---	---	Q-54
Chlorobenzene	104	---	2.50	ug/L	5	100	ND	104	80-120%	---	---	
Chloroethane	181	---	25.0	ug/L	5	100	ND	**181**	**60-138%**	---	---	Q-54h
Chloroform	112	---	5.00	ug/L	5	100	ND	112	79-124%	---	---	
Chloromethane	88.2	---	25.0	ug/L	5	100	ND	88	50-139%	---	---	Q-54o
2-Chlorotoluene	94.1	---	5.00	ug/L	5	100	ND	94	79-122%	---	---	
4-Chlorotoluene	103	---	5.00	ug/L	5	100	ND	103	78-122%	---	---	
Dibromochloromethane	107	---	5.00	ug/L	5	100	ND	107	74-126%	---	---	
1,2-Dibromo-3-chloropropane	76.6	---	25.0	ug/L	5	100	ND	77	62-128%	---	---	
1,2-Dibromoethane (EDB)	102	---	2.50	ug/L	5	100	ND	102	77-121%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1081 - EPA 5030C							**Water**					
Matrix Spike (24J1081-MS1)			Prepared: 10/28/24 16:49 Analyzed: 10/29/24 01:22									
QC Source Sample: MW17B-102424-U (A4J1710-34)												
Dibromomethane	110	---	5.00	ug/L	5	100	ND	110	79-123%	---	---	
1,2-Dichlorobenzene	94.9	---	2.50	ug/L	5	100	ND	95	80-120%	---	---	
1,3-Dichlorobenzene	102	---	2.50	ug/L	5	100	ND	102	80-120%	---	---	
1,4-Dichlorobenzene	99.6	---	2.50	ug/L	5	100	ND	100	79-120%	---	---	
Dichlorodifluoromethane	111	---	5.00	ug/L	5	100	ND	111	32-152%	---	---	
1,1-Dichloroethane	115	---	2.00	ug/L	5	100	ND	115	77-125%	---	---	
1,2-Dichloroethane (EDC)	111	---	2.00	ug/L	5	100	ND	111	73-128%	---	---	
1,1-Dichloroethene	129	---	2.00	ug/L	5	100	ND	129	71-131%	---	---	
cis-1,2-Dichloroethene	122	---	2.00	ug/L	5	100	24.8	97	78-123%	---	---	
trans-1,2-Dichloroethene	103	---	2.00	ug/L	5	100	ND	103	75-124%	---	---	
1,2-Dichloropropane	101	---	2.50	ug/L	5	100	ND	101	78-122%	---	---	
1,3-Dichloropropane	98.7	---	5.00	ug/L	5	100	ND	99	80-120%	---	---	
2,2-Dichloropropane	102	---	5.00	ug/L	5	100	ND	102	60-139%	---	---	
1,1-Dichloropropene	106	---	5.00	ug/L	5	100	ND	106	79-125%	---	---	
cis-1,3-Dichloropropene	81.0	---	5.00	ug/L	5	100	ND	81	75-124%	---	---	
trans-1,3-Dichloropropene	109	---	5.00	ug/L	5	100	ND	109	73-127%	---	---	
Hexachlorobutadiene	76.6	---	25.0	ug/L	5	100	ND	77	66-134%	---	---	
Methylene chloride	104	---	50.0	ug/L	5	100	ND	104	74-124%	---	---	
1,1,1,2-Tetrachloroethane	102	---	2.00	ug/L	5	100	ND	102	78-124%	---	---	
1,1,2,2-Tetrachloroethane	108	---	2.50	ug/L	5	100	ND	108	71-121%	---	---	
Tetrachloroethene (PCE)	97.2	---	2.00	ug/L	5	100	3.10	94	74-129%	---	---	
1,2,3-Trichlorobenzene	75.6	---	10.0	ug/L	5	100	ND	76	69-129%	---	---	
1,1,2-Trichloroethane	108	---	2.50	ug/L	5	100	ND	108	80-120%	---	---	
1,2,4-Trichlorobenzene	63.6	---	10.0	ug/L	5	100	ND	**64**	**69-130%**	---	---	Q-54l
1,1,1-Trichloroethane	123	---	2.00	ug/L	5	100	ND	123	74-131%	---	---	
Trichloroethene (TCE)	368	---	2.00	ug/L	5	100	306	**62**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	222	---	10.0	ug/L	5	100	ND	**222**	**65-141%**	---	---	Q-54i
1,2,3-Trichloropropane	104	---	5.00	ug/L	5	100	ND	104	73-122%	---	---	
Vinyl chloride	122	---	1.00	ug/L	5	100	ND	122	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr) — *Recovery: 103 %* — *Limits: 80-120 %* — *Dilution: 1x*
Toluene-d8 (Surr) — *99 %* — *80-120 %* — *"*
4-Bromofluorobenzene (Surr) — *83 %* — *80-120 %* — *"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Blank (24J1145-BLK1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 10:36									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Blank (24J1145-BLK1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 10:36									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24J1145-BS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 09:53									
EPA 8260D												
Bromobenzene	17.3	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromodichloromethane	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	26.7	---	5.00	ug/L	1	20.0	---	**134**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	21.9	---	5.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	18.5	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.4	---	5.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromomethane	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichlorobenzene	17.4	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
LCS (24J1145-BS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 09:53									
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1-Dichloroethane	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	17.5	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,3-Dichloropropane	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
2,2-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.7	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Tetrachloroethene (PCE)	19.2	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	16.4	---	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,1,2-Trichloroethane	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,4-Trichlorobenzene	15.6	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	17.4	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	26.7	---	2.00	ug/L	1	20.0	---	**133**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Vinyl chloride	20.3	---	0.200	ug/L	1	20.0	---	101	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*92 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24J1145-DUP1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27									
QC Source Sample: Non-SDG (A4J1750-21)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Duplicate (24J1145-DUP1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27									
QC Source Sample: Non-SDG (A4J1750-21)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1710 - 11 07 24 1642

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							Water					
Duplicate (24J1145-DUP1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27									
QC Source Sample: Non-SDG (A4J1750-21)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	2.50	---	---	***	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Matrix Spike (24J1145-MS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 19:36									
QC Source Sample: Non-SDG (A4J1822-03)												
EPA 8260D												
Bromobenzene	18.8	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
Bromochloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	78-123%	---	---	
Bromodichloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	21.2	---	1.00	ug/L	1	20.0	ND	106	66-130%	---	---	
Bromomethane	26.9	---	5.00	ug/L	1	20.0	ND	135	53-141%	---	---	Q-54c
Carbon tetrachloride	24.9	---	1.00	ug/L	1	20.0	ND	124	72-136%	---	---	
Chlorobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Chloroethane	26.3	---	5.00	ug/L	1	20.0	ND	131	60-138%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	19.1	---	5.00	ug/L	1	20.0	ND	96	50-139%	---	---	
2-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-122%	---	---	
4-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	ND	102	78-122%	---	---	
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	14.9	---	5.00	ug/L	1	20.0	ND	75	62-128%	---	---	Q-54m
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	ND	104	79-123%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Matrix Spike (24J1145-MS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 19:36									
QC Source Sample: Non-SDG (A4J1822-03)												
1,2-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
1,4-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	79-120%	---	---	
Dichlorodifluoromethane	17.9	---	1.00	ug/L	1	20.0	ND	90	32-152%	---	---	
1,1-Dichloroethane	20.0	---	0.400	ug/L	1	20.0	ND	100	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.400	ug/L	1	20.0	ND	110	73-128%	---	---	
1,1-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	ND	107	71-131%	---	---	
cis-1,2-Dichloroethene	20.2	---	0.400	ug/L	1	20.0	ND	101	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	18.9	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
1,3-Dichloropropane	18.4	---	1.00	ug/L	1	20.0	ND	92	80-120%	---	---	
2,2-Dichloropropane	21.6	---	1.00	ug/L	1	20.0	ND	108	60-139%	---	---	
1,1-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-125%	---	---	
cis-1,3-Dichloropropene	17.1	---	1.00	ug/L	1	20.0	ND	85	75-124%	---	---	
trans-1,3-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	ND	106	73-127%	---	---	
Hexachlorobutadiene	18.4	---	5.00	ug/L	1	20.0	ND	92	66-134%	---	---	
Methylene chloride	18.2	---	10.0	ug/L	1	20.0	ND	91	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.7	---	0.500	ug/L	1	20.0	ND	104	71-121%	---	---	
Tetrachloroethene (PCE)	20.1	---	0.400	ug/L	1	20.0	ND	100	74-129%	---	---	
1,2,3-Trichlorobenzene	17.0	---	2.00	ug/L	1	20.0	ND	85	69-129%	---	---	
1,1,2-Trichloroethane	18.3	---	0.500	ug/L	1	20.0	ND	91	80-120%	---	---	
1,2,4-Trichlorobenzene	16.1	---	2.00	ug/L	1	20.0	ND	81	69-130%	---	---	Q-54l
1,1,1-Trichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	17.7	---	0.400	ug/L	1	20.0	ND	88	79-123%	---	---	
Trichlorofluoromethane	29.2	---	2.00	ug/L	1	20.0	ND	**146**	**65-141%**	---	---	Q-54b
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	ND	88	73-122%	---	---	
Vinyl chloride	23.6	---	0.200	ug/L	1	20.0	ND	118	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 94 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*91 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
EPA 8260D												
Bromobenzene	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	---	**131**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	23.9	---	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	18.5	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
2-Chlorotoluene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromochloromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichlorobenzene	17.3	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1710 - 11 07 24 1642

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
1,3-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	17.3	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
1,3-Dichloropropane	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
2,2-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
cis-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,2-Trichloroethane	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,4-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	17.5	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	28.8	---	2.00	ug/L	1	20.0	---	**144**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.2	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Vinyl chloride	22.9	---	0.200	ug/L	1	20.0	---	115	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*93 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	2.00	---	---	***	**30%**	Q-17
cis-1,2-Dichloroethene	**110**	---	4.00	ug/L	10	---	107	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID: A4J1710 - 11 07 24 1642

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**4.50**	---	4.00	ug/L	10	---	6.20	---	---	**32**	**30%**	Q-17
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**734**	---	4.00	ug/L	10	---	752	---	---	3	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	**4.00**	---	2.00	ug/L	10	---	4.80	---	---	18	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: Non-SDG (A4J1883-27)												
EPA 8260D												
Bromobenzene	18.0	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
Bromochloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
Bromodichloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	22.3	---	1.00	ug/L	1	20.0	ND	111	66-130%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	ND	131	53-141%	---	---	Q-54a
Carbon tetrachloride	26.3	---	1.00	ug/L	1	20.0	ND	131	72-136%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Chloroethane	26.1	---	5.00	ug/L	1	20.0	ND	131	60-138%	---	---	
Chloroform	22.5	---	1.00	ug/L	1	20.0	ND	113	79-124%	---	---	
Chloromethane	20.9	---	5.00	ug/L	1	20.0	ND	104	50-139%	---	---	
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	74-126%	---	---	
1,2-Dibromo-3-chloropropane	15.4	---	5.00	ug/L	1	20.0	ND	77	62-128%	---	---	Q-54k
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	
Dibromomethane	20.5	---	1.00	ug/L	1	20.0	ND	102	79-123%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: Non-SDG (A4J1883-27)												
1,2-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	ND	96	79-120%	---	---	
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	20.9	---	0.400	ug/L	1	20.0	0.750	101	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	19.6	---	0.500	ug/L	1	20.0	ND	98	78-122%	---	---	
1,3-Dichloropropane	19.2	---	1.00	ug/L	1	20.0	ND	96	80-120%	---	---	
2,2-Dichloropropane	23.5	---	1.00	ug/L	1	20.0	ND	117	60-139%	---	---	
1,1-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	19.0	---	5.00	ug/L	1	20.0	ND	95	66-134%	---	---	
Methylene chloride	18.0	---	10.0	ug/L	1	20.0	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.4	---	0.400	ug/L	1	20.0	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.4	---	0.500	ug/L	1	20.0	ND	102	71-121%	---	---	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	0.450	106	74-129%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-129%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-130%	---	---	Q-54k
1,1,1-Trichloroethane	22.1	---	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
Trichloroethene (TCE)	26.3	---	0.400	ug/L	1	20.0	8.39	89	79-123%	---	---	
Trichlorofluoromethane	31.9	---	2.00	ug/L	1	20.0	ND	**160**	**65-141%**	---	---	Q-54f
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	ND	88	73-122%	---	---	
Vinyl chloride	23.0	---	0.200	ug/L	1	20.0	ND	115	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24J1057							
A4J1710-01	Water	EPA 8260D	10/23/24 11:12	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1710-02	Water	EPA 8260D	10/23/24 11:00	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1710-03	Water	EPA 8260D	10/23/24 16:30	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1710-04	Water	EPA 8260D	10/23/24 10:10	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
A4J1710-05	Water	EPA 8260D	10/23/24 09:58	10/28/24 10:02	5mL/5mL	5mL/5mL	1.00
Batch: 24J1074							
A4J1710-06	Water	EPA 8260D	10/23/24 09:20	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-08	Water	EPA 8260D	10/23/24 08:30	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-09	Water	EPA 8260D	10/23/24 08:54	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-10	Water	EPA 8260D	10/23/24 10:22	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-11	Water	EPA 8260D	10/23/24 11:50	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-12	Water	EPA 8260D	10/23/24 11:30	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-13	Water	EPA 8260D	10/23/24 12:18	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-14	Water	EPA 8260D	10/23/24 14:12	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-15	Water	EPA 8260D	10/23/24 14:30	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-16	Water	EPA 8260D	10/23/24 15:02	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-17	Water	EPA 8260D	10/23/24 13:22	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-18	Water	EPA 8260D	10/23/24 13:50	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-19	Water	EPA 8260D	10/23/24 15:30	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-20	Water	EPA 8260D	10/23/24 15:44	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-21	Water	EPA 8260D	10/24/24 09:42	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-22	Water	EPA 8260D	10/24/24 09:10	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-23	Water	EPA 8260D	10/24/24 09:20	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-24	Water	EPA 8260D	10/24/24 15:10	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
A4J1710-25	Water	EPA 8260D	10/24/24 13:30	10/28/24 14:51	5mL/5mL	5mL/5mL	1.00
Batch: 24J1081							
A4J1710-26	Water	EPA 8260D	10/24/24 14:40	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-27	Water	EPA 8260D	10/24/24 14:00	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-28	Water	EPA 8260D	10/24/24 12:25	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-29	Water	EPA 8260D	10/24/24 12:26	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-30	Water	EPA 8260D	10/24/24 10:36	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-31	Water	EPA 8260D	10/24/24 11:04	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-32	Water	EPA 8260D	10/24/24 11:22	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-33	Water	EPA 8260D	10/24/24 14:20	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-34	Water	EPA 8260D	10/24/24 08:30	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1710 - 11 07 24 1642

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A4J1710-35	Water	EPA 8260D	10/24/24 08:40	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-36	Water	EPA 8260D	10/24/24 10:00	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-37	Water	EPA 8260D	10/24/24 10:10	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-38	Water	EPA 8260D	10/23/24 07:00	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-39	Water	EPA 8260D	10/23/24 07:00	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
A4J1710-40	Water	EPA 8260D	10/23/24 08:31	10/28/24 16:49	5mL/5mL	5mL/5mL	1.00
Batch: 24J1145							
A4J1710-07RE1	Water	EPA 8260D	10/23/24 09:46	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
Batch: 24J1198							
A4J1710-07RE2	Water	EPA 8260D	10/23/24 09:46	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +16%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +19%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +24%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +29%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +30%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +68%. The results are reported as Estimated Values.
Q-54j	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-54k	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-54l	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54m	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**John Kuiper**	**A4J1710 - 11 07 24 1642**

Q-54n Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -4%. The results are reported as Estimated Values.

Q-54o Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -5%. The results are reported as Estimated Values.

Q-55 Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.

Q-56 Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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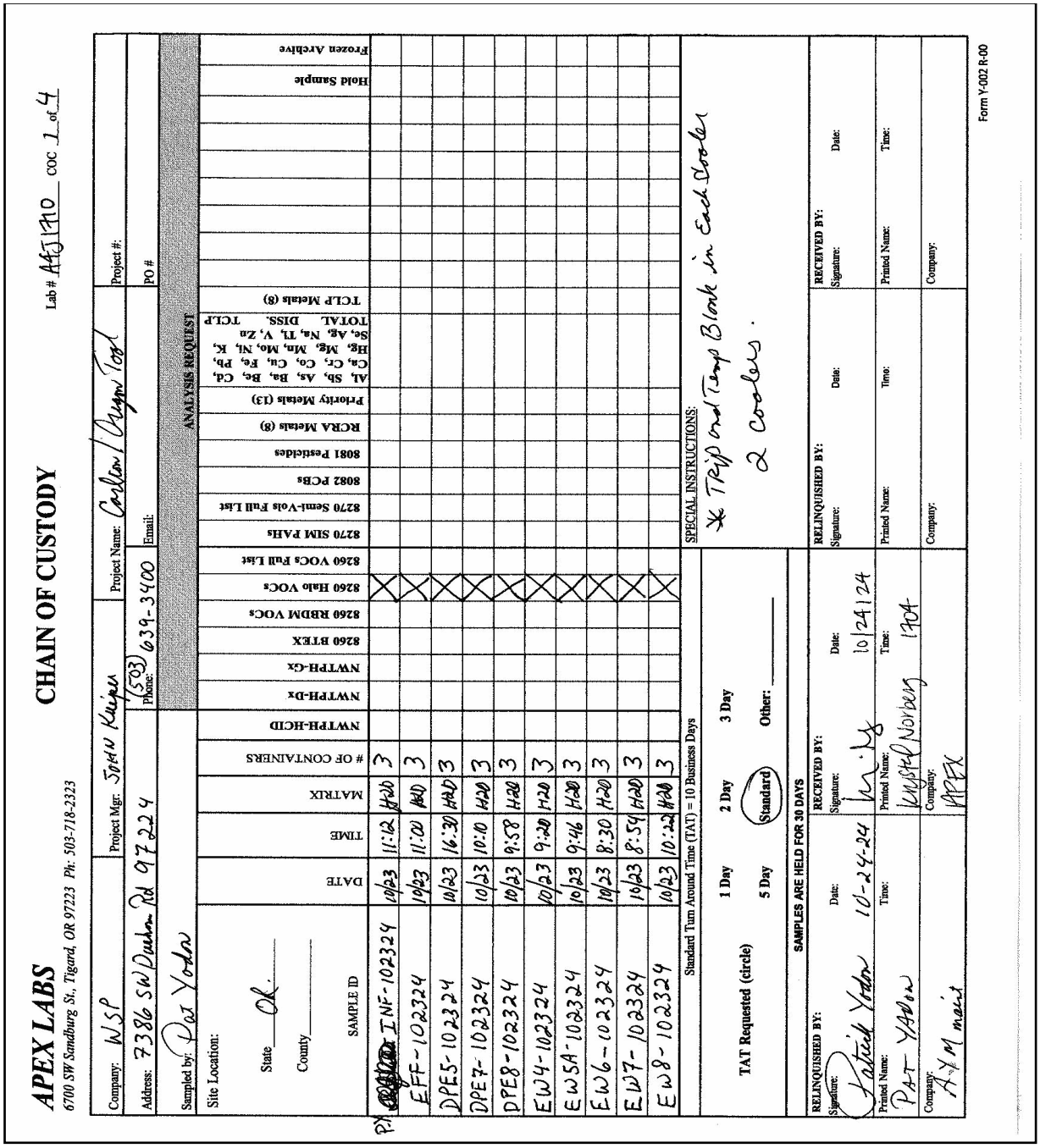
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4J1710 - 11 07 24 1642



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1710 COC 1 of 4

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Oregon Tool | Project #:
Address: 7386 SW Dublin Rd 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Pat Yodin

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
~~PX-102324~~ INF-102324	10/23	11:12	HW	3						X											
EFF-102324	10/23	11:20	HW	3						X											
DPE5-102324	10/23	16:30	HW	3						X											
DPE7-102324	10/23	10:10	HW	3						X											
DPE8-102324	10/23	9:58	HW	3						X											
EW4-102324	10/23	9:20	HW	3						X											
EW5A-102324	10/23	9:46	HW	3						X											
EW6-102324	10/23	8:30	HW	3						X											
EW7-102324	10/23	8:54	HW	3						X											
EW8-102324	10/23	10:22	HW	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
* Trip and Temp Blank in Each Cooler
2 coolers.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:		RELINQUISHED BY:		RECEIVED BY:	
Signature: Katie Yodin	Signature:	Date: 10/24/24	Signature:	Date:	Signature:	Date:
Printed Name: Pat Yodin	Printed Name: Kristen Norberg	Time: 1704	Printed Name:	Time:	Printed Name:	Time:
Company: APEX	Company: APEX		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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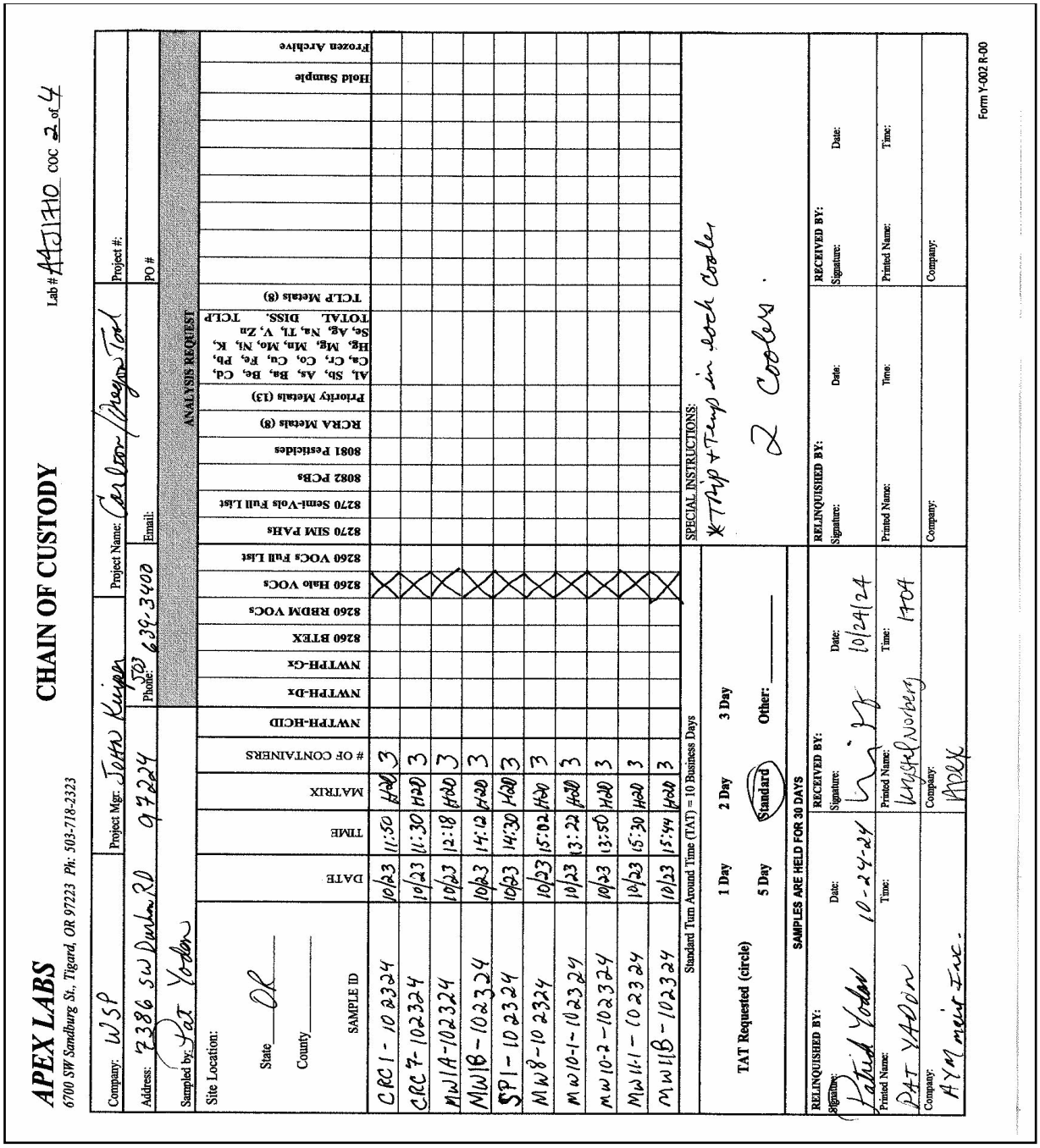
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4J1710 - 11 07 24 1642



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1710 COC 2 of 4

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Oregon Tool | Project #:
Address: 15386 SW Durham Rd 97224 | Phone: 639-3400 | Email: | PO #
Sampled by: Pat Yadon
Site Location: State OR County

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
CRC1 - 102324	10/23	11:50	HW	3						X											
CRC7- 102324	10/23	11:30	HW	3						X											
MW1A-102324	10/23	12:18	HW	3						X											
MW1B-102324	10/23	14:10	HW	3						X											
SP1- 102324	10/23	14:30	HW	3						X											
MW8-102324	10/23	15:02	HW	3						X											
MW10-1-102324	10/23	13:22	HW	3						X											
MW10-2-102324	10/23	13:50	HW	3						X											
MW11-1- 102324	10/23	15:30	HW	3						X											
MW11B- 102324	10/23	15:44	HW	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
*TMP + Temp in each cooler
2 Coolers.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:			Signature:			Signature:		
Printed Name: Pat Yadon	10-24-24	1704	Printed Name: Kristel Norberg			Printed Name:			Printed Name:		
Company: AYM Environ. Inc.			Company: WSP			Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

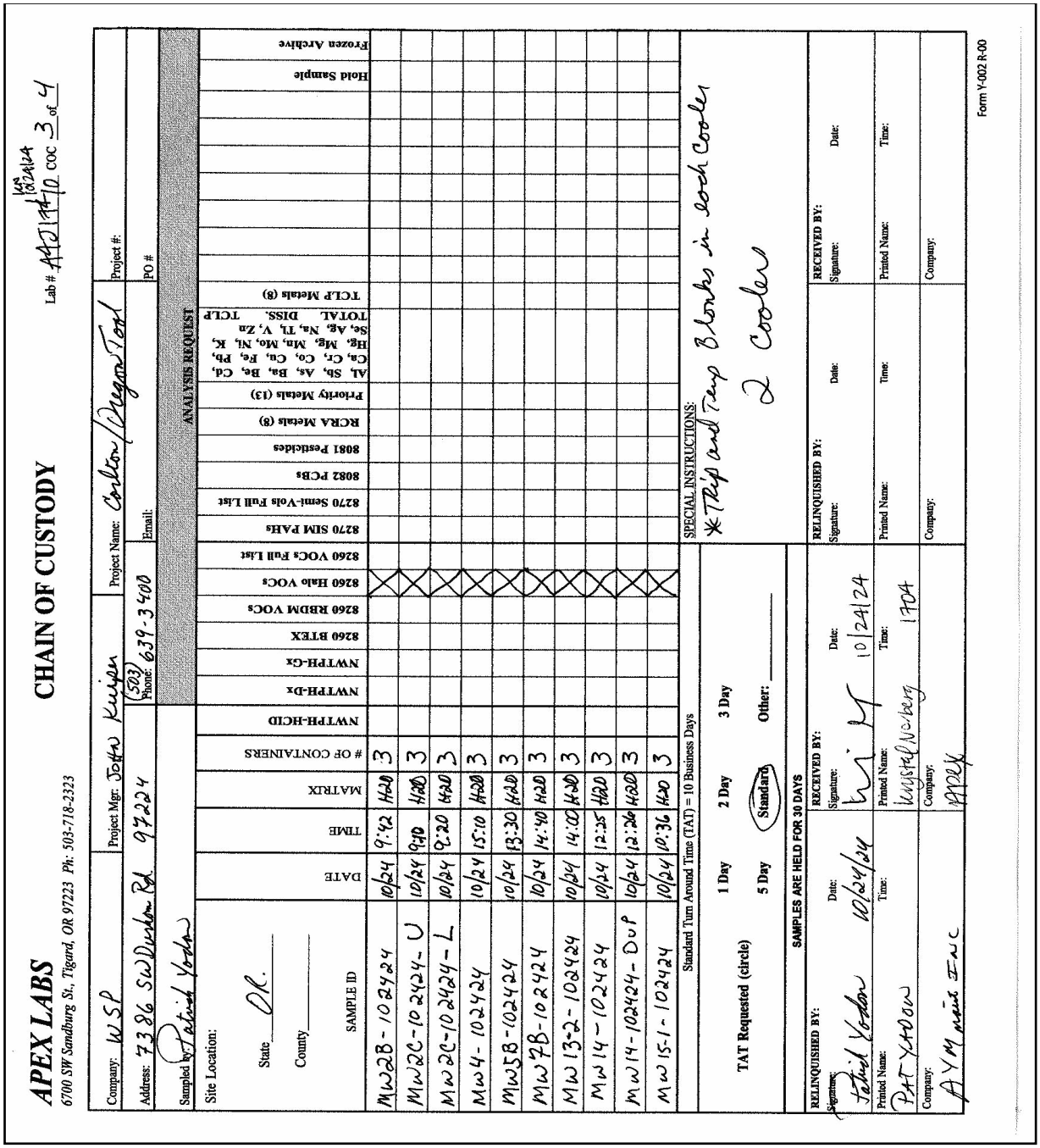
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1710 COC 3 of 4

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Oregon Tool | Project #:
Address: 7386 SW Dunham Rd. 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Patrick Yordon

ANALYSIS REQUEST

Site Location: State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW28-102424	10/24	9:42	H20	3						X											
MW2C-102424-U	10/24	9:40	H20	3						X											
MW2C-102424-L	10/24	9:20	H20	3						X											
MW4-102424	10/24	15:10	H20	3						X											
MW5B-102424	10/24	13:30	H20	3						X											
MW7B-102424	10/24	14:40	H20	3						X											
MW13-2-102424	10/24	14:00	H20	3						X											
MW14-102424	10/24	12:25	H20	3						X											
MW14-102424-Dup	10/24	12:26	H20	3						X											
MW15-1-102424	10/24	10:36	H20	3						X											

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: ____

SPECIAL INSTRUCTIONS:
*Trip and Temp Blanks in both Coolers
2 Coolers

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:			Signature:			Signature:			Signature:		
Printed Name: Patrick Yordon	10/24/24		Printed Name:	10/24/24	1704	Printed Name:			Printed Name:		
Company: AYM main Inc			Company:			Company:			Company:		

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

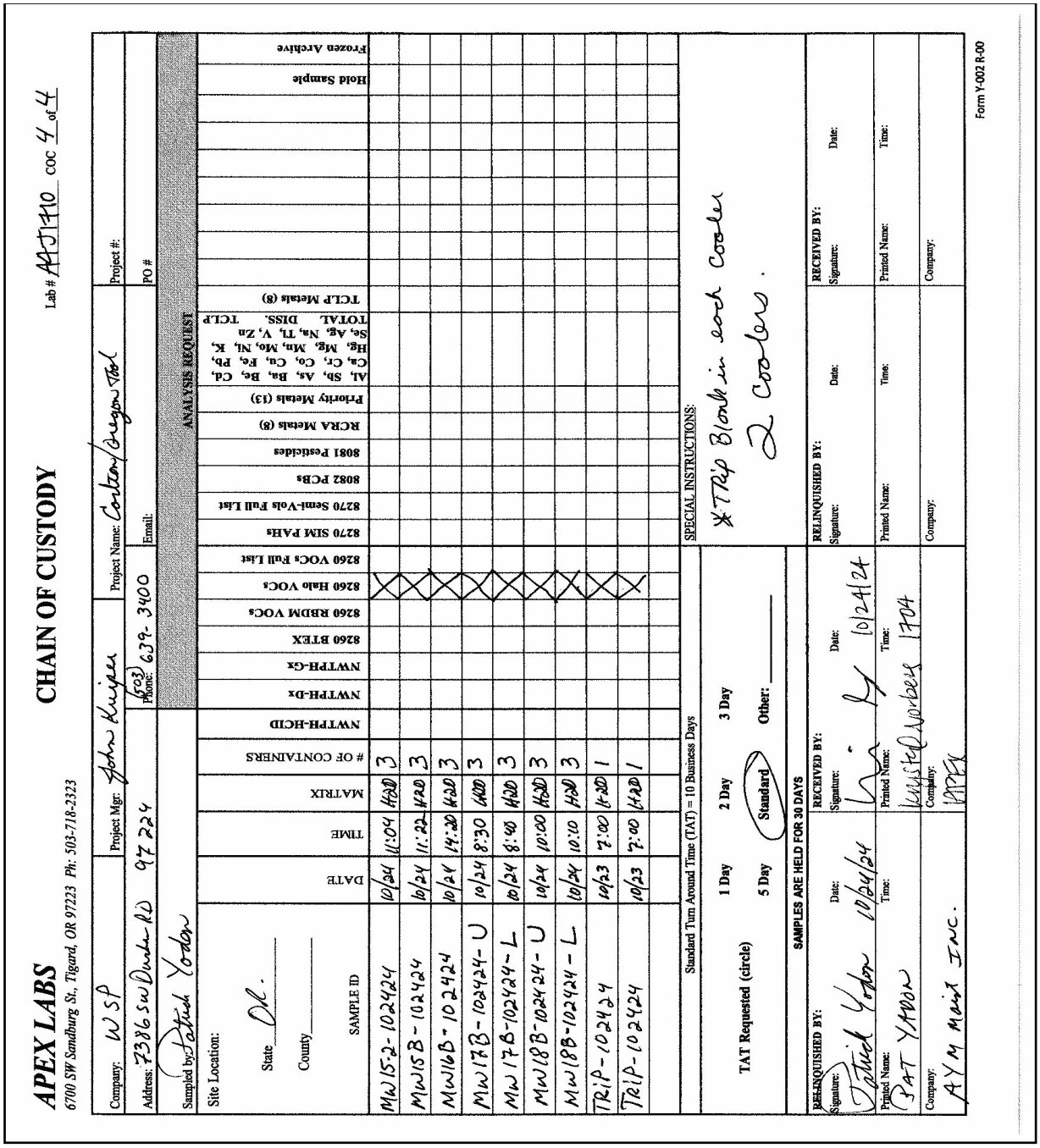
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1710 COC 4 of 4

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton/Oregon Tool | Project #:
Address: 7386 SW Durham Rd 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Patrick Yoder

Site Location: State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RRDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW15-2-102424	10/24	11:04	H2O	3						X											
MW18B-102424	10/24	11:22	H2O	3						X											
MW16B-102424	10/24	14:30	H2O	3						X											
MW17B-102424-U	10/24	8:30	H2O	3						X											
MW17B-102424-L	10/24	8:45	H2O	3						X											
MW18B-102424-U	10/24	10:00	H2O	3						X											
MW18B-102424-L	10/24	10:10	H2O	3						X											
TRIP-102424	10/23	7:00	H2O	1						X											
TRIP-102424	10/23	7:00	H2O	1						X											

SPECIAL INSTRUCTIONS:
* Trip Blank in each Cooler
2 Coolers.

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Patrick Yoder	10/24/24	Signature:		Signature:		Signature:	
Printed Name: PAT YODER	Time:	Printed Name:	Time:	Printed Name:	Time:	Printed Name:	Time:
Company: AYM Maint Inc.		Company:		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1710 - 11 07 24 1642**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 J1710

Project/Project #: Carlton / Oregon Tool

Delivery Info:

Date/time received: 10/24/24 @ 1704 By: KN

Delivered by: Apex Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

From USDA Regulated Origin? Yes ____ No ✓

Cooler Inspection Date/time inspected: 10/24/24 @ 1704 By: KN

Chain of Custody included? Yes ✓ No ____

Signed/dated by client? Yes ✓ No ____

Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	3.5	4.1					
Custody seals? (Y/N)	Y	Y					
Received on ice? (Y/N)	Y	Y					
Temp. blanks? (Y/N)	Y	Y					
Ice type: (Gel/Real/Other)	Real	Real					
Condition (In/Out):	in	in					

Cooler out of temp? (Y/(N)) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 10/24/24 @ 1804 By: KN

All samples intact? Yes ✓ No ___ Comments: ____

Bottle labels/COCs agree? Yes ✓ (KN 10/24/24) No ✓ Comments: One set of VOAs received not listed on COC "MW-6-102324-DUP" (KN 10/24/24) "2-Trip Blank" ID's read "Trip-102324" collected 10/23/24 @ 0831. Mac for KN 10/25/24

COC/container discrepancies form initiated? Yes ___ No ___

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No ✓ NA ___

Comments 3/3 VOAs have sed. on samples INF-102324, EN8-102324, MW13-2-102424

Water samples: pH checked: Yes ___ No ___ NA ✓ pH appropriate? Yes ___ No ___ NA ✓ pH ID: ____

Comments: ____

Labeled by: KN Witness: JA Cooler Inspected by: KN

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Thursday, November 7, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4J1750 - OR Tool/Carlton Remedy - 016M12372H

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4J1750, which was received by the laboratory on 10/25/2024 at 4:21:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-76-2-20241025	A4J1750-01	Water	10/25/24 10:00	10/25/24 16:21
B-45-20241025	A4J1750-02	Water	10/25/24 10:45	10/25/24 16:21
MW-78-2-20241025	A4J1750-03	Water	10/25/24 11:15	10/25/24 16:21
B-18-20241024	A4J1750-04	Water	10/24/24 16:50	10/25/24 16:21
B-10-20241024	A4J1750-05	Water	10/24/24 16:15	10/25/24 16:21
MW-72-2-20241024	A4J1750-06	Water	10/24/24 15:45	10/25/24 16:21
PI-B-13-20241024	A4J1750-07	Water	10/24/24 15:20	10/25/24 16:21
PI-B-10-20241024	A4J1750-08	Water	10/24/24 14:50	10/25/24 16:21
PI-B-07-20241024	A4J1750-09	Water	10/24/24 14:20	10/25/24 16:21
Dup-3-20241025	A4J1750-10	Water	10/25/24 00:00	10/25/24 16:21
PI-A-01-20241024	A4J1750-11	Water	10/24/24 13:45	10/25/24 16:21
MW-68-1-20241024	A4J1750-12	Water	10/24/24 13:05	10/25/24 16:21
PI-B-15-20241024	A4J1750-13	Water	10/24/24 12:35	10/25/24 16:21
MW-74-2-20241024	A4J1750-14	Water	10/24/24 11:50	10/25/24 16:21
PI-B-18-20241024	A4J1750-15	Water	10/24/24 11:20	10/25/24 16:21
MW-71-1-20241024	A4J1750-16	Water	10/24/24 10:50	10/25/24 16:21
Dup-2-20241024	A4J1750-17	Water	10/24/24 00:00	10/25/24 16:21
MW-53-2-20241023	A4J1750-18	Water	10/23/24 16:30	10/25/24 16:21
MW-52-2-20241023	A4J1750-19	Water	10/23/24 16:00	10/25/24 16:21
I-B-18-20241023	A4J1750-20	Water	10/23/24 15:35	10/25/24 16:21
I-B-16-20241023	A4J1750-21	Water	10/23/24 14:55	10/25/24 16:21
MW-50-2-20241023	A4J1750-22	Water	10/23/24 14:25	10/25/24 16:21
I-B-14-20241023	A4J1750-23	Water	10/23/24 13:55	10/25/24 16:21
MW-37-2-20241023	A4J1750-24	Water	10/23/24 13:30	10/25/24 16:21
MW-46-2-20241023	A4J1750-25	Water	10/23/24 13:00	10/25/24 16:21
I-B-9-20241023	A4J1750-26	Water	10/23/24 12:35	10/25/24 16:21
Trip Blank	A4J1750-27	Water	10/23/24 00:00	10/25/24 16:21

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-76-2-20241025 (A4J1750-01)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 14:41	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
cis-1,2-Dichloroethene	**1.24**	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 14:41	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-76-2-20241025 (A4J1750-01)				**Matrix: Water**		**Batch: 24J1103**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 14:41	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 14:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 14:41	EPA 8260D	
Vinyl chloride	**4.22**	---	0.200	ug/L	1	10/29/24 14:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 14:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/29/24 14:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*106 %*		*80-120 %*	*1*	*10/29/24 14:41*	*EPA 8260D*	
B-45-20241025 (A4J1750-02)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 15:03	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-45-20241025 (A4J1750-02)				**Matrix: Water**		**Batch: 24J1103**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
cis-1,2-Dichloroethene	**1.75**	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
Trichloroethene (TCE)	**0.570**	---	0.400	ug/L	1	10/29/24 15:03	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 15:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:03	EPA 8260D	
Vinyl chloride	**2.70**	---	0.200	ug/L	1	10/29/24 15:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 15:03*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/29/24 15:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/29/24 15:03*	*EPA 8260D*	
MW-78-2-20241025 (A4J1750-03)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-78-2-20241025 (A4J1750-03)				**Matrix: Water**		**Batch: 24J1103**		
Bromoform	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 15:24	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
cis-1,2-Dichloroethene	**4.95**	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
Tetrachloroethene (PCE)	**1.97**	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-78-2-20241025 (A4J1750-03)				**Matrix: Water**		**Batch: 24J1103**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
Trichloroethene (TCE)	**23.8**	---	0.400	ug/L	1	10/29/24 15:24	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 15:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:24	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 15:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*10/29/24 15:24*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 15:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 15:24*	*EPA 8260D*	
B-18-20241024 (A4J1750-04)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 15:46	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-18-20241024 (A4J1750-04)				**Matrix: Water**		**Batch: 24J1103**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 15:46	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 15:46	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 15:46	EPA 8260D	
Vinyl chloride	**0.350**	---	0.200	ug/L	1	10/29/24 15:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/29/24 15:46*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 15:46*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 15:46*	*EPA 8260D*	
B-10-20241024 (A4J1750-05)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-10-20241024 (A4J1750-05)				**Matrix: Water**		**Batch: 24J1103**		
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 16:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
cis-1,2-Dichloroethene	**1.27**	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
trans-1,2-Dichloroethene	**0.500**	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B-10-20241024 (A4J1750-05)				**Matrix: Water**		**Batch: 24J1103**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 16:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 16:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:07	EPA 8260D	
Vinyl chloride	**2.25**	---	0.200	ug/L	1	10/29/24 16:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*	*1*	*10/29/24 16:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/29/24 16:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 16:07*	*EPA 8260D*	
MW-72-2-20241024 (A4J1750-06)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 16:29	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
cis-1,2-Dichloroethene	**1.15**	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-72-2-20241024 (A4J1750-06)				**Matrix: Water**		**Batch: 24J1103**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
Trichloroethene (TCE)	**0.480**	---	0.400	ug/L	1	10/29/24 16:29	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 16:29	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:29	EPA 8260D	
Vinyl chloride	**0.830**	---	0.200	ug/L	1	10/29/24 16:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 16:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/29/24 16:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*10/29/24 16:29*	*EPA 8260D*	
PI-B-13-20241024 (A4J1750-07)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-13-20241024 (A4J1750-07)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 17:33	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 17:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 17:33	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 17:33	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-13-20241024 (A4J1750-07)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:33	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 17:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*10/29/24 17:33*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 17:33*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 17:33*	*EPA 8260D*	
PI-B-10-20241024 (A4J1750-08)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 17:55	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-10-20241024 (A4J1750-08)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 17:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 17:55	EPA 8260D	
Vinyl chloride	**3.90**	---	2.00	ug/L	10	10/29/24 17:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits: 80-120 %*	*1*	*10/29/24 17:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 17:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 17:55*	*EPA 8260D*	
PI-B-07-20241024 (A4J1750-09RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	10/30/24 12:24	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	10/30/24 12:24	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	10/30/24 12:24	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-07-20241024 (A4J1750-09RE1)				**Matrix: Water**		**Batch: 24J1145**		
Dibromochloromethane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
cis-1,2-Dichloroethene	**3.50**	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	10/30/24 12:24	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Tetrachloroethene (PCE)	**0.900**	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
Trichloroethene (TCE)	**2.06**	---	0.800	ug/L	2	10/30/24 12:24	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	10/30/24 12:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	10/30/24 12:24	EPA 8260D	
Vinyl chloride	**0.440**	---	0.400	ug/L	2	10/30/24 12:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 94 %*		*Limits: 80-120 %*	*1*	*10/30/24 12:24*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-07-20241024 (A4J1750-09RE1)				**Matrix: Water**		**Batch: 24J1145**		
Surrogate: Toluene-d8 (Surr)			*Recovery: 93 %*	*Limits: 80-120 %*	*1*	*10/30/24 12:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*10/30/24 12:24*	*EPA 8260D*	
Dup-3-20241025 (A4J1750-10RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 11:19	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
cis-1,2-Dichloroethene	**2.00**	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Dup-3-20241025 (A4J1750-10RE1)				**Matrix: Water**		**Batch: 24J1145**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
Trichloroethene (TCE)	**0.440**	---	0.400	ug/L	1	10/30/24 11:19	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 11:19	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:19	EPA 8260D	
Vinyl chloride	**2.52**	---	0.200	ug/L	1	10/30/24 11:19	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*10/30/24 11:19*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/30/24 11:19*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/30/24 11:19*	*EPA 8260D*	
PI-A-01-20241024 (A4J1750-11)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 19:00	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-A-01-20241024 (A4J1750-11)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 19:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 19:00	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/29/24 19:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*10/29/24 19:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*10/29/24 19:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*10/29/24 19:00*	*EPA 8260D*	
MW-68-1-20241024 (A4J1750-12RE1)				**Matrix: Water**		**Batch: 24J1145**		**V-13**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-68-1-20241024 (A4J1750-12RE1)				**Matrix: Water**		**Batch: 24J1145**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/30/24 12:46	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/30/24 12:46	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-68-1-20241024 (A4J1750-12RE1)				**Matrix: Water**		**Batch: 24J1145**		**V-13**
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/30/24 12:46	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/30/24 12:46	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/30/24 12:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/30/24 12:46*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/30/24 12:46*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/30/24 12:46*	*EPA 8260D*	
PI-B-15-20241024 (A4J1750-13)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/29/24 20:04	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-15-20241024 (A4J1750-13)				**Matrix: Water**		**Batch: 24J1103**		V-13
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/29/24 20:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/29/24 20:04	EPA 8260D	
Vinyl chloride	**2.20**	---	2.00	ug/L	10	10/29/24 20:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*10/29/24 20:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/29/24 20:04*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/29/24 20:04*	*EPA 8260D*	
MW-74-2-20241024 (A4J1750-14)				**Matrix: Water**		**Batch: 24J1103**		V-13
Bromobenzene	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-74-2-20241024 (A4J1750-14)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
Bromoform	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	10/29/24 20:26	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Chlorobenzene	**2.88**	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	10/29/24 20:26	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	10/29/24 20:26	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1-Dichloroethene	**80.8**	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
trans-1,2-Dichloroethene	**10.3**	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	10/29/24 20:26	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Tetrachloroethene (PCE)	**4.64**	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 20:26	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-74-2-20241024 (A4J1750-14)				**Matrix: Water**		**Batch: 24J1103**		**V-13**
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
Trichloroethene (TCE)	**36.3**	---	0.800	ug/L	2	10/29/24 20:26	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	10/29/24 20:26	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	10/29/24 20:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*	*1*	*10/29/24 20:26*	*EPA 8260D*	
Toluene-d8 (Surr)			*93 %*	*80-120 %*	*1*	*10/29/24 20:26*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/29/24 20:26*	*EPA 8260D*	
MW-74-2-20241024 (A4J1750-14RE1)				**Matrix: Water**		**Batch: 24J1145**		
cis-1,2-Dichloroethene	**10000**	---	80.0	ug/L	200	10/30/24 13:50	EPA 8260D	
Vinyl chloride	**4100**	---	40.0	ug/L	200	10/30/24 13:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 96 %*		*Limits: 80-120 %*	*1*	*10/30/24 13:50*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/30/24 13:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*10/30/24 13:50*	*EPA 8260D*	
PI-B-18-20241024 (A4J1750-15RE1)				**Matrix: Water**		**Batch: 24J1145**		**V-13**
Bromobenzene	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/30/24 13:08	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PI-B-18-20241024 (A4J1750-15RE1)				**Matrix: Water**		**Batch: 24J1145**		**V-13**
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/30/24 13:08	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/30/24 13:08	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	10/30/24 13:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*10/30/24 13:08*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*10/30/24 13:08*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*10/30/24 13:08*	*EPA 8260D*	
MW-71-1-20241024 (A4J1750-16RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-71-1-20241024 (A4J1750-16RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 11:41	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-71-1-20241024 (A4J1750-16RE1)				**Matrix: Water**		**Batch: 24J1145**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/30/24 11:41	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 11:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 11:41	EPA 8260D	
Vinyl chloride	**0.960**	---	0.200	ug/L	1	10/30/24 11:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:* *80-120 %*	*1*	*10/30/24 11:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/30/24 11:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/30/24 11:41*	*EPA 8260D*	
Dup-2-20241024 (A4J1750-17RE1)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 12:03	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Dup-2-20241024 (A4J1750-17RE1)				**Matrix: Water**		**Batch: 24J1145**		
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/30/24 12:03	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 12:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 12:03	EPA 8260D	
Vinyl chloride	**0.870**	---	0.200	ug/L	1	10/30/24 12:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/30/24 12:03*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/30/24 12:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*	*1*	*10/30/24 12:03*	*EPA 8260D*	
MW-53-2-20241023 (A4J1750-18)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-53-2-20241023 (A4J1750-18)				**Matrix: Water**		**Batch: 24J1103**		
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 16:50	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1-Dichloroethene	**2.59**	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
cis-1,2-Dichloroethene	**101**	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:50	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-53-2-20241023 (A4J1750-18)				**Matrix: Water**		**Batch: 24J1103**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
Trichloroethene (TCE)	**4.21**	---	0.400	ug/L	1	10/29/24 16:50	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 16:50	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 16:50	EPA 8260D	
Vinyl chloride	**58.3**	---	0.200	ug/L	1	10/29/24 16:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*96 %*	*Limits: 80-120 %*	*1*	*10/29/24 16:50*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 16:50*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 16:50*	*EPA 8260D*	
MW-52-2-20241023 (A4J1750-19)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/29/24 17:12	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-52-2-20241023 (A4J1750-19)				**Matrix: Water**		**Batch: 24J1103**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/29/24 17:12	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/29/24 17:12	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/29/24 17:12	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/29/24 17:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*10/29/24 17:12*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*10/29/24 17:12*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*10/29/24 17:12*	*EPA 8260D*	
I-B-18-20241023 (A4J1750-20)				**Matrix: Water**		**Batch: 24J1103**		
Bromobenzene	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	10/29/24 22:35	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-18-20241023 (A4J1750-20)				**Matrix: Water**		**Batch: 24J1103**		
Chloroethane	ND	---	10.0	ug/L	2	10/29/24 22:35	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	10/29/24 22:35	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1-Dichloroethene	**8.92**	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
trans-1,2-Dichloroethene	**0.820**	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	10/29/24 22:35	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	
Trichloroethene (TCE)	**6.16**	---	0.800	ug/L	2	10/29/24 22:35	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-18-20241023 (A4J1750-20)				**Matrix: Water**		**Batch: 24J1103**		
Trichlorofluoromethane	ND	---	4.00	ug/L	2	10/29/24 22:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	10/29/24 22:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*	*1*	*10/29/24 22:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/29/24 22:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/29/24 22:35*	*EPA 8260D*	
I-B-18-20241023 (A4J1750-20RE1)				**Matrix: Water**		**Batch: 24J1145**		
cis-1,2-Dichloroethene	**563**	---	40.0	ug/L	100	10/30/24 13:29	EPA 8260D	
Vinyl chloride	**2070**	---	20.0	ug/L	100	10/30/24 13:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*10/30/24 13:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/30/24 13:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/30/24 13:29*	*EPA 8260D*	
I-B-16-20241023 (A4J1750-21RE1)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Chlorobenzene	**1.12**	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 18:34	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-16-20241023 (A4J1750-21RE1)				**Matrix: Water**		**Batch: 24J1198**		
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
cis-1,2-Dichloroethene	**1.64**	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
trans-1,2-Dichloroethene	**0.400**	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
Trichloroethene (TCE)	**1.93**	---	0.400	ug/L	1	10/31/24 18:34	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 18:34	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:34	EPA 8260D	
Vinyl chloride	**1.55**	---	0.200	ug/L	1	10/31/24 18:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/31/24 18:34*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/31/24 18:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*1*	*10/31/24 18:34*	*EPA 8260D*	
MW-50-2-20241023 (A4J1750-22RE1)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 19:17	EPA 8260D	

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Philip Nerenberg

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-50-2-20241023 (A4J1750-22RE1)				**Matrix: Water**		**Batch: 24J1198**		
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 19:17	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1-Dichloroethene	**2.83**	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
cis-1,2-Dichloroethene	**152**	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
trans-1,2-Dichloroethene	**0.560**	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 19:17	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-50-2-20241023 (A4J1750-22RE1)				**Matrix: Water**		**Batch: 24J1198**		
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
Trichloroethene (TCE)	**13.2**	---	0.400	ug/L	1	10/31/24 19:17	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 19:17	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 19:17	EPA 8260D	
Vinyl chloride	**14.8**	---	0.200	ug/L	1	10/31/24 19:17	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/31/24 19:17*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*10/31/24 19:17*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/31/24 19:17*	*EPA 8260D*	
I-B-14-20241023 (A4J1750-23RE1)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 18:55	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1-Dichloroethene	**34.7**	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-14-20241023 (A4J1750-23RE1)				**Matrix: Water**		**Batch: 24J1198**		
cis-1,2-Dichloroethene	**92.6**	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
trans-1,2-Dichloroethene	**0.740**	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
Trichloroethene (TCE)	**25.7**	---	0.400	ug/L	1	10/31/24 18:55	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 18:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:55	EPA 8260D	
Vinyl chloride	**88.6**	---	0.200	ug/L	1	10/31/24 18:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*10/31/24 18:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*10/31/24 18:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*10/31/24 18:55*	*EPA 8260D*	
MW-37-2-20241023 (A4J1750-24)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 16:00	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-37-2-20241023 (A4J1750-24)				**Matrix: Water**		**Batch: 24J1145**		
Chloroform	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 16:00	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1-Dichloroethene	**27.7**	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
trans-1,2-Dichloroethene	**2.59**	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 16:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 16:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
Trichloroethene (TCE)	**164**	---	0.400	ug/L	1	10/30/24 16:00	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 16:00	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-37-2-20241023 (A4J1750-24)				**Matrix: Water**		**Batch: 24J1145**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 104 %*		*Limits: 80-120 %*	*1*	*10/30/24 16:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*10/30/24 16:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/30/24 16:00*	*EPA 8260D*	
MW-37-2-20241023 (A4J1750-24RE1)				**Matrix: Water**		**Batch: 24J1198**		
cis-1,2-Dichloroethene	**441**	---	8.00	ug/L	20	10/31/24 20:00	EPA 8260D	
Vinyl chloride	**185**	---	4.00	ug/L	20	10/31/24 20:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*	*1*	*10/31/24 20:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/31/24 20:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/31/24 20:00*	*EPA 8260D*	
MW-46-2-20241023 (A4J1750-25RE1)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 18:12	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-46-2-20241023 (A4J1750-25RE1)				**Matrix: Water**		**Batch: 24J1198**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
cis-1,2-Dichloroethene	**0.940**	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 18:12	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 18:12	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 18:12	EPA 8260D	
Vinyl chloride	**1.08**	---	0.200	ug/L	1	10/31/24 18:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*	*1*	*10/31/24 18:12*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/31/24 18:12*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/31/24 18:12*	*EPA 8260D*	
I-B-9-20241023 (A4J1750-26)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-9-20241023 (A4J1750-26)				**Matrix: Water**		**Batch: 24J1145**		
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 16:43	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1-Dichloroethene	**4.83**	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
cis-1,2-Dichloroethene	**89.8**	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
trans-1,2-Dichloroethene	**0.420**	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 16:43	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
I-B-9-20241023 (A4J1750-26)				**Matrix: Water**		**Batch: 24J1145**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
Trichloroethene (TCE)	**5.69**	---	0.400	ug/L	1	10/30/24 16:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 16:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 16:43	EPA 8260D	
Vinyl chloride	**129**	---	0.200	ug/L	1	10/30/24 16:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*10/30/24 16:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/30/24 16:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/30/24 16:43*	*EPA 8260D*	
Trip Blank (A4J1750-27)				**Matrix: Water**		**Batch: 24J1145**		
Bromobenzene	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/30/24 10:58	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A4J1750-27)				**Matrix: Water**		**Batch: 24J1145**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/30/24 10:58	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/30/24 10:58	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/30/24 10:58	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/30/24 10:58	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:* *80-120 %*	*1*	*10/30/24 10:58*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/30/24 10:58*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/30/24 10:58*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
Blank (24J1103-BLK1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 12:35									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
Blank (24J1103-BLK1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 12:35									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (24J1103-BS1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 11:52									
EPA 8260D												
Bromobenzene	17.0	---	0.500	ug/L	1	20.0	---	85	80-120%	---	---	
Bromochloromethane	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	25.6	---	5.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	23.4	---	5.00	ug/L	1	20.0	---	117	80-120%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	18.3	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
4-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	19.9	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	14.0	---	5.00	ug/L	1	20.0	---	**70**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Dibromomethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichlorobenzene	17.7	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
LCS (24J1103-BS1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 11:52									
1,3-Dichlorobenzene	18.5	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1-Dichloroethane	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,3-Dichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
2,2-Dichloropropane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
cis-1,3-Dichloropropene	18.7	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Hexachlorobutadiene	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
Methylene chloride	17.0	---	10.0	ug/L	1	20.0	---	85	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.7	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Tetrachloroethene (PCE)	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,2-Trichloroethane	17.7	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,4-Trichlorobenzene	15.4	---	2.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	17.9	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
Trichlorofluoromethane	26.3	---	2.00	ug/L	1	20.0	---	**132**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
Vinyl chloride	21.8	---	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*94 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				
Duplicate (24J1103-DUP1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 19:42									

QC Source Sample: MW-68-1-20241024 (A4J1750-12)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1750 - 11 07 24 1739

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
Duplicate (24J1103-DUP1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 19:42									
QC Source Sample: MW-68-1-20241024 (A4J1750-12)												
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
Duplicate (24J1103-DUP1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 19:42									
QC Source Sample: MW-68-1-20241024 (A4J1750-12)												
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	10.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (24J1103-MS1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 21:52									
QC Source Sample: Dup-2-20241024 (A4J1750-17)												
Bromobenzene	360	---	10.0	ug/L	20	400	ND	90	80-120%	---	---	
Bromochloromethane	443	---	20.0	ug/L	20	400	ND	111	78-123%	---	---	
Bromodichloromethane	443	---	20.0	ug/L	20	400	ND	111	79-125%	---	---	
Bromoform	414	---	20.0	ug/L	20	400	ND	104	66-130%	---	---	
Bromomethane	559	---	100	ug/L	20	400	ND	140	53-141%	---	---	Q-54e
Carbon tetrachloride	498	---	20.0	ug/L	20	400	ND	124	72-136%	---	---	
Chlorobenzene	414	---	10.0	ug/L	20	400	ND	103	80-120%	---	---	
Chloroethane	547	---	100	ug/L	20	400	ND	137	60-138%	---	---	
Chloroform	448	---	20.0	ug/L	20	400	ND	112	79-124%	---	---	
Chloromethane	414	---	100	ug/L	20	400	ND	104	50-139%	---	---	
2-Chlorotoluene	389	---	20.0	ug/L	20	400	ND	97	79-122%	---	---	
4-Chlorotoluene	392	---	20.0	ug/L	20	400	ND	98	78-122%	---	---	
Dibromochloromethane	411	---	20.0	ug/L	20	400	ND	103	74-126%	---	---	
1,2-Dibromo-3-chloropropane	291	---	100	ug/L	20	400	ND	73	62-128%	---	---	Q-54g
1,2-Dibromoethane (EDB)	381	---	10.0	ug/L	20	400	ND	95	77-121%	---	---	
Dibromomethane	426	---	20.0	ug/L	20	400	ND	107	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1103 - EPA 5030C							**Water**					
Matrix Spike (24J1103-MS1)			Prepared: 10/29/24 08:38 Analyzed: 10/29/24 21:52									
QC Source Sample: Dup-2-20241024 (A4J1750-17)												
1,2-Dichlorobenzene	367	---	10.0	ug/L	20	400	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	382	---	10.0	ug/L	20	400	ND	96	80-120%	---	---	
1,4-Dichlorobenzene	382	---	10.0	ug/L	20	400	ND	96	79-120%	---	---	
Dichlorodifluoromethane	402	---	20.0	ug/L	20	400	ND	101	32-152%	---	---	
1,1-Dichloroethane	416	---	8.00	ug/L	20	400	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	448	---	8.00	ug/L	20	400	ND	112	73-128%	---	---	
1,1-Dichloroethene	443	---	8.00	ug/L	20	400	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	423	---	8.00	ug/L	20	400	21.0	101	78-123%	---	---	
trans-1,2-Dichloroethene	420	---	8.00	ug/L	20	400	ND	105	75-124%	---	---	
1,2-Dichloropropane	384	---	10.0	ug/L	20	400	ND	96	78-122%	---	---	
1,3-Dichloropropane	368	---	20.0	ug/L	20	400	ND	92	80-120%	---	---	
2,2-Dichloropropane	425	---	20.0	ug/L	20	400	ND	106	60-139%	---	---	
1,1-Dichloropropene	424	---	20.0	ug/L	20	400	ND	106	79-125%	---	---	
cis-1,3-Dichloropropene	340	---	20.0	ug/L	20	400	ND	85	75-124%	---	---	
trans-1,3-Dichloropropene	406	---	20.0	ug/L	20	400	ND	102	73-127%	---	---	
Hexachlorobutadiene	374	---	100	ug/L	20	400	ND	94	66-134%	---	---	
Methylene chloride	361	---	200	ug/L	20	400	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	436	---	8.00	ug/L	20	400	ND	109	78-124%	---	---	
1,1,2,2-Tetrachloroethane	379	---	10.0	ug/L	20	400	ND	95	71-121%	---	---	
Tetrachloroethene (PCE)	405	---	8.00	ug/L	20	400	ND	101	74-129%	---	---	
1,2,3-Trichlorobenzene	328	---	40.0	ug/L	20	400	ND	82	69-129%	---	---	Q-54h
1,1,2-Trichloroethane	374	---	10.0	ug/L	20	400	ND	94	80-120%	---	---	
1,2,4-Trichlorobenzene	317	---	40.0	ug/L	20	400	ND	79	69-130%	---	---	Q-54i
1,1,1-Trichloroethane	457	---	8.00	ug/L	20	400	ND	114	74-131%	---	---	
Trichloroethene (TCE)	369	---	8.00	ug/L	20	400	ND	92	79-123%	---	---	
Trichlorofluoromethane	578	---	40.0	ug/L	20	400	ND	**144**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	353	---	20.0	ug/L	20	400	ND	88	73-122%	---	---	
Vinyl chloride	485	---	4.00	ug/L	20	400	7.40	120	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 97 % Limits: 80-120 % Dilution: 1x
Toluene-d8 (Surr) 93 % 80-120 % "
4-Bromofluorobenzene (Surr) 94 % 80-120 % "

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Blank (24J1145-BLK1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 10:36									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Blank (24J1145-BLK1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 10:36									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (24J1145-BS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 09:53									
EPA 8260D												
Bromobenzene	17.3	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Bromochloromethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromodichloromethane	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	26.7	---	5.00	ug/L	1	20.0	---	**134**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	21.9	---	5.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	18.5	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
2-Chlorotoluene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.4	---	5.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.3	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromomethane	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichlorobenzene	17.4	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
LCS (24J1145-BS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 09:53									
1,3-Dichlorobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1-Dichloroethane	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	17.5	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,3-Dichloropropane	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
2,2-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
trans-1,3-Dichloropropene	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.7	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.7	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Tetrachloroethene (PCE)	19.2	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	16.4	---	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
1,1,2-Trichloroethane	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,4-Trichlorobenzene	15.6	---	2.00	ug/L	1	20.0	---	**78**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	17.4	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	26.7	---	2.00	ug/L	1	20.0	---	**133**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
Vinyl chloride	20.3	---	0.200	ug/L	1	20.0	---	101	80-120%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 95 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*92 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*95 %*	*80-120 %*	*"*	

Duplicate (24J1145-DUP1) Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27

QC Source Sample: I-B-16-20241023 (A4J1750-21)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Duplicate (24J1145-DUP1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27									
QC Source Sample: I-B-16-20241023 (A4J1750-21)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Duplicate (24J1145-DUP1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 17:27									
QC Source Sample: I-B-16-20241023 (A4J1750-21)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	2.50	---	---	***	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
Matrix Spike (24J1145-MS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 19:36									
QC Source Sample: Non-SDG (A4J1822-03)												
EPA 8260D												
Bromobenzene	18.8	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
Bromochloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	78-123%	---	---	
Bromodichloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	21.2	---	1.00	ug/L	1	20.0	ND	106	66-130%	---	---	
Bromomethane	26.9	---	5.00	ug/L	1	20.0	ND	135	53-141%	---	---	Q-54c
Carbon tetrachloride	24.9	---	1.00	ug/L	1	20.0	ND	124	72-136%	---	---	
Chlorobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Chloroethane	26.3	---	5.00	ug/L	1	20.0	ND	131	60-138%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	19.1	---	5.00	ug/L	1	20.0	ND	96	50-139%	---	---	
2-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-122%	---	---	
4-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	ND	102	78-122%	---	---	
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	14.9	---	5.00	ug/L	1	20.0	ND	75	62-128%	---	---	Q-54i
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1145 - EPA 5030C							**Water**					
Matrix Spike (24J1145-MS1)			Prepared: 10/30/24 08:29 Analyzed: 10/30/24 19:36									
QC Source Sample: Non-SDG (A4J1822-03)												
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	ND	104	79-123%	---	---	
1,2-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
1,4-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	79-120%	---	---	
Dichlorodifluoromethane	17.9	---	1.00	ug/L	1	20.0	ND	90	32-152%	---	---	
1,1-Dichloroethane	20.0	---	0.400	ug/L	1	20.0	ND	100	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.400	ug/L	1	20.0	ND	110	73-128%	---	---	
1,1-Dichloroethene	21.3	---	0.400	ug/L	1	20.0	ND	107	71-131%	---	---	
cis-1,2-Dichloroethene	20.2	---	0.400	ug/L	1	20.0	ND	101	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	18.9	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
1,3-Dichloropropane	18.4	---	1.00	ug/L	1	20.0	ND	92	80-120%	---	---	
2,2-Dichloropropane	21.6	---	1.00	ug/L	1	20.0	ND	108	60-139%	---	---	
1,1-Dichloropropene	19.6	---	1.00	ug/L	1	20.0	ND	98	79-125%	---	---	
cis-1,3-Dichloropropene	17.1	---	1.00	ug/L	1	20.0	ND	85	75-124%	---	---	
trans-1,3-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	ND	106	73-127%	---	---	
Hexachlorobutadiene	18.4	---	5.00	ug/L	1	20.0	ND	92	66-134%	---	---	
Methylene chloride	18.2	---	10.0	ug/L	1	20.0	ND	91	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.7	---	0.500	ug/L	1	20.0	ND	104	71-121%	---	---	
Tetrachloroethene (PCE)	20.1	---	0.400	ug/L	1	20.0	ND	100	74-129%	---	---	
1,2,3-Trichlorobenzene	17.0	---	2.00	ug/L	1	20.0	ND	85	69-129%	---	---	
1,1,2-Trichloroethane	18.3	---	0.500	ug/L	1	20.0	ND	91	80-120%	---	---	
1,2,4-Trichlorobenzene	16.1	---	2.00	ug/L	1	20.0	ND	81	69-130%	---	---	Q-54h
1,1,1-Trichloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	74-131%	---	---	
Trichloroethene (TCE)	17.7	---	0.400	ug/L	1	20.0	ND	88	79-123%	---	---	
Trichlorofluoromethane	29.2	---	2.00	ug/L	1	20.0	ND	**146**	**65-141%**	---	---	Q-54b
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	ND	88	73-122%	---	---	
Vinyl chloride	23.6	---	0.200	ug/L	1	20.0	ND	118	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 94 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*91 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*	

Apex Laboratories



Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
EPA 8260D												
Bromobenzene	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	---	**131**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	23.9	---	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	18.5	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
2-Chlorotoluene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromochloromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichlorobenzene	17.3	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
1,3-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	17.3	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
1,3-Dichloropropane	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
2,2-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
cis-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,2-Trichloroethane	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,4-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	17.5	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	28.8	---	2.00	ug/L	1	20.0	---	**144**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.2	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Vinyl chloride	22.9	---	0.200	ug/L	1	20.0	---	115	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*93 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1750 - 11 07 24 1739

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	2.00	---	---	***	**30%**	Q-17
cis-1,2-Dichloroethene	**110**	---	4.00	ug/L	10	---	107	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: Non-SDG (A4J1883-17)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**4.50**	---	4.00	ug/L	10	---	6.20	---	---	**32**	**30%**	Q-17
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**734**	---	4.00	ug/L	10	---	752	---	---	3	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	**4.00**	---	2.00	ug/L	10	---	4.80	---	---	18	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: Non-SDG (A4J1883-27)												
EPA 8260D												
Bromobenzene	18.0	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
Bromochloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
Bromodichloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	22.3	---	1.00	ug/L	1	20.0	ND	111	66-130%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	ND	131	53-141%	---	---	Q-54
Carbon tetrachloride	26.3	---	1.00	ug/L	1	20.0	ND	131	72-136%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Chloroethane	26.1	---	5.00	ug/L	1	20.0	ND	131	60-138%	---	---	
Chloroform	22.5	---	1.00	ug/L	1	20.0	ND	113	79-124%	---	---	
Chloromethane	20.9	---	5.00	ug/L	1	20.0	ND	104	50-139%	---	---	
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	74-126%	---	---	
1,2-Dibromo-3-chloropropane	15.4	---	5.00	ug/L	1	20.0	ND	77	62-128%	---	---	Q-54f
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	
Dibromomethane	20.5	---	1.00	ug/L	1	20.0	ND	102	79-123%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: Non-SDG (A4J1883-27)												
1,2-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	ND	96	79-120%	---	---	
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	20.9	---	0.400	ug/L	1	20.0	0.750	101	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	19.6	---	0.500	ug/L	1	20.0	ND	98	78-122%	---	---	
1,3-Dichloropropane	19.2	---	1.00	ug/L	1	20.0	ND	96	80-120%	---	---	
2,2-Dichloropropane	23.5	---	1.00	ug/L	1	20.0	ND	117	60-139%	---	---	
1,1-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	19.0	---	5.00	ug/L	1	20.0	ND	95	66-134%	---	---	
Methylene chloride	18.0	---	10.0	ug/L	1	20.0	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.4	---	0.400	ug/L	1	20.0	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.4	---	0.500	ug/L	1	20.0	ND	102	71-121%	---	---	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	0.450	106	74-129%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-129%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-130%	---	---	Q-54f
1,1,1-Trichloroethane	22.1	---	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
Trichloroethene (TCE)	26.3	---	0.400	ug/L	1	20.0	8.39	89	79-123%	---	---	
Trichlorofluoromethane	31.9	---	2.00	ug/L	1	20.0	ND	**160**	**65-141%**	---	---	Q-54d
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	ND	88	73-122%	---	---	
Vinyl chloride	23.0	---	0.200	ug/L	1	20.0	ND	115	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1750 - 11 07 24 1739

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24J1103							
A4J1750-01	Water	EPA 8260D	10/25/24 10:00	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-02	Water	EPA 8260D	10/25/24 10:45	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-03	Water	EPA 8260D	10/25/24 11:15	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-04	Water	EPA 8260D	10/24/24 16:50	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-05	Water	EPA 8260D	10/24/24 16:15	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-06	Water	EPA 8260D	10/24/24 15:45	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-07	Water	EPA 8260D	10/24/24 15:20	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-08	Water	EPA 8260D	10/24/24 14:50	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-11	Water	EPA 8260D	10/24/24 13:45	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-13	Water	EPA 8260D	10/24/24 12:35	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-14	Water	EPA 8260D	10/24/24 11:50	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-18	Water	EPA 8260D	10/23/24 16:30	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-19	Water	EPA 8260D	10/23/24 16:00	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-20	Water	EPA 8260D	10/23/24 15:35	10/29/24 08:38	5mL/5mL	5mL/5mL	1.00
Batch: 24J1145							
A4J1750-09RE1	Water	EPA 8260D	10/24/24 14:20	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-10RE1	Water	EPA 8260D	10/25/24 00:00	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-12RE1	Water	EPA 8260D	10/24/24 13:05	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-14RE1	Water	EPA 8260D	10/24/24 11:50	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-15RE1	Water	EPA 8260D	10/24/24 11:20	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-16RE1	Water	EPA 8260D	10/24/24 10:50	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-17RE1	Water	EPA 8260D	10/24/24 00:00	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-20RE1	Water	EPA 8260D	10/23/24 15:35	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-24	Water	EPA 8260D	10/23/24 13:30	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-26	Water	EPA 8260D	10/23/24 12:35	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
A4J1750-27	Water	EPA 8260D	10/23/24 00:00	10/30/24 10:00	5mL/5mL	5mL/5mL	1.00
Batch: 24J1198							
A4J1750-21RE1	Water	EPA 8260D	10/23/24 14:55	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-22RE1	Water	EPA 8260D	10/23/24 14:25	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-23RE1	Water	EPA 8260D	10/23/24 13:55	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-24RE1	Water	EPA 8260D	10/23/24 13:30	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1750-25RE1	Water	EPA 8260D	10/23/24 13:00	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +24%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -10%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
V-13	Reporting levels raised due to dilution necessary for analysis due to sample foaming in sparge vessel.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

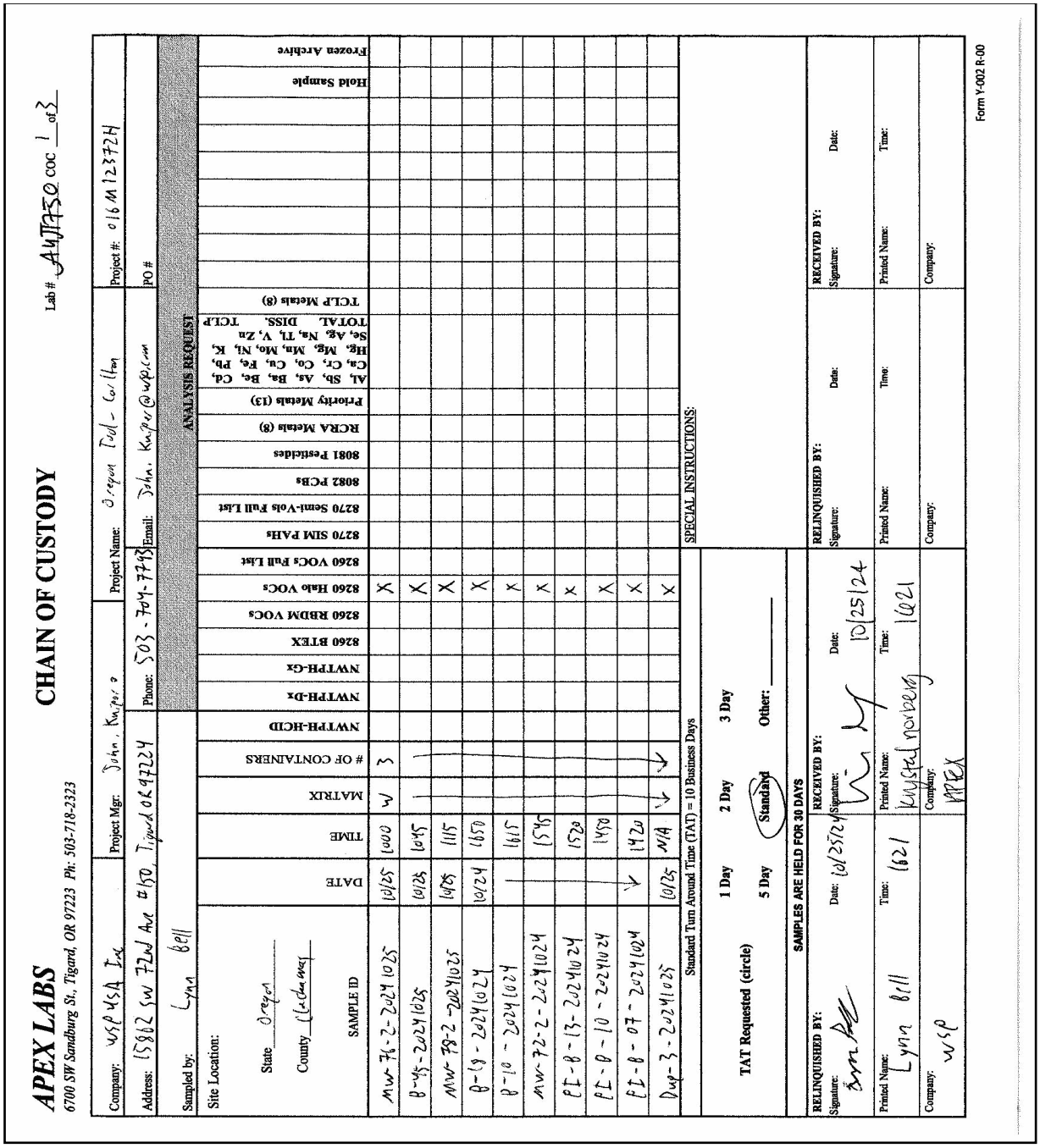
Philip Nerenberg, Lab Director

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APEX LABS — **CHAIN OF CUSTODY** — Lab # A4J1750 COC 1 of 2

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: WSP USA Inc. | Project Mgr: John Kuiper | Project Name: Oregon Tool - Carlton | Project #: 016M12372H
Address: 15862 SW 72nd Ave #150 Tigard OR 97224 | Phone: 503-749-7743 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell
Site Location: State Oregon County Yamhill

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW-74-2-20241025	10/25	0900	W	3						X											
B-45-20241025	10/25	1045																			
MW-78-2-20241025	10/25	1115								X											
B-19-20241024	10/24	1350								X											
B-18-20241024		1415								X											
MW-72-2-20241024		1545								X											
EB-B-13-20241024		1520								X											
EB-B-10-20241024		1450								X											
EB-B-07-20241024		1420								X											
Dup-3-20241025	10/25	N/A	↓	↓						X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature:	Signature:		Signature:		Signature:	
Date: 10/25/24		10/25/24				
Printed Name: Lynn Bell	Printed Name: Kingsford Nerenberg		Printed Name:		Printed Name:	
Time: 1621	Time: 1621		Time:		Time:	
Company: WSP	Company: APEX		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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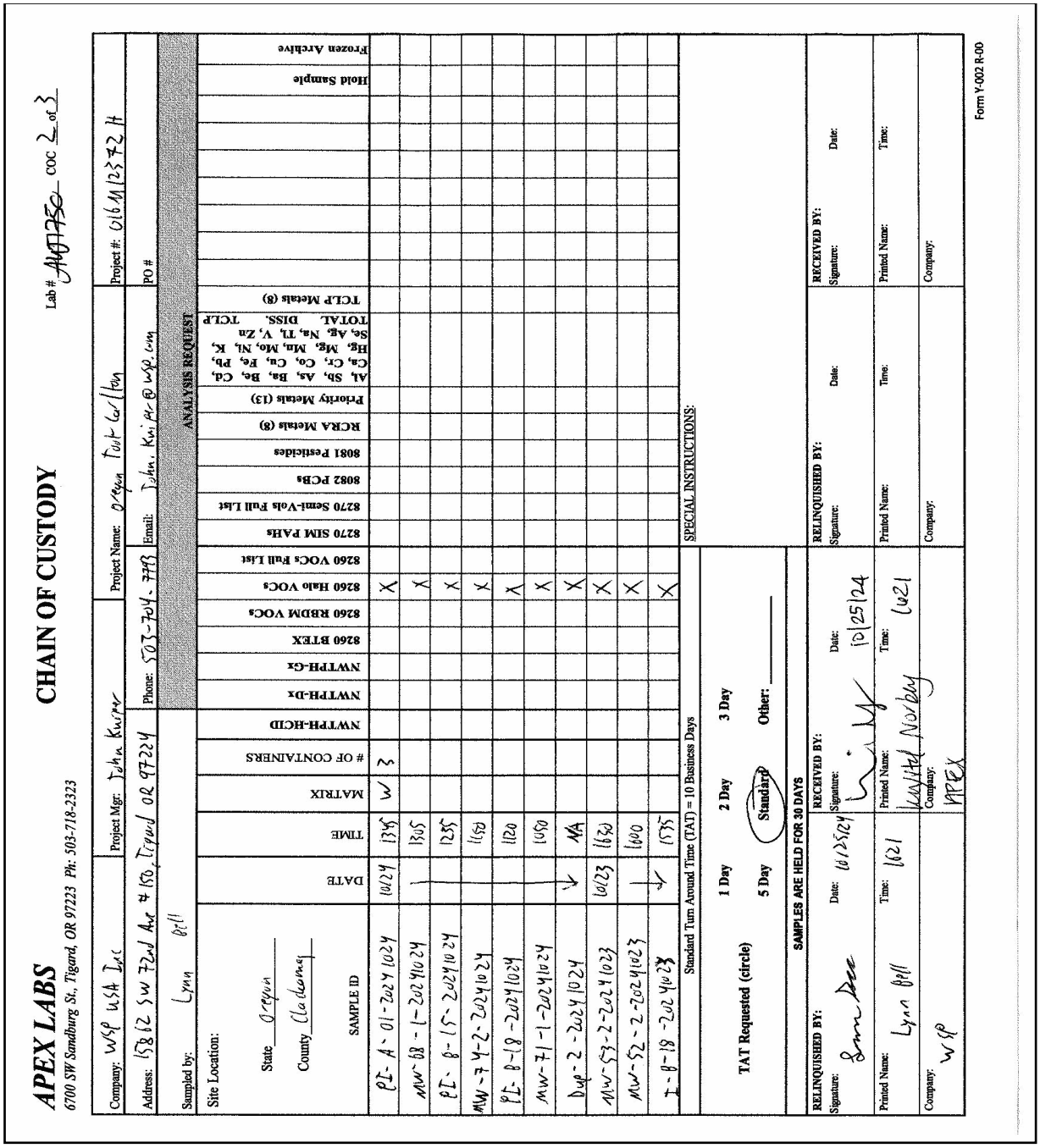
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1750 - 11 07 24 1739



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1750 COC 2 of 3

Company: WSP USA Inc | Project Mgr: John Kuiper | Project Name: Oregon Tool Carlton | Project #: 016M12372H
Address: 15812 SW 72nd Ave # 150, Tigard OR 97224 | Phone: 503-704-7773 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell
Site Location: State Oregon, County Clackamas

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
P2-A-01-20241024	10/24	1345	W	3						X											
MW-68-1-20241024		1305								X											
P2-B-15-20241024		1235								X											
MW-74-2-20241024		1150								X											
P2-B-18-20241024		1120								X											
MW-71-1-20241024		1050								X											
DUP-2-20241024		NA								X											
MW-53-2-20241023	10/23	1130								X											
MW-52-2-20241023		1000								X											
P-B-18-20241023		1535								X											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Lynn Bell	10/25/24	Signature:		Signature:		Signature:	
Printed Name: Lynn Bell	Time: 1021	Printed Name: Philip Nerenberg	Time: 1021	Printed Name:	Time:	Printed Name:	Time:
Company: WSP		Company: APEX		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

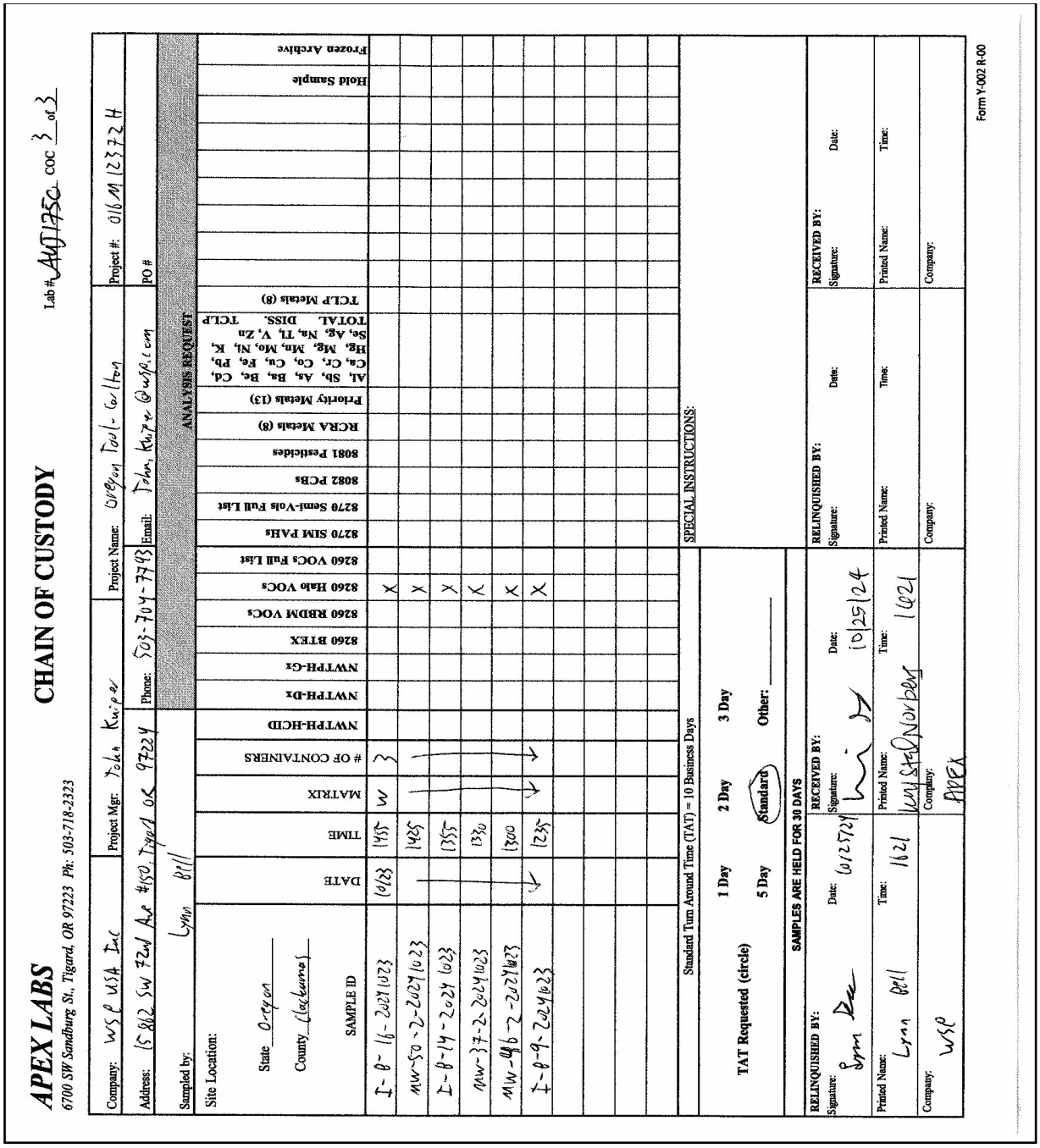
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1750 COC 3 of 3

Company: WSP USA Inc | Project Mgr: John Kuiper | Project Name: Oregon Tool - Carlton | Project #: 016M12372H
Address: 15862 SW 72nd Ave #150 Tigard OR 97224 | Phone: 503-704-7793 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
I-B-15-20241023	10/23	1455	W	3						X											
MW-50-2-20241023		1425								X											
I-B-14-20241023		1355								X											
MW-37-2-20241023		1330								X											
MW-46-2-20241023		1300								X											
I-B-9-20241023		1235								X											

Site Location:
State Oregon
County Clackamas

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 10/23/24	Date: 10/25/24	Date:	Date:
Printed Name: Lynn Bell	Printed Name: Kurt Stevenberg	Printed Name:	Printed Name:
Time: 1621	Time: 1021	Time:	Time:
Company: WSP	Company: APEX	Company:	Company:

Form Y-002 R-00

Apex Laboratories

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

WO# ~~A4J145~~ A4J1750 ~~A4J1750~~ Mac for 3A 10/28/24 AK 10/28/24

COC/Container Discrepancies

COC Reads	Container Reads/Comments
1/3 Date for B45-20241025 / 10/25/24	1/3 Date for B45-20241025/10/24/25
1/3 T B18-20241024 / 1650	1/3 T B18-20241024 / 1630
1/3 MW-53-2-20241023 / 1630	1/3 MW-53-2-20241023 / NoT
1/3 DUP-3-20241025	1/3 DUP-3
3/3 MW-52-2-20241023	3/3 MW-52-2-20241024

Form Y-004 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1750 - 11 07 24 1739**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4J1750

Project/Project #: Oregon Tool - Carlton / 016M12372H

Delivery Info:

Date/time received: 10/25/24 @ 1621 By: KN

Delivered by: Apex__Client✓ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No ✓

Cooler Inspection Date/time inspected: 10/25/24 @ 1621 By: KN

Chain of Custody included? Yes ✓ No ____

Signed/dated by client? Yes ✓ No ____

Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.4						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 10/25/24 @ 1050 By: ZA

All samples intact? Yes ✓ No ___ Comments:

Bottle labels/COCs agree? Yes ___ No ✓ Comments: See Discrepancies form. TB received, not listed in COC.

COC/container discrepancies form initiated? Yes ✓ No ___

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments:

3/3 I-B-18-20241023 have sed. 3/3 I-B-14-20241023 have sed.

Do VOA vials have visible headspace? Yes ✓ No ___ NA ___

Comments 1/3 B10-20241024 has HS. 1/3 P1-B-15-20241024 has HS.

Water samples: pH checked: Yes___No___NA✓ pH appropriate? Yes___No___NA✓ pH ID:

Comments:

#3633

Labeled by: ZA Witness: JS Cooler Inspected by: ZA

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

Friday, December 27, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4J1883 - OR Tool/Carlton Remedy - 016M12372H

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4J1883, which was received by the laboratory on 10/30/2024 at 2:22:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 3.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-62-2-20241030	A4J1883-01	Water	10/30/24 12:30	10/30/24 14:22
MW64-1-20241030	A4J1883-02	Water	10/30/24 12:15	10/30/24 14:22
MW64-2-20241030	A4J1883-03	Water	10/30/24 11:50	10/30/24 14:22
MW27-1-20241030	A4J1883-04	Water	10/30/24 11:10	10/30/24 14:22
MW65-1-20241030	A4J1883-05	Water	10/30/24 10:30	10/30/24 14:22
DUP4-20241030	A4J1883-06	Water	10/30/24 00:00	10/30/24 14:22
MW65-2-20241030	A4J1883-07	Water	10/30/24 10:00	10/30/24 14:22
MW2-2-20241029	A4J1883-08	Water	10/29/24 14:25	10/30/24 14:22
A50-20241029	A4J1883-09	Water	10/29/24 12:45	10/30/24 14:22
MW61-2-20241029	A4J1883-10	Water	10/29/24 16:15	10/30/24 14:22
MW66-1-20241029	A4J1883-11	Water	10/29/24 10:45	10/30/24 14:22
MW79-2-20241029	A4J1883-12	Water	10/29/24 15:30	10/30/24 14:22
MW3R-20241029	A4J1883-13	Water	10/29/24 10:05	10/30/24 14:22
A48-20241029	A4J1883-14	Water	10/29/24 11:20	10/30/24 14:22
MW80-20241029	A4J1883-15	Water	10/29/24 15:05	10/30/24 14:22
MW61-1-20241029	A4J1883-16	Water	10/29/24 16:50	10/30/24 14:22
MW21-2-20241028	A4J1883-17	Water	10/28/24 14:55	10/30/24 14:22
MW26-1-20241028	A4J1883-18	Water	10/28/24 17:30	10/30/24 14:22
MW25-1-20241028	A4J1883-19	Water	10/28/24 16:05	10/30/24 14:22
B37-20241029	A4J1883-20	Water	10/29/24 13:35	10/30/24 14:22
MW67-2-20241029	A4J1883-21	Water	10/29/24 12:05	10/30/24 14:22
A11-20241028	A4J1883-22	Water	10/28/24 10:10	10/30/24 14:22
B8-20241028	A4J1883-23	Water	10/28/24 10:45	10/30/24 14:22
B23-20241028	A4J1883-24	Water	10/28/24 13:10	10/30/24 14:22
A36-20241028	A4J1883-25	Water	10/28/24 14:20	10/30/24 14:22
MW59-2-20241028	A4J1883-26	Water	10/28/24 11:30	10/30/24 14:22
M63-2-20241028	A4J1883-27	Water	10/28/24 16:50	10/30/24 14:22
A34-20241028	A4J1883-28	Water	10/28/24 13:45	10/30/24 14:22
Trip Blank	A4J1883-29	Water	10/28/24 00:00	10/30/24 14:22

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL CASE NARRATIVE

A4J1883	Apex Laboratories

Amended Final Report #1

This report supersedes all previous reports.

EPA 8260 analysis for sample MW59-2 was originally reported without cis-1,2-Dichloroethene. This version now includes it.

Philip Nerenberg
Lab Director
12/27/24

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-62-2-20241030 (A4J1883-01)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 12:05	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
cis-1,2-Dichloroethene	**8.18**	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 12:05	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW-62-2-20241030 (A4J1883-01)				**Matrix: Water**		**Batch: 24J1198**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
Trichloroethene (TCE)	**6.97**	---	0.400	ug/L	1	10/31/24 12:05	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 12:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:05	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 12:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/31/24 12:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*10/31/24 12:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/31/24 12:05*	*EPA 8260D*	
MW64-1-20241030 (A4J1883-02RE1)				**Matrix: Water**		**Batch: 24K0272**		
Bromobenzene	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/08/24 13:40	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW64-1-20241030 (A4J1883-02RE1)				**Matrix: Water**		**Batch: 24K0272**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1-Dichloroethene	**2.99**	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
cis-1,2-Dichloroethene	**66.2**	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
Trichloroethene (TCE)	**27.8**	---	0.400	ug/L	1	11/08/24 13:40	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/08/24 13:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:40	EPA 8260D	
Vinyl chloride	**16.6**	---	0.200	ug/L	1	11/08/24 13:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*11/08/24 13:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*11/08/24 13:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*11/08/24 13:40*	*EPA 8260D*	
MW64-2-20241030 (A4J1883-03)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW64-2-20241030 (A4J1883-03)				**Matrix: Water**		**Batch: 24J1198**		
Bromoform	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 16:02	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
cis-1,2-Dichloroethene	**4.77**	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
Tetrachloroethene (PCE)	**0.680**	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW64-2-20241030 (A4J1883-03)				**Matrix: Water**		**Batch: 24J1198**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
Trichloroethene (TCE)	**69.4**	---	0.400	ug/L	1	10/31/24 16:02	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 16:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 16:02	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 16:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*10/31/24 16:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/31/24 16:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*10/31/24 16:02*	*EPA 8260D*	
MW27-1-20241030 (A4J1883-04)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 14:39	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW27-1-20241030 (A4J1883-04)				**Matrix: Water**		**Batch: 24J1096**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1-Dichloroethene	**6.34**	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
cis-1,2-Dichloroethene	**62.3**	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
Trichloroethene (TCE)	**27.3**	---	0.400	ug/L	1	11/01/24 14:39	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 14:39	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 14:39	EPA 8260D	
Vinyl chloride	**5.26**	---	0.200	ug/L	1	11/01/24 14:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 14:39*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*11/01/24 14:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*11/01/24 14:39*	*EPA 8260D*	
MW65-1-20241030 (A4J1883-05)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	11/01/24 19:21	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW65-1-20241030 (A4J1883-05)				**Matrix: Water**		**Batch: 24J1096**		
Chlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	11/01/24 19:21	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	11/01/24 19:21	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1-Dichloroethene	**1.18**	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
cis-1,2-Dichloroethene	**23.4**	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	11/01/24 19:21	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Tetrachloroethene (PCE)	**3.38**	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 19:21	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW65-1-20241030 (A4J1883-05)				**Matrix: Water**		**Batch: 24J1096**		
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
Trichloroethene (TCE)	**298**	---	0.800	ug/L	2	11/01/24 19:21	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	11/01/24 19:21	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:21	EPA 8260D	
Vinyl chloride	**1.00**	---	0.400	ug/L	2	11/01/24 19:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 19:21*	*EPA 8260D*
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*11/01/24 19:21*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*11/01/24 19:21*	*EPA 8260D*
DUP4-20241030 (A4J1883-06)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	11/01/24 19:42	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	11/01/24 19:42	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	11/01/24 19:42	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1-Dichloroethene	**0.860**	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
cis-1,2-Dichloroethene	**22.2**	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DUP4-20241030 (A4J1883-06)				**Matrix: Water**		**Batch: 24J1096**		
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	11/01/24 19:42	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Tetrachloroethene (PCE)	**3.24**	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
Trichloroethene (TCE)	**294**	---	0.800	ug/L	2	11/01/24 19:42	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	11/01/24 19:42	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	11/01/24 19:42	EPA 8260D	
Vinyl chloride	**0.940**	---	0.400	ug/L	2	11/01/24 19:42	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 19:42*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*11/01/24 19:42*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*11/01/24 19:42*	*EPA 8260D*	
MW65-2-20241030 (A4J1883-07)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW65-2-20241030 (A4J1883-07)				**Matrix: Water**		**Batch: 24J1096**		
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 15:01	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
Tetrachloroethene (PCE)	**0.460**	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 15:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:01	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
Trichloroethene (TCE)	**1.07**	---	0.400	ug/L	1	11/01/24 15:01	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 15:01	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW65-2-20241030 (A4J1883-07)				**Matrix: Water**		**Batch: 24J1096**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:01	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/01/24 15:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*11/01/24 15:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*11/01/24 15:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*11/01/24 15:01*	*EPA 8260D*	
MW2-2-20241029 (A4J1883-08)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 15:22	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
cis-1,2-Dichloroethene	**2.06**	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2-2-20241029 (A4J1883-08)				**Matrix: Water**		**Batch: 24J1096**		
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
Trichloroethene (TCE)	**4.42**	---	0.400	ug/L	1	11/01/24 15:22	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 15:22	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:22	EPA 8260D	
Vinyl chloride	**0.430**	---	0.200	ug/L	1	11/01/24 15:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 15:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*11/01/24 15:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*11/01/24 15:22*	*EPA 8260D*	
A50-20241029 (A4J1883-09)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 15:44	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A50-20241029 (A4J1883-09)				**Matrix: Water**		**Batch: 24J1096**		
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
cis-1,2-Dichloroethene	**2.59**	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/01/24 15:44	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 15:44	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 15:44	EPA 8260D	
Vinyl chloride	**5.00**	---	0.200	ug/L	1	11/01/24 15:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*11/01/24 15:44*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A50-20241029 (A4J1883-09)				**Matrix: Water**		**Batch: 24J1096**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*98 %*	*Limits: 80-120 %*	*1*	*11/01/24 15:44*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*11/01/24 15:44*	*EPA 8260D*	
MW61-2-20241029 (A4J1883-10)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 16:06	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
cis-1,2-Dichloroethene	**10.7**	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW61-2-20241029 (A4J1883-10)				**Matrix: Water**		**Batch: 24J1096**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
Tetrachloroethene (PCE)	**1.24**	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
Trichloroethene (TCE)	**76.5**	---	0.400	ug/L	1	11/01/24 16:06	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 16:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:06	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/01/24 16:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 16:06*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*11/01/24 16:06*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*11/01/24 16:06*	*EPA 8260D*	
MW66-1-20241029 (A4J1883-11)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 16:28	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW66-1-20241029 (A4J1883-11)				**Matrix: Water**		**Batch: 24J1096**		
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1-Dichloroethene	**2.05**	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
cis-1,2-Dichloroethene	**15.2**	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
Tetrachloroethene (PCE)	**0.690**	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
Trichloroethene (TCE)	**97.3**	---	0.400	ug/L	1	11/01/24 16:28	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 16:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 16:28	EPA 8260D	
Vinyl chloride	**1.10**	---	0.200	ug/L	1	11/01/24 16:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 16:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*11/01/24 16:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*11/01/24 16:28*	*EPA 8260D*	
MW79-2-20241029 (A4J1883-12RE1)				**Matrix: Water**		**Batch: 24K0272**		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW79-2-20241029 (A4J1883-12RE1)				**Matrix: Water**		**Batch: 24K0272**		
Bromobenzene	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/08/24 13:17	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
cis-1,2-Dichloroethene	**1.01**	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/08/24 13:17	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW79-2-20241029 (A4J1883-12RE1)				**Matrix: Water**		**Batch: 24K0272**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
Trichloroethene (TCE)	**0.670**	---	0.400	ug/L	1	11/08/24 13:17	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/08/24 13:17	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/08/24 13:17	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/08/24 13:17	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:* *80-120 %*	*1*	*11/08/24 13:17*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*11/08/24 13:17*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*11/08/24 13:17*	*EPA 8260D*	
MW3R-20241029 (A4J1883-13)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 17:11	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3R-20241029 (A4J1883-13)				**Matrix: Water**		**Batch: 24J1096**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
Tetrachloroethene (PCE)	**1.15**	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/01/24 17:11	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 17:11	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:11	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/01/24 17:11	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 17:11*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*11/01/24 17:11*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*11/01/24 17:11*	*EPA 8260D*	
A48-20241029 (A4J1883-14)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A48-20241029 (A4J1883-14)				**Matrix: Water**		**Batch: 24J1096**		
Bromoform	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	11/01/24 20:04	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	11/01/24 20:04	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	11/01/24 20:04	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1-Dichloroethene	**25.0**	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
cis-1,2-Dichloroethene	**333**	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	11/01/24 20:04	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A48-20241029 (A4J1883-14)				**Matrix: Water**		**Batch: 24J1096**		
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
Trichloroethene (TCE)	**5.38**	---	0.800	ug/L	2	11/01/24 20:04	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	11/01/24 20:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	11/01/24 20:04	EPA 8260D	
Vinyl chloride	**101**	---	0.400	ug/L	2	11/01/24 20:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits: 80-120 %*	*1*	*11/01/24 20:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*11/01/24 20:04*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*11/01/24 20:04*	*EPA 8260D*	
MW80-20241029 (A4J1883-15)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 17:32	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW80-20241029 (A4J1883-15)				**Matrix: Water**		**Batch: 24J1096**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
cis-1,2-Dichloroethene	**1.33**	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
Trichloroethene (TCE)	**1.99**	---	0.400	ug/L	1	11/01/24 17:32	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 17:32	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:32	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/01/24 17:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 17:32*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*11/01/24 17:32*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*11/01/24 17:32*	*EPA 8260D*	
MW61-1-20241029 (A4J1883-16)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW61-1-20241029 (A4J1883-16)				**Matrix: Water**		**Batch: 24J1096**		
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 17:54	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
cis-1,2-Dichloroethene	**1.38**	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 17:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW61-1-20241029 (A4J1883-16)				**Matrix: Water**		**Batch: 24J1096**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/01/24 17:54	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 17:54	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 17:54	EPA 8260D	
Vinyl chloride	**0.970**	---	0.200	ug/L	1	11/01/24 17:54	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 17:54*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*11/01/24 17:54*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*11/01/24 17:54*	*EPA 8260D*	
MW21-2-20241028 (A4J1883-17)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	10/31/24 17:07	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	Q-42
cis-1,2-Dichloroethene	**107**	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW21-2-20241028 (A4J1883-17)				**Matrix: Water**		**Batch: 24J1198**		
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Tetrachloroethene (PCE)	**6.20**	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	Q-42
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Trichloroethene (TCE)	**752**	---	4.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	10/31/24 17:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	10/31/24 17:07	EPA 8260D	
Vinyl chloride	**4.80**	---	2.00	ug/L	10	10/31/24 17:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*10/31/24 17:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/31/24 17:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/31/24 17:07*	*EPA 8260D*	
MW26-1-20241028 (A4J1883-18)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW26-1-20241028 (A4J1883-18)				**Matrix: Water**		**Batch: 24J1198**		
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 12:27	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1-Dichloroethene	**0.530**	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
cis-1,2-Dichloroethene	**4.53**	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
Tetrachloroethene (PCE)	**1.03**	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 12:27	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:27	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
Trichloroethene (TCE)	**27.1**	---	0.400	ug/L	1	10/31/24 12:27	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 12:27	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW26-1-20241028 (A4J1883-18)				**Matrix: Water**		**Batch: 24J1198**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:27	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 12:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*	*1*	*10/31/24 12:27*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/31/24 12:27*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*10/31/24 12:27*	*EPA 8260D*	
MW25-1-20241028 (A4J1883-19)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 12:48	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
cis-1,2-Dichloroethene	**5.93**	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW25-1-20241028 (A4J1883-19)				**Matrix: Water**		**Batch: 24J1198**		
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
Trichloroethene (TCE)	**6.68**	---	0.400	ug/L	1	10/31/24 12:48	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 12:48	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 12:48	EPA 8260D	
Vinyl chloride	**0.740**	---	0.200	ug/L	1	10/31/24 12:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*10/31/24 12:48*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*10/31/24 12:48*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*10/31/24 12:48*	*EPA 8260D*	
B37-20241029 (A4J1883-20RE1)				**Matrix: Water**		**Batch: 24K0272**		
Bromobenzene	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	11/08/24 18:35	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	11/08/24 18:35	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	11/08/24 18:35	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B37-20241029 (A4J1883-20RE1)				**Matrix: Water**		**Batch: 24K0272**		
Dibromochloromethane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1-Dichloroethene	**15.2**	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
cis-1,2-Dichloroethene	**683**	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
trans-1,2-Dichloroethene	**2.65**	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	11/08/24 18:35	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	11/08/24 18:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Trichloroethene (TCE)	**39.4**	---	2.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	11/08/24 18:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Vinyl chloride	**171**	---	1.00	ug/L	5	11/08/24 18:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*	*1*	*11/08/24 18:35*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B37-20241029 (A4J1883-20RE1)				**Matrix: Water**		**Batch: 24K0272**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*11/08/24 18:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*11/08/24 18:35*	*EPA 8260D*	
MW67-2-20241029 (A4J1883-21)				**Matrix: Water**		**Batch: 24J1096**		
Bromobenzene	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/01/24 18:16	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
cis-1,2-Dichloroethene	**2.60**	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW67-2-20241029 (A4J1883-21)				**Matrix: Water**		**Batch: 24J1096**		
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
Tetrachloroethene (PCE)	**0.640**	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
Trichloroethene (TCE)	**9.00**	---	0.400	ug/L	1	11/01/24 18:16	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/01/24 18:16	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/01/24 18:16	EPA 8260D	
Vinyl chloride	**0.390**	---	0.200	ug/L	1	11/01/24 18:16	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*1*	*11/01/24 18:16*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*11/01/24 18:16*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*11/01/24 18:16*	*EPA 8260D*	
A11-20241028 (A4J1883-22)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 13:10	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A11-20241028 (A4J1883-22)				**Matrix: Water**		**Batch: 24J1198**		
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 13:10	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 13:10	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:10	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 13:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*10/31/24 13:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*10/31/24 13:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*	*10/31/24 13:10*	*EPA 8260D*	
B8-20241028 (A4J1883-23)				**Matrix: Water**		**Batch: 24J1198**		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B8-20241028 (A4J1883-23)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 13:31	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
cis-1,2-Dichloroethene	**1.88**	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 13:31	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B8-20241028 (A4J1883-23)				**Matrix: Water**		**Batch: 24J1198**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 13:31	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 13:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:31	EPA 8260D	
Vinyl chloride	**4.44**	---	0.200	ug/L	1	10/31/24 13:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*10/31/24 13:31*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*10/31/24 13:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/31/24 13:31*	*EPA 8260D*	
B23-20241028 (A4J1883-24)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 13:53	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B23-20241028 (A4J1883-24)				**Matrix: Water**		**Batch: 24J1198**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 13:53	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 13:53	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 13:53	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 13:53	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*10/31/24 13:53*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*10/31/24 13:53*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*10/31/24 13:53*	*EPA 8260D*	
A36-20241028 (A4J1883-25)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A36-20241028 (A4J1883-25)				**Matrix: Water**		**Batch: 24J1198**		
Bromoform	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 14:14	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A36-20241028 (A4J1883-25)				**Matrix: Water**		**Batch: 24J1198**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 14:14	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 14:14	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:14	EPA 8260D	
Vinyl chloride	**0.410**	---	0.200	ug/L	1	10/31/24 14:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*10/31/24 14:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/31/24 14:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/31/24 14:14*	*EPA 8260D*	
MW59-2-20241028 (A4J1883-26)				**Matrix: Water**		**Batch: 24J1198**		
cis-1,2-Dichloroethene	**180**	---	2.00	ug/L	5	10/31/24 16:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*10/31/24 16:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*10/31/24 16:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/31/24 16:45*	*EPA 8260D*	
MW59-2-20241028 (A4J1883-26RE1)				**Matrix: Water**		**Batch: 24K0272**		
Bromobenzene	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/08/24 14:03	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW59-2-20241028 (A4J1883-26RE1)				**Matrix: Water**		**Batch: 24K0272**		
Dibromomethane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1-Dichloroethene	**1.58**	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/08/24 14:03	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/08/24 14:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/08/24 14:03	EPA 8260D	
Vinyl chloride	**77.5**	---	0.200	ug/L	1	11/08/24 14:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*11/08/24 14:03*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*11/08/24 14:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*11/08/24 14:03*	*EPA 8260D*	
M63-2-20241028 (A4J1883-27)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
M63-2-20241028 (A4J1883-27)				**Matrix: Water**		**Batch: 24J1198**		
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 14:36	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
cis-1,2-Dichloroethene	**0.750**	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
M63-2-20241028 (A4J1883-27)				**Matrix: Water**		**Batch: 24J1198**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
Tetrachloroethene (PCE)	**0.450**	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
Trichloroethene (TCE)	**8.39**	---	0.400	ug/L	1	10/31/24 14:36	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 14:36	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 14:36	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 14:36	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*10/31/24 14:36*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/31/24 14:36*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*10/31/24 14:36*	*EPA 8260D*	
A34-20241028 (A4J1883-28)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 15:41	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
A34-20241028 (A4J1883-28)				**Matrix: Water**		**Batch: 24J1198**		
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 15:41	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 15:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 15:41	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 15:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*10/31/24 15:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*10/31/24 15:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*10/31/24 15:41*	*EPA 8260D*	
Trip Blank (A4J1883-29)				**Matrix: Water**		**Batch: 24J1198**		
Bromobenzene	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A4J1883-29)				**Matrix: Water**		**Batch: 24J1198**		
Bromomethane	ND	---	5.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	10/31/24 11:43	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 11:43	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A4J1883-29)				**Matrix: Water**		**Batch: 24J1198**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/31/24 11:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/31/24 11:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/31/24 11:43	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	10/31/24 11:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:* *80-120 %*	*1*	*10/31/24 11:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/31/24 11:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*10/31/24 11:43*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							Water					
Blank (24J1096-BLK1)			Prepared: 11/01/24 09:00 Analyzed: 11/01/24 12:08									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							Water					
Blank (24J1096-BLK1)			Prepared: 11/01/24 09:00 Analyzed: 11/01/24 12:08									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			
LCS (24J1096-BS1)			Prepared: 11/01/24 09:00 Analyzed: 11/01/24 11:12									
EPA 8260D												
Bromobenzene	17.3	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromoform	19.7	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	25.0	---	5.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
Carbon tetrachloride	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Chloroethane	20.7	---	5.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroform	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Chloromethane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
2-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
4-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Dibromochloromethane	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dibromomethane	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichlorobenzene	17.4	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							**Water**					
LCS (24J1096-BS1)			Prepared: 11/01/24 09:00 Analyzed: 11/01/24 11:12									
1,3-Dichlorobenzene	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,4-Dichlorobenzene	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Dichlorodifluoromethane	14.8	---	1.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,1-Dichloroethane	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
cis-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	17.7	---	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dichloropropane	17.6	---	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
1,3-Dichloropropane	17.9	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
2,2-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloropropene	16.8	---	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
cis-1,3-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Hexachlorobutadiene	15.4	---	5.00	ug/L	1	20.0	---	**77**	**80-120%**	---	---	Q-55
Methylene chloride	16.3	---	10.0	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Tetrachloroethene (PCE)	17.6	---	0.400	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,3-Trichlorobenzene	15.9	---	2.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,1,2-Trichloroethane	18.0	---	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
1,2,4-Trichlorobenzene	14.8	---	2.00	ug/L	1	20.0	---	**74**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Trichloroethene (TCE)	16.7	---	0.400	ug/L	1	20.0	---	83	80-120%	---	---	
Trichlorofluoromethane	23.2	---	2.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2,3-Trichloropropane	18.1	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Vinyl chloride	18.8	---	0.200	ug/L	1	20.0	---	94	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*92 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (24J1096-DUP1)			Prepared: 11/01/24 09:00 Analyzed: 11/03/24 10:58									**T-02**

QC Source Sample: B37-20241029 (A4J1883-20)

EPA 8260D

Apex Laboratories



Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: 016M12372H	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							**Water**					
Duplicate (24J1096-DUP1)			Prepared: 11/01/24 09:00 Analyzed: 11/03/24 10:58									T-02
QC Source Sample: B37-20241029 (A4J1883-20)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	**9.30**	---	2.00	ug/L	5	---	9.85	---	---	6	30%	
cis-1,2-Dichloroethene	**517**	---	2.00	ug/L	5	---	571	---	---	10	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	2.15	---	---	***	**30%**	Q-17
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							**Water**					
Duplicate (24J1096-DUP1)			Prepared: 11/01/24 09:00 Analyzed: 11/03/24 10:58									**T-02**
QC Source Sample: B37-20241029 (A4J1883-20)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**22.4**	---	2.00	ug/L	5	---	23.6	---	---	5	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	**107**	---	1.00	ug/L	5	---	132	---	---	20	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (24J1096-MS1)			Prepared: 11/01/24 09:00 Analyzed: 11/01/24 18:38									
QC Source Sample: MW67-2-20241029 (A4J1883-21)												
EPA 8260D												
Bromobenzene	18.1	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
Bromochloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
Bromodichloromethane	22.3	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	21.0	---	1.00	ug/L	1	20.0	ND	105	66-130%	---	---	
Bromomethane	28.8	---	5.00	ug/L	1	20.0	ND	**144**	**53-141%**	---	---	Q-54d
Carbon tetrachloride	24.3	---	1.00	ug/L	1	20.0	ND	121	72-136%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Chloroethane	25.9	---	5.00	ug/L	1	20.0	ND	130	60-138%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	19.5	---	5.00	ug/L	1	20.0	ND	97	50-139%	---	---	
2-Chlorotoluene	19.5	---	1.00	ug/L	1	20.0	ND	98	79-122%	---	---	
4-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	ND	98	78-122%	---	---	
Dibromochloromethane	20.7	---	1.00	ug/L	1	20.0	ND	104	74-126%	---	---	
1,2-Dibromo-3-chloropropane	14.8	---	5.00	ug/L	1	20.0	ND	74	62-128%	---	---	Q-54e
1,2-Dibromoethane (EDB)	18.6	---	0.500	ug/L	1	20.0	ND	93	77-121%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1096 - EPA 5030C							**Water**					
Matrix Spike (24J1096-MS1)			Prepared: 11/01/24 09:00		Analyzed: 11/01/24 18:38							
QC Source Sample: MW67-2-20241029 (A4J1883-21)												
Dibromomethane	21.0	---	1.00	ug/L	1	20.0	ND	105	79-123%	---	---	
1,2-Dichlorobenzene	18.1	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
1,3-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	ND	95	79-120%	---	---	
Dichlorodifluoromethane	20.7	---	1.00	ug/L	1	20.0	ND	104	32-152%	---	---	Q-54h
1,1-Dichloroethane	19.6	---	0.400	ug/L	1	20.0	ND	98	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	ND	108	73-128%	---	---	
1,1-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	ND	106	71-131%	---	---	
cis-1,2-Dichloroethene	23.7	---	0.400	ug/L	1	20.0	2.60	106	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	19.0	---	0.500	ug/L	1	20.0	ND	95	78-122%	---	---	
1,3-Dichloropropane	18.7	---	1.00	ug/L	1	20.0	ND	93	80-120%	---	---	
2,2-Dichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	110	60-139%	---	---	
1,1-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	ND	99	79-125%	---	---	
cis-1,3-Dichloropropene	17.6	---	1.00	ug/L	1	20.0	ND	88	75-124%	---	---	
trans-1,3-Dichloropropene	20.5	---	1.00	ug/L	1	20.0	ND	103	73-127%	---	---	
Hexachlorobutadiene	17.4	---	5.00	ug/L	1	20.0	ND	87	66-134%	---	---	Q-54g
Methylene chloride	17.9	---	10.0	ug/L	1	20.0	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.0	---	0.400	ug/L	1	20.0	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.4	---	0.500	ug/L	1	20.0	ND	97	71-121%	---	---	
Tetrachloroethene (PCE)	20.6	---	0.400	ug/L	1	20.0	0.640	100	74-129%	---	---	
1,2,3-Trichlorobenzene	16.4	---	2.00	ug/L	1	20.0	ND	82	69-129%	---	---	Q-54f
1,1,2-Trichloroethane	18.5	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,2,4-Trichlorobenzene	15.6	---	2.00	ug/L	1	20.0	ND	78	69-130%	---	---	Q-54h
1,1,1-Trichloroethane	21.7	---	0.400	ug/L	1	20.0	ND	108	74-131%	---	---	
Trichloroethene (TCE)	26.7	---	0.400	ug/L	1	20.0	9.00	88	79-123%	---	---	
Trichlorofluoromethane	30.3	---	2.00	ug/L	1	20.0	ND	**152**	**65-141%**	---	---	Q-01
1,2,3-Trichloropropane	17.5	---	1.00	ug/L	1	20.0	ND	87	73-122%	---	---	
Vinyl chloride	23.2	---	0.200	ug/L	1	20.0	0.390	114	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*92 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*93 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							Water					
Blank (24J1198-BLK1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 11:15									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
EPA 8260D												
Bromobenzene	17.2	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	
Bromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	---	**131**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Chlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroethane	23.9	---	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	18.5	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
2-Chlorotoluene	18.7	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Chlorotoluene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromochloromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	15.8	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichlorobenzene	17.3	---	0.500	ug/L	1	20.0	---	86	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
LCS (24J1198-BS1)			Prepared: 10/31/24 08:30 Analyzed: 10/31/24 10:32									
1,3-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,4-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethane	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
1,2-Dichloropropane	17.3	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
1,3-Dichloropropane	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
2,2-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
cis-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Hexachlorobutadiene	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
Methylene chloride	17.4	---	10.0	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,2-Trichloroethane	17.8	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
1,2,4-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichloroethene (TCE)	17.5	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
Trichlorofluoromethane	28.8	---	2.00	ug/L	1	20.0	---	**144**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	17.2	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
Vinyl chloride	22.9	---	0.200	ug/L	1	20.0	---	115	80-120%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 94 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*93 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*	

Duplicate (24J1198-DUP1) Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29

QC Source Sample: MW21-2-20241028 (A4J1883-17)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: MW21-2-20241028 (A4J1883-17)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	2.00	---	---	***	**30%**	Q-17
cis-1,2-Dichloroethene	**110**	---	4.00	ug/L	10	---	107	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Duplicate (24J1198-DUP1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 17:29									
QC Source Sample: MW21-2-20241028 (A4J1883-17)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**4.50**	---	4.00	ug/L	10	---	6.20	---	---	**32**	**30%**	Q-17
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**734**	---	4.00	ug/L	10	---	752	---	---	3	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	**4.00**	---	2.00	ug/L	10	---	4.80	---	---	18	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: M63-2-20241028 (A4J1883-27)												
EPA 8260D												
Bromobenzene	18.0	---	0.500	ug/L	1	20.0	ND	90	80-120%	---	---	
Bromochloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	78-123%	---	---	
Bromodichloromethane	23.2	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	22.3	---	1.00	ug/L	1	20.0	ND	111	66-130%	---	---	
Bromomethane	26.2	---	5.00	ug/L	1	20.0	ND	131	53-141%	---	---	Q-54
Carbon tetrachloride	26.3	---	1.00	ug/L	1	20.0	ND	131	72-136%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Chloroethane	26.1	---	5.00	ug/L	1	20.0	ND	131	60-138%	---	---	
Chloroform	22.5	---	1.00	ug/L	1	20.0	ND	113	79-124%	---	---	
Chloromethane	20.9	---	5.00	ug/L	1	20.0	ND	104	50-139%	---	---	
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.0	---	1.00	ug/L	1	20.0	ND	100	78-122%	---	---	
Dibromochloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	74-126%	---	---	
1,2-Dibromo-3-chloropropane	15.4	---	5.00	ug/L	1	20.0	ND	77	62-128%	---	---	Q-54f
1,2-Dibromoethane (EDB)	19.6	---	0.500	ug/L	1	20.0	ND	98	77-121%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24J1198 - EPA 5030C							**Water**					
Matrix Spike (24J1198-MS1)			Prepared: 10/31/24 08:38 Analyzed: 10/31/24 14:58									
QC Source Sample: M63-2-20241028 (A4J1883-27)												
Dibromomethane	20.5	---	1.00	ug/L	1	20.0	ND	102	79-123%	---	---	
1,2-Dichlorobenzene	18.4	---	0.500	ug/L	1	20.0	ND	92	80-120%	---	---	
1,3-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	ND	96	79-120%	---	---	
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	ND	104	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	22.2	---	0.400	ug/L	1	20.0	ND	111	71-131%	---	---	
cis-1,2-Dichloroethene	20.9	---	0.400	ug/L	1	20.0	0.750	101	78-123%	---	---	
trans-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	ND	103	75-124%	---	---	
1,2-Dichloropropane	19.6	---	0.500	ug/L	1	20.0	ND	98	78-122%	---	---	
1,3-Dichloropropane	19.2	---	1.00	ug/L	1	20.0	ND	96	80-120%	---	---	
2,2-Dichloropropane	23.5	---	1.00	ug/L	1	20.0	ND	117	60-139%	---	---	
1,1-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	ND	102	79-125%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	75-124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	19.0	---	5.00	ug/L	1	20.0	ND	95	66-134%	---	---	
Methylene chloride	18.0	---	10.0	ug/L	1	20.0	ND	90	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.4	---	0.400	ug/L	1	20.0	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.4	---	0.500	ug/L	1	20.0	ND	102	71-121%	---	---	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	0.450	106	74-129%	---	---	
1,2,3-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-129%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	ND	96	80-120%	---	---	
1,2,4-Trichlorobenzene	16.2	---	2.00	ug/L	1	20.0	ND	81	69-130%	---	---	Q-54f
1,1,1-Trichloroethane	22.1	---	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
Trichloroethene (TCE)	26.3	---	0.400	ug/L	1	20.0	8.39	89	79-123%	---	---	
Trichlorofluoromethane	31.9	---	2.00	ug/L	1	20.0	ND	**160**	**65-141%**	---	---	Q-54c
1,2,3-Trichloropropane	17.6	---	1.00	ug/L	1	20.0	ND	88	73-122%	---	---	
Vinyl chloride	23.0	---	0.200	ug/L	1	20.0	ND	115	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 97 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							Water					
Blank (24K0272-BLK1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 11:01									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							**Water**					
Blank (24K0272-BLK1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 11:01									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24K0272-BS1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 10:16									
EPA 8260D												
Bromobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Bromochloromethane	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromodichloromethane	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromomethane	28.0	---	5.00	ug/L	1	20.0	---	**140**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	23.6	---	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
Chloroform	20.1	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	16.2	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
4-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dibromo-3-chloropropane	20.5	---	5.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromomethane	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							**Water**					
LCS (24K0272-BS1)			Prepared: 11/08/24 07:00		Analyzed: 11/08/24 10:16							
1,3-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.7	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethene	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,2-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,2-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,1-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,3-Dichloropropene	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Hexachlorobutadiene	20.6	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
Methylene chloride	20.0	---	10.0	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Tetrachloroethene (PCE)	21.5	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,3-Trichlorobenzene	19.2	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,2-Trichloroethane	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,2,4-Trichlorobenzene	18.9	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichloroethene (TCE)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichlorofluoromethane	27.2	---	2.00	ug/L	1	20.0	---	**136**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Vinyl chloride	22.6	---	0.200	ug/L	1	20.0	---	113	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Duplicate (24K0272-DUP1)			Prepared: 11/08/24 07:00		Analyzed: 11/08/24 20:28							
QC Source Sample: Non-SDG (A4J1980-03RE1)												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							**Water**					
Duplicate (24K0272-DUP1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 20:28									
QC Source Sample: Non-SDG (A4J1980-03RE1)												
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	016M12372H
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4J1883 - 12 27 24 1413

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							**Water**					
Duplicate (24K0272-DUP1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 20:28									
QC Source Sample: Non-SDG (A4J1980-03RE1)												
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**1440**	---	8.00	ug/L	20	---	1390	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	4.00	ug/L	20	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (24K0272-MS1)			Prepared: 11/08/24 07:00 Analyzed: 11/08/24 20:50									
QC Source Sample: Non-SDG (A4K1027-02)												
EPA 8260D												
Bromobenzene	113	---	2.50	ug/L	5	100	ND	113	80-120%	---	---	
Bromochloromethane	138	---	5.00	ug/L	5	100	ND	**138**	**78-123%**	---	---	Q-01
Bromodichloromethane	127	---	5.00	ug/L	5	100	ND	**127**	**79-125%**	---	---	Q-01
Bromoform	120	---	5.00	ug/L	5	100	ND	120	66-130%	---	---	
Bromomethane	168	---	25.0	ug/L	5	100	ND	**168**	**53-141%**	---	---	Q-54b
Carbon tetrachloride	126	---	5.00	ug/L	5	100	ND	126	72-136%	---	---	
Chlorobenzene	125	---	2.50	ug/L	5	100	ND	**125**	**80-120%**	---	---	Q-01
Chloroethane	161	---	25.0	ug/L	5	100	ND	**161**	**60-138%**	---	---	Q-01
Chloroform	129	---	5.00	ug/L	5	100	4.55	124	79-124%	---	---	
Chloromethane	105	---	25.0	ug/L	5	100	ND	105	50-139%	---	---	
2-Chlorotoluene	117	---	5.00	ug/L	5	100	ND	117	79-122%	---	---	
4-Chlorotoluene	114	---	5.00	ug/L	5	100	ND	114	78-122%	---	---	
Dibromochloromethane	122	---	5.00	ug/L	5	100	ND	122	74-126%	---	---	
1,2-Dibromo-3-chloropropane	108	---	25.0	ug/L	5	100	ND	108	62-128%	---	---	
1,2-Dibromoethane (EDB)	126	---	2.50	ug/L	5	100	ND	**126**	**77-121%**	---	---	Q-01
Dibromomethane	133	---	5.00	ug/L	5	100	ND	**133**	**79-123%**	---	---	Q-01

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0272 - EPA 5030C							**Water**					
Matrix Spike (24K0272-MS1)			Prepared: 11/08/24 07:00		Analyzed: 11/08/24 20:50							
QC Source Sample: Non-SDG (A4K1027-02)												
1,2-Dichlorobenzene	118	---	2.50	ug/L	5	100	ND	118	80-120%	---	---	
1,3-Dichlorobenzene	120	---	2.50	ug/L	5	100	ND	120	80-120%	---	---	
1,4-Dichlorobenzene	117	---	2.50	ug/L	5	100	ND	117	79-120%	---	---	
Dichlorodifluoromethane	131	---	5.00	ug/L	5	100	ND	131	32-152%	---	---	
1,1-Dichloroethane	134	---	2.00	ug/L	5	100	ND	**134**	**77-125%**	---	---	Q-01
1,2-Dichloroethane (EDC)	129	---	2.00	ug/L	5	100	ND	**129**	**73-128%**	---	---	Q-01
1,1-Dichloroethene	141	---	2.00	ug/L	5	100	ND	**141**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	124	---	2.00	ug/L	5	100	ND	**124**	**78-123%**	---	---	Q-01
trans-1,2-Dichloroethene	129	---	2.00	ug/L	5	100	ND	**129**	**75-124%**	---	---	Q-01
1,2-Dichloropropane	128	---	2.50	ug/L	5	100	ND	**128**	**78-122%**	---	---	Q-01
1,3-Dichloropropane	121	---	5.00	ug/L	5	100	ND	**121**	**80-120%**	---	---	Q-01
2,2-Dichloropropane	113	---	5.00	ug/L	5	100	ND	113	60-139%	---	---	
1,1-Dichloropropene	131	---	5.00	ug/L	5	100	ND	**131**	**79-125%**	---	---	Q-01
cis-1,3-Dichloropropene	116	---	5.00	ug/L	5	100	ND	116	75-124%	---	---	
trans-1,3-Dichloropropene	120	---	5.00	ug/L	5	100	ND	120	73-127%	---	---	
Hexachlorobutadiene	114	---	25.0	ug/L	5	100	ND	114	66-134%	---	---	
Methylene chloride	123	---	50.0	ug/L	5	100	ND	123	74-124%	---	---	
1,1,1,2-Tetrachloroethane	117	---	2.00	ug/L	5	100	ND	117	78-124%	---	---	
1,1,2,2-Tetrachloroethane	96.6	---	2.50	ug/L	5	100	ND	97	71-121%	---	---	
Tetrachloroethene (PCE)	134	---	2.00	ug/L	5	100	ND	**134**	**74-129%**	---	---	Q-01
1,2,3-Trichlorobenzene	110	---	10.0	ug/L	5	100	ND	110	69-129%	---	---	
1,1,2-Trichloroethane	120	---	2.50	ug/L	5	100	ND	120	80-120%	---	---	
1,2,4-Trichlorobenzene	107	---	10.0	ug/L	5	100	ND	107	69-130%	---	---	
1,1,1-Trichloroethane	133	---	2.00	ug/L	5	100	ND	**133**	**74-131%**	---	---	Q-01
Trichloroethene (TCE)	152	---	2.00	ug/L	5	100	ND	**152**	**79-123%**	---	---	Q-01
Trichlorofluoromethane	191	---	10.0	ug/L	5	100	ND	**191**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	117	---	5.00	ug/L	5	100	ND	117	73-122%	---	---	
Vinyl chloride	146	---	1.00	ug/L	5	100	ND	**146**	**58-137%**	---	---	Q-01

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 104 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*99 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*94 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24J1096							
A4J1883-04	Water	EPA 8260D	10/30/24 11:10	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-05	Water	EPA 8260D	10/30/24 10:30	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-06	Water	EPA 8260D	10/30/24 00:00	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-07	Water	EPA 8260D	10/30/24 10:00	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-08	Water	EPA 8260D	10/29/24 14:25	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-09	Water	EPA 8260D	10/29/24 12:45	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-10	Water	EPA 8260D	10/29/24 16:15	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-11	Water	EPA 8260D	10/29/24 10:45	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-13	Water	EPA 8260D	10/29/24 10:05	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-14	Water	EPA 8260D	10/29/24 11:20	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-15	Water	EPA 8260D	10/29/24 15:05	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-16	Water	EPA 8260D	10/29/24 16:50	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
A4J1883-21	Water	EPA 8260D	10/29/24 12:05	11/01/24 09:20	5mL/5mL	5mL/5mL	1.00
Batch: 24J1198							
A4J1883-01	Water	EPA 8260D	10/30/24 12:30	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-03	Water	EPA 8260D	10/30/24 11:50	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-17	Water	EPA 8260D	10/28/24 14:55	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-18	Water	EPA 8260D	10/28/24 17:30	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-19	Water	EPA 8260D	10/28/24 16:05	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-22	Water	EPA 8260D	10/28/24 10:10	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-23	Water	EPA 8260D	10/28/24 10:45	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-24	Water	EPA 8260D	10/28/24 13:10	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-25	Water	EPA 8260D	10/28/24 14:20	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-26	Water	EPA 8260D	10/28/24 11:30	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-27	Water	EPA 8260D	10/28/24 16:50	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-28	Water	EPA 8260D	10/28/24 13:45	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
A4J1883-29	Water	EPA 8260D	10/28/24 00:00	10/31/24 08:38	5mL/5mL	5mL/5mL	1.00
Batch: 24K0272							
A4J1883-02RE1	Water	EPA 8260D	10/30/24 12:15	11/08/24 10:31	5mL/5mL	5mL/5mL	1.00
A4J1883-12RE1	Water	EPA 8260D	10/29/24 15:30	11/08/24 10:31	5mL/5mL	5mL/5mL	1.00
A4J1883-20RE1	Water	EPA 8260D	10/29/24 13:35	11/08/24 10:31	5mL/5mL	5mL/5mL	1.00
A4J1883-26RE1	Water	EPA 8260D	10/28/24 11:30	11/08/24 10:31	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +16%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +20%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +24%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by 1%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -6%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
T-02	This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

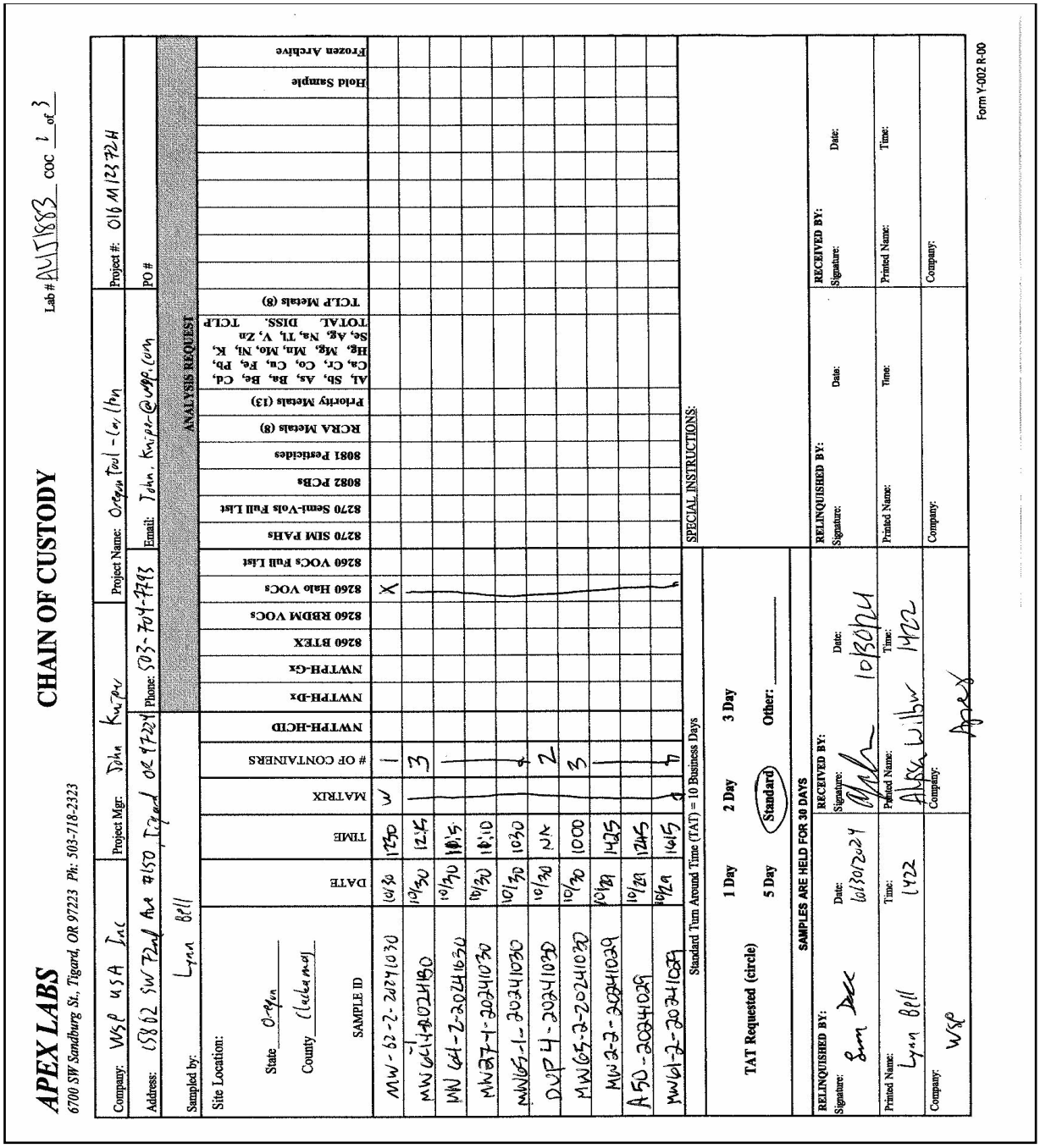
ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **016M12372H**
Project Manager: **John Kuiper**

Report ID:
A4J1883 - 12 27 24 1413



APEX LABS
6700 SW Sandburg St. Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1883 COC 1 of 3

Company: WSP USA Inc | Project Mgr: John Kuiper | Project Name: Oregon Tool - Carlton | Project #: 016M12372H
Address: 15862 SW 72nd Ave #150 Tigard OR 97224 | Phone: 503-704-7713 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell

Site Location:
State Oregon
County Clackamas

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW-62-2-20241030	10/30	1230	W	1						X											
MW-64-2-20241030	10/30	1245		3																	
MW-64-2-20241030	10/30	1315																			
MW37-1-20241030	10/30	1010																			
MW65-1-20241030	10/30	1030		4																	
DUP-4-20241030	10/30	NR		2																	
MW65-2-20241030	10/30	1000		3																	
MW3-2-20241030	10/28	1425		1																	
A50-20241029	10/29	1245																			
MW61-2-20241029	10/29	1615		4																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Sam Dec Date: 10/30/2024
RECEIVED BY: Signature: Date:
RELINQUISHED BY: Signature: Date:
RECEIVED BY: Signature: Date:
Printed Name: Lynn Bell Time: 1422
Printed Name: Alexa Wilbur Time: 1422
Printed Name: Time:
Printed Name: Time:
Company: WSP
Company: Apex
Company:
Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

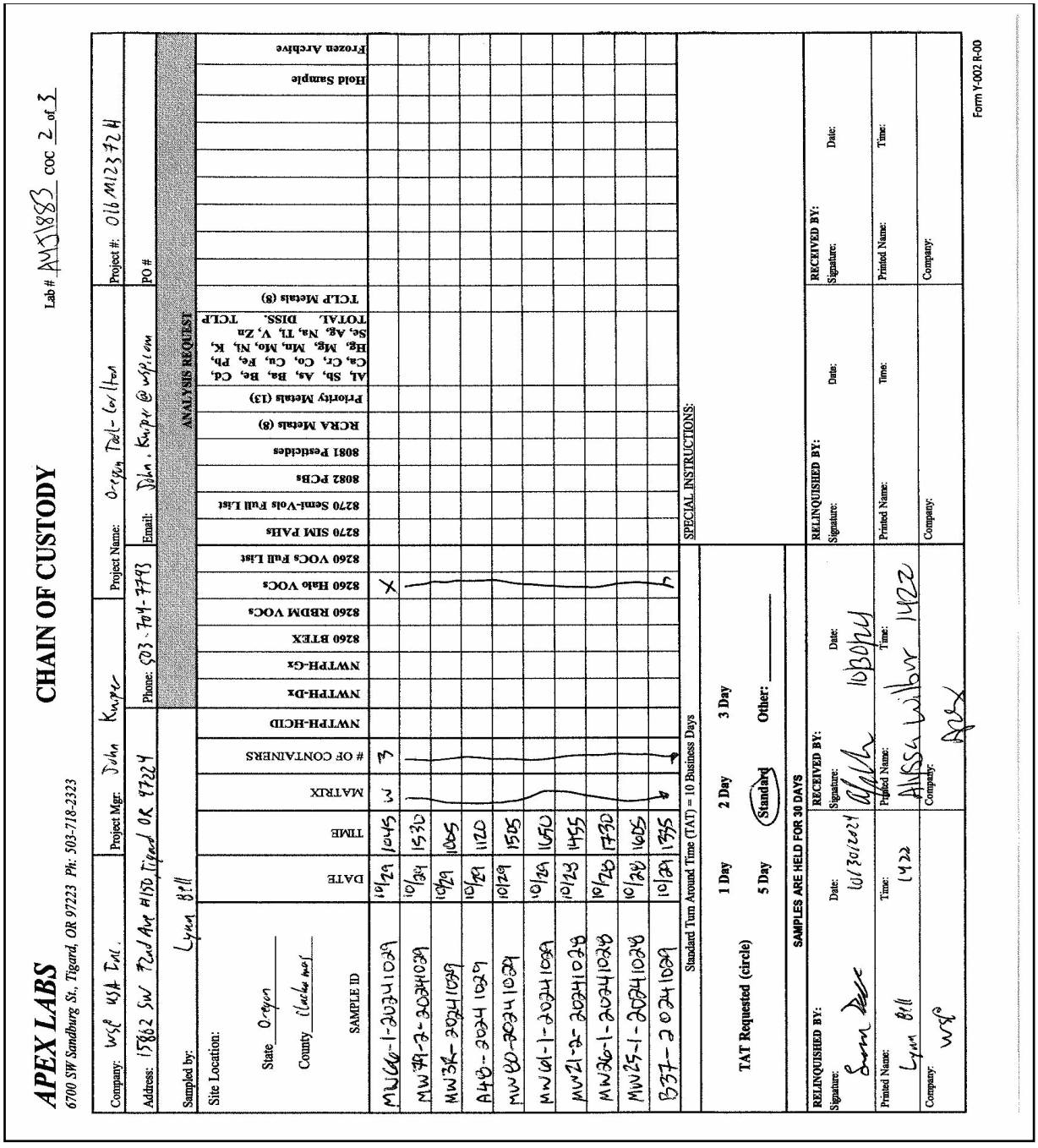
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Tigard, OR 97223
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # AMJ1883 COC 2 of 3

Company: WSP USA Env. Project Mgr: John Kuiper Project Name: Orion Tool - Carlton Project #: 016M12372H
Address: 15862 SW 72nd Ave #150, Tigard OR 97224 Phone: 503-704-7793 Email: John.Kuiper@wsp.com PO #
Sampled by: Lynn Bell
Site Location: State Oregon County Clackamas

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW66-1-20241029	10/29	1045	W	3						X											
MW39-3-20241029	10/29	1530																			
MW38-20241029	10/29	1005																			
AH8-20241029	10/29	1120																			
MW20-20241029	10/29	1505																			
MW01-1-20241029	10/29	1650																			
MW21-2-20241029	10/29	1455																			
MW36-1-20241029	10/29	1730																			
MW25-1-20241029	10/29	1605																			
B37-20241029	10/29	1335	W	4						V											

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Lynn Bell	Signature:	Signature:	Signature:
Date: 10/30/2024	Date:	Date:	Date:
Time: 1422	Time:	Time:	Time:
Printed Name: Lynn Bell	Printed Name:	Printed Name:	Printed Name:
Company: WSP	Company:	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

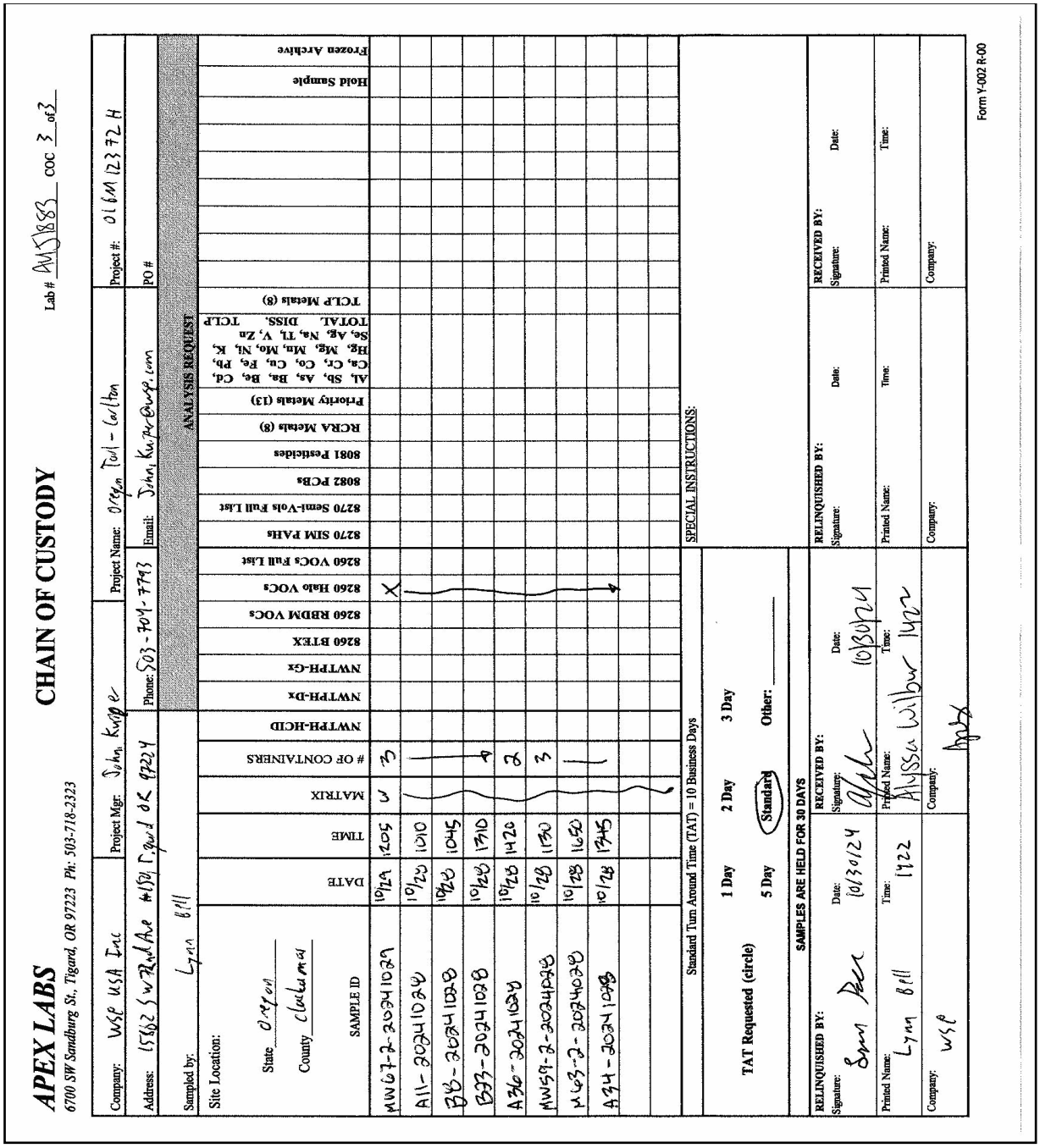
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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4J1883 COC 3 of 3

Company: WSP USA Inc | Project Mgr: John Kuiper | Project Name: OR Tool - Carlton | Project #: 016M12372H
Address: 15862 SW 72nd Ave #150 Tigard OR 97224 | Phone: 503-701-7793 | Email: John.Kuiper@wsp.com | PO #
Sampled by: Lynn Bell
Site Location: State Oregon County Clackamas

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW67-2-20241029	10/29	1205	W	3						X											
A11-20241029	10/29	1010																			
B6-20241028	10/28	1045																			
B33-20241028	10/28	1310		4																	
A36-20241029	10/29	1420		8																	
MW59-2-20241028	10/28	1130		3																	
MW63-2-20241028	10/28	1650		1																	
A34-20241028	10/28	1345		1																	

SPECIAL INSTRUCTIONS:

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Lynn Bell	Signature:	Signature:	Signature:
Date: 10/30/24	Date: 10/30/24	Date:	Date:
Time: 1422	Time: 1422	Time:	Time:
Printed Name: Lynn Bell	Printed Name: Alyssa Wilbur	Printed Name:	Printed Name:
Company: WSP	Company:	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

WO# AHJ1883

COC/Container Discrepancies

COC Reads	Container Reads/Comments
MW80-20241029 3/3 VOAs read	MW-80-2-20241029
MW21-2-20241028	Cont. IDs very matched by T
A11-20241028 @ 0720	3/3 Cont. D read 10/26
A36-20241028	43 VOAs recieved empty
M63-2-20241028	Cont. IDs read MW-63-2-20241028
Trip blanks are missing from the CoC.	

Form Y-004 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

AMENDED REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **016M12372H**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4J1883 - 12 27 24 1413**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 J1883

Project/Project #: Oregon Tool - Carlton 016M12372H

Delivery Info:

Date/time received: 10/30/24 @ 1422 By: AMW

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 10/30/24 @ 1422 By: AMW

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	3.6						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 10/30/24 @ 1526 By: AMW

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: MW27-1-20241030 1/3 VOA T rec'd 1100. DUP4-20241030 no T on CoC or cont. MW61-2-20241029 1/3 VOA IDs rec'd MW-61-2

COC/container discrepancies form initiated? Yes* X No ___ *see form

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: Limited Volume: MW-62-2-20241030 1 VOA, DUP4-20241030 2 VOAs, AB6-20241028 2 VOAs

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments AB4-20241028 3/3 VOAs have sed

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

TB# 3633

Labeled by: AMW Witness: [signature] Cooler Inspected by: AMW

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, December 4, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4K1413 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4K1413, which was received by the laboratory on 11/19/2024 at 1:56:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-111924	**A4K1413-01**	**Water**	**11/19/24 13:00**	**11/19/24 13:56**
INF-111924	**A4K1413-02**	**Water**	**11/19/24 13:10**	**11/19/24 13:56**
Trip #3605	**A4K1413-03**	**Water**	**11/19/24 12:40**	**11/19/24 13:56**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-111924 (A4K1413-01)				**Matrix: Water**		**Batch: 24K0680**		
Bromobenzene	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/20/24 00:43	EPA 8260D	Q-54c
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/20/24 00:43	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-111924 (A4K1413-01)				**Matrix: Water**		**Batch: 24K0680**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/20/24 00:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/20/24 00:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/20/24 00:43	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/20/24 00:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*11/20/24 00:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*11/20/24 00:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*11/20/24 00:43*	*EPA 8260D*	
INF-111924 (A4K1413-02)				**Matrix: Water**		**Batch: 24K0680**		
Bromobenzene	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	11/20/24 01:05	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	11/20/24 01:05	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	11/20/24 01:05	EPA 8260D	Q-54c
2-Chlorotoluene	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-111924 (A4K1413-02)				**Matrix: Water**		**Batch: 24K0680**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
cis-1,2-Dichloroethene	**42.8**	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	11/20/24 01:05	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
Tetrachloroethene (PCE)	**8.20**	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	11/20/24 01:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Trichloroethene (TCE)	**529**	---	2.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	11/20/24 01:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	11/20/24 01:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*11/20/24 01:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*11/20/24 01:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*11/20/24 01:05*	*EPA 8260D*	
Trip #3605 (A4K1413-03)				**Matrix: Water**		**Batch: 24K0680**		
Bromobenzene	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A4K1413 - 12 04 24 1727

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip #3605 (A4K1413-03)				**Matrix: Water**		**Batch: 24K0680**		
Bromoform	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	11/19/24 19:28	EPA 8260D	Q-54c
2-Chlorotoluene	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip #3605 (A4K1413-03)				**Matrix: Water**		**Batch: 24K0680**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	11/19/24 19:28	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	11/19/24 19:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	11/19/24 19:28	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	11/19/24 19:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:* *80-120 %*	*1*	*11/19/24 19:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*11/19/24 19:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*	*80-120 %*	*1*	*11/19/24 19:28*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
Blank (24K0680-BLK1)			Prepared: 11/19/24 14:00 Analyzed: 11/19/24 18:20									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	Q-54c
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
Blank (24K0680-BLK1)			Prepared: 11/19/24 14:00 Analyzed: 11/19/24 18:20									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*104 %*		*80-120 %*			*"*				
LCS (24K0680-BS1)			Prepared: 11/19/24 14:00 Analyzed: 11/19/24 16:34									
EPA 8260D												
Bromobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Bromochloromethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromodichloromethane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromoform	23.1	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromomethane	26.8	---	5.00	ug/L	1	20.0	---	**134**	**80-120%**	---	---	Q-56
Carbon tetrachloride	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	25.6	---	5.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Chloroform	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Chloromethane	13.8	---	5.00	ug/L	1	20.0	---	**69**	**80-120%**	---	---	Q-54c
2-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Dibromochloromethane	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	21.9	---	5.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.1	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
LCS (24K0680-BS1)			Prepared: 11/19/24 14:00		Analyzed: 11/19/24 16:34							
1,3-Dichlorobenzene	21.1	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Dichlorodifluoromethane	18.3	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,1-Dichloroethane	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichloropropane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
2,2-Dichloropropane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1-Dichloropropene	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
cis-1,3-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	18.7	---	10.0	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.8	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Tetrachloroethene (PCE)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2-Trichloroethane	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	19.6	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1-Trichloroethane	20.7	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
Trichloroethene (TCE)	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
Trichlorofluoromethane	26.5	---	2.00	ug/L	1	20.0	---	**132**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Vinyl chloride	20.8	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*				*"*			
Duplicate (24K0680-DUP1)			Prepared: 11/19/24 17:25		Analyzed: 11/20/24 01:28							

QC Source Sample: INF-111924 (A4K1413-02)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4K1413 - 12 04 24 1727

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
Duplicate (24K0680-DUP1)			Prepared: 11/19/24 17:25 Analyzed: 11/20/24 01:28									
QC Source Sample: INF-111924 (A4K1413-02)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	Q-54c
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**44.4**	---	2.00	ug/L	5	---	42.8	---	---	4	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
Duplicate (24K0680-DUP1)			Prepared: 11/19/24 17:25 Analyzed: 11/20/24 01:28									
QC Source Sample: INF-111924 (A4K1413-02)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**8.50**	---	2.00	ug/L	5	---	8.20	---	---	4	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**551**	---	2.00	ug/L	5	---	529	---	---	4	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	0.550	---	---	***	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				
Matrix Spike (24K0680-MS1)			Prepared: 11/19/24 17:25 Analyzed: 11/19/24 21:43									
QC Source Sample: Non-SDG (A4K1373-01)												
EPA 8260D												
Bromobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Bromochloromethane	23.6	---	1.00	ug/L	1	20.0	ND	118	78-123%	---	---	
Bromodichloromethane	23.1	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	23.1	---	1.00	ug/L	1	20.0	ND	115	66-130%	---	---	
Bromomethane	30.2	---	5.00	ug/L	1	20.0	ND	**151**	**53-141%**	---	---	Q-54a
Carbon tetrachloride	22.7	---	1.00	ug/L	1	20.0	ND	114	72-136%	---	---	
Chlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
Chloroethane	26.0	---	5.00	ug/L	1	20.0	ND	130	60-138%	---	---	Q-54b
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	16.4	---	5.00	ug/L	1	20.0	ND	82	50-139%	---	---	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	---	---	
4-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	ND	108	78-122%	---	---	
Dibromochloromethane	22.5	---	1.00	ug/L	1	20.0	ND	112	74-126%	---	---	
1,2-Dibromo-3-chloropropane	23.4	---	5.00	ug/L	1	20.0	ND	117	62-128%	---	---	
1,2-Dibromoethane (EDB)	23.3	---	0.500	ug/L	1	20.0	ND	117	77-121%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24K0680 - EPA 5030C							**Water**					
Matrix Spike (24K0680-MS1)			Prepared: 11/19/24 17:25		Analyzed: 11/19/24 21:43							
QC Source Sample: Non-SDG (A4K1373-01)												
Dibromomethane	24.0	---	1.00	ug/L	1	20.0	ND	120	79-123%	---	---	
1,2-Dichlorobenzene	22.2	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,3-Dichlorobenzene	22.8	---	0.500	ug/L	1	20.0	ND	114	80-120%	---	---	
1,4-Dichlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	107	79-120%	---	---	
Dichlorodifluoromethane	22.9	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	22.9	---	0.400	ug/L	1	20.0	ND	114	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.7	---	0.400	ug/L	1	20.0	ND	114	73-128%	---	---	
1,1-Dichloroethene	24.0	---	0.400	ug/L	1	20.0	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	22.8	---	0.400	ug/L	1	20.0	ND	114	75-124%	---	---	
1,2-Dichloropropane	22.0	---	0.500	ug/L	1	20.0	ND	110	78-122%	---	---	
1,3-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	ND	106	80-120%	---	---	
2,2-Dichloropropane	23.2	---	1.00	ug/L	1	20.0	ND	116	60-139%	---	---	
1,1-Dichloropropene	24.2	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	ND	106	75-124%	---	---	
trans-1,3-Dichloropropene	21.9	---	1.00	ug/L	1	20.0	ND	109	73-127%	---	---	
Hexachlorobutadiene	22.9	---	5.00	ug/L	1	20.0	ND	114	66-134%	---	---	
Methylene chloride	21.6	---	10.0	ug/L	1	20.0	ND	108	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.6	---	0.400	ug/L	1	20.0	ND	103	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.2	---	0.500	ug/L	1	20.0	ND	111	71-121%	---	---	
Tetrachloroethene (PCE)	24.0	---	0.400	ug/L	1	20.0	ND	120	74-129%	---	---	
1,2,3-Trichlorobenzene	22.8	---	2.00	ug/L	1	20.0	ND	114	69-129%	---	---	
1,1,2-Trichloroethane	22.2	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,2,4-Trichlorobenzene	23.6	---	2.00	ug/L	1	20.0	ND	118	69-130%	---	---	
1,1,1-Trichloroethane	24.1	---	0.400	ug/L	1	20.0	ND	120	74-131%	---	---	
Trichloroethene (TCE)	24.7	---	0.400	ug/L	1	20.0	ND	**124**	**79-123%**	---	---	Q-01
Trichlorofluoromethane	31.9	---	2.00	ug/L	1	20.0	ND	**160**	**65-141%**	---	---	Q-54
1,2,3-Trichloropropane	21.7	---	1.00	ug/L	1	20.0	ND	108	73-122%	---	---	
Vinyl chloride	25.5	---	0.200	ug/L	1	20.0	ND	127	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24K0680							
A4K1413-01	Water	EPA 8260D	11/19/24 13:00	11/19/24 17:29	5mL/5mL	5mL/5mL	1.00
A4K1413-02	Water	EPA 8260D	11/19/24 13:10	11/19/24 17:29	5mL/5mL	5mL/5mL	1.00
A4K1413-03	Water	EPA 8260D	11/19/24 12:40	11/19/24 17:29	5mL/5mL	5mL/5mL	1.00

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -11%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**John Kuiper**	**A4K1413 - 12 04 24 1727**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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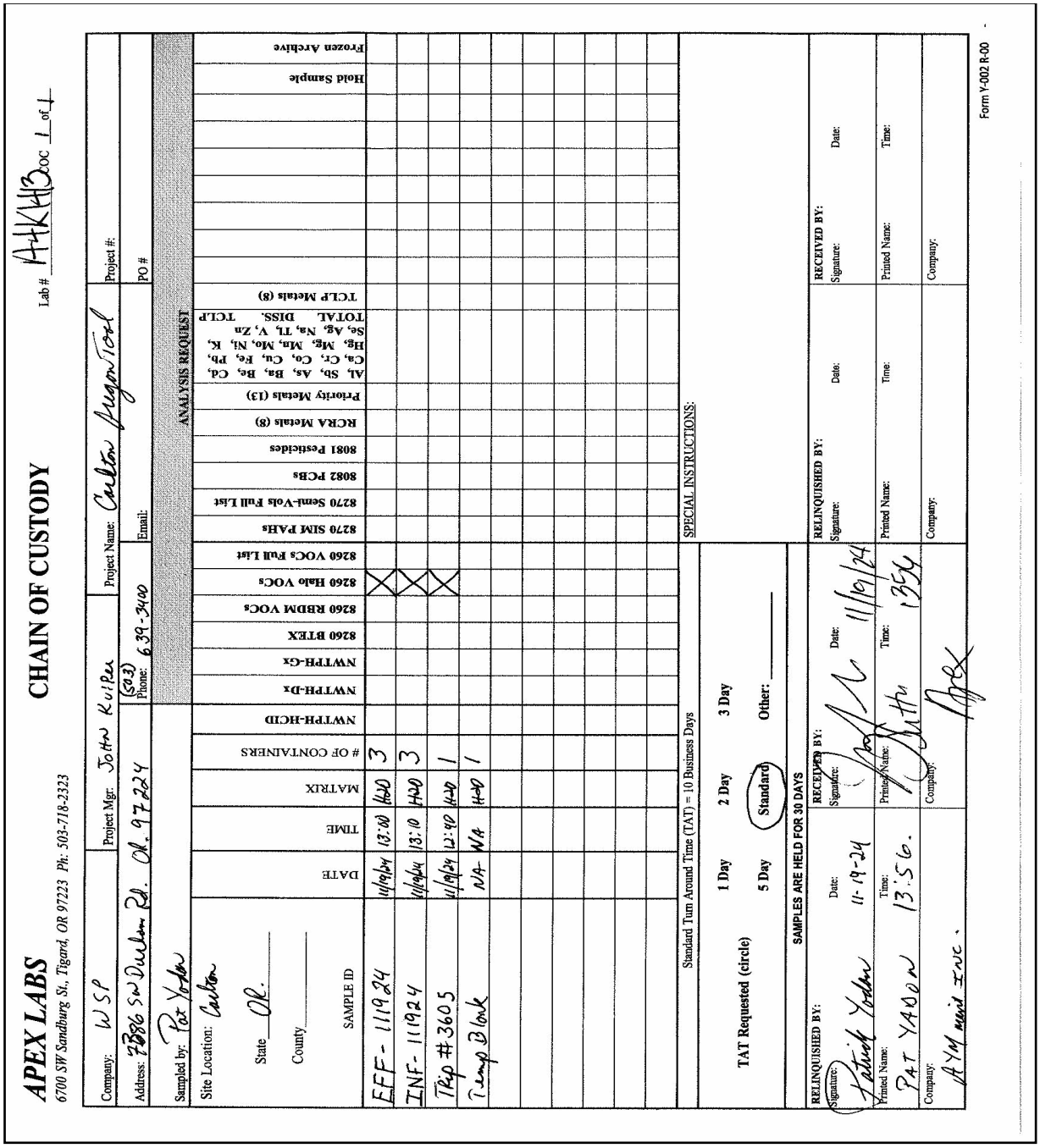
Apex Laboratories, LLC
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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4K1413 - 12 04 24 1727



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4K1413 doc 1 of 1

Company: WSP
Project Mgr: John Kuiper
Project Name: Carlton Fuego Tool
Project #:
Address: 15862 SW Durham Rd. OR. 97224
Phone: (503) 639-3400
Email:
PO #
Sampled by: Pat Yoder
Site Location: Carlton
State OR.
County

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn	TCLP TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF- 111924	11/19/24	13:00	H2O	3						X											
INF- 111924	11/19/24	13:10	H2O	3						X											
Trip #3605	11/19/24	12:40	H2O	1						X											
Temp Blank	NA	NA	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Patrick Yoder			
Printed Name:	PAT YADER			
Company:	AYM environmental			
Date:	11-19-24		Date:	Date:
Time:	13:56		Time:	Time:

Form Y-002 R-00

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4K1413 - 12 04 24 1727**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4 K1413

Project/Project #: Carlton Oregon Tool

Delivery Info:

Date/time received: 11/19/24 @ 1356 By: JS

Delivered by: Apex__ Client X ESS___FedEx__UPS__Radio___Morgan ___SDS___Evergreen___Other ___

From USDA Regulated Origin? Yes _____ No X

Cooler Inspection Date/time inspected: 11/19/24 @ 1357 By: JS

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes X No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.4						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes (No)

Sample Inspection: Date/time inspected: 11/19/24 @ 1404 By: JS

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ____

Comments TB # 31605 Issue for Br William

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

Labeled by: JS Witness: KKM Cooler Inspected by: JS

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Monday, December 23, 2024

John Kuiper
WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A4L1442 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4L1442, which was received by the laboratory on 12/17/2024 at 2:35:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 3.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-121724	A4L1442-01	Water	12/17/24 12:30	12/17/24 14:35
INF-121724	A4L1442-02	Water	12/17/24 12:40	12/17/24 14:35
Trip Batch #3641	A4L1442-03	Water	12/17/24 12:30	12/17/24 14:35

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-121724 (A4L1442-01)				**Matrix: Water**		**Batch: 24L0816**		
Bromobenzene	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	1	12/21/24 11:59	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	12/21/24 11:59	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	12/21/24 11:59	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-121724 (A4L1442-01)				**Matrix: Water**		**Batch: 24L0816**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	12/21/24 11:59	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	12/21/24 11:59	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	12/21/24 11:59	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	12/21/24 11:59	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*12/21/24 11:59*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*12/21/24 11:59*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*	*1*	*12/21/24 11:59*	*EPA 8260D*	
INF-121724 (A4L1442-02)				**Matrix: Water**		**Batch: 24L0816**		
Bromobenzene	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	12/21/24 12:27	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	5	12/21/24 12:27	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	12/21/24 12:27	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-121724 (A4L1442-02)				**Matrix: Water**		**Batch: 24L0816**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
cis-1,2-Dichloroethene	**125**	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	12/21/24 12:27	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
Tetrachloroethene (PCE)	**6.70**	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Trichloroethene (TCE)	**646**	---	2.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	12/21/24 12:27	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	12/21/24 12:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*12/21/24 12:27*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*1*	*12/21/24 12:27*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*	*1*	*12/21/24 12:27*	*EPA 8260D*	
Trip Batch #3641 (A4L1442-03)				**Matrix: Water**		**Batch: 24L0816**		
Bromobenzene	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Batch #3641 (A4L1442-03)				**Matrix: Water**		**Batch: 24L0816**		
Bromoform	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	1	12/21/24 08:20	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	12/21/24 08:20	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Batch #3641 (A4L1442-03)				**Matrix: Water**		**Batch: 24L0816**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	12/21/24 08:20	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	12/21/24 08:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	12/21/24 08:20	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	12/21/24 08:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*12/21/24 08:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*12/21/24 08:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*12/21/24 08:20*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C							**Water**					
Blank (24L0816-BLK1)			Prepared: 12/20/24 16:23		Analyzed: 12/21/24 07:25							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4L1442 - 12 23 24 1427

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C									Water			
Blank (24L0816-BLK1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 07:25									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (24L0816-BS1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 06:30									
EPA 8260D												
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromomethane	32.8	---	5.00	ug/L	1	20.0	---	**164**	**80-120%**	---	---	Q-56
Carbon tetrachloride	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	45.5	---	10.0	ug/L	1	20.0	---	**228**	**80-120%**	---	---	ICV-01, Q-56
Chloroform	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloromethane	18.1	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
2-Chlorotoluene	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	21.7	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromochloromethane	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichlorobenzene	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4L1442 - 12 23 24 1427

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C							**Water**					
LCS (24L0816-BS1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 06:30									
1,3-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	21.0	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethane	20.9	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethene	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
cis-1,2-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	16.0	---	1.00	ug/L	1	20.0	---	80	80-120%	---	---	
1,1-Dichloropropene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,3-Dichloropropene	18.9	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Hexachlorobutadiene	21.2	---	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
Methylene chloride	19.5	---	10.0	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Tetrachloroethene (PCE)	19.7	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	21.4	---	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trichlorobenzene	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1-Trichloroethane	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichloroethene (TCE)	20.7	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
Trichlorofluoromethane	25.1	---	2.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Vinyl chloride	21.7	---	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Duplicate (24L0816-DUP1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 18:25									
QC Source Sample: Non-SDG (A4L1469-07)												
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C							**Water**					
Duplicate (24L0816-DUP1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 18:25									
QC Source Sample: Non-SDG (A4L1469-07)												
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper
		Report ID: A4L1442 - 12 23 24 1427

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C							Water					
Duplicate (24L0816-DUP1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 18:25									
QC Source Sample: Non-SDG (A4L1469-07)												
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	10.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*103 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			
Matrix Spike (24L0816-MS1)			Prepared: 12/20/24 16:23 Analyzed: 12/21/24 10:37									
QC Source Sample: Non-SDG (A4L1253-01)												
EPA 8260D												
Bromobenzene	19.7	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	21.2	---	1.00	ug/L	1	20.0	ND	106	78-123%	---	---	
Bromodichloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	22.9	---	1.00	ug/L	1	20.0	ND	115	66-130%	---	---	
Bromomethane	28.1	---	5.00	ug/L	1	20.0	ND	141	53-141%	---	---	Q-54a
Carbon tetrachloride	24.0	---	1.00	ug/L	1	20.0	ND	120	72-136%	---	---	
Chlorobenzene	20.1	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
Chloroethane	24.3	---	10.0	ug/L	1	20.0	ND	122	60-138%	---	---	ICV-01, Q-54
Chloroform	20.2	---	1.00	ug/L	1	20.0	ND	101	79-124%	---	---	
Chloromethane	20.7	---	5.00	ug/L	1	20.0	ND	103	50-139%	---	---	
2-Chlorotoluene	21.2	---	1.00	ug/L	1	20.0	ND	106	79-122%	---	---	
4-Chlorotoluene	22.2	---	1.00	ug/L	1	20.0	ND	111	78-122%	---	---	
Dibromochloromethane	23.8	---	1.00	ug/L	1	20.0	ND	119	74-126%	---	---	
1,2-Dibromo-3-chloropropane	20.9	---	5.00	ug/L	1	20.0	ND	104	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.0	---	0.500	ug/L	1	20.0	ND	105	77-121%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-123%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper

Report ID:
A4L1442 - 12 23 24 1427

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0816 - EPA 5030C							**Water**					
Matrix Spike (24L0816-MS1)			Prepared: 12/20/24 16:23		Analyzed: 12/21/24 10:37							
QC Source Sample: Non-SDG (A4L1253-01)												
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.1	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	23.0	---	2.00	ug/L	1	20.0	ND	115	32-152%	---	---	
1,1-Dichloroethane	25.0	---	0.400	ug/L	1	20.0	3.80	106	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.3	---	0.400	ug/L	1	20.0	ND	102	73-128%	---	---	
1,1-Dichloroethene	26.1	---	0.400	ug/L	1	20.0	1.60	122	71-131%	---	---	
cis-1,2-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	ND	102	78-123%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	ND	106	75-124%	---	---	
1,2-Dichloropropane	20.7	---	0.500	ug/L	1	20.0	ND	104	78-122%	---	---	
1,3-Dichloropropane	20.9	---	1.00	ug/L	1	20.0	ND	105	80-120%	---	---	
2,2-Dichloropropane	14.9	---	1.00	ug/L	1	20.0	ND	74	60-139%	---	---	
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	19.5	---	1.00	ug/L	1	20.0	ND	98	75-124%	---	---	
trans-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	73-127%	---	---	
Hexachlorobutadiene	19.4	---	5.00	ug/L	1	20.0	ND	97	66-134%	---	---	
Methylene chloride	19.9	---	10.0	ug/L	1	20.0	ND	100	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.8	---	0.400	ug/L	1	20.0	ND	109	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.9	---	0.500	ug/L	1	20.0	ND	104	71-121%	---	---	
Tetrachloroethene (PCE)	21.4	---	0.400	ug/L	1	20.0	0.850	103	74-129%	---	---	
1,2,3-Trichlorobenzene	20.7	---	2.00	ug/L	1	20.0	ND	104	69-129%	---	---	
1,1,2-Trichloroethane	20.1	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,2,4-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	0.300	110	74-131%	---	---	
Trichloroethene (TCE)	20.7	---	0.400	ug/L	1	20.0	ND	103	79-123%	---	---	
Trichlorofluoromethane	27.0	---	2.00	ug/L	1	20.0	ND	135	65-141%	---	---	Q-54b
1,2,3-Trichloropropane	20.3	---	1.00	ug/L	1	20.0	ND	102	73-122%	---	---	
Vinyl chloride	22.0	---	0.200	ug/L	1	20.0	ND	110	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 99 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*100 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*96 %*	*80-120 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24L0816							
A4L1442-01	Water	EPA 8260D	12/17/24 12:30	12/20/24 16:24	5mL/5mL	5mL/5mL	1.00
A4L1442-02	Water	EPA 8260D	12/17/24 12:40	12/20/24 16:24	5mL/5mL	5mL/5mL	1.00
A4L1442-03	Water	EPA 8260D	12/17/24 12:30	12/20/24 16:24	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +108%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +44%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project:	**OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number:	**[none]**	**Report ID:**
Portland, OR 97224	Project Manager:	**John Kuiper**	**A4L1442 - 12 23 24 1427**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A4L1442 - 12 23 24 1427

APEX LABS — CHAIN OF CUSTODY

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Lab # A4L1442 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: OregonTool Carlton | Project #:
Address: 7386 SW Dunham Rd. Portland Or. | Phone: (503) 204 7793 | Email: | PO #
Sampled by: Pat Yaden

Site Location: Carlton State OR. County

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	ANALYSIS REQUEST: NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EFF - 121724	12/17/24	12:30	HW	3						X											
INF - 121724	12/17/24	12:40	HW	3						X											
Trip Batch #3641	12/17/24	12:30	HW	1						X											
Temp Blank	NA	NA	HW	1																	

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:	Patrick Yaden	12/17/24	14:35		12/17/24	
Printed Name:	PAT YADEN					
Company:	AYMenv Inc			Apex		

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:						
Printed Name:						
Company:						

	RELINQUISHED BY:	Date:	Time:	RECEIVED BY:	Date:	Time:
Signature:						
Printed Name:						
Company:						

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Environment & Infrastructure Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A4L1442 - 12 23 24 1427**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A4L4442

Project/Project #: Oregon Tool Carlton

Delivery Info:

Date/time received: 12/17/24 @ 1435 By: KRS

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 12/17/24 @ 1435 By: KRS

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	3.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why: ____

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes (No)

Sample Inspection: Date/time inspected: 12/17/24 @ 16:34 By: KRS

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA X KRS 12/17

Comments ____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:____

Comments: ____

TB #3641

Labeled by: KRS Witness: KW Cooler Inspected by: KRS

Form Y-003 R-02 -

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Sunday, January 19, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5A1152 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5A1152, which was received by the laboratory on 1/14/2025 at 2:48:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-11425	A5A1152-01	Water	01/14/25 13:10	01/14/25 14:48
INF-11425	A5A1152-02	Water	01/14/25 13:20	01/14/25 14:48
Trip Blank#3633	A5A1152-03	Water	01/14/25 00:00	01/14/25 14:48

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-11425 (A5A1152-01)				**Matrix: Water**		**Batch: 25A0463**		
Bromobenzene	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/15/25 17:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/15/25 17:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1152 - 01 19 25 1756

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-11425 (A5A1152-01)				**Matrix: Water**		**Batch: 25A0463**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/15/25 17:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/15/25 17:07	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/15/25 17:07	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/15/25 17:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*01/15/25 17:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*01/15/25 17:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*01/15/25 17:07*	*EPA 8260D*	
INF-11425 (A5A1152-02RE1)				**Matrix: Water**		**Batch: 25A0523**		
Bromobenzene	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Bromochloromethane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Bromoform	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Bromomethane	ND	---	12.5	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Chlorobenzene	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Chloroethane	ND	---	12.5	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Chloroform	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Chloromethane	ND	---	12.5	ug/L	2.5	01/16/25 18:06	EPA 8260D	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Dibromomethane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-11425 (A5A1152-02RE1)				**Matrix: Water**		**Batch: 25A0523**		
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1-Dichloroethene	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
cis-1,2-Dichloroethene	**45.7**	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Methylene chloride	ND	---	25.0	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Tetrachloroethene (PCE)	**5.58**	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Trichloroethene (TCE)	**365**	---	1.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	01/16/25 18:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Vinyl chloride	ND	---	0.500	ug/L	2.5	01/16/25 18:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*01/16/25 18:06*	*EPA 8260D*
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*01/16/25 18:06*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*01/16/25 18:06*	*EPA 8260D*
Trip Blank#3633 (A5A1152-03)				**Matrix: Water**		**Batch: 25A0463**		
Bromobenzene	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1152 - 01 19 25 1756

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3633 (A5A1152-03)				**Matrix: Water**		**Batch: 25A0463**		
Bromoform	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/15/25 10:08	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank#3633 (A5A1152-03)				**Matrix: Water**		**Batch: 25A0463**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/15/25 10:08	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/15/25 10:08	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/15/25 10:08	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/15/25 10:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits:*	*80-120 %*	*1*	*01/15/25 10:08*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*01/15/25 10:08*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*01/15/25 10:08*	*EPA 8260D*	

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WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C							**Water**					
Blank (25A0463-BLK1)			Prepared: 01/15/25 07:32		Analyzed: 01/15/25 09:46							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C												**Water**
Blank (25A0463-BLK1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 09:46									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25A0463-BS1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 08:54									
EPA 8260D												
Bromobenzene	18.9	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Bromochloromethane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	22.7	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Bromomethane	18.1	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon tetrachloride	23.7	---	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
Chlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Chloroethane	18.1	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
Chloroform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	17.4	---	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
2-Chlorotoluene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromochloromethane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.3	---	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.2	---	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Dibromomethane	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C								**Water**				
LCS (25A0463-BS1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 08:54									
1,3-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	14.5	---	1.00	ug/L	1	20.0	---	**73**	**80-120%**	---	---	Q-55
1,1-Dichloroethane	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethene	18.6	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
cis-1,2-Dichloroethene	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dichloropropane	18.5	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
1,3-Dichloropropane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	24.7	---	1.00	ug/L	1	20.0	---	**124**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
Methylene chloride	18.5	---	10.0	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.3	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Tetrachloroethene (PCE)	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1-Trichloroethane	21.3	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichloroethene (TCE)	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	19.3	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichloropropane	20.5	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Vinyl chloride	17.4	---	0.200	ug/L	1	20.0	---	87	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 93 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (25A0463-DUP1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 17:51									

QC Source Sample: INF-11425 (A5A1152-02)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1152 - 01 19 25 1756

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C							**Water**					
Duplicate (25A0463-DUP1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 17:51									
QC Source Sample: INF-11425 (A5A1152-02)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**48.0**	---	2.00	ug/L	5	---	46.2	---	---	4	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C							**Water**					
Duplicate (25A0463-DUP1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 17:51									
QC Source Sample: INF-11425 (A5A1152-02)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**5.75**	---	2.00	ug/L	5	---	5.80	---	---	0.9	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**376**	---	2.00	ug/L	5	---	362	---	---	4	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	**30%**	Q-17
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*				*"*			
Matrix Spike (25A0463-MS1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 18:12									
QC Source Sample: Non-SDG (A5A1161-01)												
EPA 8260D												
Bromobenzene	19.6	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	21.2	---	1.00	ug/L	1	20.0	ND	106	78-123%	---	---	
Bromodichloromethane	33.3	---	1.00	ug/L	1	20.0	9.22	120	79-125%	---	---	
Bromoform	23.5	---	1.00	ug/L	1	20.0	2.06	107	66-130%	---	---	
Bromomethane	12.6	---	5.00	ug/L	1	20.0	ND	63	53-141%	---	---	
Carbon tetrachloride	31.6	---	1.00	ug/L	1	20.0	0.890	**154**	**72-136%**	---	---	Q-02
Chlorobenzene	28.8	---	0.500	ug/L	1	20.0	ND	**144**	**80-120%**	---	---	Q-02
Chloroethane	21.5	---	5.00	ug/L	1	20.0	ND	107	60-138%	---	---	
Chloroform	49.2	---	1.00	ug/L	1	20.0	24.5	124	79-124%	---	---	
Chloromethane	32.8	---	5.00	ug/L	1	20.0	ND	**164**	**50-139%**	---	---	Q-02
2-Chlorotoluene	23.3	---	1.00	ug/L	1	20.0	ND	117	79-122%	---	---	
4-Chlorotoluene	17.4	---	1.00	ug/L	1	20.0	ND	87	78-122%	---	---	
Dibromochloromethane	26.4	---	1.00	ug/L	1	20.0	3.59	114	74-126%	---	---	
1,2-Dibromo-3-chloropropane	14.8	---	5.00	ug/L	1	20.0	ND	74	62-128%	---	---	
1,2-Dibromoethane (EDB)	4.00	---	0.500	ug/L	1	20.0	ND	**20**	**77-121%**	---	---	Q-02

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0463 - EPA 5030C							**Water**					
Matrix Spike (25A0463-MS1)			Prepared: 01/15/25 07:32 Analyzed: 01/15/25 18:12									
QC Source Sample: Non-SDG (A5A1161-01)												
Dibromomethane	19.4	---	1.00	ug/L	1	20.0	ND	97	79-123%	---	---	
1,2-Dichlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,3-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	23.1	---	0.500	ug/L	1	20.0	ND	116	79-120%	---	---	
Dichlorodifluoromethane	23.3	---	1.00	ug/L	1	20.0	ND	117	32-152%	---	---	Q-54c
1,1-Dichloroethane	20.0	---	0.400	ug/L	1	20.0	ND	100	77-125%	---	---	
1,2-Dichloroethane (EDC)	24.9	---	0.400	ug/L	1	20.0	ND	124	73-128%	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	20.0	ND		**71-131%**	---	---	Q-02
cis-1,2-Dichloroethene	16.2	---	0.400	ug/L	1	20.0	ND	81	78-123%	---	---	
trans-1,2-Dichloroethene	17.7	---	0.400	ug/L	1	20.0	ND	89	75-124%	---	---	
1,2-Dichloropropane	19.8	---	0.500	ug/L	1	20.0	ND	99	78-122%	---	---	
1,3-Dichloropropane	21.3	---	1.00	ug/L	1	20.0	ND	106	80-120%	---	---	
2,2-Dichloropropane	24.3	---	1.00	ug/L	1	20.0	ND	122	60-139%	---	---	Q-54a
1,1-Dichloropropene	ND	---	1.00	ug/L	1	20.0	ND		**79-125%**	---	---	Q-02
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	20.0	ND		**75-124%**	---	---	Q-02
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	20.0	ND		**73-127%**	---	---	Q-02
Hexachlorobutadiene	22.6	---	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	
Methylene chloride	20.4	---	10.0	ug/L	1	20.0	ND	102	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	78-124%	---	---	
1,1,2,2-Tetrachloroethane	24.1	---	0.500	ug/L	1	20.0	ND	120	71-121%	---	---	
Tetrachloroethene (PCE)	21.2	---	0.400	ug/L	1	20.0	ND	106	74-129%	---	---	
1,2,3-Trichlorobenzene	23.2	---	2.00	ug/L	1	20.0	ND	116	69-129%	---	---	
1,1,2-Trichloroethane	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,2,4-Trichlorobenzene	23.4	---	2.00	ug/L	1	20.0	ND	117	69-130%	---	---	
1,1,1-Trichloroethane	23.1	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	20.9	---	0.400	ug/L	1	20.0	ND	104	79-123%	---	---	
Trichlorofluoromethane	23.6	---	2.00	ug/L	1	20.0	ND	118	65-141%	---	---	
1,2,3-Trichloropropane	21.8	---	1.00	ug/L	1	20.0	ND	109	73-122%	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	20.0	ND		**58-137%**	---	---	Q-02
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*89 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*97 %*			*80-120 %*			*"*			

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							**Water**					
Blank (25A0523-BLK1)			Prepared: 01/16/25 07:15		Analyzed: 01/16/25 09:47							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							**Water**					
Blank (25A0523-BLK1)			Prepared: 01/16/25 07:15		Analyzed: 01/16/25 09:47							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25A0523-BS1)			Prepared: 01/16/25 07:15		Analyzed: 01/16/25 08:48							
EPA 8260D												
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromodichloromethane	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	23.7	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
Bromomethane	17.9	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon tetrachloride	25.9	---	1.00	ug/L	1	20.0	---	**129**	**80-120%**	---	---	Q-56
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Chloroethane	19.3	---	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroform	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	21.1	---	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
2-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	22.9	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2-Dibromo-3-chloropropane	21.4	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.6	---	0.500	ug/L	1	20.0	---	113	80-120%	---	---	
Dibromomethane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							**Water**					
LCS (25A0523-BS1)			Prepared: 01/16/25 07:15 Analyzed: 01/16/25 08:48									
1,3-Dichlorobenzene	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,4-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dichlorodifluoromethane	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloroethane	19.7	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloropropane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,3-Dichloropropane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
2,2-Dichloropropane	27.1	---	1.00	ug/L	1	20.0	---	**135**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
trans-1,3-Dichloropropene	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Hexachlorobutadiene	22.7	---	5.00	ug/L	1	20.0	---	114	80-120%	---	---	
Methylene chloride	19.4	---	10.0	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	21.1	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,3-Trichlorobenzene	21.9	---	2.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,2-Trichloroethane	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,2,4-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
Trichlorofluoromethane	22.8	---	2.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2,3-Trichloropropane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Vinyl chloride	20.9	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 93 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (25A0523-DUP1)			Prepared: 01/16/25 07:15 Analyzed: 01/16/25 13:46									
QC Source Sample: Non-SDG (A5A1186-01)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							**Water**					
Duplicate (25A0523-DUP1)			Prepared: 01/16/25 07:15 Analyzed: 01/16/25 13:46									
QC Source Sample: Non-SDG (A5A1186-01)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1152 - 01 19 25 1756

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							Water					
Duplicate (25A0523-DUP1)			Prepared: 01/16/25 07:15 Analyzed: 01/16/25 13:46									
QC Source Sample: Non-SDG (A5A1186-01)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*91 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (25A0523-MS1)			Prepared: 01/16/25 07:15 Analyzed: 01/16/25 19:11									
QC Source Sample: Non-SDG (A5A1200-06)												
EPA 8260D												
Bromobenzene	19.7	---	0.500	ug/L	1	20.0	ND	98	80-120%	---	---	
Bromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	78-123%	---	---	
Bromodichloromethane	22.6	---	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	23.7	---	1.00	ug/L	1	20.0	ND	119	66-130%	---	---	
Bromomethane	18.8	---	5.00	ug/L	1	20.0	ND	94	53-141%	---	---	
Carbon tetrachloride	25.8	---	1.00	ug/L	1	20.0	ND	129	72-136%	---	---	Q-54b
Chlorobenzene	21.1	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	20.4	---	5.00	ug/L	1	20.0	ND	102	60-138%	---	---	
Chloroform	21.8	---	1.00	ug/L	1	20.0	0.640	106	79-124%	---	---	
Chloromethane	21.3	---	5.00	ug/L	1	20.0	ND	106	50-139%	---	---	
2-Chlorotoluene	17.7	---	1.00	ug/L	1	20.0	ND	88	79-122%	---	---	
4-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	ND	96	78-122%	---	---	
Dibromochloromethane	22.9	---	1.00	ug/L	1	20.0	ND	115	74-126%	---	---	
1,2-Dibromo-3-chloropropane	20.6	---	5.00	ug/L	1	20.0	ND	103	62-128%	---	---	
1,2-Dibromoethane (EDB)	23.0	---	0.500	ug/L	1	20.0	ND	115	77-121%	---	---	
Dibromomethane	20.3	---	1.00	ug/L	1	20.0	ND	102	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A0523 - EPA 5030C							**Water**					
Matrix Spike (25A0523-MS1)			Prepared: 01/16/25 07:15		Analyzed: 01/16/25 19:11							
QC Source Sample: Non-SDG (A5A1200-06)												
1,2-Dichlorobenzene	19.0	---	0.500	ug/L	1	20.0	ND	95	80-120%	---	---	
1,3-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	ND	94	79-120%	---	---	
Dichlorodifluoromethane	22.8	---	1.00	ug/L	1	20.0	ND	114	32-152%	---	---	
1,1-Dichloroethane	20.2	---	0.400	ug/L	1	20.0	ND	101	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.7	---	0.400	ug/L	1	20.0	ND	104	73-128%	---	---	
1,1-Dichloroethene	20.9	---	0.400	ug/L	1	20.0	ND	105	71-131%	---	---	
cis-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	ND	98	78-123%	---	---	
trans-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	ND	99	75-124%	---	---	
1,2-Dichloropropane	19.5	---	0.500	ug/L	1	20.0	ND	97	78-122%	---	---	
1,3-Dichloropropane	21.7	---	1.00	ug/L	1	20.0	ND	108	80-120%	---	---	
2,2-Dichloropropane	24.5	---	1.00	ug/L	1	20.0	ND	123	60-139%	---	---	Q-54
1,1-Dichloropropene	20.6	---	1.00	ug/L	1	20.0	ND	103	79-125%	---	---	
cis-1,3-Dichloropropene	22.4	---	1.00	ug/L	1	20.0	ND	112	75-124%	---	---	
trans-1,3-Dichloropropene	21.9	---	1.00	ug/L	1	20.0	ND	110	73-127%	---	---	
Hexachlorobutadiene	11.5	---	5.00	ug/L	1	20.0	ND	**58**	**66-134%**	---	---	Q-01
Methylene chloride	19.4	---	10.0	ug/L	1	20.0	ND	97	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.3	---	0.400	ug/L	1	20.0	ND	111	78-124%	---	---	
1,1,2,2-Tetrachloroethane	23.2	---	0.500	ug/L	1	20.0	ND	116	71-121%	---	---	
Tetrachloroethene (PCE)	18.8	---	0.400	ug/L	1	20.0	ND	94	74-129%	---	---	
1,2,3-Trichlorobenzene	14.5	---	2.00	ug/L	1	20.0	ND	72	69-129%	---	---	
1,1,2-Trichloroethane	21.7	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,2,4-Trichlorobenzene	13.0	---	2.00	ug/L	1	20.0	ND	**65**	**69-130%**	---	---	Q-01
1,1,1-Trichloroethane	22.9	---	0.400	ug/L	1	20.0	ND	114	74-131%	---	---	
Trichloroethene (TCE)	19.2	---	0.400	ug/L	1	20.0	ND	96	79-123%	---	---	
Trichlorofluoromethane	23.3	---	2.00	ug/L	1	20.0	ND	117	65-141%	---	---	
1,2,3-Trichloropropane	22.3	---	1.00	ug/L	1	20.0	ND	111	73-122%	---	---	
Vinyl chloride	21.5	---	0.200	ug/L	1	20.0	ND	107	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 92 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*100 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*98 %*	*80-120 %*	*"*

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25A0463							
A5A1152-01	Water	EPA 8260D	01/14/25 13:10	01/15/25 09:39	5mL/5mL	5mL/5mL	1.00
A5A1152-03	Water	EPA 8260D	01/14/25 00:00	01/15/25 09:39	5mL/5mL	5mL/5mL	1.00
Batch: 25A0523							
A5A1152-02RE1	Water	EPA 8260D	01/14/25 13:20	01/16/25 10:36	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +15%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

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Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

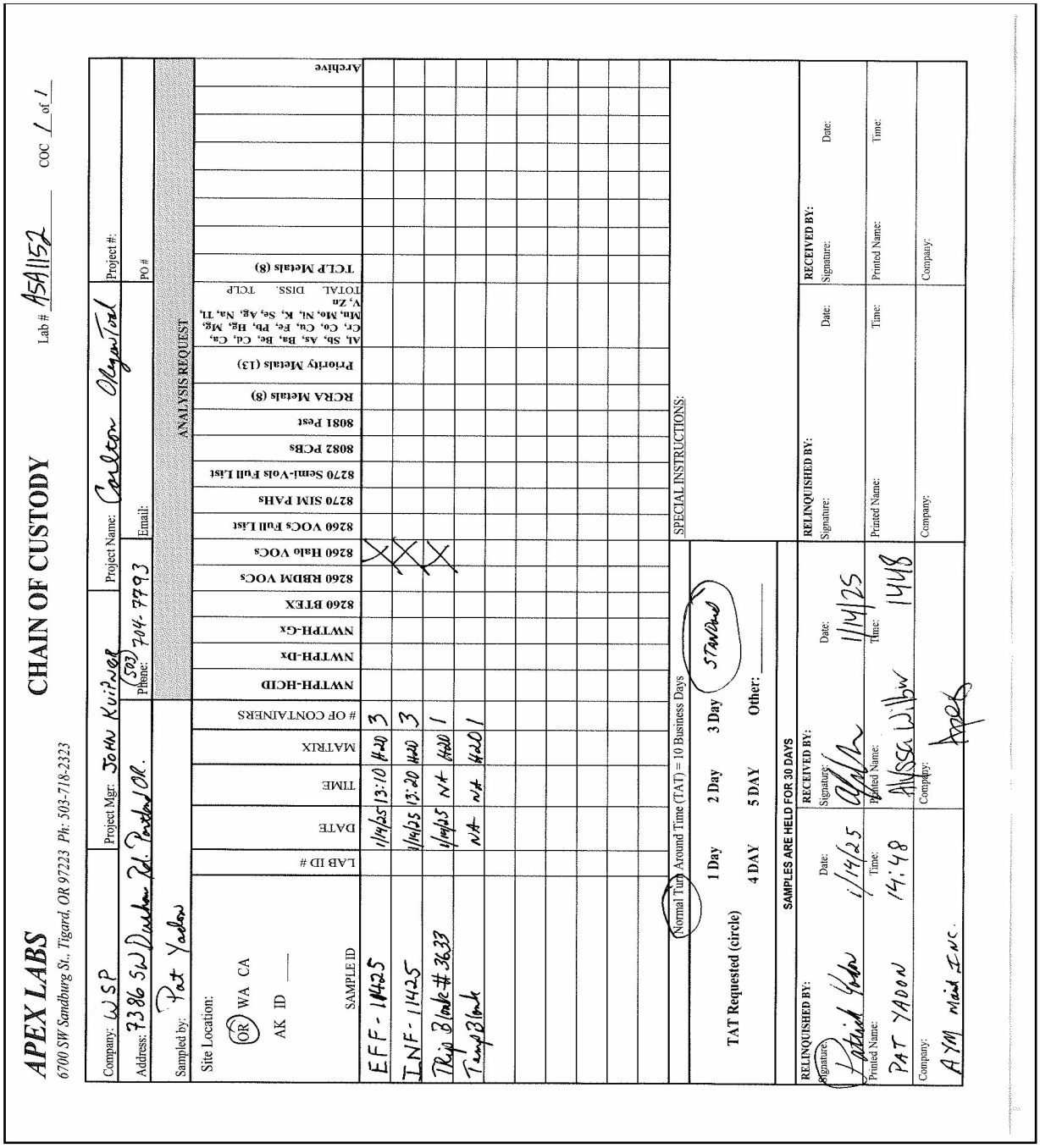
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5A1152 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton Oregon Tool | Project #:
Address: 7386 SW Durham Rd. Portland OR. | Phone: (503) 704-7793 | Email: | PO #
Sampled by: Pat Yadon

Site Location: (OR) WA CA AK ID ___

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
EFF - 11425		11/14/25	13:10	H2O	3						X									
INF - 11425		11/14/25	13:20	H2O	3						X									
Trip Blank #3633		11/14/25	N/A	H2O	1															
Temp Blank		N/A	N/A	H2O	1															

SPECIAL INSTRUCTIONS:

(Normal Turn Around Time (TAT) = 10 Business Days)

TAT Requested (circle): 1 Day 2 Day 3 Day STANDARD 4 DAY 5 DAY Other: ___

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Pat Yadon	11/14/25	Signature:		Signature:		Signature:	
Printed Name: PAT YADON	Time: 14:48	Printed Name:	Time:	Printed Name:	Time:	Printed Name:	Time:
Company: AYM Main Inc.		Company:		Company:		Company:	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1152 - 01 19 25 1756**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5A1152

Project/Project #: Carlton Oregon Tool

Delivery Info:

Date/time received: 1/14/25 @ 1448 By: AM

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 1/14/25 @ 1448 By: AM

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.1						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 1/14/25 @ 15:13 By: KAM

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments KAM 1/14/25

Water samples: pH checked: Yes X No ___ NA X pH appropriate? Yes ___ No ___ NA X pH ID: A23I172

Comments: ____

Labeled by: KAM Witness: AM Cooler Inspected by: KAM

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Apex Laboratories, LLC
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Monday, February 10, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5A1657 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5A1657, which was received by the laboratory on 1/29/2025 at 3:10:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.2 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW8-012825	A5A1657-01	Water	01/28/25 14:18	01/29/25 15:10
MW11-2-012825	A5A1657-02	Water	01/28/25 15:00	01/29/25 15:10
DPE7-012925	A5A1657-03	Water	01/29/25 14:00	01/29/25 15:10
DPE8-012925	A5A1657-04	Water	01/29/25 13:43	01/29/25 15:10
EW4-012925	A5A1657-05	Water	01/29/25 12:50	01/29/25 15:10
EW5A-012925	A5A1657-06	Water	01/29/25 12:38	01/29/25 15:10
EW6-012925	A5A1657-07	Water	01/29/25 13:30	01/29/25 15:10
EW6-012925-D	A5A1657-08	Water	01/29/25 13:31	01/29/25 15:10
EW7-012925	A5A1657-09	Water	01/29/25 13:10	01/29/25 15:10
MW2B-012925	A5A1657-10	Water	01/29/25 11:50	01/29/25 15:10
MW2C-012925-U	A5A1657-11	Water	01/29/25 11:15	01/29/25 15:10
MW2C-012925-L	A5A1657-12	Water	01/29/25 11:25	01/29/25 15:10
MW11B-012925	A5A1657-13	Water	01/29/25 09:00	01/29/25 15:10
MW14B-012925	A5A1657-14	Water	01/29/25 09:23	01/29/25 15:10
MW17B-012925-U	A5A1657-15	Water	01/29/25 10:00	01/29/25 15:10
MW17B-012925-L	A5A1657-16	Water	01/29/25 10:10	01/29/25 15:10
MW18B-012925-U	A5A1657-17	Water	01/29/25 10:35	01/29/25 15:10
MW18B-012925-L	A5A1657-18	Water	01/29/25 10:45	01/29/25 15:10
TripBlank#3677	A5A1657-19	Water	01/28/25 00:00	01/29/25 15:10

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-012825 (A5A1657-01)				**Matrix: Water**		**Batch: 25A1022**		**V-13**
Bromobenzene	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	01/30/25 16:41	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	01/30/25 16:41	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	01/30/25 16:41	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
cis-1,2-Dichloroethene	**1.84**	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	01/30/25 16:41	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	01/30/25 16:41	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-012825 (A5A1657-01)				**Matrix: Water**		**Batch: 25A1022**		**V-13**
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.800	ug/L	2	01/30/25 16:41	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	01/30/25 16:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	01/30/25 16:41	EPA 8260D	
Vinyl chloride	**0.720**	---	0.400	ug/L	2	01/30/25 16:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 16:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*01/30/25 16:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*01/30/25 16:41*	*EPA 8260D*	
MW11-2-012825 (A5A1657-02RE1)				**Matrix: Water**		**Batch: 25A1072**		
Bromobenzene	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/31/25 18:51	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-012825 (A5A1657-02RE1)				**Matrix: Water**		**Batch: 25A1072**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1-Dichloroethene	**0.410**	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
cis-1,2-Dichloroethene	**85.2**	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
trans-1,2-Dichloroethene	**0.860**	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
Tetrachloroethene (PCE)	**2.71**	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
Trichloroethene (TCE)	**59.0**	---	0.400	ug/L	1	01/31/25 18:51	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/31/25 18:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/31/25 18:51	EPA 8260D	
Vinyl chloride	**0.390**	---	0.200	ug/L	1	01/31/25 18:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*	*01/31/25 18:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*01/31/25 18:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*01/31/25 18:51*	*EPA 8260D*	
DPE7-012925 (A5A1657-03)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-012925 (A5A1657-03)				**Matrix: Water**		**Batch: 25A1022**		
Bromoform	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/30/25 17:24	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1-Dichloroethene	**0.450**	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
cis-1,2-Dichloroethene	**31.2**	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-012925 (A5A1657-03)				**Matrix: Water**		**Batch: 25A1022**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
Trichloroethene (TCE)	**36.0**	---	0.400	ug/L	1	01/30/25 17:24	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/30/25 17:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:24	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/30/25 17:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*01/30/25 17:24*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 17:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*01/30/25 17:24*	*EPA 8260D*	
DPE8-012925 (A5A1657-04)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 20:40	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 20:40	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 20:40	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-012925 (A5A1657-04)				**Matrix: Water**		**Batch: 25A1022**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
cis-1,2-Dichloroethene	**14.6**	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 20:40	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
Tetrachloroethene (PCE)	**8.35**	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 20:40	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Trichloroethene (TCE)	**465**	---	2.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 20:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 20:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 20:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*01/30/25 20:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*01/30/25 20:40*	*EPA 8260D*	
EW4-012925 (A5A1657-05)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-012925 (A5A1657-05)				**Matrix: Water**		**Batch: 25A1022**		
Chlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	01/30/25 21:45	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
cis-1,2-Dichloroethene	**321**	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Tetrachloroethene (PCE)	**17.9**	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	01/30/25 21:45	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-012925 (A5A1657-05)				**Matrix: Water**		**Batch: 25A1022**		
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Trichloroethene (TCE)	**1500**	---	4.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	01/30/25 21:45	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:45	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	01/30/25 21:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*01/30/25 21:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 21:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 21:45*	*EPA 8260D*	
EW5A-012925 (A5A1657-06)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	01/30/25 21:23	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	01/30/25 21:23	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	01/30/25 21:23	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1-Dichloroethene	**1.44**	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
cis-1,2-Dichloroethene	**90.6**	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-012925 (A5A1657-06)				**Matrix: Water**		**Batch: 25A1022**		
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	01/30/25 21:23	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Tetrachloroethene (PCE)	**2.52**	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
Trichloroethene (TCE)	**234**	---	0.800	ug/L	2	01/30/25 21:23	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	01/30/25 21:23	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	01/30/25 21:23	EPA 8260D	
Vinyl chloride	**3.32**	---	0.400	ug/L	2	01/30/25 21:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:* *80-120 %*	*1*	*01/30/25 21:23*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 21:23*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 21:23*	*EPA 8260D*	
EW6-012925 (A5A1657-07)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 19:13	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 19:13	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012925 (A5A1657-07)				**Matrix: Water**		**Batch: 25A1022**		
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 19:13	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
cis-1,2-Dichloroethene	**76.2**	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 19:13	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
Tetrachloroethene (PCE)	**3.75**	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 19:13	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 19:13	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Trichloroethene (TCE)	**425**	---	2.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 19:13	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012925 (A5A1657-07)				**Matrix: Water**		**Batch: 25A1022**		
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 19:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 105 %*		*Limits: 80-120 %*	*1*	*01/30/25 19:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 19:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 19:13*	*EPA 8260D*	
EW6-012925-D (A5A1657-08)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 19:35	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 19:35	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 19:35	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
cis-1,2-Dichloroethene	**69.3**	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-012925-D (A5A1657-08)				**Matrix: Water**		**Batch: 25A1022**		
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 19:35	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
Tetrachloroethene (PCE)	**3.70**	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 19:35	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Trichloroethene (TCE)	**400**	---	2.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 19:35	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 19:35	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*01/30/25 19:35*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 19:35*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*01/30/25 19:35*	*EPA 8260D*	
EW7-012925 (A5A1657-09)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/30/25 17:03	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-012925 (A5A1657-09)				**Matrix: Water**		**Batch: 25A1022**		
Dibromochloromethane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
cis-1,2-Dichloroethene	**9.94**	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
Tetrachloroethene (PCE)	**1.28**	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
Trichloroethene (TCE)	**23.3**	---	0.400	ug/L	1	01/30/25 17:03	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/30/25 17:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/30/25 17:03	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/30/25 17:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*		*Limits: 80-120 %*	*1*	*01/30/25 17:03*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-012925 (A5A1657-09)				**Matrix: Water**		**Batch: 25A1022**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*100 %*	*Limits:* *80-120 %*	*1*	*01/30/25 17:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*01/30/25 17:03*	*EPA 8260D*	
MW2B-012925 (A5A1657-10)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	01/30/25 21:02	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
cis-1,2-Dichloroethene	**60.2**	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-012925 (A5A1657-10)				**Matrix: Water**		**Batch: 25A1022**		
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Tetrachloroethene (PCE)	**6.70**	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Trichloroethene (TCE)	**1180**	---	4.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	01/30/25 21:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	01/30/25 21:02	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	01/30/25 21:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 21:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 21:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 21:02*	*EPA 8260D*	
MW2C-012925-U (A5A1657-11)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 23:33	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 23:33	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 23:33	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012925-U (A5A1657-11)				**Matrix: Water**		**Batch: 25A1022**		
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
cis-1,2-Dichloroethene	**37.0**	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 23:33	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
Tetrachloroethene (PCE)	**7.50**	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 23:33	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Trichloroethene (TCE)	**947**	---	2.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 23:33	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 23:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 23:33*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 23:33*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*01/30/25 23:33*	*EPA 8260D*	
MW2C-012925-L (A5A1657-12)				**Matrix: Water**		**Batch: 25A1022**		

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012925-L (A5A1657-12)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 23:55	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 23:55	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 23:55	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
cis-1,2-Dichloroethene	**41.2**	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 23:55	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 23:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-012925-L (A5A1657-12)				**Matrix: Water**		**Batch: 25A1022**		
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
Tetrachloroethene (PCE)	**6.50**	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 23:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Trichloroethene (TCE)	**958**	---	2.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 23:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 23:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 23:55*	*EPA 8260D*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*01/30/25 23:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*01/30/25 23:55*	*EPA 8260D*	
MW11B-012925 (A5A1657-13)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	01/30/25 18:51	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	01/30/25 18:51	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	01/30/25 18:51	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-012925 (A5A1657-13)				**Matrix: Water**		**Batch: 25A1022**		
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
cis-1,2-Dichloroethene	**129**	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	01/30/25 18:51	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Tetrachloroethene (PCE)	**1.30**	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
Trichloroethene (TCE)	**206**	---	0.800	ug/L	2	01/30/25 18:51	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	01/30/25 18:51	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	01/30/25 18:51	EPA 8260D	
Vinyl chloride	**1.10**	---	0.400	ug/L	2	01/30/25 18:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 18:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*01/30/25 18:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 18:51*	*EPA 8260D*	
MW14B-012925 (A5A1657-14)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-012925 (A5A1657-14)				**Matrix: Water**		**Batch: 25A1022**		
Bromoform	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 17:46	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 17:46	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 17:46	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
cis-1,2-Dichloroethene	**7.35**	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 17:46	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
Tetrachloroethene (PCE)	**2.70**	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-012925 (A5A1657-14)				**Matrix: Water**		**Batch: 25A1022**		
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 17:46	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Trichloroethene (TCE)	**219**	---	2.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 17:46	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 17:46	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*01/30/25 17:46*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*01/30/25 17:46*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 17:46*	*EPA 8260D*	
MW17B-012925-U (A5A1657-15)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 18:08	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 18:08	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 18:08	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012925-U (A5A1657-15)				**Matrix: Water**		**Batch: 25A1022**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
cis-1,2-Dichloroethene	**25.6**	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 18:08	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
Tetrachloroethene (PCE)	**3.95**	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 18:08	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Trichloroethene (TCE)	**332**	---	2.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 18:08	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 18:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*	*1*	*01/30/25 18:08*	*EPA 8260D*	
Toluene-d8 (Surr)		*99 %*		*80-120 %*	*1*	*01/30/25 18:08*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)		*102 %*		*80-120 %*	*1*	*01/30/25 18:08*	*EPA 8260D*	
MW17B-012925-L (A5A1657-16)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	01/30/25 18:30	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012925-L (A5A1657-16)				**Matrix: Water**		**Batch: 25A1022**		
Chlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	01/30/25 18:30	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	01/30/25 18:30	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
cis-1,2-Dichloroethene	**26.0**	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	01/30/25 18:30	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
Tetrachloroethene (PCE)	**3.85**	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 18:30	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	01/30/25 18:30	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-012925-L (A5A1657-16)				**Matrix: Water**		**Batch: 25A1022**		
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Trichloroethene (TCE)	**308**	---	2.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	01/30/25 18:30	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	01/30/25 18:30	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*01/30/25 18:30*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*01/30/25 18:30*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 18:30*	*EPA 8260D*	
MW18B-012925-U (A5A1657-17)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Bromomethane	ND	---	125	ug/L	25	01/30/25 22:06	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	01/30/25 22:06	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	01/30/25 22:06	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1-Dichloroethene	**21.2**	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
cis-1,2-Dichloroethene	**604**	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012925-U (A5A1657-17)				**Matrix: Water**		**Batch: 25A1022**		
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	01/30/25 22:06	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
Tetrachloroethene (PCE)	**65.0**	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	01/30/25 22:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:06	EPA 8260D	
Vinyl chloride	**8.75**	---	5.00	ug/L	25	01/30/25 22:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*01/30/25 22:06*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 22:06*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*01/30/25 22:06*	*EPA 8260D*	
MW18B-012925-U (A5A1657-17RE1)				**Matrix: Water**		**Batch: 25A1072**		
Trichloroethene (TCE)	**3850**	---	100	ug/L	250	01/31/25 18:29	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*01/31/25 18:29*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*01/31/25 18:29*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*01/31/25 18:29*	*EPA 8260D*	
MW18B-012925-L (A5A1657-18)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
Bromochloromethane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Bromodichloromethane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Bromoform	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012925-L (A5A1657-18)				**Matrix: Water**		**Batch: 25A1022**		
Bromomethane	ND	---	125	ug/L	25	01/30/25 22:28	EPA 8260D	
Carbon tetrachloride	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Chlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
Chloroethane	ND	---	125	ug/L	25	01/30/25 22:28	EPA 8260D	
Chloroform	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Chloromethane	ND	---	125	ug/L	25	01/30/25 22:28	EPA 8260D	
2-Chlorotoluene	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
4-Chlorotoluene	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Dibromochloromethane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	125	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
Dibromomethane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
1,3-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
1,4-Dichlorobenzene	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
Dichlorodifluoromethane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1-Dichloroethane	ND	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1-Dichloroethene	**25.8**	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
cis-1,2-Dichloroethene	**562**	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2-Dichloropropane	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
1,3-Dichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
2,2-Dichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Hexachlorobutadiene	ND	---	125	ug/L	25	01/30/25 22:28	EPA 8260D	
Methylene chloride	ND	---	250	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
Tetrachloroethene (PCE)	**55.8**	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	50.0	ug/L	25	01/30/25 22:28	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-012925-L (A5A1657-18)				**Matrix: Water**		**Batch: 25A1022**		
1,1,2-Trichloroethane	ND	---	12.5	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	50.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,1,1-Trichloroethane	ND	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Trichloroethene (TCE)	**4540**	---	10.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Trichlorofluoromethane	ND	---	50.0	ug/L	25	01/30/25 22:28	EPA 8260D	
1,2,3-Trichloropropane	ND	---	25.0	ug/L	25	01/30/25 22:28	EPA 8260D	
Vinyl chloride	**12.8**	---	5.00	ug/L	25	01/30/25 22:28	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*01/30/25 22:28*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 22:28*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*01/30/25 22:28*	*EPA 8260D*	
TripBlank#3677 (A5A1657-19)				**Matrix: Water**		**Batch: 25A1022**		
Bromobenzene	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	01/30/25 16:20	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TripBlank#3677 (A5A1657-19)				**Matrix: Water**		**Batch: 25A1022**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	01/30/25 16:20	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	01/30/25 16:20	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	01/30/25 16:20	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	01/30/25 16:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*	*01/30/25 16:20*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*01/30/25 16:20*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*01/30/25 16:20*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C							**Water**					
Blank (25A1022-BLK1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 15:14									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C							**Water**					
Blank (25A1022-BLK1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 15:14									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25A1022-BS1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 14:24									
EPA 8260D												
Bromobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Bromochloromethane	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromodichloromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromoform	27.4	---	1.00	ug/L	1	20.0	---	**137**	**80-120%**	---	---	Q-56
Bromomethane	13.4	---	5.00	ug/L	1	20.0	---	**67**	**80-120%**	---	---	Q-55
Carbon tetrachloride	27.8	---	1.00	ug/L	1	20.0	---	**139**	**80-120%**	---	---	Q-56
Chlorobenzene	21.9	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Chloroethane	17.2	---	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
Chloroform	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Chloromethane	16.5	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
2-Chlorotoluene	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
4-Chlorotoluene	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	24.3	---	1.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
1,2-Dibromo-3-chloropropane	21.3	---	5.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.4	---	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
Dibromomethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C								**Water**				
LCS (25A1022-BS1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 14:24									
1,3-Dichlorobenzene	22.4	---	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Dichlorodifluoromethane	17.3	---	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,1-Dichloroethane	19.5	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethene	18.3	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
cis-1,2-Dichloroethene	18.7	---	0.400	ug/L	1	20.0	---	93	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloropropane	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
2,2-Dichloropropane	29.2	---	1.00	ug/L	1	20.0	---	**146**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
cis-1,3-Dichloropropene	21.9	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
trans-1,3-Dichloropropene	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Hexachlorobutadiene	23.8	---	5.00	ug/L	1	20.0	---	119	80-120%	---	---	
Methylene chloride	19.2	---	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	23.6	---	0.400	ug/L	1	20.0	---	118	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.1	---	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Tetrachloroethene (PCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,3-Trichlorobenzene	23.2	---	2.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	21.4	---	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,1,1-Trichloroethane	23.3	---	0.400	ug/L	1	20.0	---	117	80-120%	---	---	
Trichloroethene (TCE)	19.5	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Trichlorofluoromethane	20.7	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,3-Trichloropropane	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Vinyl chloride	18.5	---	0.200	ug/L	1	20.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 93 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*96 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Duplicate (25A1022-DUP1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 20:18									

QC Source Sample: MW11-2-012825 (A5A1657-02)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C							**Water**					
Duplicate (25A1022-DUP1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 20:18									
QC Source Sample: MW11-2-012825 (A5A1657-02)												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**66.6**	---	8.00	ug/L	20	---	67.6	---	---	1	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project:	OR Tool/Carlton Remedy
15862 SW 72nd Ave. Suite 150	Project Number:	[none]
Portland, OR 97224	Project Manager:	John Kuiper
		Report ID: A5A1657 - 02 10 25 2311

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C							Water					
Duplicate (25A1022-DUP1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 20:18									
QC Source Sample: MW11-2-012825 (A5A1657-02)												
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**49.0**	---	8.00	ug/L	20	---	53.6	---	---	9	30%	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	4.00	ug/L	20	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (25A1022-MS1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 22:50									
QC Source Sample: MW18B-012925-L (A5A1657-18)												
EPA 8260D												
Bromobenzene	482	---	12.5	ug/L	25	500	ND	96	80-120%	---	---	
Bromochloromethane	489	---	25.0	ug/L	25	500	ND	98	78-123%	---	---	
Bromodichloromethane	577	---	25.0	ug/L	25	500	ND	115	79-125%	---	---	
Bromoform	646	---	25.0	ug/L	25	500	ND	129	66-130%	---	---	Q-54c
Bromomethane	363	---	125	ug/L	25	500	ND	73	53-141%	---	---	Q-54f
Carbon tetrachloride	727	---	25.0	ug/L	25	500	ND	**145**	**72-136%**	---	---	Q-54d
Chlorobenzene	526	---	12.5	ug/L	25	500	ND	105	80-120%	---	---	
Chloroethane	448	---	125	ug/L	25	500	ND	90	60-138%	---	---	
Chloroform	520	---	25.0	ug/L	25	500	ND	104	79-124%	---	---	
Chloromethane	418	---	125	ug/L	25	500	ND	84	50-139%	---	---	
2-Chlorotoluene	488	---	25.0	ug/L	25	500	ND	98	79-122%	---	---	
4-Chlorotoluene	504	---	25.0	ug/L	25	500	ND	101	78-122%	---	---	
Dibromochloromethane	578	---	25.0	ug/L	25	500	ND	116	74-126%	---	---	Q-54
1,2-Dibromo-3-chloropropane	492	---	125	ug/L	25	500	ND	98	62-128%	---	---	
1,2-Dibromoethane (EDB)	526	---	12.5	ug/L	25	500	ND	105	77-121%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1022 - EPA 5030C							**Water**					
Matrix Spike (25A1022-MS1)			Prepared: 01/30/25 12:05 Analyzed: 01/30/25 22:50									
QC Source Sample: MW18B-012925-L (A5A1657-18)												
Dibromomethane	506	---	25.0	ug/L	25	500	ND	101	79-123%	---	---	
1,2-Dichlorobenzene	508	---	12.5	ug/L	25	500	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	527	---	12.5	ug/L	25	500	ND	105	80-120%	---	---	
1,4-Dichlorobenzene	512	---	12.5	ug/L	25	500	ND	102	79-120%	---	---	
Dichlorodifluoromethane	454	---	25.0	ug/L	25	500	ND	91	32-152%	---	---	
1,1-Dichloroethane	481	---	10.0	ug/L	25	500	ND	96	77-125%	---	---	
1,2-Dichloroethane (EDC)	510	---	10.0	ug/L	25	500	ND	102	73-128%	---	---	
1,1-Dichloroethene	517	---	10.0	ug/L	25	500	25.8	98	71-131%	---	---	
cis-1,2-Dichloroethene	1020	---	10.0	ug/L	25	500	562	93	78-123%	---	---	
trans-1,2-Dichloroethene	462	---	10.0	ug/L	25	500	5.25	91	75-124%	---	---	
1,2-Dichloropropane	446	---	12.5	ug/L	25	500	ND	89	78-122%	---	---	
1,3-Dichloropropane	493	---	25.0	ug/L	25	500	ND	99	80-120%	---	---	
2,2-Dichloropropane	636	---	25.0	ug/L	25	500	ND	127	60-139%	---	---	Q-54e
1,1-Dichloropropene	494	---	25.0	ug/L	25	500	ND	99	79-125%	---	---	
cis-1,3-Dichloropropene	453	---	25.0	ug/L	25	500	ND	91	75-124%	---	---	
trans-1,3-Dichloropropene	524	---	25.0	ug/L	25	500	ND	105	73-127%	---	---	
Hexachlorobutadiene	530	---	125	ug/L	25	500	ND	106	66-134%	---	---	
Methylene chloride	475	---	250	ug/L	25	500	ND	95	74-124%	---	---	
1,1,1,2-Tetrachloroethane	564	---	10.0	ug/L	25	500	ND	113	78-124%	---	---	
1,1,2,2-Tetrachloroethane	538	---	12.5	ug/L	25	500	ND	108	71-121%	---	---	
Tetrachloroethene (PCE)	590	---	10.0	ug/L	25	500	55.8	107	74-129%	---	---	
1,2,3-Trichlorobenzene	513	---	50.0	ug/L	25	500	ND	103	69-129%	---	---	
1,1,2-Trichloroethane	514	---	12.5	ug/L	25	500	ND	103	80-120%	---	---	
1,2,4-Trichlorobenzene	485	---	50.0	ug/L	25	500	ND	97	69-130%	---	---	
1,1,1-Trichloroethane	590	---	10.0	ug/L	25	500	ND	118	74-131%	---	---	
Trichloroethene (TCE)	4450	---	10.0	ug/L	25	500	4540	**-18**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	567	---	50.0	ug/L	25	500	ND	113	65-141%	---	---	
1,2,3-Trichloropropane	520	---	25.0	ug/L	25	500	ND	104	73-122%	---	---	
Vinyl chloride	475	---	5.00	ug/L	25	500	12.8	92	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 96 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*96 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*96 %*	*80-120 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C							**Water**					
Blank (25A1072-BLK1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 15:57									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C									Water			
Blank (25A1072-BLK1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 15:57									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (25A1072-BS1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 14:51									
EPA 8260D												
Bromobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Bromodichloromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromoform	26.5	---	1.00	ug/L	1	20.0	---	**133**	**80-120%**	---	---	Q-56
Bromomethane	14.6	---	5.00	ug/L	1	20.0	---	**73**	**80-120%**	---	---	Q-55
Carbon tetrachloride	26.9	---	1.00	ug/L	1	20.0	---	**134**	**80-120%**	---	---	Q-56
Chlorobenzene	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Chloroethane	18.0	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
Chloroform	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	16.0	---	5.00	ug/L	1	20.0	---	80	80-120%	---	---	
2-Chlorotoluene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Chlorotoluene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	23.3	---	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
1,2-Dibromo-3-chloropropane	20.1	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromomethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C							**Water**					
LCS (25A1072-BS1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 14:51									
1,3-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	16.0	---	1.00	ug/L	1	20.0	---	80	80-120%	---	---	
1,1-Dichloroethane	18.9	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethene	18.0	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
cis-1,2-Dichloroethene	17.9	---	0.400	ug/L	1	20.0	---	89	80-120%	---	---	
trans-1,2-Dichloroethene	18.2	---	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dichloropropane	18.2	---	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	27.8	---	1.00	ug/L	1	20.0	---	**139**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
cis-1,3-Dichloropropene	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,3-Dichloropropene	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Hexachlorobutadiene	21.4	---	5.00	ug/L	1	20.0	---	107	80-120%	---	---	
Methylene chloride	19.1	---	10.0	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.9	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichlorobenzene	21.1	---	2.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.2	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1-Trichloroethane	22.3	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
Trichloroethene (TCE)	18.4	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
Trichlorofluoromethane	20.1	---	2.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichloropropane	21.1	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Vinyl chloride	17.2	---	0.200	ug/L	1	20.0	---	86	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (25A1072-DUP1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 20:40									
QC Source Sample: Non-SDG (A5A1686-01)												
Bromobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C							**Water**					
Duplicate (25A1072-DUP1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 20:40									
QC Source Sample: Non-SDG (A5A1686-01)												
Bromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	250	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	500	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C							**Water**					
Duplicate (25A1072-DUP1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 20:40									
QC Source Sample: Non-SDG (A5A1686-01)												
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	10.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
Matrix Spike (25A1072-MS1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 17:23									
QC Source Sample: Non-SDG (A5A1723-06)												
EPA 8260D												
Bromobenzene	20.2	---	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
Bromochloromethane	20.8	---	1.00	ug/L	1	20.0	ND	104	78-123%	---	---	
Bromodichloromethane	24.3	---	1.00	ug/L	1	20.0	ND	122	79-125%	---	---	
Bromoform	27.5	---	1.00	ug/L	1	20.0	ND	**137**	**66-130%**	---	---	Q-54a
Bromomethane	16.3	---	5.00	ug/L	1	20.0	ND	82	53-141%	---	---	Q-54g
Carbon tetrachloride	30.2	---	1.00	ug/L	1	20.0	ND	**151**	**72-136%**	---	---	Q-54b
Chlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
Chloroethane	19.2	---	5.00	ug/L	1	20.0	ND	96	60-138%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	111	79-124%	---	---	
Chloromethane	17.9	---	5.00	ug/L	1	20.0	ND	89	50-139%	---	---	
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	ND	100	79-122%	---	---	
4-Chlorotoluene	20.7	---	1.00	ug/L	1	20.0	ND	104	78-122%	---	---	
Dibromochloromethane	24.4	---	1.00	ug/L	1	20.0	ND	122	74-126%	---	---	
1,2-Dibromo-3-chloropropane	21.0	---	5.00	ug/L	1	20.0	ND	105	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.2	---	0.500	ug/L	1	20.0	ND	111	77-121%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	ND	106	79-123%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5A1657 - 02 10 25 2311

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25A1072 - EPA 5030C							**Water**					
Matrix Spike (25A1072-MS1)			Prepared: 01/31/25 13:28 Analyzed: 01/31/25 17:23									
QC Source Sample: Non-SDG (A5A1723-06)												
1,2-Dichlorobenzene	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,3-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	18.6	---	1.00	ug/L	1	20.0	ND	93	32-152%	---	---	
1,1-Dichloroethane	20.4	---	0.400	ug/L	1	20.0	ND	102	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.6	---	0.400	ug/L	1	20.0	ND	108	73-128%	---	---	
1,1-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	ND	103	71-131%	---	---	
cis-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	ND	94	78-123%	---	---	
trans-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	ND	96	75-124%	---	---	
1,2-Dichloropropane	18.8	---	0.500	ug/L	1	20.0	ND	94	78-122%	---	---	
1,3-Dichloropropane	20.7	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	30.7	---	1.00	ug/L	1	20.0	ND	**154**	**60-139%**	---	---	Q-54d
1,1-Dichloropropene	21.3	---	1.00	ug/L	1	20.0	ND	106	79-125%	---	---	
cis-1,3-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	ND	101	75-124%	---	---	
trans-1,3-Dichloropropene	22.7	---	1.00	ug/L	1	20.0	ND	113	73-127%	---	---	
Hexachlorobutadiene	19.8	---	5.00	ug/L	1	20.0	ND	99	66-134%	---	---	
Methylene chloride	20.2	---	10.0	ug/L	1	20.0	ND	101	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.8	---	0.400	ug/L	1	20.0	ND	119	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.8	---	0.500	ug/L	1	20.0	ND	114	71-121%	---	---	
Tetrachloroethene (PCE)	22.9	---	0.400	ug/L	1	20.0	ND	115	74-129%	---	---	
1,2,3-Trichlorobenzene	20.8	---	2.00	ug/L	1	20.0	ND	104	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
1,2,4-Trichlorobenzene	19.0	---	2.00	ug/L	1	20.0	ND	95	69-130%	---	---	
1,1,1-Trichloroethane	25.0	---	0.400	ug/L	1	20.0	ND	125	74-131%	---	---	
Trichloroethene (TCE)	20.7	---	0.400	ug/L	1	20.0	ND	103	79-123%	---	---	
Trichlorofluoromethane	23.8	---	2.00	ug/L	1	20.0	ND	119	65-141%	---	---	
1,2,3-Trichloropropane	22.6	---	1.00	ug/L	1	20.0	ND	113	73-122%	---	---	
Vinyl chloride	19.4	---	0.200	ug/L	1	20.0	ND	97	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 94 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*95 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*96 %*	*80-120 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25A1022							
A5A1657-01	Water	EPA 8260D	01/28/25 14:18	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-03	Water	EPA 8260D	01/29/25 14:00	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-04	Water	EPA 8260D	01/29/25 13:43	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-05	Water	EPA 8260D	01/29/25 12:50	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-06	Water	EPA 8260D	01/29/25 12:38	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-07	Water	EPA 8260D	01/29/25 13:30	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-08	Water	EPA 8260D	01/29/25 13:31	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-09	Water	EPA 8260D	01/29/25 13:10	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-10	Water	EPA 8260D	01/29/25 11:50	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-11	Water	EPA 8260D	01/29/25 11:15	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-12	Water	EPA 8260D	01/29/25 11:25	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-13	Water	EPA 8260D	01/29/25 09:00	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-14	Water	EPA 8260D	01/29/25 09:23	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-15	Water	EPA 8260D	01/29/25 10:00	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-16	Water	EPA 8260D	01/29/25 10:10	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-17	Water	EPA 8260D	01/29/25 10:35	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-18	Water	EPA 8260D	01/29/25 10:45	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
A5A1657-19	Water	EPA 8260D	01/28/25 00:00	01/30/25 12:05	5mL/5mL	5mL/5mL	1.00
Batch: 25A1072							
A5A1657-02RE1	Water	EPA 8260D	01/28/25 15:00	01/31/25 15:12	5mL/5mL	5mL/5mL	1.00
A5A1657-17RE1	Water	EPA 8260D	01/29/25 10:35	01/31/25 15:12	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +14%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +17%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +19%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +26%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -13%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
V-13	Reporting levels raised due to dilution necessary for analysis due to sample foaming in sparge vessel.

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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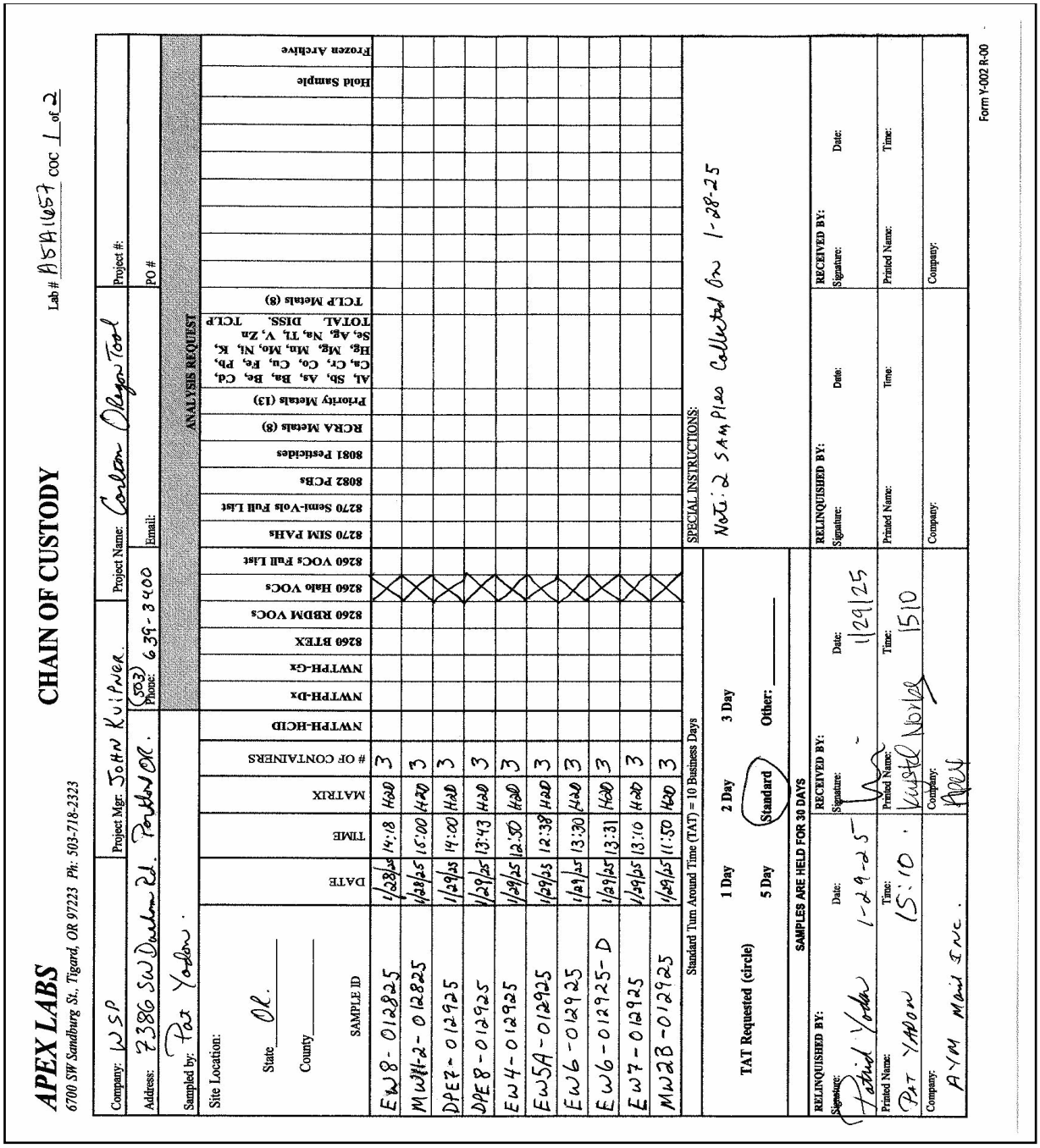
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A5A1657 - 02 10 25 2311



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5A1657 COC 1 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton Oregon Tool | Project #:
Address: 7386 SW Durham Rd. Portland OR. | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Pat Yoder
Site Location: State OR. County

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
EW8-012825	1/28/25	14:18	H2O	3						X											
MW11-2-012825	1/28/25	15:00	H2O	3						X											
DPE7-012925	1/29/25	14:00	H2O	3						X											
DPE8-012925	1/29/25	13:43	H2O	3						X											
EW4-012925	1/29/25	12:50	H2O	3						X											
EW5A-012925	1/29/25	12:38	H2O	3						X											
EW6-012925	1/29/25	13:30	H2O	3						X											
EW6-012925-D	1/29/25	13:31	H2O	3						X											
EW7-012925	1/29/25	13:10	H2O	3						X											
MW28-012925	1/29/25	11:50	H2O	3						X											

SPECIAL INSTRUCTIONS:
Note: 2 Samples Collected on 1-28-25

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Patrick Yoder	1-29-25	Signature:	1/29/25	Signature:		Signature:	
Printed Name: Pat Yoder	Time: 15:10	Printed Name: Kristal Noyes	Time: 1510	Printed Name:	Time:	Printed Name:	Time:
Company: AYM Main Inc.		Company: APEX		Company:		Company:	

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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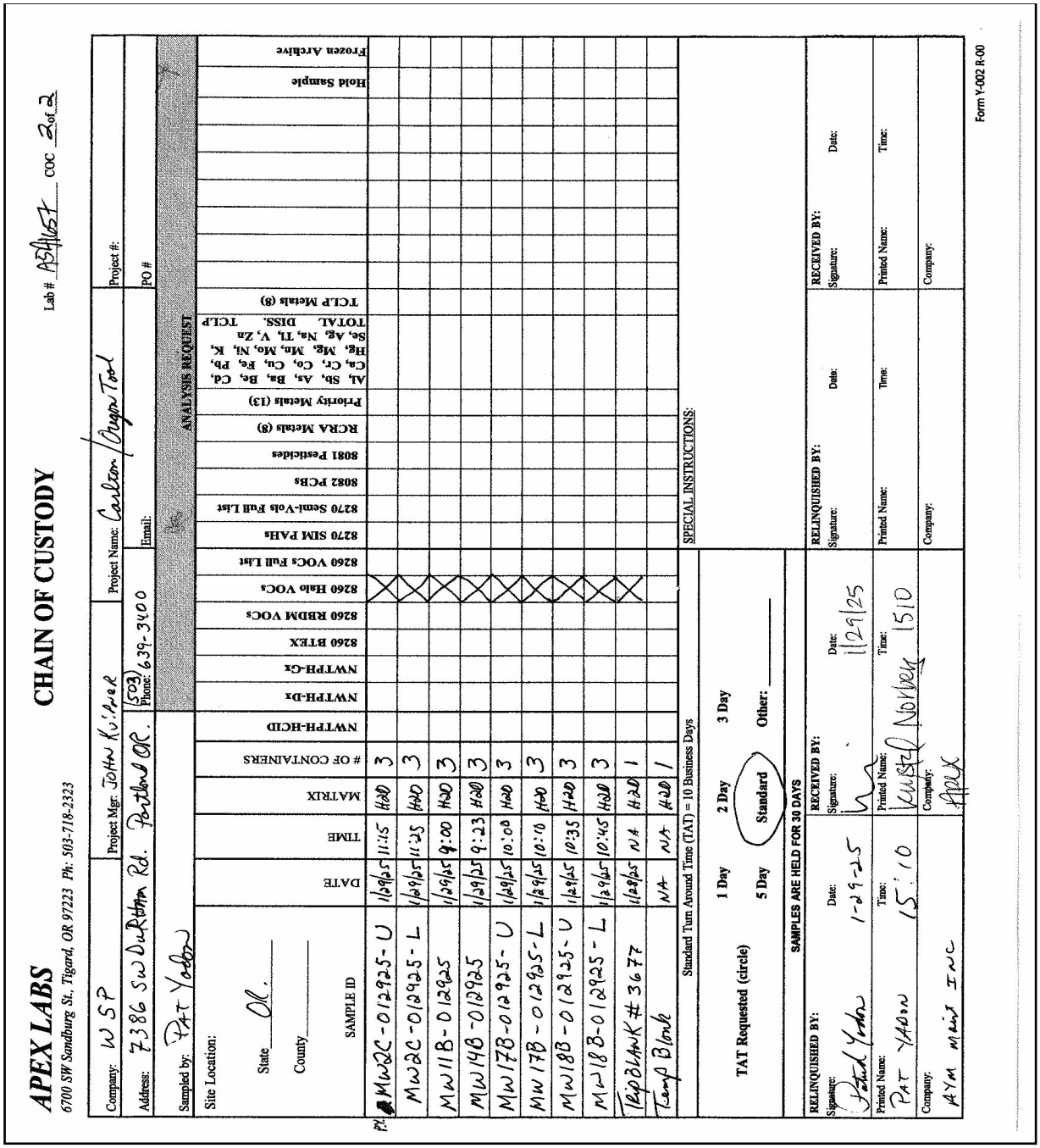
Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A5A1657 - 02 10 25 2311



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5A1657 COC 2 of 2

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton / Oregon Tool | Project #:
Address: 7386 SW Durham Rd. Portland OR. | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Pat Yadon

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
MW2C-012925-U	1/29/25	11:15	H2O	3						X											
MW2C-012925-L	1/29/25	11:25	H2O	3						X											
MW11B-012925	1/29/25	9:00	H2O	3						X											
MW14B-012925	1/29/25	9:23	H2O	3						X											
MW17B-012925-U	1/29/25	10:05	H2O	3						X											
MW17B-012925-L	1/29/25	10:15	H2O	3						X											
MW18B-012925-U	1/29/25	10:35	H2O	3						X											
MW18B-012925-L	1/29/25	10:45	H2O	3						X											
TripBlank #3677	1/28/25	N/A	H2O	1						X											
Temp Blank	N/A	N/A	H2O	1																	

Standard Turn Around Time (TAT) = 10 Business Days

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Pat Yadon	Signature:	Signature:	Signature:
Date: 1-29-25	Date: 1/29/25	Date:	Date:
Time: 15:10	Time: 1510	Time:	Time:
Printed Name: PAT YADON	Printed Name: Kristel Norberg	Printed Name:	Printed Name:
Company: AYM MGMT INC	Company: Apex	Company:	Company:

Form Y-002 R-00

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5A1657 - 02 10 25 2311**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5A1657

Project/Project #: Carlton/Oregon TOOL

Delivery Info:

Date/time received: 1/29/25 @ 1510 By: KN

Delivered by: Apex__Client__ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other AYM maint. inc

From USDA Regulated Origin? Yes _____ No ✓

Cooler Inspection Date/time inspected: 1/29/25 @ 1510 By: KN

Chain of Custody included? Yes ✓ No _____

Signed/dated by client? Yes ✓ No _____

Contains USDA Reg. Soils? Yes _____ No ✓ Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.2						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 1/29/25 @ 18:51 By: ZAM

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA X ZAM 1/29

Comments 3/3 for EW8-012825 has sed

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:_____

Comments: _____

Labeled by: ZAM Witness: KN Cooler Inspected by: APW

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ANALYTICAL REPORT

Thursday, March 6, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5B1708 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5B1708, which was received by the laboratory on 2/25/2025 at 3:53:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-022525	A5B1708-01	Water	02/25/25 12:50	02/25/25 15:53
INF-022525	A5B1708-02	Water	02/25/25 13:10	02/25/25 15:53
TRIP-022525	A5B1708-03	Water	02/25/25 12:30	02/25/25 15:53

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-022525 (A5B1708-01)				**Matrix: Water**		**Batch: 25C0078**		
Bromobenzene	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	03/04/25 22:23	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	03/04/25 22:23	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-022525 (A5B1708-01)				**Matrix: Water**		**Batch: 25C0078**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	03/04/25 22:23	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	03/04/25 22:23	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:23	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	03/04/25 22:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*03/04/25 22:23*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*03/04/25 22:23*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*03/04/25 22:23*	*EPA 8260D*	
INF-022525 (A5B1708-02RE1)				**Matrix: Water**		**Batch: 25C0148**		
Bromobenzene	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Bromoform	ND	---	4.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	03/05/25 12:16	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	03/05/25 12:16	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	03/05/25 12:16	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-022525 (A5B1708-02RE1)				**Matrix: Water**		**Batch: 25C0148**		
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
cis-1,2-Dichloroethene	**55.9**	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	03/05/25 12:16	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Tetrachloroethene (PCE)	**2.66**	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
Trichloroethene (TCE)	**221**	---	0.800	ug/L	2	03/05/25 12:16	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	03/05/25 12:16	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	03/05/25 12:16	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	2	03/05/25 12:16	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*03/05/25 12:16*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*03/05/25 12:16*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*03/05/25 12:16*	*EPA 8260D*	
TRIP-022525 (A5B1708-03)				**Matrix: Water**		**Batch: 25C0078**		
Bromobenzene	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP-022525 (A5B1708-03)				**Matrix: Water**		**Batch: 25C0078**		
Bromoform	ND	---	2.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	03/04/25 22:01	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5B1708 - 03 06 25 1800

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP-022525 (A5B1708-03)				**Matrix: Water**		**Batch: 25C0078**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	03/04/25 22:01	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	03/04/25 22:01	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	03/04/25 22:01	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	03/04/25 22:01	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*03/04/25 22:01*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*03/04/25 22:01*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*03/04/25 22:01*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Blank (25C0078-BLK1)			Prepared: 03/04/25 11:45		Analyzed: 03/04/25 14:49							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Blank (25C0078-BLK1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 14:49									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (25C0078-BS1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 14:05									
EPA 8260D												
Bromobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Bromochloromethane	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
Bromodichloromethane	21.9	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromoform	19.2	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
Bromomethane	24.1	---	5.00	ug/L	1	20.0	---	120	80-120%	---	---	
Carbon tetrachloride	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	22.2	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloroform	21.5	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chloromethane	20.6	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
2-Chlorotoluene	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2-Dibromo-3-chloropropane	22.8	---	5.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Dibromomethane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
LCS (25C0078-BS1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 14:05									
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethane	22.5	---	0.400	ug/L	1	20.0	---	113	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.9	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
cis-1,2-Dichloroethene	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
trans-1,2-Dichloroethene	21.7	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichloropropane	22.6	---	0.500	ug/L	1	20.0	---	113	80-120%	---	---	
1,3-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
2,2-Dichloropropane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,1-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
trans-1,3-Dichloropropene	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Hexachlorobutadiene	18.6	---	5.00	ug/L	1	20.0	---	93	80-120%	---	---	
Methylene chloride	21.0	---	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1,2-Tetrachloroethane	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,2,2-Tetrachloroethane	25.9	---	0.500	ug/L	1	20.0	---	**130**	**80-120%**	---	---	Q-56
Tetrachloroethene (PCE)	18.7	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	20.4	---	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2-Trichloroethane	21.9	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,4-Trichlorobenzene	19.8	---	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1-Trichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	19.5	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	23.5	---	2.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,2,3-Trichloropropane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Vinyl chloride	21.9	---	0.200	ug/L	1	20.0	---	109	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Duplicate (25C0078-DUP1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 20:13									
QC Source Sample: Non-SDG (A5B1787-03)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Duplicate (25C0078-DUP1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 20:13									
QC Source Sample: Non-SDG (A5B1787-03)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Duplicate (25C0078-DUP1)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 20:13									
QC Source Sample: Non-SDG (A5B1787-03)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (25C0078-DUP2)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 23:06									
QC Source Sample: INF-022525 (A5B1708-02)												
EPA 8260D												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Duplicate (25C0078-DUP2)			Prepared: 03/04/25 11:45 Analyzed: 03/04/25 23:06									
QC Source Sample: INF-022525 (A5B1708-02)												
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**56.0**	---	2.00	ug/L	5	---	57.8	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**2.80**	---	2.00	ug/L	5	---	3.00	---	---	7	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**223**	---	2.00	ug/L	5	---	237	---	---	6	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*104 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*97 %*	*80-120 %*	*"*	

Matrix Spike (25C0078-MS1) Prepared: 03/04/25 11:45 Analyzed: 03/04/25 21:18

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Matrix Spike (25C0078-MS1)			Prepared: 03/04/25 11:45		Analyzed: 03/04/25 21:18							
QC Source Sample: Non-SDG (A5C0958-01)												
EPA 8260D												
Bromobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Bromochloromethane	24.2	---	1.00	ug/L	1	20.0	ND	121	78-123%	---	---	
Bromodichloromethane	22.5	---	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
Bromoform	19.3	---	2.00	ug/L	1	20.0	ND	97	66-130%	---	---	
Bromomethane	25.8	---	5.00	ug/L	1	20.0	ND	129	53-141%	---	---	
Carbon tetrachloride	21.2	---	1.00	ug/L	1	20.0	ND	106	72-136%	---	---	
Chlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	24.4	---	5.00	ug/L	1	20.0	ND	122	60-138%	---	---	
Chloroform	22.7	---	1.00	ug/L	1	20.0	ND	113	79-124%	---	---	
Chloromethane	21.8	---	5.00	ug/L	1	20.0	ND	109	50-139%	---	---	
2-Chlorotoluene	23.0	---	1.00	ug/L	1	20.0	ND	115	79-122%	---	---	
4-Chlorotoluene	23.6	---	1.00	ug/L	1	20.0	ND	118	78-122%	---	---	
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	22.6	---	5.00	ug/L	1	20.0	ND	113	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.4	---	0.500	ug/L	1	20.0	ND	112	77-121%	---	---	
Dibromomethane	22.6	---	1.00	ug/L	1	20.0	ND	113	79-123%	---	---	
1,2-Dichlorobenzene	22.0	---	0.500	ug/L	1	20.0	ND	110	80-120%	---	---	
1,3-Dichlorobenzene	22.2	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,4-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	79-120%	---	---	
Dichlorodifluoromethane	23.5	---	1.00	ug/L	1	20.0	ND	117	32-152%	---	---	
1,1-Dichloroethane	23.9	---	0.400	ug/L	1	20.0	ND	119	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	ND	105	73-128%	---	---	
1,1-Dichloroethene	24.1	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	23.2	---	0.400	ug/L	1	20.0	ND	116	78-123%	---	---	
trans-1,2-Dichloroethene	23.7	---	0.400	ug/L	1	20.0	ND	118	75-124%	---	---	
1,2-Dichloropropane	23.5	---	0.500	ug/L	1	20.0	ND	117	78-122%	---	---	
1,3-Dichloropropane	22.7	---	1.00	ug/L	1	20.0	ND	113	80-120%	---	---	
2,2-Dichloropropane	23.8	---	1.00	ug/L	1	20.0	ND	119	60-139%	---	---	
1,1-Dichloropropene	24.4	---	1.00	ug/L	1	20.0	ND	122	79-125%	---	---	
cis-1,3-Dichloropropene	21.7	---	1.00	ug/L	1	20.0	ND	109	75-124%	---	---	
trans-1,3-Dichloropropene	20.4	---	1.00	ug/L	1	20.0	ND	102	73-127%	---	---	
Hexachlorobutadiene	20.1	---	5.00	ug/L	1	20.0	ND	100	66-134%	---	---	

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0078 - EPA 5030C							**Water**					
Matrix Spike (25C0078-MS1)			Prepared: 03/04/25 11:45		Analyzed: 03/04/25 21:18							
QC Source Sample: Non-SDG (A5C0958-01)												
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	ND	106	74-124%	---	---	
1,1,1,2-Tetrachloroethane	20.8	---	0.400	ug/L	1	20.0	ND	104	78-124%	---	---	
1,1,2,2-Tetrachloroethane	25.2	---	0.500	ug/L	1	20.0	ND	**126**	**71-121%**	---	---	Q-54a
Tetrachloroethene (PCE)	21.5	---	0.400	ug/L	1	20.0	ND	108	74-129%	---	---	
1,2,3-Trichlorobenzene	20.7	---	2.00	ug/L	1	20.0	ND	104	69-129%	---	---	
1,1,2-Trichloroethane	22.2	---	0.500	ug/L	1	20.0	ND	111	80-120%	---	---	
1,2,4-Trichlorobenzene	20.9	---	2.00	ug/L	1	20.0	ND	105	69-130%	---	---	
1,1,1-Trichloroethane	23.2	---	0.400	ug/L	1	20.0	ND	116	74-131%	---	---	
Trichloroethene (TCE)	21.2	---	0.400	ug/L	1	20.0	ND	106	79-123%	---	---	
Trichlorofluoromethane	27.0	---	2.00	ug/L	1	20.0	ND	135	65-141%	---	---	
1,2,3-Trichloropropane	21.0	---	1.00	ug/L	1	20.0	ND	105	73-122%	---	---	
Vinyl chloride	25.4	---	0.200	ug/L	1	20.0	ND	127	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
Blank (25C0148-BLK1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 08:59							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
Blank (25C0148-BLK1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 08:59							
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
LCS (25C0148-BS1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 08:05							
EPA 8260D												
Bromobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Bromochloromethane	24.6	---	1.00	ug/L	1	20.0	---	**123**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	19.8	---	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	25.0	---	5.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
Carbon tetrachloride	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Chloroethane	23.1	---	5.00	ug/L	1	20.0	---	115	80-120%	---	---	
Chloroform	22.3	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloromethane	21.6	---	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
2-Chlorotoluene	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
4-Chlorotoluene	23.1	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Dibromochloromethane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dibromo-3-chloropropane	25.1	---	5.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
1,2-Dibromoethane (EDB)	23.1	---	0.500	ug/L	1	20.0	---	115	80-120%	---	---	
Dibromomethane	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dichlorobenzene	21.9	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
LCS (25C0148-BS1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 08:05							
1,3-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,4-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dichlorodifluoromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethane	23.5	---	0.400	ug/L	1	20.0	---	117	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloroethene	22.1	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
cis-1,2-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
trans-1,2-Dichloroethene	22.7	---	0.400	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dichloropropane	23.6	---	0.500	ug/L	1	20.0	---	118	80-120%	---	---	
1,3-Dichloropropane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
2,2-Dichloropropane	22.3	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,1-Dichloropropene	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,3-Dichloropropene	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
trans-1,3-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	18.7	---	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	21.5	---	10.0	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.5	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	26.6	---	0.500	ug/L	1	20.0	---	**133**	**80-120%**	---	---	Q-56
Tetrachloroethene (PCE)	19.5	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	20.4	---	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2-Trichloroethane	22.7	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
1,2,4-Trichlorobenzene	19.6	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1-Trichloroethane	21.9	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
Trichloroethene (TCE)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	24.2	---	2.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	23.0	---	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Vinyl chloride	23.1	---	0.200	ug/L	1	20.0	---	115	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Duplicate (25C0148-DUP1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 13:42							
QC Source Sample: Non-SDG (A5C0989-07)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
Duplicate (25C0148-DUP1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 13:42							
QC Source Sample: Non-SDG (A5C0989-07)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
Duplicate (25C0148-DUP1)			Prepared: 03/05/25 06:41 Analyzed: 03/05/25 13:42									
QC Source Sample: Non-SDG (A5C0989-07)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				
Matrix Spike (25C0148-MS1)			Prepared: 03/05/25 06:41 Analyzed: 03/05/25 11:33									
QC Source Sample: Non-SDG (A5C0987-01)												
EPA 8260D												
Bromobenzene	51.5	---	1.25	ug/L	2.5	50.0	ND	103	80-120%	---	---	
Bromochloromethane	65.0	---	2.50	ug/L	2.5	50.0	ND	**130**	**78-123%**	---	---	Q-54c
Bromodichloromethane	59.2	---	2.50	ug/L	2.5	50.0	ND	118	79-125%	---	---	
Bromoform	49.5	---	5.00	ug/L	2.5	50.0	ND	99	66-130%	---	---	
Bromomethane	66.0	---	12.5	ug/L	2.5	50.0	ND	132	53-141%	---	---	Q-54d
Carbon tetrachloride	52.4	---	2.50	ug/L	2.5	50.0	ND	105	72-136%	---	---	
Chlorobenzene	55.3	---	1.25	ug/L	2.5	50.0	ND	111	80-120%	---	---	
Chloroethane	62.8	---	12.5	ug/L	2.5	50.0	ND	126	60-138%	---	---	
Chloroform	57.8	---	2.50	ug/L	2.5	50.0	ND	116	79-124%	---	---	
Chloromethane	58.9	---	12.5	ug/L	2.5	50.0	ND	118	50-139%	---	---	
2-Chlorotoluene	57.1	---	2.50	ug/L	2.5	50.0	ND	114	79-122%	---	---	
4-Chlorotoluene	59.6	---	2.50	ug/L	2.5	50.0	ND	119	78-122%	---	---	
Dibromochloromethane	50.7	---	2.50	ug/L	2.5	50.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	61.5	---	12.5	ug/L	2.5	50.0	ND	123	62-128%	---	---	Q-54d
1,2-Dibromoethane (EDB)	57.2	---	1.25	ug/L	2.5	50.0	ND	114	77-121%	---	---	
Dibromomethane	58.0	---	2.50	ug/L	2.5	50.0	ND	116	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C0148 - EPA 5030C							**Water**					
Matrix Spike (25C0148-MS1)			Prepared: 03/05/25 06:41		Analyzed: 03/05/25 11:33							
QC Source Sample: Non-SDG (A5C0987-01)												
1,2-Dichlorobenzene	54.3	---	1.25	ug/L	2.5	50.0	ND	109	80-120%	---	---	
1,3-Dichlorobenzene	53.8	---	1.25	ug/L	2.5	50.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	53.0	---	1.25	ug/L	2.5	50.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	60.0	---	2.50	ug/L	2.5	50.0	ND	120	32-152%	---	---	
1,1-Dichloroethane	62.3	---	1.00	ug/L	2.5	50.0	ND	125	77-125%	---	---	
1,2-Dichloroethane (EDC)	54.6	---	1.00	ug/L	2.5	50.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	61.8	---	1.00	ug/L	2.5	50.0	ND	124	71-131%	---	---	
cis-1,2-Dichloroethene	58.9	---	1.00	ug/L	2.5	50.0	ND	118	78-123%	---	---	
trans-1,2-Dichloroethene	61.4	---	1.00	ug/L	2.5	50.0	ND	123	75-124%	---	---	
1,2-Dichloropropane	62.8	---	1.25	ug/L	2.5	50.0	ND	**126**	**78-122%**	---	---	Q-01
1,3-Dichloropropane	58.4	---	2.50	ug/L	2.5	50.0	ND	117	80-120%	---	---	
2,2-Dichloropropane	61.4	---	2.50	ug/L	2.5	50.0	ND	123	60-139%	---	---	
1,1-Dichloropropene	61.8	---	2.50	ug/L	2.5	50.0	ND	124	79-125%	---	---	
cis-1,3-Dichloropropene	57.9	---	2.50	ug/L	2.5	50.0	ND	116	75-124%	---	---	
trans-1,3-Dichloropropene	53.4	---	2.50	ug/L	2.5	50.0	ND	107	73-127%	---	---	
Hexachlorobutadiene	49.8	---	12.5	ug/L	2.5	50.0	ND	100	66-134%	---	---	
Methylene chloride	55.7	---	25.0	ug/L	2.5	50.0	ND	111	74-124%	---	---	
1,1,1,2-Tetrachloroethane	52.4	---	1.00	ug/L	2.5	50.0	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	67.6	---	1.25	ug/L	2.5	50.0	ND	**135**	**71-121%**	---	---	Q-54b
Tetrachloroethene (PCE)	52.4	---	1.00	ug/L	2.5	50.0	ND	105	74-129%	---	---	
1,2,3-Trichlorobenzene	50.3	---	5.00	ug/L	2.5	50.0	ND	101	69-129%	---	---	
1,1,2-Trichloroethane	58.0	---	1.25	ug/L	2.5	50.0	ND	116	80-120%	---	---	
1,2,4-Trichlorobenzene	49.4	---	5.00	ug/L	2.5	50.0	ND	99	69-130%	---	---	
1,1,1-Trichloroethane	59.8	---	1.00	ug/L	2.5	50.0	ND	120	74-131%	---	---	
Trichloroethene (TCE)	51.1	---	1.00	ug/L	2.5	50.0	ND	102	79-123%	---	---	
Trichlorofluoromethane	70.6	---	5.00	ug/L	2.5	50.0	ND	141	65-141%	---	---	Q-54
1,2,3-Trichloropropane	56.6	---	2.50	ug/L	2.5	50.0	ND	113	73-122%	---	---	
Vinyl chloride	64.6	---	0.500	ug/L	2.5	50.0	ND	129	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 100 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*103 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*90 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25C0078							
A5B1708-01	Water	EPA 8260D	02/25/25 12:50	03/04/25 11:50	5mL/5mL	5mL/5mL	1.00
A5B1708-03	Water	EPA 8260D	02/25/25 12:30	03/04/25 11:50	5mL/5mL	5mL/5mL	1.00
Batch: 25C0148							
A5B1708-02RE1	Water	EPA 8260D	02/25/25 13:10	03/05/25 08:51	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg

Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

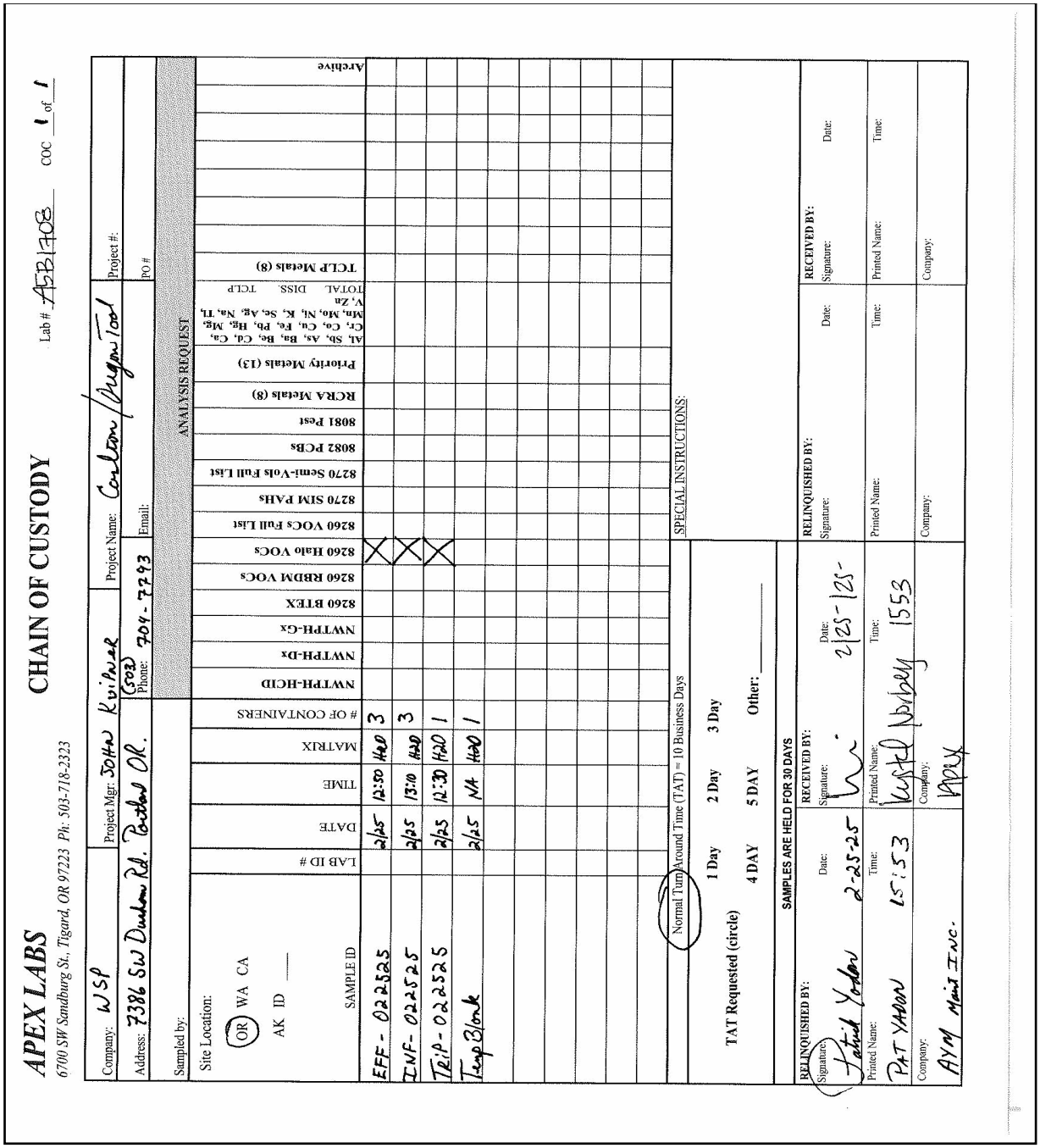
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5B1708 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton / Oregon Tool | Project #:
Address: 7386 SW Dunlap Rd. Portland OR. | Phone: (503) 704-7293 | Email: | PO #
Sampled by:
Site Location: (OR) WA CA AK ID ____

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
EFF - 022525		2/25	12:50	H2O	3						X									
INF - 022525		2/25	13:10	H2O	3						X									
Trip - 022525		2/25	12:30	H2O	1						X									
Trip Blank		2/25	NA	H2O	1						X									

SPECIAL INSTRUCTIONS:

Normal Turnaround Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Yordon	Signature:	Signature:	Signature:
Printed Name: PAT YARDON	Printed Name: Krystal Wrigley	Printed Name:	Printed Name:
Date: 2-25-25	Date: 2/25-25	Date:	Date:
Time: 15:53	Time: 1553	Time:	Time:
Company: AYM Main Inc.	Company: APEX	Company:	Company:

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5B1708 - 03 06 25 1800**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5B1708

Project/Project #: Carlton/Oregon Tool

Delivery Info:

Date/time received: 2/25/25 @ 1553 By: KN

Delivered by: Apex__Client X ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No √

Cooler Inspection Date/time inspected: 2/25/25 @ 1553 By: KN

Chain of Custody included? Yes √ No _____

Signed/dated by client? Yes √ No _____

Contains USDA Reg. Soils? Yes _____ No √ Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.1						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 2/26/25 @ 1706 By: KN

All samples intact? Yes √ No ___ Comments: ~~COC lists 2 TRIP blanks, but we only received one. Matched by ID, TTD to TRIP-022525~~ KN 2/26/25

Bottle labels/COCs agree? Yes √ No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No √

Containers/volumes received appropriate for analysis? Yes √ No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No √ NA ___

Comments Non Apex-prepped TB provided.

Water samples: pH checked: Yes___No___NA √ pH appropriate? Yes___No___NA √ pH ID:_____

Comments: _____

Labeled by: KN

Witness:

Cooler Inspected by: KN

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, April 3, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5C1862 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5C1862, which was received by the laboratory on 3/25/2025 at 2:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.9 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-032525	A5C1862-01	Water	03/25/25 13:20	03/25/25 14:44
INF-032525	A5C1862-02	Water	03/25/25 13:40	03/25/25 14:44
Trip#3696	A5C1862-03	Water	03/25/25 00:00	03/25/25 14:44

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-032525 (A5C1862-01)				**Matrix: Water**		**Batch: 25C1036**		
Bromobenzene	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	03/26/25 13:25	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	03/26/25 13:25	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5C1862 - 04 03 25 1132

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-032525 (A5C1862-01)				**Matrix: Water**		**Batch: 25C1036**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	03/26/25 13:25	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	03/26/25 13:25	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	03/26/25 13:25	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	03/26/25 13:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*03/26/25 13:25*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*03/26/25 13:25*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*03/26/25 13:25*	*EPA 8260D*	
INF-032525 (A5C1862-02)				**Matrix: Water**		**Batch: 25C1036**		
Bromobenzene	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Bromochloromethane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Bromoform	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Bromomethane	ND	---	12.5	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Chlorobenzene	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Chloroethane	ND	---	12.5	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Chloroform	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Chloromethane	ND	---	12.5	ug/L	2.5	03/26/25 13:48	EPA 8260D	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Dibromomethane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-032525 (A5C1862-02)				**Matrix: Water**		**Batch: 25C1036**		
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1-Dichloroethene	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
cis-1,2-Dichloroethene	**69.9**	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Methylene chloride	ND	---	25.0	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Tetrachloroethene (PCE)	**3.05**	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Trichloroethene (TCE)	**344**	---	1.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	03/26/25 13:48	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Vinyl chloride	**0.650**	---	0.500	ug/L	2.5	03/26/25 13:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits:*	*80-120 %*	*1*	*03/26/25 13:48*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*03/26/25 13:48*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*03/26/25 13:48*	*EPA 8260D*	
Trip#3696 (A5C1862-03)				**Matrix: Water**		**Batch: 25C1036**		
Bromobenzene	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip#3696 (A5C1862-03)				**Matrix: Water**		**Batch: 25C1036**		
Bromoform	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	03/26/25 12:40	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip#3696 (A5C1862-03)				**Matrix: Water**		**Batch: 25C1036**		
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	03/26/25 12:40	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	03/26/25 12:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	03/26/25 12:40	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	03/26/25 12:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:* *80-120 %*	*1*	*03/26/25 12:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*03/26/25 12:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*03/26/25 12:40*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C							**Water**					
Blank (25C1036-BLK1)			Prepared: 03/26/25 08:00		Analyzed: 03/26/25 10:26							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5C1862 - 04 03 25 1132

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C							Water					
Blank (25C1036-BLK1)			Prepared: 03/26/25 08:00 Analyzed: 03/26/25 10:26									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
LCS (25C1036-BS1)			Prepared: 03/26/25 08:00 Analyzed: 03/26/25 09:41									
EPA 8260D												
Bromobenzene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Bromodichloromethane	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromomethane	25.6	---	5.00	ug/L	1	20.0	---	**128**	**80-120%**	---	---	Q-56
Carbon tetrachloride	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Chloroethane	29.9	---	5.00	ug/L	1	20.0	---	**150**	**80-120%**	---	---	Q-56
Chloroform	20.9	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chloromethane	20.2	---	5.00	ug/L	1	20.0	---	101	80-120%	---	---	
2-Chlorotoluene	17.4	---	1.00	ug/L	1	20.0	---	87	80-120%	---	---	
4-Chlorotoluene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Dibromochloromethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.3	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dibromomethane	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dichlorobenzene	17.5	---	0.500	ug/L	1	20.0	---	87	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5C1862 - 04 03 25 1132

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C								**Water**				
LCS (25C1036-BS1)			Prepared: 03/26/25 08:00 Analyzed: 03/26/25 09:41									
1,3-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,4-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	21.9	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,1-Dichloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	18.1	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dichloropropane	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,3-Dichloropropane	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
2,2-Dichloropropane	24.5	---	1.00	ug/L	1	20.0	---	**122**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
cis-1,3-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,3-Dichloropropene	23.6	---	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
Hexachlorobutadiene	14.4	---	5.00	ug/L	1	20.0	---	**72**	**80-120%**	---	---	Q-55
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Tetrachloroethene (PCE)	17.4	---	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
1,2,3-Trichlorobenzene	14.5	---	2.00	ug/L	1	20.0	---	**72**	**80-120%**	---	---	Q-55
1,1,2-Trichloroethane	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,4-Trichlorobenzene	13.3	---	2.00	ug/L	1	20.0	---	**66**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	20.9	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
Trichloroethene (TCE)	17.0	---	0.400	ug/L	1	20.0	---	85	80-120%	---	---	
Trichlorofluoromethane	32.8	---	2.00	ug/L	1	20.0	---	**164**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Vinyl chloride	19.7	---	0.200	ug/L	1	20.0	---	99	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*90 %*			*80-120 %*			*"*			

Duplicate (25C1036-DUP1) Prepared: 03/26/25 10:58 Analyzed: 03/26/25 14:10

QC Source Sample: INF-032525 (A5C1862-02)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5C1862 - 04 03 25 1132

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C							Water					
Duplicate (25C1036-DUP1)			Prepared: 03/26/25 10:58 Analyzed: 03/26/25 14:10									
QC Source Sample: INF-032525 (A5C1862-02)												
Bromobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromoform	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromomethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Chloroethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Chloroform	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chloromethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	1.00	ug/L	2.5	---	0.850	---	---	***	30%	
cis-1,2-Dichloroethene	**71.2**	---	1.00	ug/L	2.5	---	69.9	---	---	2	30%	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	---	0.600	---	---	***	30%	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	25.0	ug/L	2.5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5C1862 - 04 03 25 1132

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C							Water					
Duplicate (25C1036-DUP1)			Prepared: 03/26/25 10:58 Analyzed: 03/26/25 14:10									
QC Source Sample: INF-032525 (A5C1862-02)												
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**3.42**	---	1.00	ug/L	2.5	---	3.05	---	---	12	30%	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**355**	---	1.00	ug/L	2.5	---	344	---	---	3	30%	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Vinyl chloride	**0.650**	---	0.500	ug/L	2.5	---	0.650	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 117 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*105 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*				*"*			
Matrix Spike (25C1036-MS1)			Prepared: 03/26/25 10:58 Analyzed: 03/26/25 14:33									
QC Source Sample: Non-SDG (A5C1847-01)												
EPA 8260D												
Bromobenzene	19.5	---	0.500	ug/L	1	20.0	ND	97	80-120%	---	---	
Bromochloromethane	23.7	---	1.00	ug/L	1	20.0	ND	118	78-123%	---	---	
Bromodichloromethane	23.1	---	1.00	ug/L	1	20.0	ND	116	79-125%	---	---	
Bromoform	22.4	---	1.00	ug/L	1	20.0	ND	112	66-130%	---	---	
Bromomethane	29.6	---	5.00	ug/L	1	20.0	ND	**148**	**53-141%**	---	---	Q-54c
Carbon tetrachloride	22.7	---	1.00	ug/L	1	20.0	ND	114	72-136%	---	---	
Chlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Chloroethane	31.8	---	5.00	ug/L	1	20.0	ND	**159**	**60-138%**	---	---	Q-54a
Chloroform	22.1	---	1.00	ug/L	1	20.0	ND	110	79-124%	---	---	
Chloromethane	23.2	---	5.00	ug/L	1	20.0	ND	116	50-139%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	ND	94	79-122%	---	---	
4-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	ND	97	78-122%	---	---	
Dibromochloromethane	22.2	---	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.0	---	5.00	ug/L	1	20.0	ND	95	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.4	---	0.500	ug/L	1	20.0	ND	107	77-121%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25C1036 - EPA 5030C							**Water**					
Matrix Spike (25C1036-MS1)			Prepared: 03/26/25 10:58		Analyzed: 03/26/25 14:33							
QC Source Sample: Non-SDG (A5C1847-01)												
Dibromomethane	22.5	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	ND	93	80-120%	---	---	
1,3-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	ND	100	80-120%	---	---	
1,4-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	23.0	---	1.00	ug/L	1	20.0	ND	115	32-152%	---	---	
1,1-Dichloroethane	21.9	---	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.400	ug/L	1	20.0	ND	109	73-128%	---	---	
1,1-Dichloroethene	21.5	---	0.400	ug/L	1	20.0	ND	107	71-131%	---	---	
cis-1,2-Dichloroethene	18.8	---	0.400	ug/L	1	20.0	ND	94	78-123%	---	---	
trans-1,2-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	ND	102	75-124%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	ND	101	78-122%	---	---	
1,3-Dichloropropane	19.4	---	1.00	ug/L	1	20.0	ND	97	80-120%	---	---	
2,2-Dichloropropane	24.4	---	1.00	ug/L	1	20.0	ND	122	60-139%	---	---	Q-54
1,1-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	79-125%	---	---	
cis-1,3-Dichloropropene	20.0	---	1.00	ug/L	1	20.0	ND	100	75-124%	---	---	
trans-1,3-Dichloropropene	25.1	---	1.00	ug/L	1	20.0	ND	125	73-127%	---	---	
Hexachlorobutadiene	14.9	---	5.00	ug/L	1	20.0	ND	74	66-134%	---	---	Q-54e
Methylene chloride	21.6	---	10.0	ug/L	1	20.0	ND	108	74-124%	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.400	ug/L	1	20.0	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	23.4	---	0.500	ug/L	1	20.0	ND	117	71-121%	---	---	
Tetrachloroethene (PCE)	18.4	---	0.400	ug/L	1	20.0	ND	92	74-129%	---	---	
1,2,3-Trichlorobenzene	15.7	---	2.00	ug/L	1	20.0	ND	78	69-129%	---	---	Q-54e
1,1,2-Trichloroethane	20.9	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,2,4-Trichlorobenzene	14.3	---	2.00	ug/L	1	20.0	ND	71	69-130%	---	---	Q-54d
1,1,1-Trichloroethane	22.0	---	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
Trichloroethene (TCE)	18.0	---	0.400	ug/L	1	20.0	ND	90	79-123%	---	---	
Trichlorofluoromethane	34.6	---	2.00	ug/L	1	20.0	ND	**173**	**65-141%**	---	---	Q-54b
1,2,3-Trichloropropane	21.6	---	1.00	ug/L	1	20.0	ND	108	73-122%	---	---	
Vinyl chloride	22.0	---	0.200	ug/L	1	20.0	ND	110	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 100 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*98 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*89 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25C1036							
A5C1862-01	Water	EPA 8260D	03/25/25 13:20	03/26/25 10:58	5mL/5mL	5mL/5mL	1.00
A5C1862-02	Water	EPA 8260D	03/25/25 13:40	03/26/25 10:58	5mL/5mL	5mL/5mL	1.00
A5C1862-03	Water	EPA 8260D	03/25/25 00:00	03/26/25 10:58	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +30%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +44%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -14%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -8%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ). If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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Philip Nerenberg, Lab Director

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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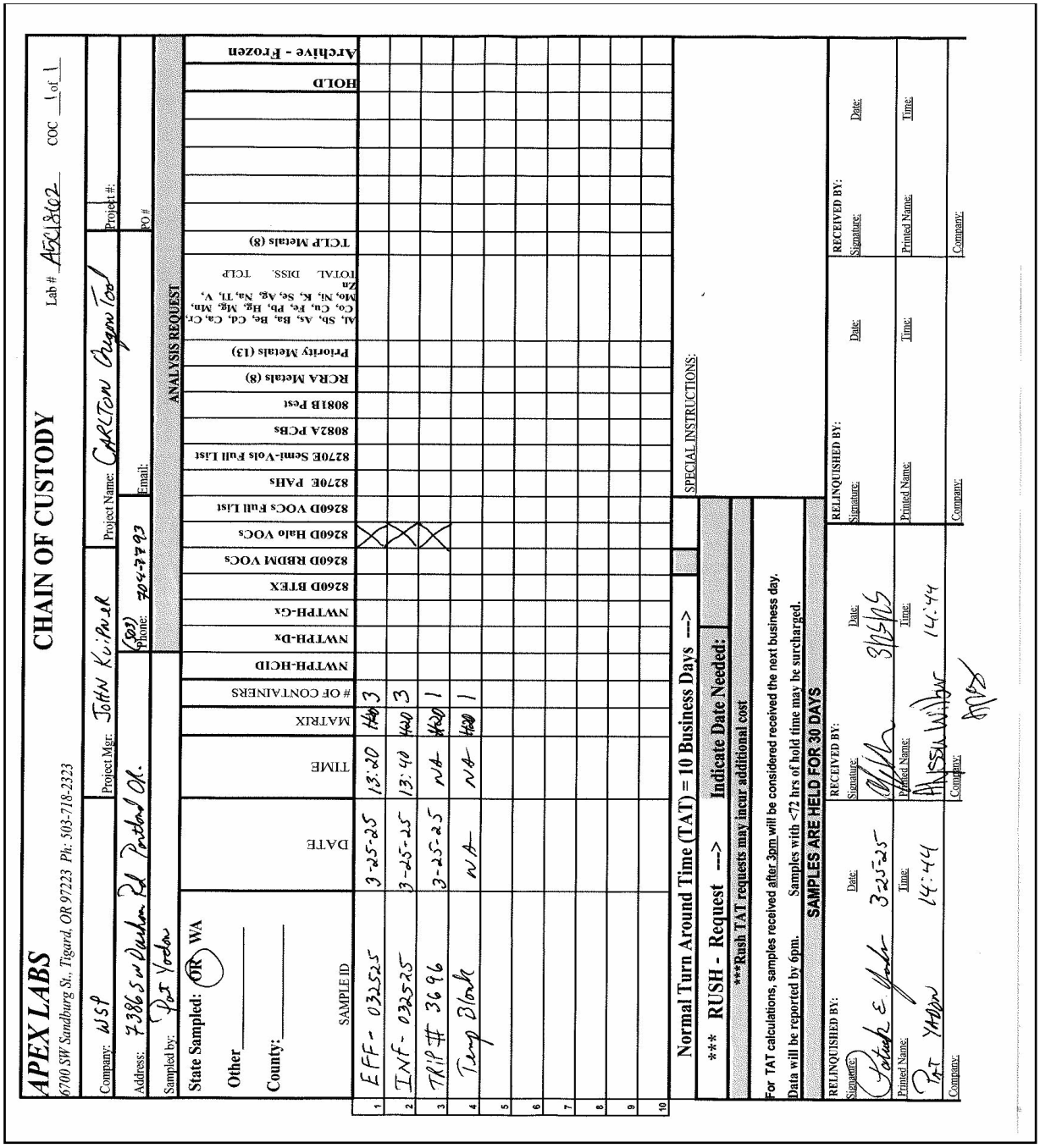
Apex Laboratories, LLC
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A5C1862 - 04 03 25 1132



APEX LABS — CHAIN OF CUSTODY
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323
Lab # A5C1862 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: CARLTON Origin Tool | Project #:
Address: 7386 SW Durham Rd Portland OR. | Phone: 206-427-2703 | Email: | PO #
Sampled by: Pat Yoder

State Sampled: OR WA
Other
County:

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	HOLD	Archive - Frozen
1	EFF- 032525	3-25-25	13:20	Hdw	3						X										
2	INF- 032525	3-25-25	13:40	Hdw	3						X										
3	TRIP # 3696	3-25-25	n/a	Hdw	1						X										
4	Temp Blank	n/a	n/a	Hdw	1																
5																					
6																					
7																					
8																					
9																					
10																					

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days --->
*** RUSH - Request ---> Indicate Date Needed:
***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.
SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Pat Yoder Date: 3-25-25 Time: 14:44 Printed Name: Pat Yoder Company:
RECEIVED BY: Signature: Date: Time: Printed Name: Company:
RELINQUISHED BY: Signature: Date: 3/25/25 Time: 14:44 Printed Name: Company:
RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5C1862 - 04 03 25 1132**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5 C1862

Project/Project #: Carlton Oregon Tool

Delivery Info:

Date/time received: 3/25/25 @ 1444 By: [signature]

Delivered by: Apex__Client~~X~~ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 3/25/25 @ 1444 By: [signature]

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.9						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 3/25/25 @ 1627 By: KN

All samples intact? Yes √ No ___ Comments: KN 3/25/25

Bottle labels/COCs agree? Yes √ No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No √

Containers/volumes received appropriate for analysis? Yes √ No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No √ NA ___

Comments: ~~temp blank was HS, bott~~ not marked to be run for analysis. KN 3/25/25

Water samples: pH checked: Yes___No___NA √ pH appropriate? Yes___No___NA √ pH ID:

Comments:

Labeled by: KN Witness: ZA Cooler Inspected by: KN

Form Y-003 R-02

Apex Laboratories

[signature] Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Wednesday, May 28, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5D1784 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5D1784, which was received by the laboratory on 4/24/2025 at 3:10:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Cooler #1 1.3 degC — Cooler #2 1.0 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW2B-042325	A5D1784-01	Water	04/23/25 12:00	04/24/25 15:10
MW2C-042325-U	A5D1784-02	Water	04/23/25 11:40	04/24/25 15:10
MW2C-042325-L	A5D1784-03	Water	04/23/25 11:50	04/24/25 15:10
MW5B-042325	A5D1784-04	Water	04/23/25 12:36	04/24/25 15:10
MW8-042325	A5D1784-05	Water	04/23/25 12:45	04/24/25 15:10
MW1A-042425	A5D1784-06	Water	04/24/25 10:54	04/24/25 15:10
MW10-1-042425	A5D1784-07	Water	04/24/25 10:04	04/24/25 15:10
MW10-2-042425	A5D1784-08	Water	04/24/25 10:36	04/24/25 15:10
MW11-1-042425	A5D1784-09	Water	04/24/25 13:55	04/24/25 15:10
MW11-2-042425	A5D1784-10	Water	04/24/25 13:30	04/24/25 15:10
MW11B-042325	A5D1784-11	Water	04/23/25 14:12	04/24/25 15:10
MW7B-042325	A5D1784-12	Water	04/23/25 13:54	04/24/25 15:10
MW1B-042325	A5D1784-13	Water	04/23/25 13:08	04/24/25 15:10
MW12-042325	A5D1784-14	Water	04/23/25 12:52	04/24/25 15:10
MW13-2-042425	A5D1784-15	Water	04/24/25 12:50	04/24/25 15:10
MW14-042425	A5D1784-16	Water	04/24/25 12:18	04/24/25 15:10
MW14B-042325	A5D1784-17	Water	04/23/25 12:27	04/24/25 15:10
MW15-1-042425	A5D1784-18	Water	04/24/25 11:35	04/24/25 15:10
MW15-2-042425	A5D1784-19	Water	04/24/25 11:58	04/24/25 15:10
MW15B-042325	A5D1784-20	Water	04/23/25 12:15	04/24/25 15:10
MW16B-042325	A5D1784-21	Water	04/23/25 13:43	04/24/25 15:10
MW17B-042425-U	A5D1784-22	Water	04/24/25 11:10	04/24/25 15:10
MW17B-042425-L	A5D1784-23	Water	04/24/25 11:20	04/24/25 15:10
MW18B-042325-U	A5D1784-24	Water	04/23/25 15:00	04/24/25 15:10
MW18B-042325-L	A5D1784-25	Water	04/23/25 15:10	04/24/25 15:10
CRC-1-042325	A5D1784-26	Water	04/23/25 13:18	04/24/25 15:10
CRC-7-042325	A5D1784-27	Water	04/23/25 13:30	04/24/25 15:10
TRIP-042325	A5D1784-28	Water	04/23/25 00:00	04/24/25 15:10
DPE5-042425	A5D1784-29	Water	04/24/25 09:50	04/24/25 15:10

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-042325 (A5D1784-01)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Bromochloromethane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Bromodichloromethane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Bromoform	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Bromomethane	ND	---	50.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Carbon tetrachloride	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Chlorobenzene	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Chloroethane	ND	---	50.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Chloroform	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Chloromethane	ND	---	50.0	ug/L	10	04/25/25 19:03	EPA 8260D	
2-Chlorotoluene	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
4-Chlorotoluene	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Dibromochloromethane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Dibromomethane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
cis-1,2-Dichloroethene	**69.8**	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Methylene chloride	ND	---	100	ug/L	10	04/25/25 19:03	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2B-042325 (A5D1784-01)				**Matrix: Water**		**Batch: 25D1042**		
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Tetrachloroethene (PCE)	**9.00**	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Trichloroethene (TCE)	**1610**	---	4.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	04/25/25 19:03	EPA 8260D	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	04/25/25 19:03	EPA 8260D	
Vinyl chloride	ND	---	2.00	ug/L	10	04/25/25 19:03	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*135 %*	*Limits: 80-120 %*	*1*	*04/25/25 19:03*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 19:03*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*04/25/25 19:03*	*EPA 8260D*	
MW2C-042325-U (A5D1784-02)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/25/25 19:49	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/25/25 19:49	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	04/25/25 19:49	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042325-U (A5D1784-02)				**Matrix: Water**		**Batch: 25D1042**		
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
cis-1,2-Dichloroethene	**48.0**	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/25/25 19:49	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
Tetrachloroethene (PCE)	**8.20**	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 19:49	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/25/25 19:49	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/25/25 19:49	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*136 %*	*Limits: 80-120 %*	*1*	*04/25/25 19:49*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*04/25/25 19:49*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/25/25 19:49*	*EPA 8260D*	
MW2C-042325-U (A5D1784-02RE1)				**Matrix: Water**		**Batch: 25D1085**		
Trichloroethene (TCE)	**1230**	---	20.0	ug/L	50	04/28/25 14:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*04/28/25 14:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 14:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/28/25 14:00*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042325-L (A5D1784-03)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/25/25 20:11	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/25/25 20:11	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	04/25/25 20:11	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
cis-1,2-Dichloroethene	**55.6**	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/25/25 20:11	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/25/25 20:11	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2C-042325-L (A5D1784-03)				**Matrix: Water**		**Batch: 25D1042**		
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
Tetrachloroethene (PCE)	**8.60**	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 20:11	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/25/25 20:11	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/25/25 20:11	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*140 %*	*Limits: 80-120 %*	*1*	*04/25/25 20:11*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*04/25/25 20:11*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/25/25 20:11*	*EPA 8260D*	
MW2C-042325-L (A5D1784-03RE1)				**Matrix: Water**		**Batch: 25D1085**		
Trichloroethene (TCE)	**1180**	---	20.0	ug/L	50	04/28/25 14:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*04/28/25 14:21*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 14:21*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 14:21*	*EPA 8260D*	
MW5B-042325 (A5D1784-04)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 12:37	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5B-042325 (A5D1784-04)				**Matrix: Water**		**Batch: 25D1042**		
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/25/25 12:37	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 12:37	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 12:37	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 12:37	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 12:37*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*04/25/25 12:37*	*EPA 8260D*	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5B-042325 (A5D1784-04)				**Matrix: Water**		**Batch: 25D1042**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*	*1*	*04/25/25 12:37*	*EPA 8260D*	
MW8-042325 (A5D1784-05)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 13:00	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	

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Philip Nerenberg

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW8-042325 (A5D1784-05)				**Matrix: Water**		**Batch: 25D1042**		
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/25/25 13:00	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 13:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:00	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 13:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*04/25/25 13:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*04/25/25 13:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/25/25 13:00*	*EPA 8260D*	
MW1A-042425 (A5D1784-06)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 13:22	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1A-042425 (A5D1784-06)				**Matrix: Water**		**Batch: 25D1042**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
Trichloroethene (TCE)	**1.23**	---	0.400	ug/L	1	04/25/25 13:22	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 13:22	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:22	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 13:22*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*04/25/25 13:22*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*04/25/25 13:22*	*EPA 8260D*	
MW1A-042425 (A5D1784-06RE1)				**Matrix: Water**		**Batch: 25D1129**		
Vinyl chloride	**0.250**	---	0.200	ug/L	1	04/29/25 11:26	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1A-042425 (A5D1784-06RE1)				**Matrix: Water**		**Batch: 25D1129**		
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:* *80-120 %*	*1*	*04/29/25 11:26*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 11:26*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 11:26*	*EPA 8260D*	
MW10-1-042425 (A5D1784-07)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 13:45	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10-1-042425 (A5D1784-07)				**Matrix: Water**		**Batch: 25D1042**		
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
Trichloroethene (TCE)	**1.59**	---	0.400	ug/L	1	04/25/25 13:45	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 13:45	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 13:45	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 13:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*04/25/25 13:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 13:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/25/25 13:45*	*EPA 8260D*	
MW10-2-042425 (A5D1784-08)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 14:08	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 14:08	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10-2-042425 (A5D1784-08)				**Matrix: Water**		**Batch: 25D1042**		
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
cis-1,2-Dichloroethene	**1.01**	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
Trichloroethene (TCE)	**7.03**	---	0.400	ug/L	1	04/25/25 14:08	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 14:08	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:08	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 14:08	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 14:08*	*EPA 8260D*
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*04/25/25 14:08*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/25/25 14:08*	*EPA 8260D*

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-1-042425 (A5D1784-09)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 14:31	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
cis-1,2-Dichloroethene	**0.420**	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 14:31	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-1-042425 (A5D1784-09)				**Matrix: Water**		**Batch: 25D1042**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
Trichloroethene (TCE)	**0.710**	---	0.400	ug/L	1	04/25/25 14:31	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 14:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:31	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 14:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 14:31*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*04/25/25 14:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/25/25 14:31*	*EPA 8260D*	
MW11-2-042425 (A5D1784-10)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 14:53	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-2-042425 (A5D1784-10)				**Matrix: Water**		**Batch: 25D1042**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1-Dichloroethene	**0.560**	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
cis-1,2-Dichloroethene	**103**	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
trans-1,2-Dichloroethene	**0.600**	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
Tetrachloroethene (PCE)	**5.67**	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 14:53	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 14:53	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 14:53	EPA 8260D	
Vinyl chloride	**0.210**	---	0.200	ug/L	1	04/25/25 14:53	EPA 8260D	**Q-54a**
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*130 %*	*Limits:* *80-120 %*	*1*	*04/25/25 14:53*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*04/25/25 14:53*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/25/25 14:53*	*EPA 8260D*	
MW11-2-042425 (A5D1784-10RE1)				**Matrix: Water**		**Batch: 25D1129**		
Trichloroethene (TCE)	**310**	---	4.00	ug/L	10	04/29/25 12:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:* *80-120 %*	*1*	*04/29/25 12:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 12:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/29/25 12:10*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-042325 (A5D1784-11)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	04/25/25 18:18	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	04/25/25 18:18	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	04/25/25 18:18	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
cis-1,2-Dichloroethene	**50.3**	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	04/25/25 18:18	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	04/25/25 18:18	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

ANALYTICAL REPORT

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11B-042325 (A5D1784-11)				**Matrix: Water**		**Batch: 25D1042**		
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Tetrachloroethene (PCE)	**2.26**	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	04/25/25 18:18	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	04/25/25 18:18	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	04/25/25 18:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*131 %*	*Limits: 80-120 %*	*1*	*04/25/25 18:18*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 18:18*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/25/25 18:18*	*EPA 8260D*	
MW11B-042325 (A5D1784-11RE1)				**Matrix: Water**		**Batch: 25D1085**		
Trichloroethene (TCE)	**398**	---	4.00	ug/L	10	04/28/25 14:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits: 80-120 %*	*1*	*04/28/25 14:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 14:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 14:43*	*EPA 8260D*	
MW11B-042325 (A5D1784-11RE2)				**Matrix: Water**		**Batch: 25D1184**		
Vinyl chloride	ND	---	0.400	ug/L	2	04/30/25 17:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits: 80-120 %*	*1*	*04/30/25 17:39*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 17:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 17:39*	*EPA 8260D*	
MW7B-042325 (A5D1784-12)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 15:16	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW7B-042325 (A5D1784-12)				**Matrix: Water**		**Batch: 25D1042**		
Chloroform	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 15:16	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 15:16	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 15:16	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 15:16	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 15:16	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW7B-042325 (A5D1784-12)				**Matrix: Water**		**Batch: 25D1042**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:16	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 15:16	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*04/25/25 15:16*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*04/25/25 15:16*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/25/25 15:16*	*EPA 8260D*	
MW7B-042325 (A5D1784-12RE1)				**Matrix: Water**		**Batch: 25D1085**		
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/28/25 13:38	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*04/28/25 13:38*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 13:38*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 13:38*	*EPA 8260D*	
MW1B-042325 (A5D1784-13)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 15:39	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1B-042325 (A5D1784-13)				**Matrix: Water**		**Batch: 25D1042**		
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
Trichloroethene (TCE)	**1.17**	---	0.400	ug/L	1	04/25/25 15:39	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 15:39	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 15:39	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 15:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 15:39*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*		*80-120 %*	*1*	*04/25/25 15:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/25/25 15:39*	*EPA 8260D*	
MW12-042325 (A5D1784-14)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW12-042325 (A5D1784-14)				**Matrix: Water**		**Batch: 25D1042**		
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 16:02	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
cis-1,2-Dichloroethene	**2.72**	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
Tetrachloroethene (PCE)	**0.400**	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:02	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW12-042325 (A5D1784-14)				**Matrix: Water**		**Batch: 25D1042**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
Trichloroethene (TCE)	**3.78**	---	0.400	ug/L	1	04/25/25 16:02	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 16:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:02	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 16:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/25/25 16:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 16:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/25/25 16:02*	*EPA 8260D*	
MW13-2-042425 (A5D1784-15)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 16:24	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
cis-1,2-Dichloroethene	**0.690**	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW13-2-042425 (A5D1784-15)				**Matrix: Water**		**Batch: 25D1042**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
Trichloroethene (TCE)	**2.70**	---	0.400	ug/L	1	04/25/25 16:24	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 16:24	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:24	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 16:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*04/25/25 16:24*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 16:24*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/25/25 16:24*	*EPA 8260D*	
MW14-042425 (A5D1784-16RE1)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-042425 (A5D1784-16RE1)				**Matrix: Water**		**Batch: 25D1129**		
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 11:48	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
cis-1,2-Dichloroethene	**3.26**	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 11:48	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 11:48	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 11:48	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14-042425 (A5D1784-16RE1)				**Matrix: Water**		**Batch: 25D1129**		
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 11:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*04/29/25 11:48*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 11:48*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 11:48*	*EPA 8260D*	
MW14-042425 (A5D1784-16RE2)				**Matrix: Water**		**Batch: 25D1184**		
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/30/25 15:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/30/25 15:51*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 15:51*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/30/25 15:51*	*EPA 8260D*	
MW14B-042325 (A5D1784-17)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/25/25 17:55	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/25/25 17:55	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	04/25/25 17:55	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW14B-042325 (A5D1784-17)				**Matrix: Water**		**Batch: 25D1042**		
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
cis-1,2-Dichloroethene	**7.35**	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/25/25 17:55	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
Tetrachloroethene (PCE)	**2.75**	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/25/25 17:55	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Trichloroethene (TCE)	**254**	---	2.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/25/25 17:55	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/25/25 17:55	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*124 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 17:55*	*EPA 8260D*	*S-02*
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*04/25/25 17:55*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*04/25/25 17:55*	*EPA 8260D*	
MW15-1-042425 (A5D1784-18)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-1-042425 (A5D1784-18)				**Matrix: Water**		**Batch: 25D1042**		
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 16:47	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
cis-1,2-Dichloroethene	**0.440**	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-1-042425 (A5D1784-18)				**Matrix: Water**		**Batch: 25D1042**		
Trichloroethene (TCE)	**0.900**	---	0.400	ug/L	1	04/25/25 16:47	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 16:47	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 16:47	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 16:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/25/25 16:47*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*04/25/25 16:47*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/25/25 16:47*	*EPA 8260D*	
MW15-2-042425 (A5D1784-19)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 17:10	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
cis-1,2-Dichloroethene	**3.56**	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15-2-042425 (A5D1784-19)				**Matrix: Water**		**Batch: 25D1042**		
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
Trichloroethene (TCE)	**9.79**	---	0.400	ug/L	1	04/25/25 17:10	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 17:10	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:10	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 17:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:* *80-120 %*	*1*	*04/25/25 17:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*04/25/25 17:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/25/25 17:10*	*EPA 8260D*	
MW15B-042325 (A5D1784-20)				**Matrix: Water**		**Batch: 25D1042**		
Bromobenzene	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/25/25 17:32	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15B-042325 (A5D1784-20)				**Matrix: Water**		**Batch: 25D1042**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/25/25 17:32	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
Tetrachloroethene (PCE)	**1.70**	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
Trichloroethene (TCE)	**0.740**	---	0.400	ug/L	1	04/25/25 17:32	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/25/25 17:32	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/25/25 17:32	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW15B-042325 (A5D1784-20)				**Matrix: Water**		**Batch: 25D1042**		
Vinyl chloride	ND	---	0.200	ug/L	1	04/25/25 17:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*04/25/25 17:32*	*EPA 8260D*
Toluene-d8 (Surr)			*104 %*		*80-120 %*	*1*	*04/25/25 17:32*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/25/25 17:32*	*EPA 8260D*
MW16B-042325 (A5D1784-21)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/28/25 15:26	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW16B-042325 (A5D1784-21)				**Matrix: Water**		**Batch: 25D1085**		
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/28/25 15:26	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/28/25 15:26	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:26	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/28/25 15:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/28/25 15:26*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 15:26*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 15:26*	*EPA 8260D*	
MW17B-042425-U (A5D1784-22)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 10:43	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042425-U (A5D1784-22)				**Matrix: Water**		**Batch: 25D1129**		
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
cis-1,2-Dichloroethene	**32.0**	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
Tetrachloroethene (PCE)	**4.41**	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 10:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 10:43	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:43	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 10:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*04/29/25 10:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 10:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 10:43*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042425-U (A5D1784-22RE1)				**Matrix: Water**		**Batch: 25D1184**		
Trichloroethene (TCE)	**348**	---	8.00	ug/L	20	04/30/25 16:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 115 %*		*Limits: 80-120 %*	*1*	*04/30/25 16:34*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 16:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 16:34*	*EPA 8260D*	
MW17B-042425-L (A5D1784-23)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 11:05	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
cis-1,2-Dichloroethene	**32.6**	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW17B-042425-L (A5D1784-23)				**Matrix: Water**		**Batch: 25D1129**		
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
Tetrachloroethene (PCE)	**4.43**	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 11:05	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 11:05	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 11:05	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 11:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*04/29/25 11:05*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 11:05*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 11:05*	*EPA 8260D*	
MW17B-042425-L (A5D1784-23RE1)				**Matrix: Water**		**Batch: 25D1184**		
Trichloroethene (TCE)	**385**	---	8.00	ug/L	20	04/30/25 16:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*115 %*	*Limits: 80-120 %*	*1*	*04/30/25 16:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 16:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 16:56*	*EPA 8260D*	
MW18B-042325-U (A5D1784-24)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Bromochloromethane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Bromodichloromethane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Bromoform	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Bromomethane	ND	---	100	ug/L	20	04/28/25 17:14	EPA 8260D	
Carbon tetrachloride	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Chlorobenzene	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Chloroethane	ND	---	100	ug/L	20	04/28/25 17:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042325-U (A5D1784-24)				**Matrix: Water**		**Batch: 25D1085**		
Chloroform	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Chloromethane	ND	---	100	ug/L	20	04/28/25 17:14	EPA 8260D	
2-Chlorotoluene	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
4-Chlorotoluene	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Dibromochloromethane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Dibromomethane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1-Dichloroethene	**15.4**	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
cis-1,2-Dichloroethene	**538**	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Hexachlorobutadiene	ND	---	100	ug/L	20	04/28/25 17:14	EPA 8260D	
Methylene chloride	ND	---	200	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Tetrachloroethene (PCE)	**59.2**	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	04/28/25 17:14	EPA 8260D	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	04/28/25 17:14	EPA 8260D	
Trichlorofluoromethane	ND	---	40.0	ug/L	20	04/28/25 17:14	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042325-U (A5D1784-24)				**Matrix: Water**		**Batch: 25D1085**		
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	04/28/25 17:14	EPA 8260D	
Vinyl chloride	**4.20**	---	4.00	ug/L	20	04/28/25 17:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits: 80-120 %*	*1*	*04/28/25 17:14*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 17:14*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/28/25 17:14*	*EPA 8260D*	
MW18B-042325-U (A5D1784-24RE1)				**Matrix: Water**		**Batch: 25D1129**		
Trichloroethene (TCE)	**4760**	---	80.0	ug/L	200	04/29/25 12:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*04/29/25 12:32*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 12:32*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 12:32*	*EPA 8260D*	
MW18B-042325-L (A5D1784-25)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Bromochloromethane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Bromodichloromethane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Bromoform	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Bromomethane	ND	---	250	ug/L	50	04/28/25 16:53	EPA 8260D	
Carbon tetrachloride	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Chlorobenzene	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Chloroethane	ND	---	250	ug/L	50	04/28/25 16:53	EPA 8260D	
Chloroform	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Chloromethane	ND	---	250	ug/L	50	04/28/25 16:53	EPA 8260D	
2-Chlorotoluene	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
4-Chlorotoluene	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Dibromochloromethane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	250	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Dibromomethane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2-Dichlorobenzene	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,3-Dichlorobenzene	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,4-Dichlorobenzene	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Dichlorodifluoromethane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1-Dichloroethane	ND	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW18B-042325-L (A5D1784-25)				**Matrix: Water**		**Batch: 25D1085**		
1,2-Dichloroethane (EDC)	ND	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1-Dichloroethene	**21.5**	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
cis-1,2-Dichloroethene	**538**	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2-Dichloropropane	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,3-Dichloropropane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
2,2-Dichloropropane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1-Dichloropropene	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Hexachlorobutadiene	ND	---	250	ug/L	50	04/28/25 16:53	EPA 8260D	
Methylene chloride	ND	---	500	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Tetrachloroethene (PCE)	**58.0**	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	100	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1,2-Trichloroethane	ND	---	25.0	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	100	ug/L	50	04/28/25 16:53	EPA 8260D	
1,1,1-Trichloroethane	ND	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Trichloroethene (TCE)	**4780**	---	20.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Trichlorofluoromethane	ND	---	100	ug/L	50	04/28/25 16:53	EPA 8260D	
1,2,3-Trichloropropane	ND	---	50.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Vinyl chloride	**11.0**	---	10.0	ug/L	50	04/28/25 16:53	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*118 %*	*Limits:*	*80-120 %*	*1*	*04/28/25 16:53*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*04/28/25 16:53*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*04/28/25 16:53*	*EPA 8260D*	
CRC-1-042325 (A5D1784-26)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC-1-042325 (A5D1784-26)				**Matrix: Water**		**Batch: 25D1085**		
Chlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/28/25 15:48	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 15:48	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC-1-042325 (A5D1784-26)				**Matrix: Water**		**Batch: 25D1085**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/28/25 15:48	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/28/25 15:48	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/28/25 15:48	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/28/25 15:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*04/28/25 15:48*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/28/25 15:48*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 15:48*	*EPA 8260D*	
CRC-7-042325 (A5D1784-27)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/28/25 16:10	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
CRC-7-042325 (A5D1784-27)				**Matrix: Water**		**Batch: 25D1085**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
Trichloroethene (TCE)	**0.810**	---	0.400	ug/L	1	04/28/25 16:10	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/28/25 16:10	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:10	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/28/25 16:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/28/25 16:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*04/28/25 16:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*04/28/25 16:10*	*EPA 8260D*	
TRIP-042325 (A5D1784-28)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP-042325 (A5D1784-28)				**Matrix: Water**		**Batch: 25D1085**		
Chloromethane	ND	---	5.00	ug/L	1	04/28/25 11:07	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/28/25 11:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 11:07	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/28/25 11:07	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/28/25 11:07	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TRIP-042325 (A5D1784-28)				**Matrix: Water**		**Batch: 25D1085**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/28/25 11:07	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/28/25 11:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*04/28/25 11:07*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 11:07*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*04/28/25 11:07*	*EPA 8260D*	
DPE5-042425 (A5D1784-29)				**Matrix: Water**		**Batch: 25D1085**		
Bromobenzene	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/28/25 16:31	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE5-042425 (A5D1784-29)				**Matrix: Water**		**Batch: 25D1085**		
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/28/25 16:31	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/28/25 16:31	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/28/25 16:31	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/28/25 16:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/28/25 16:31*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 16:31*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/28/25 16:31*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C							**Water**					
Blank (25D1042-BLK1)			Prepared: 04/25/25 09:23		Analyzed: 04/25/25 12:14							
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C							**Water**					
Blank (25D1042-BLK1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 12:14									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*102 %*		*80-120 %*			*"*				
LCS (25D1042-BS1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 11:29									
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	25.0	---	1.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
Bromodichloromethane	22.5	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	23.3	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromomethane	38.9	---	5.00	ug/L	1	20.0	---	**195**	**80-120%**	---	---	Q-56
Carbon tetrachloride	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.7	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	38.7	---	5.00	ug/L	1	20.0	---	**194**	**80-120%**	---	---	Q-56
Chloroform	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Chloromethane	23.2	---	5.00	ug/L	1	20.0	---	116	80-120%	---	---	
2-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromochloromethane	20.7	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.8	---	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromomethane	23.6	---	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,2-Dichlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C								**Water**				
LCS (25D1042-BS1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 11:29									
1,3-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	25.0	---	1.00	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	22.1	---	0.400	ug/L	1	20.0	---	111	80-120%	---	---	
1,2-Dichloroethane (EDC)	22.9	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,1-Dichloroethene	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
cis-1,2-Dichloroethene	20.7	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
2,2-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloropropene	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Hexachlorobutadiene	20.6	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
Methylene chloride	21.0	---	10.0	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Tetrachloroethene (PCE)	20.0	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	17.5	---	2.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,2-Trichloroethane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	15.2	---	2.00	ug/L	1	20.0	---	**76**	**80-120%**	---	---	Q-55
1,1,1-Trichloroethane	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichloroethene (TCE)	19.9	---	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
Trichlorofluoromethane	36.0	---	2.00	ug/L	1	20.0	---	**180**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Vinyl chloride	25.1	---	0.200	ug/L	1	20.0	---	**125**	**80-120%**	---	---	Q-56
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				

Duplicate (25D1042-DUP1) Prepared: 04/25/25 09:23 Analyzed: 04/25/25 19:26

QC Source Sample: MW2B-042325 (A5D1784-01)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C							**Water**					
Duplicate (25D1042-DUP1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 19:26									
QC Source Sample: MW2B-042325 (A5D1784-01)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	2.90	---	---	***	30%	
cis-1,2-Dichloroethene	**72.9**	---	4.00	ug/L	10	---	69.8	---	---	4	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C							**Water**					
Duplicate (25D1042-DUP1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 19:26									
QC Source Sample: MW2B-042325 (A5D1784-01)												
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**8.70**	---	4.00	ug/L	10	---	9.00	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**1660**	---	4.00	ug/L	10	---	1610	---	---	3	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*135 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				*S-02*
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (25D1042-MS1)			Prepared: 04/25/25 09:23 Analyzed: 04/25/25 20:34									
QC Source Sample: MW14B-042325 (A5D1784-17)												
EPA 8260D												
Bromobenzene	101	---	2.50	ug/L	5	100	ND	101	80-120%	---	---	
Bromochloromethane	138	---	5.00	ug/L	5	100	ND	**138**	**78-123%**	---	---	Q-54a
Bromodichloromethane	122	---	5.00	ug/L	5	100	ND	122	79-125%	---	---	
Bromoform	124	---	5.00	ug/L	5	100	ND	124	66-130%	---	---	
Bromomethane	231	---	25.0	ug/L	5	100	ND	**231**	**53-141%**	---	---	Q-54e
Carbon tetrachloride	129	---	5.00	ug/L	5	100	ND	129	72-136%	---	---	
Chlorobenzene	110	---	2.50	ug/L	5	100	ND	110	80-120%	---	---	
Chloroethane	230	---	25.0	ug/L	5	100	ND	**230**	**60-138%**	---	---	Q-54d
Chloroform	125	---	5.00	ug/L	5	100	ND	**125**	**79-124%**	---	---	Q-01
Chloromethane	131	---	25.0	ug/L	5	100	ND	131	50-139%	---	---	
2-Chlorotoluene	98.8	---	5.00	ug/L	5	100	ND	99	79-122%	---	---	
4-Chlorotoluene	105	---	5.00	ug/L	5	100	ND	105	78-122%	---	---	
Dibromochloromethane	109	---	5.00	ug/L	5	100	ND	109	74-126%	---	---	
1,2-Dibromo-3-chloropropane	88.2	---	25.0	ug/L	5	100	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	106	---	2.50	ug/L	5	100	ND	106	77-121%	---	---	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1042 - EPA 5030C							**Water**					
Matrix Spike (25D1042-MS1)			Prepared: 04/25/25 09:23		Analyzed: 04/25/25 20:34							
QC Source Sample: MW14B-042325 (A5D1784-17)												
Dibromomethane	125	---	5.00	ug/L	5	100	ND	**125**	**79-123%**	---	---	Q-01
1,2-Dichlorobenzene	101	---	2.50	ug/L	5	100	ND	101	80-120%	---	---	
1,3-Dichlorobenzene	109	---	2.50	ug/L	5	100	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	107	---	2.50	ug/L	5	100	ND	107	79-120%	---	---	
Dichlorodifluoromethane	150	---	5.00	ug/L	5	100	ND	150	32-152%	---	---	
1,1-Dichloroethane	123	---	2.00	ug/L	5	100	ND	123	77-125%	---	---	
1,2-Dichloroethane (EDC)	125	---	2.00	ug/L	5	100	ND	125	73-128%	---	---	
1,1-Dichloroethene	134	---	2.00	ug/L	5	100	ND	**134**	**71-131%**	---	---	Q-01
cis-1,2-Dichloroethene	117	---	2.00	ug/L	5	100	7.35	109	78-123%	---	---	
trans-1,2-Dichloroethene	114	---	2.00	ug/L	5	100	ND	114	75-124%	---	---	
1,2-Dichloropropane	114	---	2.50	ug/L	5	100	ND	114	78-122%	---	---	
1,3-Dichloropropane	102	---	5.00	ug/L	5	100	ND	102	80-120%	---	---	
2,2-Dichloropropane	102	---	5.00	ug/L	5	100	ND	102	60-139%	---	---	
1,1-Dichloropropene	115	---	5.00	ug/L	5	100	ND	115	79-125%	---	---	
cis-1,3-Dichloropropene	73.0	---	5.00	ug/L	5	100	ND	**73**	**75-124%**	---	---	Q-01
trans-1,3-Dichloropropene	109	---	5.00	ug/L	5	100	ND	109	73-127%	---	---	
Hexachlorobutadiene	105	---	25.0	ug/L	5	100	ND	105	66-134%	---	---	
Methylene chloride	118	---	50.0	ug/L	5	100	ND	118	74-124%	---	---	
1,1,1,2-Tetrachloroethane	108	---	2.00	ug/L	5	100	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	113	---	2.50	ug/L	5	100	ND	113	71-121%	---	---	
Tetrachloroethene (PCE)	112	---	2.00	ug/L	5	100	2.75	109	74-129%	---	---	
1,2,3-Trichlorobenzene	84.7	---	10.0	ug/L	5	100	ND	85	69-129%	---	---	
1,1,2-Trichloroethane	112	---	2.50	ug/L	5	100	ND	112	80-120%	---	---	
1,2,4-Trichlorobenzene	69.4	---	10.0	ug/L	5	100	ND	69	69-130%	---	---	Q-54g
1,1,1-Trichloroethane	122	---	2.00	ug/L	5	100	ND	122	74-131%	---	---	
Trichloroethene (TCE)	379	---	2.00	ug/L	5	100	254	**125**	**79-123%**	---	---	Q-03
Trichlorofluoromethane	228	---	10.0	ug/L	5	100	ND	**228**	**65-141%**	---	---	Q-54c
1,2,3-Trichloropropane	109	---	5.00	ug/L	5	100	ND	109	73-122%	---	---	
Vinyl chloride	140	---	1.00	ug/L	5	100	ND	**140**	**58-137%**	---	---	Q-54a
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*93 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							**Water**					
Blank (25D1085-BLK1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 10:35									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							Water					
Blank (25D1085-BLK1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 10:35									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				
LCS (25D1085-BS1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 09:52									
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromodichloromethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromomethane	14.7	---	5.00	ug/L	1	20.0	---	**73**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	16.5	---	5.00	ug/L	1	20.0	---	83	80-120%	---	---	
Chloroform	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Chloromethane	22.4	---	5.00	ug/L	1	20.0	---	112	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Dibromochloromethane	22.7	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.2	---	5.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.9	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromomethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							**Water**					
LCS (25D1085-BS1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 09:52									
1,3-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	18.9	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
1,1-Dichloroethane	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloroethene	21.9	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichloropropane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
2,2-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloropropene	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,3-Dichloropropene	18.1	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,3-Dichloropropene	18.2	---	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Hexachlorobutadiene	20.3	---	5.00	ug/L	1	20.0	---	102	80-120%	---	---	
Methylene chloride	20.2	---	10.0	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,2,3-Trichlorobenzene	20.3	---	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2-Trichloroethane	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trichlorobenzene	18.8	---	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichlorofluoromethane	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Vinyl chloride	19.0	---	0.200	ug/L	1	20.0	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*100 %*			*80-120 %*			*"*			
Duplicate (25D1085-DUP1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 17:36									

QC Source Sample: MW18B-042325-U (A5D1784-24)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							**Water**					
Duplicate (25D1085-DUP1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 17:36									
QC Source Sample: MW18B-042325-U (A5D1784-24)												
Bromobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromoform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Bromomethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Chloroform	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Chloromethane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dibromomethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloroethene	**17.4**	---	8.00	ug/L	20	---	15.4	---	---	12	30%	
cis-1,2-Dichloroethene	**554**	---	8.00	ug/L	20	---	538	---	---	3	30%	
trans-1,2-Dichloroethene	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	100	ug/L	20	---	ND	---	---	---	30%	
Methylene chloride	ND	---	200	ug/L	20	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							**Water**					
Duplicate (25D1085-DUP1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 17:36									
QC Source Sample: MW18B-042325-U (A5D1784-24)												
1,1,1,2-Tetrachloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**63.4**	---	8.00	ug/L	20	---	59.2	---	---	7	30%	
1,2,3-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	10.0	ug/L	20	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	8.00	ug/L	20	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**5090**	---	8.00	ug/L	20	---	4910	---	---	4	30%	E
Trichlorofluoromethane	ND	---	40.0	ug/L	20	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	20.0	ug/L	20	---	ND	---	---	---	30%	
Vinyl chloride	**4.20**	---	4.00	ug/L	20	---	4.20	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 115 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*				*"*			
Matrix Spike (25D1085-MS1)			Prepared: 04/28/25 08:33 Analyzed: 04/28/25 17:58									
QC Source Sample: DPE5-042425 (A5D1784-29)												
EPA 8260D												
Bromobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	22.3	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	20.5	---	1.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	17.5	---	5.00	ug/L	1	20.0	ND	87	53-141%	---	---	Q-54h
Carbon tetrachloride	23.3	---	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
Chloroethane	18.2	---	5.00	ug/L	1	20.0	ND	91	60-138%	---	---	
Chloroform	23.2	---	1.00	ug/L	1	20.0	ND	116	79-124%	---	---	
Chloromethane	24.2	---	5.00	ug/L	1	20.0	ND	121	50-139%	---	---	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	---	---	
4-Chlorotoluene	23.1	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	24.0	---	1.00	ug/L	1	20.0	ND	120	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.0	---	5.00	ug/L	1	20.0	ND	85	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1085 - EPA 5030C							**Water**					
Matrix Spike (25D1085-MS1)			Prepared: 04/28/25 08:33		Analyzed: 04/28/25 17:58							
QC Source Sample: DPE5-042425 (A5D1784-29)												
Dibromomethane	22.0	---	1.00	ug/L	1	20.0	ND	110	79-123%	---	---	
1,2-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	ND	102	80-120%	---	---	
1,3-Dichlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	19.7	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	28.0	---	1.00	ug/L	1	20.0	ND	140	32-152%	---	---	
1,1-Dichloroethane	22.5	---	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.3	---	0.400	ug/L	1	20.0	ND	102	73-128%	---	---	
1,1-Dichloroethene	24.5	---	0.400	ug/L	1	20.0	ND	122	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	22.8	---	0.400	ug/L	1	20.0	ND	114	75-124%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	21.4	---	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	22.5	---	1.00	ug/L	1	20.0	ND	112	60-139%	---	---	
1,1-Dichloropropene	23.9	---	1.00	ug/L	1	20.0	ND	120	79-125%	---	---	
cis-1,3-Dichloropropene	16.5	---	1.00	ug/L	1	20.0	ND	82	75-124%	---	---	
trans-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	ND	94	73-127%	---	---	
Hexachlorobutadiene	22.2	---	5.00	ug/L	1	20.0	ND	111	66-134%	---	---	
Methylene chloride	20.8	---	10.0	ug/L	1	20.0	ND	104	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.6	---	0.400	ug/L	1	20.0	ND	113	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.4	---	0.500	ug/L	1	20.0	ND	102	71-121%	---	---	
Tetrachloroethene (PCE)	24.1	---	0.400	ug/L	1	20.0	ND	120	74-129%	---	---	
1,2,3-Trichlorobenzene	20.4	---	2.00	ug/L	1	20.0	ND	102	69-129%	---	---	
1,1,2-Trichloroethane	21.7	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,2,4-Trichlorobenzene	18.7	---	2.00	ug/L	1	20.0	ND	93	69-130%	---	---	
1,1,1-Trichloroethane	24.5	---	0.400	ug/L	1	20.0	ND	123	74-131%	---	---	
Trichloroethene (TCE)	22.7	---	0.400	ug/L	1	20.0	ND	114	79-123%	---	---	
Trichlorofluoromethane	23.5	---	2.00	ug/L	1	20.0	ND	118	65-141%	---	---	
1,2,3-Trichloropropane	20.4	---	1.00	ug/L	1	20.0	ND	102	73-122%	---	---	
Vinyl chloride	21.1	---	0.200	ug/L	1	20.0	ND	105	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	15.9	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloromethane	22.2	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Dibromochloromethane	22.9	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	23.9	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,1-Dichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethene	21.9	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
cis-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloropropene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
trans-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Hexachlorobutadiene	21.0	---	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
Methylene chloride	20.3	---	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	18.6	---	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
Trichlorofluoromethane	19.3	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Vinyl chloride	18.3	---	0.200	ug/L	1	20.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*101 %*			*80-120 %*			*"*			
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: Non-SDG (A5D1814-10)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: Non-SDG (A5D1814-10)												
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**16.8**	---	2.00	ug/L	5	---	16.9	---	---	0.9	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: Non-SDG (A5D1814-10)												
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**9.55**	---	2.00	ug/L	5	---	9.65	---	---	1	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**571**	---	2.00	ug/L	5	---	582	---	---	2	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 120 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*99 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*99 %*	*80-120 %*		*"*							
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 19:04									
QC Source Sample: Non-SDG (A5D1853-02)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	20.4	---	1.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	19.2	---	5.00	ug/L	1	20.0	ND	96	53-141%	---	---	Q-54f
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	ND	119	72-136%	---	---	
Chlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	19.2	---	5.00	ug/L	1	20.0	ND	96	60-138%	---	---	
Chloroform	23.3	---	1.00	ug/L	1	20.0	ND	117	79-124%	---	---	
Chloromethane	24.8	---	5.00	ug/L	1	20.0	ND	124	50-139%	---	---	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	---	---	
4-Chlorotoluene	22.9	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.7	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	
Dibromomethane	22.5	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27		Analyzed: 04/29/25 19:04							
QC Source Sample: Non-SDG (A5D1853-02)												
1,2-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	27.8	---	1.00	ug/L	1	20.0	ND	139	32-152%	---	---	
1,1-Dichloroethane	22.7	---	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	ND	103	73-128%	---	---	
1,1-Dichloroethene	24.5	---	0.400	ug/L	1	20.0	ND	123	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	23.4	---	0.400	ug/L	1	20.0	ND	117	75-124%	---	---	
1,2-Dichloropropane	21.6	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	21.4	---	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	22.6	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	
1,1-Dichloropropene	24.4	---	1.00	ug/L	1	20.0	ND	122	79-125%	---	---	
cis-1,3-Dichloropropene	16.6	---	1.00	ug/L	1	20.0	ND	83	75-124%	---	---	
trans-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	ND	93	73-127%	---	---	
Hexachlorobutadiene	22.6	---	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	ND	106	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.8	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.2	---	0.500	ug/L	1	20.0	ND	101	71-121%	---	---	
Tetrachloroethene (PCE)	24.6	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	ND	106	69-129%	---	---	
1,1,2-Trichloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	19.6	---	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	24.8	---	0.400	ug/L	1	20.0	ND	124	74-131%	---	---	
Trichloroethene (TCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	79-123%	---	---	
Trichlorofluoromethane	23.3	---	2.00	ug/L	1	20.0	ND	116	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	ND	103	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*100 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Blank (25D1184-BLK1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1784 - 05 28 25 1515

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							Water					
Blank (25D1184-BLK1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	17.0	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
Carbon tetrachloride	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	25.3	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
Chloromethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.1	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
1,3-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	25.1	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	24.3	---	1.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Hexachlorobutadiene	23.5	---	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
Methylene chloride	21.1	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	23.0	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichlorobenzene	21.0	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1-Trichloroethane	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
Trichloroethene (TCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichlorofluoromethane	20.9	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Vinyl chloride	18.5	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	35.0	ug/L	10	---	ND	---	---	---	30%	V-02
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 20:11									
QC Source Sample: Non-SDG (A5D1814-01)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	78-123%	---	---	
Bromodichloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	20.6	---	1.00	ug/L	1	20.0	ND	103	66-130%	---	---	
Bromomethane	18.3	---	5.00	ug/L	1	20.0	ND	92	53-141%	---	---	
Carbon tetrachloride	23.4	---	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	17.1	---	5.00	ug/L	1	20.0	ND	85	60-138%	---	---	
Chloroform	22.7	---	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	Q-54b
Chloromethane	23.1	---	5.00	ug/L	1	20.0	ND	115	50-139%	---	---	
2-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	ND	112	79-122%	---	---	
4-Chlorotoluene	23.0	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.6	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.1	---	5.00	ug/L	1	20.0	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.7	---	0.500	ug/L	1	20.0	ND	109	77-121%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53		Analyzed: 04/30/25 20:11							
QC Source Sample: Non-SDG (A5D1814-01)												
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.9	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	26.1	---	1.00	ug/L	1	20.0	ND	130	32-152%	---	---	Q-54b
1,1-Dichloroethane	22.0	---	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	ND	99	73-128%	---	---	
1,1-Dichloroethene	24.2	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	21.8	---	0.400	ug/L	1	20.0	ND	109	78-123%	---	---	
trans-1,2-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	75-124%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	22.5	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	Q-54
1,1-Dichloropropene	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	16.9	---	1.00	ug/L	1	20.0	ND	84	75-124%	---	---	
trans-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	ND	94	73-127%	---	---	
Hexachlorobutadiene	23.4	---	5.00	ug/L	1	20.0	ND	117	66-134%	---	---	
Methylene chloride	20.5	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.7	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.7	---	0.500	ug/L	1	20.0	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	24.5	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.6	---	2.00	ug/L	1	20.0	ND	108	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-130%	---	---	
1,1,1-Trichloroethane	24.3	---	0.400	ug/L	1	20.0	ND	122	74-131%	---	---	
Trichloroethene (TCE)	22.4	---	0.400	ug/L	1	20.0	ND	112	79-123%	---	---	
Trichlorofluoromethane	22.3	---	2.00	ug/L	1	20.0	ND	111	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.3	---	0.200	ug/L	1	20.0	ND	102	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*102 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D1042							
A5D1784-01	Water	EPA 8260D	04/23/25 12:00	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-02	Water	EPA 8260D	04/23/25 11:40	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-03	Water	EPA 8260D	04/23/25 11:50	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-04	Water	EPA 8260D	04/23/25 12:36	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-05	Water	EPA 8260D	04/23/25 12:45	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-06	Water	EPA 8260D	04/24/25 10:54	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-07	Water	EPA 8260D	04/24/25 10:04	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-08	Water	EPA 8260D	04/24/25 10:36	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-09	Water	EPA 8260D	04/24/25 13:55	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-10	Water	EPA 8260D	04/24/25 13:30	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-11	Water	EPA 8260D	04/23/25 14:12	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-12	Water	EPA 8260D	04/23/25 13:54	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-13	Water	EPA 8260D	04/23/25 13:08	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-14	Water	EPA 8260D	04/23/25 12:52	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-15	Water	EPA 8260D	04/24/25 12:50	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-17	Water	EPA 8260D	04/23/25 12:27	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-18	Water	EPA 8260D	04/24/25 11:35	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-19	Water	EPA 8260D	04/24/25 11:58	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
A5D1784-20	Water	EPA 8260D	04/23/25 12:15	04/25/25 11:48	5mL/5mL	5mL/5mL	1.00
Batch: 25D1085							
A5D1784-02RE1	Water	EPA 8260D	04/23/25 11:40	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-03RE1	Water	EPA 8260D	04/23/25 11:50	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-11RE1	Water	EPA 8260D	04/23/25 14:12	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-12RE1	Water	EPA 8260D	04/23/25 13:54	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-21	Water	EPA 8260D	04/23/25 13:43	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-24	Water	EPA 8260D	04/23/25 15:00	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-25	Water	EPA 8260D	04/23/25 15:10	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-26	Water	EPA 8260D	04/23/25 13:18	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-27	Water	EPA 8260D	04/23/25 13:30	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-28	Water	EPA 8260D	04/23/25 00:00	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
A5D1784-29	Water	EPA 8260D	04/24/25 09:50	04/28/25 10:41	5mL/5mL	5mL/5mL	1.00
Batch: 25D1129							
A5D1784-06RE1	Water	EPA 8260D	04/24/25 10:54	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1784-10RE1	Water	EPA 8260D	04/24/25 13:30	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1784-16RE1	Water	EPA 8260D	04/24/25 12:18	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A5D1784-22	Water	EPA 8260D	04/24/25 11:10	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1784-23	Water	EPA 8260D	04/24/25 11:20	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1784-24RE1	Water	EPA 8260D	04/23/25 15:00	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
Batch: 25D1184							
A5D1784-11RE2	Water	EPA 8260D	04/23/25 14:12	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1784-16RE2	Water	EPA 8260D	04/24/25 12:18	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1784-22RE1	Water	EPA 8260D	04/24/25 11:10	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1784-23RE1	Water	EPA 8260D	04/24/25 11:20	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

E	Estimated Value. The result is above the calibration range of the instrument.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +60%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +74%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +75%. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -4%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
S-02	Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
V-02	Reporting Limit raised due to contamination by a solvent commonly used in the laboratory.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

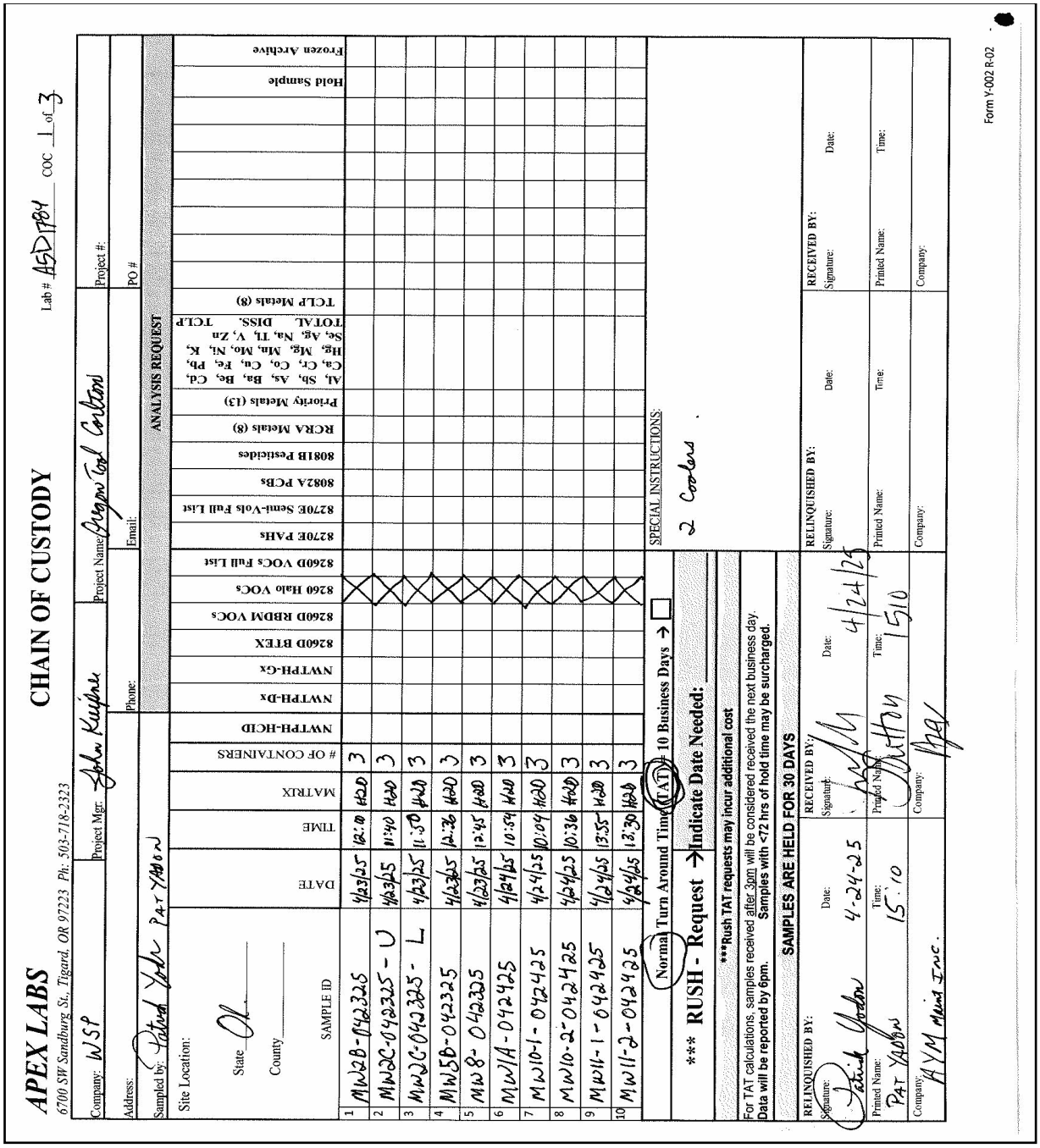
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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A5D1784 - 05 28 25 1515



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5D1784 COC 1 of 3

Company: WSP | Project Mgr: John Kuiper | Project Name: Oregon Tool Carlton | Project #:
Address: | Phone: | Email: | PO #
Sampled by: Patrick Yadon PAT YADON
Site Location: State OR County

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260 Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
1	MW2B-042325	4/23/25	12:10	H2O	3						X										
2	MW3C-042325-D	4/23/25	11:40	H2O	3																
3	MW3C-042325-L	4/23/25	11:30	H2O	3																
4	MW5B-042325	4/23/25	12:20	H2O	3																
5	MW8-042325	4/23/25	12:45	H2O	3																
6	MW1A-042425	4/24/25	10:54	H2O	3																
7	MW10-1-042425	4/24/25	10:04	H2O	3																
8	MW10-2-042425	4/24/25	10:30	H2O	3																
9	MW11-1-042425	4/24/25	13:55	H2O	3																
10	MW11-2-042425	4/24/25	13:30	H2O	3																

SPECIAL INSTRUCTIONS: 2 Coolers

Normal Turn Around Time (TAT) = 10 Business Days →
*** RUSH - Request → Indicate Date Needed:
***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 4-24-25 Time: 15:10 Printed Name: PAT YADON Company: AYM mini Inc.
RECEIVED BY: Signature: Date: 4/24/25 Time: 1510 Printed Name: Matthew Company: AYM

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:
RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form Y-002 R-02

Apex Laboratories

Philip Nerenberg

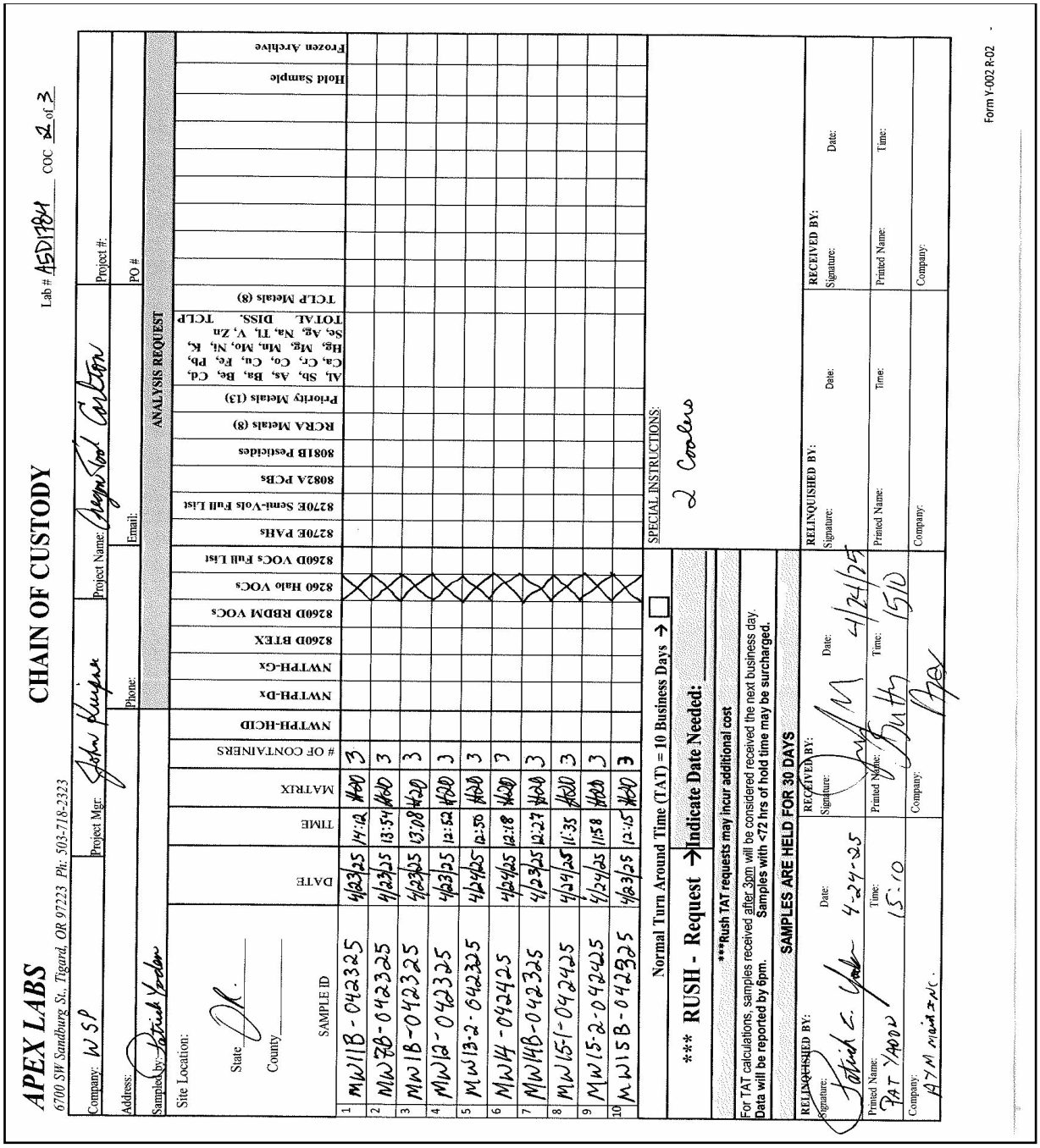
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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5D1784 COC 2 of 3

Company: WSP | Project Mgr: John Kuiper | Project Name: OR Tool Carlton | Project #:
Address: | Phone: | Email: | PO #
Sampled by: Patrick Yordon
Site Location: State OR County

ANALYSIS REQUEST

#	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260 Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
1	MW11B-042325	4/23/25	14:12	Water	3						X											
2	MW7B-042325	4/23/25	13:54	Water	3						X											
3	MW18-042325	4/23/25	13:08	Water	3						X											
4	MW12-042325	4/23/25	12:52	Water	3						X											
5	MW13-2-042325	4/24/25	12:30	Water	3						X											
6	MW14-042425	4/24/25	12:18	Water	3						X											
7	MW14B-042325	4/23/25	12:27	Water	3						X											
8	MW15-1-042425	4/24/25	11:35	Water	3						X											
9	MW15-2-042425	4/24/25	11:58	Water	3						X											
10	MW15B-042325	4/23/25	12:15	Water	3						X											

Normal Turn Around Time (TAT) = 10 Business Days → ☐

SPECIAL INSTRUCTIONS: 2 Coolers

*** RUSH - Request → Indicate Date Needed: _____

***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day. Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Patrick C. Yordon Date: 4-24-25 Time: 15:10 Printed Name: PAT YORDON Company: APEX LABS

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

RELINQUISHED BY: Signature: Date: 4/24/25 Time: 1510 Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form Y-002 R-02

Apex Laboratories

Philip Nerenberg

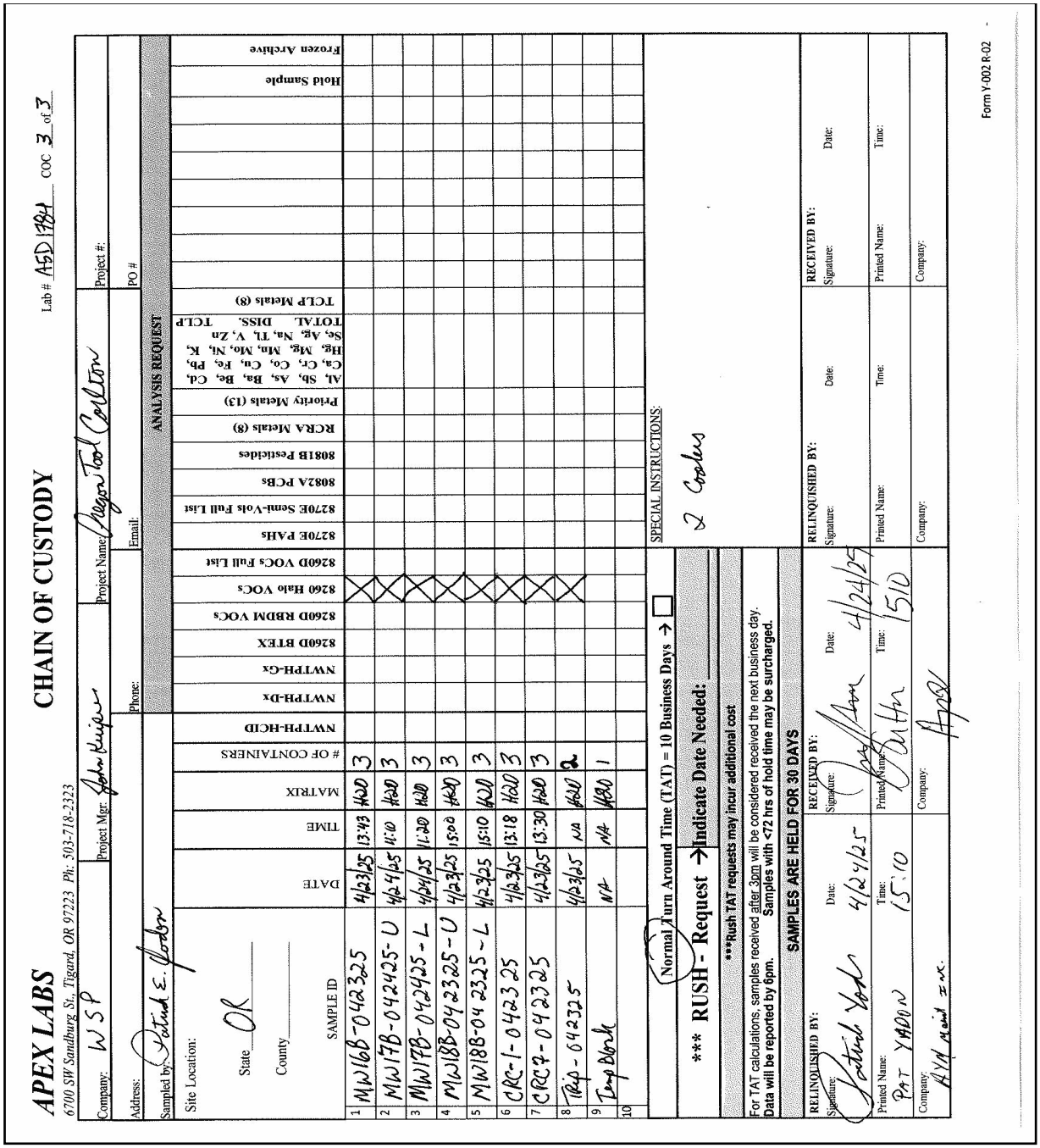
Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5D1784 COC 3 of 3

Company: WSP | Project Mgr: John Kuiper | Project Name: Oregon Tool Carlton | Project #:
Address: | Phone: | Email: | PO #
Sampled by: Patrick E. Madden
Site Location: State OR County

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260 Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
1	MW16B-042325	4/23/25	13:45	H2O	3						X										
2	MW17B-042425-U	4/24/25	11:10	H2O	3						X										
3	MW17B-042425-L	4/24/25	11:30	H2O	3						X										
4	MW18B-042325-U	4/23/25	15:00	H2O	3						X										
5	MW18B-042325-L	4/23/25	15:10	H2O	3						X										
6	CRC-1-042325	4/23/25	13:18	H2O	3						X										
7	CRC2-042325	4/23/25	13:30	H2O	3						X										
8	Trip-042325	4/23/25	NA	H2O	2																
9	Trip Blank	NA	NA	H2O	1																
10																					

SPECIAL INSTRUCTIONS: 2 Coolers

Normal Turn Around Time (TAT) = 10 Business Days →

*** RUSH - Request → Indicate Date Needed: ____

***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day. Samples with <72 hrs of hold time may be surcharged. Data will be reported by 6pm.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Patrick Madden	Signature:	Signature:	Signature:
Printed Name: PAT MADDEN	Printed Name:	Printed Name:	Printed Name:
Company: APEX Labs Inc.	Company:	Company:	Company:
Date: 4/24/25	Date:	Date:	Date:
Time: 15:10	Time:	Time:	Time:

Form Y-002 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1784 - 05 28 25 1515**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5D1784

Project/Project #: Oregon Tool Carlton

Delivery Info:

Date/time received: 4/24/25 @ 1510 By: JS

Delivered by: Apex__Client_X_ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No X

Cooler Inspection Date/time inspected: 4/24/25 @ 1512 By: JS

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.3	1.0					
Custody seals? (Y/N)	N	N					
Received on ice? (Y/N)	Y	Y					
Temp. blanks? (Y/N)	Y	Y					
Ice type: (Gel/Real/Other)	Real	Real					
Condition (In/Out):	In	In					

Cooler out of temp? (Y/(N)) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 4/24/25 @ 16:04 By: KAM

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes ___ No X Comments: received conts. reading DPES-042425 4/24/25 9:50, not listed of COC. ID for MW13-2-042325 conts. read MW13-2-~~042325~~ 042425 drm 4/24

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA ____

Comments ____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID: ____

Comments: ____

IB# 3707

Labeled by: KAM Witness: AJN Cooler Inspected by: KAM

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, May 8, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5D1814 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5D1814, which was received by the laboratory on 4/25/2025 at 2:43:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW4-042525	A5D1814-01	Water	04/25/25 09:30	04/25/25 14:43
EW8-042525	A5D1814-02	Water	04/25/25 11:00	04/25/25 14:43
EW6-042525	A5D1814-03	Water	04/25/25 11:34	04/25/25 14:43
EW6-042525-D	A5D1814-04	Water	04/25/25 11:35	04/25/25 14:43
EW7-042525	A5D1814-05	Water	04/25/25 11:45	04/25/25 14:43
EW7-042525-D	A5D1814-06	Water	04/25/25 11:46	04/25/25 14:43
EW5A-042525	A5D1814-07	Water	04/25/25 12:00	04/25/25 14:43
EW4-042525	A5D1814-08	Water	04/25/25 12:18	04/25/25 14:43
DPE7-042525	A5D1814-09	Water	04/25/25 12:42	04/25/25 14:43
DPE8-042525	A5D1814-10	Water	04/25/25 12:35	04/25/25 14:43

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-042525 (A5D1814-01)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/30/25 12:56	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/30/25 12:56	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-042525 (A5D1814-01)				**Matrix: Water**		**Batch: 25D1184**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/30/25 12:56	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/30/25 12:56	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/30/25 12:56	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/30/25 12:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*04/30/25 12:56*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/30/25 12:56*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 12:56*	*EPA 8260D*	
EW8-042525 (A5D1814-02)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/30/25 13:18	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW8-042525 (A5D1814-02)				**Matrix: Water**		**Batch: 25D1184**		
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
cis-1,2-Dichloroethene	**1.34**	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/30/25 13:18	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/30/25 13:18	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:18	EPA 8260D	
Vinyl chloride	**8.29**	---	0.200	ug/L	1	04/30/25 13:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*04/30/25 13:18*	*EPA 8260D*
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/30/25 13:18*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*04/30/25 13:18*	*EPA 8260D*
EW6-042525 (A5D1814-03)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042525 (A5D1814-03)				**Matrix: Water**		**Batch: 25D1184**		
Bromoform	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/30/25 14:23	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/30/25 14:23	EPA 8260D	
Chloroform	ND	---	15.0	ug/L	5	04/30/25 14:23	EPA 8260D	V-02
Chloromethane	ND	---	25.0	ug/L	5	04/30/25 14:23	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
cis-1,2-Dichloroethene	**75.6**	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/30/25 14:23	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
Tetrachloroethene (PCE)	**4.25**	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042525 (A5D1814-03)				**Matrix: Water**		**Batch: 25D1184**		
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/30/25 14:23	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Trichloroethene (TCE)	**466**	---	2.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/30/25 14:23	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/30/25 14:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits: 80-120 %*	*1*	*04/30/25 14:23*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 14:23*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/30/25 14:23*	*EPA 8260D*	
EW6-042525-D (A5D1814-04)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/30/25 14:45	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/30/25 14:45	EPA 8260D	
Chloroform	ND	---	17.5	ug/L	5	04/30/25 14:45	EPA 8260D	V-02
Chloromethane	ND	---	25.0	ug/L	5	04/30/25 14:45	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW6-042525-D (A5D1814-04)				**Matrix: Water**		**Batch: 25D1184**		
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
cis-1,2-Dichloroethene	**76.6**	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/30/25 14:45	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
Tetrachloroethene (PCE)	**4.10**	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/30/25 14:45	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Trichloroethene (TCE)	**467**	---	2.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/30/25 14:45	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/30/25 14:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*	*1*	*04/30/25 14:45*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/30/25 14:45*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*04/30/25 14:45*	*EPA 8260D*	
EW7-042525 (A5D1814-05)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-042525 (A5D1814-05)				**Matrix: Water**		**Batch: 25D1184**		
Chlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/30/25 13:40	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
cis-1,2-Dichloroethene	**10.1**	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
Tetrachloroethene (PCE)	**1.25**	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 13:40	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-042525 (A5D1814-05)				**Matrix: Water**		**Batch: 25D1184**		
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
Trichloroethene (TCE)	**24.0**	---	0.400	ug/L	1	04/30/25 13:40	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/30/25 13:40	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/30/25 13:40	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/30/25 13:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits:*	*80-120 %*	*1*	*04/30/25 13:40*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/30/25 13:40*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/30/25 13:40*	*EPA 8260D*	
EW7-042525-D (A5D1814-06)				**Matrix: Water**		**Batch: 25D1184**		
Bromobenzene	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/30/25 14:02	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
cis-1,2-Dichloroethene	**10.3**	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW7-042525-D (A5D1814-06)				**Matrix: Water**		**Batch: 25D1184**		
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
Tetrachloroethene (PCE)	**1.32**	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
Trichloroethene (TCE)	**24.5**	---	0.400	ug/L	1	04/30/25 14:02	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/30/25 14:02	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/30/25 14:02	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/30/25 14:02	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits: 80-120 %*	*1*	*04/30/25 14:02*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 14:02*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/30/25 14:02*	*EPA 8260D*	
EW5A-042525 (A5D1814-07)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	04/29/25 16:10	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	04/29/25 16:10	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-042525 (A5D1814-07)				**Matrix: Water**		**Batch: 25D1129**		
Chloromethane	ND	---	10.0	ug/L	2	04/29/25 16:10	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1-Dichloroethene	**1.42**	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
cis-1,2-Dichloroethene	**100**	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	04/29/25 16:10	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Tetrachloroethene (PCE)	**2.54**	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	04/29/25 16:10	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
Trichloroethene (TCE)	**259**	---	0.800	ug/L	2	04/29/25 16:10	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	04/29/25 16:10	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW5A-042525 (A5D1814-07)				**Matrix: Water**		**Batch: 25D1129**		
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:10	EPA 8260D	
Vinyl chloride	**3.46**	---	0.400	ug/L	2	04/29/25 16:10	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 115 %*		*Limits: 80-120 %*	*1*	*04/29/25 16:10*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 16:10*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*04/29/25 16:10*	*EPA 8260D*	
EW4-042525 (A5D1814-08)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 14:21	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1-Dichloroethene	**4.12**	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
trans-1,2-Dichloroethene	**1.16**	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EW4-042525 (A5D1814-08)				**Matrix: Water**		**Batch: 25D1129**		
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
Tetrachloroethene (PCE)	**18.3**	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 14:21	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 14:21	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:21	EPA 8260D	
Vinyl chloride	**0.740**	---	0.200	ug/L	1	04/29/25 14:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits:*	*80-120 %*	*1*	*04/29/25 14:21*	*EPA 8260D*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*04/29/25 14:21*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*04/29/25 14:21*	*EPA 8260D*	
EW4-042525 (A5D1814-08RE1)				**Matrix: Water**		**Batch: 25D1184**		
cis-1,2-Dichloroethene	**307**	---	10.0	ug/L	25	04/30/25 16:13	EPA 8260D	
Trichloroethene (TCE)	**1570**	---	10.0	ug/L	25	04/30/25 16:13	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*118 %*	*Limits:*	*80-120 %*	*1*	*04/30/25 16:13*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/30/25 16:13*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*04/30/25 16:13*	*EPA 8260D*	
DPE7-042525 (A5D1814-09)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-042525 (A5D1814-09)				**Matrix: Water**		**Batch: 25D1129**		
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 14:43	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1-Dichloroethene	**0.400**	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 14:43	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 14:43	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 14:43	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 14:43	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE7-042525 (A5D1814-09)				**Matrix: Water**		**Batch: 25D1129**		
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 14:43	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 14:43	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 112 %*		*Limits: 80-120 %*	*1*	*04/29/25 14:43*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 14:43*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 14:43*	*EPA 8260D*	
DPE7-042525 (A5D1814-09RE1)				**Matrix: Water**		**Batch: 25D1184**		
cis-1,2-Dichloroethene	**31.4**	---	0.400	ug/L	1	04/30/25 12:12	EPA 8260D	
Trichloroethene (TCE)	**40.7**	---	0.400	ug/L	1	04/30/25 12:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 112 %*		*Limits: 80-120 %*	*1*	*04/30/25 12:12*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 12:12*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/30/25 12:12*	*EPA 8260D*	
DPE8-042525 (A5D1814-10)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
Bromochloromethane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Bromodichloromethane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Bromoform	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Bromomethane	ND	---	25.0	ug/L	5	04/29/25 15:26	EPA 8260D	
Carbon tetrachloride	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Chlorobenzene	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
Chloroethane	ND	---	25.0	ug/L	5	04/29/25 15:26	EPA 8260D	
Chloroform	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Chloromethane	ND	---	25.0	ug/L	5	04/29/25 15:26	EPA 8260D	
2-Chlorotoluene	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
4-Chlorotoluene	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Dibromochloromethane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
Dibromomethane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DPE8-042525 (A5D1814-10)				**Matrix: Water**		**Batch: 25D1129**		
1,1-Dichloroethane	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
cis-1,2-Dichloroethene	**16.9**	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	04/29/25 15:26	EPA 8260D	
Methylene chloride	ND	---	50.0	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
Tetrachloroethene (PCE)	**9.65**	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	04/29/25 15:26	EPA 8260D	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Trichloroethene (TCE)	**582**	---	2.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	04/29/25 15:26	EPA 8260D	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Vinyl chloride	ND	---	1.00	ug/L	5	04/29/25 15:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*118 %*	*Limits:*	*80-120 %*	*1*	*04/29/25 15:26*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/29/25 15:26*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*	*1*	*04/29/25 15:26*	*EPA 8260D*	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							Water					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	15.9	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloromethane	22.2	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Dibromochloromethane	22.9	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	23.9	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,1-Dichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethene	21.9	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
cis-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloropropene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
trans-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Hexachlorobutadiene	21.0	---	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
Methylene chloride	20.3	---	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	18.6	---	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
Trichlorofluoromethane	19.3	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Vinyl chloride	18.3	---	0.200	ug/L	1	20.0	---	92	80-120%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 100 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*98 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*101 %*	*80-120 %*	*"*	

Duplicate (25D1129-DUP1) Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48

QC Source Sample: DPE8-042525 (A5D1814-10)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: DPE8-042525 (A5D1814-10)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**16.8**	---	2.00	ug/L	5	---	16.9	---	---	0.9	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: DPE8-042525 (A5D1814-10)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**9.55**	---	2.00	ug/L	5	---	9.65	---	---	1	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**571**	---	2.00	ug/L	5	---	582	---	---	2	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 120 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 19:04									
QC Source Sample: Non-SDG (A5D1853-02)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	20.4	---	1.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	19.2	---	5.00	ug/L	1	20.0	ND	96	53-141%	---	---	Q-54b
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	ND	119	72-136%	---	---	
Chlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	19.2	---	5.00	ug/L	1	20.0	ND	96	60-138%	---	---	
Chloroform	23.3	---	1.00	ug/L	1	20.0	ND	117	79-124%	---	---	
Chloromethane	24.8	---	5.00	ug/L	1	20.0	ND	124	50-139%	---	---	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	---	---	
4-Chlorotoluene	22.9	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.7	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27		Analyzed: 04/29/25 19:04							
QC Source Sample: Non-SDG (A5D1853-02)												
Dibromomethane	22.5	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	27.8	---	1.00	ug/L	1	20.0	ND	139	32-152%	---	---	
1,1-Dichloroethane	22.7	---	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	ND	103	73-128%	---	---	
1,1-Dichloroethene	24.5	---	0.400	ug/L	1	20.0	ND	123	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	23.4	---	0.400	ug/L	1	20.0	ND	117	75-124%	---	---	
1,2-Dichloropropane	21.6	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	21.4	---	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	22.6	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	
1,1-Dichloropropene	24.4	---	1.00	ug/L	1	20.0	ND	122	79-125%	---	---	
cis-1,3-Dichloropropene	16.6	---	1.00	ug/L	1	20.0	ND	83	75-124%	---	---	
trans-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	ND	93	73-127%	---	---	
Hexachlorobutadiene	22.6	---	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	ND	106	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.8	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.2	---	0.500	ug/L	1	20.0	ND	101	71-121%	---	---	
Tetrachloroethene (PCE)	24.6	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	ND	106	69-129%	---	---	
1,1,2-Trichloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	19.6	---	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	24.8	---	0.400	ug/L	1	20.0	ND	124	74-131%	---	---	
Trichloroethene (TCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	79-123%	---	---	
Trichlorofluoromethane	23.3	---	2.00	ug/L	1	20.0	ND	116	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	ND	103	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Blank (25D1184-BLK1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Blank (25D1184-BLK1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	17.0	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
Carbon tetrachloride	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	25.3	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
Chloromethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.1	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
1,3-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	25.1	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	24.3	---	1.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Hexachlorobutadiene	23.5	---	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
Methylene chloride	21.1	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	23.0	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichlorobenzene	21.0	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1-Trichloroethane	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
Trichloroethene (TCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichlorofluoromethane	20.9	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Vinyl chloride	18.5	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1643

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	35.0	ug/L	10	---	ND	---	---	---	30%	V-02
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 20:11									
QC Source Sample: MW4-042525 (A5D1814-01)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	78-123%	---	---	
Bromodichloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	20.6	---	1.00	ug/L	1	20.0	ND	103	66-130%	---	---	
Bromomethane	18.3	---	5.00	ug/L	1	20.0	ND	92	53-141%	---	---	
Carbon tetrachloride	23.4	---	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	17.1	---	5.00	ug/L	1	20.0	ND	85	60-138%	---	---	
Chloroform	22.7	---	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	Q-54a
Chloromethane	23.1	---	5.00	ug/L	1	20.0	ND	115	50-139%	---	---	
2-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	ND	112	79-122%	---	---	
4-Chlorotoluene	23.0	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.6	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.1	---	5.00	ug/L	1	20.0	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.7	---	0.500	ug/L	1	20.0	ND	109	77-121%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-123%	---	---	

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53		Analyzed: 04/30/25 20:11							
QC Source Sample: MW4-042525 (A5D1814-01)												
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.9	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	26.1	---	1.00	ug/L	1	20.0	ND	130	32-152%	---	---	Q-54a
1,1-Dichloroethane	22.0	---	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	ND	99	73-128%	---	---	
1,1-Dichloroethene	24.2	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	21.8	---	0.400	ug/L	1	20.0	ND	109	78-123%	---	---	
trans-1,2-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	75-124%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	22.5	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	Q-54
1,1-Dichloropropene	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	16.9	---	1.00	ug/L	1	20.0	ND	84	75-124%	---	---	
trans-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	ND	94	73-127%	---	---	
Hexachlorobutadiene	23.4	---	5.00	ug/L	1	20.0	ND	117	66-134%	---	---	
Methylene chloride	20.5	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.7	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.7	---	0.500	ug/L	1	20.0	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	24.5	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.6	---	2.00	ug/L	1	20.0	ND	108	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-130%	---	---	
1,1,1-Trichloroethane	24.3	---	0.400	ug/L	1	20.0	ND	122	74-131%	---	---	
Trichloroethene (TCE)	22.4	---	0.400	ug/L	1	20.0	ND	112	79-123%	---	---	
Trichlorofluoromethane	22.3	---	2.00	ug/L	1	20.0	ND	111	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.3	---	0.200	ug/L	1	20.0	ND	102	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*102 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D1129							
A5D1814-07	Water	EPA 8260D	04/25/25 12:00	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1814-08	Water	EPA 8260D	04/25/25 12:18	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1814-09	Water	EPA 8260D	04/25/25 12:42	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1814-10	Water	EPA 8260D	04/25/25 12:35	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
Batch: 25D1184							
A5D1814-01	Water	EPA 8260D	04/25/25 09:30	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-02	Water	EPA 8260D	04/25/25 11:00	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-03	Water	EPA 8260D	04/25/25 11:34	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-04	Water	EPA 8260D	04/25/25 11:35	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-05	Water	EPA 8260D	04/25/25 11:45	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-06	Water	EPA 8260D	04/25/25 11:46	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-08RE1	Water	EPA 8260D	04/25/25 12:18	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00
A5D1814-09RE1	Water	EPA 8260D	04/25/25 12:42	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
V-02	Reporting Limit raised due to contamination by a solvent commonly used in the laboratory.

Apex Laboratories



Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

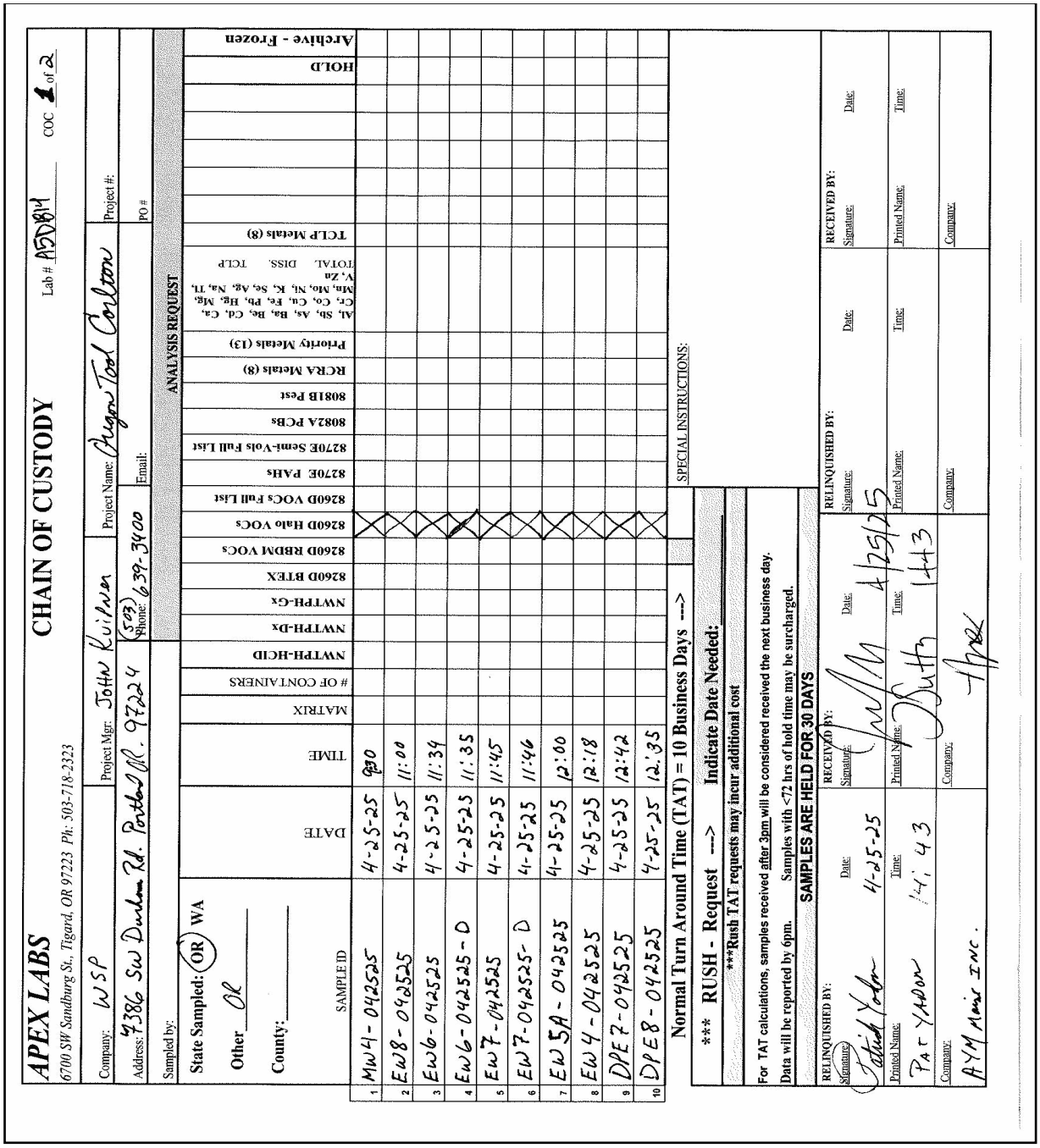
Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**



APEX LABS — CHAIN OF CUSTODY — Lab # A5D1814 — COC 1 of 2
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: WSP | Project Mgr: John Kuiper | Project Name: Sugar Tool Carlton | Project #:
Address: 7386 SW Dunlap Rd. Portland OR. 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by:

State Sampled: (OR) WA
Other Or
County:

ANALYSIS REQUEST

#	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	HOLD	Archive - Frozen
1	MW41-042525	4-25-25	900								X										
2	EW8-042525	4-25-25	11:00								X										
3	EW6-042525	4-25-25	11:34								X										
4	EW6-042525-D	4-25-25	11:35								X										
5	EW7-042525	4-25-25	11:45								X										
6	EW7-042525-D	4-25-25	11:46								X										
7	EW5A-042525	4-25-25	12:00								X										
8	EW4-042525	4-25-25	12:18								X										
9	DPE7-042525	4-25-25	12:42								X										
10	DPE8-042525	4-25-25	12:35								X										

Normal Turn Around Time (TAT) = 10 Business Days --->

SPECIAL INSTRUCTIONS:

*** RUSH - Request ---> Indicate Date Needed:
***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 4-25-25 Time: 14:43 Printed Name: Pat Yadon Company: AYM Assoc Inc.

RECEIVED BY: Signature: Date: 4/25/25 Time: 1443 Printed Name: Dutch Company: Apex

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

Philip Nerenberg

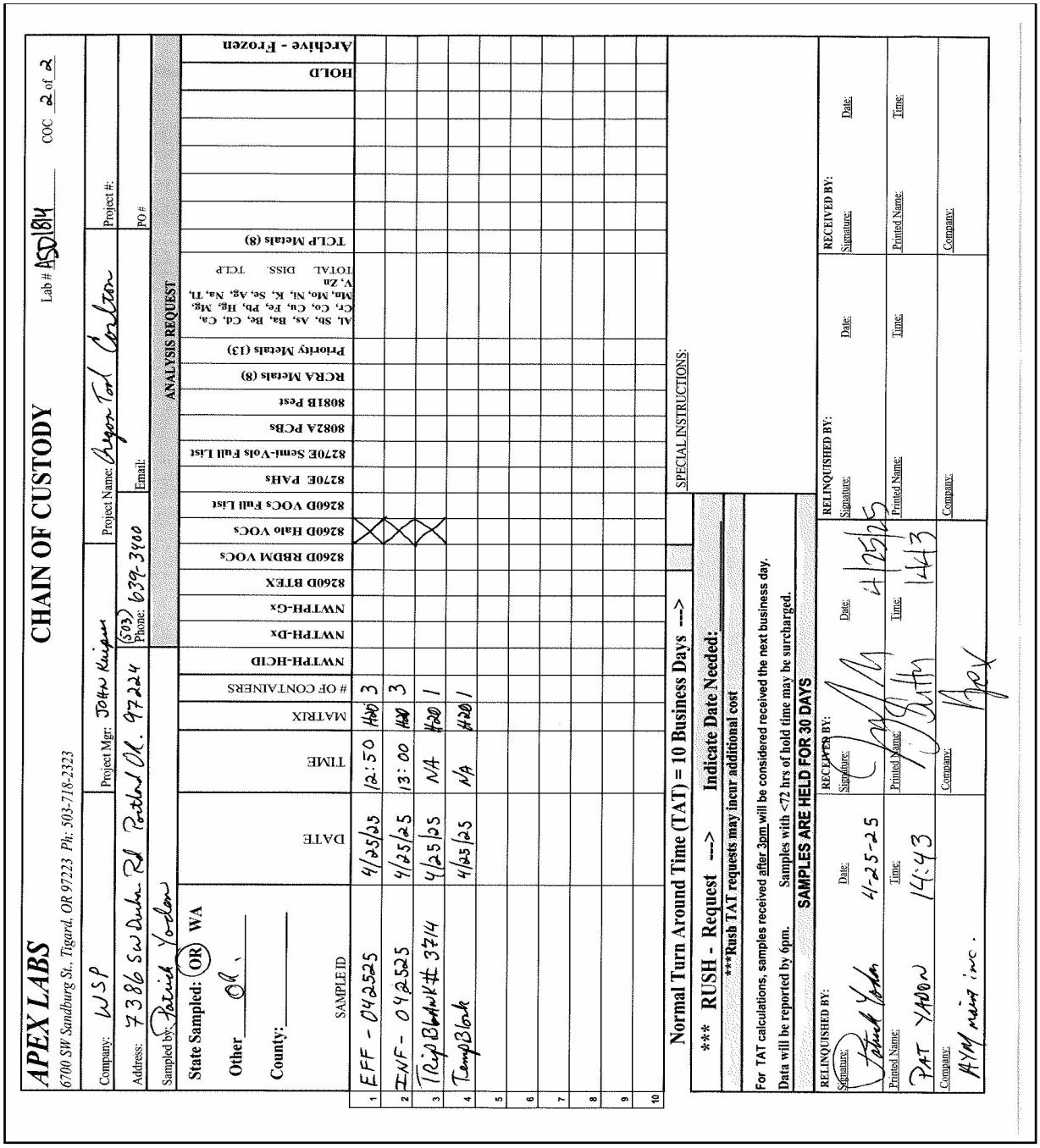
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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**



APEX LABS — CHAIN OF CUSTODY — Lab # ASD1814 — COC 2 of 2

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: WSP | Project Mgr: John Kuiper | Project Name: Oregon Tool Carlton | Project #:

Address: 7386 SW Dunham Rd Portland Or. 97224 | (503) Phone: 639-3400 | Email: | PO #

Sampled by: Patrick Yoder

State Sampled: (OR) WA

Other ____

County: ____

ANALYSIS REQUEST

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	HOLD	Archive - Frozen
1	EFF - 042525	4/25/25	12:50	H2O	3						X										
2	ENF - 042525	4/25/25	13:00	H2O	3						X										
3	Trip Blank #3714	4/25/25	NA	H2O	1						X										
4	Temp Blank	4/25/25	NA	H2O	1																
5																					
6																					
7																					
8																					
9																					
10																					

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days --> Indicate Date Needed:

*** RUSH - Request --> ***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.

Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Patrick Yoder Date: 4-25-25 Time: 14:43 Printed Name: PAT YADON Company: AYM mailing inc.

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

RELINQUISHED BY: Signature: Date: 4/25/25 Time: 1443 Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1643**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5D1814

Project/Project #: Oregon Tool Carlton

Delivery Info:

Date/time received: 4/25/25 @ 1443 By: JS

Delivered by: Apex__Client✓ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No ✓

Cooler Inspection Date/time inspected: 4/25/25 @ 1444 By: JS

Chain of Custody included? Yes ✓ No ____

Signed/dated by client? Yes ✓ No ____

Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.4						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 4/25/25 @ 15:11 By:

All samples intact? Yes ✓ No ___ Comments:

Bottle labels/COCs agree? Yes ✓ No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No ✓

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No ✓ NA ✓ 4/25/25

Comments

Water samples: pH checked: Yes___No___NA✓ pH appropriate? Yes___No___NA✓ pH ID:

Comments:

TB# 3714

Labeled by: Witness: Cooler Inspected by:

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Thursday, May 8, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5D1814 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5D1814, which was received by the laboratory on 4/25/2025 at 2:43:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-042525	A5D1814-11	Water	04/25/25 12:50	04/25/25 14:43
INF-042525	A5D1814-12	Water	04/25/25 13:00	04/25/25 14:43
Trip Blank #3714	A5D1814-13	Water	04/25/25 00:00	04/25/25 14:43

Apex Laboratories



Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-042525 (A5D1814-11)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 15:04	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 15:04	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-042525 (A5D1814-11)				**Matrix: Water**		**Batch: 25D1129**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 15:04	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 15:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 15:04	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 15:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*04/29/25 15:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 15:04*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 15:04*	*EPA 8260D*	
EFF-042525 (A5D1814-11RE1)				**Matrix: Water**		**Batch: 25D1184**		
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/30/25 12:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*04/30/25 12:34*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/30/25 12:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*04/30/25 12:34*	*EPA 8260D*	
INF-042525 (A5D1814-12)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Bromochloromethane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Bromodichloromethane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Bromoform	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Bromomethane	ND	---	10.0	ug/L	2	04/29/25 16:32	EPA 8260D	
Carbon tetrachloride	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Chlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Chloroethane	ND	---	10.0	ug/L	2	04/29/25 16:32	EPA 8260D	
Chloroform	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Chloromethane	ND	---	10.0	ug/L	2	04/29/25 16:32	EPA 8260D	
2-Chlorotoluene	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
4-Chlorotoluene	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Dibromochloromethane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	

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Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-042525 (A5D1814-12)				**Matrix: Water**		**Batch: 25D1129**		
1,2-Dibromo-3-chloropropane	ND	---	10.0	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Dibromomethane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,4-Dichlorobenzene	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1-Dichloroethane	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1-Dichloroethene	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
cis-1,2-Dichloroethene	**52.7**	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2-Dichloropropane	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,3-Dichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
2,2-Dichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Hexachlorobutadiene	ND	---	10.0	ug/L	2	04/29/25 16:32	EPA 8260D	
Methylene chloride	ND	---	20.0	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Tetrachloroethene (PCE)	**2.82**	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	4.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	4.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
Trichloroethene (TCE)	**286**	---	0.800	ug/L	2	04/29/25 16:32	EPA 8260D	
Trichlorofluoromethane	ND	---	4.00	ug/L	2	04/29/25 16:32	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.00	ug/L	2	04/29/25 16:32	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	2	04/29/25 16:32	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*116 %*	*Limits:*	*80-120 %*	*1*	*04/29/25 16:32*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*04/29/25 16:32*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-042525 (A5D1814-12)				**Matrix: Water**		**Batch: 25D1129**		
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*	*1*	*04/29/25 16:32*	*EPA 8260D*	
Trip Blank #3714 (A5D1814-13)				**Matrix: Water**		**Batch: 25D1129**		
Bromobenzene	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	04/29/25 10:21	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank #3714 (A5D1814-13)				**Matrix: Water**		**Batch: 25D1129**		
Hexachlorobutadiene	ND	---	5.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	04/29/25 10:21	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	04/29/25 10:21	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	04/29/25 10:21	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	04/29/25 10:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*04/29/25 10:21*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*04/29/25 10:21*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*04/29/25 10:21*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							Water					
Blank (25D1129-BLK1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:57									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
EPA 8260D												
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Bromochloromethane	21.7	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Bromomethane	15.9	---	5.00	ug/L	1	20.0	---	**79**	**80-120%**	---	---	Q-55
Carbon tetrachloride	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chloromethane	22.2	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Dibromochloromethane	22.9	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.6	---	5.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
LCS (25D1129-BS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 09:13									
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,4-Dichlorobenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Dichlorodifluoromethane	23.9	---	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,1-Dichloroethane	21.3	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethene	21.9	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
cis-1,2-Dichloroethene	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,2-Dichloroethene	21.2	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloropropane	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloropropene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,3-Dichloropropene	17.5	---	1.00	ug/L	1	20.0	---	88	80-120%	---	---	
trans-1,3-Dichloropropene	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Hexachlorobutadiene	21.0	---	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
Methylene chloride	20.3	---	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Tetrachloroethene (PCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	---	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	21.1	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	18.6	---	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1-Trichloroethane	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
Trichloroethene (TCE)	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
Trichlorofluoromethane	19.3	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Vinyl chloride	18.3	---	0.200	ug/L	1	20.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*			*"*				

Duplicate (25D1129-DUP1) Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48

QC Source Sample: DPE8-042525 (A5D1814-10)

EPA 8260D

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: DPE8-042525 (A5D1814-10)												
Bromobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromoform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Bromomethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Chloroethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Chloroform	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Chloromethane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	**16.8**	---	2.00	ug/L	5	---	16.9	---	---	0.9	30%	
trans-1,2-Dichloroethene	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	25.0	ug/L	5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	50.0	ug/L	5	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Duplicate (25D1129-DUP1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 15:48									
QC Source Sample: DPE8-042525 (A5D1814-10)												
1,1,1,2-Tetrachloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**9.55**	---	2.00	ug/L	5	---	9.65	---	---	1	30%	
1,2,3-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	2.50	ug/L	5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	2.00	ug/L	5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**571**	---	2.00	ug/L	5	---	582	---	---	2	30%	
Trichlorofluoromethane	ND	---	10.0	ug/L	5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	5.00	ug/L	5	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	1.00	ug/L	5	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 120 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*99 %*			*80-120 %*			*"*			
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27 Analyzed: 04/29/25 19:04									
QC Source Sample: Non-SDG (A5D1853-02)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	22.4	---	1.00	ug/L	1	20.0	ND	112	78-123%	---	---	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	ND	111	79-125%	---	---	
Bromoform	20.4	---	1.00	ug/L	1	20.0	ND	102	66-130%	---	---	
Bromomethane	19.2	---	5.00	ug/L	1	20.0	ND	96	53-141%	---	---	Q-54b
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	ND	119	72-136%	---	---	
Chlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
Chloroethane	19.2	---	5.00	ug/L	1	20.0	ND	96	60-138%	---	---	
Chloroform	23.3	---	1.00	ug/L	1	20.0	ND	117	79-124%	---	---	
Chloromethane	24.8	---	5.00	ug/L	1	20.0	ND	124	50-139%	---	---	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	---	---	
4-Chlorotoluene	22.9	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.7	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	17.5	---	5.00	ug/L	1	20.0	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	ND	108	77-121%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1129 - EPA 5030C							**Water**					
Matrix Spike (25D1129-MS1)			Prepared: 04/29/25 07:27		Analyzed: 04/29/25 19:04							
QC Source Sample: Non-SDG (A5D1853-02)												
Dibromomethane	22.5	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	20.7	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	27.8	---	1.00	ug/L	1	20.0	ND	139	32-152%	---	---	
1,1-Dichloroethane	22.7	---	0.400	ug/L	1	20.0	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	ND	103	73-128%	---	---	
1,1-Dichloroethene	24.5	---	0.400	ug/L	1	20.0	ND	123	71-131%	---	---	
cis-1,2-Dichloroethene	22.0	---	0.400	ug/L	1	20.0	ND	110	78-123%	---	---	
trans-1,2-Dichloroethene	23.4	---	0.400	ug/L	1	20.0	ND	117	75-124%	---	---	
1,2-Dichloropropane	21.6	---	0.500	ug/L	1	20.0	ND	108	78-122%	---	---	
1,3-Dichloropropane	21.4	---	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	22.6	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	
1,1-Dichloropropene	24.4	---	1.00	ug/L	1	20.0	ND	122	79-125%	---	---	
cis-1,3-Dichloropropene	16.6	---	1.00	ug/L	1	20.0	ND	83	75-124%	---	---	
trans-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	ND	93	73-127%	---	---	
Hexachlorobutadiene	22.6	---	5.00	ug/L	1	20.0	ND	113	66-134%	---	---	
Methylene chloride	21.2	---	10.0	ug/L	1	20.0	ND	106	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.8	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	20.2	---	0.500	ug/L	1	20.0	ND	101	71-121%	---	---	
Tetrachloroethene (PCE)	24.6	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.3	---	2.00	ug/L	1	20.0	ND	106	69-129%	---	---	
1,1,2-Trichloroethane	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	19.6	---	2.00	ug/L	1	20.0	ND	98	69-130%	---	---	
1,1,1-Trichloroethane	24.8	---	0.400	ug/L	1	20.0	ND	124	74-131%	---	---	
Trichloroethene (TCE)	22.8	---	0.400	ug/L	1	20.0	ND	114	79-123%	---	---	
Trichlorofluoromethane	23.3	---	2.00	ug/L	1	20.0	ND	116	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.7	---	0.200	ug/L	1	20.0	ND	103	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Batch 25D1184 - EPA 5030C — **Water**

Blank (25D1184-BLK1) Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07

EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							Water					
Blank (25D1184-BLK1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 11:07									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 110 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
EPA 8260D												
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Bromochloromethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromodichloromethane	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Bromoform	20.0	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	17.0	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
Carbon tetrachloride	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Chlorobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	16.1	---	5.00	ug/L	1	20.0	---	81	80-120%	---	---	
Chloroform	25.3	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
Chloromethane	22.1	---	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Chlorotoluene	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	22.8	---	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.1	---	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichlorobenzene	20.1	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
LCS (25D1184-BS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 10:23									
1,3-Dichlorobenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
1,4-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	25.1	---	1.00	ug/L	1	20.0	---	**126**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	21.1	---	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.4	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1-Dichloroethene	22.4	---	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
cis-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
trans-1,2-Dichloroethene	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloropropane	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichloropropane	20.4	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	24.3	---	1.00	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	18.0	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Hexachlorobutadiene	23.5	---	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
Methylene chloride	21.1	---	10.0	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	---	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	23.0	---	0.400	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichlorobenzene	21.0	---	2.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.4	---	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,1-Trichloroethane	23.2	---	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
Trichloroethene (TCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Trichlorofluoromethane	20.9	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,3-Trichloropropane	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Vinyl chloride	18.5	---	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	35.0	ug/L	10	---	ND	---	---	---	30%	V-02
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Duplicate (25D1184-DUP1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 19:28									
QC Source Sample: Non-SDG (A5D1825-07)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 20:11									
QC Source Sample: MW4-042525 (A5D1814-01)												
EPA 8260D												
Bromobenzene	20.9	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	78-123%	---	---	
Bromodichloromethane	21.7	---	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
Bromoform	20.6	---	1.00	ug/L	1	20.0	ND	103	66-130%	---	---	
Bromomethane	18.3	---	5.00	ug/L	1	20.0	ND	92	53-141%	---	---	
Carbon tetrachloride	23.4	---	1.00	ug/L	1	20.0	ND	117	72-136%	---	---	
Chlorobenzene	21.5	---	0.500	ug/L	1	20.0	ND	107	80-120%	---	---	
Chloroethane	17.1	---	5.00	ug/L	1	20.0	ND	85	60-138%	---	---	
Chloroform	22.7	---	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	Q-54a
Chloromethane	23.1	---	5.00	ug/L	1	20.0	ND	115	50-139%	---	---	
2-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	ND	112	79-122%	---	---	
4-Chlorotoluene	23.0	---	1.00	ug/L	1	20.0	ND	115	78-122%	---	---	
Dibromochloromethane	23.6	---	1.00	ug/L	1	20.0	ND	118	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.1	---	5.00	ug/L	1	20.0	ND	90	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.7	---	0.500	ug/L	1	20.0	ND	109	77-121%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79-123%	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5D1814 - 05 08 25 1645

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25D1184 - EPA 5030C							**Water**					
Matrix Spike (25D1184-MS1)			Prepared: 04/30/25 07:53 Analyzed: 04/30/25 20:11									
QC Source Sample: MW4-042525 (A5D1814-01)												
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.9	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	26.1	---	1.00	ug/L	1	20.0	ND	130	32-152%	---	---	Q-54a
1,1-Dichloroethane	22.0	---	0.400	ug/L	1	20.0	ND	110	77-125%	---	---	
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	ND	99	73-128%	---	---	
1,1-Dichloroethene	24.2	---	0.400	ug/L	1	20.0	ND	121	71-131%	---	---	
cis-1,2-Dichloroethene	21.8	---	0.400	ug/L	1	20.0	ND	109	78-123%	---	---	
trans-1,2-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	75-124%	---	---	
1,2-Dichloropropane	21.1	---	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	ND	104	80-120%	---	---	
2,2-Dichloropropane	22.5	---	1.00	ug/L	1	20.0	ND	113	60-139%	---	---	Q-54
1,1-Dichloropropene	24.3	---	1.00	ug/L	1	20.0	ND	121	79-125%	---	---	
cis-1,3-Dichloropropene	16.9	---	1.00	ug/L	1	20.0	ND	84	75-124%	---	---	
trans-1,3-Dichloropropene	18.8	---	1.00	ug/L	1	20.0	ND	94	73-127%	---	---	
Hexachlorobutadiene	23.4	---	5.00	ug/L	1	20.0	ND	117	66-134%	---	---	
Methylene chloride	20.5	---	10.0	ug/L	1	20.0	ND	103	74-124%	---	---	
1,1,1,2-Tetrachloroethane	22.7	---	0.400	ug/L	1	20.0	ND	114	78-124%	---	---	
1,1,2,2-Tetrachloroethane	19.7	---	0.500	ug/L	1	20.0	ND	99	71-121%	---	---	
Tetrachloroethene (PCE)	24.5	---	0.400	ug/L	1	20.0	ND	123	74-129%	---	---	
1,2,3-Trichlorobenzene	21.6	---	2.00	ug/L	1	20.0	ND	108	69-129%	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,2,4-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-130%	---	---	
1,1,1-Trichloroethane	24.3	---	0.400	ug/L	1	20.0	ND	122	74-131%	---	---	
Trichloroethene (TCE)	22.4	---	0.400	ug/L	1	20.0	ND	112	79-123%	---	---	
Trichlorofluoromethane	22.3	---	2.00	ug/L	1	20.0	ND	111	65-141%	---	---	
1,2,3-Trichloropropane	20.0	---	1.00	ug/L	1	20.0	ND	100	73-122%	---	---	
Vinyl chloride	20.3	---	0.200	ug/L	1	20.0	ND	102	58-137%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 101 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*97 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*102 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25D1129							
A5D1814-11	Water	EPA 8260D	04/25/25 12:50	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1814-12	Water	EPA 8260D	04/25/25 13:00	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
A5D1814-13	Water	EPA 8260D	04/25/25 00:00	04/29/25 09:51	5mL/5mL	5mL/5mL	1.00
Batch: 25D1184							
A5D1814-11RE1	Water	EPA 8260D	04/25/25 12:50	04/30/25 10:38	5mL/5mL	5mL/5mL	1.00

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
V-02	Reporting Limit raised due to contamination by a solvent commonly used in the laboratory.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

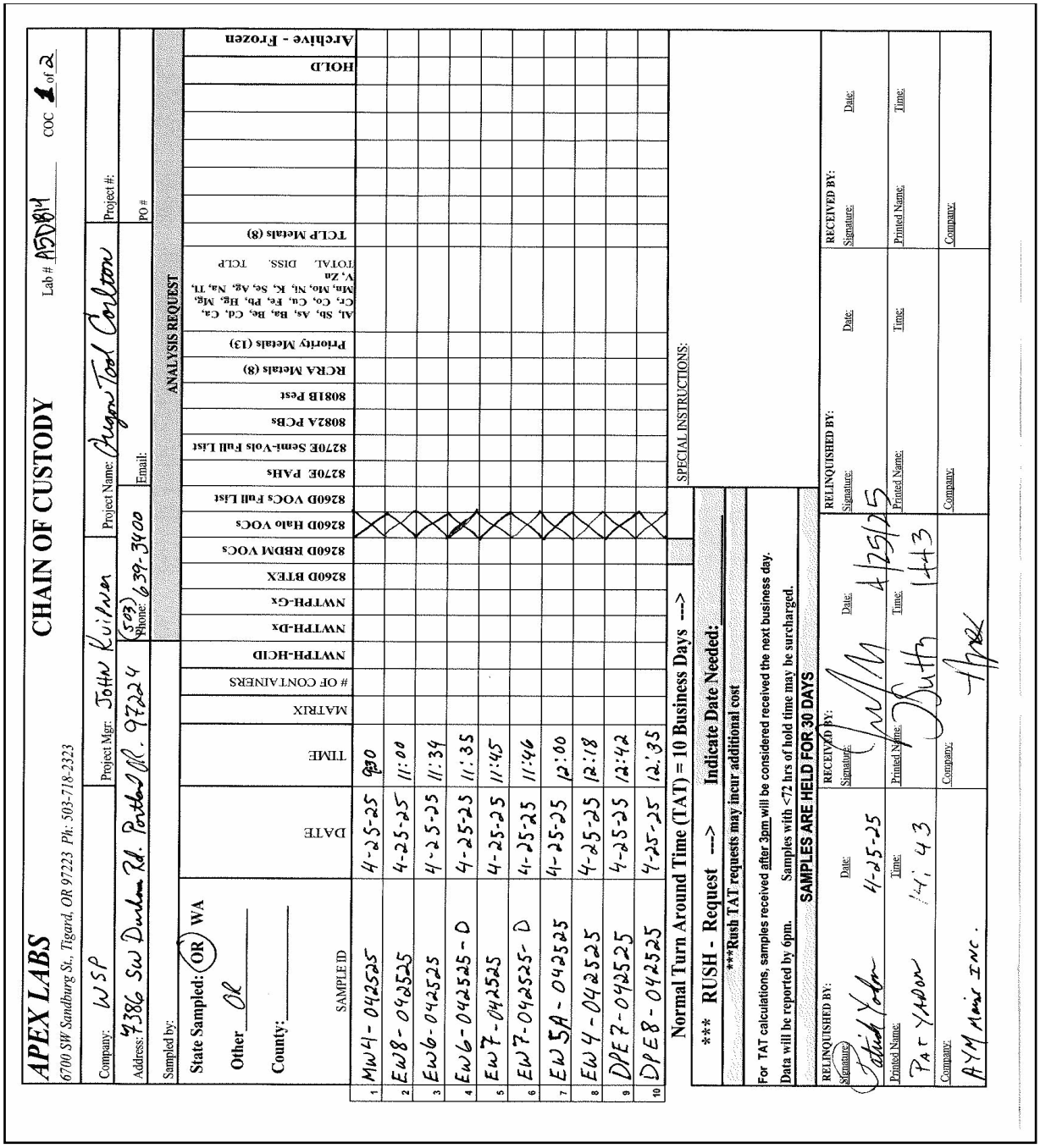
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APEX LABS — CHAIN OF CUSTODY — Lab # A5D1814 — COC 1 of 2
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

Company: WSP | Project Mgr: John Kuiper | Project Name: Sugar Tool Carlton | Project #:
Address: 7386 SW Dunlap Rd. Portland OR. 97224 | Phone: (503) 639-3400 | Email: | PO #
Sampled by:

State Sampled: (OR) WA
Other OR
County:

ANALYSIS REQUEST

#	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	HOLD	Archive - Frozen
1	MW41-042525	4-25-25	900								X										
2	EW8-042525	4-25-25	11:00								X										
3	EW6-042525	4-25-25	11:34								X										
4	EW6-042525-D	4-25-25	11:35								X										
5	EW7-042525	4-25-25	11:45								X										
6	EW7-042525-D	4-25-25	11:46								X										
7	EW5A-042525	4-25-25	12:00								X										
8	EW4-042525	4-25-25	12:18								X										
9	DPE7-042525	4-25-25	12:42								X										
10	DPE8-042525	4-25-25	12:35								X										

Normal Turn Around Time (TAT) = 10 Business Days --->

SPECIAL INSTRUCTIONS:

*** RUSH - Request ---> Indicate Date Needed:
***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Patrick Yadon Date: 4-25-25 Time: 14:43 Printed Name: Pat Yadon Company: AYM Associates Inc.

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

RELINQUISHED BY: Signature: Date: 4/25/25 Time: 1443 Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

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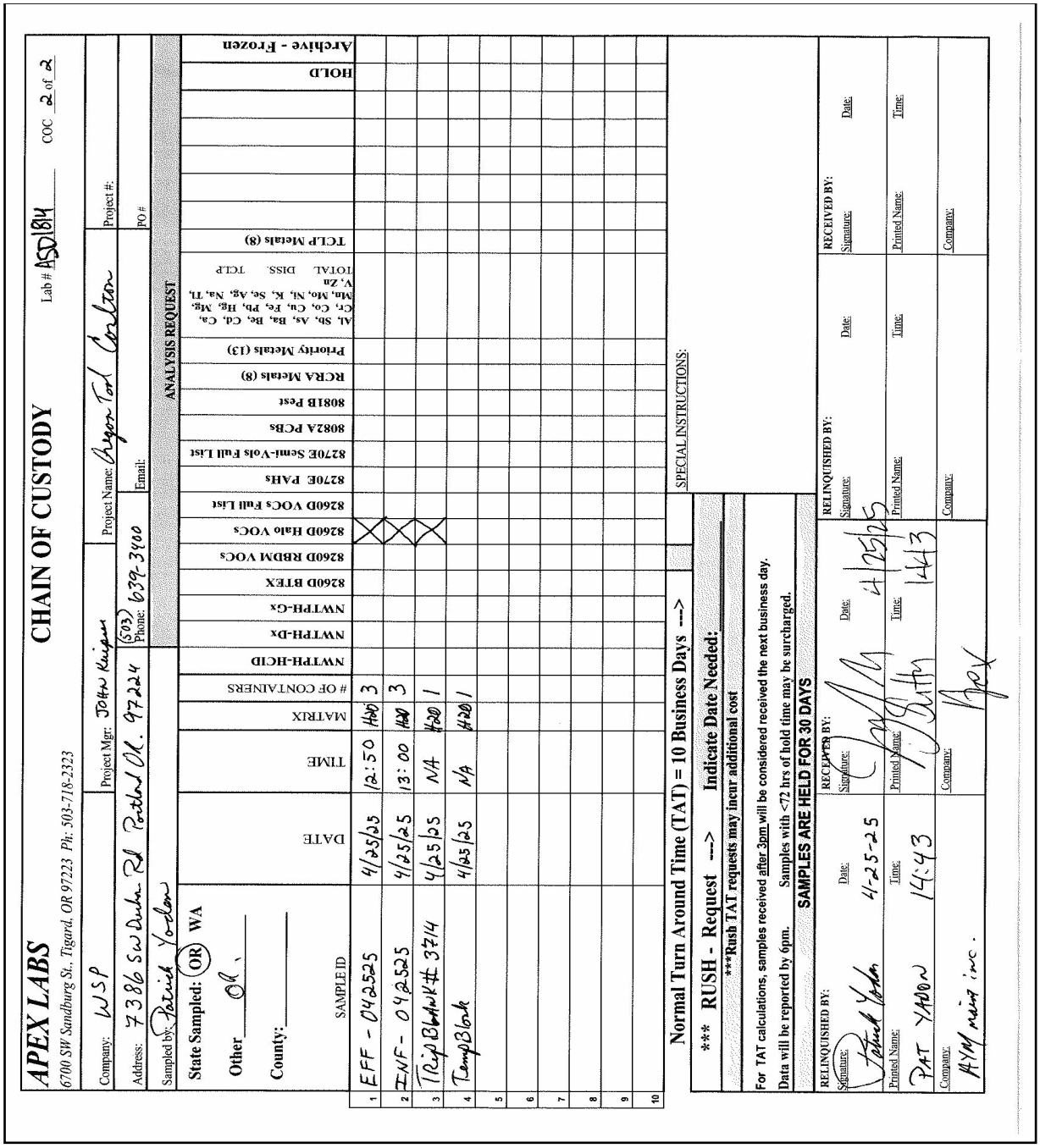
Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**



APEX LABS — CHAIN OF CUSTODY — COC 2 of 2
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323
Lab # A5D1814

Company: WSP | Project Mgr: John Kuiper | Project Name: Oregon Tool Carlton | Project #:
Address: 7386 SW Dunham Rd Portland OR. 97224 | (503) Phone: 639-3400 | Email: | PO #
Sampled by: Patrick Yoder

State Sampled: (OR) WA
Other ____
County: ____

ANALYSIS REQUEST

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260D Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	HOLD	Archive - Frozen
1	EFF - 042525	4/25/25	12:50	H2O	3						X										
2	ENF - 042525	4/25/25	13:00	H2O	3						X										
3	Trip Blank #3714	4/25/25	N/A	H2O	1						X										
4	Temp Blank	4/25/25	N/A	H2O	1																
5																					
6																					
7																					
8																					
9																					
10																					

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days --->

*** RUSH - Request ---> Indicate Date Needed:

***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day.
Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Patrick Yoder Date: 4-25-25 Time: 14:43 Printed Name: PAT YADON Company: AYM marketing inc.

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

RELINQUISHED BY: Signature: Date: 4/25/25 Time: 1443 Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5D1814 - 05 08 25 1645**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5D1814

Project/Project #: Oregon Tool Carlton

Delivery Info:

Date/time received: 4/25/25 @ 1443 By: JS

Delivered by: Apex__Client✓ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No ✓

Cooler Inspection Date/time inspected: 4/25/25 @ 1444 By: JS

Chain of Custody included? Yes ✓ No ____

Signed/dated by client? Yes ✓ No ____

Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.4						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 4/25/25 @ 15:11 By:

All samples intact? Yes ✓ No ___ Comments:

Bottle labels/COCs agree? Yes ✓ No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No ✓

Containers/volumes received appropriate for analysis? Yes ✓ No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No ✓ NA ✓ 4/25/25

Comments

Water samples: pH checked: Yes___No___NA✓ pH appropriate? Yes___No___NA✓ pH ID:

Comments:

TB# 3714

Labeled by: Witness: Cooler Inspected by:

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

Friday, June 6, 2025

John Kuiper
WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

RE: A5E1738 - OR Tool/Carlton Remedy - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5E1738, which was received by the laboratory on 5/27/2025 at 12:49:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 0.1 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EFF-052725	A5E1738-01	Water	05/27/25 11:15	05/27/25 12:49
INF-052725	A5E1738-02	Water	05/27/25 11:30	05/27/25 12:49
Trip-052725	A5E1738-03	Water	05/27/25 00:00	05/27/25 12:49

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-052725 (A5E1738-01)				**Matrix: Water**		**Batch: 25E0911**		
Bromobenzene	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/28/25 19:41	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/28/25 19:41	EPA 8260D	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EFF-052725 (A5E1738-01)				**Matrix: Water**		**Batch: 25E0911**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/28/25 19:41	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/28/25 19:41	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/28/25 19:41	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/28/25 19:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*05/28/25 19:41*	*EPA 8260D*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*05/28/25 19:41*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*05/28/25 19:41*	*EPA 8260D*	
INF-052725 (A5E1738-02)				**Matrix: Water**		**Batch: 25E0911**		
Bromobenzene	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Bromochloromethane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Bromoform	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Bromomethane	ND	---	12.5	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Chlorobenzene	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Chloroethane	ND	---	12.5	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Chloroform	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Chloromethane	ND	---	12.5	ug/L	2.5	05/28/25 23:54	EPA 8260D	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Dibromomethane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
INF-052725 (A5E1738-02)				**Matrix: Water**		**Batch: 25E0911**		
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1-Dichloroethene	**1.50**	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
cis-1,2-Dichloroethene	**124**	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Methylene chloride	ND	---	25.0	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Tetrachloroethene (PCE)	**4.75**	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	05/28/25 23:54	EPA 8260D	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Vinyl chloride	**1.20**	---	0.500	ug/L	2.5	05/28/25 23:54	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:*	*80-120 %*	*1*	*05/28/25 23:54*	*EPA 8260D*
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*05/28/25 23:54*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*05/28/25 23:54*	*EPA 8260D*
INF-052725 (A5E1738-02RE1)				**Matrix: Water**		**Batch: 25E0979**		
Trichloroethene (TCE)	**485**	---	100	ug/L	250	05/29/25 19:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*05/29/25 19:06*	*EPA 8260D*
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*05/29/25 19:06*	*EPA 8260D*
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*05/29/25 19:06*	*EPA 8260D*

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-052725 (A5E1738-03)				**Matrix: Water**		**Batch: 25E0911**		
Bromobenzene	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/28/25 17:34	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/28/25 17:34	EPA 8260D	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

ANALYTICAL SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip-052725 (A5E1738-03)				**Matrix: Water**		**Batch: 25E0911**		
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/28/25 17:34	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/28/25 17:34	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/28/25 17:34	EPA 8260D	
Vinyl chloride	ND	---	0.200	ug/L	1	05/28/25 17:34	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*98 %*	*Limits:* *80-120 %*	*1*	*05/28/25 17:34*	*EPA 8260D*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*05/28/25 17:34*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*05/28/25 17:34*	*EPA 8260D*	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Blank (25E0911-BLK1)			Prepared: 05/28/25 13:00 Analyzed: 05/28/25 16:30									
EPA 8260D												
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5E1738 - 06 06 25 1745

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							Water					
Blank (25E0911-BLK1)			Prepared: 05/28/25 13:00 Analyzed: 05/28/25 16:30									
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
LCS (25E0911-BS1)			Prepared: 05/28/25 13:00 Analyzed: 05/28/25 15:02									
EPA 8260D												
Bromobenzene	18.8	---	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Bromochloromethane	22.2	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Bromodichloromethane	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromoform	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
Bromomethane	26.3	---	5.00	ug/L	1	20.0	---	**132**	**80-120%**	---	---	Q-56
Carbon tetrachloride	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
Chlorobenzene	19.6	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	21.6	---	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
Chloroform	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	18.1	---	5.00	ug/L	1	20.0	---	90	80-120%	---	---	
2-Chlorotoluene	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
4-Chlorotoluene	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromochloromethane	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.2	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.7	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	

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Philip Nerenberg, Lab Director

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APEX LABORATORIES

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
LCS (25E0911-BS1)			Prepared: 05/28/25 13:00		Analyzed: 05/28/25 15:02							
1,3-Dichlorobenzene	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,4-Dichlorobenzene	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	23.2	---	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,1-Dichloroethane	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichloroethane (EDC)	20.8	---	0.400	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloroethene	21.8	---	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,2-Dichloroethene	20.5	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
trans-1,2-Dichloroethene	20.4	---	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,2-Dichloropropane	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,3-Dichloropropane	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
2,2-Dichloropropane	21.2	---	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,1-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
cis-1,3-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
trans-1,3-Dichloropropene	23.5	---	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
Hexachlorobutadiene	20.7	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
Methylene chloride	18.5	---	10.0	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.9	---	0.400	ug/L	1	20.0	---	110	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.3	---	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Tetrachloroethene (PCE)	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,3-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,2-Trichloroethane	20.4	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,2,4-Trichlorobenzene	19.7	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,1,1-Trichloroethane	21.0	---	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
Trichloroethene (TCE)	19.2	---	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichlorofluoromethane	28.5	---	2.00	ug/L	1	20.0	---	**142**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Vinyl chloride	23.3	---	0.200	ug/L	1	20.0	---	117	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Duplicate (25E0911-DUP1)			Prepared: 05/28/25 07:57		Analyzed: 05/29/25 00:58							**V-01**
QC Source Sample: Non-SDG (A5E1706-01)												
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

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Philip Nerenberg, Lab Director

APEX LABORATORIES

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Duplicate (25E0911-DUP1)			Prepared: 05/28/25 07:57		Analyzed: 05/29/25 00:58							**V-01**
QC Source Sample: Non-SDG (A5E1706-01)												
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Duplicate (25E0911-DUP1)			Prepared: 05/28/25 07:57 Analyzed: 05/29/25 00:58									**V-01**
QC Source Sample: Non-SDG (A5E1706-01)												
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**6.70**	---	4.00	ug/L	10	---	9.10	---	---	30	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*105 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (25E0911-DUP2)			Prepared: 05/28/25 07:57 Analyzed: 05/29/25 00:16									
QC Source Sample: INF-052725 (A5E1738-02)												
EPA 8260D												
Bromobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromoform	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Bromomethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Chloroethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Chloroform	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Chloromethane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dibromomethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Duplicate (25E0911-DUP2)			Prepared: 05/28/25 07:57 Analyzed: 05/29/25 00:16									
QC Source Sample: INF-052725 (A5E1738-02)												
1,2-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloroethene	**1.42**	---	1.00	ug/L	2.5	---	1.50	---	---	5	30%	
cis-1,2-Dichloroethene	**125**	---	1.00	ug/L	2.5	---	124	---	---	0.4	30%	
trans-1,2-Dichloroethene	ND	---	1.00	ug/L	2.5	---	0.900	---	---	***	30%	
1,2-Dichloropropane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	12.5	ug/L	2.5	---	ND	---	---	---	30%	
Methylene chloride	ND	---	25.0	ug/L	2.5	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**4.88**	---	1.00	ug/L	2.5	---	4.75	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	1.25	ug/L	2.5	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	1.00	ug/L	2.5	---	ND	---	---	---	30%	
Trichloroethene (TCE)	**513**	---	1.00	ug/L	2.5	---	518	---	---	0.9	30%	E
Trichlorofluoromethane	ND	---	5.00	ug/L	2.5	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	2.50	ug/L	2.5	---	ND	---	---	---	30%	
Vinyl chloride	**1.18**	---	0.500	ug/L	2.5	---	1.20	---	---	2	30%	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 99 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*104 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*99 %*	*80-120 %*	*"*

Matrix Spike (25E0911-MS1) Prepared: 05/28/25 07:57 Analyzed: 05/28/25 18:58

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Philip Nerenberg, Lab Director

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503-718-2323
ORELAP ID: **OR100062**

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Matrix Spike (25E0911-MS1)			Prepared: 05/28/25 07:57		Analyzed: 05/28/25 18:58							
QC Source Sample: Non-SDG (A5E1753-01)												
EPA 8260D												
Bromobenzene	20.5	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Bromochloromethane	23.9	---	1.00	ug/L	1	20.0	ND	120	78-123%	---	---	
Bromodichloromethane	23.7	---	1.00	ug/L	1	20.0	ND	119	79-125%	---	---	
Bromoform	19.4	---	1.00	ug/L	1	20.0	ND	97	66-130%	---	---	
Bromomethane	30.8	---	5.00	ug/L	1	20.0	ND	**154**	**53-141%**	---	---	Q-54
Carbon tetrachloride	26.7	---	1.00	ug/L	1	20.0	ND	134	72-136%	---	---	
Chlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
Chloroethane	25.5	---	5.00	ug/L	1	20.0	ND	128	60-138%	---	---	
Chloroform	22.8	---	1.00	ug/L	1	20.0	ND	114	79-124%	---	---	
Chloromethane	21.4	---	5.00	ug/L	1	20.0	ND	107	50-139%	---	---	
2-Chlorotoluene	23.1	---	1.00	ug/L	1	20.0	ND	116	79-122%	---	---	
4-Chlorotoluene	23.4	---	1.00	ug/L	1	20.0	ND	117	78-122%	---	---	
Dibromochloromethane	20.3	---	1.00	ug/L	1	20.0	ND	101	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.9	---	5.00	ug/L	1	20.0	ND	99	62-128%	---	---	
1,2-Dibromoethane (EDB)	22.1	---	0.500	ug/L	1	20.0	ND	110	77-121%	---	---	
Dibromomethane	22.4	---	1.00	ug/L	1	20.0	ND	112	79-123%	---	---	
1,2-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,3-Dichlorobenzene	21.7	---	0.500	ug/L	1	20.0	ND	108	80-120%	---	---	
1,4-Dichlorobenzene	21.2	---	0.500	ug/L	1	20.0	ND	106	79-120%	---	---	
Dichlorodifluoromethane	27.9	---	1.00	ug/L	1	20.0	ND	139	32-152%	---	---	
1,1-Dichloroethane	23.0	---	0.400	ug/L	1	20.0	ND	115	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.5	---	0.400	ug/L	1	20.0	ND	112	73-128%	---	---	
1,1-Dichloroethene	25.7	---	0.400	ug/L	1	20.0	ND	129	71-131%	---	---	
cis-1,2-Dichloroethene	23.0	---	0.400	ug/L	1	20.0	ND	115	78-123%	---	---	
trans-1,2-Dichloroethene	22.8	---	0.400	ug/L	1	20.0	ND	114	75-124%	---	---	
1,2-Dichloropropane	22.4	---	0.500	ug/L	1	20.0	ND	112	78-122%	---	---	
1,3-Dichloropropane	21.8	---	1.00	ug/L	1	20.0	ND	109	80-120%	---	---	
2,2-Dichloropropane	24.2	---	1.00	ug/L	1	20.0	ND	121	60-139%	---	---	
1,1-Dichloropropene	25.0	---	1.00	ug/L	1	20.0	ND	125	79-125%	---	---	
cis-1,3-Dichloropropene	23.5	---	1.00	ug/L	1	20.0	ND	117	75-124%	---	---	
trans-1,3-Dichloropropene	25.1	---	1.00	ug/L	1	20.0	ND	125	73-127%	---	---	
Hexachlorobutadiene	23.1	---	5.00	ug/L	1	20.0	ND	116	66-134%	---	---	

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ORELAP ID: OR100062

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0911 - EPA 5030C							**Water**					
Matrix Spike (25E0911-MS1)			Prepared: 05/28/25 07:57		Analyzed: 05/28/25 18:58							
QC Source Sample: Non-SDG (A5E1753-01)												
Methylene chloride	19.6	---	10.0	ug/L	1	20.0	ND	98	74-124%	---	---	
1,1,1,2-Tetrachloroethane	23.8	---	0.400	ug/L	1	20.0	ND	119	78-124%	---	---	
1,1,2,2-Tetrachloroethane	24.4	---	0.500	ug/L	1	20.0	ND	**122**	**71-121%**	---	---	Q-01
Tetrachloroethene (PCE)	21.0	---	0.400	ug/L	1	20.0	ND	105	74-129%	---	---	
1,2,3-Trichlorobenzene	21.1	---	2.00	ug/L	1	20.0	ND	106	69-129%	---	---	
1,1,2-Trichloroethane	21.9	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,2,4-Trichlorobenzene	21.8	---	2.00	ug/L	1	20.0	ND	109	69-130%	---	---	
1,1,1-Trichloroethane	24.0	---	0.400	ug/L	1	20.0	ND	120	74-131%	---	---	
Trichloroethene (TCE)	21.6	---	0.400	ug/L	1	20.0	ND	108	79-123%	---	---	
Trichlorofluoromethane	34.4	---	2.00	ug/L	1	20.0	ND	**172**	**65-141%**	---	---	Q-54a
1,2,3-Trichloropropane	21.9	---	1.00	ug/L	1	20.0	ND	110	73-122%	---	---	
Vinyl chloride	28.3	---	0.200	ug/L	1	20.0	ND	**141**	**58-137%**	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				

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ANALYTICAL REPORT

WSP USA Inc.	Project: OR Tool/Carlton Remedy	
15862 SW 72nd Ave. Suite 150	Project Number: [none]	Report ID:
Portland, OR 97224	Project Manager: John Kuiper	A5E1738 - 06 06 25 1745

QUALITY CONTROL (QC) SAMPLE RESULTS

Halogenated Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 25E0979 - EPA 5030C												**Water**
Blank (25E0979-BLK1)			Prepared: 05/29/25 11:05 Analyzed: 05/29/25 13:38									
EPA 8260D												
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*101 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*99 %*	*80-120 %*		*"*							
LCS (25E0979-BS1)			Prepared: 05/29/25 11:05 Analyzed: 05/29/25 12:44									
EPA 8260D												
Trichloroethene (TCE)	18.0	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 98 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*101 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*93 %*	*80-120 %*		*"*							
Duplicate (25E0979-DUP1)			Prepared: 05/29/25 11:05 Analyzed: 05/29/25 17:44									
QC Source Sample: Non-SDG (A5E1782-01)												
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*103 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*101 %*	*80-120 %*		*"*							
Matrix Spike (25E0979-MS1)			Prepared: 05/29/25 11:05 Analyzed: 05/29/25 18:11									
QC Source Sample: Non-SDG (A5E1792-05)												
EPA 8260D												
Trichloroethene (TCE)	18.6	---	0.400	ug/L	1	20.0	ND	93	79-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 100 %*	*Limits: 80-120 %*		*Dilution: 1x*							
Toluene-d8 (Surr)		*99 %*	*80-120 %*		*"*							
4-Bromofluorobenzene (Surr)		*90 %*	*80-120 %*		*"*							

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Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

SAMPLE PREPARATION INFORMATION

Halogenated Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 25E0911							
A5E1738-01	Water	EPA 8260D	05/27/25 11:15	05/28/25 16:03	5mL/5mL	5mL/5mL	1.00
A5E1738-02	Water	EPA 8260D	05/27/25 11:30	05/28/25 16:03	5mL/5mL	5mL/5mL	1.00
A5E1738-03	Water	EPA 8260D	05/27/25 00:00	05/28/25 16:03	5mL/5mL	5mL/5mL	1.00
Batch: 25E0979							
A5E1738-02RE1	Water	EPA 8260D	05/27/25 11:30	05/29/25 13:22	5mL/5mL	5mL/5mL	1.00

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

E	Estimated Value. The result is above the calibration range of the instrument.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +22%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted.
V-01	Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Validated Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting and Detection Limits: Default Limits

Default Reporting and Detection Limits are based on 100% dry weight with the minimum dilution for the analysis. Reporting and Detection Limits are raised due to moisture content, additional dilutions required for analysis, matrix interferences and in other cases, as necessary.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.
-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

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15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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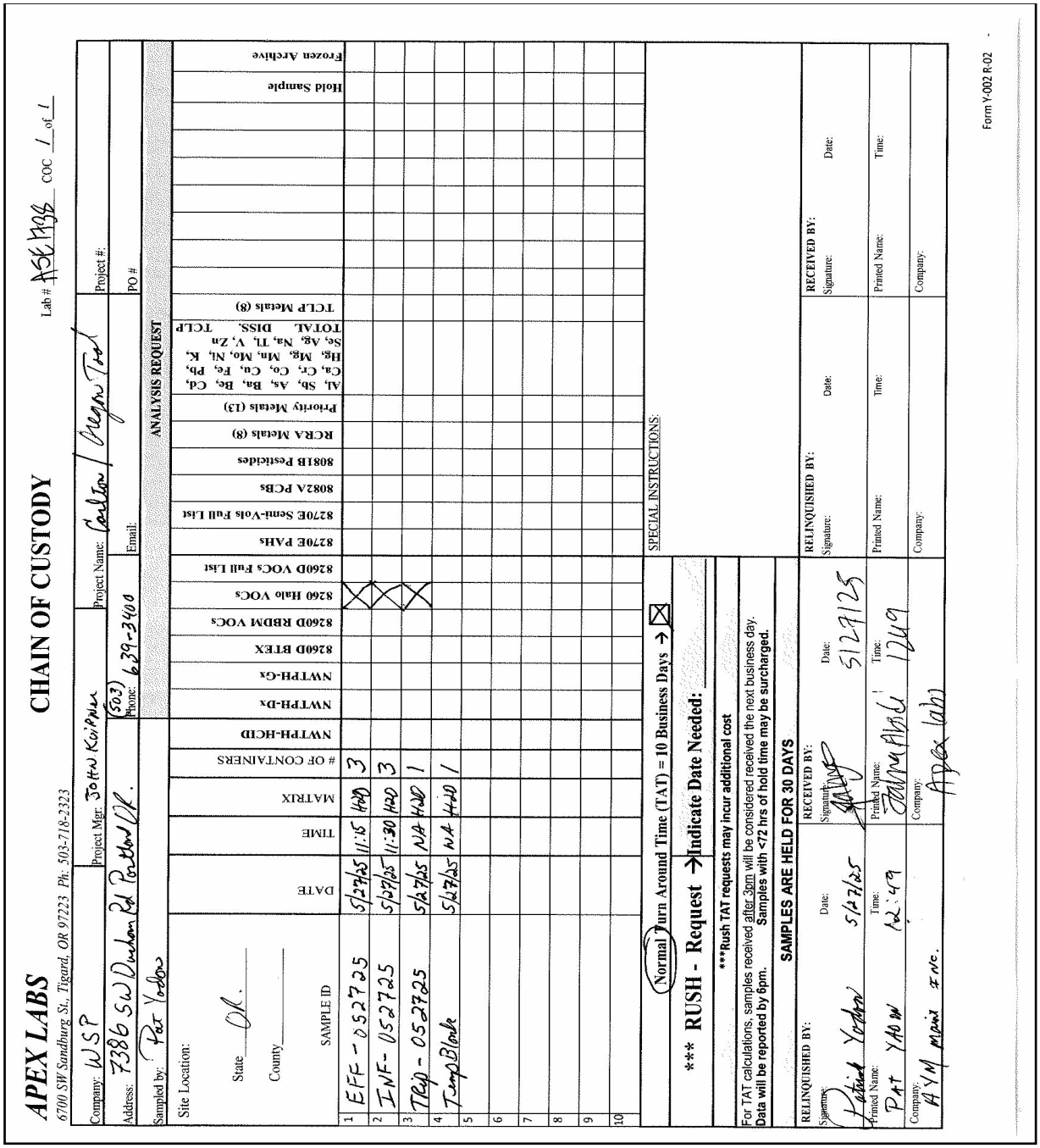
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ANALYTICAL REPORT

WSP USA Inc.
15862 SW 72nd Ave. Suite 150
Portland, OR 97224

Project: **OR Tool/Carlton Remedy**
Project Number: **[none]**
Project Manager: **John Kuiper**

Report ID:
A5E1738 - 06 06 25 1745



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A5E1738 COC 1 of 1

Company: WSP | Project Mgr: John Kuiper | Project Name: Carlton / Oregon Tool | Project #:
Address: 7386 SW Durham Rd Portland OR. | Phone: (503) 639-3400 | Email: | PO #
Sampled by: Pat Yadon

ANALYSIS REQUEST

	SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260D BTEX	8260D RBDM VOCs	8260 Halo VOCs	8260D VOCs Full List	8270E PAHs	8270E Semi-Vols Full List	8082A PCBs	8081B Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
1	EFF - 052725	5/27/25	11:15	H2O	3						X										
2	INF - 052725	5/27/25	11:30	H2O	3						X										
3	TRIP - 052725	5/27/25	NA	H2O	1						X										
4	Trip Blank	5/27/25	NA	H2O	1																
5																					
6																					
7																					
8																					
9																					
10																					

Site Location: State OR. County

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days →

*** RUSH - Request → Indicate Date Needed:

***Rush TAT requests may incur additional cost

For TAT calculations, samples received after 3pm will be considered received the next business day. Data will be reported by 6pm. Samples with <72 hrs of hold time may be surcharged.

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	Date:	RECEIVED BY:	Date:	RELINQUISHED BY:	Date:	RECEIVED BY:	Date:
Signature: Patrick Yadon	5/27/25	Signature:	5/29/25	Signature:		Signature:	
Printed Name: Pat Yadon	Time: 12:49	Printed Name:	Time: 1249	Printed Name:	Time:	Printed Name:	Time:
Company: APEX Labs		Company:		Company:		Company:	

Form Y-002 R-02

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director

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ANALYTICAL REPORT

WSP USA Inc.	Project: **OR Tool/Carlton Remedy**	
15862 SW 72nd Ave. Suite 150	Project Number: **[none]**	**Report ID:**
Portland, OR 97224	Project Manager: **John Kuiper**	**A5E1738 - 06 06 25 1745**

APEX LABS COOLER RECEIPT FORM

Client: WSP Element WO#: A5E1738

Project/Project #: Coalition / Oregon Tool
Carlton A5E1738

Delivery Info:

Date/time received: 5/27/25 @ 1249 By: JA

Delivered by: Apex__Client ✓ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ____ No ✓

Cooler Inspection Date/time inspected: 5/27/25 @ 1249 By: JA

Chain of Custody included? Yes ✓ No ____

Signed/dated by client? Yes ✓ No ____

Contains USDA Reg. Soils? Yes ____ No ✓ Unsure (email RegSoils) ____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.1						
Custody seals? (Y/N)	Y						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 5/27/25 @ 1514 By: APW

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments ____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID: ____

Comments: ____

TB#3092

Labeled by: APW Witness: JA Cooler Inspected by: APW

Form Y-003 R-02

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APPENDIX B

Cross Section and Well Construction Summary

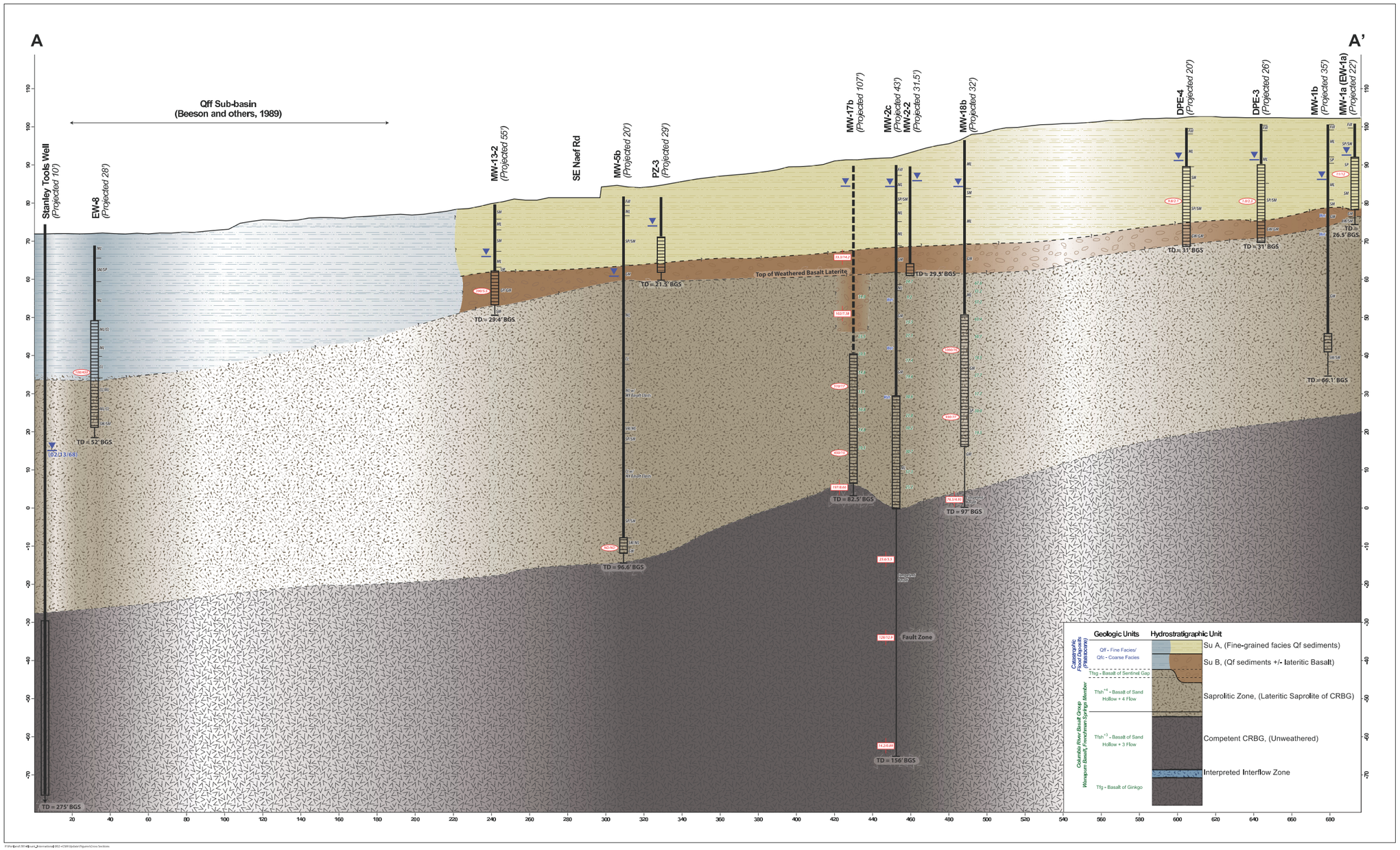


FIGURE 5

Cross Section A-A'
Detailed Segment
Hydrogeology
Blount International, Inc.
Carlton Facility Remedy

LEGEND

- 9.8/2.1 — TCE/cDCE Well Sample (µg/L)
- 76.5/4.95 — TCE/cDCE Borehole Sample (µg/L)
- 9.2 — Percent Fines (percent passing 200 sieve)
- Wet — Moisture
- Static Water Level (measured 10/04/10)
- Boring (dashed, where located greater than 60' from cross section line)
- Boring (solid, located within 60' from cross section line)
- Open Borehole
- Screened or Perforated Interval
- Backfilled Borehole

NOTES

ToB - Top of Basalt
BGS - Below Ground Surface
TD - Total Depth

- Subunit B/Saprolitic Zone contact interpreted from geologic borehole geophysical logs
- Saprolitic Zone/Competent Basalt contact interpreted from borehole geologic logs and geophysical surveys (CH2M HILL, 1992)

SCALE
10 feet
2x Vertical Exaggeration
20 feet

GSI Water Solutions, Inc.

APPENDIX B
Well Completion Details
Oregon Tool-Carlton Facility, Milwaukie, Oregon

Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
Non-Operating Extraction Wells												
EW-1	SU A&B	3/5/1996	101.33	100.98	99.33	31.9	13.5	6	13.4–28.9	0.012	11.3–29.9	20x40/16x30[a]
DPE-1 (EW-1)	SU A&B	10/30/2002	same	99.31	99.31	same	same	same	same	same	same	same
DPE-2***	SU A&B	2/21/2001	100.56	100.35	100.35	32	12	4	5.0–30.0	0.01	4.0–32.0	20x40
DPE-3	SU A&B	3/12/2002	101.06	100.74	100.74	31	12	4	10.0–31.0	0.01	9.0–31.0	20x40
DPE-4	SU A&B	3/11/2002	100.42	100	100	31	12	4	10.0–31.0	0.01	9.0–31.0	20x40
DPE-5	SU A&B	3/11/2002	100.99	100.71	100.71	31	12	4	10.0–31.0	0.01	9.0–31.0	20x40
DPE-6	SU A&B	3/12/2002	101.02	100.63	100.63	31	12	4	10.0–31.0	0.01	9.0–31.0	20x40
Operating Extraction Wells												
EW-3	SU A&B	10/8/1996	98.3	97.9	97.95	38.1	12	4	14.8–34.3	0.01	11.9–35.3	16x30
DPE-7 (EW-3)	SU A&B	10/30/2002	same	98.02	98.02	same	same	same	same	same	same	same
EW-2	SU A&B	3/7/1996	92.9	92.6	92.94	36.5	13.5	6	17.6–33.0	0.012	15.6–33.9	20x40/10x20[a]
DPE-8 (EW-2)	SU A&B	10/30/2002	same	93	93	same	same	same	same	same	same	same
EW-4	SU A&B	10/10/1996	87.7	87.2	87.3	31.1	12	4	13.6–28.0	0.01	11.4–29.0	16x30
EW-5a	SU A&B	5/3/1991	82.09	81.62	81.73	21.3	12	4	9.3–19.3	0.01	7.3–20.3	10x20
EW-6	SU A&B	10/4/1996	79.2	78.7	78.74	29.6	12	4	12.1–26.5	0.01	9.7–27.7	16x30
EW-7	SU A&B	10/1/1996	87.3	86.6	86.67	34.4	12	4	11.5–31.3	0.01	9.5–32.6	16x30
EW-8	Qff & WB	1/6/2002	70.7	70.22	70.22	52	12	4	20.0–50.0	0.01	18.0–52.0	10x20
Shallow Monitoring Wells												
CRC-1	SU A	5/20/1994	96.3	96.07	96.07	21.5	9	2	5.0–20.0	0.02	3.0–20.0	8x12
CRC-2[b]	SU A	10/22/1994	98.2	97.82	97.82	25.5	9	2	14.0–24.0	0.01	12.0–24.0	8x12
CRC-3[b]	SU A	10/22/1994	97.6	97.06	97.06	24	9	2	14.0–24.0	0.01	12.0–24.0	8x12
CRC-4[b]	SU A	7/20/1995	94.19	93.71	93.71	24	9	2	12.0–22.0	0.02	10.0–22.0	12x20
CRC-6[b]	SU B	7/20/1995	97.86	97.46	97.46	43.5	9	2	37.5–43.0	0.02	35.0–43.0	12x20
CRC-7	SU B	7/20/1995	96.6	96.05	96.05	38.5	9	2	32.0–37.0	0.02	29.0–37.0	12x20
CRC-9[b]	SU A	11/22/1995	98.81	98.45	98.45	26.5	9	2	15.0–25.0	0.02	13.0–25.0	12x20
CRC-10[b]	SU A	11/22/1995	103.8	103.52	103.52	27	9	2	17.0–26.5	0.02	15.0–26.5	10x20
MW-1a (EW-1a)	SU A	1/25/1990	101.59	101.26	99.59	26.5	10	2	6–21	0.01	4.5–22	10x20
MW-2-1	SU A	1/26/1990	92.29	91.59	91.59	24	10	2	7.0–22.0	0.01	5.5–24.0	10x20
MW-2-2	SU B	2/16/1996	91.46	90.97	90.97	29.5	10	2	25.8–28.3	0.01	24.4–28.7	16x30/10x20[a]
MW-3***	SU A	1/29/1990	97.53	96.86	96.86	24	10	2	7.0–22.0	0.01	5.5–24.0	10x20
MW-3R	SU A	3/10/2017	96.6	96.16	96.16	22.5	10	2	7.22	0.01	5.5-22.5	10x20
MW-4	SU A&B	4/26/1990	118.1	119.16	119.16	50.5	10	2	20.0–35.0	0.01	17.5–38.5	10x20
MW-6a	Qff	5/1/1991	68.38	67.96	67.96	23.8	10	2	12.0–22.0	0.01	10.0–23.8	10x20
MW-7a	Qff	5/2/1991	67.28	67.02	67.02	18.4	10	2	7.6–17.6	0.01	5.6–18.4	10x20
MW-8	SU A	4/30/1991	87.74	87.21	87.21	22	10	2	10.3–20.3	0.01	8.0–22.0	10x20
MW-9b	SU A	1/13/1995	80.8	83.53	83.53	36	10	2	28.7–33.8	0.01	27.0–36.0	10x20
MW-10-1	SU A	2/27/1996	101.06	100.58	100.58	21	10	2	10.9–20.5	0.01	8.7–21.0	16x30
MW-10-2	SU B	2/26/1996	101.05	100.71	100.71	32.5	10	2	24.8–31.1	0.01	23.5–31.3	16x30
MW-11-1	SU A	2/20/1996	90.1	89.74	89.74	20.4	10	2	10.4–19.7	0.01	8.0–20.4	16x30
MW-11-2	SU B	2/19/1996	90.5	90.22	90.22	32.5	10	2	22.9–27.7	0.01	22.0–30.0	16x30
MW-12	SU A	10/8/1996	100.1	99.6	99.6	21.5	6	2	11.2–20.7	0.01	8.9–21.5	16x30

APPENDIX B
Well Completion Details
Oregon Tool-Carlton Facility, Milwaukie, Oregon

Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
MW-13-2	SU B	10/12/1996	80.7	80.27	80.27	29.4	10	2	18.6–27.5	0.01	17.6–29.4	16x30
MW-14	SU A	10/2/1996	83.2	82.81	82.81	21.8	10	2	9.9–19.4	0.01	7.8–20.3	16x30
MW-15-1	SU A	10/2/1996	89.9	89.44	89.44	20.4	10	2	10.2–19.7	0.01	8.0–20.4	16x30
MW-15-2	SU B	10/2/1996	89.6	89.06	89.06	34.5	10	2	24.6–32.6	0.01	24.0–34.0	16x30
MW-16a	Qff	2/4/2004	67.1	66.73	66.73	21	7	2	10.0–20.0	0.01	8.5–21	10x20
MW-19-1	SU A	11/7/2011	101.8	101.18	101.18	18	6	2	12-18	0.01	11-18.2	10x20
MW-19-2	SU B	11/4/2011	101.8	101.4	101.4	30	10/8	4	19.5-22.5	0.01	18.5-24	10x20
MW-20-1	SU A	10/26/2011	101.8	101.49	101.49	21.5	6	2	9-19	0.01	8.5-19.5	10x20
MW-20-2	SU B	10/26/2011	101.7	101.26	101.26	23	6	2	20.5-22.5	0.01	20-22.5	10x20
MW-21-1	Fill/SU A	10/27/2011	101.8	101.5	101.5	16	6	2	9-16	0.01	7.5-16.5	10x20
MW-21-2	SU A	10/27/2011	101.8	101.39	101.39	35	6	2	19-24	0.01	17.5-24.5	10x20
MW-22-1	SU A	9/22/2011	97.6	97.34	97.34	22.5	6	2	12-22	0.01	10-22.5	10x20
MW-22-2	SU B	9/26/2011	97.2	96.71	96.71	40	6	2	27-37	0.01	26.5-38	10x20
MW-23-1	SU A	9/22/2011	94.9	94.39	94.39	20.5	6	2	10-20	0.01	9-20.5	10x20
MW-23-2	SU B	9/21/2011	94.36	Decommissioned		35	6	2	28-30	0.01	27.5-31	10x20
MW-23-2R	SU B	1/16/2012	93.9	93.58	93.58	31.3	6	2	28-31	0.01	27-36.3	10x20
MW-24-1	SU A	10/3/2012	101.8	101.58	101.58	17	4.25	2	11-16	0.01	10-17	10x20
MW-25-1	SU A	10/3/2012	101.8	101.49	101.49	23	4.25	2	13-18	0.01	12-18	10x20
MW-26-1	SU A	10/6/2012	101.8	101.57	101.57	20	4.25	2	11.5-19	0.01	10.5-19	10x20
MW-27-1	SU A	10/6/2012	101.8	101.47	101.47	19	4.25	2	11.5-19	0.01	10.5-19.5	10x20
MW-28-2	SU B	2/27/2014	NM	NM	NM	23	4	2	19.8-22.8	0.01	19-23	10x20
MW-29-1	SU A	2/27/2014	NM	NM	NM	18.3	4	2	8-18	0.01	7-18	10x20
MW-30-1	SU A	3/3/2014	NM	NM	NM	18.3	4	2	8-18	0.01	7-18.3	10x20
MW-31-1	SU A	2/27/2014	NM	NM	NM	18.3	4	2	8-18	0.01	7-18.3	10x20
MW-32-2	SU B	3/5/2014	NM	NM	NM	24.2	3.75	2	20-24.2	0.01	19-24.2	10x20
MW-33-2	SU B	3/4/2014	NM	NM	NM	22.7	3.75	2	18.9-22.7	0.01	17.9-22.7	10x20
MW-34-1	SU A	3/5/2014	NM	NM	NM	18	3.75	2	8-18	0.01	7-18	10x20
MW-35-1	SU A	3/5/2014	NM	NM	NM	18	3.75	2	8-18	0.01	7-18	10x20
MW-36-2	SU B	3/5/2014	NM	NM	NM	23	3.75	2	19-23	0.01	18-23	10x20
MW-37-2	SU B	3/7/2014	101.85	101.57	101.57	24.6	3.75	2	20.6-24.6	0.01	19-24.6	10x20
MW-38-2	SU B	3/27/2014	NM	NM	NM	23	4.25	2	19-23	0.01	18-23	10x20
MW-39-2	SU B	3/31/2014	NM	NM	NM	23	4.25	2	18-23	0.01	17-23	10x20
MW-40-2	SU B	4/1/2014	NM	NM	NM	22	4.25	2	18-22	0.01	17-22	10x20
MW-41-2*	SU B	3/14/2014	NM	NM	NM	22.6	5.75	2	17.9-22.6	0.01	16.9-22.6	10x20
MW-42-2	SU B	3/18/2014	NM	NM	NM	23	4.25	2	19-23	0.01	18-23	10x20
MW-43-1	SU A	3/25/2014	NM	NM	NM	18	3.75	2	8-18	0.01	7-18	10x20
MW-44-1	SU A	3/24/2014	NM	NM	NM	18	3.75	2	8-18	0.01	7-18	10x20
MW-45-1	SU A	3/21/2014	NM	NM	NM	18	3.75	2	8-18	0.01	7-18	10x20
MW-46-2*	SU B	3/14/2014	NM	NM	NM	23.2	5.75	2	18.4-23.2	0.01	17.5-23.2	10x20
MW-47-2	SU B	3/21/2014	NM	NM	NM	22	3.75	2	18-22	0.01	17-22	10x20
MW-48-2*	SU B	3/12/2014	NM	NM	NM	23.9	5.75	2	20-23.9	0.01	19-23.9	10x20
MW-49-2	SU B	3/20/2014	NM	NM	NM	22	3.75	2	18-22	0.01	16.5-22	10x20
MW-50-2*	SU B	3/19/2014	NM	NM	NM	21.6	5.75	2	17.3-21.6	0.01	16.5-21.6	10x20

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Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
MW-51-2	SU B	3/17/2014	NM	NM	NM	22.5	3.75	2	18.5-22.5	0.01	17-22.5	10x20
MW-52-2*	SU B	3/7/2014	NM	NM	NM	26.1	3.75	2	22-26.1	0.01	19.7-26.1	10x20
MW-53-2	SU B	3/11/2014	NM	NM	NM	23	5.75	2	19-23	0.01	18-23	10x20
MW-54-1	SU A	12/16/2014	101.81	101.51	101.51	23	3.75	2	6-18	0.01	5-18	10x20
MW-55-1	SU A	12/16/2014	101.74	101.45	101.45	25	3.75	2	8-18	0.01	7-20	10x20
MW-56-1	SU A	12/16/2014	101.77	101.79	101.79	35	3.75	2	8-18	0.01	7-20	10x20
MW-57-1	SU A	1/26/2015	101.86	101.60	101.60	18	3.75	2	8-18	0.01	7-18	10x20
MW-57-2	SU B	1/26/2015	101.86	101.56	101.56	25	3.75	2	21-24	0.01	20-25	10x20
MW-58-1	SU A	1/9/2015	101.79	101.48	101.48	20	3.75	2	10-20	0.01	9-20	10x20
MW-59-2	SU B	1/7/2015	101.85	101.61	101.61	24	3.75	2	20.2-22.2	0.01	19-24	10x20
MW-60-1	SU A	1/14/2015	101.89	101.45	101.45	19	3.75	2	9-19	0.01	8-19	10x20
MW-60-2	SU B	1/14/2015	101.88	101.58	101.58	23	3.75	2	21-23	0.01	20-23	10x20
MW-61-1	SU A	1/20/2015	101.84	101.49	101.49	18	3.75	2	8-18	0.01	7-18	10x20
MW-61-2	SU B	1/20/2015	101.85	101.56	101.56	27	3.75	2	18-26	0.01	17-27	10x20
MW-62-2	SU B	1/22/2015	101.79	101.51	101.51	17	3.75	2	8-16	0.01	7-17	10x20
MW-63-2	SU B	1/21/2015	101.89	101.54	101.54	25	3.75	2	18.5-24.5	0.01	17-25	10x20
MW-64-1	SU A	1/20/2015	101.85	101.51	101.51	18	3.75	2	8-18	0.01	7-18	10x20
MW-64-2	SU B	1/21/2015	101.84	101.5	101.5	29.5	3.75	2	25-29	0.01	24-29.5	10x20
MW-65-1	SU A	1/26/2015	101.85	101.59	101.59	24	3.75	2	14-24	0.01	13-24	10x20
MW-65-2	SU B	1/21/2015	101.83	101.36	101.36	31.5	3.75	2	28.5-30.5	0.01	27-31.5	10x20
MW-66-1	SU A	2/2/2015	97.52	97.04	97.04	27	3.75	2	12-26	0.01	11-27	10x20
MW-66-2	SU B	2/2/2015	97.92	97.51	97.51	35	3.75	2	28-34	0.01	27-35	10x20
MW-67-2	SU B	2/3/2015	96.47	96.03	96.03	36	3.75	2	27-35	0.01	26-36	10x20
MW-68-1	SU A	9/14/2015	101.77	101.49	101.49	18	4	2	8-18	0.01	7-18	10x20
MW-69-1	SU A	9/14/2015	101.74	101.49	101.49	18	4	2	8-18	0.01	7-18	10x20
MW-70-1	SU A	9/14/2015	101.75	101.4	101.4	18	4	2	8-18	0.01	7-18	10x20
MW-71-1	SU A	9/14/2015	101.75	101.25	101.25	18	4	2	8-18	0.01	7-18	10x20
MW-72-2	SU B	9/14/2015	101.74	101.47	101.47	25	4	2	20.5	23.5	19.5-25	10x20
MW-73-2	SU B	9/15/2015	101.83	101.57	101.57	22	4	2	19-22	0.01	18-22	10x20
MW-74-2	SU B	9/15/2015	101.73	101.43	101.43	25	4	2	19-24	0.01	18-25	10x20
MW-75-2	SU B	9/16/2015	101.05	100.83	100.83	35	4	2	24.5-34.5	0.01	23.5-35	10x20
MW-76-2	SU B	9/15/2015	100.86	100.85	100.85	35	4	2	24-34	0.01	23-35	10x20
MW-77-2	SU B	9/16/2015	100.44	100.44	100.44	35	4	2	24-35	0.01	23-35	10x20
MW-78-2	SU B	10/19/2016	97.78	97.65	97.65	34	4	2	24-34	0.01	24-34	10x20
MW-79-2	SU B	10/21/2016	97.58	97.4	97.4	35	4	2	30-35	0.01	30-35	10x20
MW-80-2	SU B	10/25/2016	90.89	90.83	90.83	28	4	2	22.88-27.56	0.01	22.63-28	10x20
PZ-3	SU A	6/22/1993	83.47	82.97	82.97	21.5	10	2	9.5–19.5	0.01	6.5–21.5	10x20
PZ-4	SU A&B	2/20/2001	100.19	99.99	99.99	30	2	0.75 (ID)	9.0–29.0	0.01	6.0–30.0	20x40
PZ-5	SU A&B	2/21/2001	100.18	99.96	99.96	32	2	0.75 (ID)	10.0–30.0	0.01	7.0–32.0	20x40
SP-1	SU A	1/19/1993	101.14	100.77	100.77	33.5	8	2	20.0–22.0	0.01	18.0–23.4	10x20

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Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
Weathered Basalt Wells												
MW-1b	WB	6/18/1991	101.34	101.04	101.04	66.1	18/10	5	55.0–60.0	0.01	53.0–61.0	10x20
MW-2b	WB	9/8/2008	91.72	91.44	91.44	80	9/6	2	64.0–69.0	0.01	62.0–70.0	10x20
MW-2c	WB	6/22/2010	91.32	90.53	90.53	156	10/9/7/6/4	4	61.0–90.0	0.02	57.0–92.0.0	10x20
MW-5b	WB	5/30/1991	82.3	82.02	82.02	96.6	18/10	5	88.4–93.4	0.01	86.0–94.0	10x20
MW-6b	WB	1/28/2004	68.5	68.2	68.2	82.2	10/7	2	45.0–55.0	0.01	43.0–56.0	10x20
MW-7b	WB	1/30/2004	67.06	66.7	66.7	113.7	10/7	2	45.0–55.0	0.01	43.0–56.0	10x20
MW-11b	WB	7/31/2006	89.47	88.96	88.96	67	9/6	2	50.0–60.0	0.01	48.0–61.5	10x20
MW-14b	WB	7/28/2006	85.52	85.2	85.2	97	9/6	2	79.5–89.5	0.01	77.0–90.8	10x20
MW-15b	WB	9/4/2008	90.2	89.96	89.96	90	9/6	2	57.0–67.0	0.01	55.0–68.0	10x20
MW-16b	WB	2/3/2004	67.27	66.87	66.87	78	10/7	2	45.0–55.0	0.01	43.0–56.0	10x20
MW-17b	WB	6/30/2010	91.1	90.51	90.51	87.5	10/9/8/6	4	50.0–84.5	0.02	47.0–86.5	10x20
MW-18b	WB	7/9/2010	97.4	96.72	96.72	97	10/9/8/6	4	46.0–81.0	0.02	45.0–83.7	10x20
Soil Vapor Extraction (SVE) Extraction Wells												
SVE-1	SU A	10/2/2012				7	8	2	4-7	0.01	4-7	10x20
SVE-2	SU A	10/1/2012				8	8	2	4-6.5	0.01	4-8	10x20
SVE-3	SU A	10/2/2012				7	8	2	4-7	0.01	4-7	10x20
SVE-4	SU A	10/2/2012				7	8	2	4-7	0.01	4-7	10x20
SVE-5	SU A	10/2/2012				7	8	2	4-7	0.01	4-7	10x20
In Situ Chemical Oxidation (ISCO) Injection Wells												
I-A-1	SU A	3/3/2014				18.3	4	1	8-18	0.01	7-18.3	10x20
I-A-2a	SU A	3/3/2014				13.2	4	1	8-13	0.01	7-13.2	10x20
I-A-2b	SU A	3/3/2014				18	4	1	12.8-17.8	0.01	12-12.8	10x20
I-A-3a	SU A	3/3/2014				13.2	4	1	8-13	0.01	7-13.2	10x20
I-A-3b	SU A	3/3/2014				18.2	4	1	13-18	0.01	12-18.2	10x20
I-A-4a	SU A	3/4/2014				13.2	4	1	8-13	0.01	7-13.2	10x20
I-A-4b	SU A	3/5/2014				18.2	4	1	13-18	0.01	12-18.2	10x20
I-A-5a	SU A	3/4/2014				13.2	4	1	7-13.2	0.01	7-13.2	10x20
I-A-5b	SU A	3/5/2014				18.2	4	1	13-18	0.01	12-18.2	10x20
I-A-6	SU A	3/6/2014				18.2	4	1	8-18	0.01	7-18.2	10x20
I-A-7	SU A	3/12/2014				18	4	1	8-18	0.01	7-18	10x20
I-A-8	SU A	3/24/2014				18	4	1	8-18	0.01	7-18	10x20
I-A-9	SU A	3/21/2014				17.5	4	1	7.5-17.5	0.01	6.5-17.5	10x20
I-B-1	SU B	2/27/2014				23.3	4	1	19-23	0.01	18-23.3	10x20
I-B-2	SU B	3/7/2014				24	4	1	20.8-23.8	0.01	20-24	10x20
I-B-3	SU B	3/4/2014				24.7	4	1	22.5-24.5	0.01	21.5-24.7	10x20
I-B-4	SU B	3/16/2014				22	4	1	18.8-21.8	0.01	18-22	10x20
I-B-5	SU B	4/1/2014				22	4	1	18-22	0.01	17-22	10x20
I-B-6	SU B	3/6/2014				23	4	1	19.8-22.8	0.01	18.8-22.8	10x20
I-B-7	SU B	3/28/2014				23	4	1	19-23	0.01	15-23	10x20
I-B-8	SU B	3/31/2014				22	4	1	18-22	0.01	17-22	10x20
I-B-9*	SU B	3/13/2014				22	4	1	17-22	0.01	16-22	10x20
I-B-10	SU B	3/11/2014				24.5	4	1	19-24	0.01	18.5-24.5	10x20

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			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
I-B-11	SU B	3/17/2014				24	4	1	19-23	0.01	18-24	10x20
I-B-12	SU B	3/24/2014				24	4	1	19-23	0.01	18-24	10x20
I-B-13	SU B	3/20/2014				23	4	1	17.5-21.5	0.01	16.5-23	10x20
I-B-14	SU B	3/20/2014				25	4	1	18-22	0.01	17-25	10x20
I-B-15	SU B	3/20/2014				23	4	1	18-22	0.01	17-23	10x20
I-B-16	SU B	3/18/2014				23	4	1	18-22	0.01	16-23	10x20
I-B-17	SU B	3/17/2014				23	4	1	18-22	0.01	17-22	10x20
I-B-18	SU B	3/19/2014				23	4	1	18-22	0.01	18-22	10x20
I-B-19	SU B	3/14/2014				23	4	1	18-22	0.01	17.5-23	10x20
I-B-20	SU B	3/14/2014				24	4	1	19-23	0.01	18.5-23	10x20
I-B-21	SU B	3/12/2014				23	4	1	19-23	0.01	18-23	10x20
I-B-22	SU B	3/12/2014				24	4	1	18.5-22.5	0.01	17.5-24	10x20
OI-B-02	SU B	9/15/2015				35	4	2	24-34	0.01	23-35	10x20
OI-B-04	SU B	9/10/2015				32.5	6.25	2	22.5-32.5	0.01	22-35	10x20
OI-B-05	SU B	9/9/2015				34	4	2	24-34	0.01	23-34	10x20
OI-B-07	SU B	9/11/2015				34	4	2	24-34	0.01	23-34	10x20
OI-B-08	SU B	9/14/2015				35	6.25	2	25-35	0.01	24-35	10x20
OI-B-09	SU B	9/15/2015				34	4	2	24-34	0.01	23-34	10x20
OI-B-10	SU B	9/14/2015				34	6.25	2	24-34	0.01	23-34	10x20
PI-A-01	SU A	9/9/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-02	SU A	9/9/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-03	SU A	9/14/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-04	SU A	9/14/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-05	SU A	9/10/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-06	SU A	9/10/2015				18	4	2	8-18	0.01	7-18	10x20
PI-A-07	SU A	9/9/2015				18	4	2	8-18	0.01	7-18	10x20
PI-B-01	SU B	9/8/2015				22.5	4	2	18.5-22.5	0.01	17.5-22.5	10x20
PI-B-02	SU B	9/8/2015				22.5	4	2	19.5-18.5	0.01	18.5-22.5	10x20
PI-B-03	SU B	9/8/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-04	SU B	9/9/2015				22.5	4	2	19.5-22.5	0.01	18.5-22.5	10x20
PI-B-05	SU B	9/8/2015				25	4	2	22-25	0.01	21-25	10x20
PI-B-06	SU B	9/9/2015				25.5	4	2	20.5-25.5	0.01	19.5-25.5	10x20
PI-B-07	SU B	9/9/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-09	SU B	9/11/2015				25	4	2	22-25	0.01	21-25	10x20
PI-B-10	SU B	9/9/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-11	SU B	9/11/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-13	SU B	9/11/2015				24	4	2	21-24	0.01	20-24	10x20
PI-B-14	SU B	9/10/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-15	SU B	9/10/2015				23	4	2	20-23	0.01	19-23	10x20
PI-B-16	SU B	9/10/2015				23	4	2	20-23	0.01	NR	10x20
PI-B-17	SU B	9/9/2015				22.5	4	2	20-22.5	0.01	19-22.5	10x20
PI-B-18	SU B	9/10/2015				22.5	4	2	18.5-22.5	0.01	17.5-22.5	10x20
PI-B-19	SU B	9/14/2015				23.5	6.25	2	19.5-23.5	0.01	18.5-23.5	10x20

APPENDIX B
Well Completion Details
Oregon Tool-Carlton Facility, Milwaukie, Oregon

Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
Enhanced Reductive Dechlorination (ERD) Injection Wells												
A-1	SU A	1/5/2015				18	4	2	8-18	0.01	7-18	10X20
A-4	SU A	1/26/2015				18	4	2	8-18	0.01	7-18	10X20
A-5	SU A	1/6/2015				18	4	2	7-17.3	0.01	6-18	10X20
A-6	SU A	1/8/2015				17	4	2	8.5-15.5	0.01	7.5-17	10X20
A-7	SU A	1/8/2015				17.8	4	2	7.8-17.8	0.01	6.5-17.8	10X20
A-8	SU A	1/8/2015				20	4	2	9.5-19.5	0.01	8.5-19.5	10X20
A-9	SU A	1/9/2015				21.5	4	2	10.5-20.5	0.01	9-20.5	10X20
A-10	SU A	1/9/2015				18	4	2	8-18	0.01	7-18	10X20
A-11	SU A	1/7/2015				19.4	4	2	9.4-19.4	0.01	8-19.4	10X20
A-12	SU A	1/7/2015				18.7	4	2	9.7-19.7	0.01	8-19.7	10X20
A-13	SU A	1/16/2015				19	4	2	9-19	0.01	8-19	10X20
A-14	SU A	1/15/2016				19	4	2	8-19	0.01	8-19	10X20
A-15	SU A	1/15/2015				19	4	2	9-19	0.01	8-19	10X20
A-16	SU A	1/15/2016				19	4	2	9-19	0.01	8-19	10X20
A-17	SU A	1/14/2015				19	4	2	9-19	0.01	8-19	10X20
A-18	SU A	1/12/2015				15.5	4	2	7.5-15.5	0.01	6.5-15.5	10X20
A-19	SU A	1/13/2015				15	4	2	7-15	0.01	6-15	10X20
A-20	SU A	1/13/2015				17	4	2	8.5-15.5	0.01	7-17	10X20
A-21	SU A	1/13/2016				12.5	4	2	8.5-12.5	0.01	7.5-12.5	10X20
A-22	SU A	1/13/2015				20	4	2	9-19	0.01	8-20	10X20
A-23	SU A	1/14/2015				18	4	2	8-18	0.01	7-18	10X20
A-25	SU A	1/14/2015				19	4	2	9-19	0.01	8-19	10X20
A-26	SU A	1/20/2015				18	4	2	8-18	0.01	7-18	10X20
A-27	SU A	1/26/2015				18	4	2	8-18	0.01	7-18	10X20
A-28	SU A	1/20/2015				18	4	2	8-18	0.01	7-18	10X20
A-29	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-30	SU A	1/19/2015				20	4	2	8-18	0.01	7-18	10X20
A-31	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-32	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-33	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-34	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-35	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-36	SU A	1/19/2016				18	4	2	8-18	0.01	7-18	10X20
A-37	SU A	1/19/2015				18	4	2	8-18	0.01	7-18	10X20
A-38	SU A	1/29/2015				25	4	2	10-25	0.01	9-25	10X20
A-39***	SU A	1/29/2015				25	4	2	10-25	0.01	9-25	10X20
A-40***	SU A	1/29/2015				25	4	2	10-25	0.01	9-25	10X20
A-41***	SU A	1/29/2015				25	4	2	10-25	0.01	9-25	10X20
A-42***	SU A	1/29/2015				25	4	2	10-25	0.01	9-25	10X20
A-43***	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20
A-44***	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20
A-45	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20

APPENDIX B
Well Completion Details
Oregon Tool-Carlton Facility, Milwaukie, Oregon

Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
A-46	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20
A-47	SU A	1/30/2015				26.8	4	2	10-25	0.01	11-26.8	10X20
A-48	SU A	2/2/2015				27	4	2	10-25	0.01	11-27	10X20
A-49	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20
A-50	SU A	1/30/2015				27	4	2	10-25	0.01	11-27	10X20
B-1	SU B	1/6/2015				25	4	2	20-23	0.01	19-25	10X20
B-2	SU B	1/5/2015				23.5	4	2	20-23	0.01	19-23	10X20
B-3	SU B	1/23/2015				23	4	2	20-23	0.01	19-23	10X20
B-4	SU B	15/15				24.5	4	2	21.5-24.5	0.01	20.5-24.5	10X20
B-8	SU B	1/9/2015				22	4	2	19.5-21.5	0.01	18.5-22	10X20
B-9	SU B	1/7/2015				25	4	2	21-23	0.01	20-25	10X20
B-10	SU B	1/7/2015				24	4	2	20.3-22.3	0.01	19-24	10X20
B-11	SU B	1/12/2015				17.5	4	2	8-17	0.01	7-17.5	10X20
B-12	SU B	1/12/2015				24	4	2	22-23	0.01	22-24	10X20
B-13	SU B	1/13/2015				23	4	2	21-22	0.01	20-23	10X20
B-14	SU B	1/13/2015				23	4	2	21-22	0.01	20-23	10X20
B-18	SU B	1/12/2015				23	4	2	21-22	0.01	20-22	10X20
B-19	SU B	1/15/2015				20	4	2	17-18	0.01	16-20	10X20
B-20	SU B	1/16/2015				20	4	2	17-20	0.01	16-20	10X20
B-21	SU B	1/15/2015				22	4	2	18-22	0.01	16.5-22	10X20
B-22	SU B	1/16/2015				24.5	4	2	18.5-24.5	0.01	17.5-24.5	10X20
B-23	SU B	1/16/2015				27	4	2	19-27	0.01	18-27	10X20
B-24	SU B	1/19/2015				27.5	4	2	19-27	0.01	18-22.5	10X20
B-25	SU B	1/15/2015				30	4	2	19-29	0.01	18-30	10X20
B-26	SU B	1/23/2015				29.5	4	2	25.5-29.5	0.01	24.5-29.5	10X20
B-27	SU B	1/28/2015				35	4	2	27-32	0.01	26-35	10X20
B-28***	SU B	1/23/2015				30	4	2	25-30	0.01	24-30	10X20
B-29***	SU B	1/23/2015				28	4	2	24-28	0.01	23-28	10X20
B-30***	SU B	1/20/2015				35	4	2	29-32	0.01	28-35	10X20
B-31	SU B	1/27/2015				35	4	2	28.5-34.5	0.01	27.5-35	10X20
B-32	SU B	1/27/2015				33	4	2	26-32	0.01	25-33	10X20
B-33	SU B	1/22/2015				32.5	4	2	27-32	0.01	26-32.5	10X20
B-34	SU B	1/27/2015				33	4	2	29.5-32.5	0.01	28.5-33	10X20
B-35	SU B	1/27/2015				33.7	4	2	27.7-33.7	0.01	27-33.7	10X20
B-36	SU B	1/28/2015				35	4	2	27-34.5	0.01	26-35	10X20
B-37	SU B	1/28/2015				27	4	2	22-27	0.01	21-27	10X20
B-38	SU B	10/13/2016				30.5	4	2	20.5-30.5	0.01	18.5-30.5	10X20
B-39**	SU B	10/13/2016				32	4	2	22-32	0.01	20-32	10x20
B-39R	SU B	1/10/2017				25	4	2	20-25	0.01	18-25	10x20
B-40	SU B	10/13/2016				30.5	4	2	20-30	0.01	18-30.5	10x20
B-41	SU B	10/17/2016				31	4	2	20-30	0.01	20-30	10x20
B-42	SU B	10/18/2017				34.3	4	2	29.3-34.3	0.01	29.3-34.3	10x20
B-43	SU B	10/19/2016				35	4	2	24.5-34.5	0.01	24.5-34.5	10x20

APPENDIX B
Well Completion Details
Oregon Tool-Carlton Facility, Milwaukie, Oregon

Well	Unit	Date Installation Completed	Ground Elevation	TOC Elevation	MPE	Boring Depth	Boring Diameter	Well Casing Diameter	Well Screen Interval	Screen Slot Size	Sand Pack Interval	Sand Pack Size
			(ft, MSL)	(ft, MSL)	(ft, MSL)	(ft, bgs)	(inches)	(inches)	(ft, bgs)	(inches)	(ft, bgs)	
B-44	SU B	10/19/2016				36	4	2	26-36	0.01	26-26	10x20
B-45	SU B	10/17/2016				37	4	2	27-37	0.01	25-37	10x20
B-46**	SU B	10/14/2016				26.5	4	2	21.5-26.5	0.01	19.5-26.5	10x20
B-47	SU B	10/18/2016				31.5	4	2	21.5-31.5	0.01	21.5-31.5	10x20
B-48	SU B	10/18/2016				35	4	2	22.5-32.5	0.01	20.5-33	10x20
B-49	SU B	10/19/2016				35	4	2	27-34	0.01	24-34	10x20
B-50	SU B	10/20/2016				35	4	2	24-34	0.01	24-34	10x20
B-51	SU B	10/21/2016				38	4	0.75	28.4-37.8	0.01	27.7-38	10x20
B-52	SU B	10/25/2016				35	4	0.75	25-35	0.01	25-35	10x20
B-53	SU B	10/21/2016				33.5	4	0.75	23.7-33.3	0.01	26.6-33.5	10x20
IW-B-100	SU B	6/1/2016				30	4	2	18-23	0.01	16-23.5	10x20

Notes:

[a] Prepack sand size/well annulus sand size.

[b] Eastern Plume wells.

* Well installed in angled boring. Depths shown are vertical depths beneath ground surface, not inclined depth along boring.

** Well decommissioned 1/10/17 because of bad seal

*** Well decommissioned March 2017 because of tenant improvement project

TOC = top of casing; MPE = measuring point elevation; ft, MSL = feet above mean sea level; ft, bgs = feet below ground surface.

Units are designated as follows:

SU A&B = Shallow alluvial Subunits A and B
SU A = Shallow Qfc fine-grained facies, Subunit A
SU B = Shallow Qfc coarse-grained facies, Subunit B
Qff = Shallow fine-grained flood deposits
WB = Weathered Basalt, Frenchman Spring Member of CRBG

APPENDIX C

Groundwater Extraction and Treatment, and Hydraulic Data

TABLE C-1

Extracted Groundwater Treatment System Influent and Effluent Analysis, January 2024 through March 2025

Table C-1
Extracted Groundwater Treatment System Influent and Effluent Analysis, January 2024 through March 2025

Month/Year	Influent/ Effluent	Monthly Average Flow	Monthly Average pH	Influent Sample Date	Effluent Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	1,2-Dichloroethenes (Total)	Vinyl chloride	Methylene chloride	1,1,2,2-Tetrachloroethane
	-	(gpd)	(SU)	-	-	-	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Mo. Avg. Discharge Limit[a]	**-**	**80,000**	**6.5 - 8.5**	**-**	**-**	**-**	**10**	**10**	**10**	**5**	**20**	**35**
January-24	Influent	-	-	1/23/2024	-	8260D	7.60	617	165	1.40	50.0 U	2.50 U
January-24	Effluent	3,605	7.93	-	1/23/2024[b]	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
February-24	Influent	-	-	2/27/2024	-	8260D	2.22	217	37.7	0.500 U	25.0 U	1.25 U
February-24	Effluent	3,813	7.97	-	2/27/2024[b]	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
March-24	Influent	-	-	3/29/2024	-	8260D	4.10	458	69.4	1.00 U	50.0 U	2.50 U
March-24	Effluent	3,835	7.97	-	3/29/2024[b]	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
April-24	Influent	-	-	4/25/2024	-	8260D	3.12	257	46.6	0.420	20.0 U	1.00 U
April-24	Effluent	3,700	7.96	-	4/25/2024[b]	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
May-24	Influent	-	-	5/28/2024	-	8260D	5.90	472	78.6	2.00 U	100 U	5.00 U
May-24	Effluent	3,463	7.98	-	5/28/2024[b]	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
June-24	Influent	-	-	6/28/2024	-	8260D	4.70	359	80.0	1.00 U	50.0 U	2.50 U
June-24	Effluent	3,289	7.98	-	6/28/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
July-24	Influent	-	-	7/23/2024	-	8260D	4.95	349	72.6	1.00 U	50.0 U	2.50 U
July-24	Effluent	3,124	7.98	-	7/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
August-24	Influent	-	-	8/27/2024	-	8260D	2.95	235	51.2	1.00 U	50.0 U	2.50 U
August-24	Effluent	2,961	7.98	-	8/27/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
September-24	Influent	-	-	9/17/2024	-	8260D	2.90	229	37.6	1.00 U	50.0 U	2.50 U
September-24	Effluent	2,910	7.96	-	9/17/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
October-24	Influent	-	-	10/23/2024	-	8260D	3.35	265	69.0	1.00 U	50.0 U	2.50 U
October-24	Effluent	2,962	7.96	-	10/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
November-24	Influent	-	-	11/19/2024	-	8260D	8.20	529	42.8	1.00 U	50.0 U	2.50 U
November-24	Effluent	3,235	7.98	-	11/19/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
December-24	Influent			12/17/2024	-	8260D	6.70	646	125	1.00 U	50.0 U	2.50 U
December-24	Effluent	3,376	7.94	-	12/17/2024	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
January-25	Influent			1/14/2025	-	8260D	5.58	365	45.7	0.500 U	25.0 U	1.25 U
January-25	Effluent	3,353	7.97	-	1/14/2025	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
February-25	Influent			2/25/2025	-	8260D	2.66	221	55.9	0.400 U	20.0 U	1.00 U
February-25	Effluent	3,385	7.98	-	2/25/2025	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
March-25	Influent			3/25/2025	-	8260D	3.05	344	69.9	0.650	25.0 U	1.25 U
March-25	Effluent	3,227	7.98	-	3/25/2025	8260D	0.400 U	0.400 U	0.400 U	0.200 U	10.0 U	0.500 U
Effluent exceedances		0	0				0	0	0	0	0	0

NOTES:

[a] Monthly average discharge limit per Attachment C, Addendum No. 1 to DEQ Consent Order ESCF-NWR-90-09.

[b] Effluent sampled in duplicate; higher detect value reported

U = compound was not detected at the given limit

gpd = gallons per day

SU = standard units

µg/L = micrograms per liter

NT= not tested

TABLE C-2

Groundwater Elevations from 2023 through April 2025

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
Extraction Wells				
DPE-1 (EW-1)	7/5/2023	99.31	6.17	93.14
DPE-1 (EW-1)	10/2/2023	99.31	6.72	92.59
DPE-3	7/5/2023	100.74	8.21	92.53
DPE-3	10/2/2023	100.74	8.51	92.23
DPE-4	7/5/2023	100.00	7.84	92.16
DPE-4	10/2/2023	100.00	8.08	91.92
DPE-5	7/5/2023	100.71	8.68	92.03
DPE-5	10/2/2023	100.71	8.86	91.85
DPE-5	10/25/2024	100.71	8.87	91.84
DPE-5	4/22/2025	100.71	5.92	94.79
DPE-6	7/5/2023	100.63	8.14	92.49
DPE-6	10/2/2023	100.63	8.38	92.25
DPE-7 (EW-3)	4/18/2023	98.02	30.92	67.10
DPE-7 (EW-3)	7/5/2023	98.02	31.26	66.76
DPE-7 (EW-3)	10/2/2023	98.02	31.22	66.80
DPE-7 (EW-3)	1/23/2024	98.02	30.94	67.08
DPE-7 (EW-3)	4/23/2024	98.02	30.76	67.26
DPE-7 (EW-3)	8/27/2024	98.02	30.78	67.24
DPE-7 (EW-3)	10/22/2024	98.02	30.96	67.06
DPE-7 (EW-3)	1/28/2025	98.02	30.91	67.11
DPE-7 (EW-3)	4/22/2025	98.02	30.14	67.88
DPE-8 (EW-2)	4/18/2023	93.00	30.46	62.54
DPE-8 (EW-2)	7/5/2023	93.00	31.11	61.89
DPE-8 (EW-2)	10/2/2023	93.00	30.41	62.59
DPE-8 (EW-2)	1/23/2024	93.00	30.46	62.54
DPE-8 (EW-2)	4/23/2024	93.00	30.88	62.12
DPE-8 (EW-2)	8/27/2024	93.00	30.54	62.46
DPE-8 (EW-2)	10/22/2024	93.00	30.36	62.64
DPE-8 (EW-2)	1/28/2025	93.00	30.28	62.72
DPE-8 (EW-2)	4/22/2025	93.00	28.96	64.04
EW-4	4/18/2023	87.30	25.08	62.22
EW-4	7/5/2023	87.30	26.04	61.26
EW-4	10/2/2023	87.30	24.48	62.82
EW-4	1/23/2024	87.30	25.18	62.12
EW-4	4/23/2024	87.30	24.96	62.34
EW-4	8/27/2024	87.30	25.22	62.08
EW-4	10/22/2024	87.30	23.96	63.34
EW-4	1/28/2025	87.30	23.81	63.49
EW-5A	4/18/2023	81.73	>16.30	<65.43
EW-5A	7/5/2023	81.73	>16.30	<65.43
EW-5A	10/2/2023	81.73	>16.30	<65.43
EW-5A	1/23/2024	81.73	>16.30	<65.43
EW-5A	4/23/2024	81.73	>16.30	<65.43
EW-5A	8/27/2024	81.73	>16.30	<65.43
EW-5A	10/22/2024	81.73	>16.30	<65.43
EW-5A	1/28/2025	81.73	>16.30	<65.43
EW-5A	4/22/2025	81.73	>16.30	<65.43
EW-6	4/18/2023	78.74	24.21	54.53
EW-6	7/5/2023	78.74	24.19	54.55
EW-6	10/2/2023	78.74	24.28	54.46
EW-6	1/23/2024	78.74	24.01	54.73
EW-6	4/23/2024	78.74	24.28	54.46
EW-6	8/27/2024	78.74	24.1	54.64
EW-6	10/22/2024	78.74	24.18	54.56
EW-6	1/28/2025	78.74	24.21	54.53
EW-6	4/22/2025	78.74	24.19	54.55
EW-7	4/18/2023	86.67	26.88	59.79
EW-7	7/5/2023	86.67	27.97	58.70
EW-7	10/2/2023	86.67	26.98	59.69
EW-7	1/23/2024	86.67	26.96	59.71
EW-7	4/23/2024	86.67	26.19	60.48
EW-7	8/27/2024	86.67	26.78	59.89
EW-7	10/22/2024	86.67	26.71	59.96
EW-7	1/28/2025	86.67	26.52	60.15
EW-7	4/22/2025	86.67	24.26	62.41
EW-8	4/18/2023	70.22	19.21	51.01
EW-8	7/5/2023	70.22	21.64	48.58
EW-8	10/2/2023	70.22	21.11	49.11
EW-8	1/23/2024	70.22	19.06	51.16

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
EW-8	4/23/2024	70.22	6.13	64.09
EW-8	8/27/2024	70.22	9.04	61.18
EW-8	10/22/2024	70.22	15.18	55.04
EW-8	1/28/2025	70.22	11.21	59.01
EW-8	4/22/2025	70.22	3.21	67.01
Injection Wells				
A1	10/3/2023	NM	8.71	--
A1	10/22/2024	NM	10.67	--
A10	10/3/2023	NM	13	--
A11	10/3/2023	NM	12.79	--
A11	10/28/2024	NM	12.28	--
A12	10/3/2023	NM	12.52	--
A16	10/4/2023	NM	Foam	--
A16	10/21/2024	NM	17.39	--
A18	10/4/2023	NM	14.05	--
A18	10/28/2024	NM	Dry	--
A34	10/4/2023	NM	15.65	--
A34	10/28/2024	NM	15.76	--
A35	10/4/2023	NM	15.64	--
A36	10/4/2023	NM	15.61	--
A36	10/28/2024	NM	15.82	--
A4	10/3/2023	NM	Foam	--
A45	10/5/2023	NM	12.82	--
A47	10/5/2023	NM	12.79	--
A48	10/5/2023	NM	11.68	--
A48	10/29/2024	NM	11.86	--
A5	10/3/2023	NM	Foam	--
A5	10/22/2024	NM	Foam	--
A50	10/5/2023	NM	12.37	--
A50	10/29/2024	NM	12.22	--
A7	10/3/2023	NM	13.5	--
A8	10/3/2023	NM	13.38	--
B1	10/3/2023	NM	10.25	--
B1	10/22/2024	NM	10.48	--
B10	10/4/2023	NM	11.41	--
B10	10/24/2024	NM	10.8	--
B11	10/3/2023	NM	Covered in debris	--
B12	10/4/2023	NM	Foam	--
B12	10/21/2024	NM	Blocked	--
B13	10/3/2023	NM	16.1	--
B13	10/21/2024	NM	14.6	--
B18	10/4/2023	NM	10.27	--
B18	10/24/2024	NM	11.21	--
B2	10/3/2023	NM	Foam	--
B23	10/4/2023	NM	15.41	--
B23	10/28/2024	NM	15.23	--
B24	10/4/2023	NM	15.53	--
B25	10/4/2023	NM	15.53	--
B3	10/3/2023	NM	Foam	--
B3	10/22/2024	NM	10.48	--
B33	10/5/2023	NM	11.52	--
B37	10/5/2023	NM	5.88	--
B37	10/29/2024	NM	6	--
B4	10/3/2023	NM	Foam	--
B44	10/6/2023	NM	13.72	--
B45	10/6/2023	NM	26.74	--
B45	10/25/2024	NM	12.26	--
B8	10/3/2023	NM	12.72	--
B8	10/28/2024	NM	13.19	--
B9	10/3/2023	NM	12.56	--
I-A-1	10/9/2023	NM	Foam	--
I-A-2B	10/9/2023	NM	10.49	--
I-A-3B	10/9/2023	NM	10.07	--
I-A-3B	10/22/2024	NM	10.27	--
I-A-4B	10/9/2023	NM	Foam	--
I-A-5B	10/9/2023	NM	9.88	--
I-A-7	10/9/2023	NM	7.6	--
I-A-8	10/10/2023	NM	Foam	--
I-A-9	10/9/2023	NM	7.05	--
I-B-1	10/9/2023	NM	9.87	--

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
I-B-10	10/10/2023	NM	9.23	--
I-B-11	10/10/2023	NM	NR	--
I-B-11	10/23/2024	NM	Foam	--
I-B-12	10/10/2023	NM	Foam	--
I-B-13	10/11/2023	NM	NR	--
I-B-14	10/11/2023	NM	NR	--
I-B-14	10/23/2024	NM	8.28	--
I-B-15	10/11/2023	NM	NR	--
I-B-16	10/11/2023	NM	NR	--
I-B-16	10/23/2024	NM	5.77	--
I-B-17	10/11/2023	NM	NR	--
I-B-18	10/11/2023	NM	NR	--
I-B-18	10/23/2024	NM	9.52	--
I-B-19	10/11/2023	NM	NR	--
I-B-2	10/9/2023	NM	10.31	--
I-B-2	10/21/2024	NM	Foam	--
I-B-20	10/11/2023	NM	NR	--
I-B-21	10/11/2023	NM	NR	--
I-B-22	10/11/2023	NM	NR	--
I-B-4	10/11/2023	NM	NR	--
I-B-5	10/10/2023	NM	9.23	--
I-B-7	10/10/2023	NM	Foam	--
I-B-8	10/10/2023	NM	Foam	--
I-B-9	10/10/2023	NM	Foam	--
I-B-9	10/23/2024	NM	Foam	--
OI-B-01	10/6/2023	NM	9.69	--
OI-B-05	10/6/2023	NM	11.64	--
OI-B-08	10/13/2023	NM	NR	--
OI-B-09	10/6/2023	NM	Foam	--
OI-B-10	10/6/2023	NM	6.33	--
PI-A-01	10/13/2023	NM	NR	--
PI-A-01	10/24/2024	NM	Foam	--
PI-A-02	10/13/2023	NM	NR	--
PI-A-03	10/13/2023	NM	NR	--
PI-A-04	10/12/2023	NM	NR	--
PI-A-05	10/13/2023	NM	NR	--
PI-A-06	10/12/2023	NM	NR	--
PI-A-07	10/12/2023	NM	NR	--
PI-B-01	10/12/2023	NM	NR	--
PI-B-02	10/13/2023	NM	NR	--
PI-B-03	10/12/2023	NM	NR	--
PI-B-04	10/12/2023	NM	NR	--
PI-B-05	10/13/2023	NM	NR	--
PI-B-06	10/12/2023	NM	NR	--
PI-B-07	10/12/2023	NM	NR	--
PI-B-07	10/24/2024	NM	Foam	--
PI-B-09	10/13/2023	NM	NR	--
PI-B-10	10/13/2023	NM	NR	--
PI-B-10	10/24/2024	NM	Foam	--
PI-B-11	10/12/2023	NM	NR	--
PI-B-13	10/13/2023	NM	NR	--
PI-B-13	10/24/2024	NM	Foam	--
PI-B-14	10/13/2023	NM	NR	--
PI-B-15	10/13/2023	NM	NR	--
PI-B-15	10/24/2024	NM	8.69	--
PI-B-16	10/13/2023	NM	NR	--
PI-B-17	10/12/2023	NM	NR	--

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
PI-B-18	10/12/2023	NM	NR	--
PI-B-18	10/24/2024	NM	Foam	--
PI-B-19	10/12/2023	NM	NR	--
Shallow Monitoring Wells & Piezometers				
CRC-1	10/2/2023	96.07	10.72	85.35
CRC-1	10/25/2024	96.07	10.81	85.26
CRC-1	4/22/2025	96.07	9.11	86.96
CRC-10	10/5/2023	103.52	15.91	87.61
CRC-6	10/2/2023	97.46	14.63	82.83
CRC-7	10/2/2023	96.05	11.77	84.28
CRC-7	10/25/2024	96.05	13.2	82.85
CRC-7	4/22/2025	96.05	9.80	86.25
MW-01A (EW-1A)	10/4/2023	99.59	6.84	92.75
MW-01A (EW-1A)	10/25/2024	99.59	7.7	91.89
MW-01A (EW-1A)	4/22/2025	99.59	4.18	95.41
MW-02-2	10/2/2023	90.97	5.08	85.89
MW-02-2	10/29/2024	90.97	5.31	85.66
MW-03R	10/5/2023	96.16	10.08	86.08
MW-03R	10/29/2024	96.16	10.59	85.57
MW-04	10/2/2023	119.16	26.2	92.96
MW-04	10/25/2024	119.16	26.91	92.25
MW-04	4/22/2025	119.16	25.96	93.20
MW-06A	10/2/2023	67.96	0.05	67.91
MW-07A	10/2/2023	67.02	3.61	63.41
MW-08	4/18/2023	87.21	5.44	81.77
MW-08	10/2/2023	87.21	7.61	79.60
MW-08	4/23/2024	87.21	6.31	80.90
MW-08	10/25/2024	87.21	8.13	79.08
MW-08	4/22/2025	87.21	6.19	81.02
MW-10-1	10/4/2023	100.58	8.91	91.67
MW-10-1	10/25/2024	100.58	9.12	91.46
MW-10-1	4/22/2025	100.58	5.66	94.92
MW-10-2	10/2/2023	100.71	10.63	90.08
MW-10-2	10/25/2024	100.71	11.05	89.66
MW-10-2	4/22/2025	100.71	8.19	92.52
MW-11-1	4/18/2023	89.74	4.56	85.18
MW-11-1	10/2/2023	89.74	5.79	83.95
MW-11-1	4/23/2024	89.74	4.42	85.32
MW-11-1	10/25/2024	89.74	7.41	82.33
MW-11-1	4/22/2025	89.74	4.29	85.45
MW-11-2	1/17/2023	90.22	5.88	84.34
MW-11-2	4/18/2023	90.22	5.29	84.93
MW-11-2	7/5/2023	90.22	5.29	84.93
MW-11-2	10/2/2023	90.22	7.08	83.14
MW-11-2	1/23/2024	90.22	6.21	84.01
MW-11-2	4/23/2024	90.22	5.51	84.71
MW-11-2	8/27/2024	90.22	6.08	84.14
MW-11-2	1/28/2025	90.22	7.22	83.00
MW-11-2	4/22/2025	90.22	5.44	84.78
MW-12	4/19/2023	99.60	12.53	87.07
MW-12	10/2/2023	99.60	13.93	85.67
MW-12	4/23/2024	99.60	12.48	87.12
MW-12	4/22/2025	99.60	12.37	87.23
MW-13-2	1/17/2023	80.27	11.21	69.06
MW-13-2	4/18/2023	80.27	10.19	70.08
MW-13-2	10/2/2023	80.27	11.81	68.46
MW-13-2	4/23/2024	80.27	10.42	69.85
MW-13-2	10/25/2024	80.27	13.6	66.67
MW-13-2	4/22/2025	80.27	10.49	69.78
MW-14	4/20/2023	82.81	11.63	71.18
MW-14	10/5/2023	82.81	14.91	67.90
MW-14	4/22/2025	82.81	11.68	71.13
MW-15-1	4/18/2023	89.44	9.41	80.03
MW-15-1	10/5/2023	89.44	12.36	77.08
MW-15-1	4/23/2024	89.44	9.74	79.70
MW-15-1	10/25/2024	89.44	11.04	78.40
MW-15-1	4/22/2025	89.44	9.69	79.75
MW-15-2	4/18/2023	89.06	10.06	79.00
MW-15-2	10/2/2023	89.06	12.58	76.48
MW-15-2	4/23/2024	89.06	11.1	77.96

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
MW-15-2	10/25/2024	89.06	12.29	76.77
MW-15-2	4/22/2025	89.06	10.98	78.08
MW-16A	10/2/2023	66.73	4.34	62.39
MW-19-1	5/12/2023	101.18	6.92	94.26
MW-19-1	10/9/2023	101.18	8.96	92.22
MW-19-1	10/21/2024	101.18	8.77	92.41
MW-19-2	10/2/2023	101.40	8.81	92.59
MW-19-2	10/25/2024	101.40	9.36	92.04
MW-20-1	10/3/2023	101.49	13.05	88.44
MW-20-1	10/21/2024	101.49	14.31	87.18
MW-20-2	10/2/2023	101.26	13.81	87.45
MW-20-2	10/25/2024	101.26	14.11	87.15
MW-21-1	10/5/2023	101.50	15.59	85.91
MW-21-2	10/4/2023	101.39	15.41	85.98
MW-21-2	10/28/2024	101.39	15.73	85.66
MW-22-2	10/2/2023	96.71	10.8	85.91
MW-22-2	10/25/2024	96.71	10.88	85.83
MW-23-2R	10/2/2023	93.58	7.2	86.38
MW-23-2R	10/25/2024	93.58	8.93	84.65
MW-24-1	10/3/2023	101.58	Covered in debris	--
MW-25-1	10/5/2023	101.49	15.22	86.27
MW-25-1	10/28/2024	101.49	15.55	85.94
MW-26-1	10/5/2023	101.57	15.23	86.34
MW-26-1	10/28/2024	101.57	16.06	85.51
MW-27-1	10/4/2023	101.47	16.01	85.46
MW-27-1	10/30/2024	101.47	16.15	85.32
MW-28-2	10/2/2023	NM	9.29	--
MW-28-2	10/25/2024	NM	9.96	--
MW-29-1	10/9/2023	NM	10.88	--
MW-30-1	10/9/2023	NM	10.3	--
MW-31-1	10/11/2023	NM	NR	--
MW-31-1	10/22/2024	NM	10.58	--
MW-32-2	5/12/2023	NM	6.5	--
MW-32-2	10/9/2023	NM	9.72	--
MW-33-2	5/12/2023	NM	6.8	--
MW-33-2	10/2/2023	NM	9.64	--
MW-33-2	10/25/2024	NM	9.44	--
MW-34-1	10/11/2023	NM	NR	--
MW-35-1	10/9/2023	NM	9.34	--
MW-36-2	5/12/2023	NM	6.88	--
MW-36-2	10/9/2023	NM	10.04	--
MW-36-2	10/22/2024	NM	Foam	--
MW-37-2	10/11/2023	101.57	NR	--
MW-37-2	10/23/2024	101.57	9.64	91.93
MW-38-2	10/10/2023	NM	8.76	--
MW-39-2	5/12/2023	NM	6	--
MW-39-2	10/2/2023	NM	7.87	--
MW-39-2	10/25/2024	90.83	8.86	81.97
MW-40-2	10/10/2023	NM	Foam	--
MW-41-2	5/12/2023	NM	6.45	--
MW-41-2	10/2/2023	NM	8.95	--
MW-41-2	10/25/2024	NM	9.45	--
MW-42-2	10/2/2023	NM	9.31	--
MW-42-2	10/25/2024	NM	9.2	--
MW-43-1	10/10/2023	NM	Foam	--
MW-43-1	10/23/2024	NM	8.43	--
MW-44-1	10/10/2023	NM	Foam	--
MW-45-1	10/11/2023	NM	NR	--
MW-46-2	10/10/2023	NM	Foam	--
MW-46-2	10/23/2024	NM	8.14	--
MW-47-2	10/2/2023	NM	8.27	--
MW-47-2	10/25/2024	NM	9.05	--
MW-48-2	10/11/2023	NM	NR	--
MW-48-2	10/23/2024	NM	9.05	--
MW-49-2	10/2/2023	NM	6.74	--
MW-49-2	10/25/2024	NM	7.49	--
MW-50-2	10/11/2023	NM	NR	--
MW-50-2	10/23/2024	NM	8.14	--
MW-51-2	10/11/2023	NM	NR	--
MW-52-2	10/11/2023	NM	NR	--

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
MW-52-2	10/23/2024	NM	12.14	--
MW-53-2	10/2/2023	NM	8	--
MW-53-2	10/25/2024	NM	9.29	--
MW-57-1	10/3/2023	101.60	11.32	90.28
MW-57-1	10/22/2024	101.60	11.45	90.15
MW-57-2	10/2/2023	101.56	10.66	90.90
MW-57-2	10/25/2024	101.56	10.89	90.67
MW-58-1	10/3/2023	101.48	10.27	91.21
MW-59-2	10/2/2023	101.61	13.51	88.10
MW-59-2	10/25/2024	101.61	13.87	87.74
MW-60-1	10/4/2023	101.45	14.57	86.88
MW-60-1	10/21/2024	101.45	14.96	86.49
MW-60-2	10/2/2023	101.58	14.95	86.63
MW-60-2	10/25/2024	101.58	15.31	86.27
MW-61-1	10/5/2023	101.49	15.38	86.11
MW-61-1	10/29/2024	101.49	15.69	85.80
MW-61-2	10/2/2023	101.56	15.58	85.98
MW-61-2	10/25/2024	101.56	15.71	85.85
MW-62-2	10/2/2023	101.51	15.18	86.33
MW-62-2	10/25/2024	101.51	15.22	86.29
MW-63-2	10/2/2023	101.54	15.3	86.24
MW-63-2	10/28/2024	101.54	15.66	85.88
MW-64-1	10/4/2023	101.51	15.43	86.08
MW-64-1	10/30/2024	101.51	16.76	84.75
MW-64-2	10/2/2023	101.50	15.77	85.73
MW-64-2	10/25/2024	101.50	15.9	85.60
MW-65-1	10/5/2023	101.59	15.83	85.76
MW-65-1	10/30/2024	101.59	16.12	85.47
MW-65-2	10/2/2023	101.36	15.49	85.87
MW-65-2	10/25/2024	101.36	15.79	85.57
MW-66-1	10/5/2023	97.04	11.7	85.34
MW-66-1	10/29/2024	97.04	11.23	85.81
MW-66-2	10/2/2023	97.51	11.94	85.57
MW-66-2	10/25/2024	97.51	12.05	85.46
MW-67-2	10/2/2023	96.03	10.79	85.24
MW-67-2	10/25/2024	96.03	11.28	84.75
MW-68-1	10/12/2023	101.49	NR	--
MW-68-1	10/24/2024	101.49	8.98	92.51
MW-69-1	10/12/2023	101.49	NR	--
MW-70-1	10/12/2023	101.40	NR	--
MW-71-1	10/12/2023	101.25	NR	--
MW-71-1	10/24/2024	101.25	9.15	92.10
MW-72-2	10/2/2023	101.47	8.54	92.93
MW-72-2	10/25/2024	101.47	12.34	89.13
MW-73-2	10/2/2023	101.57	8.99	92.58
MW-73-2	10/25/2024	101.57	9.65	91.92
MW-74-2	10/2/2023	101.43	12	89.43
MW-74-2	10/25/2024	101.43	10.61	90.82
MW-75-2	10/2/2023	100.83	Foam	--
MW-75-2	10/25/2024	100.83	13.12	87.71
MW-76-2	10/2/2023	100.85	12.22	88.63
MW-76-2	10/25/2024	100.85	3.71	97.14
MW-77-2	10/2/2023	100.44	11.49	88.95
MW-77-2	10/25/2024	100.44	12.37	88.07
MW-78-2	10/2/2023	97.65	9.45	88.20
MW-78-2	10/25/2024	97.65	9.12	88.53
MW-79-2	10/2/2023	97.40	11.4	86.00
MW-79-2	10/25/2024	97.40	10.48	86.92
MW-80-2	10/2/2023	90.83	5.83	85.00
MW-80-2	10/25/2024	90.83	5.78	85.05
PZ-3	10/2/2023	82.97	7.39	75.58
PZ-4	10/2/2023	99.99	7.76	92.23

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
SP-01	10/3/2023	100.77	10.61	90.16
SP-01	10/25/2024	100.77	9.63	91.14
Weathered Basalt Wells				
MW-01B	10/2/2023	101.04	14.36	86.68
MW-01B	10/25/2024	101.04	14.65	86.39
MW-01B	4/22/2025	101.04	12.01	89.03
MW-02B	1/17/2023	91.44	4.86	86.58
MW-02B	4/19/2023	91.44	4.94	86.50
MW-02B	7/5/2023	91.44	5.2	86.24
MW-02B	10/2/2023	91.44	5.89	85.55
MW-02B	1/23/2024	91.44	4.08	87.36
MW-02B	4/23/2024	91.44	4.26	87.18
MW-02B	10/25/2024	91.44	7.22	84.22
MW-02B	1/28/2025	91.44	6.76	84.68
MW-02B	4/22/2025	91.44	4.47	86.97
MW-02C	1/17/2023	90.53	4.96	85.57
MW-02C	4/19/2023	90.53	4.36	86.17
MW-02C	7/5/2023	90.53	3.75	86.78
MW-02C	10/2/2023	90.53	6.19	84.34
MW-02C	1/23/2024	90.53	5.83	84.70
MW-02C	4/23/2024	90.53	4.11	86.42
MW-02C	10/25/2024	90.53	6.31	84.22
MW-02C	1/28/2025	90.53	6.19	84.34
MW-02C	4/22/2025	90.53	3.91	86.62
MW-05B	4/19/2023	82.02	18.88	63.14
MW-05B	10/2/2023	82.02	17.94	64.08
MW-05B	4/23/2024	82.02	16.18	65.84
MW-05B	10/25/2024	82.02	18.54	63.48
MW-05B	4/22/2025	82.02	15.91	66.11
MW-06B	10/2/2023	68.20	8.58	59.62
MW-07B	10/2/2023	66.70	11.65	55.05
MW-07B	10/25/2024	66.70	11.44	55.26
MW-07B	4/22/2025	66.70	9.73	56.97
MW-11B	1/17/2023	88.96	4.11	84.85
MW-11B	4/19/2023	88.96	1.6	87.36
MW-11B	7/5/2023	88.96	0.51	88.45
MW-11B	10/2/2023	88.96	5.51	83.45
MW-11B	1/23/2024	88.96	0.24	88.72
MW-11B	4/23/2024	88.96	3.33	85.63
MW-11B	10/25/2024	88.96	6.81	82.15
MW-11B	1/28/2025	88.96	6.48	82.48
MW-11B	4/22/2025	88.96	3.81	85.15
MW-14	4/23/2024	82.81	11.98	70.83
MW-14	10/25/2024	82.81	13.48	69.33
MW-14B	1/17/2023	85.20	12.48	72.72
MW-14B	4/18/2023	85.20	11.21	73.99
MW-14B	7/5/2023	85.20	13.34	71.86
MW-14B	10/2/2023	85.20	12.93	72.27
MW-14B	1/23/2024	85.20	12.86	72.34
MW-14B	4/23/2024	85.20	13.71	71.49
MW-14B	1/28/2025	85.20	13.19	72.01
MW-14B	4/22/2025	85.20	11.37	73.83
MW-15B	4/19/2023	89.96	8.5	81.46
MW-15B	10/2/2023	89.96	10.18	79.78
MW-15B	4/23/2024	89.96	8.28	81.68
MW-15B	10/25/2024	89.96	10.5	79.46
MW-15B	4/22/2025	89.96	7.37	82.59
MW-16B	10/2/2023	66.87	18.29	48.58
MW-16B	10/25/2024	66.87	18.01	48.86
MW-16B	4/22/2025	66.87	15.82	51.05
MW-17B	1/17/2023	90.51	4.58	85.93
MW-17B	4/19/2023	90.51	5.11	85.40
MW-17B	7/5/2023	90.51	4.41	86.10
MW-17B	10/2/2023	90.51	5.51	85.00
MW-17B	1/23/2024	90.51	6.04	84.47
MW-17B	4/23/2024	90.51	5.08	85.43
MW-17B	10/25/2024	90.51	6.25	84.26
MW-17B	1/28/2025	90.51	6.04	84.47
MW-17B	4/22/2025	90.51	3.26	87.25
MW-18B	1/17/2023	96.72	8.86	87.86

Table C-2
Groundwater Elevations From 2023 Through April 2025

Well	Date	MPE (ft, MSL)	Depth to Water (ft, MPE)	Groundwater Elevation (ft, MSL)
MW-18B	4/19/2023	96.72	9.61	87.11
MW-18B	7/5/2023	96.72	9.68	87.04
MW-18B	10/2/2023	96.72	12.08	84.64
MW-18B	1/23/2024	96.72	11.91	84.81
MW-18B	4/23/2024	96.72	9.58	87.14
MW-18B	10/25/2024	96.72	12.28	84.44
MW-18B	1/28/2025	96.72	11.96	84.76
MW-18B	4/22/2025	96.72	9.84	86.88

NOTES:
MPE = measuring point elevation (top of well or piezometer casing).
ft, MSL = feet above mean sea level.
NR = not recorded.
NM = not measured.

TABLE C-3

2024 Horizontal and Vertical Hydraulic Gradient Estimates

Table C-3
2024 Horiziontal and Vertical Hydraulic Gradient Estimates

April and October 2024 Horizontal Gradients For Shallow Groundwater Extraction Wells

Downgradient Off-site well	Extraction Well	Distance (ft)	2nd Quarter 4/18/2024	4th Quarter 10/25/2024	Annual Average
MW-06A	EW-6	360	NA	NA	NA
MW-06A	EW-7	304	NA	NA	NA
MW-07A	EW-6	440	NA	NA	NA
MW-08	PZ-3	120	NA	NA	NA
MW-08	EW-4	96	0.19	0.16	0.18
MW-13-2	EW-6	80	0.19	0.15	0.17
CRC-1	MW-11-1	112	NA	0.03	0.03
CRC-1	DPE-7 (EW-3)	80	NA	0.23	0.23
CRC-1	DPE-8 (EW-2)	88	NA	0.26	0.26
MW-07A	EW-8	240	NA	NA	NA

Notes:

A positive number signifies an inward horizontal hydraulic gradient. The magnitude is in units of dh(ft)/dl(ft).
Magnitude of gradient calculated using extraction well water levels are approximate, due to well losses. Inward direction calculated for horizontal gradients remains accurate.
*Gradients that could not be calculated due to non-measured groundwater level data are listed as NA.

October 25, 2024 Vertical Gradients Between Shallow and Weathered Basalt Well Pairs

Shallow Qfc or Qff Well	Shallow Groundwater Elevation (ft, MSL)	Weathered Basalt (WB) Well	WB Groundwater Elevation (ft, MSL)	Difference in Well Screen Mid-Point Elevations (feet)	Estimated Gradient [a]
On-site					
MW-01a	91.89	MW-01b	86.39	44.0	-0.125
MW-02-1	NA	MW-02b	84.22	52.0	NA
MW-02-2	85.66	MW-02b	84.22	39.5	-0.036
PZ-3 [b]	NA	MW-05b	63.48	76.4	NA
MW-11-1 [b]	82.33	MW-11b	82.15	39.9	-0.005
MW-14 [b]	69.33	MW-14b	NA	69.8	NA
MW-15-1 [b]	78.40	MW-15b	79.46	80.7	0.013
Off-site					
MW-06a	NA	MW-06b	NA	33.0	NA
MW-07a	NA	MW-07b	55.26	37.4	NA
MW-16a	NA	MW-16b	48.86	35.0	NA

Notes:

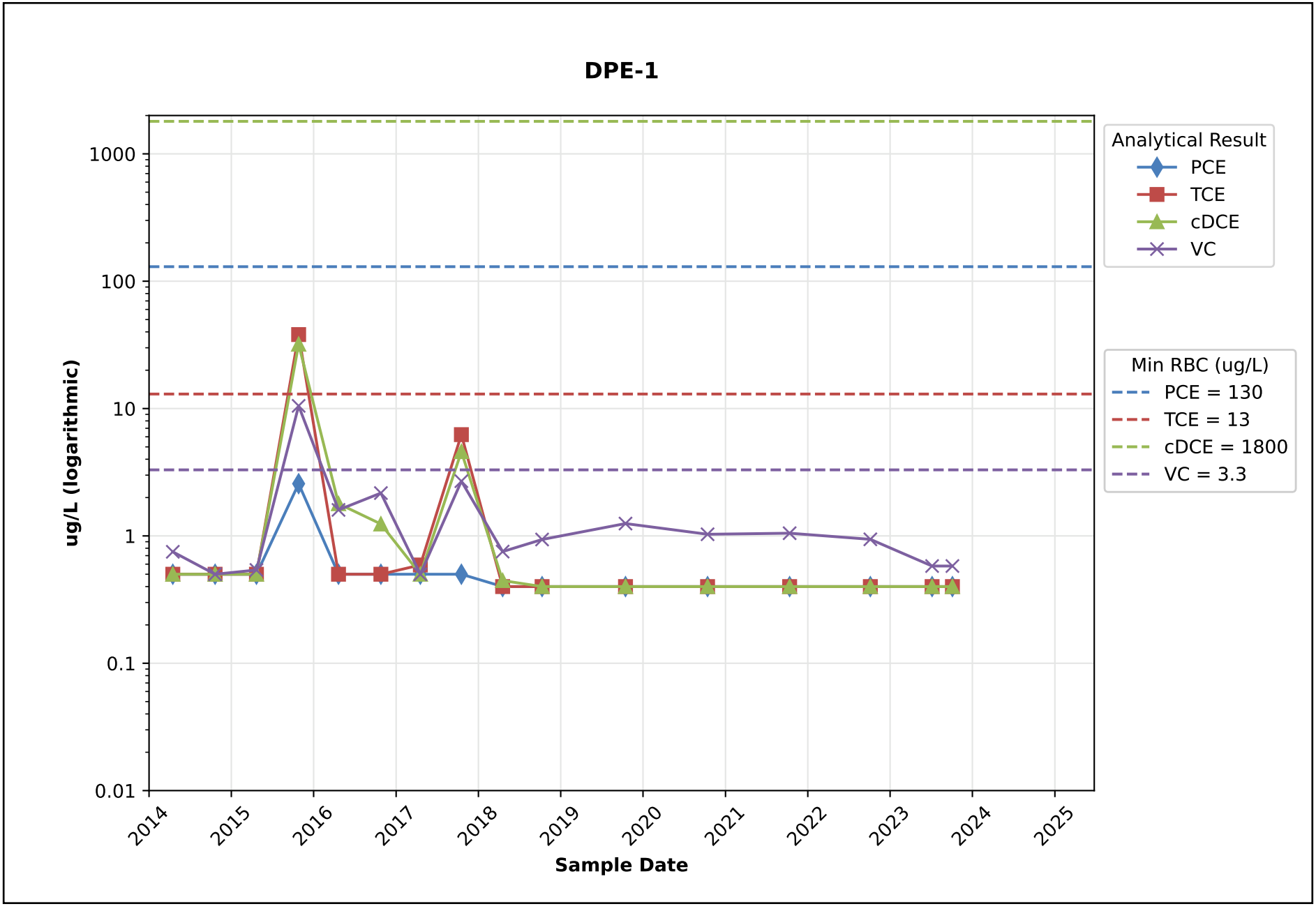
*Gradients that could not be calculated due to non-meaasured groundwater level data are listed as NA.
[a] Positive value signified upward gradient.
[b] Vertical gradients for well pairs near the site perimeter may be affected by shallow groundwater pumping.
ft, msl = feet mean sea level
vertical gradient = dh/dl where:
dh = difference between shallow and intermediate groundwater elevation
dl = difference between shallow and intermediate well screen mid-point depths.

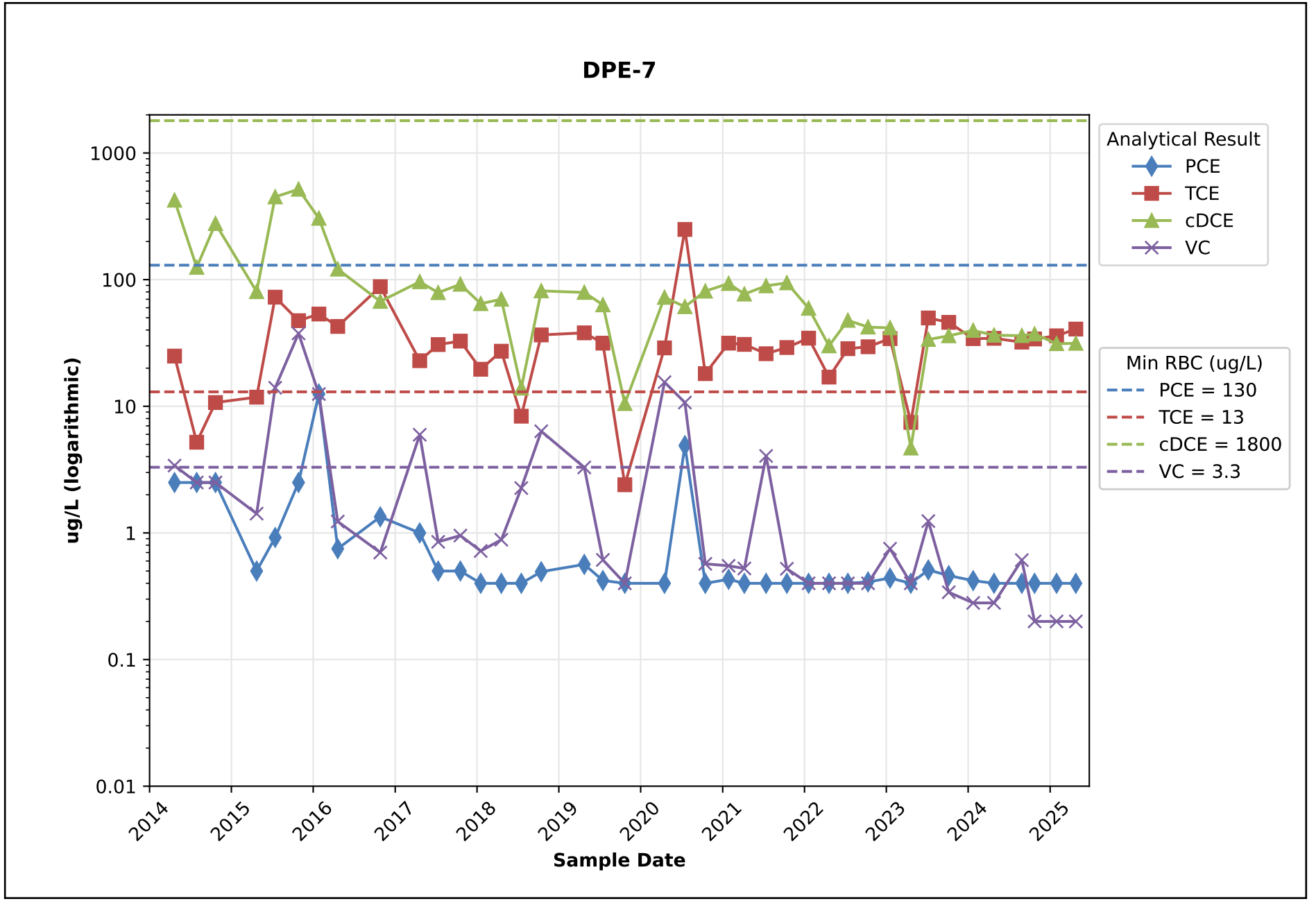
APPENDIX D

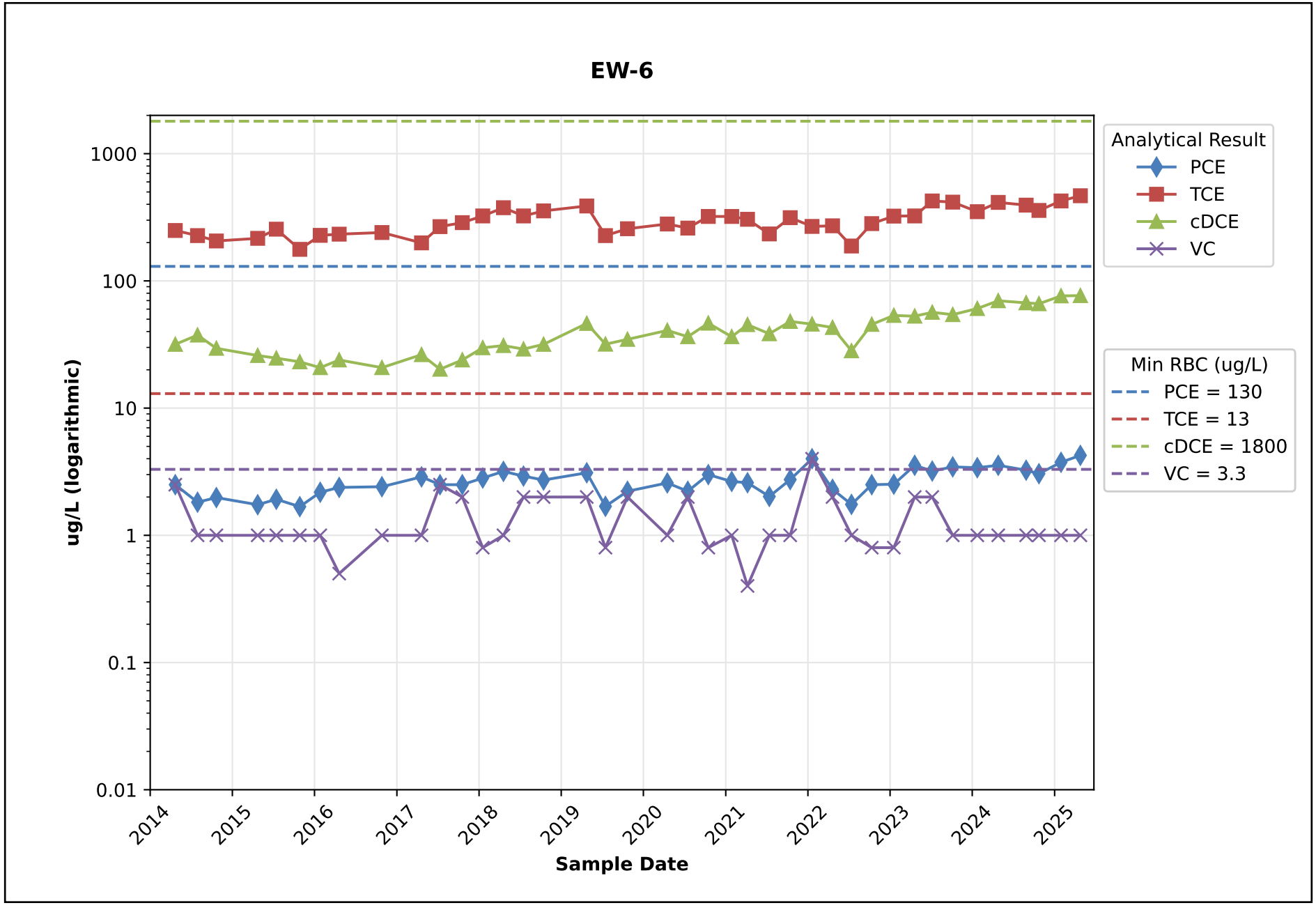
Historical Constituent Concentrations

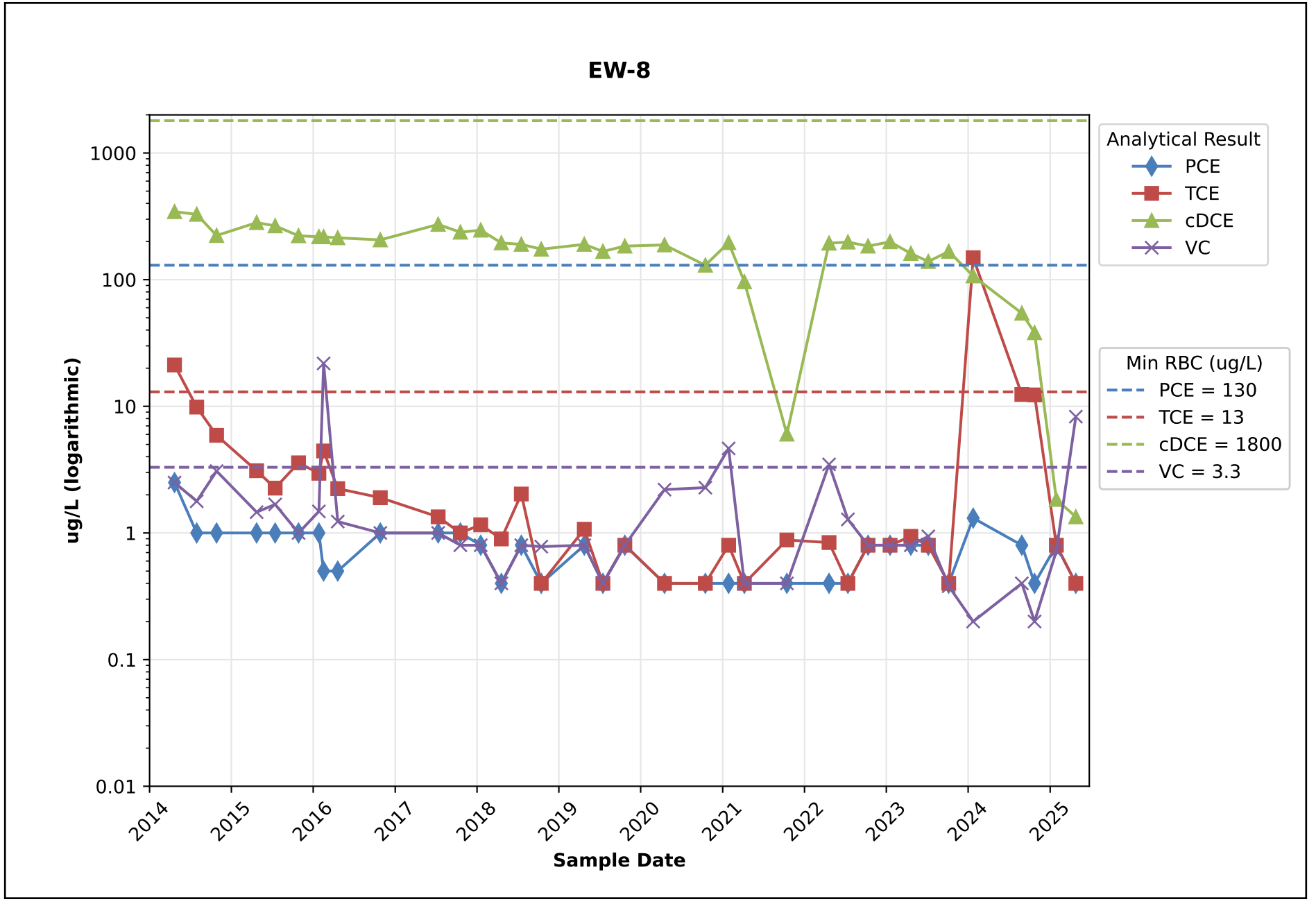
APPENDIX D – CHARTS

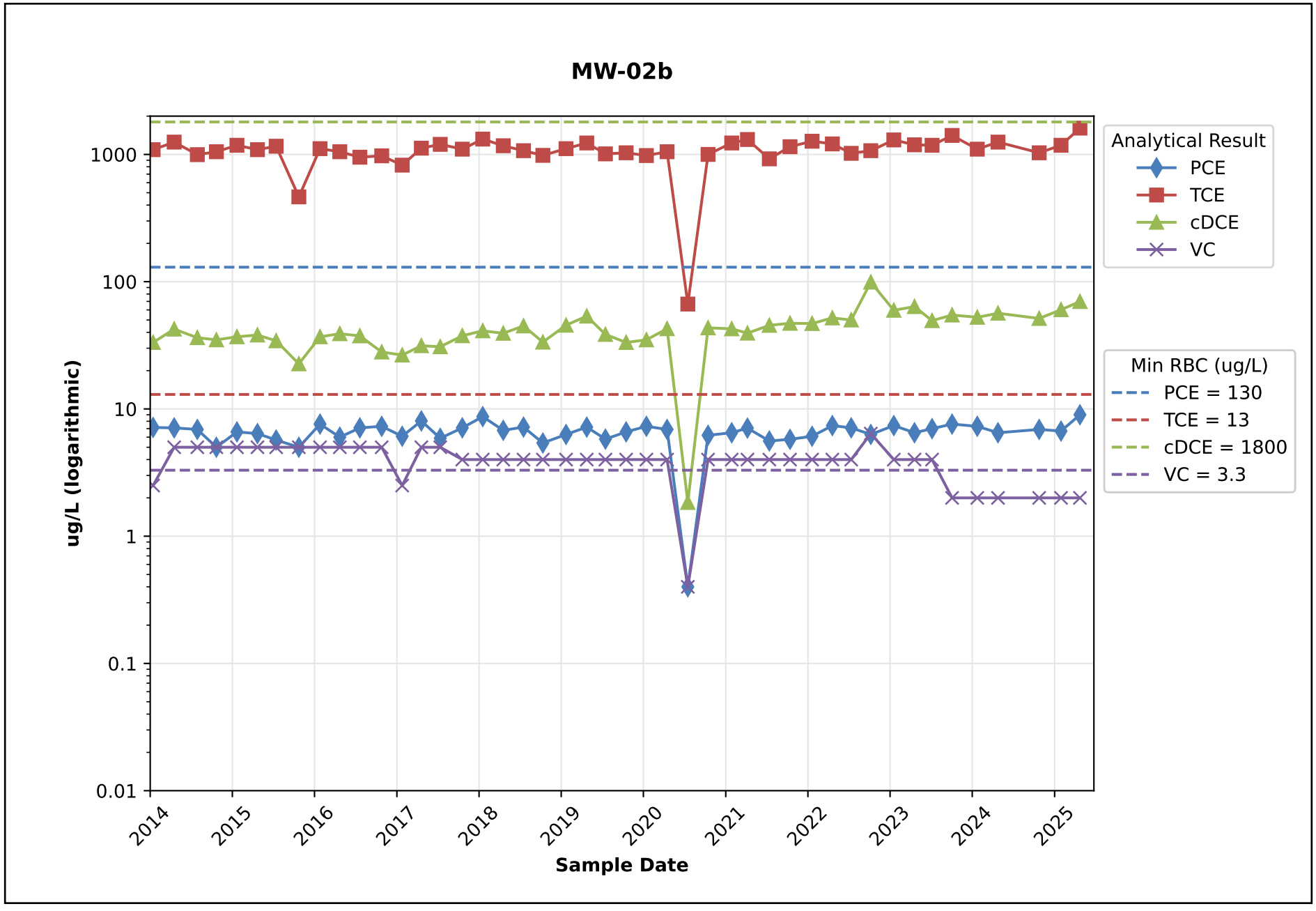
Constituent Concentration Trend Charts for Numerous Wells (Alphanumeric Order)

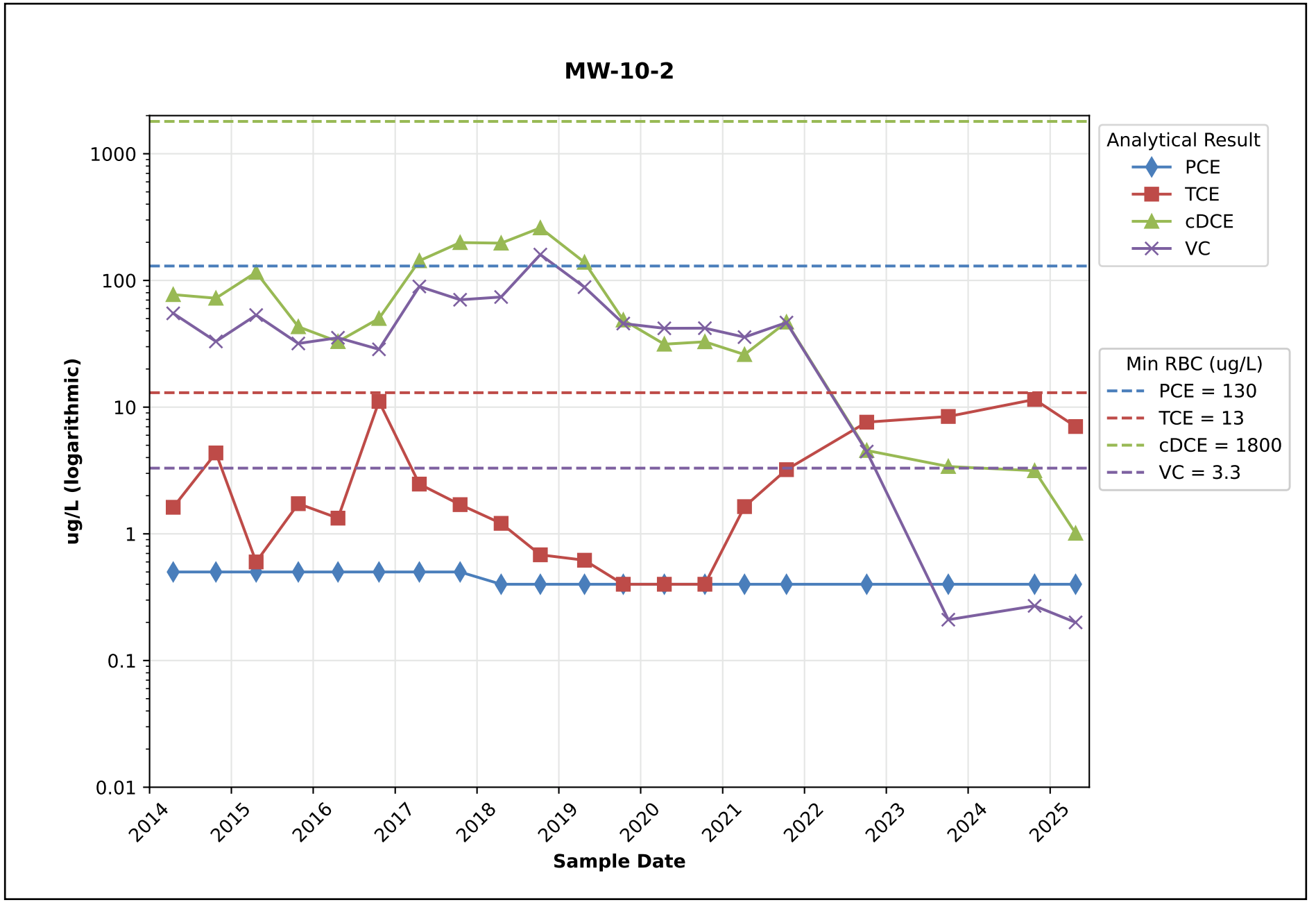

DPE-1
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

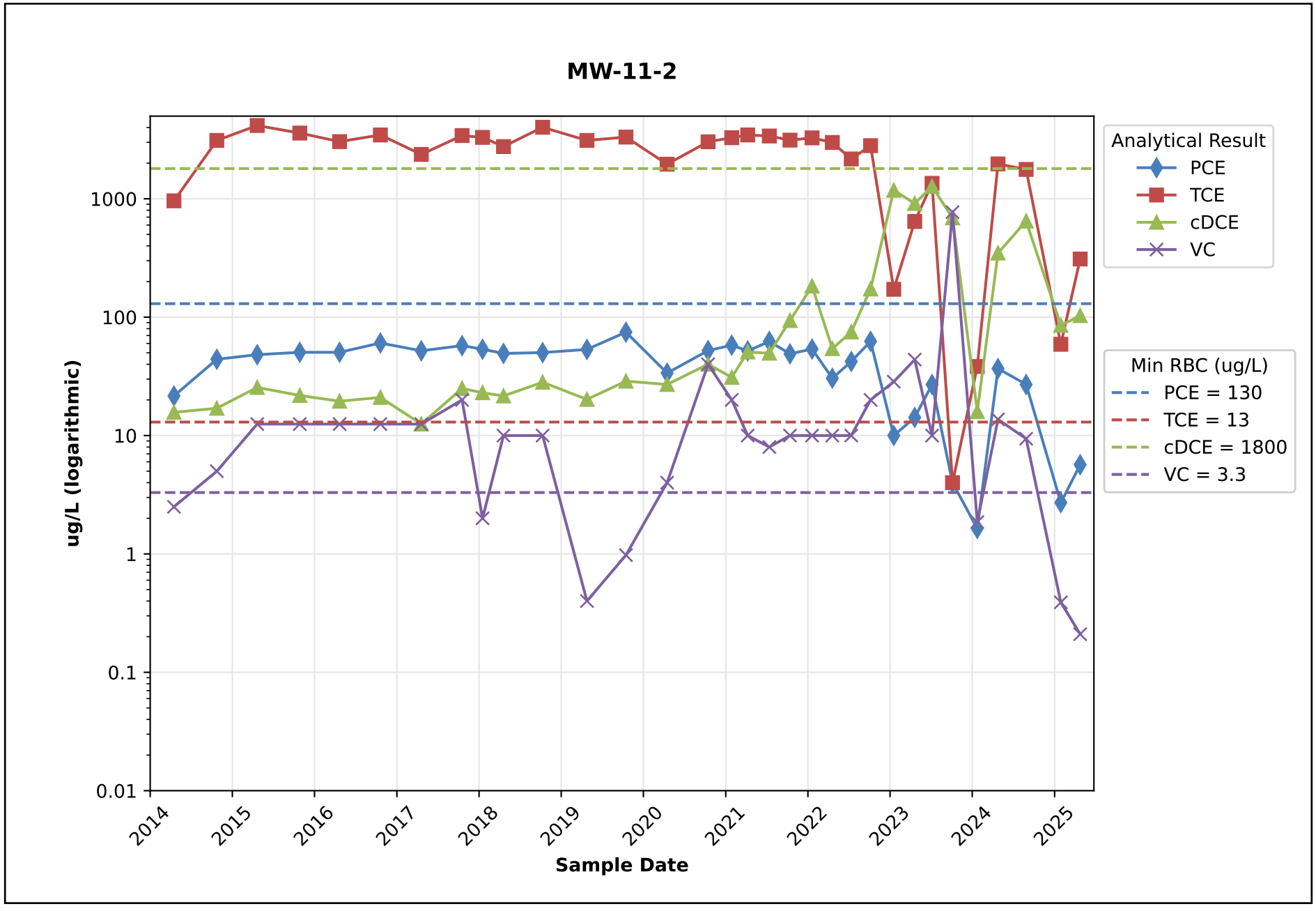

DPE-7
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

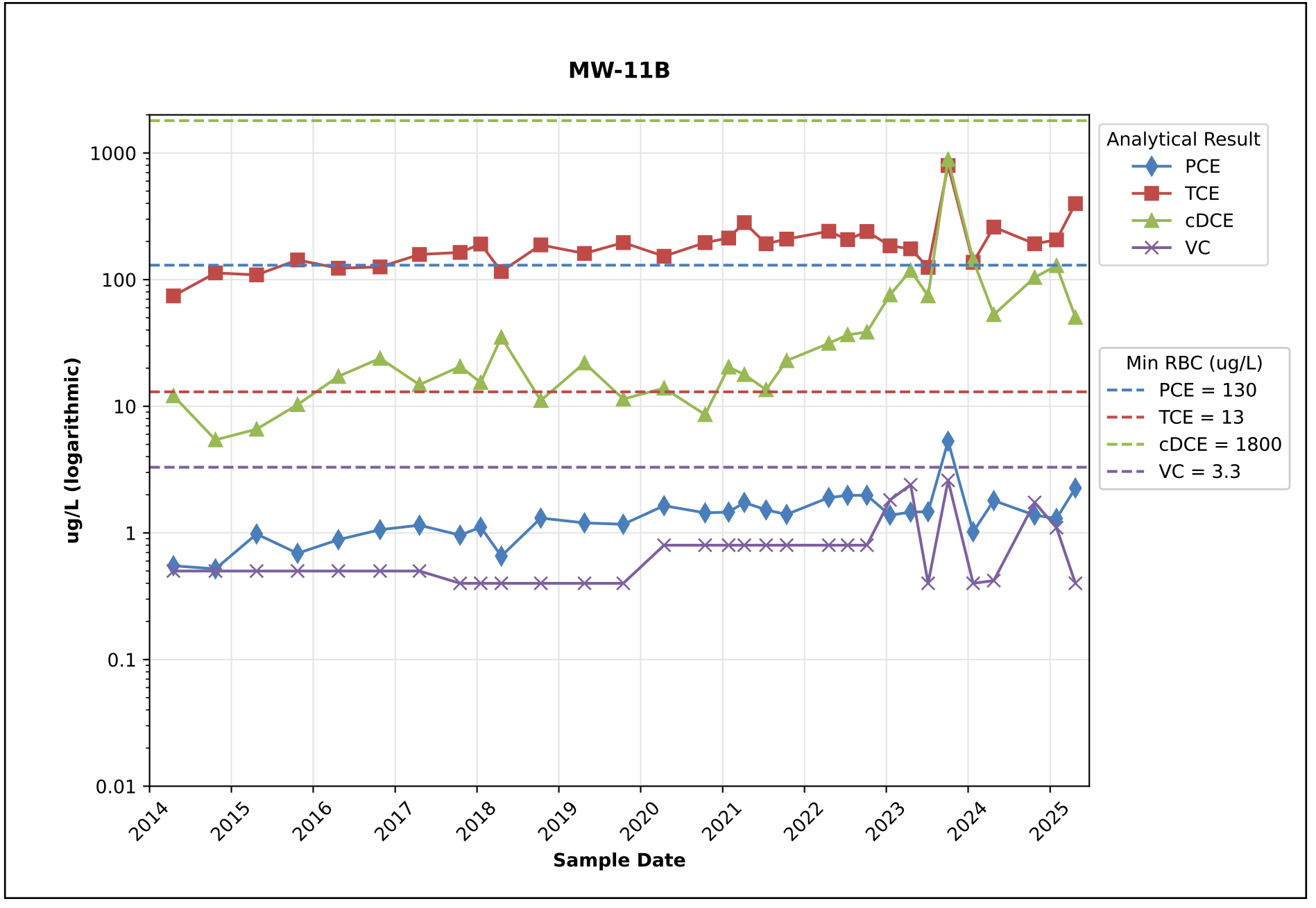

EW-6
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

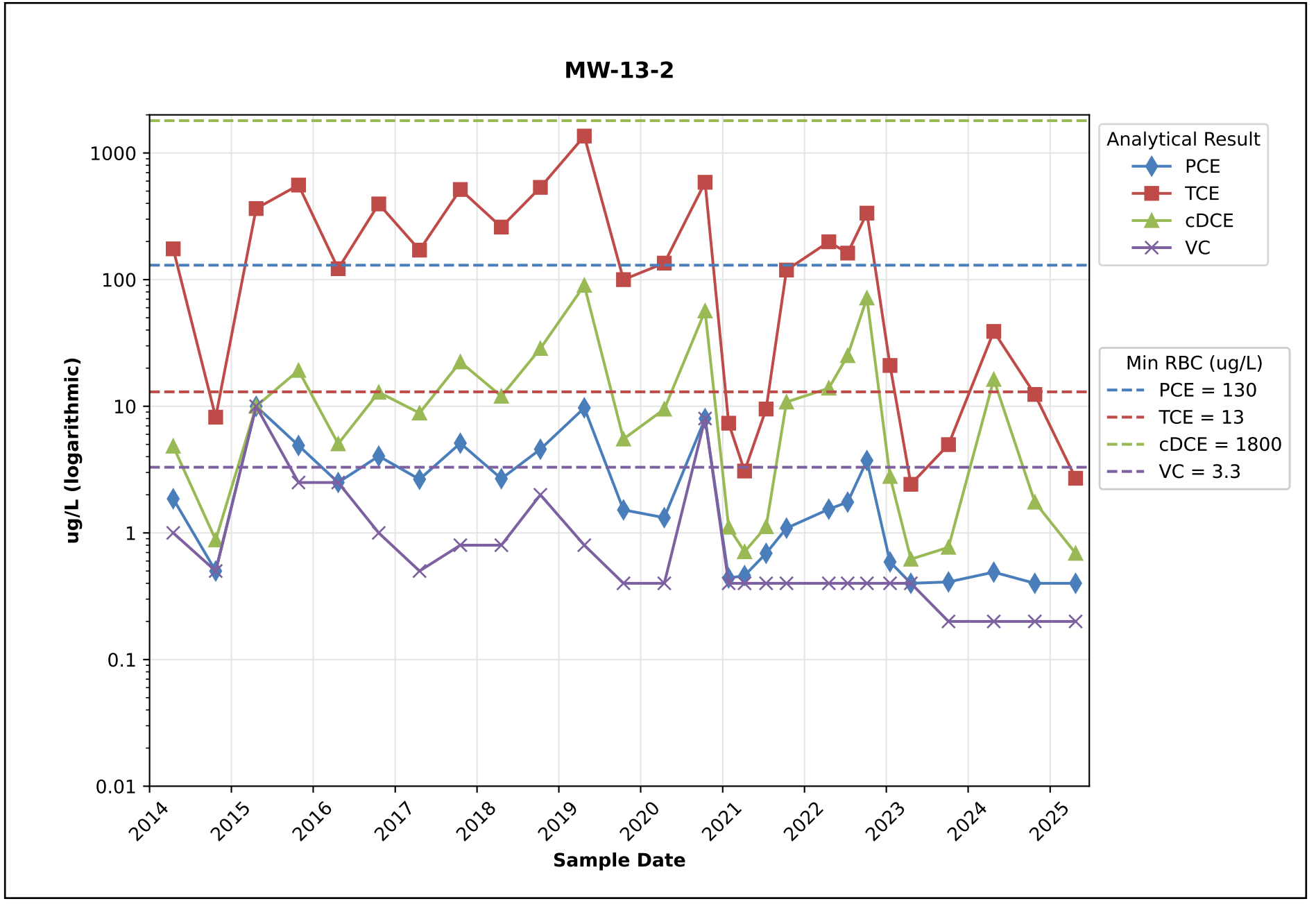

EW-8
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

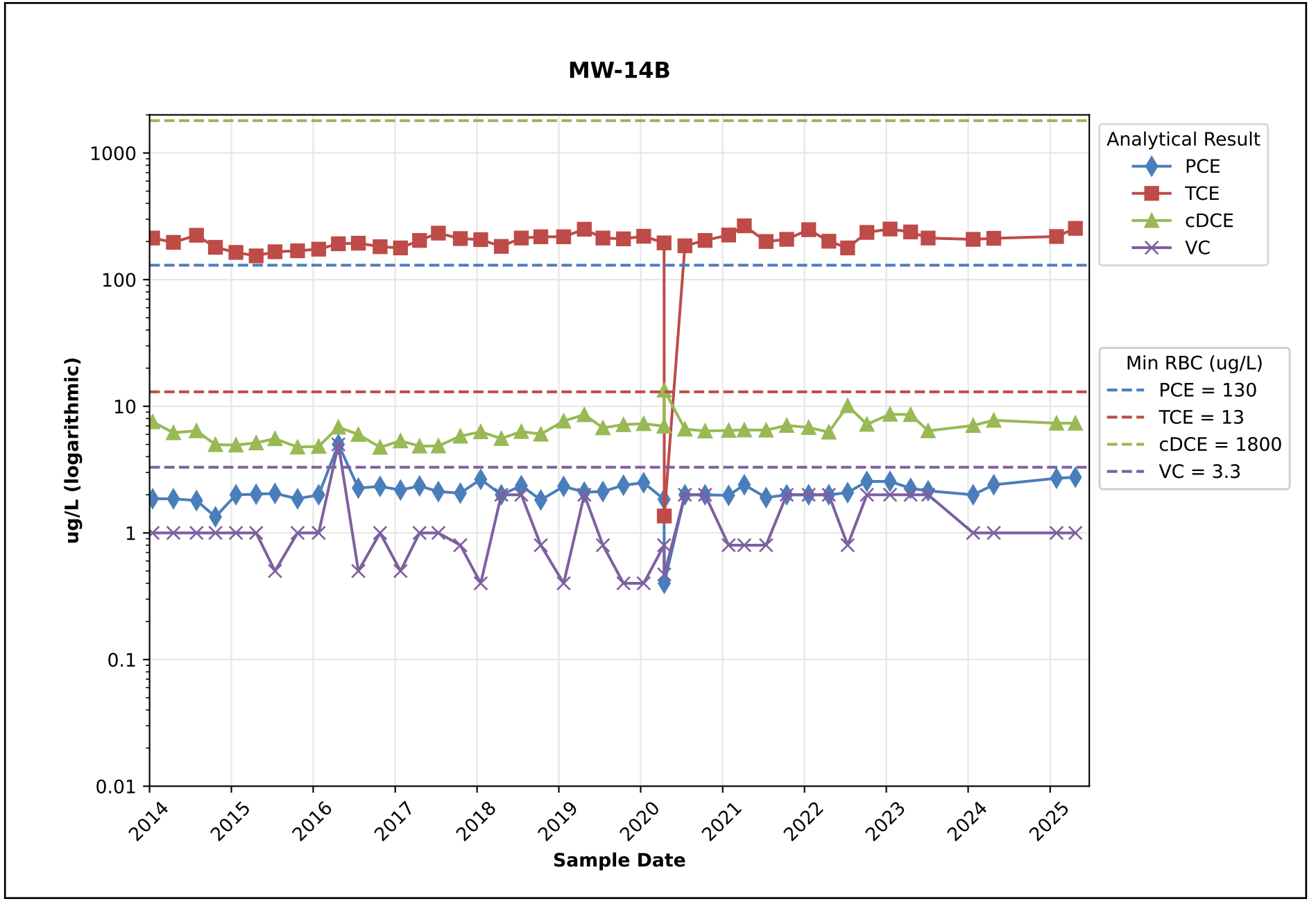

MW-02b
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

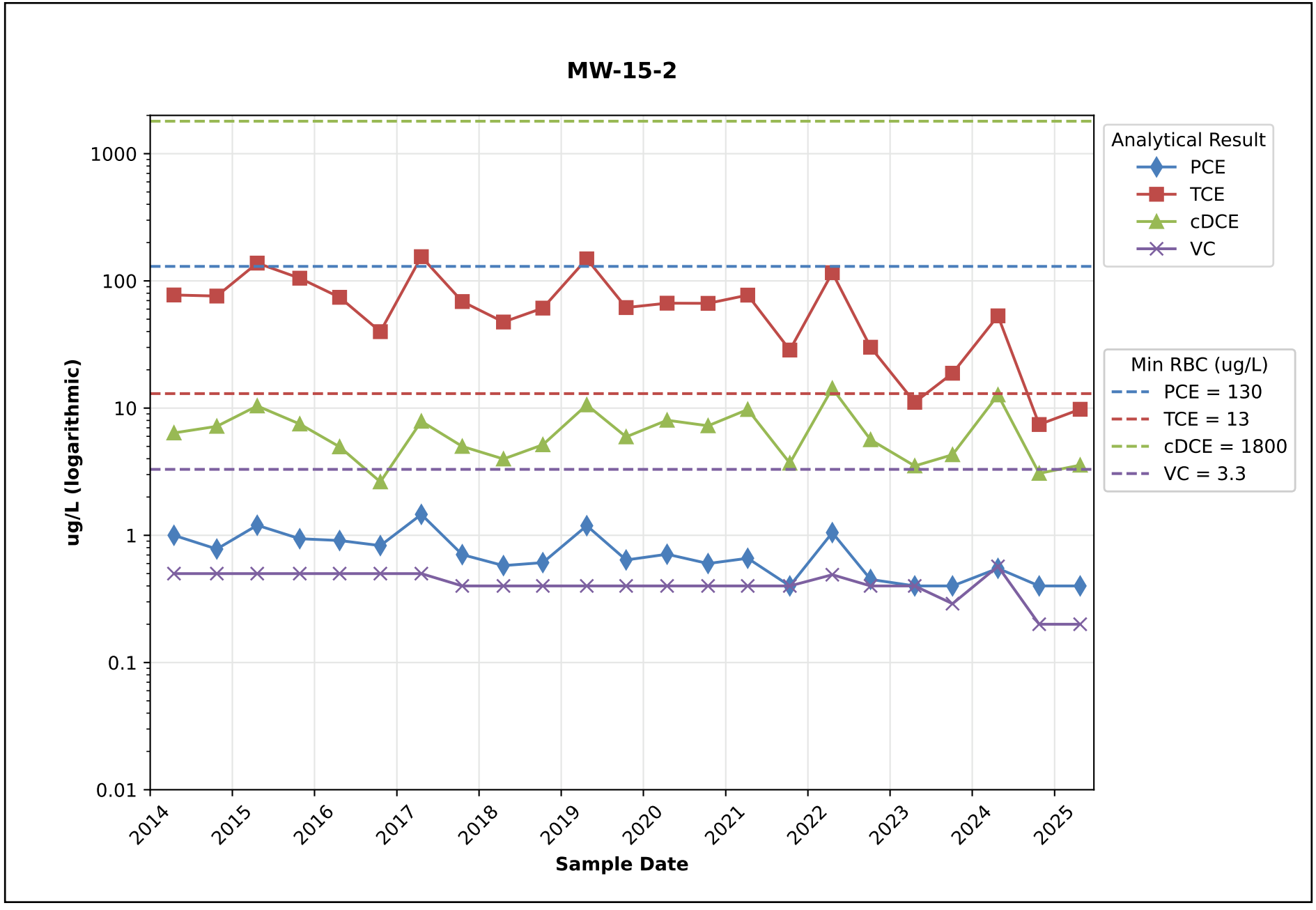

MW-10-2
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

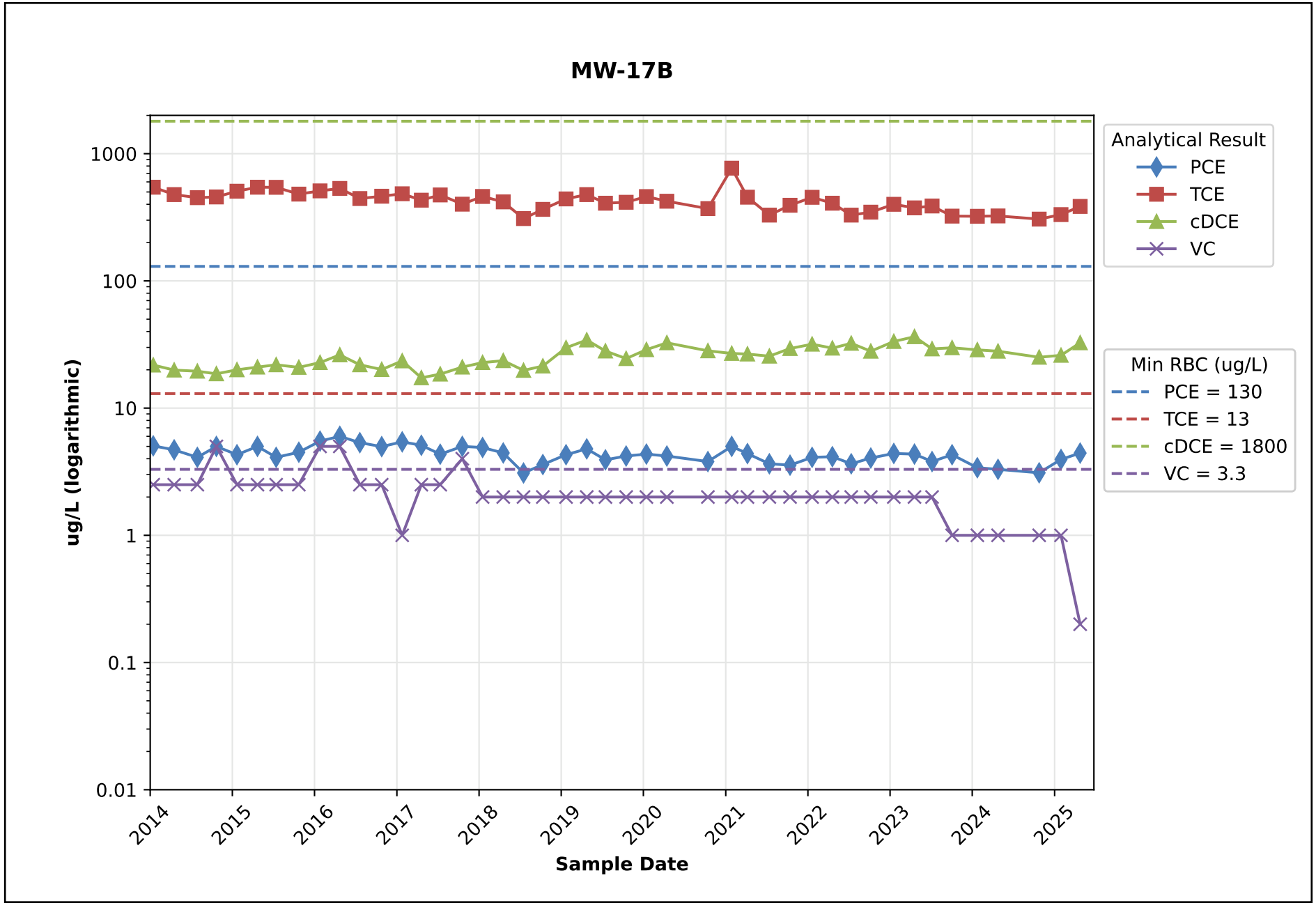

MW-11-2
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

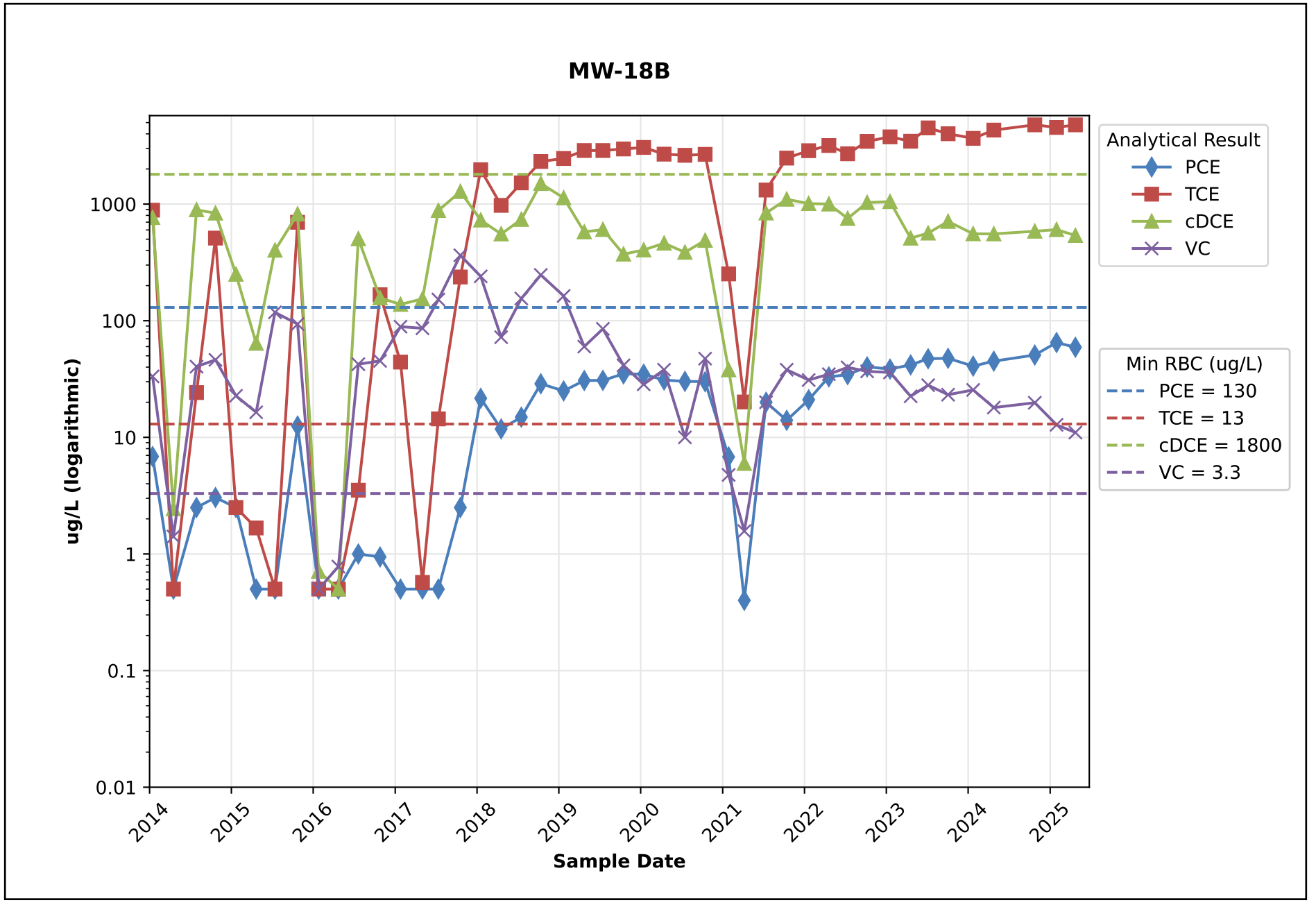

MW-11B
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3


MW-13-2
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3


MW-14B
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3


MW-15-2
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3


MW-17B
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3


MW-18B
ug/L (logarithmic)
1000
100
10
1
0.1
0.01
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
Sample Date
Analytical Result
PCE
TCE
cDCE
VC
Min RBC (ug/L)
PCE = 130
TCE = 13
cDCE = 1800
VC = 3.3

APPENDIX D – TABLE D-1

Groundwater Quality Data from 2014 through April 2025

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
A1	SU A	4/4/2022	8260D	0.400 U	1.08	3.13	0.400 U	6.76	--	--
A1	SU A	10/11/2022	8260D	0.400 U	0.500	0.990	0.400 U	4.03	--	--
A1	SU A	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
A1	SU A	10/22/2024	8260D	0.400 U	0.400 U	0.470	0.400 U	0.220	--	--
A4	SU A	4/4/2022	8260D	0.400 U	0.400 U	0.410	0.400 U	0.400 U	--	--
A4	SU A	10/11/2022	8260D	0.400 U	0.400 U	0.420	0.400 U	0.400 U	--	--
A4	SU A	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
A5	SU A	10/11/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
A5 Dup	SU A	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
A5	SU A	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
A5	SU A	10/22/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A7	SU A	10/12/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.410	--	--
A7	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A8	SU A	10/12/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
A8	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A10	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.500 U	--	--
A11	SU A	10/17/2022	8260D	0.400 UJ	0.400 UJ	0.440 J	0.400 UJ	1.36 J	--	--
A11	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.330	--	--
A11	SU A	10/28/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A12	SU A	10/17/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
A12	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A16	SU A	10/12/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
A16	SU A	10/4/2023	8260D	2.00 U	2.00 U	2.20	2.00 U	1.65	--	--
A16	SU A	10/21/2024	8260D	0.400 U	6.71	2.85	0.400 U	0.200 U	--	--
A18	SU A	10/20/2022	8260D	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	--	--
A18	SU A	10/5/2023	8260D	2.00 U	2.00 U	2.45	2.00 U	1.00 U	--	--
A34	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.510	0.400 U	0.590	--	--
A34	SU A	10/4/2023	8260D	0.400 U	0.400 U	1.97	0.400 U	0.270	--	--
A34	SU A	10/28/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
A35	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.400	0.400 U	9.44	--	--
A35 Dup	SU A	10/4/2023	8260D	0.400 U	0.400 U	0.470	0.400 U	0.830	--	--
A35	SU A	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.650	--	--
A36	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	6.82	--	--
A36	SU A	10/4/2023	8260D	0.400 U	0.400 U	0.540	0.400 U	0.810	--	--
A36	SU A	10/28/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.410	--	--
A45	SU A	10/18/2022	8260D	0.400 U	1.12	157	0.760	0.950	--	--
A45	SU A	10/5/2023	8260D	0.400 U	1.32	121	0.640	1.15	--	--
A47	SU A	10/18/2022	8260D	0.400 U	0.400 U	5.07	0.400 U	5.38	--	--
A47	SU A	10/5/2023	8260D	0.400 U	0.400 U	2.56	0.400 U	2.26	--	--
A48	SU A	10/18/2022	8260D	4.00 U	256	178	45.9	85.3	--	--
A48	SU A	10/5/2023	8260D	0.800 U	155	170	72.4	103	--	--
A48	SU A	10/29/2024	8260D	0.800 U	5.38	333	25.0	101	--	--
A50	SU A	10/18/2022	8260D	0.400 U	0.400 U	1.42	0.400 U	1.27	--	--
A50	SU A	10/5/2023	8260D	0.400 U	0.400 U	3.46	0.400 U	5.41	--	--
A50	SU A	10/29/2024	8260D	0.400 U	0.400 U	2.59	0.400 U	5.00	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
B1	SU B	4/4/2022	8260D	0.400 U	0.400 U	0.870	0.400 U	4.23	--	--
B1	SU B	10/3/2023	8260D	0.400 U	0.400 U	0.900	0.400 U	1.17	--	--
B1 Dup	SU B	10/22/2024	8260D	0.400 U	0.400 U	0.410	0.400 U	0.820	--	--
B1	SU B	10/22/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.770	--	--
B2	SU B	4/4/2022	8260D	0.400 U	0.400 U	6.48	0.400 U	20.2	--	--
B2	SU B	10/12/2022	8260D	0.400 U	0.400 U	55.5	0.890	123	--	--
B2	SU B	10/3/2023	8260D	4.00 U	4.00 U	9.20	4.00 U	3.40	--	--
B3	SU B	4/4/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.21	--	--
B3	SU B	10/12/2022	8260D	0.400 U	0.400 U	0.990	0.400 U	3.32	--	--
B3	SU B	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
B3	SU B	10/22/2024	8260D	0.400 U	0.510	1.54	0.400 U	1.93	--	--
B4	SU B	10/3/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
B8	SU B	10/20/2021	8260D	0.400 U	7.30	3.62	0.400 U	1.52	--	--
B8	SU B	10/17/2022	8260D	0.400 U	0.400 U	0.530	0.400 U	0.400 U	--	--
B8	SU B	10/3/2023	8260D	0.400 U	0.400 U	0.460	0.400 U	0.230	--	--
B8	SU B	10/28/2024	8260D	0.400 U	0.400 U	1.88	0.400 U	4.44	--	--
B9	SU B	10/19/2021	8260D	0.400 U	18.6	50.9	0.400 U	7.33	--	--
B9	SU B	10/17/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B9	SU B	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
B10	SU B	10/19/2021	8260D	0.400 U	4.63	10.1	0.400 U	3.77	--	--
B10	SU B	10/17/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B10	SU B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.380	--	--
B10	SU B	10/24/2024	8260D	0.400 U	0.400 U	1.27	0.400 U	2.25	--	--
B12	SU B	10/4/2023	8260D	4.00 U	4.00 U	20.3	4.00 U	2.00 U	--	--
B13	SU B	7/18/2018	8260C	0.400 UJ	0.400 UJ	8.27 J	0.400 UJ	5.94 J	--	--
B13	SU B	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
B13	SU B	10/21/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.320	--	--
B18	SU B	10/19/2021	8260D	0.400 U	1.69	2.81	0.400 U	0.400 U	--	--
B18	SU B	10/17/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B18	SU B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.330	--	--
B18	SU B	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.350	--	--
B23	SU B	4/27/2017	8260B	2.50 U	2.50 U	811	2.90	9.90	--	--
B23	SU B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B23	SU B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.260	--	--
B23	SU B	10/28/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
B24 Dup	SU B	4/27/2017	8260B	10.0 U	10.0 U	1,330	10.0 U	19.0	--	--
B24	SU B	4/27/2017	8260B	5.00 U	15.0	1,270	5.60	18.5	--	--
B24	SU B	10/15/2020	8260D	1.27	146	3.78	0.400 U	0.820	--	--
B24	SU B	10/19/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B24	SU B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B24	SU B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
B25	SU B	4/27/2017	8260B	0.580	0.900	7.93	0.500 U	2.23	--	--
B25	SU B	10/15/2020	8260D	0.400 U	17.6	0.860	0.400 U	1.91	--	--
B25	SU B	10/19/2021	8260D	0.400 U	14.8	0.855	0.400 U	0.400 U	--	--
B25	SU B	10/5/2022	8260D	0.400 U	0.400 U	0.520	0.400 U	0.720	--	--

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Groundwater Quality Data from 2014 through 2024
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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
B25	SU B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.250	--	--
B26	SU B	4/27/2017	8260B	1.00 U	9.86	305	4.68	37.5	--	--
B26	SU B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
B31	SU B	7/18/2018	8260C	0.400 U	0.840	2.53	0.400 U	0.400 U	--	--
B32	SU B	7/18/2018	8260C	0.400 U	3.71	5.36	1.15	2.05	--	--
B33	SU B	10/20/2021	8260D	0.400 U	4.15	3.81	0.400 U	1.70	--	--
B33	SU B	10/18/2022	8260D	0.400 U	2.75	2.27	0.400 U	0.710	--	--
B33	SU B	10/5/2023	8260D	0.400 U	0.400 U	1.06	0.400 U	0.300	--	--
B37	SU B	10/12/2021	8260D	0.400 U	0.400 U	518	11.3	440	--	--
B37	SU B	10/18/2022	8260D	0.400 U	0.400 U	23.4	1.27	6.71	--	--
B37	SU B	10/18/2022	8260D	0.400 U	0.400 U	18.8	1.01	6.27	--	--
B37	SU B	10/5/2023	8260D	0.400 U	0.400 U	254	4.84	193	--	--
B37	SU B	10/29/2024	8260D	2.00 U	39.4	683	15.2	171	--	--
B44	SU B	10/6/2023	8260D	0.400 U	0.400 U	6.44	0.830	4.40	--	--
B45	SU B	10/12/2021	8260D	0.400 U	0.480	2.22	0.400 U	3.46	--	--
B45	SU B	10/19/2022	8260D	0.400 U	0.870	3.82	0.400 U	3.88	--	--
B45	SU B	10/6/2023	8260D	0.400 U	0.980	3.03	0.400 U	4.41	--	--
B45 Dup	SU B	10/25/2024	8260D	0.400 U	0.440	2.00	0.400 U	2.52	--	--
B45	SU B	10/25/2024	8260D	0.400 U	0.570	1.75	0.400 U	2.70	--	--
CRC-1	SU A	10/27/2015	8260B	0.500 U	0.730	0.500 U	0.500 U	0.500 U	--	--
CRC-1	SU A	10/20/2016	8260B	0.500 U	0.540	0.500 U	0.500 U	0.500 U	--	--
CRC-1	SU A	10/18/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
CRC-1	SU A	10/14/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-1	SU A	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-1	SU A	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-1	SU A	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-1	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-1	SU A	10/3/2023	8260D	0.400 U	0.430	0.400 U	0.400 U	0.200 U	--	--
CRC-1	SU A	10/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
CRC-1	SU A	4/23/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
CRC-7	SU B	4/16/2014	8260B	2.42	29.0	3.65	0.500 U	0.500 U	--	--
CRC-7 Dup	SU B	4/16/2014	8260B	2.34	26.0	1.08	0.500 U	0.500 U	--	--
CRC-7	SU B	10/27/2015	8260B	1.62	13.2	0.500	0.500 U	0.500 U	--	--
CRC-7	SU B	10/20/2016	8260B	2.12	14.0	0.500 U	0.500 U	0.500 U	--	--
CRC-7	SU B	10/18/2017	8260C	1.77	11.7	1.01	0.500 U	0.400 U	--	--
CRC-7	SU B	10/14/2018	8260C	1.37	8.05	0.400 U	0.400 U	0.400 U	--	--
CRC-7	SU B	10/15/2019	8260C	0.466	3.92	0.400 U	0.400 U	0.400 U	--	--
CRC-7	SU B	10/14/2020	8260D	2.13	35.7	11.3	0.400 U	0.744	--	--
CRC-7	SU B	1/27/2021	8260D	0.400 U	1.09	0.400 U	0.400 U	0.400 U	--	--
CRC-7	SU B	10/13/2021	8260D	1.21	5.19	0.400 U	0.400 U	0.400 U	--	--
CRC-7	SU B	10/5/2022	8260D	1.40	4.54	0.400 U	0.400 U	0.400 U	--	--
CRC-7	SU B	10/5/2023	8260D	0.610	4.58	0.470	0.400 U	0.200 U	--	--
CRC-7	SU B	10/23/2024	8260D	1.13	3.43	0.400 U	0.400 U	0.200 U	--	--
CRC-7	SU B	4/23/2025	8260D	0.400 U	0.810	0.400 U	0.400 U	0.200 U	--	--
CRC-10	SU A	4/21/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
CRC-10 Dup	SU A	4/21/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
CRC-10	SU A	10/27/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
CRC-10	SU A	4/21/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
CRC-10	SU A	10/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
CRC-10	SU A	4/19/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
CRC-10	SU A	10/18/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
CRC-10	SU A	4/19/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/15/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
CRC-10	SU A	10/5/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-1	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.750	--	--
DPE-1	SU A&B	4/22/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.540	--	--
DPE-1	SU A&B	10/26/2015	8260B	1.10	17.8	16.4	0.720	5.77	--	--
DPE-1 Dup	SU A&B	10/26/2015	8260B	2.57	38.1	32.0	1.52	10.5	--	--
DPE-1	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	1.79	0.500 U	1.57	--	--
DPE-1 Dup	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	1.78	0.500 U	1.60	--	--
DPE-1	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	1.24	0.500 U	2.06	--	--
DPE-1 Dup	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	1.16	0.500 U	2.17	--	--
DPE-1	SU A&B	4/18/2017	8260B	0.500 U	0.591	0.500 U	0.500 U	0.500 U	--	--
DPE-1 Dup	SU A&B	4/18/2017	8260B	0.500 U	0.511	0.500 U	0.500 U	0.500 U	--	--
DPE-1	SU A&B	10/17/2017	8260C	0.500 U	5.16	4.23	0.500 U	2.64	--	--
DPE-1 Dup	SU A&B	10/17/2017	8260C	0.500 U	6.24	4.59	0.500 U	2.69	--	--
DPE-1	SU A&B	4/18/2018	8260C	0.400 U	0.400 U	0.446	0.400 U	0.753	--	--
DPE-1	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.937	--	--
DPE-1	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	1.25	--	--
DPE-1	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.03	--	--
DPE-1	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.05	--	--
DPE-1 Dup	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.05	--	--
DPE-1	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.940	--	--
DPE-1 Dup	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.910	--	--
DPE-1	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.560	--	--
DPE-1 Dup	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.580	--	--
DPE-1	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.560	--	--
DPE-1 Dup	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.580	--	--
DPE-2	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-2	SU A&B	4/22/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-2	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-2 Dup	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-2	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.740	--	--
DPE-2	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	0.550	0.500 U	0.500	--	--
DPE-2 Dup	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	1.20	0.500 U	0.780	--	--
DPE-3	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.680	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DPE-3 Dup	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.550 U	0.500 U	0.670	--	--
DPE-3	SU A&B	4/22/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-3	SU A&B	10/26/2015	8260B	0.500 U	1.07	2.94	0.500 U	1.21	--	--
DPE-3 Dup	SU A&B	10/26/2015	8260B	0.500 U	1.15	3.33	0.500 U	1.10	--	--
DPE-3	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500	--	--
DPE-3 Dup	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-3	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.660	--	--
DPE-3	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.727	0.500 U	1.44	--	--
DPE-3 Dup	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.623	0.500 U	1.28	--	--
DPE-3	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
DPE-3 Dup	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
DPE-3	SU A&B	4/18/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3 Dup	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3 Dup	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3 Dup	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-3 Dup	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-3	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3 Dup	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-3	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-4	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.570	0.500 U	0.720	--	--
DPE-4	SU A&B	4/22/2015	8260B	0.500 U	0.500 U	0.560	0.500 U	0.780	--	--
DPE-4	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-4 Dup	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-4	SU A&B	4/20/2016	8260B	0.500 U	0.720	0.500 U	0.500 U	0.590	--	--
DPE-4 Dup	SU A&B	4/20/2016	8260B	0.500 U	0.650	0.500	0.500 U	0.590	--	--
DPE-4	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-4	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.914	0.500 U	0.500 U	--	--
DPE-4 Dup	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.736	0.500 U	0.500 U	--	--
DPE-4	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	2.08	0.500 U	0.450	--	--
DPE-4 Dup	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	1.97	0.500 U	0.460	--	--
DPE-4	SU A&B	4/18/2018	8260C	0.400 U	0.400 U	0.506	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.576	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4 Dup	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4 Dup	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4 Dup	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-4 Dup	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DPE-4	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-4	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-5	SU A&B	4/16/2014	8260B	0.500 U	0.770	0.900	0.500 U	0.850	--	--
DPE-5	SU A&B	4/22/2015	8260B	0.500 U	0.580	0.500 U	0.500 U	0.500 U	--	--
DPE-5	SU A&B	10/26/2015	8260B	0.500 U	9.46	3.08	0.500 U	0.500 U	--	--
DPE-5 Dup	SU A&B	10/26/2015	8260B	0.500 U	5.28	1.79	0.500 U	0.500 U	--	--
DPE-5	SU A&B	4/20/2016	8260B	0.500 U	0.700	0.500	0.500 U	0.500 U	--	--
DPE-5	SU A&B	10/25/2016	8260B	0.500 U	0.513	0.539	0.500 U	0.500 U	--	--
DPE-5	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.816	0.500 U	1.58	--	--
DPE-5 Dup	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.939	0.500 U	1.96	--	--
DPE-5	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	1.55	0.500 U	0.840 J	--	--
DPE-5 Dup	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	1.34	0.500 U	0.560 J	--	--
DPE-5	SU A&B	4/18/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5 Dup	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5 Dup	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5 Dup	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5 Dup	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-5 Dup	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-5	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-5	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-5	SU A&B	10/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-5	SU A&B	4/24/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-6	SU A&B	4/16/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	4/22/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6 Dup	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6 Dup	SU A&B	4/20/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	4/18/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
DPE-6	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
DPE-6 Dup	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
DPE-6	SU A&B	4/18/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6 Dup	SU A&B	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6 Dup	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6 Dup	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DPE-6 Dup	SU A&B	10/12/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 UJ	--	--
DPE-6	SU A&B	7/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
DPE-6	SU A&B	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
DPE-7	SU A&B	4/22/2014	8260B	2.50 U	24.9	424	2.50 U	3.40	--	--
DPE-7	SU A&B	7/30/2014	8260B	2.50 U	5.20	125	2.50 U	2.50 U	--	--
DPE-7	SU A&B	4/23/2015	8260B	0.500 U	11.8	80.3	1.06	1.42	--	--
DPE-7	SU A&B	7/15/2015	8260B	0.920	72.7	450	7.94	14.0	--	--
DPE-7	SU A&B	10/27/2015	8260B	2.50 U	47.4	517	7.05	37.6	--	--
DPE-7	SU A&B	1/26/2016	8260B	12.5 U	53.5	305	12.5 U	12.5 U	--	--
DPE-7	SU A&B	4/19/2016	8260B	0.750	42.7	121	1.05	1.23	--	--
DPE-7	SU A&B	10/26/2016	8260B	1.34	88.0	67.3	1.22	0.700	--	--
DPE-7	SU A&B	4/20/2017	8260B	1.00 U	22.9	96.2	2.00	5.96	--	--
DPE-7	SU A&B	7/11/2017	8260B	0.500 U	30.7	78.9	0.775	0.850	--	--
DPE-7	SU A&B	10/18/2017	8260C	0.500 U	32.7	91.9	0.759	0.953	--	--
DPE-7	SU A&B	1/17/2018	8260C	0.400 U	19.6	64.6	0.610	0.720	--	--
DPE-7	SU A&B	4/19/2018	8260C	0.400 U	27.2	70.0	0.400 U	0.883	--	--
DPE-7	SU A&B	7/17/2018	8260C	0.400 U	8.35	13.9	0.400 U	2.26	--	--
DPE-7	SU A&B	10/14/2018	8260C	0.494	36.6	81.5	0.739	6.35	--	--
DPE-7	SU A&B	4/24/2019	8260C	0.564	38.0	79.2	0.552	3.29	--	--
DPE-7	SU A&B	7/16/2019	8260C	0.421	31.5	63.2	0.400 U	0.612	--	--
DPE-7	SU A&B	10/22/2019	8260C	0.400 U	2.40	10.5	0.400 U	0.400 U	--	--
DPE-7	SU A&B	4/16/2020	8260C	0.400 U	28.9	72.4	1.49	15.5	--	--
DPE-7	SU A&B	7/16/2020	8260D	4.89	249	61.1	1.10	10.7	--	--
DPE-7	SU A&B	10/15/2020	8260D	0.400 U	18.1	81.1	0.850	0.570	--	--
DPE-7	SU A&B	1/27/2021	8260D	0.430	31.5	93.2	1.13	0.550	--	--
DPE-7	SU A&B	4/7/2021	8260D	0.400 U	30.8	76.9	0.645	0.489	--	--
DPE-7 Dup	SU A&B	4/7/2021	8260D	0.400 U	30.2	75.5	0.531	0.524	--	--
DPE-7	SU A&B	7/13/2021	8260D	0.400 U	26.0	89.3	0.805	4.05	--	--
DPE-7	SU A&B	10/14/2021	8260D	0.400 U	29.1	94.3	0.962	0.521	--	--
DPE-7	SU A&B	1/19/2022	8260D	0.400 U	34.5	59.4	0.590	0.400 U	--	--
DPE-7	SU A&B	4/20/2022	8260D	0.400 U	17.0	30.0	0.400 U	0.400 U	--	--
DPE-7	SU A&B	7/13/2022	8260D	0.400 U	28.5	47.7	0.550	0.400 U	--	--
DPE-7	SU A&B	10/11/2022	8260D	0.410	29.5	42.2	0.480	0.400 U	--	--
DPE-7	SU A&B	1/17/2023	8260D	0.440	34.2	41.6	0.410	0.750	--	--
DPE-7	SU A&B	4/20/2023	8260D	0.400 U	7.46	4.68	0.400 U	0.400 U	--	--
DPE-7	SU A&B	7/7/2023	8260D	0.510	49.8	33.7	0.460	1.24	--	--
DPE-7	SU A&B	10/6/2023	8260D	0.460	46.0	36.0	0.510	0.340	--	--
DPE-7	SU A&B	1/23/2024	8260D	0.420	34.2	39.7	0.540	0.280	--	--
DPE-7	SU A&B	4/25/2024	8260D	0.400 U	34.4	36.4	0.440	0.280	--	--
DPE-7	SU A&B	8/27/2024	8260D	0.400 U	32.1	36.1	0.480	0.610	--	--
DPE-7	SU A&B	10/23/2024	8260D	0.400	34.0	37.2	0.400 U	0.200 U	--	--
DPE-7	SU A&B	1/29/2025	8260D	0.400 U	36.0	31.2	0.450	0.200 U	--	--
DPE-7	SU A&B	4/25/2025	8260D	0.400 U	40.7	31.4	0.400	0.200 U	--	--
DPE-8	SU A&B	4/22/2014	8260B	0.890	44.3	2.11	0.500 U	0.500 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
DPE-8	SU A&B	7/30/2014	8260B	10.2	496	6.90	2.50 U	2.50 U	--	--
DPE-8	SU A&B	4/23/2015	8260B	9.90	586	6.85	2.50 U	2.50 U	--	--
DPE-8	SU A&B	7/15/2015	8260B	8.10	552	6.15	2.50 U	2.50 U	--	--
DPE-8	SU A&B	10/27/2015	8260B	9.45	572	8.20	2.50 U	2.50 U	--	--
DPE-8	SU A&B	1/26/2016	8260B	11.0	561	6.00	2.50 U	2.50 U	--	--
DPE-8	SU A&B	4/19/2016	8260B	0.500 U	12.1	0.500 U	0.500 U	0.500 U	--	--
DPE-8	SU A&B	10/26/2016	8260B	9.98	516	5.16	2.50 U	2.50 U	--	--
DPE-8	SU A&B	4/20/2017	8260B	12.8	508	8.00	2.50 U	2.50 U	--	--
DPE-8	SU A&B	7/11/2017	8260B	10.9 J	758 J	9.26 J	2.50 U	2.50 U	--	--
DPE-8	SU A&B	10/18/2017	8260C	11.4	645	8.35	2.50 U	2.00 U	--	--
DPE-8	SU A&B	1/17/2018	8260C	8.90	562	8.30	2.00 U	2.00 U	--	--
DPE-8	SU A&B	4/19/2018	8260C	8.03	479	15.2	2.00 U	2.00 U	--	--
DPE-8	SU A&B	7/17/2018	8260C	7.60	484	112	2.00 U	2.00 U	--	--
DPE-8	SU A&B	10/14/2018	8260C	7.30 J	565 J	123 J	2.00 U	2.00 U	--	--
DPE-8	SU A&B	4/24/2019	8260C	3.09	196	396	2.00 U	3.93	--	--
DPE-8	SU A&B	7/16/2019	8260C	3.28	228	327	2.00 U	4.13	--	--
DPE-8	SU A&B	10/22/2019	8260C	5.38	406	90.8	2.00 U	3.02	--	--
DPE-8	SU A&B	4/16/2020	8260C	8.00	560	27.6	2.00 U	2.00 U	--	--
DPE-8	SU A&B	7/16/2020	8260D	8.54	625	34.1	4.00 U	4.00 U	--	--
DPE-8	SU A&B	10/15/2020	8260D	8.00	605	28.6	2.00 U	2.00 U	--	--
DPE-8	SU A&B	1/27/2021	8260D	13.0 J	968 J	33.4 J	2.00 U	2.00 U	--	--
DPE-8	SU A&B	4/7/2021	8260D	10.2	752	27.3	4.00 U	4.00 U	--	--
DPE-8	SU A&B	7/13/2021	8260D	8.40	549	75.9	2.00 U	2.00 U	--	--
DPE-8	SU A&B	10/14/2021	8260D	0.400 U	24.8	83.6	0.750	0.400 U	--	--
DPE-8	SU A&B	1/19/2022	8260D	8.80	620	66.9	4.00 U	4.00 U	--	--
DPE-8	SU A&B	4/20/2022	8260D	8.55	549	50.2	2.00 U	2.00 U	--	--
DPE-8	SU A&B	7/13/2022	8260D	5.70	361	37.2	2.00 U	2.00 U	--	--
DPE-8	SU A&B	10/11/2022	8260D	7.85	507	31.8	2.00 U	2.00 U	--	--
DPE-8	SU A&B	1/17/2023	8260D	6.84	443	26.8	0.400 U	0.400 U	--	--
DPE-8	SU A&B	4/20/2023	8260D	10.8	586	23.8	2.00 U	2.00 U	--	--
DPE-8	SU A&B	7/7/2023	8260D	8.40	599	23.1	2.00 U	2.00 U	--	--
DPE-8	SU A&B	10/6/2023	8260D	11.1	760	21.8	2.00 U	1.00 U	--	--
DPE-8	SU A&B	1/23/2024	8260D	3.70	190	6.35	2.00 U	1.00 U	--	--
DPE-8	SU A&B	4/25/2024	8260D	10.3	690	22.8	2.00 U	1.00 U	--	--
DPE-8	SU A&B	8/27/2024	8260D	8.00	500	16.8	2.00 U	1.00 U	--	--
DPE-8	SU A&B	10/23/2024	8260D	7.40	413	16.0	2.00 U	1.00 U	--	--
DPE-8	SU A&B	1/29/2025	8260D	8.35	465	14.6	2.00 U	1.00 U	--	--
DPE-8	SU A&B	4/25/2025	8260D	9.65	582	16.9	2.00 U	1.00 U	--	--
EW-4	SU A&B	4/22/2014	8260B	25.4	2,130	85.2	10.0 U	10.0 U	--	--
EW-4	SU A&B	7/30/2014	8260B	22.8	1,990	84.4	10.0 U	10.0 U	--	--
EW-4	SU A&B	4/23/2015	8260B	24.6	2,460	128	10.0 U	10.0 U	--	--
EW-4	SU A&B	7/15/2015	8260B	19.8	2,110	124	10.0 U	10.0 U	--	--
EW-4	SU A&B	10/27/2015	8260B	19.0	1,630	116	10.0 U	10.0 U	--	--
EW-4	SU A&B	1/26/2016	8260B	19.2	1,500	76.4	10.0 U	10.0 U	--	--
EW-4	SU A&B	4/19/2016	8260B	16.4	1,580	112	10.0 U	10.0 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EW-4	SU A&B	10/26/2016	8260B	19.0	1,440	98.8	10.0 U	10.0 U	--	--
EW-4	SU A&B	4/20/2017	8260B	20.7	1,290 UJ	143	5.00 U	5.00 U	--	--
EW-4	SU A&B	7/11/2017	8260B	19.2	1,710	116	10.0 U	10.0 U	--	--
EW-4	SU A&B	10/18/2017	8260C	20.0	1,600	136	10.0 U	8.00 U	--	--
EW-4	SU A&B	1/17/2018	8260C	19.4	1,590	164	8.00 U	8.00 U	--	--
EW-4	SU A&B	4/19/2018	8260C	16.2	1,360	174	8.00 U	8.00 U	--	--
EW-4	SU A&B	7/17/2018	8260C	18.0	1,660	199	8.00 U	8.00 U	--	--
EW-4	SU A&B	10/14/2018	8260C	15.0 J	1,560 J	197 J	8.00 U	8.00 U	--	--
EW-4	SU A&B	4/24/2019	8260C	11.0	945	192	8.00 U	8.00 U	--	--
EW-4	SU A&B	7/16/2019	8260C	8.00 U	835	217	8.00 U	8.00 U	--	--
EW-4	SU A&B	10/22/2019	8260C	11.1	1,020	212	8.00 U	8.00 U	--	--
EW-4	SU A&B	4/16/2020	8260C	14.3	1,410	250	4.00 U	4.00 U	--	--
EW-4	SU A&B	7/16/2020	8260D	12.4	1,060	240	8.00 U	8.00 U	--	--
EW-4	SU A&B	10/15/2020	8260D	12.6	1,240	274	8.00 U	8.00 U	--	--
EW-4	SU A&B	1/27/2021	8260D	18.5	1,760	300	4.00 U	4.00 U	--	--
EW-4	SU A&B	4/7/2021	8260D	14.4	1,430	252	8.00 U	8.00 U	--	--
EW-4 Dup	SU A&B	4/7/2021	8260D	16.7	1,630	273	8.00 U	8.00 U	--	--
EW-4	SU A&B	7/13/2021	8260D	11.8	1,170	290	4.00 U	4.00 U	--	--
EW-4	SU A&B	10/14/2021	8260D	15.5	1,570	331	4.00 U	4.00 U	--	--
EW-4	SU A&B	1/19/2022	8260D	14.4	1,460	297	4.00 U	4.00 U	--	--
EW-4	SU A&B	4/20/2022	8260D	13.2	1,240	263	8.00 U	8.00 U	--	--
EW-4	SU A&B	7/13/2022	8260D	14.2	1,150	322	4.00 U	4.00 U	--	--
EW-4	SU A&B	10/11/2022	8260D	17.0	1,470	334	4.00 U	4.00 U	--	--
EW-4	SU A&B	1/17/2023	8260D	15.4	1,480	335	4.00 U	4.00 U	--	--
EW-4	SU A&B	4/20/2023	8260D	17.9	1,400	309	4.00 U	4.00 U	--	--
EW-4	SU A&B	7/7/2023	8260D	16.6	1,770	333	4.00 U	4.00 U	--	--
EW-4	SU A&B	10/6/2023	8260D	17.1	1,680	309	4.00 U	2.00 U	--	--
EW-4	SU A&B	1/23/2024	8260D	16.9	1,400	311	4.00 U	2.00 U	--	--
EW-4	SU A&B	4/25/2024	8260D	12.1	1,310	330	4.00 U	2.00 U	--	--
EW-4	SU A&B	8/27/2024	8260D	12.1	1,200	263	4.00	2.00 U	--	--
EW-4	SU A&B	10/23/2024	8260D	13.7	1,200	302	4.00 U	2.00 U	--	--
EW-4	SU A&B	1/29/2025	8260D	17.9	1500	321	4.00 U	2.00 U	--	--
EW-4	SU A&B	4/25/2025	8260D	18.3	1570	307	4.12	0.740	--	--
EW-5A	SU A&B	4/22/2014	8260B	8.30	569	31.6	2.50 U	2.50 U	--	--
EW-5A	SU A&B	7/30/2014	8260B	7.10	579	29.7	2.50 U	2.50 U	--	--
EW-5A	SU A&B	4/23/2015	8260B	4.80	444	27.8	2.50 U	2.50 U	--	--
EW-5A	SU A&B	7/15/2015	8260B	3.35	405	23.6	2.50 U	2.50 U	--	--
EW-5A	SU A&B	10/27/2015	8260B	5.05	465	33.4	2.50 U	2.50 U	--	--
EW-5A	SU A&B	1/26/2016	8260B	0.530	41.9	3.72	0.500 U	0.500 U	--	--
EW-5A	SU A&B	4/19/2016	8260B	5.15	505	39.8	2.50 U	2.50 U	--	--
EW-5A Dup	SU A&B	4/19/2016	8260B	5.05	511	40.4	2.50 U	2.50 U	--	--
EW-5A	SU A&B	10/26/2016	8260B	5.84	413	22.9	2.50 U	2.50 U	--	--
EW-5A	SU A&B	4/20/2017	8260B	7.10	436	36.8	2.50 U	2.50 U	--	--
EW-5A	SU A&B	7/11/2017	8260B	7.40	656	36.7	2.50 U	2.50 U	--	--
EW-5A	SU A&B	10/18/2017	8260C	7.25	559	42.4	2.50 U	2.00 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EW-5A	SU A&B	1/17/2018	8260C	4.10	307	35.0	2.00 U	2.00 U	--	--
EW-5A	SU A&B	4/19/2018	8260C	2.58	264	94.8	2.00 U	2.00 U	--	--
EW-5A	SU A&B	7/17/2018	8260C	4.45	409	107	2.00 U	2.00 U	--	--
EW-5A	SU A&B	10/14/2018	8260C	2.69	292	147	2.00 U	2.00 U	--	--
EW-5A	SU A&B	4/24/2019	8260C	1.49	152	77.0	0.400 U	1.65	--	--
EW-5A	SU A&B	7/16/2019	8260C	1.17	107	143	0.400 U	4.86	--	--
EW-5A	SU A&B	10/22/2019	8260C	2.82	191	235	0.768	12.6	--	--
EW-5A	SU A&B	4/16/2020	8260C	2.15	150	200	0.800 U	9.15	--	--
EW-5A	SU A&B	7/16/2020	8260D	4.00 U	131	152	4.00 U	8.44	--	--
EW-5A	SU A&B	10/15/2020	8260D	4.00 U	192	128	4.00 U	6.70	--	--
EW-5A	SU A&B	1/27/2021	8260D	1.76	128	70.1	0.800 U	2.36	--	--
EW-5A	SU A&B	4/7/2021	8260D	3.62	235	115	0.895	7.63	--	--
EW-5A	SU A&B	7/13/2021	8260D	2.50	178	87.4	0.920	4.94	--	--
EW-5A	SU A&B	10/14/2021	8260D	1.06	92.2	57.8	0.800 U	2.46	--	--
EW-5A	SU A&B	4/20/2022	8260D	2.68	228	111	1.10	6.14	--	--
EW-5A	SU A&B	7/13/2022	8260D	2.54	215	109	1.00	6.18	--	--
EW-5A	SU A&B	10/11/2022	8260D	2.72	239	111	1.20	6.32	--	--
EW-5A	SU A&B	1/17/2023	8260D	2.16	198	99.0	1.14	4.40	--	--
EW-5A	SU A&B	4/20/2023	8260D	2.84	203	92.5	1.24	3.86	--	--
EW-5A	SU A&B	7/7/2023	8260D	2.46	269	107	1.50	5.76	--	--
EW-5A	SU A&B	10/6/2023	8260D	2.52	237	92.2	1.70	5.28	--	--
EW-5A	SU A&B	1/23/2024	8260D	2.30	201	88.4	1.70	3.55	--	--
EW-5A	SU A&B	4/25/2024	8260D	2.00	231	101	1.62	4.28	--	--
EW-5A	SU A&B	8/27/2024	8260D	2.04	222	87.9	1.60	4.24	--	--
EW-5A	SU A&B	10/23/2024	8260D	2.38	188	107	1.54	5.29	--	--
EW-5A	SU A&B	1/29/2025	8260D	2.52	234	90.6	1.44	3.32	--	--
EW-5A	SU A&B	4/25/2025	8260D	2.54	259	100	1.42	3.46	--	--
EW-6	SU A&B	4/22/2014	8260B	2.50 U	249	31.7	2.50 U	2.50 U	--	--
EW-6	SU A&B	7/30/2014	8260B	1.82	227	37.5	1.00 U	1.00 U	--	--
EW-6	SU A&B	4/23/2015	8260B	1.74	216	25.9	1.00 U	1.00 U	--	--
EW-6	SU A&B	7/15/2015	8260B	1.92	255	24.7	1.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	7/15/2015	8260B	1.82	239	23.4	1.00 U	1.00 U	--	--
EW-6	SU A&B	10/27/2015	8260B	1.68	177	23.1	1.00 U	1.00 U	--	--
EW-6	SU A&B	1/26/2016	8260B	2.18	228	20.8	1.00 U	1.00 U	--	--
EW-6	SU A&B	4/19/2016	8260B	2.19	225	23.5	0.500 U	0.500 U	--	--
EW-6 Dup	SU A&B	4/19/2016	8260B	2.38	233	23.9	0.500 U	0.500 U	--	--
EW-6	SU A&B	10/26/2016	8260B	2.41	240	20.8	1.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	10/26/2016	8260B	2.18	216	18.1	1.00 U	1.00 U	--	--
EW-6	SU A&B	4/20/2017	8260B	2.88	199	26.3	1.00 U	1.00 U	--	--
EW-6	SU A&B	7/11/2017	8260B	2.50 U	266	20.2	2.50 U	2.50 U	--	--
EW-6 Dup	SU A&B	7/11/2017	8260B	2.50 U	267	19.7	2.50 U	2.50 U	--	--
EW-6	SU A&B	10/18/2017	8260C	2.50	287	23.9	2.50 U	2.00 U	--	--
EW-6	SU A&B	1/17/2018	8260C	2.64	324	29.8	0.800 U	0.800 U	--	--
EW-6 Dup	SU A&B	1/17/2018	8260C	2.82	322	28.8	0.800 U	0.800 U	--	--
EW-6	SU A&B	4/19/2018	8260C	3.18	376	31.0	1.00 U	1.00 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EW-6	SU A&B	7/17/2018	8260C	2.92	324	29.1	2.00 U	2.00 U	--	--
EW-6 Dup	SU A&B	7/17/2018	8260C	2.87	323	28.4	0.800 U	0.800 U	--	--
EW-6	SU A&B	10/14/2018	8260C	2.72 J	355 J	31.7 J	2.00 U	2.00 U	--	--
EW-6	SU A&B	4/24/2019	8260C	3.10	388	46.3	2.00 U	2.00 U	--	--
EW-6	SU A&B	7/16/2019	8260C	1.69	227	31.8	0.800 U	0.800 U	--	--
EW-6 Dup	SU A&B	7/16/2019	8260C	1.66	227	31.0	0.800 U	0.800 U	--	--
EW-6	SU A&B	10/22/2019	8260C	2.22	257	34.7	2.00 U	2.00 U	--	--
EW-6	SU A&B	4/16/2020	8260C	2.58	280	40.8	1.00 U	1.00 U	--	--
EW-6	SU A&B	7/16/2020	8260D	2.00 U	259	36.4	2.00 U	2.00 U	--	--
EW-6 Dup	SU A&B	7/16/2020	8260D	2.22	260	35.8	2.00 U	2.00 U	--	--
EW-6	SU A&B	10/15/2020	8260D	2.66	321	39.2	0.800 U	0.800 U	--	--
EW-6 Dup	SU A&B	10/15/2020	8260D	3.00	286	46.5	0.420	0.400 U	--	--
EW-6	SU A&B	1/27/2021	8260D	2.65 J	321 J	36.4 J	1.00 U	1.00 U	--	--
EW-6	SU A&B	4/7/2021	8260D	2.59	297	43.8	0.400 U	0.400 U	--	--
EW-6 Dup	SU A&B	4/7/2021	8260D	2.55	305	45.3	0.410	0.400 U	--	--
EW-6	SU A&B	7/13/2021	8260D	2.02	234	38.4	1.00 U	1.00 U	--	--
EW-6	SU A&B	10/14/2021	8260D	2.74	314	48.0	1.00 U	1.00 U	--	--
EW-6	SU A&B	1/19/2022	8260D	1.94	260	42.3	0.800 U	0.800 U	--	--
EW-6 Dup	SU A&B	1/19/2022	8260D	4.00 U	268	45.7	4.00 U	4.00 U	--	--
EW-6	SU A&B	4/20/2022	8260D	2.05	261	41.6	2.00 U	2.00 U	--	--
EW-6 Dup	SU A&B	4/20/2022	8260D	2.30	271	43.0	2.00 U	2.00 U	--	--
EW-6	SU A&B	7/13/2022	8260D	1.62	188	28.2	1.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	7/13/2022	8260D	1.75	182	28.2	1.00 U	1.00 U	--	--
EW-6	SU A&B	10/11/2022	8260D	2.50	282	45.5	0.800 U	0.800 U	--	--
EW-6	SU A&B	1/17/2023	8260D	2.52	323	53.5	0.800 U	0.800 U	--	--
EW-6 Dup	SU A&B	1/17/2023	8260D	2.40	312	52.5	0.800 U	0.800 U	--	--
EW-6	SU A&B	4/20/2023	8260D	3.55	317	52.8	2.00 U	2.00 U	--	--
EW-6 Dup	SU A&B	4/20/2023	8260D	3.50	324	51.4	2.00 U	2.00 U	--	--
EW-6	SU A&B	7/7/2023	8260D	3.20	425	56.6	2.00 U	2.00 U	--	--
EW-6	SU A&B	10/6/2023	8260D	3.15	401	54.3	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	10/6/2023	8260D	3.45	416	54.2	2.00 U	1.00 U	--	--
EW-6	SU A&B	1/23/2024	8260D	3.40	350	60.6	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	1/23/2024	8260D	3.05	318	55.7	2.00 U	1.00 U	--	--
EW-6	SU A&B	4/25/2024	8260D	3.35	408	67.7	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	4/25/2024	8260D	3.55	414	69.8	2.00 U	1.00 U	--	--
EW-6	SU A&B	8/27/2024	8260D	3.25	394	67.2	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	8/27/2024	8260D	3.10	392	64.3	2.00 U	1.00 U	--	--
EW-6	SU A&B	10/23/2024	8260D	3.05	331	66.1	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	10/23/2024	8260D	2.75	358	62.2	2.00 U	1.00 U	--	--
EW-6	SU A&B	1/29/2025	8260D	3.75	425	76.2	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	1/29/2025	8260D	3.70	400	69.3	2.00 U	1.00 U	--	--
EW-6	SU A&B	4/25/2025	8260D	4.25	466	75.6	2.00 U	1.00 U	--	--
EW-6 Dup	SU A&B	4/25/2025	8260D	4.10	467	76.6	2.00 U	1.00 U	--	--
EW-7	SU A&B	4/22/2014	8260B	7.43	645	51.9	0.500 U	0.500 U	--	--
EW-7	SU A&B	7/30/2014	8260B	1.03	36.9	8.99	0.500 U	0.500 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EW-7 Dup	SU A&B	7/30/2014	8260B	1.04	35.7	8.93	0.500 U	0.500 U	--	--
EW-7	SU A&B	4/23/2015	8260B	4.43	378	35.8	0.500 U	0.500 U	--	--
EW-7	SU A&B	7/15/2015	8260B	1.23	53.6	8.42	0.500 U	0.500 U	--	--
EW-7 Dup	SU A&B	7/15/2015	8260B	1.21	53.0	8.25	0.500 U	0.500 U	--	--
EW-7	SU A&B	10/27/2015	8260B	1.39	44.8	9.82	0.500 U	0.500 U	--	--
EW-7	SU A&B	1/26/2016	8260B	1.62	36.6	8.79	0.500 U	0.500 U	--	--
EW-7	SU A&B	4/19/2016	8260B	1.55	51.9	7.81	0.500 U	0.500 U	--	--
EW-7	SU A&B	10/26/2016	8260B	1.76	52.5	10.6	0.500 U	0.500 U	--	--
EW-7	SU A&B	4/20/2017	8260B	1.62	38.8	8.10	0.500 U	0.500 U	--	--
EW-7	SU A&B	7/11/2017	8260B	2.28	132	13.1	0.500 U	0.500 U	--	--
EW-7	SU A&B	10/18/2017	8260C	2.22	136	16.6	0.500 U	0.400 U	--	--
EW-7	SU A&B	1/17/2018	8260C	1.54	45.0	11.0	0.400 U	0.400 U	--	--
EW-7 Dup	SU A&B	1/17/2018	8260C	1.57	45.8	11.4	0.400 U	0.400 U	--	--
EW-7	SU A&B	4/19/2018	8260C	1.39	43.2	10.4	0.400 U	0.400 U	--	--
EW-7	SU A&B	7/17/2018	8260C	1.20	46.2	10.4	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/14/2018	8260C	1.24	42.4	10.0	0.400 U	0.400 U	--	--
EW-7	SU A&B	4/24/2019	8260C	1.50	43.2	9.19	0.400 U	0.400 U	--	--
EW-7 Dup	SU A&B	4/24/2019	8260C	1.58	43.2	8.90	0.400 U	0.400 U	--	--
EW-7	SU A&B	7/16/2019	8260C	1.04	26.2	8.96	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/22/2019	8260C	1.22	29.2	9.32	0.400 U	0.400 U	--	--
EW-7	SU A&B	4/16/2020	8260C	0.910	24.3	13.2	0.400 U	0.400 U	--	--
EW-7	SU A&B	7/16/2020	8260D	1.08	22.8	4.60	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/15/2020	8260D	1.22	26.0	5.06	0.400 U	0.400 U	--	--
EW-7	SU A&B	1/27/2021	8260D	4.30 J	323	57.4 J	0.820 J	0.400 U	--	--
EW-7	SU A&B	4/7/2021	8260D	3.69	324	56.0	0.436	0.400 U	--	--
EW-7	SU A&B	7/13/2021	8260D	1.13	27.0	6.98	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/14/2021	8260D	1.15	30.4	7.60	0.400 U	0.400 U	--	--
EW-7	SU A&B	1/19/2022	8260D	1.33	33.0	8.08	0.400 U	0.400 U	--	--
EW-7	SU A&B	4/20/2022	8260D	1.19	28.6	7.36	0.400 U	0.400 U	--	--
EW-7	SU A&B	7/13/2022	8260D	1.43	31.7	9.83	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/11/2022	8260D	1.14	22.4	8.82	0.400 U	0.400 U	--	--
EW-7	SU A&B	1/17/2023	8260D	1.15	24.9	9.80	0.400 U	0.400 U	--	--
EW-7	SU A&B	4/20/2023	8260D	1.19	20.7	7.86	0.400 U	0.400 U	--	--
EW-7	SU A&B	7/7/2023	8260D	1.10	26.9	4.41	0.400 U	0.400 U	--	--
EW-7	SU A&B	10/6/2023	8260D	1.12	23.6	8.97	0.400 U	0.200 U	--	--
EW-7	SU A&B	1/23/2024	8260D	1.14	19.3	9.00	0.400 U	0.200 U	--	--
EW-7	SU A&B	4/25/2024	8260D	1.39	23.2	9.23	0.400 U	0.200 U	--	--
EW-7	SU A&B	8/27/2024	8260D	0.900	16.5	7.60	0.400 U	0.200 U	--	--
EW-7	SU A&B	10/23/2024	8260D	1.01	16.9	8.98	0.400 U	0.200 U	--	--
EW-7	SU A&B	1/29/2025	8260D	1.28	23.3	9.94	0.400 U	0.200 U	--	--
EW-7	SU A&B	4/25/2025	8260D	1.25	24.0	10.1	0.400 U	0.200 U	--	--
EW-7 Dup	SU A&B	4/25/2025	8260D	1.32	24.5	10.3	0.400 U	0.200 U	--	--
EW-8	Qff & WB	4/22/2014	8260B	1.00 U	21.2	344	1.00 U	2.36	--	--
EW-8 Dup	Qff & WB	4/22/2014	8260B	2.50 U	19.0	231	2.50 U	2.50 U	--	--
EW-8	Qff & WB	7/30/2014	8260B	1.00 U	9.86	328	1.00 U	1.78	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
EW-8	Qff & WB	4/23/2015	8260B	1.00 U	3.10	282	1.00 U	1.46	--	--
EW-8	Qff & WB	7/15/2015	8260B	1.00 U	2.26	266	1.00 U	1.68	--	--
EW-8	Qff & WB	10/27/2015	8260B	1.00 U	3.58	222	1.00 U	1.00 U	--	--
EW-8	Qff & WB	1/26/2016	8260B	1.00 U	2.96	218	1.00 U	1.48	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.01	186	0.500 U	0.501	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.06	170	0.500 U	0.500 U	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.11	183	0.500 U	0.614	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.09	176	0.500 U	0.614	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.37	209	0.500 U	13.6	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.70	203	0.500 U	21.8	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	1.80	218	0.500 U	21.2	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	2.11	192	0.500 U	21.2	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	2.73	173	0.500 U	17.1	--	--
EW-8	Qff & WB	2/16/2016	8260B	0.500 U	4.44	193	0.500 U	13.1	--	--
EW-8	Qff & WB	4/19/2016	8260B	0.500 U	2.24	214	0.500 U	1.23	--	--
EW-8	Qff & WB	10/26/2016	8260B	1.00 U	1.90	206	1.00 U	1.00 U	--	--
EW-8	Qff & WB	7/11/2017	8260B	1.00 U	1.34	273	1.00 U	1.00 U	--	--
EW-8	Qff & WB	10/18/2017	8260C	1.00 U	1.00 U	237	1.00 U	0.800 U	--	--
EW-8	Qff & WB	1/17/2018	8260C	0.800 U	1.16	246	0.800 U	0.800 U	--	--
EW-8	Qff & WB	4/19/2018	8260C	0.400 U	0.897	195	0.400 U	0.400 U	--	--
EW-8	Qff & WB	7/17/2018	8260C	0.800 U	2.03	190	0.800 U	0.800 U	--	--
EW-8	Qff & WB	10/14/2018	8260C	0.400 U	0.400 U	174	0.400 U	0.780	--	--
EW-8	Qff & WB	4/24/2019	8260C	0.800 U	1.07	190	0.800 U	0.800 U	--	--
EW-8	Qff & WB	7/16/2019	8260C	0.400 U	0.400 U	167	0.400 U	0.400 U	--	--
EW-8	Qff & WB	10/22/2019	8260C	0.800 U	0.800 U	184	0.800 U	0.800 U	--	--
EW-8	Qff & WB	4/16/2020	8260C	0.400 U	0.400 U	188	0.400 U	2.20	--	--
EW-8	Qff & WB	10/15/2020	8260D	0.400 U	0.400 U	130	0.400 U	2.28	--	--
EW-8	Qff & WB	1/27/2021	8260D	0.400 U	0.800 U	196	0.400 U	4.65	--	--
EW-8	Qff & WB	4/7/2021	8260D	0.400 U	0.400 U	96.2	0.400 U	0.400 U	--	--
EW-8	Qff & WB	10/14/2021	8260D	0.400 U	0.880	6.03	0.400 U	0.400 U	--	--
EW-8	Qff & WB	4/20/2022	8260D	0.400 U	0.840	194	0.400 U	3.48	--	--
EW-8	Qff & WB	7/13/2022	8260D	0.400 U	0.400 U	198	0.400 U	1.28	--	--
EW-8	Qff & WB	10/11/2022	8260D	0.800 U	0.800 U	184	0.800 U	0.800 U	--	--
EW-8	Qff & WB	1/17/2023	8260D	0.800 U	0.800 U	199	0.800 U	0.800 U	--	--
EW-8	Qff & WB	4/20/2023	8260D	0.800 U	0.940	161	0.800 U	0.800 U	--	--
EW-8	Qff & WB	7/7/2023	8260D	0.800 U	0.800 U	139	0.800 U	0.940	--	--
EW-8	Qff & WB	10/6/2023	8260D	0.400 U	0.400 U	167	0.400 U	0.380	--	--
EW-8	Qff & WB	1/23/2024	8260D	1.31	149	107	0.400 U	0.200 U	--	--
EW-8	Qff & WB	8/27/2024	8260D	0.800 U	12.4	54.3	0.800 U	0.400 U	--	--
EW-8	Qff & WB	10/23/2024	8260D	0.400 U	12.3	38.1	0.400 U	0.200 U	--	--
EW-8	Qff & WB	1/28/2025	8260D	0.800 U	0.800 U	1.84	0.800 U	0.72	--	--
EW-8	Qff & WB	4/25/2025	8260D	0.400 U	0.400 U	1.34	0.400 U	8.29	--	--
GP-35	SU A	2/27/2014	8260B	2.50 U	304	617	10.9	133	--	--
GP-54	SU A	2/4/2015	8260B	0.500 U	22.2	100.0	1.27	24.7	--	--
GP-54	SU B	2/4/2015	8260B	50.0 U	2,010	357	50.0 U	89.0	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
GP-55	SU A	2/4/2015	8260B	0.500 U	2.70	4.08	0.500 U	0.590	--	--
GP-55	SU B	2/4/2015	8260B	50.0 U	3,380	8,190	106	212	--	--
GP-56	SU A	2/4/2015	8260B	0.670	3.22	11.6	0.500 U	5.04	--	--
GP-56	SU B	2/4/2015	8260B	50.0 U	3,270	2,090	50.0 U	294	--	--
GP-57	SU A	2/5/2015	8260B	7,610	74,400	3,050	50.0 U	176	--	--
GP-57	SU B	2/5/2015	8260B	2,770	44,900	2,320	50.0 U	177	--	--
GP-58	SU A	2/6/2015	8260B	0.650	49.4	65.9	0.920	20.2	--	--
GP-58	SU B	2/6/2015	8260B	50.0 U	7,670	656	50.0 U	88.0	--	--
GP100	SU B	11/12/2015	8260B	5.00 U	34.2	174	5.00 U	45.8	--	--
GP101	SU B	11/12/2015	8260B	25.0 U	302	974	25.0 U	130	--	--
GP102	SU B	11/12/2015	8260B	62.5	3,900	1,440	51.5	301	--	--
GP103	SU B	11/13/2015	8260B	25.0 U	562	326	25.0 U	36.5	--	--
GP104	SU B	11/13/2015	8260B	5.00 U	36.6	242	5.00 U	27.2	--	--
GP105	SU B	11/13/2015	8260B	5.00 U	80.2	286	5.40	66.2	--	--
GP106	SU B	11/13/2015	8260B	5.00 U	5.00 U	106	5.00 U	52.3	--	--
GP-107	SU B	6/1/2016	8260B	50.0 U	226	2,460	50.0 U	353	--	--
GP-108	SU B	6/1/2016	8260B	32.5	5,430	2,800	134	292	--	--
GP-109	SU B	6/1/2016	8260B	27.2	3,910	457	25.0 U	73.3	--	--
GP-200	SU B	8/3/2016	8260B	15.3	210	65.2	5.00 U	5.00 U	--	--
GP-201	SU B	8/3/2016	8260B	67.5	3,200	66.2	5.00 U	5.00 U	--	--
GP-202	SU B	8/4/2016	8260B	83.3	2,680	76.2	5.00 U	5.00 U	--	--
GP-203	SU B	8/4/2016	8260B	2.02	75.4	92.2	0.500 U	0.562	--	--
GP-204	SU B	8/4/2016	8260B	0.500 U	1.79	0.773	0.500 U	0.500 U	--	--
GP-205	SU B	8/4/2016	8260B	5.00 U	635	289	5.00 U	20.8	--	--
I-A-1	SU A	4/4/2022	8260D	0.850	0.400 U	0.510	0.400 U	0.400 U	--	--
I-A-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	0.820	0.400 U	0.440	--	--
I-A-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	0.620	0.400 U	0.400 U	--	--
I-A-1	SU A	10/9/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
I-A-2B	SU A	10/12/2020	8260D	4.00 U	450	63.5	4.00 U	6.80	--	--
I-A-2B	SU A	10/13/2021	8260D	0.400 U	0.770	4.54	0.400 U	3.03	--	--
I-A-2B	SU A	10/10/2022	8260D	0.400 U	0.850	0.650	0.400 U	3.40	--	--
I-A-2B	SU A	10/9/2023	8260D	4.00 U	4.00 U	5.00	4.00 U	3.50	--	--
I-A-3B	SU A	10/12/2020	8260D	4.00 UJ	307 J	60.3 J	4.00 UJ	23.2 J	--	--
I-A-3B	SU A	10/13/2021	8260D	20.0 U	39.0	5,580	30.4	541	--	--
I-A-3B	SU A	10/10/2022	8260D	0.400 U	0.780	36.6	0.600	85.8	--	--
I-A-3B	SU A	10/9/2023	8260D	2.00 U	2.00 U	8.60	2.00 U	23.8	--	--
I-A-3B	SU A	10/22/2024	8260D	2.00 U	2.00 U	429	12.3	819	--	--
I-A-4B	SU A	10/12/2020	8260D	4.00 UJ	66.4 J	513 J	4.00 UJ	10.9 J	--	--
I-A-4B	SU A	10/13/2021	8260D	2.00 U	2.00 U	2,260	7.73	270	--	--
I-A-4B	SU A	10/11/2022	8260D	0.800 U	0.800 U	210	0.800 U	42.6	--	--
I-A-4B	SU A	10/9/2023	8260D	4.00 U	4.00 U	4.50	4.00 U	2.70	--	--
I-A-5B	SU A	10/12/2020	8260D	20.0 U	34.5	588	20.0 U	25.5	--	--
I-A-5B	SU A	10/13/2021	8260D	0.400 U	21.9	133	0.415	27.9	--	--
I-A-5B	SU A	10/11/2022	8260D	0.400 U	5.53	45.7	0.400 U	5.96	--	--
I-A-5B	SU A	10/9/2023	8260D	2.00 U	2.00 U	2.00 U	2.00 U	5.85	--	--

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Groundwater Quality Data from 2014 through 2024
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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
I-A-7	SU A	10/13/2020	8260D	1.44	145	24.1	0.800 U	5.94	--	--
I-A-7	SU A	10/14/2021	8260D	0.400 U	3.98	10.3	0.400 U	2.17	--	--
I-A-7	SU A	10/6/2022	8260D	0.400 U	0.400 U	10.2	0.400 U	6.99	--	--
I-A-7	SU A	10/9/2023	8260D	0.400 U	0.400 U	0.420	0.400 U	0.200 U	--	--
I-A-8	SU A	10/13/2020	8260D	4.00 U	33.8	948	4.00 U	316	--	--
I-A-8	SU A	10/14/2021	8260D	4.00 U	25.3	760	4.00 U	188	--	--
I-A-8	SU A	10/6/2022	8260D	0.400 U	0.400 U	3.86	0.400 U	9.89	--	--
I-A-8	SU A	10/10/2023	8260D	0.400 U	0.400 U	3.66	0.400 U	7.98	--	--
I-A-9	SU A	10/13/2020	8260D	7.70	836	442	7.10	335	--	--
I-A-9	SU A	10/15/2021	8260D	2.00 U	4.05	197	2.00 U	252	--	--
I-A-9	SU A	10/6/2022	8260D	0.400 U	0.400 U	0.770	0.400 U	0.660	--	--
I-A-9	SU A	10/9/2023	8260D	0.400 U	0.550	0.810	0.400 U	0.770	--	--
I-B-1	SU B	10/11/2022	8260D	2.00 U	9.70	988	5.25	247	--	--
I-B-1	SU B	10/9/2023	8260D	0.800 U	29.8	41.2	6.58	39.5	--	--
I-B-2	SU B	10/12/2020	8260D	20.0 U	1,930	22,500	112	386	--	--
I-B-2	SU B	10/13/2021	8260D	80.0 U	765	10,700	80.0 U	1,370	--	--
I-B-2	SU B	10/10/2022	8260D	2.00 U	141	544	2.00 U	71.8	--	--
I-B-2	SU B	10/9/2023	8260D	4.00 U	306	1,280	28.3	476	--	--
I-B-2	SU B	10/21/2024	8260D	0.400 U	5.17	79.5	2.05	116	--	--
I-B-4	SU B	10/10/2022	8260D	0.800 U	3.70	247	3.64	88.8	--	--
I-B-4	SU B	10/11/2023	8260D	2.00 U	3.05	9.55	2.00 U	2.75	--	--
I-B-5	SU B	5/5/2016	8260B	2.50 U	201	34.8	2.50 U	2.50 U	--	--
I-B-5	SU B	10/6/2022	8260D	1.10	12.1	57.1	1.22	75.5	--	--
I-B-5	SU B	10/10/2023	8260D	2.00 U	2.00	58.2	2.00 U	36.6	--	--
I-B-6	SU B	5/5/2016	8260B	84.0	24,700	1,470	25.0 U	45.5	--	--
I-B-7	SU B	10/13/2020	8260D	20.0 U	210	277	20.0 U	2,940	--	--
I-B-7	SU B	10/14/2021	8260D	0.800 U	6.42	111	0.840	14.0	--	--
I-B-7	SU B	10/11/2022	8260D	0.400 U	11.9	633	7.16	455	--	--
I-B-7	SU B	10/10/2023	8260D	0.800 U	0.800 U	9.10	0.800 U	13.1	--	--
I-B-8	SU B	5/5/2016	8260B	58.0	17,100	1,470	19.2	65.0	--	--
I-B-8	SU B	10/13/2020	8260D	1.48	130	17.6 J	0.400 U	19.2 J	--	--
I-B-8	SU B	10/14/2021	8260D	0.400 U	1.50	41.3	0.400 U	10.2	--	--
I-B-8	SU B	10/11/2022	8260D	0.400 U	0.400 U	0.640	0.400 U	2.61	--	--
I-B-8	SU B	10/11/2022	8260D	0.400 U	0.400 U	0.550	0.400 U	2.41	--	--
I-B-8	SU B	10/10/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
I-B-9	SU B	10/13/2020	8260D	20.0 U	313	4,580	20.0 U	2,360	--	--
I-B-9	SU B	10/15/2021	8260D	20.0 U	149	3,820	20.0 U	642	--	--
I-B-9	SU B	10/6/2022	8260D	20.0 U	39.5	2,440	20.0 U	519	--	--
I-B-9	SU B	10/10/2023	8260D	0.400 U	0.420	2.06	0.400 U	11.3	--	--
I-B-9	SU B	10/23/2024	8260D	0.400 U	5.69	89.8	4.83	129	--	--
I-B-10	SU B	5/6/2016	8260B	19.3	5,660	573	8.20	21.8	--	--
I-B-10	SU B	10/13/2020	8260D	2.00 U	27.1	39.0	2.00 U	186	--	--
I-B-10	SU B	10/20/2021	8260D	0.400 U	1.30	6.94	0.400 U	11.9	--	--
I-B-10	SU B	10/6/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.900	--	--
I-B-10	SU B	10/10/2023	8260D	0.400 U	0.400 U	22.6	0.400 U	99.1	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
I-B-11	SU B	10/13/2020	8260D	3.12	203	273	2.00 U	245	--	--
I-B-11	SU B	10/15/2021	8260D	2.00 U	14.8	590	9.41 J	692	--	--
I-B-11	SU B	10/11/2022	8260D	0.800 U	3.76	313	3.14	152	--	--
I-B-11	SU B	10/10/2023	8260D	2.00 U	2.45	97.8	12.9	197	--	--
I-B-11	SU B	10/23/2024	8260D	4.00 U	38.1	371	5.70	195	--	--
I-B-12	SU B	10/13/2020	8260D	0.400 UJ	19.2 J	93.3 J	0.464 J	110 J	--	--
I-B-12	SU B	10/15/2021	8260D	0.400 U	8.73	1,200	12.3	1,230	--	--
I-B-12	SU B	10/6/2022	8260D	2.00 U	4.30	302	3.40	282	--	--
I-B-12	SU B	10/10/2023	8260D	0.400 U	9.64	81.9	1.85	48.0	--	--
I-B-13	SU B	5/5/2016	8260B	5.00 U	478	708	14.1	81.9	--	--
I-B-13	SU B	10/14/2020	8260D	0.400 U	12.1	87.1	0.658	22.1	--	--
I-B-13	SU B	10/15/2021	8260D	0.400 U	1.02	2.04	0.400 U	1.27	--	--
I-B-13	SU B	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.600	--	--
I-B-13	SU B	10/11/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.01	--	--
I-B-14	SU B	10/7/2022	8260D	1.00 U	33.1	74.0	56.9	272	--	--
I-B-14	SU B	10/11/2023	8260D	1.00 U	14.0	13.3	28.0	134	--	--
I-B-14	SU B	10/23/2024	8260D	0.400 U	25.7	92.6	34.7	88.6	--	--
I-B-15	SU B	10/14/2020	8260D	20.0 UJ	857 J	813 J	20.0 UJ	94.8 J	--	--
I-B-15	SU B	10/15/2021	8260D	10.0 U	89.0	102	10.0 U	10.0 U	--	--
I-B-15	SU B	10/7/2022	8260D	0.400 U	26.7	30.4	0.400 U	2.69	--	--
I-B-15	SU B	10/11/2023	8260D	2.00 U	3.60	55.4	2.00 U	4.40	--	--
I-B-16	SU B	10/14/2020	8260D	59.6 J	472 J	6,340 J	22.4 J	1,740 J	--	--
I-B-16	SU B	10/15/2021	8260D	20.0 U	33.0	2,280	20.0 U	950	--	--
I-B-16	SU B	10/7/2022	8260D	1.94	13.1	289	0.800 U	53.4	--	--
I-B-16	SU B	10/11/2023	8260D	0.400 U	1.56	19.3	0.400 U	7.57	--	--
I-B-16	SU B	10/23/2024	8260D	0.400 U	1.93	1.64	0.400 U	1.55	--	--
I-B-17	SU B	10/14/2020	8260D	4.00 U	33.9	466	4.93	38.7	--	--
I-B-17	SU B	10/15/2021	8260D	0.400 U	1.76	3.65	0.400 U	2.98	--	--
I-B-17	SU B	10/7/2022	8260D	0.400 U	0.400 U	0.460	0.400 U	1.33	--	--
I-B-17	SU B	10/11/2023	8260D	0.400 U	0.400 U	0.430	0.400 U	0.640	--	--
I-B-18	SU B	10/15/2021	8260D	40.0 U	2,150	10,700	59.0	1,600	--	--
I-B-18	SU B	10/7/2022	8260D	40.0 U	199	7,400	56.0	2,300	--	--
I-B-18	SU B	10/11/2023	8260D	4.00 U	4.00 U	71.2	4.00 U	644	--	--
I-B-18	SU B	10/23/2024	8260D	0.800 U	6.16	563	8.92	2,070	--	--
I-B-19	SU B	10/14/2020	8260D	20.0 UJ	118 J	3,600 J	21.5 J	360 J	--	--
I-B-19	SU B	10/15/2021	8260D	4.00 U	16.1	154	4.00 U	16.4	--	--
I-B-19	SU B	10/7/2022	8260D	0.400 U	1.31	6.51	0.400 U	2.71	--	--
I-B-19	SU B	10/11/2023	8260D	0.800 U	0.800 U	1.66	0.800 U	1.22	--	--
I-B-20	SU B	10/14/2020	8260D	20.0 UJ	89.1 J	106 J	20.0 UJ	20.0 UJ	--	--
I-B-20	SU B	10/15/2021	8260D	0.400 U	23.2	84.9	0.640	8.64	--	--
I-B-20	SU B	10/7/2022	8260D	0.400 U	0.680	1.30	0.400 U	1.84	--	--
I-B-20	SU B	10/11/2023	8260D	0.800 U	0.800 U	2.04	0.800 U	1.26	--	--
I-B-21	SU B	10/14/2020	8260D	20.0 UJ	160 J	407 J	20.0 UJ	145 J	--	--
I-B-21	SU B	10/15/2021	8260D	4.00 U	32.2	74.2	4.00 U	13.9	--	--
I-B-21	SU B	10/7/2022	8260D	0.400 U	0.630	0.550	0.400 U	0.540	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
I-B-21	SU B	10/11/2023	8260D	4.00 U	4.00 U	4.10	4.00 U	2.00 U	--	--
I-B-22	SU B	10/14/2020	8260D	2.00 UJ	7.62 J	8.94 J	2.00 UJ	2.92 J	--	--
I-B-22	SU B	10/15/2021	8260D	0.400 U	9.01	17.5	0.400 U	2.77	--	--
I-B-22	SU B	10/7/2022	8260D	0.400 U	0.400 U	0.850	0.400 U	0.400 U	--	--
I-B-22	SU B	10/11/2023	8260D	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	--	--
MW-01A	SU A	4/16/2014	8260B	0.840	3.42	1.14	0.500 U	0.500 U	--	--
MW-01A	SU A	4/22/2015	8260B	0.880	3.26	0.950	0.500 U	0.500 U	--	--
MW-01A	SU A	10/26/2015	8260B	1.40	5.81	2.42	0.500 U	0.500 U	--	--
MW-01A	SU A	4/20/2016	8260B	0.840	6.55	1.63	0.500 U	0.500 U	--	--
MW-01A	SU A	10/25/2016	8260B	1.69	5.25	1.18	0.500 U	0.500 U	--	--
MW-01A	SU A	4/18/2017	8260B	0.500 U	1.51	0.500 U	0.500 U	0.500 U	--	--
MW-01A	SU A	10/17/2017	8260C	0.500 U	2.60	0.570	0.500 U	0.400 U	--	--
MW-01A	SU A	4/18/2018	8260C	0.400 U	1.07	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/10/2018	8260C	0.400 U	3.91	0.801	0.400 U	0.400 U	--	--
MW-01A	SU A	4/25/2019	8260C	0.443	1.42	0.400 U	0.400 U	0.400 U	--	--
MW-01A Dup	SU A	4/25/2019	8260C	0.427	1.85	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/15/2019	8260C	0.400 U	1.68	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	4/15/2020	8260C	0.400 U	0.850	0.400 U	0.400 U	0.400 U	--	--
MW-01A Dup	SU A	4/15/2020	8260C	0.400 U	0.860	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/13/2020	8260D	0.400 U	1.72	0.410	0.400 U	0.400 U	--	--
MW-01A	SU A	4/8/2021	8260D	0.400 U	1.42	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/12/2021	8260D	0.400 U	2.53	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/5/2022	8260D	0.400 U	1.14	0.400 U	0.400 U	0.400 U	--	--
MW-01A Dup	SU A	10/5/2022	8260D	0.400 U	1.22	0.400 U	0.400 U	0.400 U	--	--
MW-01A	SU A	10/4/2023	8260D	0.400 U	3.56	0.460	0.400 U	0.200 U	--	--
MW-01A Dup	SU A	10/4/2023	8260D	0.400 U	3.90	0.460	0.400 U	0.200 U	--	--
MW-01A	SU A	10/23/2024	8260D	0.400 U	1.93	0.400 U	0.400 U	0.200 U	--	--
MW-01A	SU A	4/24/2025	8260D	0.400 U	1.23	0.400 U	0.400 U	0.250	--	--
MW-01B	WB	4/17/2014	8260B	0.500 U	2.43	0.500 U	0.500 U	0.500 U	--	--
MW-01B	WB	4/22/2015	8260B	0.500 U	1.87	0.500 U	0.500 U	0.500 U	--	--
MW-01B	WB	10/23/2015	8260B	0.500 U	2.01	0.500 U	0.500 U	0.500 U	--	--
MW-01B	WB	4/22/2016	8260B	0.500 U	1.30	0.500 U	0.500 U	0.500 U	--	--
MW-01B	WB	10/25/2016	8260B	0.500 U	1.53	0.500 U	0.500 U	0.500 U	--	--
MW-01B	WB	4/18/2017	8260B	0.500 U	0.581	0.587	0.500 U	0.500 U	--	--
MW-01B	WB	10/17/2017	8260C	0.500 U	0.500 U	1.02	0.500 U	0.400 U	--	--
MW-01B	WB	4/18/2018	8260C	0.400 U	0.702	0.438	0.400 U	0.400 U	--	--
MW-01B	WB	10/12/2018	8260C	0.400 U	0.844	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	4/25/2019	8260C	0.400 U	0.786	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	10/15/2019	8260C	0.400 U	1.22	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	10/14/2020	8260D	0.400 U	0.770	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	4/7/2021	8260D	0.400 U	0.896	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	10/13/2021	8260D	0.400 U	0.990	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	10/6/2022	8260D	0.400 U	0.810	0.400 U	0.400 U	0.400 U	--	--
MW-01B	WB	10/3/2023	8260D	0.400 U	0.810	0.400 U	0.400 U	0.200 U	--	--
MW-01B	WB	10/23/2024	8260D	0.400 U	0.870	0.400 U	0.400 U	0.200 U	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-01B	WB	4/23/2025	8260D	0.400 U	1.17	0.400 U	0.400 U	0.200 U	--	--
MW-02-1	SU A	10/27/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-02-1	SU A	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-02-2	SU B	4/17/2014	8260B	1.19	36.3	5.06	0.500 U	0.500 U	--	--
MW-02-2 Dup	SU B	4/17/2014	8260B	1.42	38.2	5.45	0.500 U	0.500 U	--	--
MW-02-2	SU B	4/21/2015	8260B	2.97	251	42.0	0.500 U	0.500 U	--	--
MW-02-2	SU B	10/27/2015	8260B	1.42	99.7	36.1	1.00 U	4.64	--	--
MW-02-2	SU B	4/21/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-02-2	SU B	10/25/2016	8260B	1.01	38.5	12.2	0.500 U	0.500 U	--	--
MW-02-2	SU B	4/19/2017	8260B	2.50 U	72.5	42.7	2.50 U	3.50	--	--
MW-02-2	SU B	10/18/2017	8260C	0.500 U	6.20	2.44	0.500 U	1.20	--	--
MW-02-2	SU B	1/16/2018	8260C	0.570	22.4	14.6	0.400 U	5.00	--	--
MW-02-2	SU B	4/19/2018	8260C	0.400 U	8.60	14.2	0.400 U	4.29	--	--
MW-02-2	SU B	10/10/2018	8260C	0.400 U	12.7	20.9	0.420	5.10	--	--
MW-02-2	SU B	4/24/2019	8260C	0.400 U	11.0	42.9	1.02	9.81	--	--
MW-02-2	SU B	10/18/2019	8260C	0.400 U	13.7	57.7	1.35	15.1	--	--
MW-02-2	SU B	4/15/2020	8260C	0.710	12.2	19.5	0.480	5.61	--	--
MW-02-2	SU B	7/16/2020	8260D	0.400 U	8.36	10.3	0.400 U	4.90	--	--
MW-02-2	SU B	10/14/2020	8260D	0.400 U	10.9	7.45	0.400 U	2.76	--	--
MW-02-2	SU B	4/8/2021	8260D	0.400 U	2.71	1.78	0.400 U	0.430	--	--
MW-02-2	SU B	7/13/2021	8260D	0.400 U	2.48	1.98	0.400 U	0.400 U	--	--
MW-02-2	SU B	10/12/2021	8260D	0.400 U	102	5.68	0.400 U	0.400 U	--	--
MW-02-2	SU B	10/13/2021	8260D	0.400 U	3.73	2.96	0.400 U	0.610	--	--
MW-02-2	SU B	10/18/2022	8260D	0.400 U	7.92	2.48	0.400 U	0.400 U	--	--
MW-02-2	SU B	10/5/2023	8260D	0.400 U	5.69	1.70	0.400 U	0.220	--	--
MW-02-2	SU B	10/29/2024	8260D	0.400 U	4.42	2.06	0.400 U	0.430	--	--
MW-02B	WB	4/17/2014	8260B	7.10	1,250	42.4	5.00 U	5.00 U	--	--
MW-02B	WB	7/29/2014	8260B	6.90	996	36.3	5.00 U	5.00 U	--	--
MW-02B	WB	1/21/2015	8260B	6.60	1,180	36.9	5.00 U	5.00 U	--	--
MW-02B	WB	4/22/2015	8260B	6.40	1,090	38.1	5.00 U	5.00 U	--	--
MW-02B	WB	7/14/2015	8260B	5.70	1,160	34.3	5.00 U	5.00 U	--	--
MW-02B	WB	10/23/2015	8260B	5.00 U	464	22.6	5.00 U	5.00 U	--	--
MW-02B	WB	1/25/2016	8260B	7.60	1,110	36.9	5.00 U	5.00 U	--	--
MW-02B	WB	4/22/2016	8260B	6.00	1,050	39.0	5.00 U	5.00 U	--	--
MW-02B	WB	7/20/2016	8260B	7.10	951	37.5	5.00 U	5.00 U	--	--
MW-02B	WB	10/25/2016	8260B	7.30	975	28.0	5.00 U	5.00 U	--	--
MW-02B	WB	1/24/2017	8260B	6.10	824	26.5	2.50 U	2.50 U	--	--
MW-02B	WB	4/19/2017	8260B	8.05	1,120	31.4	5.00 U	5.00 U	--	--
MW-02B	WB	7/12/2017	8260B	5.85 J	1,150 J	30.0 J	5.00 U	5.00 U	--	--
MW-02B Dup	WB	7/12/2017	8260B	5.88 J	1,200 J	30.8 J	5.00 U	5.00 U	--	--
MW-02B	WB	10/18/2017	8260C	7.10	1,100	37.6	5.00 U	4.00 U	--	--
MW-02B	WB	1/17/2018	8260C	8.70	1,320	41.1	4.00 U	4.00 U	--	--
MW-02B	WB	4/18/2018	8260C	6.79	1,170	39.3	4.00 U	4.00 U	--	--
MW-02B	WB	7/17/2018	8260C	7.20	1,070	44.9	4.00 U	4.00 U	--	--
MW-02B	WB	10/11/2018	8260C	5.40	983	33.5	4.00 U	4.00 U	--	--

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Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-02B	WB	1/22/2019	8260C	6.30	1,110	45.5	4.00 U	4.00 U	--	--
MW-02B	WB	4/24/2019	8260C	7.20	1,230	53.6	4.00 U	4.00 U	--	--
MW-02B	WB	7/16/2019	8260C	5.79	1,010	38.5	4.00 U	4.00 U	--	--
MW-02B	WB	10/16/2019	8260C	6.60	1,030	33.3	4.00 U	4.00 U	--	--
MW-02B	WB	1/14/2020	8260C	7.30	980	34.9	4.00 U	4.00 U	--	--
MW-02B	WB	4/15/2020	8260C	6.90	1,050	42.7	4.00 U	4.00 U	--	--
MW-02B	WB	7/16/2020	8260D	0.400 U	66.7	1.84	0.400 U	0.400 U	--	--
MW-02B	WB	10/14/2020	8260D	6.21	1,000	43.4	4.00 U	4.00 U	--	--
MW-02B	WB	1/27/2021	8260D	6.50	1,230	42.6	4.00 U	4.00 U	--	--
MW-02B	WB	4/7/2021	8260D	7.07	1,310	39.4	4.00 U	4.00 U	--	--
MW-02B	WB	7/13/2021	8260D	5.60	923	45.4	4.00 U	4.00 U	--	--
MW-02B	WB	10/13/2021	8260D	5.77	1,150	47.1	4.00 U	4.00 U	--	--
MW-02B	WB	1/19/2022	8260D	6.10	1,270	46.9	4.00 U	4.00 U	--	--
MW-02B	WB	4/19/2022	8260D	7.40	1,210	51.9	4.00 U	4.00 U	--	--
MW-02B	WB	7/12/2022	8260D	7.10	1,020	50.0	4.00 U	4.00 U	--	--
MW-02B	WB	10/7/2022	8260D	6.30	1,070	99.2	4.00 U	6.40	--	--
MW-02B	WB	1/17/2023	8260D	7.40	1,300	59.6	4.00 U	4.00 U	--	--
MW-02B	WB	4/19/2023	8260D	6.50	1,190	63.7	4.00 U	4.00 U	--	--
MW-02B	WB	7/6/2023	8260D	7.00	1,180	49.4	4.00 U	4.00 U	--	--
MW-02B	WB	10/3/2023	8260D	7.60	1,410	54.7	4.00 U	2.00 U	--	--
MW-02B	WB	1/23/2024	8260D	7.30	1,100	52.5	4.00 U	2.00 U	--	--
MW-02B	WB	4/24/2024	8260D	6.50	1,250	56.5	4.00 U	2.00 U	--	--
MW-02B	WB	10/24/2024	8260D	6.90	1,030	51.4	4.00 U	2.00 U	--	--
MW-02b	WB	1/29/2025	8260D	6.70	1180	60.2	4.00 U	2.00 U	--	--
MW-02b	WB	4/23/2025	8260D	9.00	1610	69.8	4.00 U	2.00 U	--	--
MW-02C-L	WB	1/14/2014	8260B	3.85	603	107	2.50 U	6.20	--	--
MW-02C-L	WB	4/17/2014	8260B	3.85	542	91.6	2.50 U	8.30	--	--
MW-02C-L	WB	7/29/2014	8260B	3.85	561	81.6	2.50 U	3.10	--	--
MW-02C-L	WB	1/21/2015	8260B	3.40	549	55.9	2.50 U	2.50 U	--	--
MW-02C-L	WB	4/22/2015	8260B	4.40	685	49.4	2.50 U	2.50 U	--	--
MW-02C-L	WB	7/14/2015	8260B	3.55	690	54.2	2.50 U	2.50 U	--	--
MW-02C-L	WB	10/23/2015	8260B	4.15	735	35.8	2.50 U	2.50 U	--	--
MW-02C-L	WB	1/25/2016	8260B	3.35	496	66.0	2.50 U	2.50 U	--	--
MW-02C-L	WB	4/22/2016	8260B	4.35	693	46.8	2.50 U	2.50 U	--	--
MW-02C-L	WB	7/20/2016	8260B	4.39	561	52.8	2.50 U	2.50 U	--	--
MW-02C-L	WB	10/25/2016	8260B	3.98	561	30.4	2.50 U	2.50 U	--	--
MW-02C-L	WB	1/24/2017	8260B	1.00 U	11.2	339	1.00 U	3.12	--	--
MW-02C-L	WB	4/19/2017	8260B	5.78	844	40.7	2.50 U	2.50 U	--	--
MW-02C-L	WB	7/12/2017	8260B	5.01 J	900 J	27.6 J	5.00 U	5.00 U	--	--
MW-02C-L	WB	10/18/2017	8260C	5.14	658	31.0	1.25 U	1.00 U	--	--
MW-02C-L	WB	1/16/2018	8260C	5.70	935	28.8	2.00 U	2.00 U	--	--
MW-02C-L	WB	4/18/2018	8260C	3.44	526	21.7	2.00 U	2.00 U	--	--
MW-02C-L	WB	7/17/2018	8260C	4.12	644	26.3	2.00 U	2.38	--	--
MW-02C-L	WB	10/11/2018	8260C	3.24	522	17.2	2.00 U	2.00 U	--	--
MW-02C-L	WB	1/22/2019	8260C	2.50	393	19.9	2.00 U	2.10	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-02C-L	WB	4/24/2019	8260C	2.50	436	31.3	2.00 U	2.44	--	--
MW-02C-L	WB	7/16/2019	8260C	3.96	579	23.3	2.00 U	2.00 U	--	--
MW-02C-L	WB	10/16/2019	8260C	4.30	650	22.4	2.00 U	2.00 U	--	--
MW-02C-L	WB	1/14/2020	8260C	3.35	525	20.4	2.00 U	2.00 U	--	--
MW-02C-L	WB	4/14/2020	8260C	2.00 U	182	7.95	2.00 U	2.00 U	--	--
MW-02C-L	WB	7/16/2020	8260D	5.05	746	35.0	2.00 U	2.00 U	--	--
MW-02C-L	WB	10/14/2020	8260D	4.86	719	28.5	2.00 U	2.00 U	--	--
MW-02C-L	WB	1/27/2021	8260D	4.70 J	777 J	25.0 J	2.00 U	2.00 U	--	--
MW-02C-L	WB	4/7/2021	8260D	5.58	955	29.3	2.00 U	2.00 U	--	--
MW-02C-L	WB	7/13/2021	8260D	2.00 U	311	11.5	2.00 U	2.00 U	--	--
MW-02C-L	WB	10/13/2021	8260D	3.72	643	23.7	2.00 U	2.00 U	--	--
MW-02C-L	WB	1/19/2022	8260D	4.30	738	26.0	2.00 U	2.00 U	--	--
MW-02C-L	WB	4/19/2022	8260D	6.85	1,020	39.0	2.00 U	2.00 U	--	--
MW-02C-L	WB	7/12/2022	8260D	6.70	917	45.4	2.00 U	2.00 U	--	--
MW-02C-L	WB	10/7/2022	8260D	5.65	855	33.1	2.00 U	2.00 U	--	--
MW-02C-L	WB	1/17/2023	8260D	6.30	946	27.8	2.00 U	2.00 U	--	--
MW-02C-L	WB	4/19/2023	8260D	7.85	816	54.3	2.00 U	2.00 U	--	--
MW-02C-L	WB	7/6/2023	8260D	5.30	775	28.2	4.00 U	4.00 U	--	--
MW-02C-L	WB	10/3/2023	8260D	6.80	1,100	38.4	4.00 U	2.00 U	--	--
MW-02C-L	WB	1/23/2024	8260D	5.80	798	30.0	2.00 U	1.00 U	--	--
MW-02C-L	WB	4/24/2024	8260D	6.40	1,050	43.1	4.00 U	2.00 U	--	--
MW-02C-L	WB	10/24/2024	8260D	5.60	848	39.0	4.00 U	2.00 U	--	--
MW-02C-L	WB	1/29/2025	8260D	6.50	958	41.2	2.00 U	1.00 U	--	--
MW-02C-L	WB	4/23/2025	8260D	8.60	1180	55.6	2.00 U	1.00 U	--	--
MW-02C-U	WB	1/14/2014	8260B	4.10	576	98.0	2.50 U	5.70	--	--
MW-02C-U	WB	4/17/2014	8260B	3.95	608	86.6	2.50 U	6.10	--	--
MW-02C-U	WB	7/29/2014	8260B	3.80	541	78.8	2.50 U	2.95	--	--
MW-02C-U	WB	1/21/2015	8260B	3.40	555	58.0	2.50 U	2.50 U	--	--
MW-02C-U	WB	4/22/2015	8260B	4.30	660	49.4	2.50 U	2.50 U	--	--
MW-02C-U	WB	7/14/2015	8260B	3.85	771	59.2	2.50 U	2.50 U	--	--
MW-02C-U	WB	10/23/2015	8260B	4.30	716	32.4	2.50 U	2.50 U	--	--
MW-02C-U	WB	1/25/2016	8260B	3.45	504	65.7	2.50 U	2.50 U	--	--
MW-02C-U	WB	4/22/2016	8260B	4.45	704	47.8	2.50 U	2.50 U	--	--
MW-02C-U	WB	7/20/2016	8260B	4.02	526	44.2	2.50 U	2.50 U	--	--
MW-02C-U	WB	10/25/2016	8260B	5.78	585	31.7	2.50 U	2.50 U	--	--
MW-02C-U	WB	1/24/2017	8260B	1.00 U	11.4	341	1.00 U	3.26	--	--
MW-02C-U	WB	4/19/2017	8260B	7.02	936	26.8	2.50 U	2.50 U	--	--
MW-02C-U	WB	7/12/2017	8260B	5.49 J	892 J	22.6	5.00 U	5.00 U	--	--
MW-02C-U	WB	10/18/2017	8260C	5.12	748	27.1	1.25 U	1.00 U	--	--
MW-02C-U	WB	1/16/2018	8260C	6.55	944	29.3	2.00 U	2.00 U	--	--
MW-02C-U	WB	4/18/2018	8260C	4.10	606	24.6	2.00 U	2.00 U	--	--
MW-02C-U	WB	7/17/2018	8260C	4.30	630	25.6	2.00 U	2.27	--	--
MW-02C-U	WB	10/11/2018	8260C	3.40	479	18.4	2.00 U	2.00 U	--	--
MW-02C-U	WB	1/22/2019	8260C	2.60	381	19.0	2.00 U	2.15	--	--
MW-02C-U	WB	4/24/2019	8260C	2.80	469	29.7	2.00 U	2.43	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-02C-U	WB	7/16/2019	8260C	4.24	612	24.5	2.00 U	2.00 U	--	--
MW-02C-U	WB	10/16/2019	8260C	4.40	676	22.0	2.00 U	2.00 U	--	--
MW-02C-U	WB	1/14/2020	8260C	3.35	467	18.4	2.00 U	2.00 U	--	--
MW-02C-U	WB	4/14/2020	8260C	2.00 U	180	7.45	2.00 U	2.00 U	--	--
MW-02C-U	WB	7/16/2020	8260D	5.18	724	32.8	2.00 U	2.00 U	--	--
MW-02C-U	WB	10/14/2020	8260D	4.76	730	29.8	2.00 U	2.00 U	--	--
MW-02C-U	WB	1/27/2021	8260D	4.95 J	787 J	25.4 J	2.00 U	2.00 U	--	--
MW-02C-U	WB	4/7/2021	8260D	6.35	1,020	35.6	0.800 U	0.800 U	--	--
MW-02C-U	WB	7/13/2021	8260D	2.25	326	12.9	2.00 U	2.00 U	--	--
MW-02C-U	WB	10/13/2021	8260D	4.01	660	24.3	2.00 U	2.00 U	--	--
MW-02C-U	WB	1/19/2022	8260D	4.50	771	27.4	2.00 U	2.00 U	--	--
MW-02C-U	WB	4/19/2022	8260D	6.30	994	35.4	2.00 U	2.00 U	--	--
MW-02C-U	WB	7/12/2022	8260D	6.50	941	41.8	2.00 U	2.00 U	--	--
MW-02C-U	WB	10/7/2022	8260D	5.45	887	34.8	2.00 U	2.00 U	--	--
MW-02C-U	WB	1/17/2023	8260D	5.35	866	32.5	2.00 U	2.00 U	--	--
MW-02C-U	WB	4/19/2023	8260D	6.55	828	47.6	2.00 U	2.00 U	--	--
MW-02C-U	WB	7/6/2023	8260D	5.30	849	30.5	4.00 U	4.00 U	--	--
MW-02C-U	WB	10/3/2023	8260D	6.30	1,040	37.8	4.00 U	2.00 U	--	--
MW-02C-U	WB	1/23/2024	8260D	5.60	824	30.8	2.00 U	1.00 U	--	--
MW-02C-U	WB	4/24/2024	8260D	6.60	1,100	42.1	4.00 U	2.00 U	--	--
MW-02C-U	WB	10/24/2024	8260D	5.60	847	37.3	4.00 U	2.00 U	--	--
MW-02C-U	WB	1/29/2025	8260D	7.50	947	37.0	2.00 U	1.00 U	--	--
MW-02C-U	WB	4/23/2025	8260D	8.20	1230	48.0	2.00 U	1.00 U	--	--
MW-03	SU A	4/16/2014	8260B	5.85	690	214	5.05	15.0	--	--
MW-03	SU A	4/21/2015	8260B	7.05	836	249	6.65	20.0	--	--
MW-03 Dup	SU A	4/21/2015	8260B	7.25	893	259	6.40	20.2	--	--
MW-03	SU A	10/27/2015	8260B	2.75	268	143	2.75	10.6	--	--
MW-03	SU A	3/10/2016	8260B	4.00 J	333	165	4.60 J	11.6	--	--
MW-03	SU A	4/21/2016	8260B	5.00 U	435	186	5.50	9.40	--	--
MW-03	SU A	6/16/2016	8260B	2.50 U	297	259	3.80	17.1	--	--
MW-03	SU A	9/28/2016	8260B	5.00 U	163	510	6.00	26.8	--	--
MW-03R	SU A	4/28/2017	8260B	1.53	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-03R	SU A	10/17/2017	8260C	1.30	0.540	0.500 U	0.500 U	0.400 U	--	--
MW-03R	SU A	10/11/2018	8260C	1.18	0.860	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/22/2019	8260C	1.51	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R Dup	SU A	10/23/2019	8260C	1.38	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/23/2019	8260C	1.50	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/16/2020	8260D	1.42	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/13/2021	8260D	1.29	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/18/2022	8260D	1.23	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-03R	SU A	10/5/2023	8260D	1.24	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-03R	SU A	10/29/2024	8260D	1.15	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-04	SU A&B	4/17/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-04	SU A&B	10/26/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-04	SU A&B	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-04	SU A&B	10/17/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-04	SU A&B	10/11/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	4/25/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	4/15/2020	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04 Dup	SU A&B	4/15/2020	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	10/13/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	4/8/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	4/19/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	10/6/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-04	SU A&B	10/5/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-04	SU A&B	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-04	SU A&B	4/25/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-05B	WB	4/17/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	4/21/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	4/22/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	4/19/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-05B	WB	10/18/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-05B	WB	4/19/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/12/2018	8260C	0.400 U	0.400 U	0.400	0.400 U	0.400 U	--	--
MW-05B	WB	4/24/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/15/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	4/14/2020	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/14/2020	8260D	0.400 U	0.400 U	0.400	0.400 U	0.400 U	--	--
MW-05B	WB	4/7/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	4/19/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	4/19/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-05B	WB	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-05B	WB	4/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-05B	WB	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-05b	WB	4/23/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-06A	Qff	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-06A	Qff	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-06A	Qff	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-06A	Qff	10/12/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06A	Qff	10/18/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06A	Qff	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06A	Qff	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06A	Qff	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-06B	WB	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-06B	WB	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-06B	WB	10/12/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	4/25/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	4/7/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-06B	WB	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-07A	Qff	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-07A	Qff	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-07A	Qff	10/11/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/21/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07A	Qff	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-07B	WB	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-07B	WB	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-07B	WB	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-07B	WB	10/11/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	4/25/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	10/21/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	4/7/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-07B	WB	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-07B	WB	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-07B	WB	4/23/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-08	SU A	4/17/2014	8260B	0.500 U	1.09	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	4/22/2015	8260B	0.500 U	1.43	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	10/23/2015	8260B	0.500 U	2.26	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	4/21/2016	8260B	0.500 U	1.82	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	10/25/2016	8260B	0.500 U	1.44	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	4/19/2017	8260B	0.500 U	0.950	0.500 U	0.500 U	0.500 U	--	--
MW-08	SU A	10/18/2017	8260C	0.500 U	0.794	0.500 U	0.500 U	0.400 U	--	--
MW-08	SU A	4/19/2018	8260C	0.400 U	0.429	0.400 U	0.400 U	0.400 U	--	--
MW-08 Dup	SU A	4/19/2018	8260C	0.400 U	0.481	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	10/12/2018	8260C	0.400 U	1.03	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	4/24/2019	8260C	0.400 U	0.503	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	10/15/2019	8260C	0.400 U	0.693	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	4/14/2020	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	10/14/2020	8260D	0.400 U	0.530	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	4/7/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-08	SU A	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	4/19/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	10/6/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	4/19/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-08	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-08	SU A	4/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-08	SU A	10/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-08	SU A	4/23/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-09B	SU A	10/27/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-10-1	SU A	4/16/2014	8260B	0.750	6.85	3.62	0.500 U	0.560	--	--
MW-10-1	SU A	4/21/2015	8260B	0.870	7.49	2.93	0.500 U	0.500 U	--	--
MW-10-1	SU A	10/26/2015	8260B	0.590	4.56	3.06	0.500 U	0.500 U	--	--
MW-10-1	SU A	4/20/2016	8260B	0.830	5.93	2.46	0.500 U	0.500 U	--	--
MW-10-1	SU A	10/20/2016	8260B	1.02	3.66	1.51	0.500 U	0.500 U	--	--
MW-10-1 Dup	SU A	10/20/2016	8260B	1.01	4.06	1.54	0.500 U	0.500 U	--	--
MW-10-1	SU A	4/18/2017	8260B	0.750	3.93	1.56	0.500 U	0.500 U	--	--
MW-10-1	SU A	10/17/2017	8260C	0.500 U	2.48	1.02	0.500 U	0.400 U	--	--
MW-10-1	SU A	4/18/2018	8260C	0.506	2.86	1.06	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/10/2018	8260C	0.400 U	1.11	0.400 U	0.400 U	0.400 U	--	--
MW-10-1	SU A	4/25/2019	8260C	0.632	3.25	0.771	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/15/2019	8260C	0.400 U	1.88	0.645	0.400 U	0.400 U	--	--
MW-10-1	SU A	4/15/2020	8260C	0.400 U	1.73	0.760	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/13/2020	8260D	0.400 U	1.24	0.440	0.400 U	0.400 U	--	--
MW-10-1	SU A	4/8/2021	8260D	0.439	2.23	0.531	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/12/2021	8260D	0.491	2.74	0.563	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/5/2022	8260D	0.400 U	1.37	0.400 U	0.400 U	0.400 U	--	--
MW-10-1	SU A	10/4/2023	8260D	0.410	1.94	0.400 U	0.400 U	0.200 U	--	--
MW-10-1	SU A	10/23/2024	8260D	0.400 U	0.990	0.400 U	0.400 U	0.200 U	--	--
MW-10-1	SU A	4/24/2025	8260D	0.400 U	1.59	0.400 U	0.400 U	0.200 U	--	--
MW-10-2	SU B	4/16/2014	8260B	0.500 U	1.62	77.3	13.0	55.0	--	--
MW-10-2	SU B	4/21/2015	8260B	0.500 U	0.600	116	19.2	53.3	--	--
MW-10-2	SU B	10/26/2015	8260B	0.500 U	1.73	43.1	6.87	31.8	--	--
MW-10-2	SU B	4/20/2016	8260B	0.500 U	1.33	32.9	7.91	35.3	--	--
MW-10-2	SU B	10/20/2016	8260B	0.500 U	11.1	50.1	11.3	28.6	--	--
MW-10-2	SU B	4/18/2017	8260B	0.500 U	2.47	143	23.3	89.6	--	--
MW-10-2	SU B	10/17/2017	8260C	0.500 U	1.70	199	25.7	70.4	--	--
MW-10-2	SU B	4/18/2018	8260C	0.400 U	1.21	197	26.1	74.0	--	--
MW-10-2	SU B	10/10/2018	8260C	0.400 U	0.683	260	51.3	160	--	--
MW-10-2	SU B	4/25/2019	8260C	0.400 U	0.619	139	20.7	88.5	--	--
MW-10-2	SU B	10/15/2019	8260C	0.400 U	0.400 U	48.7	8.91	45.7	--	--
MW-10-2	SU B	4/15/2020	8260C	0.400 U	0.400 U	31.4	4.19	41.9	--	--
MW-10-2	SU B	10/13/2020	8260D	0.400 U	0.400 U	32.8	5.14	42.0	--	--
MW-10-2	SU B	4/8/2021	8260D	0.400 U	1.64	26.0	5.73	35.7	--	--
MW-10-2	SU B	10/12/2021	8260D	0.400 U	3.21	46.9	12.8	46.5	--	--
MW-10-2	SU B	10/5/2022	8260D	0.400 U	7.61	4.55	1.15	4.46	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-10-2	SU B	10/4/2023	8260D	0.400 U	8.44	3.40	0.700	0.210	--	--
MW-10-2 Dup	SU B	10/4/2023	8260D	0.400 U	8.13	3.20	0.640	0.210	--	--
MW-10-2	SU B	10/23/2024	8260D	0.400 U	11.5	3.15	0.400 U	0.270	--	--
MW-10-2	SU B	4/24/2025	8260D	0.400 U	7.03	1.01	0.400 U	0.200 U	--	--
MW-11-1	SU A	4/16/2014	8260B	1.65	24.5	5.68	0.500 U	0.500 U	--	--
MW-11-1	SU A	4/21/2015	8260B	0.790	10.1	3.68	0.500 U	0.500 U	--	--
MW-11-1	SU A	10/27/2015	8260B	1.21	17.0	3.64	0.500 U	0.500 U	--	--
MW-11-1	SU A	4/21/2016	8260B	1.22	16.6	4.85	0.500 U	0.500 U	--	--
MW-11-1	SU A	10/19/2016	8260B	0.920	9.08	2.97	0.500 U	0.500 U	--	--
MW-11-1	SU A	4/19/2017	8260B	0.837	6.75	1.27	0.500 U	0.500 U	--	--
MW-11-1	SU A	10/17/2017	8260C	0.500 U	4.73	2.07	0.500 U	0.400 U	--	--
MW-11-1	SU A	4/19/2018	8260C	0.400 U	1.00	1.57	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/10/2018	8260C	0.400 U	1.33	1.99	0.400 U	0.400 U	--	--
MW-11-1 Dup	SU A	10/10/2018	8260C	0.400 U	1.74	1.61	0.400 U	0.400 U	--	--
MW-11-1	SU A	4/25/2019	8260C	0.400 U	1.16	2.09	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/15/2019	8260C	0.437	7.32	5.01	0.400 U	0.400 U	--	--
MW-11-1	SU A	4/15/2020	8260C	0.400 U	2.01	2.43	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/14/2020	8260D	0.400 U	2.45	1.77	0.400 U	0.400 U	--	--
MW-11-1	SU A	4/8/2021	8260D	0.400 U	1.19 J	1.14	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/13/2021	8260D	0.400 U	2.20	1.35	0.400 U	0.400 U	--	--
MW-11-1	SU A	4/19/2022	8260D	0.400 U	2.06	1.73	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/6/2022	8260D	0.630	8.07	5.51	0.400 U	0.400 U	--	--
MW-11-1	SU A	4/20/2023	8260D	0.400 U	0.730	1.27	0.400 U	0.400 U	--	--
MW-11-1	SU A	10/5/2023	8260D	0.400 U	1.81	1.18	0.400 U	0.340	--	--
MW-11-1	SU A	4/24/2024	8260D	0.400 U	0.400 U	1.14	0.400 U	0.260	--	--
MW-11-1	SU A	10/23/2024	8260D	0.400 U	0.400 U	1.10	0.400 U	0.600	--	--
MW-11-1	SU A	4/24/2025	8260D	0.400 U	0.710	0.420	0.400 U	0.200 U	--	--
MW-11-2	SU B	4/16/2014	8260B	21.6	961	15.7	2.50 U	2.50 U	--	--
MW-11-2	SU B	4/21/2015	8260B	48.2	4,160	25.5	12.5 U	12.5 U	--	--
MW-11-2	SU B	10/27/2015	8260B	50.5	3,590	21.8	12.5 U	12.5 U	--	--
MW-11-2	SU B	4/21/2016	8260B	50.5	3,040	19.5	12.5 U	12.5 U	--	--
MW-11-2	SU B	10/19/2016	8260B	60.5	3,460	21.0	12.5 U	12.5 U	--	--
MW-11-2	SU B	4/19/2017	8260B	52.0	2,370	12.5 U	12.5 U	12.5 U	--	--
MW-11-2	SU B	10/17/2017	8260C	57.5	3,420	25.0 U	25.0 U	20.0 U	--	--
MW-11-2	SU B	1/16/2018	8260C	53.6	3,300	23.0	2.00 U	2.00 U	--	--
MW-11-2	SU B	4/19/2018	8260C	49.4	2,760	21.6	10.0 U	10.0 U	--	--
MW-11-2	SU B	10/10/2018	8260C	50.2 J	4,020 J	28.2 J	10.0 U	10.0 U	--	--
MW-11-2	SU B	4/25/2019	8260C	53.4 J	3,110 J	20.2 J	1.60 J	0.400 U	--	--
MW-11-2	SU B	10/15/2019	8260C	74.7 J	3,320 J	28.8 J	2.44 J	0.977 J	--	--
MW-11-2	SU B	4/15/2020	8260C	33.7	1,960	27.0	4.00 U	4.00 U	--	--
MW-11-2	SU B	10/14/2020	8260D	52.2	3,030	40.0 U	40.0 U	40.0 U	--	--
MW-11-2	SU B	1/27/2021	8260D	58.0	3,280	31.0	20.0 U	20.0 U	--	--
MW-11-2	SU B	4/8/2021	8260D	51.8	3,460	50.8	10.0 U	10.0 U	--	--
MW-11-2	SU B	7/13/2021	8260D	62.4	3,390	49.6	8.00 U	8.00 U	--	--
MW-11-2	SU B	10/13/2021	8260D	49.0	3,130	93.7	10.0 U	10.0 U	--	--

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Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-11-2	SU B	1/19/2022	8260D	53.8	3,270	183	10.0 U	10.0 U	--	--
MW-11-2	SU B	4/19/2022	8260D	30.5	2,990	54.2	10.0 U	10.0 U	--	--
MW-11-2	SU B	7/12/2022	8260D	42.2	2,170	75.0	10.0 U	10.0 U	--	--
MW-11-2	SU B	10/6/2022	8260D	62.5	2,810	173	20.0 U	20.0 U	--	--
MW-11-2	SU B	1/17/2023	8260D	10.0 U	172	1,180	10.0 U	28.5	--	--
MW-11-2	SU B	4/20/2023	8260D	14.2	643	912	10.0 U	43.8	--	--
MW-11-2	SU B	7/6/2023	8260D	27.0	1,350	1,270	10.0 U	10.0 U	--	--
MW-11-2	SU B	10/5/2023	8260D	4.00 U	4.00 U	690	4.00 U	771	--	--
MW-11-2	SU B	1/23/2024	8260D	1.64	38.3	15.9	0.400 U	1.86	--	--
MW-11-2	SU B	4/24/2024	8260D	33.6	1,970	348	4.00 U	13.7	--	--
MW-11-2 Dup	SU B	4/24/2024	8260D	36.8	1,880	234	3.18	10.8	--	--
MW-11-2	SU B	8/27/2024	8260D	27.0	1,770	648	8.00 U	9.40	--	--
MW-11-2	SU B	1/28/2025	8260D	2.71	59.0	85.2	0.410	0.390	--	--
MW-11-2	SU B	4/24/2025	8260D	5.67	310	103	0.560	0.210	--	--
MW-11B	WB	4/17/2014	8260B	0.550	74.4	12.1	0.500 U	0.500 U	--	--
MW-11B	WB	4/23/2015	8260B	0.980	109	6.59	0.500 U	0.500 U	--	--
MW-11B	WB	10/23/2015	8260B	0.690	143	10.3	0.500 U	0.500 U	--	--
MW-11B	WB	4/22/2016	8260B	0.884	123	17.2	0.500 U	0.500 U	--	--
MW-11B	WB	10/25/2016	8260B	1.06	126	23.9	0.500 U	0.500 U	--	--
MW-11B	WB	4/19/2017	8260B	1.15	158	14.8	0.500 U	0.500 U	--	--
MW-11B	WB	10/17/2017	8260C	0.960	164	20.6	0.500 U	0.400 U	--	--
MW-11B	WB	1/17/2018	8260C	1.11	191	15.4	0.400 U	0.400 U	--	--
MW-11B	WB	4/19/2018	8260C	0.656	116	35.1	0.400 U	0.400 U	--	--
MW-11B	WB	10/12/2018	8260C	1.31	188	11.1	0.400 U	0.400 U	--	--
MW-11B	WB	4/25/2019	8260C	1.20	161	22.0	0.400 U	0.400 U	--	--
MW-11B	WB	10/15/2019	8260C	1.17 J	196 J	11.4 J	0.400 U	0.400 U	--	--
MW-11B	WB	4/14/2020	8260C	1.64	153	13.9	0.800 U	0.800 U	--	--
MW-11B	WB	10/14/2020	8260D	1.44	196	8.59	0.800 U	0.800 U	--	--
MW-11B	WB	1/27/2021	8260D	1.46 J	213 J	20.4 J	0.800 U	0.800 U	--	--
MW-11B	WB	4/7/2021	8260D	1.74	282	17.8	0.800 U	0.800 U	--	--
MW-11B	WB	7/13/2021	8260D	1.52	192	13.5	0.800 U	0.800 U	--	--
MW-11B	WB	10/13/2021	8260D	1.40	209	22.9	0.800 U	0.800 U	--	--
MW-11B	WB	4/19/2022	8260D	1.90	241	31.4	0.800 U	0.800 U	--	--
MW-11B	WB	7/12/2022	8260D	1.98	207	36.7	0.800 U	0.800 U	--	--
MW-11B	WB	10/6/2022	8260D	1.98	240	38.5	0.800 U	0.800 U	--	--
MW-11B	WB	1/17/2023	8260D	1.38	185	75.8	0.800 U	1.82	--	--
MW-11B	WB	4/19/2023	8260D	1.46	175	118	0.800 U	2.40	--	--
MW-11B	WB	7/6/2023	8260D	1.47	125	74.4	0.400 U	0.400 U	--	--
MW-11B	WB	10/3/2023	8260D	5.30	796	889	4.00 U	2.60	--	--
MW-11B	WB	1/23/2024	8260D	1.02	137	143	0.800 U	0.400 U	--	--
MW-11B	WB	4/24/2024	8260D	1.80	260	52.9	0.800 U	0.420	--	--
MW-11B	WB	10/23/2024	8260D	1.38	192	104	0.800 U	1.74	--	--
MW-11B	WB	1/29/2025	8260D	1.30	206	129	0.800 U	1.10	--	--
MW-11b	WB	4/23/2025	8260D	2.26	398	50.3	0.800 U	0.400 U	--	--
MW-12	SU A	4/17/2014	8260B	0.500 U	0.680	0.500 U	0.500 U	0.500 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-12	SU A	4/22/2015	8260B	1.41	7.37	0.500 U	0.500 U	0.500 U	--	--
MW-12	SU A	10/23/2015	8260B	2.35	9.52	0.890	0.500 U	0.500 U	--	--
MW-12	SU A	4/21/2016	8260B	1.89	6.22	0.500 U	0.500 U	0.500 U	--	--
MW-12	SU A	10/25/2016	8260B	1.80	5.24	0.886	0.500 U	0.500 U	--	--
MW-12	SU A	4/19/2017	8260B	1.58	4.90	1.22	0.500 U	0.500 U	--	--
MW-12	SU A	10/17/2017	8260C	0.550	2.30	1.91	0.500 U	0.400 U	--	--
MW-12	SU A	4/19/2018	8260C	0.969	4.27	1.47	0.400 U	0.400 U	--	--
MW-12	SU A	10/12/2018	8260C	0.509	2.78	3.10	0.400 U	0.400 U	--	--
MW-12	SU A	4/25/2019	8260C	0.885	4.66	1.25	0.400 U	0.400 U	--	--
MW-12	SU A	10/15/2019	8260C	0.560	3.08	2.59	0.400 U	0.400 U	--	--
MW-12	SU A	4/14/2020	8260C	0.960	4.80	0.830	0.400 U	0.400 U	--	--
MW-12	SU A	10/14/2020	8260D	0.620 J	3.57 J	2.13 J	0.400 U	0.400 U	--	--
MW-12	SU A	4/7/2021	8260D	1.16	6.35	1.08	0.400 U	0.400 U	--	--
MW-12	SU A	10/13/2021	8260D	0.660	4.12	2.89	0.400 U	0.400 U	--	--
MW-12	SU A	4/19/2022	8260D	0.860	4.70	1.21	0.400 U	0.400 U	--	--
MW-12	SU A	10/7/2022	8260D	0.550	2.79	2.43	0.400 U	0.400 U	--	--
MW-12	SU A	4/19/2023	8260D	0.420	3.10	1.18	0.400 U	0.400 U	--	--
MW-12	SU A	4/24/2024	8260D	0.400 U	2.26	1.99	0.400 U	0.200 U	--	--
MW-12	SU A	4/23/2025	8260D	0.400	3.78	2.72	0.400 U	0.200 U	--	--
MW-13-2	SU B	4/16/2014	8260B	1.86	175	4.84	1.00 U	1.00 U	--	--
MW-13-2	SU B	4/21/2015	8260B	2.94	317	8.62	1.00 U	1.00 U	--	--
MW-13-2 Dup	SU B	4/21/2015	8260B	10.0 U	364	10.0 U	10.0 U	10.0 U	--	--
MW-13-2	SU B	10/27/2015	8260B	4.90	558	19.2	2.50 U	2.50 U	--	--
MW-13-2	SU B	4/21/2016	8260B	2.50 U	122	5.05	2.50 U	2.50 U	--	--
MW-13-2	SU B	10/19/2016	8260B	4.04	396	12.9	1.00 U	1.00 U	--	--
MW-13-2 Dup	SU B	10/19/2016	8260B	3.96	375	12.3	1.00 U	1.00 U	--	--
MW-13-2	SU B	4/19/2017	8260B	2.65	171	8.84	0.500 U	0.500 U	--	--
MW-13-2	SU B	10/18/2017	8260C	5.11	515	22.4	1.00 U	0.800 U	--	--
MW-13-2	SU B	4/19/2018	8260C	2.68	260	12.0	0.800 U	0.800 U	--	--
MW-13-2	SU B	10/10/2018	8260C	3.80	498	25.8	2.00 U	2.00 U	--	--
MW-13-2 Dup	SU B	10/10/2018	8260C	4.58	535	28.6	0.800 U	0.800 U	--	--
MW-13-2	SU B	4/24/2019	8260C	9.72	1,360	90.2	1.06	0.800 U	--	--
MW-13-2	SU B	10/16/2019	8260C	1.52 J	100.0 J	5.51 J	0.400 U	0.400 U	--	--
MW-13-2	SU B	4/15/2020	8260C	1.32	135	9.49	0.400 U	0.400 U	--	--
MW-13-2	SU B	10/14/2020	8260D	8.00 U	587	56.6	8.00 U	8.00 U	--	--
MW-13-2	SU B	1/27/2021	8260D	0.400 U	3.03 J	0.640 J	0.400 U	0.400 U	--	--
MW-13-2 Dup	SU B	1/27/2021	8260D	0.440	7.35 J	1.11 J	0.400 U	0.400 U	--	--
MW-13-2	SU B	4/8/2021	8260D	0.460	3.08	0.710	0.400 U	0.400 U	--	--
MW-13-2	SU B	7/13/2021	8260D	0.690	9.51	1.12	0.400 U	0.400 U	--	--
MW-13-2	SU B	10/12/2021	8260D	1.09	119	10.8	0.400 U	0.400 U	--	--
MW-13-2	SU B	4/19/2022	8260D	1.54	199	13.9	0.400 U	0.400 U	--	--
MW-13-2	SU B	7/12/2022	8260D	1.75	162	25.1	0.400 U	0.400 U	--	--
MW-13-2	SU B	10/6/2022	8260D	3.73	335	71.6	0.760 J	0.400 U	--	--
MW-13-2	SU B	1/17/2023	8260D	0.590	21.0	2.79	0.400 U	0.400 U	--	--
MW-13-2	SU B	4/20/2023	8260D	0.400 U	2.42	0.620	0.400 U	0.400 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-13-2	SU B	10/5/2023	8260D	0.410	4.98	0.770	0.400 U	0.200 U	--	--
MW-13-2	SU B	4/24/2024	8260D	0.490	39.0	16.3	0.400 U	0.200 U	--	--
MW-13-2	SU B	10/24/2024	8260D	0.400 U	12.4	1.75	0.400 U	0.200 U	--	--
MW-13-2	SU B	4/24/2025	8260D	0.400 U	2.70	0.690	0.400 U	0.200 U	--	--
MW-14	SU A	4/16/2014	8260B	0.500 U	16.2	16.6	0.500 U	0.500 U	--	--
MW-14	SU A	4/21/2015	8260B	0.500 U	6.25	19.2	0.500 U	0.500 U	--	--
MW-14	SU A	10/27/2015	8260B	0.500 U	6.65	21.2	0.500 U	0.500 U	--	--
MW-14	SU A	4/21/2016	8260B	0.500 U	5.35	26.6	0.500 U	0.500 U	--	--
MW-14	SU A	10/19/2016	8260B	0.500 U	14.5	17.0	0.500 U	0.500 U	--	--
MW-14	SU A	4/19/2017	8260B	0.500 U	1.11	8.04	0.500 U	0.500 U	--	--
MW-14	SU A	10/18/2017	8260C	0.500 U	30.3	27.5	0.500 U	1.21	--	--
MW-14	SU A	4/19/2018	8260C	0.400 U	1.29	11.4	0.400 U	0.627	--	--
MW-14 Dup	SU A	4/19/2018	8260C	0.400 U	1.24	12.0	0.400 U	0.722	--	--
MW-14	SU A	10/10/2018	8260C	0.400 U	175	73.8	0.670	2.05	--	--
MW-14 Dup	SU A	10/10/2018	8260C	0.400 U	176	75.3	0.650	2.20	--	--
MW-14	SU A	4/24/2019	8260C	0.400 U	1.10	10.0	0.400 U	0.588	--	--
MW-14	SU A	10/16/2019	8260C	0.400 U	23.1	18.8	0.400 U	0.430	--	--
MW-14 Dup	SU A	10/16/2019	8260C	0.400 U	25.8	20.5	0.400 U	0.500	--	--
MW-14	SU A	10/14/2020	8260D	0.400 U	15.8	16.2	0.400 U	0.941	--	--
MW-14	SU A	4/8/2021	8260D	0.400 U	103	30.4	0.400 U	1.70	--	--
MW-14	SU A	10/12/2021	8260D	0.897	407	100.0	1.47	7.44	--	--
MW-14	SU A	4/19/2022	8260D	0.400 U	6.34	12.2	0.400 U	0.400 U	--	--
MW-14	SU A	10/6/2022	8260D	0.420	165	41.6	0.670 J	3.47	--	--
MW-14	SU A	4/20/2023	8260D	0.400 U	0.640	3.58	0.400 U	0.400 U	--	--
MW-14	SU A	10/5/2023	8260D	0.400 U	16.4	7.28	0.400 U	0.550	--	--
MW-14	SU A	4/24/2024	8260D	0.400 U	1.18	4.36	0.400 U	0.200 U	--	--
MW-14	SU A	10/24/2024	8260D	0.400 U	4.40	4.50	0.400 U	0.200	--	--
MW-14 Dup	SU A	10/24/2024	8260D	0.400 U	3.22	4.56	0.400 U	0.200 U	--	--
MW-14	SU A	4/24/2025	8260D	0.400 U	0.400 U	3.26	0.400 U	0.200 U	--	--
MW-14B	WB	1/14/2014	8260B	1.86	213	7.54	1.00 U	1.00 U	--	--
MW-14B	WB	4/17/2014	8260B	1.86	197	6.18	1.00 U	1.00 U	--	--
MW-14B	WB	7/29/2014	8260B	1.80	224	6.40	1.00 U	1.00 U	--	--
MW-14B	WB	1/21/2015	8260B	2.00	164	4.94	1.00 U	1.00 U	--	--
MW-14B	WB	4/21/2015	8260B	2.02	154	5.14	1.00 U	1.00 U	--	--
MW-14B	WB	7/14/2015	8260B	2.05	166	5.55	0.500 U	0.500 U	--	--
MW-14B	WB	10/23/2015	8260B	1.86	169	4.76	1.00 U	1.00 U	--	--
MW-14B	WB	1/25/2016	8260B	2.00	174	4.82	1.00 U	1.00 U	--	--
MW-14B	WB	4/22/2016	8260B	5.00 U	192	6.84	5.00 U	5.00 U	--	--
MW-14B	WB	7/20/2016	8260B	2.26	194	5.99	0.500 U	0.500 U	--	--
MW-14B	WB	10/25/2016	8260B	2.33	182	4.74	1.00 U	1.00 U	--	--
MW-14B	WB	1/24/2017	8260B	2.18 J	178 J	5.33 J	0.500 U	0.500 U	--	--
MW-14B	WB	4/19/2017	8260B	2.35	204	4.85	1.00 U	1.00 U	--	--
MW-14B	WB	7/12/2017	8260B	2.12 J	233 J	4.86 J	1.00 U	1.00 U	--	--
MW-14B	WB	10/18/2017	8260C	2.06	211	5.81	1.00 U	0.800 U	--	--
MW-14B	WB	1/17/2018	8260C	2.65	207	6.29	0.400 U	0.400 U	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-14B	WB	4/19/2018	8260C	2.00 U	183	5.56	2.00 U	2.00 U	--	--
MW-14B	WB	7/17/2018	8260C	2.36	213	6.32	2.00 U	2.00 U	--	--
MW-14B	WB	10/12/2018	8260C	1.82 J	218 J	6.02 J	0.800 U	0.800 U	--	--
MW-14B	WB	1/22/2019	8260C	2.33	218	7.64	0.400 U	0.400 U	--	--
MW-14B	WB	4/24/2019	8260C	2.10	250	8.58	2.00 U	2.00 U	--	--
MW-14B	WB	7/16/2019	8260C	2.12	213	6.76	0.800 U	0.800 U	--	--
MW-14B	WB	10/16/2019	8260C	2.38	210	7.16	0.400 U	0.400 U	--	--
MW-14B	WB	1/14/2020	8260C	2.49	220	7.29	0.400 U	0.400 U	--	--
MW-14B	WB	4/14/2020	8260C	1.84	195	6.96	0.800 U	0.800 U	--	--
MW-14B	WB	4/15/2020	8260C	0.400 U	1.36	13.4	0.400 U	0.470	--	--
MW-14B	WB	7/16/2020	8260D	2.00 U	185	6.60	2.00 U	2.00 U	--	--
MW-14B	WB	10/14/2020	8260D	2.00 U	204	6.38	2.00 U	2.00 U	--	--
MW-14B	WB	1/27/2021	8260D	1.98 J	225 J	6.44 J	0.800 U	0.800 U	--	--
MW-14B	WB	4/7/2021	8260D	2.40	266	6.50	0.800 U	0.800 U	--	--
MW-14B	WB	7/13/2021	8260D	1.90	200	6.48	0.800 U	0.800 U	--	--
MW-14B	WB	10/13/2021	8260D	2.00 U	208	7.06	2.00 U	2.00 U	--	--
MW-14B	WB	1/19/2022	8260D	2.00 U	248	6.80	2.00 U	2.00 U	--	--
MW-14B	WB	4/19/2022	8260D	2.00 U	201	6.25	2.00 U	2.00 U	--	--
MW-14B	WB	7/12/2022	8260D	2.08	178	10.1	0.800 U	0.800 U	--	--
MW-14B	WB	10/6/2022	8260D	2.55	236	7.20	2.00 U	2.00 U	--	--
MW-14B	WB	1/17/2023	8260D	2.55	251	8.65	2.00 U	2.00 U	--	--
MW-14B	WB	4/19/2023	8260D	2.25	238	8.60	2.00 U	2.00 U	--	--
MW-14B	WB	7/6/2023	8260D	2.15	213	6.40	2.00 U	2.00 U	--	--
MW-14B	WB	1/23/2024	8260D	2.00 U	208	7.05	2.00 U	1.00 U	--	--
MW-14B	WB	4/24/2024	8260D	2.40	212	7.75	2.00 U	1.00 U	--	--
MW-14B	WB	1/29/2025	8260D	2.70	219	7.35	2.00 U	1.00 U	--	--
MW-14b	WB	4/23/2025	8260D	2.75	254	7.35	2.00 U	1.00 U	--	--
MW-15-1	SU A	4/16/2014	8260B	0.500 U	3.25	2.32	0.500 U	0.500 U	--	--
MW-15-1	SU A	10/27/2015	8260B	0.500 U	2.16	1.25	0.500 U	0.500 U	--	--
MW-15-1	SU A	4/21/2016	8260B	0.500 U	1.85	0.705	0.500 U	0.500 U	--	--
MW-15-1	SU A	10/19/2016	8260B	0.500 U	1.92	0.980	0.500 U	0.500 U	--	--
MW-15-1	SU A	4/19/2017	8260B	0.500 U	1.88	0.678	0.500 U	0.500 U	--	--
MW-15-1	SU A	10/18/2017	8260C	0.500 U	1.63	0.986	0.500 U	0.400 U	--	--
MW-15-1	SU A	4/19/2018	8260C	0.400 U	1.34	0.806	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/11/2018	8260C	0.400 U	1.48	1.00	0.400 U	0.400 U	--	--
MW-15-1	SU A	4/24/2019	8260C	0.400 U	1.78	0.721	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/16/2019	8260C	0.400 U	1.67	0.730	0.400 U	0.400 U	--	--
MW-15-1	SU A	4/15/2020	8260C	0.400 U	1.41	0.800	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/14/2020	8260D	0.400 U	1.54	0.679	0.400 U	0.400 U	--	--
MW-15-1	SU A	4/8/2021	8260D	0.400 U	1.39	0.528	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/12/2021	8260D	0.400 U	1.08	0.592	0.400 U	0.400 U	--	--
MW-15-1	SU A	4/19/2022	8260D	0.400 U	1.14	0.750	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/6/2022	8260D	0.400 U	1.26	0.730	0.400 U	0.400 U	--	--
MW-15-1	SU A	4/20/2023	8260D	0.400 U	0.630	0.490	0.400 U	0.400 U	--	--
MW-15-1	SU A	10/5/2023	8260D	0.400 U	0.940	0.540	0.400 U	0.200 U	--	--

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Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-15-1	SU A	4/24/2024	8260D	0.400 U	0.900	0.530	0.400 U	0.200 U	--	--
MW-15-1	SU A	10/24/2024	8260D	0.400 U	0.750	0.510	0.400 U	0.200 U	--	--
MW-15-1	SU A	4/24/2025	8260D	0.400 U	0.900	0.440	0.400 U	0.200 U	--	--
MW-15-2	SU B	4/16/2014	8260B	0.930	77.5	6.09	0.500 U	0.500 U	--	--
MW-15-2 Dup	SU B	4/16/2014	8260B	1.00	74.8	6.38	0.500 U	0.500 U	--	--
MW-15-2	SU B	4/21/2015	8260B	1.20	138	10.4	0.500 U	0.500 U	--	--
MW-15-2	SU B	10/27/2015	8260B	0.940	105	7.50	0.500 U	0.500 U	--	--
MW-15-2	SU B	4/21/2016	8260B	0.910	74.3	4.96	0.500 U	0.500 U	--	--
MW-15-2	SU B	10/19/2016	8260B	0.790	39.2	2.63	0.500 U	0.500 U	--	--
MW-15-2 Dup	SU B	10/19/2016	8260B	0.830	39.9	2.37	0.500 U	0.500 U	--	--
MW-15-2	SU B	4/19/2017	8260B	1.46	155	7.88	0.500 U	0.500 U	--	--
MW-15-2	SU B	10/18/2017	8260C	0.705	68.8	5.00	0.500 U	0.400 U	--	--
MW-15-2	SU B	4/19/2018	8260C	0.578	47.5	3.98	0.400 U	0.400 U	--	--
MW-15-2 Dup	SU B	4/19/2018	8260C	0.578	45.9	3.91	0.400 U	0.400 U	--	--
MW-15-2	SU B	10/11/2018	8260C	0.610	61.1	5.15	0.400 U	0.400 U	--	--
MW-15-2	SU B	4/24/2019	8260C	1.19	149	10.6	0.400 U	0.400 U	--	--
MW-15-2	SU B	10/16/2019	8260C	0.640	61.7	5.94	0.400 U	0.400 U	--	--
MW-15-2	SU B	4/15/2020	8260C	0.710	66.8	8.03	0.400 U	0.400 U	--	--
MW-15-2	SU B	10/14/2020	8260D	0.600 J	66.6 J	7.26 J	0.400 U	0.400 U	--	--
MW-15-2	SU B	4/8/2021	8260D	0.660	77.3	9.75	0.400 U	0.400 U	--	--
MW-15-2	SU B	10/12/2021	8260D	0.400 U	28.6	3.69	0.400 U	0.400 U	--	--
MW-15-2	SU B	4/19/2022	8260D	1.05	116	14.3	0.400 U	0.490	--	--
MW-15-2	SU B	10/6/2022	8260D	0.450	30.1	5.64	0.400 U	0.400 U	--	--
MW-15-2	SU B	4/20/2023	8260D	0.400 U	11.1	3.51	0.400 U	0.400 U	--	--
MW-15-2	SU B	10/5/2023	8260D	0.400 U	18.8	4.30	0.400 U	0.290	--	--
MW-15-2	SU B	4/24/2024	8260D	0.550	53.1	12.7	0.400 U	0.570	--	--
MW-15-2	SU B	10/24/2024	8260D	0.400 U	7.43	3.07	0.400 U	0.200 U	--	--
MW-15-2	SU B	4/24/2025	8260D	0.400 U	9.79	3.56	0.400 U	0.200 U	--	--
MW-15B	WB	4/17/2014	8260B	2.29	1.89	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	4/21/2015	8260B	2.13	1.82	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	10/23/2015	8260B	2.00	1.74	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	4/22/2016	8260B	2.21	1.72	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	10/25/2016	8260B	2.63	1.79	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	4/19/2017	8260B	2.27	1.75	0.500 U	0.500 U	0.500 U	--	--
MW-15B	WB	10/18/2017	8260C	1.94	1.43	0.500 U	0.500 U	0.400 U	--	--
MW-15B	WB	4/19/2018	8260C	1.78	1.33	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/11/2018	8260C	1.63	1.36	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	4/24/2019	8260C	1.99	1.62	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/16/2019	8260C	1.89	1.43	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	4/14/2020	8260C	1.77	1.33	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/14/2020	8260D	1.75	1.26	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	4/7/2021	8260D	1.88	1.46	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	7/13/2021	8260D	1.70	1.21	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/13/2021	8260D	1.53	1.04	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	4/19/2022	8260D	1.49	1.03	0.400 U	0.400 U	0.400 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-15B	WB	7/12/2022	8260D	1.55	0.920	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/6/2022	8260D	1.85	1.10	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	4/19/2023	8260D	1.71	0.720	0.400 U	0.400 U	0.400 U	--	--
MW-15B	WB	10/3/2023	8260D	1.74	0.910	0.400 U	0.400 U	0.200 U	--	--
MW-15B	WB	4/24/2024	8260D	1.47	0.760	0.400 U	0.400 U	0.200 U	--	--
MW-15B	WB	10/24/2024	8260D	1.54	0.690	0.400 U	0.400 U	0.200 U	--	--
MW-15B	WB	4/23/2025	8260D	1.70	0.740	0.400 U	0.400 U	0.200 U	--	--
MW-16A	Qff	1/21/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16A	Qff	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16A	Qff	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16A	Qff	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-16A	Qff	10/11/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16A	Qff	10/21/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16A	Qff	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16A	Qff	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16A	Qff	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16A	Qff	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-16B	WB	1/21/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16B	WB	10/23/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16B	WB	10/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-16B	WB	10/19/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-16B	WB	10/11/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	4/25/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	10/21/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	10/14/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	4/7/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	10/7/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-16B	WB	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-16B	WB	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-16B	WB	4/23/2025	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-17B	WB	1/25/2016	8260B	3.60	343	15.5	1.00 U	1.00 U	--	--
MW-17B	WB	1/25/2016	8260B	5.50	510	22.8	5.00 U	5.00 U	--	--
MW-17B-L	WB	1/14/2014	8260B	5.05	545	21.8	2.50 U	2.50 U	--	--
MW-17B-L	WB	4/17/2014	8260B	4.70	477	18.9	2.50 U	2.50 U	--	--
MW-17B-L	WB	7/29/2014	8260B	4.10	451	19.5	2.50 U	2.50 U	--	--
MW-17B-L	WB	1/21/2015	8260B	4.30	507	20.0	2.50 U	2.50 U	--	--
MW-17B-L	WB	4/22/2015	8260B	5.00	545	21.0	2.50 U	2.50 U	--	--
MW-17B-L	WB	7/14/2015	8260B	4.10	544	21.9	2.50 U	2.50 U	--	--
MW-17B-L	WB	10/23/2015	8260B	4.50	481	20.9	2.50 U	2.50 U	--	--
MW-17B-L	WB	4/22/2016	8260B	6.00	533	26.2	5.00 U	5.00 U	--	--
MW-17B-L	WB	7/20/2016	8260B	5.35	444	21.9	2.50 U	2.50 U	--	--
MW-17B-L	WB	10/25/2016	8260B	4.98	463	20.1	2.50 U	2.50 U	--	--
MW-17B-L	WB	1/24/2017	8260B	4.42	373	14.8	1.00 U	1.00 U	--	--
MW-17B-L	WB	4/19/2017	8260B	5.10	431	17.1	2.50 U	2.50 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-17B-L	WB	7/12/2017	8260B	3.75 J	428 J	17.7 J	2.50 U	2.50 U	--	--
MW-17B-L	WB	10/18/2017	8260C	4.37	401	21.0	2.50 U	2.00 U	--	--
MW-17B-L	WB	1/16/2018	8260C	4.70	461	22.8	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/18/2018	8260C	4.44	418	23.6	2.00 U	2.00 U	--	--
MW-17B-L	WB	7/17/2018	8260C	3.09 J	309 J	19.8 J	2.00 UJ	2.00 UJ	--	--
MW-17B-L	WB	10/11/2018	8260C	3.60	365	21.4	2.00 U	2.00 U	--	--
MW-17B-L	WB	1/22/2019	8260C	4.30	441	29.8	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/24/2019	8260C	4.78	477	34.3	2.00 U	2.00 U	--	--
MW-17B-L	WB	7/16/2019	8260C	3.92	408	28.1	2.00 U	2.00 U	--	--
MW-17B-L	WB	10/16/2019	8260C	4.20	415	24.5	2.00 U	2.00 U	--	--
MW-17B-L	WB	1/14/2020	8260C	4.35	460	28.8	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/14/2020	8260C	4.20	423	32.6	2.00 U	2.00 U	--	--
MW-17B-L	WB	10/13/2020	8260D	3.80	370	28.2	2.00 U	2.00 U	--	--
MW-17B-L	WB	1/27/2021	8260D	5.00 J	769 J	26.9 J	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/7/2021	8260D	4.39	455	26.6	2.00 U	2.00 U	--	--
MW-17B-L	WB	7/13/2021	8260D	3.65	325	25.6	2.00 U	2.00 U	--	--
MW-17B-L	WB	10/13/2021	8260D	3.49	393	29.4	2.00 U	2.00 U	--	--
MW-17B-L	WB	1/19/2022	8260D	4.10	454	31.8	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/19/2022	8260D	4.15	408	29.6	2.00 U	2.00 U	--	--
MW-17B-L	WB	7/12/2022	8260D	3.65	327	30.4	2.00 U	2.00 U	--	--
MW-17B-L	WB	10/7/2022	8260D	4.05	347	28.0	2.00 U	2.00 U	--	--
MW-17B-L	WB	1/17/2023	8260D	4.40	400	33.4	2.00 U	2.00 U	--	--
MW-17B-L	WB	4/19/2023	8260D	4.35	375	36.4	2.00 U	2.00 U	--	--
MW-17B-L	WB	7/6/2023	8260D	3.55	380	28.9	2.00 U	2.00 U	--	--
MW-17B-L	WB	10/3/2023	8260D	4.30	323	23.0	2.00 U	1.00 U	--	--
MW-17B-L	WB	1/23/2024	8260D	3.15	279	25.0	2.00 U	1.00 U	--	--
MW-17B-L	WB	4/24/2024	8260D	3.25	318	27.8	2.00 U	1.00 U	--	--
MW-17B-L	WB	10/24/2024	8260D	3.05	296	25.1	2.00 U	1.00 U	--	--
MW-17B-L	WB	1/29/2025	8260D	3.85	308	26.0	2.00 U	1.00 U	--	--
MW-17B-L	WB	4/24/2025	8260D	4.43	385	32.6	0.400 U	0.200 U	--	--
MW-17B-U	WB	1/14/2014	8260B	3.58	322	18.7	1.00 U	1.00 U	--	--
MW-17B-U	WB	4/17/2014	8260B	3.70	338	19.9	1.00 U	1.00 U	--	--
MW-17B-U	WB	7/29/2014	8260B	3.50	330	16.8	2.50 U	2.50 U	--	--
MW-17B-U	WB	1/21/2015	8260B	3.20	340	16.8	1.00 U	1.00 U	--	--
MW-17B-U	WB	4/22/2015	8260B	3.00	323	15.1	1.00 U	1.00 U	--	--
MW-17B-U	WB	7/14/2015	8260B	2.80	329	15.2	1.00 U	1.00 U	--	--
MW-17B-U	WB	10/23/2015	8260B	2.60	264	13.1	1.00 U	1.00 U	--	--
MW-17B-U	WB	4/22/2016	8260B	3.24	342	16.3	1.00 U	1.00 U	--	--
MW-17B-U	WB	7/20/2016	8260B	3.33	255	13.4	1.00 U	1.00 U	--	--
MW-17B-U	WB	10/25/2016	8260B	3.28	262	12.6	1.00 U	1.00 U	--	--
MW-17B-U	WB	1/24/2017	8260B	5.43 J	484 J	23.5 J	0.500 U	0.500 U	--	--
MW-17B-U	WB	4/19/2017	8260B	4.62	422	17.3	2.50 U	2.50 U	--	--
MW-17B-U	WB	7/12/2017	8260B	4.34	474	18.5	2.50 U	2.50 U	--	--
MW-17B-U	WB	10/18/2017	8260C	5.00 U	332	15.8	5.00 U	4.00 U	--	--
MW-17B-U	WB	1/16/2018	8260C	4.90	339	16.6	2.00 U	2.00 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-17B-U	WB	4/18/2018	8260C	3.92	352	16.7	2.00 U	2.00 U	--	--
MW-17B-U	WB	7/17/2018	8260C	1.91	177	12.9	0.400 U	0.400 U	--	--
MW-17B-U	WB	10/11/2018	8260C	3.25	341	16.6	2.00 U	2.00 U	--	--
MW-17B-U	WB	1/22/2019	8260C	3.80	350	18.3	2.00 U	2.00 U	--	--
MW-17B-U	WB	4/24/2019	8260C	3.96	385	22.7	2.00 U	2.00 U	--	--
MW-17B-U	WB	7/16/2019	8260C	3.51	344	20.0	2.00 U	2.00 U	--	--
MW-17B-U	WB	10/16/2019	8260C	3.95	352	16.3	2.00 U	2.00 U	--	--
MW-17B-U	WB	1/14/2020	8260C	3.55	342	17.7	2.00 U	2.00 U	--	--
MW-17B-U	WB	4/14/2020	8260C	3.90	384	24.3	2.00 U	2.00 U	--	--
MW-17B-U	WB	10/13/2020	8260D	3.79	333	20.6	2.00 U	2.00 U	--	--
MW-17B-U	WB	1/27/2021	8260D	5.00 J	733 J	25.8 J	2.00 U	2.00 U	--	--
MW-17B-U	WB	4/7/2021	8260D	4.10	373	20.6	2.00 U	2.00 U	--	--
MW-17B-U	WB	7/13/2021	8260D	3.45	329	25.4	2.00 U	2.00 U	--	--
MW-17B-U	WB	10/13/2021	8260D	3.56	374	29.0	2.00 U	2.00 U	--	--
MW-17B-U	WB	1/19/2022	8260D	4.00	437	29.7	2.00 U	2.00 U	--	--
MW-17B-U	WB	4/19/2022	8260D	3.80	364	26.6	2.00 U	2.00 U	--	--
MW-17B-U	WB	7/12/2022	8260D	3.55	329	32.3	2.00 U	2.00 U	--	--
MW-17B-U	WB	10/7/2022	8260D	3.75	337	27.2	2.00 U	2.00 U	--	--
MW-17B-U	WB	1/17/2023	8260D	3.70	364	30.0	2.00 U	2.00 U	--	--
MW-17B-U	WB	4/19/2023	8260D	3.80	364	34.3	2.00 U	2.00 U	--	--
MW-17B-U	WB	7/6/2023	8260D	3.80	388	29.2	2.00 U	2.00 U	--	--
MW-17B-U	WB	10/3/2023	8260D	4.12	313	29.8	0.400 U	0.200 U	--	--
MW-17B-U	WB	1/23/2024	8260D	3.40	322	28.7	2.00 U	1.00 U	--	--
MW-17B-U	WB	4/24/2024	8260D	3.30	324	28.0	2.00 U	1.00 U	--	--
MW-17B-U	WB	10/24/2024	8260D	3.10	306	24.8	2.00 U	1.00 U	--	--
MW-17B-U	WB	1/29/2025	8260D	3.95	332	25.6	2.00 U	1.00 U	--	--
MW-17B-U	WB	4/24/2025	8260D	4.41	348	32.0	0.400 U	0.200 U	--	--
MW-18B-L	WB	1/14/2014	8260B	2.50 U	46.7	767	4.45	33.3	--	--
MW-18B-L	WB	4/17/2014	8260B	0.500 U	0.500 U	2.44	0.500 U	1.41	--	--
MW-18B-L	WB	7/29/2014	8260B	2.50 U	2.50 U	453	2.50 U	40.4	--	--
MW-18B-L	WB	1/21/2015	8260B	2.50 U	2.50 U	195	2.50 U	22.7	--	--
MW-18B-L	WB	4/21/2015	8260B	0.500 U	0.500 U	17.0	0.500 U	16.4	--	--
MW-18B-L	WB	7/14/2015	8260B	0.500 U	0.500 U	402	3.26	118	--	--
MW-18B-L	WB	10/23/2015	8260B	12.5 U	33.2	821	12.5	93.5	--	--
MW-18B-L	WB	1/25/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-18B-L	WB	4/22/2016	8260B	0.500 U	0.500 U	0.500	0.500 U	0.780	--	--
MW-18B-L	WB	7/20/2016	8260B	0.500 U	0.500 U	52.6	0.620	42.4	--	--
MW-18B-L	WB	10/25/2016	8260B	0.943	167	157	2.69	45.2	--	--
MW-18B-L	WB	1/24/2017	8260B	0.500 U	0.500 U	19.0	0.500 U	88.9	--	--
MW-18B-L	WB	5/2/2017	8260B	0.500 U	0.570	154	1.31	86.1	--	--
MW-18B-L	WB	7/12/2017	8260B	0.500 U	0.500 U	419	4.78	152	--	--
MW-18B-L	WB	10/18/2017	8260C	1.25 U	1.44	631	11.1	364	--	--
MW-18B-L	WB	1/17/2018	8260C	2.00 U	106	729	57.0	240	--	--
MW-18B-L	WB	4/18/2018	8260C	10.4	975	554	38.0	72.2	--	--
MW-18B-L	WB	7/17/2018	8260C	10.2	851	739	49.7	155	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18B-L	WB	10/12/2018	8260C	4.00 U	64.7	1,500	52.4	247	--	--
MW-18B-L	WB	1/22/2019	8260C	9.40	869	1,130	52.7	163	--	--
MW-18B-L	WB	4/24/2019	8260C	20.0	2,110	577	46.6	60.0	--	--
MW-18B-L	WB	7/16/2019	8260C	16.1	1,720	605	48.2	85.2	--	--
MW-18B-L	WB	10/16/2019	8260C	23.6	2,070	372	28.6	41.4	--	--
MW-18B-L	WB	1/14/2020	8260C	28.0	2,980	404	28.5	28.5	--	--
MW-18B-L	WB	4/14/2020	8260C	29.2	2,590	462	23.5	38.0	--	--
MW-18B-L	WB	7/16/2020	8260D	5.54	493	85.6	5.52	6.71	--	--
MW-18B-L	WB	10/14/2020	8260D	30.0	2,670	488	31.0	47.3	--	--
MW-18B-L	WB	1/27/2021	8260D	6.80	240	36.0	4.00 U	4.00	--	--
MW-18B-L	WB	4/7/2021	8260D	0.400 U	20.1	5.94	0.532	1.39	--	--
MW-18B-L	WB	7/13/2021	8260D	10.0 U	1,320	533	18.5	15.5	--	--
MW-18B-L	WB	10/13/2021	8260D	10.0 U	1,890	1,100	28.2	38.0	--	--
MW-18B-L	WB	1/19/2022	8260D	16.0	2,210	1,010	23.2	31.0	--	--
MW-18B-L	WB	4/19/2022	8260D	26.0	2,480	1,000	27.0	34.8	--	--
MW-18B-L	WB	7/12/2022	8260D	29.2	2,440	725	22.2	26.0	--	--
MW-18B-L	WB	10/7/2022	8260D	40.2	3,450	1,030	32.2	33.5	--	--
MW-18B-L	WB	1/17/2023	8260D	35.5	3,250	1,050	31.8	36.0	--	--
MW-18B-L	WB	4/19/2023	8260D	41.8	3,100	497	26.5	22.5	--	--
MW-18B-L	WB	7/6/2023	8260D	37.8	4,050	564	25.5	28.0	--	--
MW-18B-L	WB	10/3/2023	8260D	45.0	4,010	508	34.0	22.5	--	--
MW-18B-L	WB	1/23/2024	8260D	40.8	3,560	556	30.0	25.5	--	--
MW-18B-L	WB	4/24/2024	8260D	45.0	4,310	555	27.8	18.0	--	--
MW-18B-L	WB	10/24/2024	8260D	50.8	4,780	585	25.2	17.2	--	--
MW-18B-L	WB	1/29/2025	8260D	55.8	4540	562	25.8	12.8	--	--
MW-18B-L	WB	4/23/2025	8260D	58.0	4780	538	21.5	11.0	--	--
MW-18B-U	WB	1/14/2014	8260B	6.85	887	154	2.50 U	2.70	--	--
MW-18B-U	WB	4/17/2014	8260B	0.500 U	0.500 U	1.29	0.500 U	0.500 U	--	--
MW-18B-U	WB	7/29/2014	8260B	2.50 U	24.2	893	4.35	8.70	--	--
MW-18B-U	WB	1/21/2015	8260B	1.00 U	1.98	250	1.58	17.6	--	--
MW-18B-U	WB	4/21/2015	8260B	0.500 U	1.67	64.0	0.500 U	2.32	--	--
MW-18B-U	WB	7/14/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-18B-U	WB	10/23/2015	8260B	5.44	698	450	5.46	12.5	--	--
MW-18B-U	WB	1/25/2016	8260B	0.500 U	0.500 U	0.710	0.500 U	0.500 U	--	--
MW-18B-U	WB	4/22/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-18B-U	WB	7/20/2016	8260B	1.00 U	3.52	504	3.58	24.6	--	--
MW-18B-U	WB	10/25/2016	8260B	0.560	125	120	1.85	39.1	--	--
MW-18B-U	WB	1/24/2017	8260B	0.500 U	44.2	138	1.12	18.2	--	--
MW-18B-U	WB	5/2/2017	8260B	0.500 U	0.510	9.24	0.500 U	1.43	--	--
MW-18B-U	WB	7/12/2017	8260B	0.500 U	14.4	881	8.21	53.4	--	--
MW-18B-U	WB	10/18/2017	8260C	2.50 U	237	1,280	14.0	80.0	--	--
MW-18B-U	WB	1/17/2018	8260C	21.6	1,970	367	15.4	24.6	--	--
MW-18B-U	WB	4/18/2018	8260C	11.8	736	164	8.08	18.2	--	--
MW-18B-U	WB	7/17/2018	8260C	14.9	1,520	610	34.7	103	--	--
MW-18B-U	WB	10/12/2018	8260C	28.8	2,320	360	14.4	18.3	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18B-U	WB	1/22/2019	8260C	25.0	2,460	364	20.0 U	20.0 U	--	--
MW-18B-U	WB	4/24/2019	8260C	30.7	2,880	382	11.1	4.00 U	--	--
MW-18B-U	WB	7/16/2019	8260C	30.8	2,880	362	15.1	8.28	--	--
MW-18B-U	WB	10/16/2019	8260C	35.0	2,970	320	20.0 U	20.0 U	--	--
MW-18B-U	WB	1/14/2020	8260C	34.8	3,060	334	10.0	10.0 U	--	--
MW-18B-U	WB	4/14/2020	8260C	31.0	2,680	410	20.0 U	20.0 U	--	--
MW-18B-U	WB	7/16/2020	8260D	30.2	2,620	386	16.2	10.0 U	--	--
MW-18B-U	WB	10/14/2020	8260D	25.0	2,610	473	28.6	44.4	--	--
MW-18B-U	WB	1/27/2021	8260D	5.50 J	252 J	37.9 J	3.96 J	4.76 J	--	--
MW-18B-U	WB	4/7/2021	8260D	0.400 U	19.5	5.97	0.597	1.57	--	--
MW-18B-U	WB	7/13/2021	8260D	20.0 U	430	838	21.5	20.0 U	--	--
MW-18B-U	WB	10/13/2021	8260D	14.0	2,480	835	22.2	23.5	--	--
MW-18B-U	WB	1/19/2022	8260D	21.0	2,870	654	17.2	20.0	--	--
MW-18B-U	WB	4/19/2022	8260D	33.0	3,180	738	23.8	28.2	--	--
MW-18B-U	WB	7/12/2022	8260D	34.5	2,700	753	31.5	39.8	--	--
MW-18B-U	WB	10/7/2022	8260D	35.0	2,850	956	28.8	36.8	--	--
MW-18B-U	WB	1/17/2023	8260D	38.5	3,770	606	23.0	25.8	--	--
MW-18B-U	WB	4/19/2023	8260D	37.0	3,460	510	18.8 J	11.0 J	--	--
MW-18B-U	WB	7/6/2023	8260D	47.2	4,500	494	21.2	18.2	--	--
MW-18B-U	WB	10/3/2023	8260D	47.6	3,440	710	31.4	23.2	--	--
MW-18B-U	WB	1/23/2024	8260D	40.5	3,660	498	22.8	14.5	--	--
MW-18B-U	WB	4/24/2024	8260D	44.0	3,980	508	24.0	16.2	--	--
MW-18B-U	WB	10/24/2024	8260D	42.5	3,900	503	26.5	19.8	--	--
MW-18B-U	WB	1/29/2025	8260D	65.0	3850	604	21.2	8.75	--	--
MW-18B-U	WB	4/23/2025	8260D	59.2	4760	538	15.4	4.20	--	--
MW-19-1	SU A	1/15/2014	8260B	59.0	11,500	787	50.0 U	50.0 U	--	--
MW-19-1	SU A	4/10/2014	8260B	250 U	8,140	595	250 U	250 U	--	--
MW-19-1	SU A	4/21/2014	8260B	88.0	14,500	1,310	50.0 U	50.0 U	--	--
MW-19-1	SU A	7/30/2014	8260B	50.0 U	50.0 U	50.0 U	50.0 U	50.0 U	--	--
MW-19-1	SU A	8/26/2014	8260B	0.570	5.52	0.500 U	0.500 U	0.500 U	--	--
MW-19-1	SU A	1/22/2015	8260B	75.0	20,800	1,220	50.0 U	50.0 U	--	--
MW-19-1	SU A	7/8/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-19-1	SU A	12/2/2015	8260B	15.6	137	2.50 U	2.50 U	2.50 U	--	--
MW-19-1	SU A	1/16/2017	8260B	1.34	83.6	2.20	0.500 U	0.500 U	--	--
MW-19-1	SU A	10/9/2018	8260C	0.675	10.2	1.10	0.400 U	0.400 U	--	--
MW-19-1	SU A	10/17/2019	8260C	6.04	661 J	109 J	2.00 U	3.26	--	--
MW-19-1	SU A	10/17/2019	8260C	6.40	1,110 J	79.6 J	4.00 U	4.00 U	--	--
MW-19-1	SU A	1/17/2020	8260C	4.00 U	91.0 J	1,040	4.00 U	8.60	--	--
MW-19-1	SU A	4/28/2020	8260D	4.00 U	4.00 U	454	4.00 U	18.0	0.200	0.100 U
MW-19-1	SU A	10/12/2020	8260D	4.00 UJ	4.40 J	579 J	4.00 UJ	57.1 J	--	--
MW-19-1	SU A	4/15/2021	8260D	0.400 U	2.83	164	1.28	64.1	--	--
MW-19-1	SU A	10/13/2021	8260D	0.400 U	1.27	139	0.440	79.4	--	--
MW-19-1	SU A	10/11/2022	8260D	0.400 U	0.570	2.42	0.400 U	79.2	--	--
MW-19-1	SU A	5/12/2023	8260D	0.400 U	0.400 U	144	3.92	193	--	--
MW-19-1	SU A	10/9/2023	8260D	0.400 U	0.790	2.48	0.400 U	6.59	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-19-1	SU A	10/21/2024	8260D	0.400 U	0.400 U	1.15	0.400 U	1.21 M-02	--	--
MW-19-2	SU B	1/15/2014	8260B	50.0 U	15,600	2,490	50.0 U	55.0	--	--
MW-19-2	SU B	4/10/2014	8260B	250 U	7,380	685	250 U	250 U	--	--
MW-19-2	SU B	4/21/2014	8260B	50.0 U	9,340	938	50.0 U	50.0 U	--	--
MW-19-2	SU B	7/30/2014	8260B	2.31	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-19-2	SU B	8/26/2014	8260B	8.05	1,100	38.2	2.50 U	2.50 U	--	--
MW-19-2	SU B	1/22/2015	8260B	50.0 U	16,500	845	50.0 U	50.0 U	--	--
MW-19-2	SU B	7/8/2015	8260B	0.500 U	2.99	0.500 U	0.500 U	0.500 U	--	--
MW-19-2	SU B	12/2/2015	8260B	0.500 U	0.940	0.500 U	0.500 U	0.500 U	--	--
MW-19-2	SU B	1/16/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-19-2	SU B	10/9/2018	8260C	12.4	5,930	397	2.73	1.83	--	--
MW-19-2	SU B	10/17/2019	8260C	40.0 U	9,380	652	40.0 U	40.0 U	--	--
MW-19-2	SU B	1/17/2020	8260C	20.0 U	824	10,500	24.5	20.0 U	--	--
MW-19-2	SU B	4/28/2020	8260D	40.0 U	40.0 U	40.0 U	40.0 U	11,300	250	0.720
MW-19-2	SU B	8/13/2020	8260D	40.0 U	40.0 U	356	40.0 U	7,640	--	--
MW-19-2	SU B	9/25/2020	8260D	40.0 U	40.0 U	3,170	40.0 U	7,240	--	--
MW-19-2	SU B	10/12/2020	8260D	40.0 U	40.0 U	6,320	40.0 U	6,400	--	--
MW-19-2	SU B	2/25/2021	8260D	0.920	170	19,900	31.1	4,840	--	--
MW-19-2	SU B	7/15/2021	8260D	40.0 U	99.0	16,900	40.0 U	1,810	--	--
MW-19-2	SU B	10/13/2021	8260D	80.0 U	80.0 U	14,500	80.0 U	1,750	--	--
MW-19-2	SU B	3/10/2022	8260D	80.0 U	80.0 U	16,100	80.0 U	2,600	--	--
MW-19-2	SU B	10/11/2022	8260D	8.00 U	16.0	3,580	19.0	1,230	--	--
MW-19-2	SU B	10/9/2023	8260D	4.00 U	4.00 U	578	4.30	1,060	--	--
MW-19-2	SU B	10/21/2024	8260D	2.00 U	13.1	302	6.95	270	--	--
MW-20-1	SU A	1/15/2014	8260B	23.5	4,620	726	12.5 U	25.8	--	--
MW-20-1	SU A	4/21/2014	8260B	26.5	4,970	912	12.5 U	12.5 U	--	--
MW-20-1	SU A	7/30/2014	8260B	25.0 U	4,240	606	25.0 U	25.0 U	--	--
MW-20-1	SU A	1/22/2015	8260B	20.0	4,840	608	12.5 U	12.5 U	--	--
MW-20-1	SU A	4/22/2015	8260B	10.6	2,500	340	10.0 U	10.0	--	--
MW-20-1	SU A	7/15/2015	8260B	10.0 U	482	2,760	11.6	22.8	--	--
MW-20-1	SU A	10/28/2015	8260B	10.0 U	430	612	10.0 U	422	--	--
MW-20-1	SU A	1/25/2016	8260B	10.0 U	608	405	18.2	161	--	--
MW-20-1	SU A	6/15/2016	8260B	2.50 U	238	327	3.86	139	--	--
MW-20-1	SU A	9/28/2016	8260B	5.00 U	316	526	8.50	246	--	--
MW-20-1	SU A	4/27/2017	8260B	2.50 U	560	361	9.19	57.6	--	--
MW-20-1	SU A	10/18/2017	8260C	10.0 U	697	271	14.8	81.6	--	--
MW-20-1	SU A	10/9/2018	8260C	4.00 U	271	85.3	20.6	25.1	--	--
MW-20-1	SU A	10/24/2019	8260C	0.922	215	100.0	30.4	26.6	--	--
MW-20-1	SU A	4/16/2021	8260D	0.590	84.9	64.3	9.36	10.8	--	--
MW-20-1	SU A	10/18/2021	8260D	0.400 U	48.6	35.5	7.34	10.5	--	--
MW-20-1	SU A	10/12/2022	8260D	0.400 U	29.4	50.7	7.41	10.2	--	--
MW-20-1	SU A	10/3/2023	8260D	0.400 U	54.7	40.0	8.16	8.65	--	--
MW-20-1	SU A	10/21/2024	8260D	0.400 U	37.6	69.3	9.43	14.3	--	--
MW-20-2	SU B	1/15/2014	8260B	20.0	3,830	727	12.5 U	60.0	--	--
MW-20-2 Dup	SU B	1/15/2014	8260B	22.2	4,310	804	12.5 U	70.0	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-20-2	SU B	4/21/2014	8260B	26.5	4,430	966	12.5 U	84.8	--	--
MW-20-2	SU B	7/30/2014	8260B	25.0 U	4,940	886	25.0 U	61.5	--	--
MW-20-2	SU B	1/22/2015	8260B	25.0 U	4,950	811	25.0 U	79.5	--	--
MW-20-2	SU B	4/22/2015	8260B	25.0 U	4,130	551	25.0 U	45.0	--	--
MW-20-2	SU B	7/15/2015	8260B	25.0 U	4,240	1,130	25.0 U	62.5	--	--
MW-20-2	SU B	10/28/2015	8260B	25.0 U	3,270	2,080	25.0 U	74.5	--	--
MW-20-2	SU B	1/25/2016	8260B	25.0 U	3,120	1,160	25.0 U	56.0	--	--
MW-20-2	SU B	6/15/2016	8260B	25.0 U	2,320	751	25.0 U	57.6	--	--
MW-20-2	SU B	9/28/2016	8260B	12.8	3,360	762	5.00 U	22.3	--	--
MW-20-2 Dup	SU B	9/28/2016	8260B	12.8	2,780	741	5.00 U	20.9	--	--
MW-20-2 Dup	SU B	1/17/2017	8260B	12.5	3,260	710	12.5 U	109	--	--
MW-20-2	SU B	1/17/2017	8260B	14.0	3,400	724	12.5 U	114	18.0	2.30
MW-20-2	SU B	4/27/2017	8260B	10.0 U	2,740	609	10.0 U	62.1	--	--
MW-20-2	SU B	10/18/2017	8260C	25.0 U	3,180	614	25.0 U	98.0	--	--
MW-20-2	SU B	10/9/2018	8260C	10.0 U	2,140	468	13.0	65.2	--	--
MW-20-2	SU B	10/24/2019	8260C	7.30	1,560	318	21.6	47.2	--	--
MW-20-2	SU B	10/15/2020	8260D	5.36	855	215	20.9	28.6	--	--
MW-20-2	SU B	4/16/2021	8260D	4.00 U	513	123	17.1	11.4	--	--
MW-20-2	SU B	7/15/2021	8260D	2.85	342	90.1	16.9	12.6	--	--
MW-20-2	SU B	10/18/2021	8260D	3.10	609	137	10.4	17.6	--	--
MW-20-2	SU B	10/12/2022	8260D	2.30	298	78.8	9.75	16.2	--	--
MW-20-2	SU B	10/3/2023	8260D	2.45	422	110	12.0	19.8	--	--
MW-20-2	SU B	10/21/2024	8260D	2.00 U	287	100.0	10.6	17.5	--	--
MW-21-1	Fill/SU A	1/15/2014	8260B	0.890	113	26.4	0.500 U	0.500 U	--	--
MW-21-1	Fill/SU A	4/21/2014	8260B	1.07	98.7	21.3	0.500 U	0.500 U	--	--
MW-21-1	Fill/SU A	7/30/2014	8260B	0.880	124	36.7	0.500 U	0.500 U	--	--
MW-21-1	Fill/SU A	1/22/2015	8260B	1.19	155	29.9	0.500 U	0.500 U	--	--
MW-21-1	Fill/SU A	4/22/2015	8260B	1.44	186	37.2	0.500 U	0.500 U	--	--
MW-21-1	Fill/SU A	7/15/2015	8260B	0.500 U	7.60	167	0.520	12.0	--	--
MW-21-1	Fill/SU A	10/28/2015	8260B	14.6	812	100.0	1.68	10.2	--	--
MW-21-1	Fill/SU A	1/25/2016	8260B	1.00 U	13.4	40.1	1.00 U	17.0	--	--
MW-21-1	Fill/SU A	3/10/2016	8260B	0.500 U	7.07	15.8	0.320 J	4.94	--	--
MW-21-1 Dup	Fill/SU A	3/10/2016	8260B	0.500 U	7.15	15.4	0.350 J	5.04	--	--
MW-21-1	Fill/SU A	6/17/2016	8260B	0.500 U	40.0	53.9	0.620	17.3	--	--
MW-21-1	Fill/SU A	9/29/2016	8260B	0.500 U	71.8	196	1.21	15.1	--	--
MW-21-1	Fill/SU A	4/27/2017	8260B	0.500 U	14.2	89.2	0.880	6.93	--	--
MW-21-1	Fill/SU A	10/18/2017	8260C	11.9	1,990	182	2.28	4.60	--	--
MW-21-1	Fill/SU A	10/10/2018	8260C	0.686	84.6	50.7	1.01	0.533	--	--
MW-21-1	Fill/SU A	5/2/2019	8260C	0.440	60.5	36.5	0.550	0.540	--	--
MW-21-1	Fill/SU A	4/16/2021	8260D	0.400 U	29.0	48.3	0.640	1.84	--	--
MW-21-1	Fill/SU A	10/17/2022	8260D	0.400 U	23.3	60.3	0.920 J	1.09	--	--
MW-21-1	Fill/SU A	10/4/2023	8260D	0.400 U	37.8	27.3	0.470	1.04	--	--
MW-21-2	SU A	1/15/2014	8260B	2.04	233	68.8	1.42	12.5	--	--
MW-21-2	SU A	4/21/2014	8260B	11.1	3,540	200	2.48	8.34	--	--
MW-21-2	SU A	7/30/2014	8260B	11.6	2,170	167	10.0 U	10.0 U	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-21-2	SU A	1/22/2015	8260B	10.0 U	1,730	130	10.0 U	10.0 U	--	--
MW-21-2	SU A	4/22/2015	8260B	4.35	713	82.2	2.50 U	5.00	--	--
MW-21-2	SU A	7/15/2015	8260B	4.05	562	66.9	2.50 U	6.80	--	--
MW-21-2	SU A	10/28/2015	8260B	3.65	293	64.8	2.50 U	8.00	--	--
MW-21-2	SU A	1/25/2016	8260B	11.8	1,370	117	10.0 U	10.0 U	--	--
MW-21-2 Dup	SU A	1/25/2016	8260B	25.0 U	1,770	132	25.0 U	25.0 U	--	--
MW-21-2	SU A	3/10/2016	8260B	12.4	1,910	175	5.00 U	3.45 J	--	--
MW-21-2 Dup	SU A	6/17/2016	8260B	11.6	1,680	133	5.00 U	5.00 U	--	--
MW-21-2	SU A	6/17/2016	8260B	25.0 U	1,460	112	25.0 U	25.0 U	--	--
MW-21-2	SU A	9/28/2016	8260B	11.3	1,590	129	5.00 U	5.50	--	--
MW-21-2	SU A	1/17/2017	8260B	17.1	2,660	189	2.22	5.12	0.310	1.90
MW-21-2	SU A	4/27/2017	8260B	15.2	1,920	183	10.0 U	10.0 U	--	--
MW-21-2	SU A	10/18/2017	8260C	0.500 U	33.5	106	0.550	8.01	--	--
MW-21-2	SU A	10/10/2018	8260C	13.2 J	2,350 J	188 J	8.00 U	9.50 J	--	--
MW-21-2	SU A	5/2/2019	8260C	14.9	1,410	178	2.62	5.57	--	--
MW-21-2	SU A	10/24/2019	8260C	4.53	1,040	188	2.26	4.77	--	--
MW-21-2	SU A	10/15/2020	8260D	4.00 U	938	158	4.00 U	4.86	--	--
MW-21-2	SU A	4/16/2021	8260D	9.60	934	144	2.25	2.90	--	--
MW-21-2	SU A	7/15/2021	8260D	8.30	1,380	151	4.00 U	4.00 U	--	--
MW-21-2	SU A	10/19/2021	8260D	9.37	1,500	166	4.00 U	4.01	--	--
MW-21-2	SU A	10/17/2022	8260D	10.5	1,080	126	4.00 U	4.00 U	--	--
MW-21-2	SU A	10/4/2023	8260D	7.40	997	121	4.00 U	4.60	--	--
MW-21-2	SU A	10/28/2024	8260D	6.20	752	107	4.00 U	4.80	--	--
MW-22-1	SU A	1/14/2014	8260B	0.500 U	102	234	2.75	27.9	--	--
MW-22-1	SU A	4/21/2014	8260B	1.00 U	144	349	3.54	28.4	--	--
MW-22-1	SU A	7/29/2014	8260B	1.00 U	24.9	85.1	1.00 U	2.12	--	--
MW-22-1	SU A	1/22/2015	8260B	1.00 U	75.5	244	2.44	29.8	--	--
MW-22-1	SU A	4/21/2015	8260B	1.00 U	60.6	170	1.00 U	1.48	--	--
MW-22-1	SU A	7/15/2015	8260B	1.00 U	69.1	199	1.28	8.32	--	--
MW-22-1	SU A	10/27/2015	8260B	1.00 U	23.1	58.0	1.00 U	4.54	--	--
MW-22-1	SU A	1/25/2016	8260B	1.00 U	193	463	5.48	44.6	--	--
MW-22-1	SU A	4/21/2016	8260B	1.00 U	103	355	1.73	2.84	--	--
MW-22-1	SU A	7/19/2016	8260B	2.50 U	79.0	216	2.50 U	11.4	--	--
MW-22-1	SU A	10/19/2016	8260B	1.00 U	32.1	78.0	1.00 U	8.90	--	--
MW-22-1	SU A	10/18/2017	8260C	1.25 U	91.2	539	6.02	58.5	--	--
MW-22-1	SU A	4/19/2018	8260C	0.800 U	39.9	137	0.860	3.59	--	--
MW-22-1	SU A	10/11/2018	8260C	0.400 U	17.6	50.7	0.450	3.73	--	--
MW-22-1	SU A	4/24/2019	8260C	0.400 U	10.9	45.5	0.400 U	1.12	--	--
MW-22-1	SU A	4/15/2020	8260C	0.400 U	141	425	6.00	50.4	--	--
MW-22-1	SU A	10/16/2020	8260D	4.00 U	55.0	228	4.00 U	27.0	--	--
MW-22-1	SU A	4/8/2021	8260D	4.00 U	74.0	337	4.00 U	30.5	--	--
MW-22-2	SU B	1/14/2014	8260B	28.8	2,240	671	20.0	115	--	--
MW-22-2 Dup	SU B	1/14/2014	8260B	29.2	2,460	743	21.2	125	--	--
MW-22-2	SU B	4/21/2014	8260B	11.6	986	287	13.0	52.0	--	--
MW-22-2	SU B	7/29/2014	8260B	19.8	1,830	645	21.4	88.0	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-22-2	SU B	1/22/2015	8260B	17.8	1,530	387	19.4	91.4	--	--
MW-22-2 Dup	SU B	1/22/2015	8260B	18.4	1,580	391	20.2	93.0	--	--
MW-22-2	SU B	4/21/2015	8260B	10.0 U	748	152	10.0 U	10.0	--	--
MW-22-2 Dup	SU B	4/21/2015	8260B	10.0 U	599	123	10.0 U	10.0 U	--	--
MW-22-2	SU B	7/15/2015	8260B	26.6	2,980	911	34.2	172	--	--
MW-22-2	SU B	10/27/2015	8260B	11.6	1,040	328	12.6	35.4	--	--
MW-22-2	SU B	1/25/2016	8260B	15.1	1,150	325	17.6	56.8	--	--
MW-22-2	SU B	4/21/2016	8260B	1.75	59.8	12.7	0.500 U	0.500 U	--	--
MW-22-2	SU B	7/19/2016	8260B	2.86	190	60.6	2.93	6.81	--	--
MW-22-2 Dup	SU B	7/19/2016	8260B	2.74	191	61.0	2.99	6.64	--	--
MW-22-2	SU B	10/19/2016	8260B	10.5	612	164	8.50	38.0	--	--
MW-22-2	SU B	10/18/2017	8260C	0.619	25.1	30.9	1.32	9.30	--	--
MW-22-2	SU B	1/16/2018	8260C	2.59	185	127	4.44	16.2	--	--
MW-22-2	SU B	4/19/2018	8260C	1.59	208	112	2.32	0.962	--	--
MW-22-2	SU B	10/11/2018	8260C	4.30	493	321	11.3	45.2	--	--
MW-22-2	SU B	4/24/2019	8260C	1.82	197	178	5.93	23.4	--	--
MW-22-2 Dup	SU B	4/24/2019	8260C	2.46	242	214	7.11	21.5	--	--
MW-22-2	SU B	10/18/2019	8260C	5.87	516	479	17.6	86.7	--	--
MW-22-2	SU B	4/15/2020	8260C	0.860	25.6	33.3	1.02	3.26	--	--
MW-22-2 Dup	SU B	4/15/2020	8260C	0.930	26.4	34.5	1.09	3.32	--	--
MW-22-2	SU B	7/16/2020	8260D	0.700	17.3	8.38	0.400 U	0.410	--	--
MW-22-2 Dup	SU B	7/16/2020	8260D	0.706	15.1	7.48	0.400 U	0.400 U	--	--
MW-22-2	SU B	10/16/2020	8260D	0.430	16.0	7.28	0.400 U	0.620	--	--
MW-22-2	SU B	4/8/2021	8260D	0.680	6.61	1.52	0.400 U	0.400 U	--	--
MW-22-2	SU B	10/12/2021	8260D	0.590	32.0	45.8	3.00	4.99	--	--
MW-22-2	SU B	10/19/2022	8260D	0.640	18.0	4.00	0.400 U	0.400 U	--	--
MW-23-1	SU A	1/14/2014	8260B	0.500 U	1.95	2.83	0.500 U	0.610	--	--
MW-23-1	SU A	4/21/2014	8260B	0.500 U	1.77	2.47	0.500 U	0.500 U	--	--
MW-23-1 Dup	SU A	4/21/2014	8260B	0.500 U	1.80	2.45	0.500 U	0.510	--	--
MW-23-1	SU A	7/29/2014	8260B	0.500 U	1.99	2.53	0.500 U	0.500 U	--	--
MW-23-1	SU A	1/22/2015	8260B	0.500 U	1.71	2.13	0.500 U	0.590	--	--
MW-23-1	SU A	4/21/2015	8260B	0.500 U	1.35	0.770	0.500 U	0.500 U	--	--
MW-23-1 Dup	SU A	4/21/2015	8260B	0.500 U	1.36	0.780	0.500 U	0.500 U	--	--
MW-23-1	SU A	7/15/2015	8260B	0.500 U	1.63	1.14	0.500 U	0.500 U	--	--
MW-23-1	SU A	10/27/2015	8260B	0.500 U	2.21	2.29	0.500 U	0.500 U	--	--
MW-23-1	SU A	1/25/2016	8260B	0.500 U	1.50	1.25	0.500 U	0.500 U	--	--
MW-23-1 Dup	SU A	1/25/2016	8260B	0.500 U	1.41	1.28	0.500 U	0.500 U	--	--
MW-23-1	SU A	4/21/2016	8260B	0.500 U	1.02	0.916	0.500 U	0.500 U	--	--
MW-23-1	SU A	7/19/2016	8260B	0.500 U	0.864	0.579	0.500 U	0.500 U	--	--
MW-23-1	SU A	10/19/2016	8260B	0.500 U	1.87	1.11	0.500 U	0.500 U	--	--
MW-23-1	SU A	11/3/2017	8260C	0.400 U	0.473	0.847	0.400 U	0.400 U	--	--
MW-23-1	SU A	4/19/2018	8260C	0.400 U	0.400 U	0.688	0.400 U	0.400 U	--	--
MW-23-1	SU A	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	2.55	--	--
MW-23-1 Dup	SU A	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	2.36	--	--
MW-23-1	SU A	10/18/2019	8260C	0.400 U	0.400 U	0.932	0.400 U	0.400 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-23-1	SU A	4/15/2020	8260C	0.400 U	0.400 U	0.590	0.400 U	0.400 U	--	--
MW-23-1	SU A	10/16/2020	8260D	0.400 U	3.60	0.720	0.400 U	0.400 U	--	--
MW-23-1	SU A	10/12/2021	8260D	0.400 U	0.410	0.760	0.400 U	0.400 U	--	--
MW-23-1	SU A	10/19/2022	8260D	0.400 U	0.400 U	0.500	0.400 U	0.400 U	--	--
MW-23-2R	SU B	1/14/2014	8260B	11.2	38.2	74.6	0.500 U	1.20	--	--
MW-23-2R	SU B	4/21/2014	8260B	9.14	27.6	48.6	0.500 U	0.810	--	--
MW-23-2R	SU B	7/29/2014	8260B	9.18	23.8	57.4	0.500 U	0.500 U	--	--
MW-23-2R	SU B	1/22/2015	8260B	7.15	20.0	41.2	0.500 U	0.750	--	--
MW-23-2R Dup	SU B	1/22/2015	8260B	7.15	20.4	41.4	0.500 U	0.770	--	--
MW-23-2R	SU B	4/21/2015	8260B	5.08	18.8	29.2	0.500 U	0.500 U	--	--
MW-23-2R	SU B	7/15/2015	8260B	5.38	18.0	25.8	0.500 U	0.500 U	--	--
MW-23-2R	SU B	10/27/2015	8260B	4.94	13.8	20.8	0.500 U	0.500 U	--	--
MW-23-2R	SU B	1/25/2016	8260B	5.54	18.3	17.4	0.500 U	0.500 U	--	--
MW-23-2R	SU B	4/21/2016	8260B	4.68	15.1	16.3	0.500 U	0.500 U	--	--
MW-23-2R	SU B	7/19/2016	8260B	4.33	13.4	13.3	0.500 U	0.500 U	--	--
MW-23-2R Dup	SU B	7/19/2016	8260B	4.31	13.5	12.9	0.500 U	0.500 U	--	--
MW-23-2R	SU B	10/19/2016	8260B	3.58	10.2	12.3	0.500 U	0.500 U	--	--
MW-23-2R	SU B	11/3/2017	8260C	0.400 U	0.400 U	11.5	0.400 U	6.57	--	--
MW-23-2R	SU B	1/16/2018	8260C	0.400 U	0.400 U	3.38	0.400 U	6.08	--	--
MW-23-2R	SU B	4/19/2018	8260C	0.400 U	0.400 U	0.689	0.400 U	4.98	--	--
MW-23-2R	SU B	10/10/2018	8260C	0.400 U	0.400 U	0.700	0.400 U	0.400 U	--	--
MW-23-2R	SU B	10/18/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.490	--	--
MW-23-2R	SU B	10/23/2019	8260C	0.400 U	0.916	0.914	0.400 U	0.583	--	--
MW-23-2R	SU B	4/15/2020	8260C	0.400 U	0.400 U	1.05	0.400 U	0.400 U	--	--
MW-23-2R	SU B	10/16/2020	8260D	0.400 U	2.93	1.67	0.400 U	0.400 U	--	--
MW-23-2R	SU B	10/12/2021	8260D	0.400 U	0.400 U	0.560	0.400 U	1.88	--	--
MW-23-2R	SU B	10/19/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.930	--	--
MW-23-2R	SU B	10/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.570	--	--
MW-24-1	SU A	1/15/2014	8260B	0.500 U	23.7	1.46	0.500 U	0.500 U	--	--
MW-24-1	SU A	4/21/2014	8260B	0.830	25.7	1.02	0.500 U	0.500 U	--	--
MW-24-1	SU A	3/8/2016	8260B	0.500 U	1.85	5.32	0.500 U	1.34	--	--
MW-24-1 Dup	SU A	3/8/2016	8260B	0.500 U	2.09	5.70	0.500 U	1.32	--	--
MW-24-1	SU A	6/16/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	1.13	--	--
MW-24-1	SU A	9/29/2016	8260B	0.500 U	1.65	1.25	0.500 U	0.600	--	--
MW-24-1	SU A	10/18/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.400 U	--	--
MW-24-1	SU A	10/9/2018	8260C	0.400 U	1.00 U	0.400 U	0.400 U	0.400 U	--	--
MW-25-1	SU A	1/15/2014	8260B	8.70	1,880	448	5.00 U	15.9	--	--
MW-25-1	SU A	4/21/2014	8260B	14.2	1,830	548	5.00 U	16.3	--	--
MW-25-1	SU A	7/30/2014	8260B	10.8	2,110	508	10.0 U	10.0 U	--	--
MW-25-1 Dup	SU A	7/30/2014	8260B	10.6	2,190	516	10.0 U	10.0 U	--	--
MW-25-1	SU A	3/10/2016	8260B	1.00 U	7.67	317	1.42	32.5	--	--
MW-25-1	SU A	6/16/2016	8260B	0.500 U	2.03	78.7	0.500 U	25.0	--	--
MW-25-1	SU A	9/29/2016	8260B	0.500 U	20.6	35.4	0.620	13.9	--	--
MW-25-1	SU A	10/18/2017	8260C	0.500 U	30.0	24.1	0.670	6.51	3.70	23.0
MW-25-1	SU A	10/10/2018	8260C	0.400 U	15.4	10.4	0.400 U	1.93	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-25-1	SU A	10/24/2019	8260C	0.400 U	2.73	18.0	0.400 U	7.43	--	--
MW-25-1	SU A	10/15/2020	8260D	0.400 U	20.0	33.3	0.670	5.50	--	--
MW-25-1	SU A	10/19/2021	8260D	0.400 U	10.0	9.07	0.400 U	1.68	--	--
MW-25-1	SU A	10/17/2022	8260D	0.400 U	14.8	12.9	0.540 J	1.28	--	--
MW-25-1	SU A	10/5/2023	8260D	0.400 U	5.16	9.14	0.700	1.91	--	--
MW-25-1	SU A	10/28/2024	8260D	0.400 U	6.68	5.93	0.400 U	0.740	--	--
MW-26-1	SU A	1/14/2014	8260B	7.15	1,090	33.3	2.50 U	2.50 U	--	--
MW-26-1	SU A	1/15/2014	8260B	7.55	810	163	2.50 U	2.50 U	--	--
MW-26-1	SU A	4/21/2014	8260B	8.60	871	146	2.50 U	2.50 U	--	--
MW-26-1	SU A	3/10/2016	8260B	8.10	890	119	5.00 U	5.00 U	--	--
MW-26-1	SU A	6/16/2016	8260B	5.30	494	72.1	2.50 U	2.50 U	--	--
MW-26-1	SU A	9/28/2016	8260B	5.05	387	56.1	2.50 U	2.50 U	--	--
MW-26-1	SU A	10/19/2017	8260C	3.60	254	62.8	2.50 U	2.00 U	--	--
MW-26-1	SU A	10/11/2018	8260C	2.58	181	58.7	2.17	0.400 U	--	--
MW-26-1	SU A	10/24/2019	8260C	1.59	113	40.1	1.59	0.427	--	--
MW-26-1	SU A	10/15/2020	8260D	0.770	74.8	21.8	0.400 U	0.400 U	--	--
MW-26-1	SU A	10/19/2021	8260D	0.978	59.2	15.8	0.591	0.400 U	--	--
MW-26-1	SU A	10/5/2022	8260D	1.31	37.6	7.67	0.400 U	0.400 U	--	--
MW-26-1	SU A	10/5/2023	8260D	1.35	43.2	7.35	0.690	0.200 U	--	--
MW-26-1	SU A	10/28/2024	8260D	1.03	27.1	4.53	0.530	0.200 U	--	--
MW-27-1	SU A	1/15/2014	8260B	1.36	172	26.1	1.00 U	1.00 U	--	--
MW-27-1	SU A	4/21/2014	8260B	2.50 U	216	31.5	2.50 U	2.50 U	--	--
MW-27-1	SU A	7/30/2014	8260B	1.68	249	43.2	1.00 U	1.00 U	--	--
MW-27-1	SU A	3/10/2016	8260B	2.22	197	29.6	0.644 J	1.75	--	--
MW-27-1	SU A	6/16/2016	8260B	1.42	180	55.1	1.00 U	1.00 U	--	--
MW-27-1	SU A	9/29/2016	8260B	1.36	135	113	0.740	1.08	--	--
MW-27-1	SU A	4/27/2017	8260B	1.28	164	90.0	0.888	1.58	--	--
MW-27-1	SU A	10/18/2017	8260C	1.00	73.6	55.5	1.48	4.44	--	--
MW-27-1	SU A	10/10/2018	8260C	0.500	41.6	76.8	10.4	22.7	--	--
MW-27-1 Dup	SU A	10/24/2019	8260C	0.543	107	86.7	4.20	8.90	--	--
MW-27-1	SU A	10/24/2019	8260C	0.542	105	89.1	4.34	9.29	--	--
MW-27-1	SU A	10/15/2020	8260D	1.23	121	68.1	4.69	8.22	--	--
MW-27-1	SU A	10/20/2021	8260D	0.611	49.9	37.6	2.97	6.12	--	--
MW-27-1	SU A	10/5/2022	8260D	0.560	24.4	22.4	1.47	0.400 U	--	--
MW-27-1	SU A	10/4/2023	8260D	0.400	29.3	53.3	5.77	5.79	--	--
MW-27-1	SU A	10/30/2024	8260D	0.400 U	27.3	62.3	6.34	5.26	--	--
MW-28-2	SU B	4/11/2014	8260B	100.0 U	7,270	624	100.0 U	100.0 U	--	--
MW-28-2	SU B	8/26/2014	8260B	25.0 U	5,580	4,970	25.0	64.5	--	--
MW-28-2	SU B	2/13/2015	8260B	25.0 U	6,520	9,560	209	358	--	--
MW-28-2 Dup	SU B	7/9/2015	8260B	25.0 U	3,900	4,970	109	548	--	--
MW-28-2	SU B	7/9/2015	8260B	50.0 U	5,170	6,300	145	397	--	--
MW-28-2	SU B	12/2/2015	8260B	6.10	3,000	3,240	85.7	439	--	--
MW-28-2	SU B	1/16/2017	8260B	10.0 U	324	2,560	73.3	344	--	--
MW-28-2	SU B	10/9/2018	8260C	10.0 U	491	4,680	138	336	--	--
MW-28-2	SU B	10/17/2019	8260C	20.0 U	1,070	4,020	142	346	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-28-2	SU B	4/28/2020	8260D	20.0 U	48.0	898	20.0 U	584	--	--
MW-28-2	SU B	10/12/2020	8260D	4.00 U	619	81.0	4.00 U	4.30	--	--
MW-28-2	SU B	10/14/2021	8260D	4.00 U	30.0	233	9.15	201	--	--
MW-28-2	SU B	10/10/2022	8260D	0.400 U	4.31	92.4	3.37	91.5	--	--
MW-28-2	SU B	10/9/2023	8260D	0.400 U	0.400	2.17	0.400 U	3.22	--	--
MW-28-2	SU B	10/22/2024	8260D	0.400 U	0.400 U	19.2	0.550	25.8	--	--
MW-29-1	SU A	4/11/2014	8260B	100.0 U	16,700	3,390	100.0 U	668	--	--
MW-29-1	SU A	8/26/2014	8260B	0.500 U	18.0	1.29	0.500 U	0.500 U	--	--
MW-29-1	SU A	2/13/2015	8260B	50.0 U	15,300	5,500	92.0	495	--	--
MW-29-1	SU A	7/9/2015	8260B	50.0 U	50.0 U	11,700	88.0	226	--	--
MW-29-1	SU A	12/2/2015	8260B	0.500 U	1.49	26.2	0.500 U	22.5	--	--
MW-29-1	SU A	1/16/2017	8260B	2.50 U	10.2	941	20.0	780	--	--
MW-29-1	SU A	10/9/2018	8260C	4.00 U	8.00 U	2,810	73.6	1,560	--	--
MW-29-1	SU A	4/28/2020	8260D	2.00 U	2.00 U	35.1	2.00 U	8.20	--	--
MW-29-1	SU A	4/15/2021	8260D	0.400 U	1.00	3.58	0.400 U	4.92	--	--
MW-29-1	SU A	10/14/2021	8260D	0.400 U	0.400 U	0.683	0.400 U	4.06	--	--
MW-29-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	1.19	0.400 U	2.46	--	--
MW-29-1	SU A	10/9/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
MW-30-1	SU A	4/11/2014	8260B	100.0 U	3,160	394	100.0 U	100.0 U	--	--
MW-30-1	SU A	8/26/2014	8260B	0.500 U	20.6	1.94	0.500 U	0.500 U	--	--
MW-30-1	SU A	7/9/2015	8260B	0.500 U	6.09	193	0.700	4.94	--	--
MW-30-1	SU A	12/2/2015	8260B	0.500 U	0.760	14.6	0.500 U	10.7	--	--
MW-30-1	SU A	1/16/2017	8260B	0.500 U	0.500 U	38.0	1.12	34.3	--	--
MW-30-1	SU A	10/9/2018	8260C	0.400 U	0.400 U	2.38	0.400 U	55.2	--	--
MW-30-1	SU A	10/17/2019	8260C	2.00 U	2.53	234	6.64	558	--	--
MW-30-1	SU A	4/28/2020	8260D	0.400 U	0.400 U	1.04	0.400 U	2.29	--	--
MW-30-1	SU A	10/12/2020	8260D	4.00 U	530	46.8	4.00 U	4.00 U	--	--
MW-30-1	SU A	2/25/2021	8260D	0.400 U	2.03	37.4	1.06	19.4	--	--
MW-30-1	SU A	4/15/2021	8260D	0.400 U	5.41	40.0	0.400 U	11.0	--	--
MW-30-1	SU A	10/14/2021	8260D	0.400 U	0.400 U	0.803	0.400 U	4.42	--	--
MW-30-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	18.2	0.400 U	7.00	--	--
MW-30-1	SU A	10/9/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-31-1	SU A	4/11/2014	8260B	100.0 U	4,170	446	100.0 U	100.0 U	--	--
MW-31-1	SU A	8/26/2014	8260B	10.1	902	85.3	2.50 U	2.50 U	--	--
MW-31-1	SU A	2/13/2015	8260B	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	--	--
MW-31-1	SU A	7/9/2015	8260B	5.00 U	89.4	6,170	20.3	134	--	--
MW-31-1	SU A	12/2/2015	8260B	1.00 U	2.78	2.84	1.00 U	3.10	--	--
MW-31-1	SU A	1/16/2017	8260B	0.500 U	0.500 U	1.96	0.500 U	95.4	--	--
MW-31-1	SU A	10/9/2018	8260C	20.0 U	20.0 U	1,970	20.0 U	1,310	--	--
MW-31-1	SU A	10/17/2019	8260C	20.0 U	20.0 U	7,210	69.4	3,390	--	--
MW-31-1	SU A	1/17/2020	8260C	4.00 U	57.2	461	4.00 U	231	--	--
MW-31-1	SU A	4/28/2020	8260D	2.00 U	3.25	127	2.00 U	29.6	--	--
MW-31-1	SU A	10/12/2020	8260D	4.00 U	324	35.1	4.00 U	4.00 U	--	--
MW-31-1	SU A	2/25/2021	8260D	0.400 U	1.60	19.0	0.400 U	2.47	--	--
MW-31-1	SU A	4/15/2021	8260D	0.400 U	7.02	35.9	0.400 U	11.2	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-31-1	SU A	10/13/2021	8260D	0.400 U	5.28	48.1	0.400 U	4.63	--	--
MW-31-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	1.56	0.400 U	1.90	--	--
MW-31-1	SU A	10/11/2023	8260D	2.00 U	2.00 U	28.1	2.35	46.2	--	--
MW-31-1	SU A	10/22/2024	8260D	0.400 U	2.33	8.16	0.400 U	12.0	--	--
MW-32-2	SU B	4/10/2014	8260B	10.0 U	2,340	256	10.0 U	10.0 U	--	--
MW-32-2	SU B	8/26/2014	8260B	75.6	13,900	642	10.0 U	10.0 U	--	--
MW-32-2	SU B	7/8/2015	8260B	12.5 U	39.8	771	12.5 U	169	--	--
MW-32-2	SU B	12/2/2015	8260B	10.0 U	601	653	10.0 U	49.0	--	--
MW-32-2	SU B	1/17/2017	8260B	1.00 U	82.6	242	8.56	47.7	--	--
MW-32-2	SU B	10/9/2018	8260C	2.00 U	554	602	18.8	52.5	--	--
MW-32-2	SU B	10/9/2018	8260C	2.28	519	559	18.0	45.2	--	--
MW-32-2	SU B	10/17/2019	8260C	4.00 U	1,250	1,140	19.3	80.9	--	--
MW-32-2	SU B	4/28/2020	8260D	4.70	1,920	6,120	27.6	282	--	--
MW-32-2	SU B	10/12/2020	8260D	15.1	4,200	9,430	54.1	214	--	--
MW-32-2	SU B	2/25/2021	8260D	16.2	6,410	9,990	52.9	208	--	--
MW-32-2	SU B	4/15/2021	8260D	4.00 U	1,050	5,890	26.8	251	--	--
MW-32-2	SU B	7/15/2021	8260D	4.00 U	947	7,100	60.1	659	--	--
MW-32-2	SU B	10/13/2021	8260D	40.0 U	4,680	9,050	115	575	--	--
MW-32-2	SU B	3/10/2022	8260D	4.00 U	4.00 U	204	4.00 U	97.1	3.70	130
MW-32-2	SU B	10/11/2022	8260D	0.400 U	2.30	34.0	0.800	15.3	--	--
MW-32-2	SU B	5/12/2023	8260D	0.400 U	0.400 U	2.29	0.400 U	4.80	--	--
MW-32-2 Dup	SU B	10/9/2023	8260D	4.00 U	4.00 U	5.30	4.00 U	3.50	--	--
MW-32-2	SU B	10/9/2023	8260D	2.00 U	2.00 U	4.30	2.00 U	3.10	--	--
MW-33-2	SU B	4/10/2014	8260B	25.0 U	3,570	1,250	26.0	166	--	--
MW-33-2	SU B	8/26/2014	8260B	10.0 U	3,730	2,480	43.6	306	--	--
MW-33-2	SU B	7/8/2015	8260B	12.5 U	3,440	2,260	35.0	290	--	--
MW-33-2	SU B	12/2/2015	8260B	100.0 U	4,320	2,470	100.0 U	286	--	--
MW-33-2	SU B	1/16/2017	8260B	10.0 U	4,310	2,520	40.6	35.4	--	--
MW-33-2	SU B	10/9/2018	8260C	20.0 U	6,720	2,470	43.8	156	--	--
MW-33-2	SU B	10/17/2019	8260C	40.0 U	6,020	2,770	50.0	130	--	--
MW-33-2	SU B	4/28/2020	8260D	40.0 U	2,630	1,820	40.0 U	40.0 U	--	--
MW-33-2	SU B	10/12/2020	8260D	20.0 U	1,800	1,220	20.0 U	110	--	--
MW-33-2	SU B	10/13/2021	8260D	8.00 U	1,960	1,200	18.4	119	--	--
MW-33-2	SU B	10/10/2022	8260D	8.00 U	2,920	1,630	19.4	72.6	--	--
MW-33-2	SU B	5/12/2023	8260D	8.00 U	3,870	1,920	23.4	8.00 U	--	--
MW-33-2	SU B	10/9/2023	8260D	20.0 U	796	2,860	20.0 U	55.5	--	--
MW-33-2	SU B	10/22/2024	8260D	2.00 U	2.00 U	2.00 U	2.00 U	1.30	--	--
MW-34-1	SU A	4/11/2014	8260B	0.500 U	2.71	0.500 U	0.500 U	0.500 U	--	--
MW-34-1	SU A	8/26/2014	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-34-1	SU A	7/8/2015	8260B	0.500 U	1.08	1.90	0.500 U	0.900	--	--
MW-34-1	SU A	12/2/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-34-1 Dup	SU A	1/16/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-34-1	SU A	1/16/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-34-1	SU A	10/13/2018	8260C	0.400 U	0.577 J	1.06	0.400 U	0.400 U	--	--
MW-34-1	SU A	10/17/2019	8260C	0.400 U	1.15	3.72	0.400 U	0.400 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-34-1	SU A	10/12/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-34-1	SU A	10/13/2021	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-34-1	SU A	10/10/2022	8260D	0.400 U	0.400 U	0.410	0.400 U	0.400 U	--	--
MW-34-1	SU A	10/11/2023	8260D	0.800 U	0.800 U	0.800 U	0.800 U	0.400 U	--	--
MW-35-1	SU A	4/11/2014	8260B	250 U	11,900	1,030	250 U	250 U	--	--
MW-35-1	SU A	8/25/2014	8260B	82.0	23,900	2,500	50.0 U	190	--	--
MW-35-1 Dup	SU A	8/25/2014	8260B	100.0 U	27,200	2,720	100.0 U	176	--	--
MW-35-1	SU A	7/6/2015	8260B	2.17	90.8	1.30 U	0.500 U	0.500 U	--	--
MW-35-1	SU A	12/4/2015	8260B	5.00 U	18.6	5.00 U	5.00 U	5.00 U	--	--
MW-35-1	SU A	1/16/2017	8260B	3.20	120	4.18	0.500 U	0.500 U	--	--
MW-35-1	SU A	10/9/2018	8260C	0.800 U	0.800 U	0.860	0.800 U	0.800 U	--	--
MW-35-1	SU A	10/12/2020	8260D	4.00 UJ	20.7 J	2,550 J	7.80 J	39.9 J	--	--
MW-35-1	SU A	4/16/2021	8260D	0.800 U	2.20	127	0.940	1,080	--	--
MW-35-1 Dup	SU A	10/13/2021	8260D	0.400 U	0.481 J	4.22	0.400 U	842	--	--
MW-35-1	SU A	10/13/2021	8260D	4.00 U	4.46 J	5.60	4.00 U	717	--	--
MW-35-1	SU A	10/10/2022	8260D	0.400 U	7.42	3.26	0.400 U	7.48	--	--
MW-35-1	SU A	10/9/2023	8260D	0.800 U	1.00	0.880	0.800 U	0.400	--	--
MW-36-2	SU B	4/11/2014	8260B	250 U	16,500	695	250 U	250 U	--	--
MW-36-2	SU B	8/26/2014	8260B	141	87,200	6,070	71.0	503	--	--
MW-36-2	SU B	2/13/2015	8260B	500 U	106,000	5,260	500 U	500 U	--	--
MW-36-2	SU B	7/8/2015	8260B	250 U	24,400	1,520	250 U	250 U	--	--
MW-36-2	SU B	12/2/2015	8260B	500 U	12,500	830	500 U	500 U	--	--
MW-36-2	SU B	1/16/2017	8260B	100.0 U	24,400	1,080	100.0 U	100.0 U	--	--
MW-36-2	SU B	10/9/2018	8260C	0.916	38.0	1.81	0.800 U	0.800 U	--	--
MW-36-2	SU B	10/17/2019	8260C	73.5	48,900	1,710	24.5	89.5	--	--
MW-36-2	SU B	1/17/2020	8260C	200 U	13,800	465	200 U	200 U	--	--
MW-36-2	SU B	4/28/2020	8260D	40.0 U	6,500	3,860	40.0 U	170	--	--
MW-36-2	SU B	10/12/2020	8260D	200 UJ	7,780 J	33,100 J	200 UJ	520 J	--	--
MW-36-2	SU B	2/25/2021	8260D	200 U	1,780	21,000	200 U	1,370	--	--
MW-36-2	SU B	4/15/2021	8260D	20.0 U	1,470	24,100	89.0	1,580	--	--
MW-36-2	SU B	7/15/2021	8260D	200 U	1,150	24,300	200 U	1,380	--	--
MW-36-2	SU B	10/13/2021	8260D	100.0 U	199	17,900	100.0 U	1,810	--	--
MW-36-2	SU B	3/10/2022	8260D	100.0 U	542	12,300	100.0 U	1,290	910	7.90
MW-36-2	SU B	10/10/2022	8260D	20.0 U	28.5	6,370	23.0	1,080	--	--
MW-36-2	SU B	5/12/2023	8260D	4.00 U	4.00 U	610	27.1	790	--	--
MW-36-2	SU B	10/9/2023	8260D	40.0 U	42.0	361	40.0 U	108	--	--
MW-36-2	SU B	10/22/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
MW-37-2	SU B	4/11/2014	8260B	100.0 U	5,680	3,720	100.0 U	342	--	--
MW-37-2	SU B	8/26/2014	8260B	25.0 U	4,010	2,650	28.0	312	--	--
MW-37-2	SU B	7/9/2015	8260B	50.0 U	4,080	2,240	73.0	344	--	--
MW-37-2	SU B	12/4/2015	8260B	5.20	3,430	1,460	41.0	67.4	--	--
MW-37-2	SU B	12/4/2015	8260B	5.00 U	3,670	1,250	31.6	84.2	--	--
MW-37-2	SU B	5/6/2016	8260B	12.5 U	2,560	1,470	33.7	136	--	--
MW-37-2	SU B	1/16/2017	8260B	5.00 U	1,880	698	18.6	92.6	--	--
MW-37-2	SU B	10/9/2018	8260C	20.0 U	4,220	1,050	41.5	114	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-37-2	SU B	10/17/2019	8260C	20.0 U	3,060	740	22.5	67.5	--	--
MW-37-2	SU B	4/30/2020	8260D	4.00 U	9.30	1,240	10.0	115	--	--
MW-37-2	SU B	10/13/2020	8260D	8.00 U	300	1,250	14.8	202	--	--
MW-37-2	SU B	10/15/2021	8260D	4.00 U	371	1,480	36.0	437	--	--
MW-37-2	SU B	10/11/2022	8260D	4.00 U	271	1,640	76.5	507	--	--
MW-37-2	SU B	10/11/2023	8260D	4.00 U	72.3	307	13.5	103	--	--
MW-37-2	SU B	10/23/2024	8260D	0.400 U	164	441	27.7	185	--	--
MW-38-2	SU B	4/10/2014	8260B	12.2	2,510	101	10.0 U	10.0 U	--	--
MW-38-2	SU B	8/26/2014	8260B	28.0	1,400	84.6	10.0 U	10.0 U	--	--
MW-38-2	SU B	7/8/2015	8260B	21.8	19.6	376	1.61	7.61	--	--
MW-38-2	SU B	12/3/2015	8260B	1.78	1.33	0.500 U	0.500 U	0.500 U	--	--
MW-38-2	SU B	1/16/2017	8260B	3.49	15.1	0.607	0.500 U	0.500 U	--	--
MW-38-2	SU B	10/9/2018	8260C	37.7	3,960	159	1.19	2.18 J	--	--
MW-38-2	SU B	10/17/2019	8260C	42.5	4,770	173	1.59	4.83	--	--
MW-38-2	SU B	1/17/2020	8260C	20.0 U	158	4,560	20.0 U	79.0	--	--
MW-38-2	SU B	4/29/2020	8260D	31.3	262	2,060	2.26	151	--	--
MW-38-2	SU B	10/12/2020	8260D	4.80	310	114	2.00 U	62.2	--	--
MW-38-2	SU B	10/14/2021	8260D	0.484	1.56	48.1	0.400 U	153	--	--
MW-38-2	SU B	10/6/2022	8260D	0.940	0.720	4.30	0.400 U	14.6	--	--
MW-38-2 Dup	SU B	10/9/2023	8260D	8.20	3.42	10.6	0.800 U	4.90	--	--
MW-38-2	SU B	10/10/2023	8260D	7.60	4.06	10.7	0.800 U	5.66	--	--
MW-39-2	SU B	4/10/2014	8260B	202	58,500	2,820	50.0 U	70.0	--	--
MW-39-2	SU B	8/25/2014	8260B	250 U	9,780	625	250 U	250 U	--	--
MW-39-2	SU B	7/8/2015	8260B	1.22	4.61	0.500 U	0.500 U	0.500 U	--	--
MW-39-2	SU B	12/4/2015	8260B	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	--	--
MW-39-2	SU B	1/16/2017	8260B	5.42	784	40.5	0.500 U	0.500 U	--	--
MW-39-2	SU B	4/20/2018	8260C	200 U	33,400	1,880	200 U	200 U	--	--
MW-39-2	SU B	10/9/2018	8260C	57.9	15,000	820	8.00 U	16.8	--	--
MW-39-2	SU B	10/16/2019	8260C	40.0	9,140	396	40.0 U	40.0 U	--	--
MW-39-2	SU B	1/17/2020	8260C	20.0 U	178	8,700	20.0 U	99.5	--	--
MW-39-2	SU B	4/29/2020	8260D	40.0 U	40.0 U	9,060	40.0 U	787	29.0	0.340
MW-39-2	SU B	10/12/2020	8260D	40.0 U	263	7,040	40.0 U	2,280	--	--
MW-39-2	SU B	10/14/2021	8260D	40.0 U	40.0 U	10,500	57.4	1,660	--	--
MW-39-2	SU B	3/10/2022	8260D	40.0 U	1,160	7,630	65.0	1,190	75.0	240
MW-39-2	SU B	10/6/2022	8260D	4.00 U	27.9	9,310	59.0	905	--	--
MW-39-2	SU B	10/6/2022	8260D	40.0 U	40.0 U	10,600	65.0	1,060	--	--
MW-39-2	SU B	5/12/2023	8260D	40.0 U	40.0 U	10,000	89.0	5,600	--	--
MW-39-2	SU B	10/10/2023	8260D	4.00 U	4.00 U	512	7.90	1,050	--	--
MW-39-2	SU B	10/23/2024	8260D	0.400 U	1.88	103	4.13	191	--	--
MW-40-2	SU B	4/10/2014	8260B	493	264,000	8,500	86.0	279	--	--
MW-40-2	SU B	8/25/2014	8260B	1,000 U	253,000	8,240	1,000 U	1,000 U	--	--
MW-40-2	SU B	5/6/2015	8260B	1,000 U	178,000	6,640	1,000 U	1,000 U	--	--
MW-40-2	SU B	7/8/2015	8260B	1,000 U	69,500	4,000	1,000 U	1,000 U	--	--
MW-40-2	SU B	12/3/2015	8260B	317	188,000	7,670	59.0	152	--	--
MW-40-2 Dup	SU B	5/5/2016	8260B	317	191,000	9,440	50.2	51.0	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-40-2	SU B	5/5/2016	8260B	1,000 U	249,000	9,540	1,000 U	1,000 U	--	--
MW-40-2	SU B	1/16/2017	8260B	0.500 U	2.05	0.500 U	0.500 U	0.500 U	--	--
MW-40-2	SU B	10/8/2018	8260C	1.92	912	39.0	0.800 U	0.970	--	--
MW-40-2	SU B	10/16/2019	8260C	0.840	382	12.3	0.400 U	0.430	--	--
MW-40-2	SU B	4/29/2020	8260D	2.00 U	219	977	2.00 U	14.1	--	--
MW-40-2	SU B	8/13/2020	8260D	10.0 U	46.0	1,760	10.0 U	54.2	--	--
MW-40-2	SU B	9/25/2020	8260D	2.00 U	47.1	999	2.00 U	409	--	--
MW-40-2	SU B	10/12/2020	8260D	2.45	412	659	2.25	437	--	--
MW-40-2	SU B	10/14/2021	8260D	2.00 U	3.41	193	2.00 U	239	--	--
MW-40-2	SU B	10/6/2022	8260D	0.400 U	1.02	25.0	0.400 U	29.9	--	--
MW-40-2	SU B	10/10/2023	8260D	4.00 U	4.00 U	125	4.00 U	30.9	--	--
MW-41-2	SU B	4/10/2014	8260B	63.0	36,900	1,080	50.0 U	50.0 U	--	--
MW-41-2	SU B	8/26/2014	8260B	112	75,900	5,020	100.0 U	100.0 U	--	--
MW-41-2	SU B	5/7/2015	8260B	250 U	66,900	2,660	250 U	250 U	--	--
MW-41-2	SU B	7/8/2015	8260B	2,500 U	80,000	4,100	2,500 U	2,500 U	--	--
MW-41-2	SU B	12/3/2015	8260B	100.0 U	38,300	1,600	100.0 U	100.0 U	--	--
MW-41-2	SU B	5/6/2016	8260B	250 U	72,400	3,620	250 U	250 U	--	--
MW-41-2	SU B	1/16/2017	8260B	10.0 U	2,280	132	10.0 U	21.7	--	--
MW-41-2	SU B	10/8/2018	8260C	0.400 U	23.0	2.83	0.400 U	0.400 U	--	--
MW-41-2	SU B	10/16/2019	8260C	1.30	238	16.0	0.400 U	0.480	--	--
MW-41-2	SU B	4/29/2020	8260D	0.800 U	8.50	24.1	0.800 U	102	--	--
MW-41-2	SU B	10/13/2020	8260D	1.20	127	1,430	7.25	776	--	--
MW-41-2	SU B	10/14/2021	8260D	0.800 U	2.51	1,460	10.7	936	--	--
MW-41-2	SU B	10/6/2022	8260D	10.0 U	10.0 U	1,960	18.0	1,100	--	--
MW-41-2	SU B	5/12/2023	8260D	10.0 U	10.0 U	1,720	17.8	964	--	--
MW-41-2	SU B	10/10/2023	8260D	10.0 U	10.0 U	1,010	10.0 U	576	--	--
MW-41-2	SU B	10/23/2024	8260D	10.0 U	10.0 U	1,150	20.2	732	--	--
MW-42-2	SU B	4/11/2014	8260B	322	169,000	7,620	100.0 U	342	--	--
MW-42-2	SU B	8/25/2014	8260B	500 U	103,000	6,040	500 U	500 U	--	--
MW-42-2	SU B	5/6/2015	8260B	18.1 J	750 J	15.9 J	5.00 UJ	5.00 UJ	--	--
MW-42-2	SU B	7/6/2015	8260B	25.0 U	886	25.0 U	25.0 U	25.0 U	--	--
MW-42-2	SU B	12/4/2015	8260B	29.4	4,260	127	5.00 U	5.00 U	--	--
MW-42-2	SU B	5/5/2016	8260B	46.5	16,900	1,370	11.1	52.9	--	--
MW-42-2	SU B	1/16/2017	8260B	9.36	2,970	468	2.78	2.64	--	--
MW-42-2	SU B	10/8/2018	8260C	20.0 U	7,410	394	20.0 U	20.0 U	--	--
MW-42-2	SU B	10/16/2019	8260C	40.0 U	4,480	460	40.0 U	40.0 U	--	--
MW-42-2	SU B	1/17/2020	8260C	20.0 U	397	18,500	75.0	2,390	--	--
MW-42-2 Dup	SU B	4/29/2020	8260D	2.00 U	549	12,900 J	22.4	7,450 J	--	--
MW-42-2	SU B	4/29/2020	8260D	20.0 U	600	7,620 J	25.0	4,440 J	3,500	23.0
MW-42-2	SU B	8/13/2020	8260D	40.0 U	851	5,810	23.0 J	3,230	--	--
MW-42-2	SU B	9/25/2020	8260D	40.0 U	1,370	11,900	58.0	5,210	--	--
MW-42-2	SU B	10/13/2020	8260D	20.0 U	624	9,370	43.5	3,990	--	--
MW-42-2	SU B	2/25/2021	8260D	40.0 U	1,540	5,920	40.0 U	2,940	--	--
MW-42-2	SU B	4/15/2021	8260D	40.0 U	772	4,390	40.0 U	2,240	--	--
MW-42-2	SU B	10/14/2021	8260D	20.0 U	1,540	6,540	59.6	4,540	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-42-2	SU B	3/10/2022	8260D	20.0 U	1,240	4,980	52.5	2,820	350	250
MW-42-2	SU B	10/6/2022	8260D	40.0 U	1,100	3,700	48.0	2,300	--	--
MW-42-2 Dup	SU B	10/10/2023	8260D	0.400 U	0.400 U	2.68	0.400 U	6.71	--	--
MW-42-2	SU B	10/10/2023	8260D	2.00 U	2.00 U	10.8	2.00 U	26.6	--	--
MW-43-1	SU A	4/11/2014	8260B	282	56,100	5,380	100.0 U	214	--	--
MW-43-1	SU A	8/25/2014	8260B	6.70	247	514	3.40	5.65	--	--
MW-43-1	SU A	7/6/2015	8260B	10.0 U	356	280	10.0 U	10.0 U	--	--
MW-43-1	SU A	12/4/2015	8260B	0.500 U	0.940	0.630	0.500 U	0.500 U	--	--
MW-43-1	SU A	1/16/2017	8260B	3.62	214	94.8	2.40	2.14	--	--
MW-43-1	SU A	10/8/2018	8260C	1.77	144	83.3	2.97	6.92	--	--
MW-43-1	SU A	4/29/2020	8260D	0.400 U	9.18	119	1.52	5.95	--	--
MW-43-1	SU A	10/13/2020	8260D	1.38	184	35.2	0.710	15.1	--	--
MW-43-1 Dup	SU A	10/20/2021	8260D	0.400 U	1.58	2.72	0.400 U	4.70	--	--
MW-43-1	SU A	10/20/2021	8260D	0.400 U	1.41	2.96	0.400 U	5.05	--	--
MW-43-1	SU A	10/6/2022	8260D	0.400 U	0.400 U	1.27	0.400 U	4.00	--	--
MW-43-1	SU A	10/10/2023	8260D	0.400 U	0.400 U	0.690	0.400 U	1.80	--	--
MW-43-1	SU A	10/23/2024	8260D	0.400 U	0.400 U	0.790	0.400 U	0.970	--	--
MW-44-1	SU A	4/10/2014	8260B	1.00 U	144	16.0	1.00 U	1.10	--	--
MW-44-1	SU A	8/25/2014	8260B	0.500 U	3.89	9.52	0.500 U	1.81	--	--
MW-44-1	SU A	7/8/2015	8260B	0.500 U	5.09	3.00	0.500 U	0.790	--	--
MW-44-1	SU A	12/3/2015	8260B	0.500 U	0.500 U	0.780	0.500 U	0.500 U	--	--
MW-44-1	SU A	1/16/2017	8260B	0.500 U	0.583	0.500 U	0.500 U	0.500 U	--	--
MW-44-1	SU A	10/8/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-44-1	SU A	10/17/2019	8260C	0.400 U	20.6	2.00	0.400 U	0.400 U	--	--
MW-44-1	SU A	4/29/2020	8260D	0.400 U	29.6	28.4	1.23	36.5	--	--
MW-44-1	SU A	10/13/2020	8260D	1.34 J	145 J	69.8 J	1.23 J	21.5 J	--	--
MW-44-1	SU A	10/14/2021	8260D	0.400 U	0.912	20.4	0.400 U	3.04	--	--
MW-44-1	SU A	10/6/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-44-1	SU A	10/10/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.370	--	--
MW-45-1 Dup	SU A	4/10/2014	8260B	24.6	2,140	673	21.6	43.0	--	--
MW-45-1	SU A	4/10/2014	8260B	24.6	2,110	700	23.6	45.2	--	--
MW-45-1	SU A	8/26/2014	8260B	0.500 U	14.0	50.6	1.81	3.81	--	--
MW-45-1	SU A	7/7/2015	8260B	0.500 U	4.25	22.4	0.720	3.36	--	--
MW-45-1	SU A	12/3/2015	8260B	2.50 U	16.0	68.4	4.90	15.4	--	--
MW-45-1	SU A	1/17/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-45-1	SU A	10/8/2018	8260C	0.400 U	4.44	16.7	0.440	5.04	--	--
MW-45-1	SU A	10/16/2019	8260C	0.980	68.8	62.5	2.88	9.74	--	--
MW-45-1	SU A	4/29/2020	8260D	0.640	15.6	49.0	0.930	4.42	--	--
MW-45-1	SU A	10/13/2020	8260D	1.33	181	43.6	2.27	7.91	--	--
MW-45-1	SU A	10/15/2021	8260D	0.400 U	1.01	3.27	0.400 U	2.31	--	--
MW-45-1	SU A	10/7/2022	8260D	0.400 U	0.400 U	0.510	0.400 U	1.24	--	--
MW-45-1	SU A	10/11/2023	8260D	0.400 U	0.400 U	0.590	0.400 U	1.37	--	--
MW-46-2	SU B	4/10/2014	8260B	208	33,400	1,790	50.0 U	57.0	--	--
MW-46-2	SU B	8/25/2014	8260B	100.0 U	11,500	440	100.0 U	100.0 U	--	--
MW-46-2	SU B	5/6/2015	8260B	100.0 U	4,990	426	100.0 U	100.0 U	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-46-2	SU B	7/7/2015	8260B	50.0 U	3,340	232	50.0 U	50.0 U	--	--
MW-46-2	SU B	12/3/2015	8260B	16.8	876	49.4	10.0 U	10.0 U	--	--
MW-46-2	SU B	1/17/2017	8260B	10.7	376	64.9	1.03	1.00 U	--	--
MW-46-2	SU B	10/8/2018	8260C	15.7	1,890	151	5.75	4.58	--	--
MW-46-2	SU B	10/16/2019	8260C	8.00 U	966	143	8.26	8.00 U	--	--
MW-46-2	SU B	4/29/2020	8260D	8.00 U	334	1,470	38.0	73.8	--	--
MW-46-2	SU B	10/13/2020	8260D	4.00 U	416	761	30.1	41.0	--	--
MW-46-2	SU B	10/15/2021	8260D	0.400 U	166	394	21.5	37.1	--	--
MW-46-2	SU B	10/6/2022	8260D	4.00 U	19.9	278	10.2	28.0	--	--
MW-46-2	SU B	10/10/2023	8260D	0.400 U	0.760	8.73	0.520	12.0	--	--
MW-46-2	SU B	10/23/2024	8260D	0.400 U	0.400 U	0.940	0.400 U	1.08	--	--
MW-47-2	SU B	4/8/2014	8260B	384	64,100	9,490	197	570	--	--
MW-47-2	SU B	8/25/2014	8260B	250 U	13,100	3,810	250 U	250 U	--	--
MW-47-2	SU B	2/13/2015	8260B	250 U	24,300	5,540	250 U	250 U	--	--
MW-47-2	SU B	5/7/2015	8260B	100.0 U	6,490	1,730	100.0 U	100.0 U	--	--
MW-47-2	SU B	7/7/2015	8260B	69.0	15,800	4,190	50.0 U	132	--	--
MW-47-2	SU B	12/3/2015	8260B	159	11,300	3,240	78.0	144	--	--
MW-47-2	SU B	5/6/2016	8260B	50.0 U	15,200	797	50.0 U	50.0 U	--	--
MW-47-2	SU B	1/17/2017	8260B	12.4	720	166	3.96	2.50 U	--	--
MW-47-2	SU B	10/8/2018	8260C	15.7	1,420	679	34.6	32.4	--	--
MW-47-2	SU B	10/16/2019	8260C	10.8	733	546	53.0	49.4	--	--
MW-47-2	SU B	4/29/2020	8260D	8.70	173	1,470	15.2	45.6	--	--
MW-47-2	SU B	10/13/2020	8260D	9.30	650	384	4.60	112	--	--
MW-47-2	SU B	10/15/2021	8260D	2.00 U	4.95	14.4	2.00 U	11.8	--	--
MW-47-2	SU B	10/7/2022	8260D	0.400 U	2.83	30.8	0.400 U	8.67	--	--
MW-47-2	SU B	10/11/2023	8260D	0.400 U	0.840	10.7	0.400 U	4.22	--	--
MW-48-2	SU B	4/8/2014	8260B	65.0	13,400	667	50.0 U	50.0 U	--	--
MW-48-2	SU B	8/25/2014	8260B	2.50 U	132	565	2.85	53.2	--	--
MW-48-2	SU B	7/7/2015	8260B	5.00 U	50.8	176	5.00 U	14.4	--	--
MW-48-2	SU B	12/3/2015	8260B	1.00 U	31.1	50.1	1.04	6.04	--	--
MW-48-2	SU B	1/17/2017	8260B	0.500 U	9.37	4.12	0.500 U	1.16	--	--
MW-48-2	SU B	10/8/2018	8260C	0.400 U	5.27	23.0	0.400	1.44	--	--
MW-48-2	SU B	10/8/2018	8260C	0.400 U	5.83	20.8	0.418	1.32	--	--
MW-48-2	SU B	10/16/2019	8260C	0.400 U	3.20	39.2	0.400 U	4.32	--	--
MW-48-2	SU B	4/29/2020	8260D	0.400 U	4.35	5.78	0.400 U	0.640	--	--
MW-48-2	SU B	10/13/2020	8260D	1.74	205	24.2	0.420	4.50	--	--
MW-48-2 Dup	SU B	10/15/2021	8260D	0.400 U	0.790	22.6	0.400 U	17.9	--	--
MW-48-2	SU B	10/15/2021	8260D	0.400 U	0.800	17.9	0.400 U	14.8	--	--
MW-48-2	SU B	10/7/2022	8260D	0.400 U	0.400 U	2.84	0.400 U	4.07	--	--
MW-48-2 Dup	SU B	10/11/2023	8260D	0.400 U	0.400 U	3.07	0.400 U	4.14	--	--
MW-48-2	SU B	10/11/2023	8260D	0.400 U	0.400 U	0.460	0.400 U	1.09	--	--
MW-48-2	SU B	10/23/2024	8260D	0.400 U	0.400 U	5.92	0.400 U	6.71	--	--
MW-49-2	SU B	4/11/2014	8260B	912	105,000	11,500	132	200	--	--
MW-49-2	SU B	8/25/2014	8260B	75.5	6,320	5,480	46.0	82.0	--	--
MW-49-2	SU B	2/13/2015	8260B	500 U	14,700	3,580	500 U	500 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-49-2	SU B	7/6/2015	8260B	50.0 U	2,650	2,250	51.0	105	--	--
MW-49-2	SU B	12/4/2015	8260B	165	7,130	1,860	76.6	225	--	--
MW-49-2	SU B	1/17/2017	8260B	239	18,000	4,460	93.0	144	--	--
MW-49-2	SU B	10/8/2018	8260C	116	16,200	3,680	101	215	--	--
MW-49-2	SU B	10/16/2019	8260C	20.0 U	1,960	1,190	31.2	102	--	--
MW-49-2	SU B	4/29/2020	8260D	20.0 U	198	2,040	20.0 U	297	--	--
MW-49-2	SU B	10/13/2020	8260D	4.00 UJ	270 J	430 J	4.00 UJ	137 J	--	--
MW-49-2	SU B	10/15/2021	8260D	0.400 U	5.99	101	0.480	67.3	--	--
MW-49-2	SU B	10/7/2022	8260D	0.400 U	1.00	11.4	0.400 U	7.75	--	--
MW-49-2	SU B	10/11/2023	8260D	0.400 U	0.410	2.22	0.400 U	1.89	--	--
MW-50-2	SU B	4/8/2014	8260B	859	27,600	8,050	50.0	50.0 U	--	--
MW-50-2	SU B	8/25/2014	8260B	414	14,400	4,690	100.0 U	100.0 U	--	--
MW-50-2	SU B	7/7/2015	8260B	342	27,500	3,250	100.0 U	100.0 U	--	--
MW-50-2	SU B	12/3/2015	8260B	422	18,500	2,770	50.0 U	53.0	--	--
MW-50-2	SU B	1/17/2017	8260B	2.27	171	181	1.12	19.2	--	--
MW-50-2	SU B	10/8/2018	8260C	1.68	125	133	2.88	24.6	--	--
MW-50-2	SU B	10/16/2019	8260C	2.00 U	133	153	4.44	27.4	--	--
MW-50-2	SU B	4/29/2020	8260D	2.00 U	15.2	195 J	3.25	36.8	--	--
MW-50-2	SU B	4/29/2020	8260D	0.400 U	17.8	134 J	4.42	42.6	--	--
MW-50-2	SU B	10/13/2020	8260D	1.40	208	233	3.15	42.5	--	--
MW-50-2	SU B	10/15/2021	8260D	2.00 U	16.4	382	4.55	45.0	--	--
MW-50-2	SU B	10/7/2022	8260D	2.00 U	15.8	501	5.90	26.4	--	--
MW-50-2	SU B	10/11/2023	8260D	0.400 U	40.6	176	2.11	11.2	--	--
MW-50-2	SU B	10/23/2024	8260D	0.400 U	13.2	152	2.83	14.8	--	--
MW-51-2	SU B	4/8/2014	8260B	325	35,700	2,460	50.0 U	854	--	--
MW-51-2	SU B	8/25/2014	8260B	0.500 U	3.08	9.50	0.500 U	2.97	--	--
MW-51-2	SU B	2/13/2015	8260B	1.42	296	73.7	1.20	3.02	--	--
MW-51-2	SU B	7/7/2015	8260B	5.00 U	196	245	5.00 U	43.6	--	--
MW-51-2	SU B	12/3/2015	8260B	50.0 U	2,200	402	50.0 U	52.0	--	--
MW-51-2	SU B	1/17/2017	8260B	1.00 U	968	588	6.13	97.6	--	--
MW-51-2	SU B	10/8/2018	8260C	4.00 U	1,260	800	10.8	109	--	--
MW-51-2	SU B	10/16/2019	8260C	4.00 U	356	127	4.00 U	5.75	--	--
MW-51-2	SU B	4/29/2020	8260D	0.400 U	1.43	3.23	0.400 U	24.4	--	--
MW-51-2	SU B	10/13/2020	8260D	2.00 U	339	29.6	2.00 U	3.04	--	--
MW-51-2	SU B	10/15/2021	8260D	0.800 U	5.32	191	5.62	89.5	--	--
MW-51-2	SU B	10/7/2022	8260D	0.400 U	0.400 U	30.1	0.400 U	14.9	--	--
MW-51-2	SU B	10/11/2023	8260D	0.400 U	0.400 U	46.5	0.780	11.5	--	--
MW-52-2	SU B	4/11/2014	8260B	0.500 U	39.3	8.45	0.500 U	3.69	--	--
MW-52-2	SU B	8/26/2014	8260B	0.500 U	0.800	2.06	0.500 U	0.500 U	--	--
MW-52-2	SU B	7/7/2015	8260B	0.500 U	0.500 U	0.510	0.500 U	0.500 U	--	--
MW-52-2	SU B	12/3/2015	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-52-2	SU B	1/17/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
MW-52-2	SU B	10/8/2018	8260C	0.400 U	0.400 U	0.941	0.400 U	0.400 U	--	--
MW-52-2	SU B	10/16/2019	8260C	0.400 U	0.400 U	0.710	0.400 U	0.400 U	--	--
MW-52-2	SU B	10/13/2020	8260D	1.76	264	43.2	0.610	3.39	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-52-2	SU B	10/15/2021	8260D	0.400 U	3.54	8.25	0.400 U	1.61	--	--
MW-52-2	SU B	10/7/2022	8260D	0.400 U	0.400 U	0.760	0.400 U	0.400 U	--	--
MW-52-2	SU B	10/11/2023	8260D	0.400 U	0.400 U	0.520	0.400 U	0.200 U	--	--
MW-52-2	SU B	10/23/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-53-2 Dup	SU B	4/8/2014	8260B	10.0 U	1,480	187	10.0 U	78.2	--	--
MW-53-2	SU B	4/8/2014	8260B	50.0 U	1,960	259	50.0 U	109	--	--
MW-53-2	SU B	8/26/2014	8260B	5.10	1,100	213	5.00 U	92.3	--	--
MW-53-2 Dup	SU B	7/7/2015	8260B	5.00 U	952	181	6.10	57.6	--	--
MW-53-2	SU B	7/7/2015	8260B	5.00 U	912	184	5.80	52.9	--	--
MW-53-2	SU B	12/3/2015	8260B	5.00 U	664	203	5.30	41.3	--	--
MW-53-2	SU B	1/17/2017	8260B	2.50 U	625	154	6.10	36.4	--	--
MW-53-2	SU B	10/8/2018	8260C	2.22	929	149	6.38	35.4	--	--
MW-53-2 Dup	SU B	10/16/2019	8260C	2.00 U	329	102	3.36	18.4	--	--
MW-53-2	SU B	10/16/2019	8260C	4.00 U	406	86.6	4.00 U	15.4	--	--
MW-53-2	SU B	4/29/2020	8260D	4.00 U	84.6	437	4.00	47.0	--	--
MW-53-2	SU B	10/13/2020	8260D	4.00 U	265	896	5.10	184	--	--
MW-53-2	SU B	10/15/2021	8260D	0.400 U	3.62	33.6	0.620	125	--	--
MW-53-2	SU B	10/7/2022	8260D	0.400 U	9.67	126	2.10	76.1	--	--
MW-53-2	SU B	10/11/2023	8260D	0.400 U	0.400 U	0.860	0.400 U	0.940	--	--
MW-53-2	SU B	10/23/2024	8260D	0.400 U	4.21	101	2.59	58.3	--	--
MW-56-1	SU A	10/26/2016	8260B	0.500 U	0.720	2.34	0.500 U	0.500 U	--	--
MW-56-1	SU A	10/22/2019	8260C	0.400 UJ	0.400 UJ	0.757 J	0.400 UJ	0.400 UJ	--	--
MW-57-1	SU A	2/16/2015	8260B	50.0 U	4,060	789	50.0 U	93.0	2.20	1.50
MW-57-1	SU A	12/8/2015	8260B	18.2	5,920	2,640	26.6	150	--	--
MW-57-1	SU A	3/8/2016	8260B	11.6	753	382	2.50 U	2.50 U	--	--
MW-57-1	SU A	6/15/2016	8260B	25.0 U	1,540	1,110	25.0 U	89.4	0.100 U	11.0
MW-57-1	SU A	9/27/2016	8260B	9.97	1,170	1,460	10.4	114	--	--
MW-57-1	SU A	10/18/2017	8260C	50.0 U	3,670	1,950	50.0 U	432	90.0	120
MW-57-1	SU A	10/9/2018	8260C	6.36	4,070	2,440	38.2	462	--	--
MW-57-1	SU A	10/25/2019	8260C	40.0 U	3,920	2,600	60.5	313	--	--
MW-57-1	SU A	1/17/2020	8260C	6.27	2,750	1,680	42.5	188	--	--
MW-57-1	SU A	4/29/2020	8260D	4.50	2,400	1,750	26.2	102	--	--
MW-57-1	SU A	4/29/2020	8260D	10.0 U	2,440	1,840	29.0	107	--	--
MW-57-1	SU A	8/13/2020	8260D	10.0 U	71.5	3,760	27.0	396	--	--
MW-57-1	SU A	9/25/2020	8260D	40.0 U	229	3,130	40.0 U	262	--	--
MW-57-1	SU A	10/13/2020	8260D	40.0 U	826	2,890	40.0 U	282	--	--
MW-57-1	SU A	2/25/2021	8260D	20.0 U	186	3,710	53.0	278	--	--
MW-57-1	SU A	4/15/2021	8260D	10.0 U	128	2,850	38.5	180	--	--
MW-57-1	SU A	7/15/2021	8260D	20.0 U	172	3,390	77.0	290	--	--
MW-57-1	SU A	10/14/2021	8260D	10.0 U	424	2,720	62.5	328	--	--
MW-57-1	SU A	4/4/2022	8260D	2.51	984	1,900	63.2	154	--	--
MW-57-1	SU A	10/11/2022	8260D	0.400 U	133	803	21.9	154	--	--
MW-57-1	SU A	10/3/2023	8260D	0.400 U	0.810	16.8	0.520	53.1	--	--
MW-57-1	SU A	10/22/2024	8260D	0.400 U	3.05	84.1	1.17	55.2	--	--
MW-57-2 Dup	SU B	2/16/2015	8260B	50.0 U	6,180	3,900	104	148	6.40	3.90

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-57-2	SU B	2/16/2015	8260B	50.0 U	6,410	3,690	98.0	163	7.10	3.80
MW-57-2	SU B	12/8/2015	8260B	1.95	1,000	3,900	88.6	635	--	--
MW-57-2	SU B	3/8/2016	8260B	25.0 U	648	2,590	67.0	547	--	--
MW-57-2	SU B	6/15/2016	8260B	25.0 U	294	2,870	62.0	313	1.80	1.70
MW-57-2	SU B	9/27/2016	8260B	5.00 U	255	3,680	69.7	358	--	--
MW-57-2 Dup	SU B	9/27/2016	8260B	5.00 U	260	3,690	71.9	355	--	--
MW-57-2	SU B	10/18/2017	8260C	50.0 U	102	2,360	76.0	392	--	--
MW-57-2	SU B	10/9/2018	8260C	4.00 U	23.0	4,170	97.9	471	--	--
MW-57-2	SU B	10/25/2019	8260C	40.0 U	40.0 U	3,940	106	372	--	--
MW-57-2	SU B	1/17/2020	8260C	0.400 U	66.0	2,910	64.7	95.9	--	--
MW-57-2	SU B	4/29/2020	8260D	10.0 U	10.0 U	1,860	16.5	10.2	--	--
MW-57-2	SU B	8/13/2020	8260D	4.00 U	7.10	1,080	14.6	89.9	--	--
MW-57-2	SU B	9/25/2020	8260D	4.00 U	5.46	1,130	19.9	109	--	--
MW-57-2		10/13/2020	8260D	4.00 U	755	920	14.6	80.5	--	--
	SU B									
MW-57-2	SU B	2/25/2021	8260D	2.00 U	5.95	422	7.50	28.8	--	--
MW-57-2	SU B	4/15/2021	8260D	2.00 U	14.0 U	302	5.10	4.40	--	--
MW-57-2	SU B	7/15/2021	8260D	0.400 U	2.78	151	1.70	17.5	--	--
MW-57-2 Dup	SU B	10/14/2021	8260D	0.400 U	9.56	159	3.44	62.4	--	--
MW-57-2	SU B	10/14/2021	8260D	0.400 U	12.7	165	3.69	62.9	--	--
MW-57-2	SU B	4/4/2022	8260D	0.400 U	3.22	64.3	0.400 U	0.400 U	--	--
MW-57-2	SU B	10/11/2022	8260D	0.400 U	3.58	68.8	1.14	6.19	--	--
MW-57-2	SU B	10/3/2023	8260D	0.400 U	4.00	87.5	1.66	1.96	--	--
MW-57-2	SU B	10/22/2024	8260D	0.400 U	4.29	85.1	1.19	1.55	--	--
MW-58-1	SU A	2/16/2015	8260B	50.0 U	1,970	412	50.0 U	50.0 U	1.20	1.80
MW-58-1	SU A	12/9/2015	8260B	0.500 U	0.500 U	4.38	0.500 U	11.6	--	--
MW-58-1	SU A	3/8/2016	8260B	0.500 U	0.292 J	9.71	0.500 U	5.59	--	--
MW-58-1	SU A	6/15/2016	8260B	0.500 U	0.500 U	0.685	0.500 U	0.876	0.220	66.0
MW-58-1	SU A	9/27/2016	8260B	0.500 U	0.500 U	1.15	0.500 U	0.530	0.140	96.0
MW-58-1	SU A	10/18/2017	8260C	0.500 U	0.500 U	0.500 U	0.500 U	0.820	--	--
MW-58-1	SU A	10/9/2018	8260C	0.400 U	0.400 U	0.490	0.400 U	0.890	--	--
MW-58-1	SU A	10/24/2019	8260C	0.400 U	3.06	136	3.95	169	--	--
MW-58-1	SU A	10/21/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.980	--	--
MW-58-1	SU A	10/18/2021	8260D	0.400 U	0.400 U	0.450	0.400 U	0.400 U	--	--
MW-58-1	SU A	10/12/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-58-1	SU A	10/3/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	1.57	--	--
MW-59-2	SU B	2/17/2015	8260B	5.00 U	258	1,240	15.3	143	1.40	7.10
MW-59-2	SU B	12/9/2015	8260B	10.0 U	10.0 U	791	10.0 U	123	--	--
MW-59-2	SU B	3/8/2016	8260B	5.00 U	5.00 U	995	11.5	178	--	--
MW-59-2	SU B	6/15/2016	8260B	5.00 U	7.09	830	8.49	52.7	--	--
MW-59-2	SU B	9/27/2016	8260B	5.00 U	10.7 J	798 J	9.30 J	84.0 J	--	--
MW-59-2	SU B	10/18/2017	8260C	5.00 U	5.00 U	672	5.30	122	14.0	27.0
MW-59-2	SU B	10/10/2018	8260C	2.00 U	4.67	529	2.30	15.8	--	--
MW-59-2	SU B	10/24/2019	8260C	4.00 U	4.32	500	4.00 U	60.0	--	--
MW-59-2	SU B	10/15/2020	8260D	4.00 U	4.00 U	507	4.00 U	82.5	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-59-2	SU B	2/26/2021	8260D	0.800 U	0.800 U	344	1.66	19.5	--	--
MW-59-2	SU B	10/19/2021	8260D	0.800 U	21.8	250	1.60	75.2	--	--
MW-59-2	SU B	10/17/2022	8260D	0.800 U	0.800 U	190	1.14 J	57.6	--	--
MW-59-2	SU B	10/4/2023	8260D	0.800 U	0.800 U	362	5.66	154	--	--
MW-59-2	SU B	10/28/2024	8260D	0.400 U	0.400 U	180	1.58	77.5	--	--
MW-60-1	SU A	2/16/2015	8260B	50.0 U	1,620	310	50.0 U	50.0 U	0.850	0.160
MW-60-1	SU A	12/9/2015	8260B	0.500 U	3.13	123	0.620	59.6	--	--
MW-60-1	SU A	3/9/2016	8260B	0.500 U	1.05	51.8	0.500 U	12.7	--	--
MW-60-1	SU A	6/16/2016	8260B	0.500 U	0.500 U	2.32	0.500 U	2.63	0.920	36.0
MW-60-1	SU A	9/27/2016	8260B	0.500 U	0.500 U	0.750	0.500 U	0.500 U	--	--
MW-60-1	SU A	10/18/2017	8260C	0.500 U	0.570	0.500 U	0.500 U	0.400 U	0.100 U	8.30
MW-60-1	SU A	10/9/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-60-1	SU A	10/25/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-60-1	SU A	10/15/2020	8260D	0.640	63.5	3.11	0.400 U	0.550	--	--
MW-60-1	SU A	7/15/2021	8260D	1.42	151	16.9	0.400 U	0.400 U	--	--
MW-60-1 Dup	SU A	10/18/2021	8260D	0.709 J	39.6 J	3.20 J	0.400 U	0.400 U	--	--
MW-60-1	SU A	10/18/2021	8260D	1.72 J	308 J	25.2 J	0.400 U	0.730	--	--
MW-60-1	SU A	10/12/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-60-1 Dup	SU A	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200	--	--
MW-60-1	SU A	10/4/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200	--	--
MW-60-1	SU A	10/21/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200	--	--
MW-60-2	SU B	2/16/2015	8260B	50.0 U	4,340	552	50.0 U	50.0 U	1.60	2.50
MW-60-2	SU B	12/9/2015	8260B	100.0 U	5,440	756	100.0 U	100.0 U	--	--
MW-60-2 Dup	SU B	12/9/2015	8260B	100.0 U	4,270	654	100.0 U	100.0 U	--	--
MW-60-2	SU B	3/9/2016	8260B	34.2	4,390	655	10.0 U	23.2	--	--
MW-60-2	SU B	6/16/2016	8260B	25.0 U	2,970	489	25.0 U	25.0 U	0.620	1.00
MW-60-2	SU B	9/27/2016	8260B	12.7	2,500	445	5.00 U	5.00 U	--	--
MW-60-2	SU B	4/27/2017	8260B	11.3	3,320	461	10.0 U	10.0 U	--	--
MW-60-2	SU B	10/18/2017	8260C	25.0 U	3,700	726	25.0 U	20.0 U	--	--
MW-60-2	SU B	7/18/2018	8260C	21.1	4,270	976	20.0 U	28.8	--	--
MW-60-2	SU B	10/9/2018	8260C	20.0 U	2,630	716	20.0 U	20.0 U	--	--
MW-60-2	SU B	10/25/2019	8260C	20.0 U	2,420	609	20.0 U	20.0 U	--	--
MW-60-2	SU B	10/15/2020	8260D	20.0 U	2,080	501	20.0 U	20.0 U	--	--
MW-60-2	SU B	7/15/2021	8260D	10.0 U	1,380	382	10.0 U	10.0 U	--	--
MW-60-2	SU B	10/18/2021	8260D	10.4	2,160	597	4.30	9.80	--	--
MW-60-2	SU B	10/12/2022	8260D	20.0 U	1,860	542	20.0 U	20.0 U	--	--
MW-60-2	SU B	10/4/2023	8260D	8.40	1,360	418	8.00 U	12.2	--	--
MW-60-2	SU B	10/21/2024	8260D	8.00 U	1,040	359	8.00 U	12.8	--	--
MW-61-1	SU A	2/16/2015	8260B	4.90	604	241	2.50 U	2.50 U	0.240	0.0630
MW-61-1	SU A	12/9/2015	8260B	2.50 U	4.85	308	2.50 U	2.50 U	--	--
MW-61-1	SU A	3/9/2016	8260B	5.00 U	7.96	403	5.00 U	37.5	--	--
MW-61-1	SU A	6/16/2016	8260B	0.500 U	4.02	63.8	0.500 U	73.3	29.0	46.0
MW-61-1	SU A	9/27/2016	8260B	0.500 U	7.42	3.24	0.500 U	18.8	46.0	27.0
MW-61-1	SU A	10/18/2017	8260C	0.500 U	0.930	0.500 U	0.500 U	1.17	18.0	80.0
MW-61-1	SU A	10/10/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.429	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-61-1	SU A	10/24/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-61-1	SU A	10/15/2020	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
MW-61-1	SU A	10/19/2021	8260D	0.400 U	13.3	1.58	0.400 U	1.69	--	--
MW-61-1	SU A	10/5/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	3.20	--	--
MW-61-1	SU A	10/5/2023	8260D	0.400 U	0.400 U	0.630	0.400 U	0.720	--	--
MW-61-1	SU A	10/29/2024	8260D	0.400 U	0.400 U	1.38	0.400 U	0.970	--	--
MW-61-2	SU B	2/16/2015	8260B	2.50 U	399	94.2	2.50 U	2.50 U	--	--
MW-61-2	SU B	12/9/2015	8260B	5.00 U	96.5	329	5.00 U	5.00 U	--	--
MW-61-2	SU B	3/9/2016	8260B	3.90	245	40.3	2.50 U	2.50 U	--	--
MW-61-2 Dup	SU B	3/9/2016	8260B	3.75	269	43.3	1.00 U	1.00 U	--	--
MW-61-2 Dup	SU B	6/16/2016	8260B	3.05	208	60.0	0.500 U	0.500 U	--	--
MW-61-2	SU B	6/16/2016	8260B	2.70	182	53.9	0.500 U	0.500 U	--	--
MW-61-2	SU B	9/27/2016	8260B	5.00 U	332	63.7	5.00 U	6.10	--	--
MW-61-2	SU B	1/17/2017	8260B	2.51	229	33.7	1.00 U	5.41	1.40	0.110
MW-61-2	SU B	10/18/2017	8260C	3.40	235	27.4	2.50 U	2.00 U	--	--
MW-61-2	SU B	10/10/2018	8260C	1.88 J	189 J	22.9 J	0.800 U	0.800 U	--	--
MW-61-2	SU B	10/24/2019	8260C	3.08	144	27.1	0.509	0.576	--	--
MW-61-2	SU B	10/15/2020	8260D	2.28	166	21.0	0.400	0.400 U	--	--
MW-61-2	SU B	10/19/2021	8260D	2.02	154	19.5	0.419	0.465	--	--
MW-61-2	SU B	10/5/2022	8260D	1.81	123	40.8	2.85	5.50	--	--
MW-61-2	SU B	10/5/2023	8260D	1.62	103	11.6	0.400 U	0.200 U	--	--
MW-61-2	SU B	10/29/2024	8260D	1.24	76.5	10.7	0.400 U	0.200 U	--	--
MW-62-2	SU B	3/13/2015	8260B	0.500 U	43.6	16.9	0.500 U	0.500 U	--	--
MW-62-2	SU B	3/9/2016	8260B	0.926	90.7	37.6	0.266 J	3.82	--	--
MW-62-2	SU B	6/16/2016	8260B	0.693	66.8	24.8	0.500 U	4.78	--	--
MW-62-2	SU B	9/29/2016	8260B	0.530	36.3	43.6	0.500 U	2.65	--	--
MW-62-2	SU B	10/18/2017	8260C	0.500 U	31.1	50.2	1.19	6.56	--	--
MW-62-2	SU B	7/18/2018	8260C	0.507	22.2	19.7	0.427	1.38	--	--
MW-62-2	SU B	10/10/2018	8260C	0.591	18.6	14.4	0.400 U	0.661	--	--
MW-62-2	SU B	10/15/2020	8260D	0.400 U	10.3	10.9	0.400 U	0.430	--	--
MW-62-2	SU B	10/17/2022	8260D	0.400 U	22.2	30.6	0.750	1.18	--	--
MW-62-2	SU B	10/5/2023	8260D	0.400 U	11.4	18.6	0.420	0.460	--	--
MW-62-2	SU B	10/30/2024	8260D	0.400 U	6.97	8.18	0.400 U	0.200 U	--	--
MW-63-2	SU B	2/17/2015	8260B	2.50 U	396	83.2	2.50 U	2.50 U	--	--
MW-63-2	SU B	12/10/2015	8260B	2.50 U	134	26.8	2.50 U	2.50 U	--	--
MW-63-2	SU B	3/10/2016	8260B	1.03	120	18.2	0.500 U	0.500 U	--	--
MW-63-2	SU B	6/17/2016	8260B	1.11	77.0	14.8	0.500 U	0.500 U	--	--
MW-63-2	SU B	9/29/2016	8260B	1.65	131	30.1	0.500 U	0.500 U	--	--
MW-63-2	SU B	10/19/2017	8260C	0.970	43.9	9.12	0.500 U	0.400 U	--	--
MW-63-2	SU B	10/11/2018	8260C	0.980	37.3	8.02	0.400 U	0.400 U	--	--
MW-63-2	SU B	10/24/2019	8260C	0.512	25.1	8.07	0.400 U	0.400 U	--	--
MW-63-2	SU B	10/15/2020	8260D	0.590	29.2	3.66	0.400 U	0.400 U	--	--
MW-63-2	SU B	10/19/2021	8260D	0.558	20.2	3.41	0.400 U	0.400 U	--	--
MW-63-2	SU B	10/17/2022	8260D	0.720	14.8	3.04	0.400 U	0.400 U	--	--
MW-63-2	SU B	10/5/2023	8260D	0.600	11.8	0.640	0.400 U	0.200 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-63-2	SU B	10/28/2024	8260D	0.450	8.39	0.750	0.400 U	0.200 U	--	--
MW-64-1	SU A	2/17/2015	8260B	0.500 U	55.8	13.4	0.500 U	1.36	--	--
MW-64-1	SU A	12/10/2015	8260B	0.500 U	21.8	22.6	0.500 U	2.44	--	--
MW-64-1	SU A	3/9/2016	8260B	0.447 J	22.7	15.6	0.500 U	4.70	--	--
MW-64-1	SU A	6/17/2016	8260B	0.500 U	13.7	10.9	0.500 U	3.44	2.40	7.60
MW-64-1	SU A	9/27/2016	8260B	0.500 U	8.48	13.9	0.500 U	8.90	--	--
MW-64-1	SU A	10/19/2017	8260C	0.500 U	0.700	12.9	0.500 U	5.48	5.90	4.00
MW-64-1	SU A	10/11/2018	8260C	0.400 U	1.26	54.2	1.30	15.0	--	--
MW-64-1	SU A	10/11/2018	8260C	0.400 U	1.44	49.3	1.15	13.0	--	--
MW-64-1	SU A	10/24/2019	8260C	0.740	126	20.4	0.686	18.1	--	--
MW-64-1	SU A	10/15/2020	8260D	0.400 U	3.50	71.2	1.86	13.7	--	--
MW-64-1	SU A	10/19/2021	8260D	0.400 U	23.8	141	8.78	45.0	--	--
MW-64-1	SU A	10/5/2022	8260D	0.680	194	123	5.36	8.03	--	--
MW-64-1	SU A	10/4/2023	8260D	0.800 U	23.3	79.9	4.64	15.2	--	--
MW-64-1	SU A	10/30/2024	8260D	0.400 U	27.8	66.2	2.99	16.6	--	--
MW-64-2	SU B	2/16/2015	8260B	12.6	3,100	112	10.0 U	10.0 U	0.620	1.30
MW-64-2	SU B	12/10/2015	8260B	8.90	1,740	79.2	5.00 U	5.00 U	--	--
MW-64-2	SU B	3/9/2016	8260B	7.28	998	73.6	5.00 U	5.00 U	--	--
MW-64-2	SU B	6/17/2016	8260B	5.00 U	1,060	82.0	5.00 U	5.00 U	--	--
MW-64-2	SU B	9/27/2016	8260B	18.6 J	3,130	121 J	5.00 U	5.20 J	--	--
MW-64-2	SU B	1/17/2017	8260B	5.00 U	1,780 J	204 J	5.00 U	5.00 U	1.20	0.320
MW-64-2	SU B	4/27/2017	8260B	4.25	564	506	2.50 U	2.50 U	--	--
MW-64-2	SU B	10/19/2017	8260C	10.0 U	818	161	10.0 U	8.00 U	--	--
MW-64-2	SU B	10/10/2018	8260C	10.0 U	1,440 J	86.0 J	10.0 U	10.0 U	--	--
MW-64-2	SU B	10/24/2019	8260C	2.00 U	693	86.9	2.06	2.00 U	--	--
MW-64-2	SU B	10/15/2020	8260D	4.00 U	1,030	73.0	4.00 U	4.00 U	--	--
MW-64-2	SU B	10/19/2021	8260D	0.932	178	11.5	0.800 U	0.800 U	--	--
MW-64-2	SU B	10/5/2022	8260D	1.18	176	8.97	0.400 U	0.400 U	--	--
MW-64-2	SU B	10/4/2023	8260D	0.550	82.8	4.76	0.400 U	0.200 U	--	--
MW-64-2	SU B	10/30/2024	8260D	0.680	69.4	4.77	0.400 U	0.200 U	--	--
MW-65-1	SU A	2/17/2015	8260B	2.60	467	74.3	2.50 U	2.50 U	--	--
MW-65-1	SU A	12/10/2015	8260B	10.0 U	380	75.7	10.0 U	10.0 U	--	--
MW-65-1	SU A	3/10/2016	8260B	7.95	879	101	2.50 U	2.50 U	--	--
MW-65-1	SU A	6/16/2016	8260B	3.54	269	128	1.00 U	1.00 U	--	--
MW-65-1	SU A	9/28/2016	8260B	5.00 U	269	200	5.00 U	27.3	--	--
MW-65-1	SU A	4/27/2017	8260B	3.90	471	103	3.10	14.4	--	--
MW-65-1	SU A	10/19/2017	8260C	1.47	90.5	30.2	0.990	5.51	--	--
MW-65-1	SU A	10/10/2018	8260C	2.49 J	301 J	57.6 J	1.43 J	2.75 J	--	--
MW-65-1	SU A	10/24/2019	8260C	2.83	575	75.6	2.19	3.02	--	--
MW-65-1	SU A	10/15/2020	8260D	4.00 U	589	52.5	4.00 U	4.00 U	--	--
MW-65-1	SU A	10/19/2021	8260D	0.533	12.1	1.42	0.400 U	0.400 U	--	--
MW-65-1	SU A	10/5/2022	8260D	4.45	239	21.9	1.20	1.48	--	--
MW-65-1	SU A	10/5/2023	8260D	3.58	358	21.8	1.08	0.700	--	--
MW-65-1 Dup	SU A	10/30/2024	8260D	3.24	294	22.2	0.860	0.940	--	--
MW-65-1	SU A	10/30/2024	8260D	3.38	298	23.4	1.18	1.00	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-65-2	SU B	2/17/2015	8260B	1.51	172	4.49	0.500 U	0.500 U	--	--
MW-65-2	SU B	12/10/2015	8260B	0.740	97.6	2.83	1.06	0.500 U	--	--
MW-65-2	SU B	3/10/2016	8260B	0.669	75.5	2.40	0.870	0.500 U	--	--
MW-65-2	SU B	6/16/2016	8260B	0.500 U	44.6	1.19	0.500 U	0.500 U	--	--
MW-65-2	SU B	9/27/2016	8260B	0.590	54.7	1.23	0.500 U	0.500 U	--	--
MW-65-2	SU B	4/27/2017	8260B	0.887	29.6	0.943	0.500 U	0.500 U	--	--
MW-65-2	SU B	10/19/2017	8260C	0.500 U	24.3	0.500 U	0.500 U	0.400 U	--	--
MW-65-2	SU B	10/10/2018	8260C	0.410	6.73	0.400 U	0.400 U	0.400 U	--	--
MW-65-2	SU B	10/24/2019	8260C	0.927	121	4.45	0.400 U	0.400 U	--	--
MW-65-2	SU B	10/15/2020	8260D	1.35	97.5	1.42	0.400 U	0.400 U	--	--
MW-65-2 Dup	SU B	10/19/2021	8260D	3.66 J	400 J	43.3 J	1.49 J	1.21 J	--	--
MW-65-2	SU B	10/19/2021	8260D	3.79 J	381 J	42.8 J	1.54 UJ	1.25 UJ	--	--
MW-65-2	SU B	10/5/2022	8260D	0.560	1.90	0.400 U	0.400 U	0.400 U	--	--
MW-65-2 Dup	SU B	10/5/2023	8260D	0.400 U	1.59	0.400 U	0.400 U	0.200 U	--	--
MW-65-2	SU B	10/5/2023	8260D	0.400 U	1.72	0.400 U	0.400 U	0.200 U	--	--
MW-65-2	SU B	10/30/2024	8260D	0.460	1.07	0.400 U	0.400 U	0.200 U	--	--
MW-66-1	SU A	2/16/2015	8260B	1.00 U	265	13.6	1.00 U	1.00 U	--	--
MW-66-1	SU A	12/10/2015	8260B	5.00 U	218	97.0	5.00 U	5.00 U	--	--
MW-66-1 Dup	SU A	12/10/2015	8260B	5.00 U	249	103	5.00 U	5.00 U	--	--
MW-66-1	SU A	3/10/2016	8260B	0.804 J	176	45.5	1.00 U	1.43	--	--
MW-66-1	SU A	6/16/2016	8260B	1.38	270	23.5	1.00 U	1.34	--	--
MW-66-1	SU A	9/28/2016	8260B	2.85	423	32.2	2.50 U	2.50 U	--	--
MW-66-1 Dup	SU A	9/28/2016	8260B	2.60	418	34.9	2.50 U	2.50 U	--	--
MW-66-1	SU A	4/28/2017	8260B	1.32	169	10.3	1.00 U	1.00 U	--	--
MW-66-1	SU A	10/17/2017	8260C	2.08	339	56.1	1.00 U	0.940	--	--
MW-66-1	SU A	10/11/2018	8260C	2.00 U	311	76.0	2.00 U	2.00 U	--	--
MW-66-1	SU A	10/23/2019	8260C	1.36	202	85.0	3.61	3.52	--	--
MW-66-1	SU A	10/16/2020	8260D	1.00 U	184	18.6	1.60	1.00 U	--	--
MW-66-1	SU A	10/20/2021	8260D	1.04	192	20.4	1.73	1.00 U	--	--
MW-66-1	SU A	10/18/2022	8260D	0.840	140	10.4	0.820	0.400 U	--	--
MW-66-1	SU A	10/5/2023	8260D	0.870	131	12.9	2.04	1.14	--	--
MW-66-1	SU A	10/29/2024	8260D	0.690	97.3	15.2	2.05	1.10	--	--
MW-66-2	SU B	2/16/2015	8260B	0.970	7.14	0.500 U	0.500 U	0.500 U	0.360	0.280
MW-66-2	SU B	12/10/2015	8260B	1.05	58.6	19.9	0.500 U	0.500 U	--	--
MW-66-2	SU B	3/10/2016	8260B	0.900	6.59	6.46	0.500 U	0.500 U	--	--
MW-66-2	SU B	6/16/2016	8260B	0.790	7.96	17.9	0.500 U	0.500 U	--	--
MW-66-2	SU B	9/29/2016	8260B	0.860	5.46	1.43	0.500 U	0.500 U	--	--
MW-66-2	SU B	10/17/2017	8260C	0.690	6.72	2.82	0.500 U	0.400 U	--	--
MW-66-2	SU B	7/18/2018	8260C	0.703	5.53	0.949	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/11/2018	8260C	0.551	4.44	0.966	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/11/2018	8260C	0.610	4.25	0.870	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/23/2019	8260C	0.486	3.96	0.412	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/16/2020	8260D	0.454	2.77	0.511	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/20/2021	8260D	0.507	3.53	0.609	0.400 U	0.400 U	--	--
MW-66-2	SU B	10/18/2022	8260D	0.480	1.61	0.720	0.400 U	0.400 U	--	--

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Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-66-2	SU B	10/5/2023	8260D	0.450	0.970	0.400 U	0.400 U	0.200 U	--	--
MW-67-2	SU B	2/16/2015	8260B	0.860	138	12.3	0.500 U	0.690	--	--
MW-67-2	SU B	12/10/2015	8260B	10.0 U	56.4	554	10.0 U	10.0 U	--	--
MW-67-2	SU B	3/10/2016	8260B	1.26	35.0	13.0	0.500 U	0.454 J	--	--
MW-67-2	SU B	6/16/2016	8260B	0.800	34.9	26.3	0.500 U	5.34	--	--
MW-67-2	SU B	9/29/2016	8260B	1.13	31.6	6.97	0.500 U	1.36	--	--
MW-67-2	SU B	4/28/2017	8260B	0.628	58.5	19.1	0.528	11.6	--	--
MW-67-2	SU B	10/17/2017	8260C	1.45	44.0	5.49	0.500 U	0.470	--	--
MW-67-2	SU B	10/13/2018	8260C	1.49	36.6	4.27	0.400 U	0.400 U	--	--
MW-67-2	SU B	10/23/2019	8260C	0.989	22.2	4.23	0.400 U	0.445	--	--
MW-67-2	SU B	10/16/2020	8260D	1.06	35.7	6.76	0.400 U	1.25	--	--
MW-67-2	SU B	10/20/2021	8260D	0.505	16.3	3.73	0.400 U	0.400 U	--	--
MW-67-2	SU B	10/18/2022	8260D	0.780	23.9	5.28	0.400 U	0.680	--	--
MW-67-2	SU B	10/5/2023	8260D	0.800	11.6	2.34	0.400 U	0.200 U	--	--
MW-67-2	SU B	10/29/2024	8260D	0.640	9.00	2.60	0.400 U	0.390	--	--
MW-68-1	SU A	9/20/2015	8260B	638	18,800	8,670	100.0 U	108	--	--
MW-68-1	SU A	12/7/2015	8260B	25.0 U	878	6,510	32.0	164	--	--
MW-68-1	SU A	1/13/2017	8260B	12.5 U	390	3,900	28.8	420	--	--
MW-68-1	SU A	11/14/2018	8260C	20.0 U	898	7,050	61.8	528	--	--
MW-68-1	SU A	10/22/2019	8260C	4.00 U	88.5	4,220	42.2	549	--	--
MW-68-1	SU A	4/30/2020	8260D	8.00 U	33.2	2,930	19.4	556	--	--
MW-68-1	SU A	8/12/2020	8260D	10.0 U	6.75 J	4,150	27.0	1,040	--	--
MW-68-1	SU A	9/25/2020	8260D	20.0 U	20.0 U	4,120	26.9	1,000	--	--
MW-68-1	SU A	10/14/2020	8260D	20.0 U	28.8	4,650	36.1	1,160	--	--
MW-68-1	SU A	10/18/2021	8260D	20.0 U	20.0 U	4,090	26.4	1,040	--	--
MW-68-1	SU A	10/13/2022	8260D	4.00 U	4.00 U	1,450 J	8.50	568	--	--
MW-68-1	SU A	10/13/2022	8260D	0.400 U	0.400	824 J	6.27	458	--	--
MW-68-1	SU A	10/12/2023	8260D	20.0 U	20.0 U	804	20.0 U	216	--	--
MW-68-1	SU A	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
MW-69-1	SU A	9/20/2015	8260B	4.15	576	566	3.30	58.1	--	--
MW-69-1	SU A	12/7/2015	8260B	25.0 U	63.0	558	25.0 U	32.0	--	--
MW-69-1	SU A	1/13/2017	8260B	1.00 U	1.74	203	1.28	67.6	--	--
MW-69-1	SU A	11/13/2018	8260C	0.400 U	0.590	159	1.30	103	--	--
MW-69-1	SU A	10/22/2019	8260C	0.400 U	0.400 U	34.9	0.400 U	54.3	--	--
MW-69-1	SU A	4/30/2020	8260D	0.400 U	0.720	50.9	0.400	33.7	--	--
MW-69-1	SU A	10/14/2020	8260D	0.400 U	0.919	96.4	0.879	67.8	--	--
MW-69-1	SU A	10/18/2021	8260D	0.400 U	2.82	49.3	0.410	44.0	--	--
MW-69-1	SU A	10/13/2022	8260D	0.400 U	0.400 U	29.4	0.400 U	32.4	--	--
MW-69-1	SU A	10/12/2023	8260D	0.400 U	0.400 U	4.82	0.400 U	2.43	--	--
MW-70-1	SU A	9/20/2015	8260B	878	19,400	1,870	100.0 U	100.0 U	--	--
MW-70-1	SU A	12/7/2015	8260B	25.0 U	100.0	5,390	25.0 U	63.0	--	--
MW-70-1	SU A	1/13/2017	8260B	12.8	2,160	3,020	85.0	370	--	--
MW-70-1	SU A	11/13/2018	8260C	76.9	6,650	6,190	145	449	--	--
MW-70-1	SU A	8/9/2019	8260C	80.0 UJ	80.0 UJ	9,090 J	80.0 UJ	1,890 J	--	--
MW-70-1	SU A	10/23/2019	8260C	2.00 U	2.00 U	3.90	2.00 U	4.00	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-70-1	SU A	4/30/2020	8260D	0.400 U	0.660	37.4	0.400 U	60.7	--	--
MW-70-1	SU A	8/12/2020	8260D	5.00 J	10.0 U	4,300	20.0	1,480	--	--
MW-70-1	SU A	9/25/2020	8260D	8.00 U	8.00 U	2,060	17.7	952	--	--
MW-70-1	SU A	10/14/2020	8260D	20.0 U	20.0 U	11,700 J	86.4	2,910	--	--
MW-70-1	SU A	2/26/2021	8260D	2.00 U	2.00 U	596	2.45	851	--	--
MW-70-1	SU A	4/16/2021	8260D	0.400 U	0.400 U	97.8	0.440	225	--	--
MW-70-1	SU A	10/18/2021	8260D	20.0 U	20.0 U	8,780	31.6	3,210	--	--
MW-70-1	SU A	10/12/2022	8260D	20.0 U	20.0 U	1,610	20.0 U	1,390	--	--
MW-70-1	SU A	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.0 U	--	--
MW-71-1	SU A	9/20/2015	8260B	112	3,050	1,050	12.0	76.0	--	--
MW-71-1	SU A	12/7/2015	8260B	53.0	1,730	1,540	25.0 U	40.5	--	--
MW-71-1	SU A	1/13/2017	8260B	5.50	520	1,340	9.20	34.0	--	--
MW-71-1	SU A	11/13/2018	8260C	15.8	1,620	1,250	14.7	47.8	--	--
MW-71-1	SU A	10/22/2019	8260C	4.00 U	10.8	931	6.91	92.3	--	--
MW-71-1	SU A	4/30/2020	8260D	4.00 U	10.4	1,650	17.4	223	--	--
MW-71-1	SU A	10/14/2020	8260D	20.0 U	20.0 U	2,210	20.0 U	142	--	--
MW-71-1	SU A	7/15/2021	8260D	2.80	41.8	303	2.00 U	35.8	--	--
MW-71-1	SU A	10/18/2021	8260D	2.00 U	6.00	1,920	10.1	167	--	--
MW-71-1	SU A	10/12/2022	8260D	2.00 U	2.00 U	881	4.50	130	--	--
MW-71-1	SU A	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.5	--	--
MW-71-1 Dup	SU A	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.870	--	--
MW-71-1	SU A	10/24/2024	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.960	--	--
MW-72-2	SU B	9/20/2015	8260B	2.50 U	113	481	4.05	124	--	--
MW-72-2	SU B	12/7/2015	8260B	2.50 U	9.95	180	2.50 U	55.3	--	--
MW-72-2	SU B	1/13/2017	8260B	0.500 U	2.04	24.4	0.500 U	16.8	--	--
MW-72-2	SU B	11/14/2018	8260C	0.400 U	0.757	23.8	0.400 U	12.9	--	--
MW-72-2 Dup	SU B	10/22/2019	8260C	0.400 U	0.434	6.41	0.400 U	5.02	--	--
MW-72-2	SU B	10/22/2019	8260C	0.400 U	0.400 U	6.57	0.400 U	5.25	--	--
MW-72-2	SU B	4/30/2020	8260D	0.400	1.68	9.95	0.400 U	1.62	--	--
MW-72-2	SU B	10/14/2020	8260D	0.505	1.45	4.00	0.400 U	1.36	--	--
MW-72-2	SU B	10/18/2021	8260D	0.400 U	2.65	8.84	0.400 U	3.94	--	--
MW-72-2	SU B	10/14/2022	8260D	0.400	0.880	0.790	0.400 U	0.790	--	--
MW-72-2 Dup	SU B	10/12/2023	8260D	0.410	0.670	0.880	0.400 U	0.670	--	--
MW-72-2	SU B	10/12/2023	8260D	0.420	0.710	0.860	0.400 U	0.490	--	--
MW-72-2	SU B	10/24/2024	8260D	0.400 U	0.480	1.15	0.400 U	0.830	--	--
MW-73-2	SU B	9/20/2015	8260B	276	22,800	1,840	100.0 U	192	--	--
MW-73-2	SU B	12/7/2015	8260B	10.8	43.8	12.2	0.500 U	0.500 U	--	--
MW-73-2	SU B	1/13/2017	8260B	9.90	1,270	944	5.20	15.1	--	--
MW-73-2	SU B	11/13/2018	8260C	8.32	2,320	1,400	15.1	33.8	--	--
MW-73-2	SU B	8/9/2019	8260C	8.00 U	2,550	1,230	12.5	39.4	--	--
MW-73-2	SU B	10/22/2019	8260C	40.0 U	125	3,690	40.0 U	357	--	--
MW-73-2	SU B	4/30/2020	8260D	2.00 U	4.15	887	5.25	139	--	--
MW-73-2	SU B	10/14/2020	8260D	2.00 UJ	33.6 J	195 J	2.84 J	122 J	--	--
MW-73-2	SU B	10/18/2021	8260D	0.400 U	2.43	36.7	0.420	22.4	--	--
MW-73-2	SU B	10/13/2022	8260D	0.400 U	1.01	127	1.29	63.8	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-73-2 Dup	SU B	10/13/2023	8260D	0.400 U	23.6	104	1.21	57.9	--	--
MW-73-2	SU B	10/13/2023	8260D	0.400 U	19.2	93.0	1.07	56.0	--	--
MW-74-2	SU B	9/20/2015	8260B	1,380	58,400	12,700	250 U	1,410	--	--
MW-74-2	SU B	12/8/2015	8260B	3,540	67,800	9,250	85.0	378	--	--
MW-74-2	SU B	12/8/2015	8260B	3,590	71,600	9,950	82.0	352	--	--
MW-74-2	SU B	5/5/2016	8260B	3,020	71,900	14,400	250 U	250 U	--	--
MW-74-2	SU B	1/13/2017	8260B	5,050	60,700	5,990	250 U	250 U	--	--
MW-74-2	SU B	11/13/2018	8260C	1,930	15,000	1,960	40.0 U	40.0 U	--	--
MW-74-2	SU B	8/9/2019	8260C	1,210	2,740	8,440	200 U	640	--	--
MW-74-2	SU B	10/23/2019	8260C	200 U	402	22,200	200 U	5,400	--	--
MW-74-2	SU B	4/30/2020	8260D	18.3	127	5,480	10.2	846	--	--
MW-74-2	SU B	4/30/2020	8260D	21.5	130	5,430	20.0 U	854	5,600	38.0
MW-74-2	SU B	8/13/2020	8260D	10.5	56.8	2,400	10.0 U	270	--	--
MW-74-2	SU B	9/25/2020	8260D	10.0 U	74.9	1,870	10.0 U	228	--	--
MW-74-2	SU B	10/14/2020	8260D	20.0 UJ	57.6 J	1,340 J	20.0 UJ	216 J	--	--
MW-74-2	SU B	10/18/2021	8260D	1.74	19.2	362	1.00 U	86.7	--	--
MW-74-2	SU B	10/12/2022	8260D	0.780	9.35	114	1.17	124	--	--
MW-74-2	SU B	10/12/2023	8260D	2.00 U	3.40	832	2.60	532	--	--
MW-74-2	SU B	10/24/2024	8260D	4.64	36.3	10,000	80.8	4,100	--	--
MW-75-2	SU B	9/21/2015	8260B	38.0	5,450	712	25.0 U	45.5	--	--
MW-75-2	SU B	12/8/2015	8260B	17.6	4.05	2.50 U	2.50 U	2.50 U	--	--
MW-75-2	SU B	10/20/2016	8260B	35.0	2,530	382	25.0 U	31.5	--	--
MW-75-2	SU B	10/19/2017	8260C	9.40	521	904	5.00	38.0	--	--
MW-75-2	SU B	1/16/2018	8260C	3.25	223	451	2.55	34.1	--	--
MW-75-2	SU B	4/20/2018	8260C	7.02	411	232	2.96	28.0	--	--
MW-75-2	SU B	10/15/2018	8260C	6.84 J	492 J	161 J	8.83 J	57.6 J	--	--
MW-75-2 Dup	SU B	10/18/2019	8260C	10.7	499	131 J	5.03	18.4	--	--
MW-75-2	SU B	10/18/2019	8260C	11.4 J	660 J	96.2 J	4.55 J	15.7 J	--	--
MW-75-2	SU B	1/17/2020	8260C	5.90	520	134	4.90	18.3	--	--
MW-75-2	SU B	4/30/2020	8260D	1.94	121	179	2.18	24.4	--	--
MW-75-2	SU B	4/30/2020	8260D	2.20	118	175	2.25	25.1	--	--
MW-75-2	SU B	8/12/2020	8260D	1.52	94.8	186	2.10	30.6	--	--
MW-75-2	SU B	9/25/2020	8260D	2.24	180	111	1.58	27.1	--	--
MW-75-2	SU B	10/16/2020	8260D	2.00 U	47.5	167	2.32	23.4	--	--
MW-75-2	SU B	10/12/2021	8260D	2.80	175	105	2.34	26.1	--	--
MW-75-2	SU B	8/16/2022	8260D	1.11	75.2	100.0	0.980	12.2	--	--
MW-75-2	SU B	10/19/2022	8260D	1.72	123	84.8	0.870	7.57	--	--
MW-75-2	SU B	10/6/2023	8260D	0.400 U	1.41	2.72	0.400 U	3.37	--	--
MW-76-2 Dup	SU B	9/21/2015	8260B	104	19,300	1,410	50.0 U	126	--	--
MW-76-2	SU B	9/21/2015	8260B	114	19,400	1,420	100.0 U	124	--	--
MW-76-2	SU B	12/7/2015	8260B	14.5	451	39.2	5.00 U	5.00 U	--	--
MW-76-2	SU B	10/20/2016	8260B	14.6	686	87.0	2.50 U	5.65	--	--
MW-76-2	SU B	10/19/2017	8260C	7.40	453	5,890	30.7	682	--	--
MW-76-2	SU B	1/16/2018	8260C	20.0 U	562	3,920	23.5	510	--	--
MW-76-2	SU B	4/20/2018	8260C	8.00 U	707	2,640	26.4	376	--	--

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Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-76-2	SU B	10/15/2018	8260C	2.00 U	178	873	14.9	278	--	--
MW-76-2	SU B	10/18/2019	8260C	8.00 U	656	1,430	48.4	480	--	--
MW-76-2	SU B	1/17/2020	8260C	4.00 U	42.4	1,200	14.6	255	--	--
MW-76-2	SU B	5/1/2020	8260D	2.00 U	2.00 U	11.5	2.00 U	9.95	--	--
MW-76-2	SU B	10/16/2020	8260D	0.400 U	0.470	1.48	0.400 U	0.780	--	--
MW-76-2	SU B	10/12/2021	8260D	0.400 U	0.440	0.720	0.400 U	3.07	--	--
MW-76-2	SU B	10/19/2022	8260D	0.400 U	0.400 U	0.730	0.400 U	3.14	--	--
MW-76-2 Dup	SU B	10/6/2023	8260D	0.400 U	0.520	1.73	0.400 U	4.64	--	--
MW-76-2	SU B	10/6/2023	8260D	0.400 U	0.440	1.36	0.400 U	4.81	--	--
MW-76-2	SU B	10/25/2024	8260D	0.400 U	0.400 U	1.24	0.400 U	4.22	--	--
MW-77-2	SU B	9/21/2015	8260B	26.8	3,430	401	10.0 U	23.8	--	--
MW-77-2	SU B	12/7/2015	8260B	14.4	369	30.3	5.00 U	5.00 U	--	--
MW-77-2	SU B	10/20/2016	8260B	47.8	4,300	419	18.2	55.0	--	--
MW-77-2	SU B	10/19/2017	8260C	1.00 U	15.0	300	1.04	25.0	2.70	0.800
MW-77-2	SU B	1/16/2018	8260C	2.00 UJ	36.0 J	279 J	4.20 J	23.7 J	--	--
MW-77-2	SU B	4/20/2018	8260C	0.400 U	6.21	61.6	1.70	16.7	--	--
MW-77-2	SU B	10/15/2018	8260C	0.400 U	9.66	7.54	1.35	6.04	--	--
MW-77-2	SU B	10/18/2019	8260C	0.400 U	1.06	1.39	0.400 U	5.55	--	--
MW-77-2	SU B	5/1/2020	8260D	0.800 U	0.800 U	6.40	0.800 U	1.12	--	--
MW-77-2	SU B	10/16/2020	8260D	0.400 U	0.470	1.09	0.400 U	0.400 U	--	--
MW-77-2	SU B	10/12/2021	8260D	0.400 U	0.440	0.460	0.400 U	0.400 U	--	--
MW-77-2	SU B	10/19/2022	8260D	0.400 U	0.400 U	0.430	0.400 U	0.620	--	--
MW-77-2	SU B	10/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.200 U	--	--
MW-78-2	SU B	11/1/2016	8260B	13.8	772	38.7	2.50 U	2.50 U	--	--
MW-78-2	SU B	4/28/2017	8260B	3.49	50.9	3.72	0.500 U	0.500 U	--	--
MW-78-2 Dup	SU B	10/17/2017	8260C	7.75	320 J	15.8	1.25 U	1.00 U	--	--
MW-78-2	SU B	10/17/2017	8260C	9.13	293 J	15.9	0.500 U	0.480	0.360	0.100 U
MW-78-2	SU B	1/16/2018	8260C	15.0	493	29.4	0.530	0.590	--	--
MW-78-2	SU B	4/20/2018	8260C	15.5	762	37.1	8.00 U	8.00 U	--	--
MW-78-2	SU B	10/15/2018	8260C	13.9 J	562 J	30.3 J	4.00 U	4.00 U	--	--
MW-78-2	SU B	11/5/2019	8260C	12.0	329	25.2	4.00 U	4.00 U	--	--
MW-78-2	SU B	1/17/2020	8260C	5.24	124	11.2	0.400 U	0.430	--	--
MW-78-2	SU B	10/16/2020	8260D	4.00	96.7	11.9	0.400 U	0.430	--	--
MW-78-2	SU B	4/16/2021	8260D	5.27	90.7	8.05	0.400 U	0.400 U	--	--
MW-78-2	SU B	7/15/2021	8260D	5.69	92.2	10.0	0.400 U	0.400 U	--	--
MW-78-2 Dup	SU B	10/12/2021	8260D	3.77	78.2	8.62	0.400 U	0.400 U	--	--
MW-78-2	SU B	10/12/2021	8260D	3.58	75.4	8.44	0.400 U	0.400 U	--	--
MW-78-2	SU B	10/19/2022	8260D	4.41	50.6	8.44	0.400 U	0.400 U	--	--
MW-78-2	SU B	10/6/2023	8260D	3.22	33.6	5.35	0.400 U	0.350	--	--
MW-78-2	SU B	10/25/2024	8260D	1.97	23.8	4.95	0.400 U	0.200 U	--	--
MW-79-2	SU B	11/1/2016	8260B	3.27	18.2	12.4	0.500 U	0.500 U	--	--
MW-79-2	SU B	4/28/2017	8260B	2.07	6.24	21.2	0.500 U	0.500 U	--	--
MW-79-2	SU B	10/17/2017	8260C	0.500 U	0.590	3.32	0.500 U	13.7	--	--
MW-79-2	SU B	1/16/2018	8260C	0.790	4.08	5.11	0.400 U	5.41	--	--
MW-79-2	SU B	4/20/2018	8260C	0.400 U	3.61	3.47	0.400 U	5.57	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-79-2	SU B	10/15/2018	8260C	0.400 U	1.20	2.19	0.400 U	11.7	--	--
MW-79-2	SU B	10/23/2019	8260C	0.400 U	0.427	0.890	0.400 U	2.61	--	--
MW-79-2	SU B	10/16/2020	8260D	0.400 U	1.38	3.47	0.400 U	3.04	--	--
MW-79-2	SU B	10/12/2021	8260D	0.400 U	0.600	2.25	0.400 U	2.23	--	--
MW-79-2	SU B	10/19/2022	8260D	0.400 U	0.820	1.29	0.400 U	0.440	--	--
MW-79-2	SU B	10/6/2023	8260D	0.400 U	0.600	0.590	0.400 U	0.390	--	--
MW-79-2	SU B	10/29/2024	8260D	0.400 U	0.670	1.01	0.400 U	0.200 U	--	--
MW-80-2	SU B	11/1/2016	8260B	7.63	116	33.3	0.500 U	1.26	--	--
MW-80-2	SU B	4/28/2017	8260B	5.30	19.1	15.6	0.500 U	0.500 U	--	--
MW-80-2	SU B	10/17/2017	8260C	3.57	16.0	10.5	0.500 U	0.400 U	1.20	0.100 U
MW-80-2	SU B	4/20/2018	8260C	1.69	7.12	6.67	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/15/2018	8260C	1.27	10.4	5.53	0.400 U	0.400 U	--	--
MW-80-2 Dup	SU B	10/23/2019	8260C	0.400 U	4.99	5.78	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/23/2019	8260C	0.400 U	4.24	6.13	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/16/2020	8260D	0.400 U	3.08	6.85	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/12/2021	8260D	0.530	4.19	2.64	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/19/2022	8260D	0.540	3.46	2.66	0.400 U	0.400 U	--	--
MW-80-2	SU B	10/6/2023	8260D	0.400	2.99	2.08	0.400 U	0.200 U	--	--
MW-80-2	SU B	10/29/2024	8260D	0.400 U	1.99	1.33	0.400 U	0.200 U	--	--
OI-B-01	SU B	10/26/2016	8260B	3.85	43.9	5.41	0.500 U	0.500 U	--	--
OI-B-01	SU B	4/30/2020	8260D	4.00 UJ	4.00 UJ	30.8 J	4.00 UJ	4.00 UJ	--	--
OI-B-01	SU B	10/20/2022	8260D	0.400 UJ	0.400 UJ	1.39 J	0.400 UJ	1.43 J	--	--
OI-B-01	SU B	10/6/2023	8260D	0.400 U	0.400 U	1.19	0.400 U	0.860	--	--
OI-B-02	SU B	10/26/2016	8260B	0.500 U	10.1	22.7	0.500 U	2.35	--	--
OI-B-02	SU B	4/30/2020	8260D	4.00 U	8.60	65.0	4.00 U	4.00 U	--	--
OI-B-02	SU B	10/16/2020	8260D	8.00 U	8.00 U	11.7	8.00 U	8.00 U	--	--
OI-B-02	SU B	10/12/2021	8260D	0.400 U	0.470	2.09	0.400 U	1.19	--	--
OI-B-03	SU B	10/26/2016	8260B	7.50	7,110	2,080	108	293	--	--
OI-B-04	SU B	4/30/2020	8260D	4.00 UJ	7.00 J	63.8 J	4.00 UJ	4.00 UJ	--	--
OI-B-05	SU B	4/30/2020	8260D	4.00 UJ	4.00 UJ	116 J	4.00 UJ	4.00 UJ	--	--
OI-B-05	SU B	10/20/2022	8260D	0.400 UJ	1.20 J	5.41 J	0.400 UJ	2.43 J	--	--
OI-B-05	SU B	10/6/2023	8260D	0.600 U	0.400 U	0.540	0.400 U	0.200 U	--	--
OI-B-06	SU B	10/16/2020	8260D	8.00 U	8.00 U	18.6	8.00 U	8.00 U	--	--
OI-B-07	SU B	5/1/2020	8260D	4.00 UJ	4.00 UJ	14.2 J	4.00 UJ	4.00 UJ	--	--
OI-B-08	SU B	4/30/2020	8260D	4.00 UJ	4.00 UJ	5.60 J	4.00 UJ	4.00 UJ	--	--
OI-B-08	SU B	10/13/2023	8260D	0.400 U	0.400 U	0.500 U	0.400 U	0.200 U	--	--
OI-B-09	SU B	5/1/2020	8260D	2.00 U	3.95	83.4	2.00 U	22.8	--	--
OI-B-09	SU B	10/16/2020	8260D	8.00 U	8.00 U	31.2	8.00 U	15.0	--	--
OI-B-09	SU B	10/12/2021	8260D	0.400 U	0.580	1.49	0.400 U	1.03	--	--
OI-B-09	SU B	10/20/2022	8260D	0.400 U	1.11	0.610	0.400 U	0.400 U	--	--
OI-B-09	SU B	10/6/2023	8260D	0.400 U	1.60	0.590	0.400 U	0.200 U	--	--
OI-B-10	SU B	5/1/2020	8260D	2.00 U	2.00 U	8.10	2.00 U	8.35	--	--
OI-B-10	SU B	10/20/2022	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
OI-B-10	SU B	10/6/2023	8260D	0.400 U	0.400 U	0.400 U	0.400 U	0.800	--	--
PI-A-01	SU B	10/14/2022	8260D	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	--	--

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Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PI-A-01	SU B	10/13/2023	8260D	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	--	--
PI-A-01	SU B	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-A-02	SU B	10/13/2023	8260D	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	--	--
PI-A-03	SU B	9/20/2015	8260B	0.500 U	17.4	171	2.49	79.0	--	--
PI-A-03	SU B	1/13/2017	8260B	0.500 U	0.500 U	1.20	0.500 U	1.66	--	--
PI-A-03	SU B	11/14/2018	8260C	0.400 U	0.400 U	0.892	0.400 U	1.63	--	--
PI-A-03	SU B	10/22/2019	8260C	8.00 UJ	8.00 UJ	8.00 UJ	8.00 UJ	8.00 UJ	--	--
PI-A-03	SU B	10/13/2023	8260D	1.00 U	1.00 U	1.00 U	1.00 U	0.500 U	--	--
PI-A-04	SU B	10/14/2020	8260D	2.00 U	2.00 U	247	2.00 U	252	--	--
PI-A-04	SU B	10/13/2022	8260D	2.00 U	2.00 U	1,280	5.95	1,220	--	--
PI-A-04	SU B	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	43.0	--	--
PI-A-05	SU B	9/20/2015	8260B	2.52	45.7	42.0	0.500 U	5.79	--	--
PI-A-05	SU B	1/13/2017	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.710	--	--
PI-A-05	SU B	11/14/2018	8260C	0.400 U	0.400 U	0.949	0.400 U	3.93	--	--
PI-A-05	SU B	10/23/2019	8260C	2.00 U	2.00 U	2.34	2.00 U	2.00 U	--	--
PI-A-05	SU B	10/15/2020	8260D	2.00 UJ	2.00 UJ	8.36 J	2.00 UJ	2.10 J	--	--
PI-A-05	SU B	10/14/2022	8260D	2.00 UJ	2.00 UJ	2.00 UJ	2.00 UJ	2.00 UJ	--	--
PI-A-05	SU B	10/13/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-A-06	SU B	9/20/2015	8260B	15.2	983	605	10.0 U	52.6	--	--
PI-A-06	SU B	1/13/2017	8260B	0.500 U	12.1	103	6.60	67.3	--	--
PI-A-06	SU B	11/13/2018	8260C	0.400 U	16.1	243	8.39	46.0	--	--
PI-A-06	SU B	8/9/2019	8260C	4.00 U	6.00	55.6	4.00 U	29.0	--	--
PI-A-06	SU B	10/22/2019	8260C	2.00 U	2.00 U	18.1	2.00 U	9.64	--	--
PI-A-06	SU B	4/30/2020	8260D	1.01	5.06	38.2	0.400 U	3.21	--	--
PI-A-06	SU B	10/14/2020	8260D	0.400 U	1.20	4.49	0.400 U	0.754	--	--
PI-A-06	SU B	10/13/2022	8260D	0.400 UJ	0.400 J	0.400 J	0.400 UJ	0.400 J	--	--
PI-A-06	SU B	10/12/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-A-07	SU B	10/15/2020	8260D	2.00 UJ	2.00 UJ	23.4 J	2.00 UJ	542 J	--	--
PI-A-07	SU B	10/13/2022	8260D	2.00 UJ	2.00 UJ	2.00 J	2.00 UJ	2.00 UJ	--	--
PI-A-07	SU B	10/12/2023	8260D	2.00 U	2.00 U	2.15	2.00 U	1.00 U	--	--
PI-B-01	SU B	10/14/2022	8260D	0.400 J	0.780	11.2 J	0.400 UJ	1.29	--	--
PI-B-01	SU B	10/12/2023	8260D	4.00 U	4.00 U	12.4	4.00 U	2.00 U	--	--
PI-B-02	SU B	10/14/2022	8260D	0.400 U	0.400 U	0.530	0.400 U	0.400 U	--	--
PI-B-02	SU B	10/13/2023	8260D	0.400 U	0.400 U	0.400	0.400 U	0.200 U	--	--
PI-B-03	SU B	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.0 U	--	--
PI-B-04	SU B	10/14/2022	8260D	4.00 U	4.00 U	9.50	4.00 U	4.00 U	--	--
PI-B-04	SU B	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.0 U	--	--
PI-B-05	SU B	11/14/2018	8260C	2.00 U	13.7	198	2.00 U	7.22	--	--
PI-B-05	SU B	10/18/2021	8260D	0.400 U	9.67	79.8	1.42	4.84	--	--
PI-B-05	SU B	10/14/2022	8260D	0.400 U	3.58	42.1	1.38	4.27	--	--
PI-B-05	SU B	10/13/2023	8260D	2.00 U	2.00 U	11.9	2.00 U	3.00	--	--
PI-B-06	SU B	10/14/2022	8260D	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	--	--
PI-B-06	SU B	10/12/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-B-07	SU B	10/14/2020	8260D	20.0 U	23.2	336	20.0 U	141	--	--
PI-B-07	SU B	10/18/2021	8260D	4.97	27.2	176	4.00 U	17.8	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PI-B-07	SU B	10/13/2022	8260D	4.00 UJ	20.9 J	127 J	4.00 UJ	5.30 J	--	--
PI-B-07	SU B	10/12/2023	8260D	4.00 U	9.00	23.6	4.00 U	2.00 U	--	--
PI-B-07	SU B	10/24/2024	8260D	0.900	2.06	3.50	0.800 U	0.440	--	--
PI-B-09	SU B	10/13/2023	8260D	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	--	--
PI-B-10	SU B	11/14/2018	8260C	4.00 U	93.9	1,020	37.9	58.7	--	--
PI-B-10	SU B	4/30/2020	8260D	4.00 U	60.3	466	11.4	8.80	--	--
PI-B-10	SU B	10/14/2020	8260D	4.00 U	62.9	474	12.0	6.20	--	--
PI-B-10	SU B	10/19/2021	8260D	4.00 U	42.2	351	9.83	6.49	--	--
PI-B-10	SU B	10/13/2022	8260D	4.00 UJ	39.5 J	388 J	8.40 UJ	9.30 J	--	--
PI-B-10	SU B	10/13/2023	8260D	4.00 U	5.60	151	4.00 U	4.60	--	--
PI-B-10	SU B	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	3.90	--	--
PI-B-11	SU B	5/5/2016	8260B	208	7,640	878	25.0 U	25.0 U	--	--
PI-B-11	SU B	1/13/2017	8260B	6.45	2.01	0.500 U	0.500 U	0.500 U	--	--
PI-B-11	SU B	11/13/2018	8260C	0.400 U	0.702	0.400 U	0.400 U	0.400 U	--	--
PI-B-11	SU B	10/23/2019	8260C	8.00 U	40.0	9.00	8.00 U	8.00 U	--	--
PI-B-11	SU B	10/14/2020	8260D	20.0 UJ	113 J	329 J	20.0 UJ	20.0 UJ	--	--
PI-B-11	SU B	10/13/2022	8260D	4.00 UJ	13.2 J	274 J	4.00 UJ	18.1 J	--	--
PI-B-11	SU B	10/12/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-B-13	SU B	11/14/2018	8260C	2.00 U	99.8	356	5.04	26.6	--	--
PI-B-13	SU B	10/22/2019	8260C	8.00 U	25.8	66.6	8.00 U	8.00 U	--	--
PI-B-13	SU B	10/18/2021	8260D	4.00 U	11.0	113	4.00 U	5.54	--	--
PI-B-13	SU B	10/14/2022	8260D	2.00 UJ	2.00 J	28.2 J	2.00 UJ	2.35 J	--	--
PI-B-13	SU B	10/13/2023	8260D	2.00 U	2.00 U	2.65	2.00 U	1.00 U	--	--
PI-B-13	SU B	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-B-14	SU B	9/20/2015	8260B	13.0	2,630	1,270	19.2	211	--	--
PI-B-14	SU B	5/5/2016	8260B	0.500 U	0.500 U	0.500 U	0.500 U	0.500 U	--	--
PI-B-14	SU B	11/13/2018	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
PI-B-14	SU B	10/22/2019	8260C	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	--	--
PI-B-14	SU B	10/14/2022	8260D	2.00 UJ	2.00 UJ	3.05 J	2.00 UJ	2.00 UJ	--	--
PI-B-14	SU B	10/13/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.0 U	--	--
PI-B-15	SU B	9/20/2015	8260B	3,100	146,000	6,040	1,000 U	1,000 U	--	--
PI-B-15	SU B	5/5/2016	8260B	50.0 U	977	1,680	50.0 U	50.0 U	--	--
PI-B-15	SU B	1/13/2017	8260B	251	9,660	3,320	25.5	45.4	--	--
PI-B-15	SU B	11/13/2018	8260C	0.400 U	7.34	2.71	0.400 U	0.400 U	--	--
PI-B-15	SU B	10/23/2019	8260C	27.7	107	1,200	20.0 U	246	--	--
PI-B-15	SU B	4/30/2020	8260D	40.0 U	171	802	40.0 U	174	--	--
PI-B-15	SU B	10/14/2020	8260D	28.4	246	819	8.00 U	160	--	--
PI-B-15	SU B	10/18/2021	8260D	4.00 U	15.7	215	4.00 U	41.4	--	--
PI-B-15	SU B	10/13/2022	8260D	4.00 U	4.70	203	4.00 U	63.6	--	--
PI-B-15	SU B	10/13/2023	8260D	4.00 U	9.20	24.2	4.00 U	4.70	--	--
PI-B-15	SU B	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.20	--	--
PI-B-16	SU B	9/20/2015	8260B	3,310	55,600	10,300	112	809	--	--
PI-B-16	SU B	5/5/2016	8260B	1,660	37,100	16,700	1,000 U	1,180	--	--
PI-B-16	SU B	1/13/2017	8260B	937	27,600	3,180	100.0 U	100.0 U	--	--
PI-B-16	SU B	11/14/2018	8260C	3.24	95.2	86.0	1.16	30.2	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PI-B-16	SU B	10/23/2019	8260C	10.7	132	951	8.00 U	62.5	--	--
PI-B-16	SU B	4/30/2020	8260D	6.64	69.6	283	1.10	18.8	--	--
PI-B-16	SU B	10/15/2020	8260D	4.00 U	15.1	154	4.00 U	8.96	--	--
PI-B-16	SU B	10/14/2022	8260D	0.400 UJ	3.91 J	4.57 J	0.400 UJ	1.05 J	--	--
PI-B-16	SU B	10/13/2023	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.30	--	--
PI-B-17	SU B	9/20/2015	8260B	221	13,100	6,460	50.0 U	529	--	--
PI-B-17	SU B	1/13/2017	8260B	0.500 U	1.82	10.5	0.500 U	0.547	--	--
PI-B-17	SU B	11/14/2018	8260C	0.400 U	5.88	15.5	0.479	52.2	--	--
PI-B-17	SU B	10/22/2019	8260C	8.00 U	8.00 U	23.7	8.00 U	10.6	--	--
PI-B-17	SU B	10/18/2021	8260D	4.00 U	5.30	103	4.00 U	17.5	--	--
PI-B-17	SU B	10/13/2022	8260D	0.400 UJ	0.740 J	8.81 J	0.400 UJ	3.20 J	--	--
PI-B-17	SU B	10/12/2023	8260D	20.0 U	20.0 U	20.0 U	20.0 U	10.0 U	--	--
PI-B-18	SU B	10/23/2019	8260C	402	2,640	13,800	200 U	1,770	--	--
PI-B-18	SU B	4/30/2020	8260D	151	1,500	5,070	13.1	739	790	8.00
PI-B-18	SU B	10/15/2020	8260D	8.00 U	38.2	2,120	8.00 U	480	--	--
PI-B-18 Dup	SU B	10/18/2021	8260D	0.654	6.69 J	83.6	0.912	212	--	--
PI-B-18	SU B	10/18/2021	8260D	2.00 U	4.72 J	62.5	2.00 U	195	--	--
PI-B-18	SU B	10/13/2022	8260D	14.0	1,070 J	2,790 J	95.2	999 J	--	--
PI-B-18	SU B	10/12/2023	8260D	10.0 U	11.0	289	10.0 U	202	--	--
PI-B-18	SU B	10/24/2024	8260D	4.00 U	4.00 U	4.00 U	4.00 U	2.00 U	--	--
PI-B-19	SU B	9/20/2015	8260B	596	27,900	19,600	162	2,180	--	--
PI-B-19	SU B	5/5/2016	8260B	1,910	33,000	4,160	100.0	320	--	--
PI-B-19	SU B	1/13/2017	8260B	20.1	41.3	43.6	0.719	14.2	--	--
PI-B-19	SU B	11/13/2018	8260C	0.625	18.6	187	0.881	20.5	--	--
PI-B-19	SU B	10/14/2020	8260D	4.15	37.7	127	4.00 U	9.17	--	--
PI-B-19	SU B	10/18/2021	8260D	0.400 U	8.39	32.9	0.400 U	9.03	--	--
PI-B-19	SU B	10/13/2022	8260D	0.400 U	12.3	63.6	0.470	27.4	--	--
PI-B-19	SU B	10/12/2023	8260D	2.00 U	2.00 U	2.00 U	2.00 U	1.00 U	--	--
SP-01	SU A	10/17/2017	8260C	0.500 U	1.62	3.74	0.500 U	3.89	--	--
SP-01	SU A	10/10/2018	8260C	0.400 U	1.24	1.08	0.400 U	2.62	--	--
SP-01	SU A	10/13/2021	8260D	0.400 U	6.39	1.22	0.400 U	2.95	--	--
SP-01	SU A	10/6/2022	8260D	0.400 U	5.10	1.17	0.400 U	2.12	--	--
SP-01	SU A	10/3/2023	8260D	0.400 U	14.0	0.400 U	0.400 U	0.200 U	--	--
SP-01	SU A	10/23/2024	8260D	0.400 U	7.85	0.400 U	0.400 U	0.200 U	--	--
SW-175	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-175	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-175 Dup	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--

Table D-1
Groundwater Quality Data from 2014 through 2024
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Sample Location	Unit [a]	Sample Date	USEPA Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	Ethene	Ethane
				ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SW-190	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-190	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-210	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-210	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-220	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-220	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-240	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-240	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-255	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-255	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-270	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-270 Dup	BAS	4/19/2019	8260C	0.400 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--
SW-270	BAS	12/17/2020	8260D	1.00 U	0.400 U	0.400 U	0.400 U	0.400 U	--	--

NOTES:

[a] Units are designated as follows:
BAS = Competent Basalt, Frenchman Spring Member of CRBG
Qff = Shallow fine-grained flood deposits
WB = Weathered Basalt, Frenchman Spring Member of CRBG
SU A & B = Shallow alluvial subunits A and B
SU A = Shallow Qfc fine-grained facies, Subunit A
SU B = Shallow Qfc coarse-grained facies, Subunit B

-- = Not measured
µg/L = micrograms per liter
BH = Borehole
COC = Constituent of concern, as identified in Section 5.1.1 of the Record of Decision (5/5/99).
ERD = Enhanced reductive dechlorination
Dup = Duplicate sample

Qualifiers:
J = The result is an estimated concentration that is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL).
U = Analyte not detected at the posted detection limit.
UJ = Analyte not detected at the estimated detection limit.

APPENDIX E

Surface Water Data from 2015 to 2020

Appendix E
Surface Water Data from 2015 to 2020
Oregon Tool-Carlton Facility, Oak Grove, Oregon

Location	Date	COCs (µg/L)			
		PCE 127-18-4	**TCE 79-01-6**	**cis-1,2-DCE 156-59-2**	**VC 75-01-4**
	Mammals T&E[1]	8,900	440,000	200,000	--
	Mammals non-T&E[1]	44,000	4,400,000	2,000,000	--
CC-11	4/29/2015	0.500 U	0.500 U	0.500 U	0.500 U
	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
CC-12	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
CC-13	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
CC-14	4/29/2015	0.500 U	0.500 U	0.500 U	0.500 U
	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
CC-17	4/29/2015	0.500 U	0.500 U	**0.500**	0.500 U
	6/19/2018	0.400 U	0.400 U	0.400 U	0.400 U
	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
CW-12	4/29/2015	0.500 U	0.500 U	0.500 U	0.500 U
CW-13	4/29/2015	0.500 U	0.500 U	0.500 U	0.500 U
SW1	4/29/2015	0.500 U	**0.730**	0.500 U	0.500 U
	4/29/2015	0.500 U	**0.700**	0.500 U	0.500 U
	6/19/2018	0.400 U	0.400 U	0.400 U	0.400 U
	6/23/2020	0.400 U	0.400 U	0.400 U	0.400 U
SW2	4/29/2015	0.500 U	0.500 U	**0.720**	0.500 U
	6/19/2018	0.400 U	0.400 U	0.400 U	0.400 U
	6/23/2020	0.400 U	0.400 U	**0.798**	0.400 U

Notes:
Bold = analyte detected
Shaded Bold = analyte concentration exceeds at least one risk-based concentration
[1] = Oregon Department of Environmental Quality Table 1b. Risk-Based Concentrations for Wildlife Ingestion of Surface Water, September 2020.

Abbreviations:
-- = no risk-based concentration listed
µg/L = micrograms per liter
COC = chemicals of concern
DCE = dichloroethene
PCE = tetrachloroethene
T&E = threatened and endangered species
TCE = trichloroethene
U = analyte not detected at or above the given detection limit
VC = vinyl chloride



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